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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 near 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.

RECEIVED SOLID WASTE SECTION MAR 7 2008

Solid Waste Monitoring Data Submittal Information

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

Golder Associates NC, Inc. on behalf of Material Recovery, LLC

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

Name: David Y. Reedy II, P.G. Phone: 336-852-4903

E-mail: dreedy@golder.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Material Recovery,LLC C&D Landfill	2600 Brown-Field Rd, Raleigh, NC 27610	92-31	.0500	December 12-13, 2007

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 or explosive methane gas limits 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.

David Y. Reedy II, P.G.	Project Hydrogeologist	(336) 852-4903
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Affix NC Licensed/ Professional Geologist Seal

Signature: David Y Reedy II Date: 2-1-08

NORTH CAROLINA LICENSED SEAL 1963 GEOLOGIST DAVID YATES REEDY, II 2-1-08

Revised 10/2006

WCA
Waste Corporation

March 5, 2008

Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
919-508-8500

Attention: Ms. Jackie Drummond
Hydrogeologist

Re: Material Recovery, LLC Construction & Demolition Landfill, Permit No. 92-31
Wake County, North Carolina
Water Quality Monitoring Report, Second Semiannual 2007 Sampling Event

Dear Ms. Drummond:

Material Recovery, LLC, a subsidiary of WCA Waste Corporation, is submitting the enclosed *Water Quality Monitoring Report,* which documents the results of the December 12-13, 2007, compliance monitoring event at the above-referenced facility. If you have any questions, please contact Rachel Kirkman with Golder Associates NC, Inc. at 336-852-4903 or myself at 954-415-7230.

Sincerely,

Nick Marotta
Regional Engineer

Enclosure

cc: Vernon Smith, Regional Vice President, WCA of North Carolina, 40 Estes Plant Road, Piedmont, South Carolina 29763, 864-845-8355. (letter only)
Dennis Gehle, General Manager, Material Recovery, LLC, 2600 Brown-Field Road, Raleigh, North Carolina 27610, 919-838-6973. (letter only)
Rachel P. Kirkman, P.G., Senior Project Geologist, 4900 Koger Boulevard, Suite 140, Greensboro, North Carolina, 27407. rkirkman@golder.com. 336-852-4903. (letter only)

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NC DENR
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- 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.

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

Name: David Y. Reedy II, P.G. Phone: 336-852-4903

E-mail: dreedy@golder.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
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Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
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☐ 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 or explosive methane gas limits 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.

David Y. Reedy II, P.G.	Project Hydrogeologist	(336) 852-4903
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

David Y Reedy II — 2-1-08

Signature Date

Affix NC Licensed/ Professional Geologist Seal

Revised 10/2006

WATER QUALITY MONITORING REPORT
SECOND SEMI-ANNUAL 2007 SAMPLING EVENT

MATERIAL RECOVERY, LLC CONSTRUCTION AND DEMOLITION LANDFILL, PERMIT NO. 92-31
WAKE COUNTY, NORTH CAROLINA

FEBRUARY 2008

PREPARED FOR:

WCA WASTE CORPORATION
MATERIAL RECOVERY, LLC
2600 BROWN-FIELD ROAD
RALEIGH, NC 27610

PREPARED BY:

GOLDER ASSOCIATES NC, INC.
4900 KOGER BOULEVARD, SUITE 140
GREENSBORO, NC 27407
PROJECT NO. 0739602407.100

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Appendix II December 2007 Groundwater and Surface Water Certificates-of-Analysis, Chain-of-Custody Forms, and Laboratory Data Reviews
Appendix III Statistical Evaluation Worksheets
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1.0 INTRODUCTION

This report summarizes the monitoring results from December 12-13, 2007, groundwater, surface water sampling, and analysis event at the Material Recovery, LLC (Material Recovery) Construction & Demolition (C&D) Landfill in Wake County, North Carolina in accordance with Title 15A of the North Carolina Administrative Code (NCAC) Subchapter 13B.0544. The Material Recovery Landfill, an active C&D landfill, is owned and operated by Material Recovery, a subsidiary of WCA Waste Corporation (WCA) under Permit No. 92-31 issued by the North Carolina (NC) Department of Environment and Natural Resources (DENR).

1.1 Site Description and Background

The location of the facility is shown on the inlay on Drawing 1. As presented, the Material Recovery C&D Landfill is located along Brown-Field Road near the town of Garner in Wake County, North Carolina. The site consists of approximately 210 acres, of which, approximately 19 acres are currently permitted as the Phase 1 waste unit.

There are three small northwest-trending unnamed streams that traverse the site to intersect a north-trending unnamed stream that parallels the western facility property line. Two of the smaller drainages originate at 2- to 4-acre man-made ponds. The larger stream along the property line coincides with the location of a regional-scale diabase dike. A small storm water basin was constructed along the western boundary of Phase 1.

Topographic surface elevations at the facility range from elevations of approximately 180 to 290 feet above mean sea level. The northern portion of the site was previously used by the City of Raleigh for land application of wastewater sludge for approximately eleven years. Some of the parcels surrounding the site are still used for this purpose. The remainder of the facility consists of wooded areas, grass, and heavy brush.

1.2 Compliance Monitoring History

Groundwater monitoring at the facility was initiated in May 2002 after approval of the Groundwater Monitoring Plan by the NCDENR. Waste was first accepted at the site in October 2003. Currently the facility's monitoring network is comprised of five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) which monitor the uppermost aquifer beneath the facility. In addition to the groundwater monitoring points, the facility's monitoring network includes three surface water sampling points, SW-1, which is upstream from the waste area along the major tributary, and SW-2 and SW-3, which are downstream monitoring points relative to the waste area. These points are sampled in conjunction with the groundwater monitoring wells in accordance with the facility's permit.

1.3 Hydrogeologic Setting

Geologically, the facility is located within the southern portion of the Raleigh Belt, which is near the eastern boundary of the Piedmont Physiographic Province. The bedrock at the facility consists of the granite of the Rolesville Batholith. The granite observed at the site is predominantly a medium-grained biotite granite, and biotite-muscovite granite with garnets. Northwest trending Mesozoic diabase dikes are also common in this region (Stoddard et al. 1991). A magnetometer survey was performed during the initial site investigation and revealed a regional-scale diabase dike, which is shown on the NC State Geologic Map (NCGS 1985) and coincides with the stream along the western property boundary. Smaller anomalies were also identified across the site and were interpreted to represent smaller dikes (JEI 2001).

The uppermost groundwater beneath the facility is present in a shallow, unconfined aquifer comprised of saprolite, partially weathered rock, and granitic bedrock (JEI 2001). Groundwater occurs at depths of approximately 25 feet below grade along the upgradient side of the waste disposal area, and at depths of approximately 10 feet below grade along the perimeter downgradient boundary. Depth-to-water measurements obtained during the December 2007 monitoring event and summarized in Tables 1 and 2, were used to prepare a groundwater surface contour map presented as Drawing 1.

Surface water and groundwater at the site generally flows west and northwest and discharges to the surrounding tributaries that flow into the Neuse River. Groundwater beneath the site flows in three distinguishable and vertically interconnected hydrogeologic units: saprolite, partially weathered rock, and bedrock.

Based on the December 12-13, 2007, groundwater contour map, the hydraulic gradient in the shallow aquifer underlying the site as measured along the conceptual flow path shown on the contour map was calculated to be approximately 0.0276 foot per foot. Groundwater velocities were calculated using a hydraulic conductivity of 1.20E-04 centimeters per second, which is the geometric mean of the hydraulic conductivities for each of the hydrogeologic units present at the facility (JEI 2001). The estimated effective porosity of the shallow aquifer is 0.20 (Heath 1982).

Using the above values, the estimated rate of groundwater flow for the uppermost aquifer beneath the facility was calculated using the following modified Darcy equation:

$$V_{gw} = Ki/n_e$$

where V_{gw} = average linear velocity (feet per year), K = hydraulic conductivity (feet per year), i = horizontal hydraulic gradient, and n_e = effective porosity.

The average estimated linear groundwater flow velocity under the waste management unit is approximately 17.15 feet per year, which is consistent with previous estimates (Table 3). The range of groundwater flow is expected to vary depending on the hydrogeologic unit in which it occurs. The linear velocity equation above makes the simplified assumptions of a homogeneous and isotropic aquifer. Therefore, this equation can grossly overestimate groundwater velocity when applied to heterogeneous and/or anisotropic conditions, such as in the saprolite wells used for gradient estimates

at this site. The saprolite may have areas that exhibit relict foliation and these structures can result in locally anisotropic groundwater flow directions.

2.0 FIELD PROGRAM, MONITORING RESULTS, AND DISCUSSION

Field activities conducted as part of the December 2007 sampling event are discussed in the following sections.

2.1 Visual Inspection Program

In order to ensure that a potential release is detected at the earliest possible time, the visual inspection program is used by the sampling crews at the Material Recovery C&D Landfill. This program includes physical indicators such as potential water table mounding beneath the waste management unit, physical examination of any stresses in biological communities, visible signs of leachate migration (i.e., leachate seeps), unexplained changes in soil characteristics, and any other change to the environment due to the waste management unit. During the December 2007 compliance monitoring event, no physical indicators of a potential release were observed in the vicinity of the waste management area.

2.2 Well Network and Groundwater Elevation Measurements

The approved network of groundwater monitoring wells at the facility consists of wells MW-1, MW-2, MW-3, MW-4, and MW-5. Monitoring well construction information is summarized on Table 4 and the well locations are shown on Drawing 1. The well locations were selected to yield groundwater samples representative of the conditions in the uppermost aquifer underlying the facility, and to monitor for potential releases from the landfill unit. One upstream (SW-1) and two downstream (SW-2 and SW-3) surface water monitoring points are also monitored.

Monitoring well MW-1 is the facility's background well and is located hydraulically upgradient of the waste disposal area. Monitoring wells MW-2, MW-3, MW-4, and MW-5 are located downgradient of the waste disposal area and represent the facility's downgradient compliance wells.

Depth-to-water measurements were recorded to the nearest 0.01 foot prior to initiating groundwater purging and sampling activities. The respective groundwater level elevations for this event are presented in Tables 1 and 2. The historical water level data are also shown on this table.

As presented, the data indicate that the hydraulic head level in the uppermost aquifer beneath the facility is fairly consistent, with temporal variation from the long-term average limited to approximately 5 feet (plus or minus). As expected, the range in fluctuation appears to be greater in the upgradient well MW-1, as this well is located in a groundwater recharge area. Well MW-4 also shows a large fluctuation in water levels, which may be due to the fact that the well coincides with a magnetic anomaly that may represent diabase. The range in fluctuation in compliance wells MW-2, MW-3, and MW-5, which are located near groundwater discharge areas, is much less, presumably due to the stabilizing affect of the hydraulic discharge boundary.

2.3 December 2007 Groundwater Monitoring Event

Personnel from Golder visited the facility on December 12-13, 2007, to purge and sample monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5, and to sample surface water monitoring points SW-1, SW-2 and SW-3. Depth-to-water measurements were obtained from the network monitoring wells to the nearest 0.01 foot using an electronic water level indicator prior to purging the wells; water levels were also gauged in piezometers PZ-1S, PZ-3, PZ-6, PZ-13, PZ-18, PZ-23, and PZ-24 on December 12, 2007.

Monitoring wells were purged and sampled using low-flow sampling techniques from dedicated bladder pumps, which were installed on December 12, 2007. Measurements of temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity were recorded on approximately 2 to 3 minute intervals during the purge, depending on the purge rate. In general, the purge rate was matched to the yield of the monitoring well, as determined by continuously monitoring the depth to water, never allowing the purge rate to exceed 500 milliliters per minute. Purging was continued until stabilization was indicated by the water quality parameters. In general, stabilization was deemed to be complete once the range in measured values for the required water quality parameters was less than 10% per parameter over three monitoring intervals.

Prior to sampling, the laboratory-supplied sample containers were prepared. Each sample container was labeled with the sample identification number, sampling personnel, date and time of sample collection, project name and number, and requested chemical analyses.

The required groundwater samples were collected directly from the dedicated bladder pump discharge lines into the labeled, laboratory-supplied, pre-preserved sample containers after purging was completed based on stabilization of water quality parameters. After collection, the samples were placed in a cooler on ice, under chain-of-custody control. Copies of the sampling logs are presented in Appendix I. Included in each log is a description of the sampling equipment, sampling method, field observations, and water quality measurements.

The surface water samples were collected directly from the stream flow, by lowering the sample containers into the stream flow with the opening facing into the current flow, taking care to prevent the over flow of the sample containers and to minimize sample-induced turbidity. Measurements of temperature, pH, specific conductivity, temperature, dissolved oxygen, oxidation reduction potential, and turbidity were recorded during the collection of the surface water samples.

After collection, the samples were placed in a cooler on ice, under chain-of-custody control. Copies of the sampling logs are presented in Appendix I. Included in each log is a description of the sampling location, sampling equipment, sampling method, field observations, and water quality measurements.

2.4 Laboratory Analysis Program

The December 2007 groundwater and surface water samples were shipped to Environmental Conservation Laboratories, Inc. (ENCO) of Cary, North Carolina under chain-of-custody control for analysis. As presented, groundwater samples at the facility were analyzed NC Appendix I plus

several indicator parameters specific to the new C&D rules effective January 1, 2007. The surface water samples at the facility were analyzed for the NC Appendix I list of constituents. The samples were received by the laboratory on December 12-13, 2007, in good condition and properly preserved.

2.5 December 2007 Sampling Results

Analytical results for the December 2007 groundwater and surface water samples are summarized in Tables 5 and 6 with available historical data. The laboratory certificates-of-analysis, chain-of-custody form, and laboratory data reviews for the sampling events are included in Appendix II.

As presented, barium, beryllium, iron, manganese, and zinc were detected above their respective Solid Waste Section Limits (SWSLs) in one or more downgradient monitoring wells at the facility. All other detections of inorganic constituents were below their respective SWSLs. Several geochemical parameters including chloride, total dissolved solids, and alkalinity were detected in one or more wells during this event. No inorganic or organic constituents were detected above the NC Surface Water Standards under Title 15A NCAC 2B. in surface water samples collected at the facility during the December 2007 monitoring event.

Trichlorofluoromethane was detected in MW-3 at a concentration above the SWSL. This is the second semi-annual sampling event that this constituent was detected above the SWSL. A voluntary Alternate Source Demonstration (ASD) for trichlorofluoromethane was submitted to NCDENR on November 5, 2007. No other organic constituents were detected during the December 2007 monitoring event.

3.0 LABORATORY AND FIELD QA/QC

A field blank was collected by Golder personnel as part of the December 2007 groundwater sampling event. In addition to the field blank, a laboratory-prepared trip blank accompanied the volatile sample containers for the December 2007 sampling event to and from the laboratory. ENCO analyzed the field blank for Appendix I volatile organic compounds (VOCs) and metals, and the trip blank for Appendix I VOCs.

Reviews of the laboratory data were performed by Golder personnel (included in Appendix II). After review, it was determined that arsenic, barium, and zinc were detected at estimated concentrations in the field blank. Due to the detections of arsenic and zinc in the field blank, the low-level concentrations of arsenic in MW-1, MW-3, and MW-5; and the low-level concentrations of zinc in MW-2, MW-4, and MW-5 are considered blank-qualified. Low-level concentrations of zinc in SW-1, SW-2, and SW-3 are also considered blank-qualified.

4.0 DATA EVALUATION

The results of the data evaluations are presented in the following sections.

4.1 Statistical Evaluations

As presented, barium, beryllium, iron, manganese, thallium, and zinc were detected above their respective SWSLs in downgradient monitoring wells during this sampling event. Voluntarily in accordance with 15A NCAC 13B.0544, the concentrations of barium detected in downgradient monitoring wells were statistically evaluated in accordance with the procedures outlined in 15A NCAC 13B.0544 (g) and (h) to determine if the reported concentration exceeded the facility background concentration. Insufficient data are available for statistical evaluation of beryllium, iron, manganese, and zinc concentrations. Thallium was detected at estimated concentrations and there was insufficient data available for statistical evaluation. The statistical worksheets are presented as Appendix III.

As presented, the reported barium concentrations in downgradient wells MW-2 and MW-3 were determined to be above the inter-well statistical limit, but below their respective intra-well limits.

Trichlorofluoromethane was detected in MW-3 during the December 2007 sampling event. A voluntary ASD for trichlorofluoromethane was submitted to NCDENR on November 5, 2007. No other organic constituents were detected in groundwater at the facility above the SWSLs during the December 2007 monitoring event.

4.2 North Carolina Groundwater and Surface Water Quality Standard Comparisons

As presented in Table 5, concentrations of barium and beryllium in MW-3; iron in MW-1, MW-2, MW-4, and MW-5: manganese in MW-1, MW-2, MW-3, MW-4, and MW-5; and thallium in MW-1 and MW-3 were detected above their respective NC 2L Standards or Groundwater Protection Standards (GPS) during the December 2007 monitoring event. The concentration of barium in MW-3 is consistent with pre-waste background data for this well as described above. Insufficient data for beryllium, iron, manganese, and zinc exist to evaluate the potential for naturally occurring levels of these constituents at this time. However, in general concentrations of these constituents are consistent between upgradient and downgradient wells. The thallium detections were reported at estimated concentrations below the SWSL.

Barium was detected in downstream point SW-3 as it was during the last two sampling event; no surface water standard exists for barium. There were no other quantifiable detections of NC Appendix I constituents in any of the three surface water monitoring points during this event.

5.0 CONCLUSIONS

Trichlorofluoromethane was detected in MW-3 at a concentration above the SWSL during the December 2007 event, as it was during the June 2007 event and the re-sampling event in August 2007. The detected concentration is well below the NC 2L Standard. A voluntary ASD was submitted to the NCDENR which evaluated the source of the trichlorofluoromethane. Based on the findings of the ASD, the most likely sources for trichlorofluoromethane detected in MW-3 are not landfill-derived leachate, and a likely source is landfill gas impacts to groundwater. Golder will continue to measure methane headspace concentrations during future sampling events to evaluate potential landfill gas impacts to groundwater.

Based on the results summarized herein, WCA will continue monitoring this facility in accordance with the requirements of the Detection Monitoring Program for C&D Landfills as outlined in Title 15A NCAC 13B.0544. The next groundwater monitoring event is scheduled for June 2008.

6.0 REFERENCES

Golder Associates NC, Inc., 2007, *Material Recovery, LLC C&D Landfill; Alternate Source Demonstration.* November 5.

Heath, Ralph C., 1982, *Basic Ground-Water Hydrology*, USGS Water Supply Paper 2220.

JEI (Joyce Engineering, Inc.), 2001, *Hydrogeologic Report & Groundwater Monitoring Plan; Volume One; Site Application, Section II; Material Recovery, LLC Construction and Demolition Debris Landfill, Wake County, North Carolina.*

NCGS (North Carolina Geologic Survey), 1985. Geologic Map of North Carolina

Stoddard, Edward F., Farrar, Stewart S., Horton, Jr. J. Wright, Butler, J. Robert and Durhan, Robert M., 1991, *The Eastern Piedmont in North Carolina*, in Horton, J. W., Jr., and Zullo, V.A., eds., The Geology of the Carolinas: The University of Tennessee Press, p. 59 - 78.

TABLES

TABLE 1

Summary of Historical Groundwater Elevation Data in Monitoring Wells
Material Recovery, LLC Construction and Demolition Landfill, Permit No. 92-31
Wake County, North Carolina

	Monitoring Wells				
	MW-1	**MW-2**	**MW-3**	**MW-4**	**MW-5**
TOC Elevation (ft AMSL)	**280.95**	**213.37**	**218.54**	**201.52**	**203.38**
Date	**Static Groundwater Elevation (ft AMSL)**				
8/7/02	252.98	195.37	191.13	186.43	191.82
6/16/03	258.29	197.10	195.09	191.72	193.45
12/1/03	258.17	197.55	195.62	191.88	194.13
6/10/04	257.17	196.89	194.54	191.12	193.43
12/16/04	256.71	196.85	193.93	190.70	193.38
6/5/05	256.73	196.40	193.41	190.13	193.01
12/27/05	254.10	196.16	191.64	189.84	193.38
6/21/06	253.98	196.27	192.07	189.57	193.18
12/1/06	253.11	196.43	191.83	189.44	193.67
6/28/07	254.11	196.29	192.21	189.32	192.83
12/13/07	251.52	195.89	190.81	187.92	192.52
MEAN	*255.17*	*196.47*	*192.93*	*189.82*	*193.16*
MAXIMUM	*258.29*	*197.55*	*195.62*	*191.88*	*194.13*
MINIMUM	*251.52*	*195.37*	*190.81*	*186.43*	*191.82*

Notes:

1. TOC = top of casing
2. ft AMSL = feet above mean sea level
3. Monitoring well MW-1 is the facility background well.
4. --- = no data available

TABLE 2

Summary of Historical Groundwater Elevation Data in Piezometers
WCA of High Point, LLC Construction and Demolition Landfill, Permit No. 92-31
Wake County, North Carolina

	Piezometers					
	PZ-1S	**PZ-3**	**PZ-6**	**PZ-13**	**PZ-18**	**PZ-23**
TOC Elevation (ft AMSL)	**208.03**	**279.84**	**292.66**	**246.10**	**255.90**	**278.30**
Date	**Static Groundwater Elevation (ft AMSL)**					
6/28/2007	NM	NM	255.26	213.20	239.17	256.99
12/12/2007	200.00	261.05	252.40	210.30	236.59	255.41
MEAN	*200.00*	*261.05*	*253.83*	*211.75*	*237.88*	*256.20*
MAXIMUM	*200.00*	*261.05*	*255.26*	*213.20*	*239.17*	*256.99*
MINIMUM	*200.00*	*261.05*	*252.40*	*210.30*	*236.59*	*255.41*

Notes:
1. TOC = top of casing
2. ft AMSL = feet above mean sea level
3. NM- = not measured

TABLE 3

Summary of Estimated Horizontal Flow Velocities
Material Recovery, LLC Construction and Demolition Landfill, Permit No. 92-31
Wake County, North Carolina

December 2007							
Gradient Calculation Segment	**Flow Direction**	**Gradient Segment Length (feet)**	**Gradient Segment Elevations (feet)**	**Horizontal Gradient (i, feet/feet)**	**Effective Porosity (n_e)**	**Hydraulic Conductivity (K, cm/sec)**	**Velocity (V_{gw}, feet/year)**
i_1	NW	1654	250 / 200	0.0302	0.2	1.20E-04	18.77
i_2	NW	1973	240 / 190	0.0253	0.2	1.20E-04	15.73
i_3	NNW	1464	240 / 200	0.0273	0.2	1.20E-04	16.96

Notes:

1. Horizontal velocities based on the modified Darcy equation $V_{gw} = Ki/n_e$.
2. The geometric mean of K from individual well aquifer tests was used to calculate the hydraulic conductivity (tests conducted by JEI as part of the Site Application, 2001).
3. An effective porosity of 20% was used in velocity calculations.
4. cm/sec = centimeters per second

TABLE 4

Summary of Well Construction Information
Material Recovery, LLC Construction and Demolition Landfill, Permit No. 92-31
Wake County, North Carolina

WELL & PIEZOMETER NUMBER	DATE INSTALLED	CASING DIAMETER (inches)	WELL ELEVATIONS		TOTAL DEPTH DRILLED		SCREENED INTERVAL				LITHOLOGY OF SCREENED INTERVAL	STATUS
			GROUND SURFACE	T.O.C.	DEPTH (feet B.G.S.)	ELEV. (feet M.S.L.)	DEPTH (feet B.G.S.)		ELEVATION (feet M.S.L.)			
			feet above M.S.L.				from	to	from	to		
MW-1	08/22/01	2	278.17	280.95	49.0	229.17	24.0	49.0	254.17	229.17	Saprolite	Compliance Well
MW-2	08/02/02	2	210.55	213.37	35.0	175.55	19.5	34.5	191.05	176.05	PWR (Saprolite)	Compliance Well
MW-3	07/31/02	2	216.3	218.54	34.5	181.80	19.0	34.0	197.30	182.30	Silty Sand/PWR (Saprolite)	Compliance Well
MW-4	08/01/02	2	199.03	201.52	27.0	172.03	11.5	26.5	187.53	172.53	Silty Sand/PWR (Saprolite)	Compliance Well
MW-5	08/01/02	2	200.79	203.38	24.0	176.79	8.5	23.5	192.29	177.29	Silty Sand/PWR (Saprolite)	Compliance Well

Notes:
1. All elevations are referenced to mean sea level (M.S.L.); depths are referenced to ground surface (G.S.).
2. B.G.S. = below ground surface
3. T.O.C. = top of casing
4. PWR = partially weathered rock
5. MW-1 was installed by JEI as P-4 on August 22, 2001.
6. MW-2, MW-3, MW-4 and MW-5 were installed by JEI on August 2, 2002, July 31, 2002, and August 1, 2002, respectively.

Table 5

Summary of Detected Constituents in Groundwater
Material Recovery, LLC Construction and Demolition Landfill, Permit 92-31
Wake County, North Carolina

Parameter	Reporting Units	Date	Detection Limit	Quantitation Limit	SWS Reporting Limit	MW-1 (Upgradient)	MW-2	MW-3	MW-4	MW-5	Blanks
Arsenic	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(NC 2L = 50 ug/L)	ug/L	08/07/02	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	3.2 B	3.8 B	9.2 B	3.0 B	4.0 B	3.5 J
	ug/L	06/29/07	3.6	10	10	ND	ND	4.7 J	ND	ND	ND
	ug/L	12/13/07	2	10	10	2.2 B	ND	4.6 B	ND	2.2 B	2.5 J
Barium (total)	ug/L	05/07/02	--	--	500	--	--	--	--	--	ND
(NC 2L = 2000 ug/L)	ug/L	08/07/02	--	--	500	ND	ND	4000	ND	ND	ND
	ug/L	06/16/03	--	--	500	ND	ND	3100	ND	ND	ND
	ug/L	12/16/03	--	--	500	160	420	1200	120	120	ND
	ug/L	06/16/04	--	--	500	ND	540	1500	ND	ND	ND
	ug/L	12/16/04	--	--	500	ND	570	3100	ND	ND	ND
	ug/L	06/14/05	--	--	500	ND	520	2600	ND	ND	ND
	ug/L	12/27/05	--	--	500	ND	640	5700	ND	ND	ND
	ug/L	06/21/06	--	--	500	ND	708	4690	ND	ND	ND
	ug/L	12/13/06	0.2	10	100	217	681	6510	121	136	0.4 J
	ug/L	06/29/07	1	10	100	269	628	3140	99.5 J	42.1 B	10.4 J
	ug/L	12/13/07	0.2	10	100	417	697	5640	147	47.0 J	0.30 J
Barium (dissolved)	ug/L	12/03/03	--	--	500	--	--	1000	--	--	--
(NC 2L = 2000 ug/L)	ug/L	06/16/04	--	--	500	--	--	1400	--	--	--
	ug/L	06/14/05	--	--	500	--	--	2700	--	--	--
	ug/L	12/27/05	--	--	500	--	--	5900	--	--	--
	ug/L	06/21/06	--	--	500	--	--	4990	--	--	--
	ug/L	12/13/06	0.2	10	100	--	--	6860	--	--	--
	ug/L	06/29/07	1	10	100	--	--	4160	--	--	--
	ug/L	12/13/07	--	--	100	--	--	--	--	--	--
Beryllium	ug/L	05/07/02	--	--	2	--	--	--	--	--	ND
(SWS GPS = 4 ug/L)	ug/L	06/29/07	0.19	1	1	ND	3.50	5.90	1.00	0.80 J	ND
	ug/L	12/13/07	0.7	1	1	ND	3.00	10.8	1.00	1.00	ND
Cadmium	ug/L	05/07/02	--	--	1	--	--	--	--	--	ND
(NC 2L = 1.75 ug/L)	ug/L	08/07/02	--	--	1	1.4	1.1	1.8	1.2	1.0	ND
	ug/L	06/16/03	--	--	1	1.2	1.1	1.7	1.8	3.4	ND
	ug/L	12/16/03	--	--	1	ND	1.3	ND	ND	ND	ND
	ug/L	06/16/04	--	--	1	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	1	ND	ND	ND	ND	1.1	ND
	ug/L	06/14/05	--	--	1	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	1	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	1	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	0.5	1	1	ND	ND	0.50 J	ND	ND	ND
	ug/L	06/29/07	0.38	1	1	ND	ND	0.50 J	ND	ND	ND
	ug/L	12/13/07	0.5	1	1	ND	ND	ND	ND	ND	ND
Chromium	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(NC 2L = 50 ug/L)	ug/L	08/07/02	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND	15	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	1.7	10	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/07	2	10	10	ND	ND	ND	ND	ND	ND
Cobalt	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(SWS GPS = 70 ug/L)	ug/L	06/29/07	2.5	10	10	5.8 J	ND	6.3 J	ND	ND	ND
	ug/L	12/13/07	2	10	10	6.3 J	ND	6.5 J	ND	ND	ND
Copper	ug/L	05/07/02	--	--	0.05	--	--	--	--	--	ND
(NC 2L = 1000 ug/L)	ug/L	08/07/02	--	--	0.05	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	1.8	10	10	ND	ND	2.0 J	ND	ND	ND
	ug/L	12/13/07	0.6	10	10	13.6	ND	1.40 J	0.80 J	2.20 J	ND
Lead (total)	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(NC 2L = 15 ug/L)	ug/L	08/07/02	--	--	10	ND	ND	ND	ND	19	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND	21	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND	34	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND	15	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND	62	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND	92	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND	81	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND	33.4	ND
	ug/L	12/13/06	2	10	10	2.7 J	ND	4.6 J	2.5 J	44.0	ND
	ug/L	06/29/07	3.1	10	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/07	2	10	10	ND	ND	ND	ND	2.4 J	ND

Table 5

Summary of Detected Constituents in Groundwater
Material Recovery, LLC Construction and Demolition Landfill, Permit 92-31
Wake County, North Carolina

Parameter	Reporting Units	Date	Detection Limit	Quantitation Limit	SWS Reporting Limit	MW-1 (Upgradient)	MW-2	MW-3	MW-4	MW-5	Blanks
Lead (dissolved)	ug/L	12/01/03	--	--	10	--	--	--	--	ND	--
(NC 2L = 15 ug/L)	ug/L	06/16/04	--	--	10	--	--	--	--	ND	--
	ug/L	06/14/05	--	--	10	--	--	--	--	ND	--
	ug/L	12/27/05	--	--	10	--	--	--	--	ND	--
	ug/L	06/21/06	--	--	10	--	--	--	--	ND	--
	ug/L	06/21/06	--	--	10	--	--	--	--	ND	--
	ug/L	12/13/06	2	10	10	--	--	--	--	3.5 J	--
	ug/L	06/29/07	3.1	10	10	--	--	--	--	ND	--
	ug/L	12/13/07	--	--	10	--	--	--	--	--	--
Mercury	ug/L	05/07/02	--	--	--	--	--	--	--	--	--
(NC 2L = 1.05 ug/L)	ug/L	08/07/02	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	06/16/03	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	0.5	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	2	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	0.11	0.2	0.2	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	0.11	0.2	0.2	ND	ND	2.24	ND	ND	ND
	ug/L	08/09/07	0.11	0.2	0.2	--	--	1.30	--	--	ND
	ug/L	12/13/07	0.11	0.2	0.2	ND	ND	ND	ND	ND	ND
Nickel	ug/L	05/07/02	--	--	50	--	--	--	--	--	ND
(NC 2L = 100 ug/L)	ug/L	08/07/02	--	--	50	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	1.3	10	50	ND	ND	ND	ND	ND	ND
	ug/L	12/13/07	2	10	50	3.4 J	ND	8.0 J	4.0 J	2.3 J	ND
Selenium	ug/L	05/07/02	--	--	20	--	--	--	--	--	ND
(NC 2L = 50 ug/L)	ug/L	08/07/02	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	06/16/03	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	20	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	4.3 B	2.1 B	ND	5.4 B	ND	4.5 J
	ug/L	06/29/07	2.8	10	10	ND	ND	2.8 J	ND	ND	ND
	ug/L	12/13/07	2	10	10	ND	ND	ND	ND	ND	ND
Silver	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(SWS GPS = 17.5 ug/L)	ug/L	08/07/02	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	ND	3.1 J	ND	ND	ND	ND
	ug/L	06/29/07	2	10	10	ND	ND	ND	ND	ND	ND
	ug/L	12/13/07	2	10	10	ND	ND	ND	ND	ND	ND
Thallium	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(SWS GPS = 0.28 ug/L)	ug/L	06/29/07	0.036	0.05	5.5	0.246 J	0.137 J	0.390 J	0.039 J	ND	ND
	ug/L	12/13/07	0.036	1	5.5	0.372 J	0.141 J	0.492 J	0.050 J	ND	ND
Vanadium	ug/L	05/07/02	--	--	40	--	--	--	--	--	ND
(SWS GPS = 25 ug/L)	ug/L	06/29/07	1.7	10	25	ND	ND	ND	ND	2.9 J	ND
	ug/L	12/13/07	1	10	25	4.9 J	ND	ND	ND	4.0 J	ND
Zinc	ug/L	05/07/02	--	--	50	--	--	--	--	--	ND
(NC 2L = 1050 ug/L)	ug/L	08/07/02	--	--	50	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	3.4	10	10	9.1 J	ND	26.1	ND	ND	ND
	ug/L	12/13/07	1	10	10	22.2	3.3 B	33.4	3.2 B	5.0 B	2.6 J
Iron	ug/L	06/29/07	15	50	300	ND	ND	239 J	ND	4180	ND
(NC 2L = 300 ug/L)	ug/L	08/09/07	20	50	300	364	--	2920	--	--	23 J
	ug/L	12/13/07	20	50	300	2970	328	124 J	321	7340	ND
Manganese	ug/L	06/29/07	1.4	10	50	71.2	174	256	52.6	151	ND
(NC 2L = 50 ug/L)	ug/L	12/13/07	1.4	10	50	121	123	356	72.3	170	ND

Table 5

Summary of Detected Constituents in Groundwater
Material Recovery, LLC Construction and Demolition Landfill, Permit 92-31
Wake County, North Carolina

Parameter	Reporting Units	Date	Detection Limit	Quantitation Limit	SWS Reporting Limit	MW-1 (Upgradient)	MW-2	MW-3	MW-4	MW-5	Blanks
Trichlorofluoromethane	ug/L	05/07/02	--	--	5	--	--	--	--	--	ND
(NC 2L = 2100 ug/L)	ug/L	06/16/03	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	0.2	1	5	ND	ND	3.3 J	ND	ND	ND
	ug/L	06/29/07	0.16	1	1	ND	0.53 J	34	ND	ND	ND
	ug/L	08/09/07	0.16	1	1	--	--	11	--	--	ND
	ug/L	12/13/07	0.16	1	1	ND	ND	23	ND	ND	ND
Xylenes	ug/L	05/07/02	--	--	10	--	--	--	--	--	ND
(NC 2L = 530 ug/L)	ug/L	06/16/03	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	5	ND	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND	ND	ND
	ug/L	12/27/05	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	06/21/06	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	12/13/06	--	--	5	ND	ND	ND	ND	ND	ND
	ug/L	06/29/07	0.21	1	4	ND	ND	ND	ND	ND	ND
	ug/L	12/13/07	0.21	1	5	ND	ND	ND	ND	ND	ND
Chloride	mg/L	06/29/07	0.05	1	NE	16	15	27	3.6	3.1	0.54 J
(NC 2L = 250 mg/L)	mg/L	08/09/07	2	5	NE	24	--	39	--	--	ND
	mg/L	12/13/07	0.48	5	NE	27	21	47	9.0	4.3 J	ND
Total Dissolved Solids	mg/L	06/29/07	10	10	NE	88	310	490	92	76	--
(NC 2L = 500 mg/L)	mg/L	08/09/07	10	10	NE	82	--	620	--	--	ND
	mg/L	12/13/07	10	10	NE	70	360	690	110	66	ND
Sulfate	mg/L	06/29/07	0.6	5	250	4.0 B	3.9 B	3.8 B	8.8 B	5.6 B	3.9 J
(NC 2L = 250 mg/L)	mg/L	08/09/07	0.03	2	250	1.4 J	--	1.8 J	--	--	ND
	mg/L	12/13/07	0.03	2	250	0.86 J	1.2 J	1.4 J	3.6 J	0.88 J	ND
Total Alkalinity	mg/L	08/07/02	--	--	2.0	3.0 J	5.0 J	ND	26	20	ND
(No Standard)	mg/L	06/29/07	5.2	15	NE	ND	ND	ND	17	67	--
	mg/L	08/09/07	5.2	15	NE	ND	--	ND	--	--	ND
	mg/L	12/13/07	4.7	15	NE	4.7 J	5.4 J	ND	24	24	ND
pH (field)	S.U.	08/07/02	--	--	--	4.74	6.11	5.57	6.35	6.15	--
	S.U.	12/13/06	--	--	--	5.19	4.82	4.14	5.15	5.71	--
	S.U.	06/29/07	--	--	--	5.67	4.82	4.30	4.97	5.37	--
	S.U.	08/09/07	--	--	--	4.03	--	3.70	--	--	--
	S.U.	12/13/07	--	--	--	4.55	4.82	4.12	4.94	5.58	--
Specific Conductance (Field)	uS/cm	12/13/06	--	--	--	97.7	485	1208	143.8	88.5	--
	uS/cm	06/29/07	--	--	--	105	457	696	102	68	--
	uS/cm	08/09/07	--	--	--	114	--	785	--	--	--
	uS/cm	12/13/07	--	--	--	156	567	1040	402	222	--
Temperature (Field)	°C	12/13/06	--	--	--	17.5	16.1	16.2	17.4	15.1	--
	°C	06/29/07	--	--	--	20.25	21.3	20.53	20.88	20.64	--
	°C	08/09/07	--	--	--	19.13	--	17.51	--	--	--
	°C	12/13/07	--	--	--	17.42	17.06	16.99	19.01	16.99	--
Turbidity (Field)	NTU	12/13/06	--	--	--	21.6	10.5	16.8	28.7	992	--
	NTU	06/29/07	--	--	--	28.4	7.6	0.0	0.0	152	--
	NTU	08/09/07	--	--	--	33.5	--	96.2	--	--	--
	NTU	12/13/07	--	--	--	846	69.8	8.2	21.3	253	--
Dissolved Oxygen (Field)	mg/L	12/13/07	--	--	--	7.72	5.91	1.18	2.45	0.57	--
Oxidation-Reduction Potential (Field)	mV	12/13/07	--	--	--	334	338	396	375	85	--

Notes:
1. MW = groundwater monitoring well
2. ug/L = micrograms per liter
3. mg/L = milligrams per liter
4. S.U. = Standard Units
5. uS/cm = microsiemens per cubic centimeter
6. °C = degrees Celsius
7. NTU = Nephelometric Turbidity Units
8. mV = millivolts
9. J = Estimated Value
10. B = Blank-qualified data
11. ND = Not detected at or above the stated reporting limit
12. NC 2L = North Carolina groundwater quality standard established under 15A NCAC 2L, .0202
13. SWS GPS = North Carolina Solid Waste Section Groundwater Protection Standard
14. --- = no data available
15. Shaded values are above their respective NC 2L Standard or GPS.
16. Blanks = Field, trip and laboratory blanks
17. SWS Reporting Limit = NCPQL or lab-specific reporting limit prior to 2007 and NCSWSL starting on 01/18/07
18. NE = Not Established

Table 6

Summary of Detected Constituents in Surface Water
Material Recovery, LLC Construction and Demolition Landfill, Permit 92-31
Wake County, North Carolina

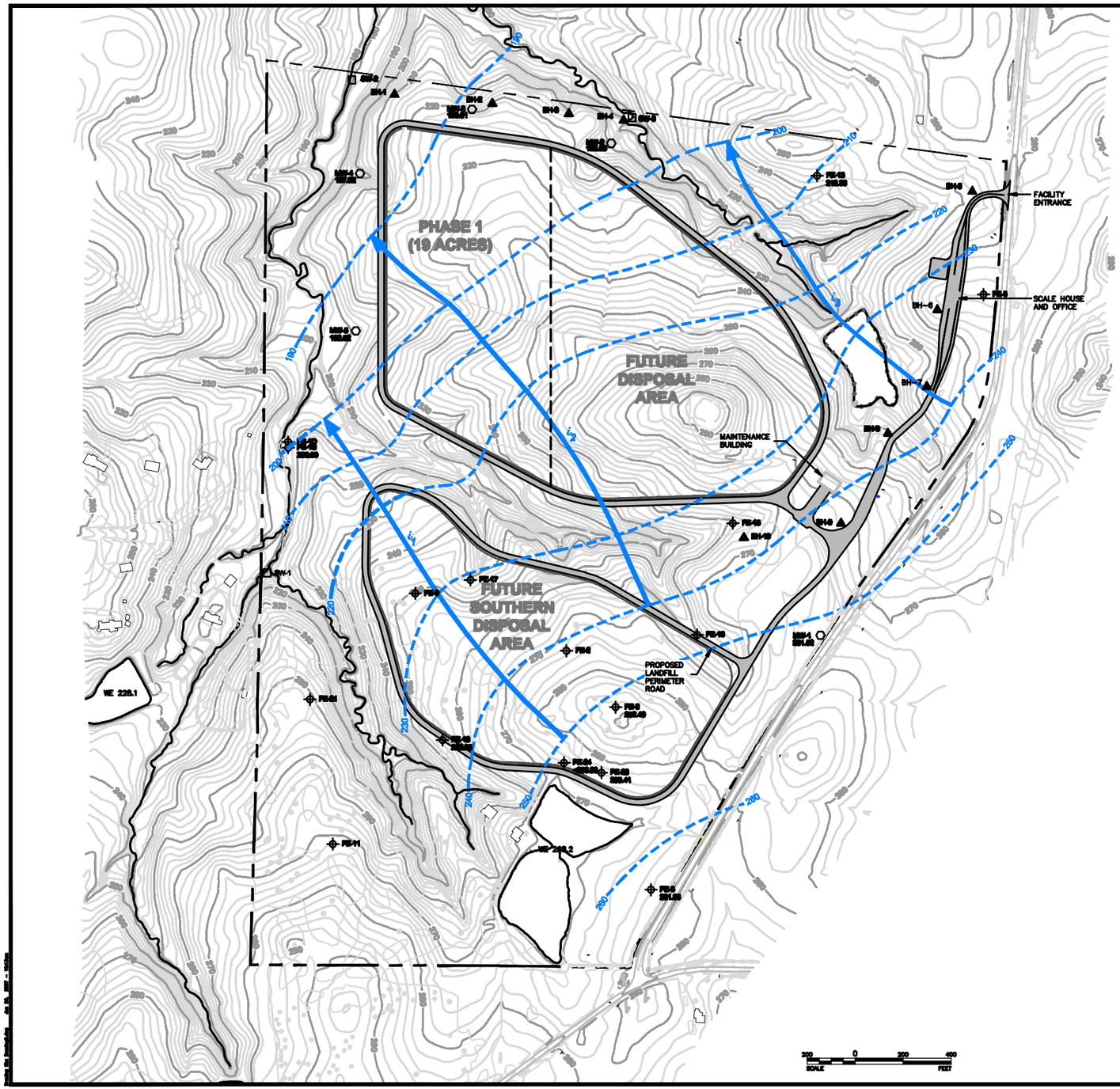
Parameter	Reporting Units	Date	Detection Limit	Quantitation Limit	SWS Reporting Limit	SW-1 (Upstream)	SW-2 (Downgradient)	SW-3 (Downgradient)	Blanks
Arsenic	ug/L	05/07/02	--	--	10	--	ND	--	ND
(SW Standard = 50 ug/L)	ug/L	08/07/02	--	--	10	--	--	ND	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	2.8 B	3.0 B	2.0 B	3.5 J
	ug/L	06/29/07	3.6	10	10	3.7 J	ND	ND	ND
	ug/L	12/13/07	2.0	10	10	ND	ND	ND	2.5 J
Barium	ug/L	05/07/02	--	--	500	--	ND	--	ND
(No SW Standard)	ug/L	08/07/02	--	--	500	--	--	ND	ND
	ug/L	06/16/03	--	--	500	ND	ND	ND	ND
	ug/L	12/16/03	--	--	500	ND	ND	230	ND
	ug/L	06/16/04	--	--	500	ND	ND	ND	ND
	ug/L	12/16/04	--	--	500	ND	ND	ND	ND
	ug/L	06/14/05	--	--	500	ND	ND	ND	ND
	ug/L	12/27/05	--	--	500	ND	ND	ND	ND
	ug/L	06/21/06	--	--	500	ND	ND	ND	ND
	ug/L	12/13/06	0.2	10	100	98.4 J	37.8 J	265	0.4 J
	ug/L	06/29/07	1.0	10	100	28.2 B	28.8 B	232	10.4 J
	ug/L	12/13/07	0.20	10	100	31.3 J	36.5 J	299	0.30 J
Cadmium	ug/L	05/07/02	--	--	1	--	ND	--	ND
(SW Standard = 2 ug/L)	ug/L	08/07/02	--	--	1	--	--	1.6	ND
	ug/L	06/16/03	--	--	1	1.0	ND	1.1	ND
	ug/L	12/16/03	--	--	1	ND	ND	ND	ND
	ug/L	06/16/04	--	--	1	ND	ND	ND	ND
	ug/L	12/16/04	--	--	1	ND	ND	ND	ND
	ug/L	06/14/05	--	--	1	ND	ND	ND	ND
	ug/L	12/27/05	--	--	1	ND	ND	ND	ND
	ug/L	06/21/06	--	--	1	ND	ND	ND	ND
	ug/L	12/13/06	0.5	1	1	ND	ND	ND	ND
	ug/L	06/29/07	0.38	1	1	ND	ND	ND	ND
	ug/L	12/13/07	0.50	1	1	ND	ND	ND	ND
Lead	ug/L	05/07/02	--	--	10	--	ND	--	ND
(SW Standard = 25 ug/L)	ug/L	08/07/02	--	--	10	--	--	ND	ND
	ug/L	06/16/03	--	--	10	ND	ND	ND	ND
	ug/L	12/16/03	--	--	10	ND	ND	ND	ND
	ug/L	06/16/04	--	--	10	ND	ND	ND	ND
	ug/L	12/16/04	--	--	10	ND	ND	ND	ND
	ug/L	06/14/05	--	--	10	ND	ND	ND	ND
	ug/L	12/27/05	--	--	10	ND	ND	ND	ND
	ug/L	06/21/06	--	--	10	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	2.1 J	ND	3.8 J	ND
	ug/L	06/29/07	3.1	10	10	ND	ND	ND	ND
	ug/L	12/13/07	2.0	10	10	ND	ND	ND	ND
Selenium	ug/L	05/07/02	--	--	20	--	ND	--	ND
(SW Standard = 5 ug/L)	ug/L	08/07/02	--	--	20	--	--	ND	ND
	ug/L	06/16/03	--	--	20	ND	ND	ND	ND
	ug/L	12/16/03	--	--	20	ND	ND	ND	ND
	ug/L	06/16/04	--	--	20	ND	ND	ND	ND
	ug/L	12/16/04	--	--	20	ND	ND	ND	ND
	ug/L	06/14/05	--	--	20	ND	ND	ND	ND
	ug/L	12/27/05	--	--	20	ND	ND	ND	ND
	ug/L	06/21/06	--	--	20	ND	ND	ND	ND
	ug/L	12/13/06	2	10	10	2.8 B	4.1 B	3.1 B	4.5 J
	ug/L	06/29/07	2.8	10	10	ND	ND	ND	ND
	ug/L	12/13/07	2.0	10	10	ND	ND	ND	ND
Thallium	ug/L	05/07/02	--	--	10	--	ND	--	ND
(No SW Standard)	ug/L	06/29/07	0.036	0.05	5.5	ND	ND	0.042 J	ND
	ug/L	12/13/07	0.036	1	5.5	ND	ND	0.041 J	ND
Vanadium	ug/L	05/07/02	--	--	40	--	ND	--	ND
(No SW Standard)	ug/L	06/29/07	1.7	10	25	1.9 J	ND	ND	ND
	ug/L	12/13/07	1.0	10	25	ND	ND	ND	ND
Zinc	ug/L	05/07/02	--	--	50	--	ND	--	ND
(SW Standard = 50 ug/L)	ug/L	08/07/02	--	--	50	--	--	ND	ND
	ug/L	06/29/07	3.4	10	10	ND	ND	ND	ND
	ug/L	12/13/07	1.0	10	10	1.0 B	1.0 B	2.2 B	2.6 J
Acetone	ug/L	05/07/02	--	--	100	--	ND	--	ND
(No SW Standard)	ug/L	06/16/03	--	--	100	ND	ND	ND	ND
	ug/L	12/16/03	--	--	100	ND	ND	ND	ND
	ug/L	06/16/04	--	--	100	ND	ND	ND	ND
	ug/L	12/16/04	--	--	100	ND	ND	ND	ND
	ug/L	06/14/05	--	--	100	ND	ND	ND	ND
	ug/L	12/27/05	--	--	100	ND	ND	ND	ND
	ug/L	06/21/06	--	--	100	ND	ND	ND	ND
	ug/L	12/13/06	1.2	5	100	1.6 J	ND	ND	ND
	ug/L	06/29/07	0.90	5	100	ND	ND	ND	1.5 J
	ug/L	12/13/07	0.90	5	100	ND	ND	ND	ND

Table 6

Summary of Detected Constituents in Surface Water
Material Recovery, LLC Construction and Demolition Landfill, Permit 92-31
Wake County, North Carolina

Parameter	Reporting Units	Date	Detection Limit	Quantitation Limit	SWS Reporting Limit	SW-1 (Upstream)	SW-2 (Downgradient)	SW-3 (Downgradient)	Blanks
pH (field)	S.U.	08/07/02	--	--	--	--	--	5.76	--
	S.U.	12/13/06	--	--	--	6.10	6.09	5.90	--
	S.U.	06/29/07	--	--	--	6.62	5.86	6.31	--
	S.U.	12/13/07	--	--	--	5.93	5.96	5.46	--
Specific Conductance (Field)	uS/cm	12/13/06	--	--	--	183	113	476	--
	uS/cm	06/29/07	--	--	--	71	81	454	--
	uS/cm	12/13/07	--	--	--	119	145	626	--
Temperature (Field)	°C	12/13/06	--	--	--	12.8	10.6	11.2	--
	°C	06/29/07	--	--	--	27.92	23.41	22.96	--
	°C	12/13/07	--	--	--	15.22	14.57	15.72	--
Turbidity (Field)	NTU	12/13/06	--	--	--	4.2	11.4	16.3	--
	NTU	06/29/07	--	--	--	8.7	0.0	80.5	--
	NTU	12/13/07	--	--	--	0.0	0.0	39.5	--
Dissolved Oxygen (Field)	mg/L	12/13/07	--	--	--	8.82	14.57	8.26	--
Oxidation-Reduction Potential (Field)	mV	12/13/07	--	--	--	111	305	331	--

Notes:
1. SW = surface water monitoring point
2. ug/L = micrograms per liter
3. mg/L = milligrams per liter
4. S.U. = Standard Units
5. uS/cm = microsiemens per cubic centimeter
6. °C = degrees Celsius
7. NTU = Nephelometric Turbidity Units
8. mV = millivolts
9. J = Estimated Value
10. B = Blank-qualified data
11. ND = Not detected at or above the stated reporting limit
12. -- = no data available
13. Shaded values are above their respective NC Surface Water Standards under 15A NCAC 2B.
14. Blanks = Field, trip and laboratory blanks
15. SWS Reporting Limit = NCPQL or lab-specific reporting limit prior to 2007 and NCSWSL starting on 01/18/07
16. NE = Not Established



LEGEND

- EXISTING 10-FOOT GROUND SURFACE CONTOUR
- EXISTING 2-FOOT GROUND SURFACE CONTOUR
- PROPERTY LINE
- APPROXIMATE LIMITS OF WASTE
- EXISTING ROAD
- BH-1 — LANDFILL GAS MONITORING POINT
- MW-1 — EXISTING GROUNDWATER MONITORING WELL
- SW-3 — SURFACE WATER MONITORING POINT
- PZ-0 — PIEZOMETER LOCATION IDENTIFICATION
- 250 — GROUNDWATER SURFACE CONTOURS
- i_1 — APPROXIMATE GROUNDWATER FLOW SEGMENT USED TO CALCULATE GRADIENT
- TREELINE

NOTES:

1) TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET

2) GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET

3) GROUNDWATER ELEVATIONS MEASURED ON DECEMBER 12-13, 2007.

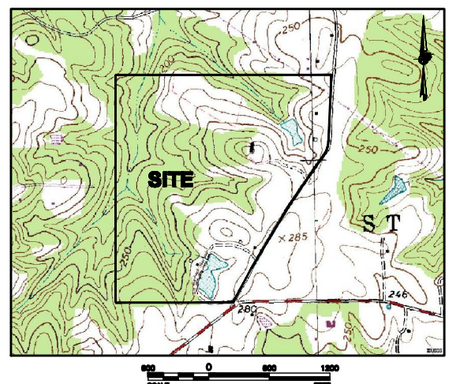
4) GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.

5) GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.

6) DRAWING BASED ON THE SITE PLAN PREPARED BY JOYCE ENGINEERING, INC. (SEPTEMBER, 2006). DIGITAL MAPPING PROVIDED BY SPATIAL DATA CONSULTANTS, INC., OF HIGH POINT, NORTH CAROLINA. DATE OF AERIAL FLYOVER WAS MARCH 27, 2001.

7) LANDFILL GAS MONITORING POINT AND SURFACE WATER MONITORING POINT LOCATIONS ARE APPROXIMATE.

8) ELEVATIONS SHOWN IN THIS DRAWING ARE IN FEET ABOVE SEA LEVEL DATUM ("SEA LEVEL DATUM" REFERS TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929); AND COORDINATES ARE EXPRESSED IN TERMS OF THE STATE PLANE COORDINATE SYSTEM.



(SCALE IS APPROXIMATE)

SITE LOCATION MAP

Golder Associates
GOLDER ASSOCIATES INC, INC.

REV	DATE	DES	REVISION DESCRIPTION	CHK	APP
1	1/10/08	LKB	DECEMBER GROUNDWATER CONTOURS	CADD	

PROJECT

MATERNAL RECOVERY, LLC
C&D LANDFILL
WAKE COUNTY
NORTH CAROLINA

TITLE

GROUNDWATER CONTOUR MAP
DECEMBER 12-13, 2007

PROJECT No.	073-9602407	
FILE No.		
REV/REV	SCALE	1"=200'
DESIGN	JAD	10/10/07
CADD	LKB	10/10/07
CHECK	JAD	1/10/08
REVIEW	RPK	1/10/08

DWG 1

APPENDIX I

GROUNDWATER AND SURFACE WATER SAMPLING LOGS

DATE: *12/13/2007*

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-1* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* **inches** **Initial Depth to Water:** *29.43* **feet**
Depth to Bottom: *50.65* **feet** **Water Column Thickness:** *21.22* **feet**
Pumping Rate: *150* **mL/min.** **System Volume:** *1515* **mL**
Well Location: *2000 ft. South of entrance on Brown Field Road (inside property line)*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
10:22	4.58	0.181	453.0	8.61	17.24	292	29.64
10:24	4.59	0.166	596.0	8.29	17.31	304	29.64
10:26	4.59	0.165	695.0	8.01	17.31	311	29.64
10:28	4.59	0.161	733.0	7.95	17.28	314	29.64
10:30	4.57	0.160	694.0	7.85	17.33	320	29.64
10:32	4.56	0.158	603.0	7.80	17.31	325	29.64
10:34	4.57	0.157	836.0	7.82	17.31	328	29.64
10:36	4.55	0.158	758.0	7.76	17.32	331	29.64
10:38	4.55	0.157	810.0	7.72	17.32	337	29.64
Slowed pumping rate to 150 mL/min.							
10:42	4.55	0.156	846.0	7.72	17.42	334	29.64
Sampled at 10:42 for C&D Parameters.							
10:52	4.56	0.157	956.0	7.68	17.29	352	29.80

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ **Date:** 12-13-2007
QA/QC Sign Off: _____ **Date:** 1-17-08

DATE: *12/13/2007*

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-2* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* inches **Initial Depth to Water:** *17.48* feet
Depth to Bottom: *38.36* feet **Water Column Thickness:** *20.93* feet
Pumping Rate: *200* mL/min. **System Volume:** *919* mL
Well Location: *100 ft. N of north side of Northern Disposal Area perimeter road*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
11:17	4.94	0.541	>1000	10.69	16.93	303	17.51
11:20	4.96	0.567	>1000	9.62	16.95	306	17.51
11:23	4.90	0.567	650.0	8.18	17.11	314	17.51
11:26	4.89	0.566	451.0	7.40	17.09	319	17.51
11:29	4.87	0.501	332.0	6.94	17.05	322	17.51
11:32	4.85	0.563	209.0	6.33	17.08	325	17.51
11:35	4.83	0.564	117.0	6.24	17.11	330	17.51
11:38	4.82	0.567	78.5	6.14	17.08	335	17.48
11:41	4.82	0.567	69.8	6.09	17.06	334	17.43
Sampled at 11:41.							
11:53	4.82	0.567	35.0	5.91	17.23	338	17.43

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ **Date:** 12-13-2007
QA/QC Sign Off: _____ **Date:** 1-17-08

DATE: *12/13/2007*

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-3* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* inches **Initial Depth to Water:** *27.73* feet
Depth to Bottom: *37.66* feet **Water Column Thickness:** *9.93* feet
Pumping Rate: *200* mL/min. **System Volume:** *1254* mL
Well Location: *100 ft. E-NE of MW-2 and 100 ft. N of perimeter road*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
12:14	4.16	0.950	399.0	6.45	17.11	310	27.73
12:17	4.10	0.950	270.0	3.26	17.01	377	27.73
12:20	4.10	0.960	162.0	2.25	16.95	384	27.73
12:23	4.10	0.980	106.0	2.02	16.93	386	27.73
12:26	4.10	1.000	56.0	1.78	16.93	392	27.73
12:29	4.12	1.020	24.3	1.67	16.97	393	27.73
12:32	4.12	1.040	8.2	1.63	16.99	394	27.73
Sampled at 12:32 for NC C&D Parameters.							
12:39	4.13	1.050	0.0	1.18	17.55	396	27.73

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ **Date:** 12-13-2007
QA/QC Sign Off: _____ **Date:** 1-17-08

DATE: 12/13/2007

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-4* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* inches **Initial Depth to Water:** *13.60* feet
Depth to Bottom: *28.82* feet **Water Column Thickness:** *15.22* feet
Pumping Rate: *200* mL/min. **System Volume:** *804* mL
Well Location: *<100 ft. W of the W side of the north end of the Northern Disp. Area*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
13:18	5.01	0.203	502.0	4.38	18.67	314	13.60
13:21	4.98	0.233	344.0	2.85	18.70	350	13.63
13:24	4.96	0.306	168.0	2.08	18.70	407	13.63
13:27	4.96	0.332	94.2	1.86	18.71	421	13.63
13:30	4.96	0.372	61.6	1.74	18.84	413	13.63
13:33	4.97	0.421	54.3	1.65	18.76	408	13.63
13:36	4.94	0.409	30.9	1.45	18.86	419	13.63
13:39	4.95	0.409	23.2	1.34	18.88	417	13.63
13:42	4.94	0.402	21.3	1.30	19.01	414	13.63
Sampled MW-4 at 13:42.							
13:50	4.99	0.239	109.0	2.45	20.05	375	13.63

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: [signature] **Date:** 12-13-2007
QA/QC Sign Off: [signature] **Date:** 1-17-08

DATE: 12/13/2007

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-5* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* inches **Initial Depth to Water:** *10.86* feet
Depth to Bottom: *26* feet **Water Column Thickness:** *15.14* feet
Pumping Rate: *200* mL/min. **System Volume:** *~1000* mL
Well Location: *Bottom of V-shaped hill on S end of W side of Northern Disp. Area*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
14:27	5.51	0.455	>1000	1.02	17.06	106	11.0
14:30	5.49	0.300	>1000	0.93	16.82	103	11.0
14:33	5.50	0.249	>1000	0.88	16.89	100	11.0
14:36	5.44	0.399	>1000	0.76	16.89	102	11.0
14:39	5.45	0.189	>1000	0.76	16.80	100	11.0
14:42	5.49	0.220	>1000	0.69	16.89	93	11.0
14:45	5.49	0.189	>1000	0.69	16.85	92	11.0
14:48	5.51	0.228	932.0	0.67	16.82	90	11.0
14:51	5.40	0.220	780.0	0.65	16.92	98	11.0
14:54	5.37	0.208	644.0	0.63	16.91	96	11.0
14:57	5.40	0.128	548.0	0.62	16.83	93	11.0
15:00	5.51	0.141	460.0	0.59	16.95	94	11.0
15:02	5.40	0.122	415.0	0.60	16.76	85	11.0
15:05	5.56	0.098	311.0	0.59	16.97	101	11.0

Continued on following page.

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ **Date:** 12-13-2007
QA/QC Sign Off: _____ **Date:** 1-17-08

DATE: *12/13/2007*

GROUNDWATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *0739602407.100*
Well ID: *MW-5* **Sampler(s):** *B. Draper / K. Higgs*
Well Diameter: *2* inches **Initial Depth to Water:** *10.86* feet
Depth to Bottom: *26* feet **Water Column Thickness:** *15.14* feet
Pumping Rate: *200* mL/min. **System Volume:** *~1000* mL
Well Location: *Bottom of V-shaped hill on S end of W side of Northern Disp. Area*
Equipment: *Dedicated Bladder Pumps, 150' Water Level Meter*
Horiba U-22 Water Quality Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O_2 (mg/L)	Temp. (°C)	ORP (millivolts)	DTW (feet)
15:08	5.57	0.212	280.0	0.59	16.78	91	11.00
15:11	5.59	0.213	281.0	0.59	16.69	87	11.00
15:14	5.58	0.222	253.0	0.57	16.99	85	11.00
15:14 Sampled for NC C&D List.							
15:29	5.64	0.314	157.0	1.05	16.84	94	11.00

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ **Date:** 1/23/08
QA/QC Sign Off: _____ **Date:** 1-23-08

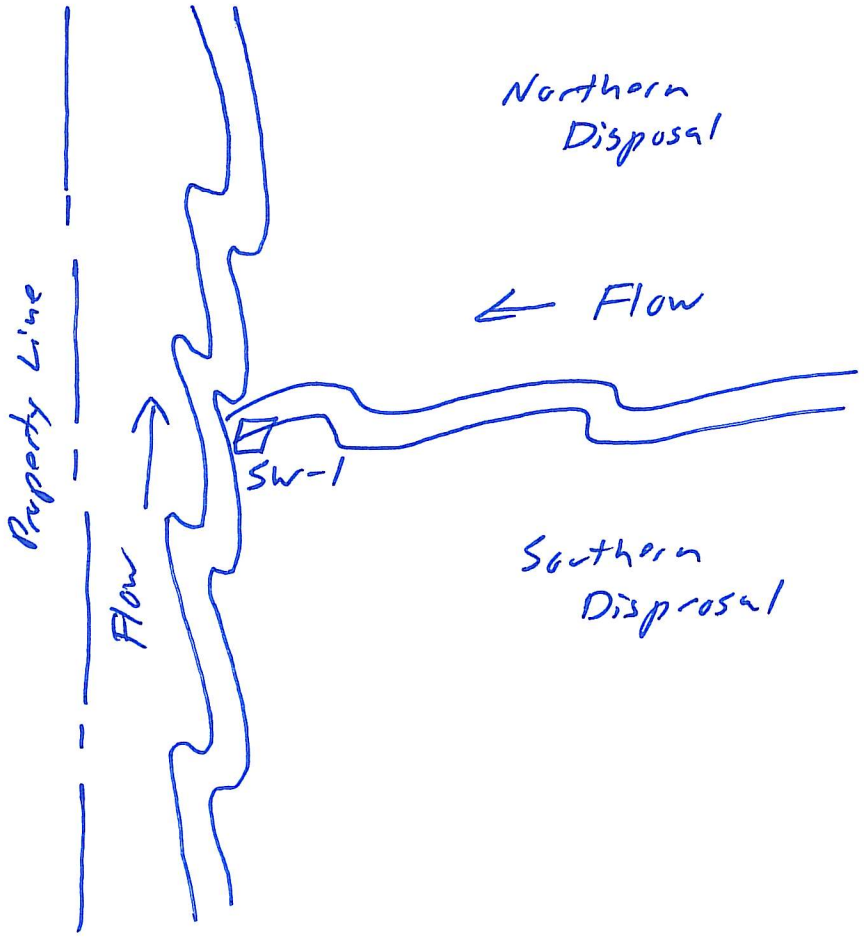
DATE: *12/13/2007*

SURFACE WATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *073-9602407.100*
Sample ID: *SW-1* **Sampler(s):** *B. Draper / K. Higgs*
Sampling Location: *W of Southern Disposal Area where streams converge*
Equipment: *Horiba U-22 Water Quality Meter*

Time	15:36
pH s.u.	5.93
Cond. mS/cm	0.119
Turb. ntu	0.0
Dis. O2 mg/L	8.82
Temp. oC	15.22
TDS Sal	--
ORP mv	111

Surface Water Sampling Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ Date: 12-13-2007
QA/QC Sign Off: _____ Date: 1-17-08

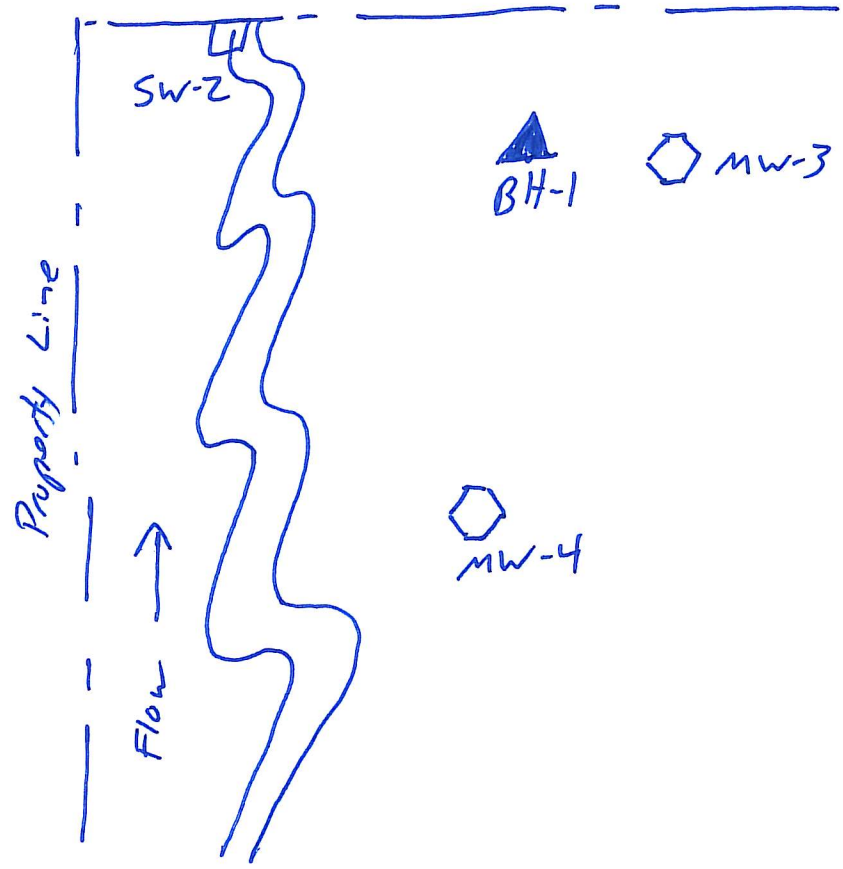
DATE: *12/13/2007*

SURFACE WATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *073-9602407.100*
Sample ID: *SW-2* **Sampler(s):** *B. Draper / K. Higgs*
Sampling Location: *Furthest point of stream in the NW part of the property*
Equipment: *Horiba U-22 Water Quality Meter*

Time	14:00
pH s.u.	5.96
Cond. mS/cm	0.145
Turb. ntu	0.0
Dis. O2 mg/L	14.57
Temp. oC	9.59
TDS Sal	--
ORP mv	305

Surface Water Sampling Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ Date: 12-13-2007
QA/QC Sign Off: _____ Date: 1-17-08

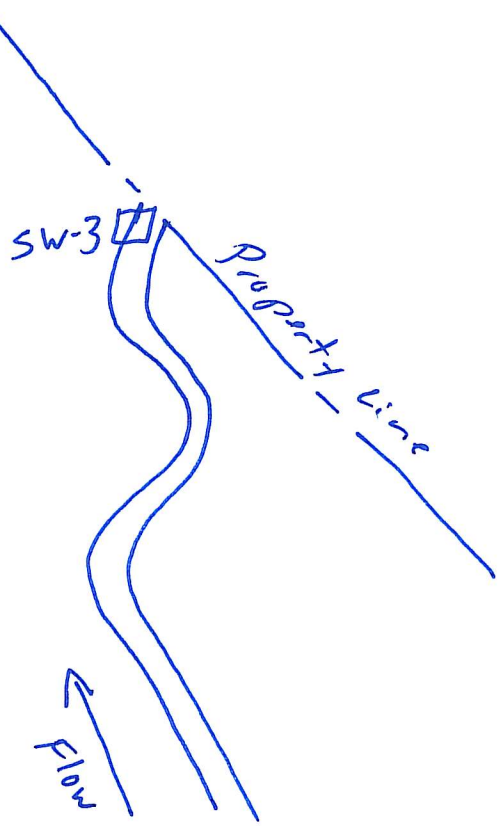
DATE: *12/13/2007*

SURFACE WATER SAMPLING LOG

Project Name: *WCA - Wake* **Project No./Phase No.:** *073-9602407.100*
Sample ID: *SW-3* **Sampler(s):** *B. Draper / K. Higgs*
Sampling Location: *Along the Northern property line*
Equipment: *Horiba U-22 Water Quality Meter*

Time	12:45
pH s.u.	5.46
Cond. mS/cm	0.626
Turb. ntu	39.5
Dis. O2 mg/L	8.26
Temp. oC	15.72
TDS Sal	--
ORP mv	331

Surface Water Sampling Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Mean Temp: 65°F; Precipitation: 0.01 in; Wind: 9 mph; Avg. Humidity: 67%

Signature: _____ Date: 12-17-2007
QA/QC Sign Off: _____ Date: 1-17-08

Golder Associates

WELL CONDITION SUMMARY

DATE: 12-12-07

Project Name WCA - Material Recovery, LLC
Project No./Task No. 0739602407.100
Personnel D. Reedy / K. Higgs
Page 1 of 1

Well ID	Protective Casing	Well Casing	Label	Lock	Pad Condition	Depth of Well (Feet)	General Turbidity	Comments/ Observations*
MW-1	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	50.65	☐ Clear ☑ Turbid	Installed pump
MW-2	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	38.36	☑ Clear ☐ Turbid	Installed pump
MW-3	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	37.66	☑ Clear ☐ Turbid	Installed pump
MW-4	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	28.82	☑ Clear ☐ Turbid	Installed pump
MW-5	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	26.00	☐ Clear ☑ Turbid	Installed pump
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged		☐ Clear ☐ Turbid	

* Note ponding water, weep holes, condition of surrounding area, including any disturbance of the ground since last inspection, evidence of contamination.

Signature: [signature] Date: 12-12-07

APPENDIX II
DECEMBER 2007 CERTIFICATES-OF-ANALYSIS, CHAIN-OF-CUSTODY FORMS AND LABORATORY DATA REVIEWS

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

www.encolabs.com

RECEIVED JAN 04 2008

Wednesday, January 2, 2008

Golder Associates, Inc. (GO007)

Attn: Rachel Kirkman

The Wingate Building 4900 Koger Blvd., Suite 140

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 0739602407.100, Project Name/Desc: Material Recovery, LLC, LF
ENCO Workorder: C715578

Dear Rachel Kirkman,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, December 13, 2007.

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
Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 56.

www.encolabs.com

PROJECT NARRATIVE

Date: 02 January 2008
Client: Golder Associates
Project: Material Recovery, LLC, LF
Lab ID: C715578

Overview

This report is an amendment to the original report dated 27 December 2007 for this work order. This report was revised to correct a falsely reported analyte.

All samples submitted were analyzed by Environmental Conservation Laboratories, Inc. in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by Environmental Conservation Laboratories, Inc. will be discussed in the QC Remarks section below.

Quality Control Samples

The MS, MSD and Post-Spike for the Mercury analysis had recoveries outside of the control limits due to a confirmed matrix effect. The batch was approved based on acceptable LCS recoveries.

Quality Control Remarks

The RPDs for 1,1-Dichloroethene, Benzene, and Trichloroethene in the MS and MSD for the 8260B analysis were outside of acceptance limits; however, both recoveries were within control limits. The batch was approved based on acceptable recoveries and completeness of the QC data.

Other Comments

Sample C715578-03 (MW-3) was originally reported with a 20 ppb detection of 1,1-Dichloroethene. After review and reanalysis by a senior chemist, this detection was determined to be false, and has thus been removed from this report.

Low-level concentrations of Arsenic, Barium, and Zinc were found in the Field Blank. The concentrations of these analytes were less than half of the MRL and below the NC SWS Limits.

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required.

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.

Released By:
Environmental Conservation Laboratories, Inc.

Stephanie Franz
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 9231-MW1 | **Lab ID: C715578-01** | **Sampled: 12/13/07 10:38** | **Received: 12/13/07 16:45**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 160.1	12/20/07	12/14/07 12:00	12/17/2007 17:00
EPA 300.0	01/10/08	12/17/07 15:49	12/17/2007 19:32
EPA 310.2	12/27/07	12/15/07 09:16	12/15/2007 11:30
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 11:05
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:12
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 00:00	12/26/2007 04:38
SM4500-Cl/E	01/10/08	12/15/07 09:25	12/15/2007 12:44

Client ID: 9231-MW2 (MS/MSD) | **Lab ID: C715578-02** | **Sampled: 12/13/07 11:41** | **Received: 12/13/07 16:45**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 160.1	12/20/07	12/17/07 15:50	12/18/2007 13:40
EPA 300.0	01/10/08	12/17/07 15:49	12/17/2007 19:48
EPA 310.2	12/27/07	12/15/07 09:16	12/15/2007 11:30
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 10:40
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:04
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 00:00	12/26/2007 04:09
SM4500-Cl/E	01/10/08	12/15/07 09:25	12/15/2007 12:45

Client ID: 9231-MW3 | **Lab ID: C715578-03** | **Sampled: 12/13/07 12:32** | **Received: 12/13/07 16:45**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 160.1	12/20/07	12/17/07 15:50	12/18/2007 13:40
EPA 300.0	01/10/08	12/17/07 15:49	12/17/2007 20:03
EPA 310.2	12/27/07	12/15/07 09:16	12/15/2007 11:33
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 11:12
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:15
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 00:00	12/26/2007 05:07
SM4500-Cl/E	01/10/08	12/15/07 09:25	12/15/2007 12:47

Client ID: 9231-MW4 | **Lab ID: C715578-04** | **Sampled: 12/13/07 13:42** | **Received: 12/13/07 16:45**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 160.1	12/20/07	12/17/07 15:50	12/18/2007 13:40
EPA 300.0	01/10/08	12/17/07 15:49	12/17/2007 20:19
EPA 310.2	12/27/07	12/15/07 09:16	12/15/2007 11:34
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 11:19
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:18
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 00:00	12/26/2007 05:36
SM4500-Cl/E	01/10/08	12/15/07 09:25	12/15/2007 12:47

Client ID: 9231-MW5	Lab ID: C715578-05	Sampled: 12/13/07 15:14	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 160.1	12/20/07	12/17/07 15:50	12/18/2007 13:40
EPA 300.0	01/10/08	12/17/07 15:49	12/17/2007 20:35
EPA 310.2	12/27/07	12/15/07 09:16	12/15/2007 11:35
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 11:26
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:21
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 00:00	12/26/2007 06:05
SM4500-Cl/E	01/10/08	12/15/07 09:25	12/15/2007 12:48

Client ID: 9231-SW1	Lab ID: C715578-06	Sampled: 12/13/07 15:36	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 11:33
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:24
EPA 8260B	12/27/07	12/26/07 09:02	12/26/2007 19:14

Client ID: 9231-SW2	Lab ID: C715578-07	Sampled: 12/13/07 14:00	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 12:01
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:27
EPA 8260B	12/27/07	12/26/07 09:02	12/26/2007 19:43

Client ID: 9231-SW3	Lab ID: C715578-08	Sampled: 12/13/07 12:45	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 12:08
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:35
EPA 8260B	12/27/07	12/26/07 09:02	12/26/2007 20:12

Client ID: Field Blank	Lab ID: C715578-09	Sampled: 12/13/07 15:50	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010B	06/10/08	12/14/07 07:01	12/17/2007 12:15
EPA 6020	06/10/08	12/14/07 07:07	12/20/2007 12:38
EPA 7470A	01/10/08	12/26/07 06:14	12/26/2007 15:20
EPA 8260B	12/27/07	12/26/07 09:02	12/26/2007 18:45

Client ID: Trip Blank	Lab ID: C715578-10	Sampled: 12/13/07 00:00	Received: 12/13/07 16:45
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 8260B	12/27/07	12/26/07 09:02	12/26/2007 18:15

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 9231-MW1 — **Lab ID: C715578-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic	2.2	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Barium	417		1	0.20	10.0	100	ug/L	EPA 6010B	
Chloride	27		1	0.48	5.0	NE	mg/L	SM4500-Cl/E	
Cobalt	6.3	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Copper	13.6		1	0.60	10.0	10	ug/L	EPA 6010B	
Iron	2970		1	20	50	300	ug/L	EPA 6010B	
Manganese	121		1	1.4	10.0	50	ug/L	EPA 6010B	
Nickel	3.4	J	1	2.0	10.0	50	ug/L	EPA 6010B	
Sulfate	0.86	J	1	0.03	2.0	250	mg/L	EPA 300.0	
Thallium	0.372	J	1	0.036	1.00	5.5	ug/L	EPA 6020	
Total Alkalinity	4.7		1	4.7	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	70		1	10	10	NE	mg/L	EPA 160.1	
Vanadium	4.9	J	1	1.0	10.0	25	ug/L	EPA 6010B	
Zinc	22.2		1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-MW2 (MS/MSD) — **Lab ID: C715578-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	697		1	0.20	10.0	100	ug/L	EPA 6010B	
Beryllium	3.00		1	0.70	1.00	1	ug/L	EPA 6010B	
Chloride	21		1	0.48	5.0	NE	mg/L	SM4500-Cl/E	
Iron	328		1	20	50	300	ug/L	EPA 6010B	
Manganese	123		1	1.4	10.0	50	ug/L	EPA 6010B	
Sulfate	1.2	J	1	0.03	2.0	250	mg/L	EPA 300.0	
Thallium	0.141	J	1	0.036	1.00	5.5	ug/L	EPA 6020	
Total Alkalinity	5.4		1	4.7	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	360		1	10	10	NE	mg/L	EPA 160.1	
Zinc	3.3	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-MW3 — **Lab ID: C715578-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic	4.6	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Barium	5640		1	0.20	10.0	100	ug/L	EPA 6010B	
Beryllium	10.8		1	0.70	1.00	1	ug/L	EPA 6010B	
Chloride	47		1	0.48	5.0	NE	mg/L	SM4500-Cl/E	
Cobalt	6.5	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Copper	1.40	J	1	0.60	10.0	10	ug/L	EPA 6010B	
Iron	124	J	1	20	50	300	ug/L	EPA 6010B	
Manganese	356		1	1.4	10.0	50	ug/L	EPA 6010B	
Nickel	8.0	J	1	2.0	10.0	50	ug/L	EPA 6010B	
Sulfate	1.4	J	1	0.03	2.0	250	mg/L	EPA 300.0	
Thallium	0.492	J	1	0.036	1.00	5.5	ug/L	EPA 6020	
Total Dissolved Solids	690		1	10	10	NE	mg/L	EPA 160.1	
Trichlorofluoromethane	23		1	0.16	1.0	1	ug/L	EPA 8260B	
Zinc	33.4		1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-MW4 — **Lab ID: C715578-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	147		1	0.20	10.0	100	ug/L	EPA 6010B	
Beryllium	1.00		1	0.70	1.00	1	ug/L	EPA 6010B	

Client ID: 9231-MW4 — **Lab ID: C715578-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Chloride	9.0		1	0.48	5.0	NE	mg/L	SM4500-Cl/E	
Copper	0.80	J	1	0.60	10.0	10	ug/L	EPA 6010B	
Iron	321		1	20	50	300	ug/L	EPA 6010B	
Manganese	72.3		1	1.4	10.0	50	ug/L	EPA 6010B	
Nickel	4.0	J	1	2.0	10.0	50	ug/L	EPA 6010B	
Sulfate	3.6	J	1	0.03	2.0	250	mg/L	EPA 300.0	
Thallium	0.050	J	1	0.036	1.00	5.5	ug/L	EPA 6020	
Total Alkalinity	24		1	4.7	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	110		1	10	10	NE	mg/L	EPA 160.1	
Zinc	3.2	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-MW5 — **Lab ID: C715578-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic	2.2	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Barium	47.0	J	1	0.20	10.0	100	ug/L	EPA 6010B	
Beryllium	1.00		1	0.70	1.00	1	ug/L	EPA 6010B	
Chloride	4.3	J	1	0.48	5.0	NE	mg/L	SM4500-Cl/E	
Copper	2.20	J	1	0.60	10.0	10	ug/L	EPA 6010B	
Iron	7340		1	20	50	300	ug/L	EPA 6010B	
Lead	2.4	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Manganese	170		1	1.4	10.0	50	ug/L	EPA 6010B	
Nickel	2.3	J	1	2.0	10.0	50	ug/L	EPA 6010B	
Sulfate	0.88	J	1	0.03	2.0	250	mg/L	EPA 300.0	
Total Alkalinity	24		1	4.7	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	66		1	10	10	NE	mg/L	EPA 160.1	
Vanadium	4.0	J	1	1.0	10.0	25	ug/L	EPA 6010B	
Zinc	5.0	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-SW1 — **Lab ID: C715578-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	31.3	J	1	0.20	10.0	100	ug/L	EPA 6010B	
Zinc	1.0	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-SW2 — **Lab ID: C715578-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	36.5	J	1	0.20	10.0	100	ug/L	EPA 6010B	
Zinc	1.0	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: 9231-SW3 — **Lab ID: C715578-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	299		1	0.20	10.0	100	ug/L	EPA 6010B	
Thallium	0.041	J	1	0.036	1.00	5.5	ug/L	EPA 6020	
Zinc	2.2	J	1	1.0	10.0	10	ug/L	EPA 6010B	

Client ID: Field Blank — **Lab ID: C715578-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic	2.5	J	1	2.0	10.0	10	ug/L	EPA 6010B	
Barium	0.30	J	1	0.20	10.0	100	ug/L	EPA 6010B	
Zinc	2.6	J	1	1.0	10.0	10	ug/L	EPA 6010B	

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ANALYTICAL RESULTS

Description: 9231-MW1
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-01
Sampled: 12/13/07 10:38
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 04:38	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 04:38	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 04:38	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 04:38	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 04:38	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 04:38	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 04:38	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 04:38	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 04:38	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 04:38	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 04:38	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 04:38	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 04:38	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 04:38	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 04:38	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 04:38	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 04:38	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 04:38	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 04:38	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 04:38	jkg	

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Description: 9231-MW1
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-01
Sampled: 12/13/07 10:38
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 04:38	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:38	jkg	
Xylenes (Total) [1330-20-7]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 04:38	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*41*	*1*	*50.0*	*82 %*	*69-120*	*7L22005*	*EPA 8260B*	*12/26/07 04:38*	*jkg*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*61-120*	*7L22005*	*EPA 8260B*	*12/26/07 04:38*	*jkg*	
Toluene-d8	*40*	*1*	*50.0*	*80 %*	*75-99*	*7L22005*	*EPA 8260B*	*12/26/07 04:38*	*jkg*	

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Description: 9231-MW1
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-01
Sampled: 12/13/07 10:38
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:12	VLO	
Arsenic [7440-38-2] *	**2.2**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Barium [7440-39-3] *	**417**		ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 11:05	JDH	
Beryllium [7440-41-7] *	0.70	U	ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 11:05	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 11:05	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Cobalt [7440-48-4] *	**6.3**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Copper [7440-50-8] *	**13.6**		ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Iron [7439-89-6] *	**2970**		ug/L	1	20	50	300	EPA 6010B	12/17/07 11:05	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Manganese [7439-96-5] *	**121**		ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 11:05	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	**3.4**	J	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 11:05	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	
Thallium [7440-28-0] *	**0.372**	J	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:12	VLO	
Vanadium [7440-62-2] *	**4.9**	J	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 11:05	JDH	
Zinc [7440-66-6] *	**22.2**		ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 11:05	JDH	

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Description: 9231-MW1
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-01
Sampled: 12/13/07 10:38
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Cary certified analyte [NC 591]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] *	**27**		mg/L	1	0.48	5.0	NE	SM4500-Cl/E	12/15/07 12:44	PEV	
Total Alkalinity [NA] *	**4.7**		mg/L	1	4.7	15	NE	EPA 310.2	12/15/07 11:30	PEV	
Total Dissolved Solids [NA] *	**70**		mg/L	1	10	10	NE	EPA 160.1	12/17/07 17:00	JOC	

Description: 9231-MW1
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-01
Sampled: 12/13/07 10:38
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Orlando certified analyte [NC 424]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Sulfate [14808-79-8] *	**0.86**	J	mg/L	1	0.03	2.0	250	EPA 300.0	12/17/07 19:32	RSA	

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

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Description: 9231-MW2 (MS/MSD)
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-02
Sampled: 12/13/07 11:41
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 04:09	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 04:09	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 04:09	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 04:09	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 04:09	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 04:09	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 04:09	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 04:09	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 04:09	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 04:09	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 04:09	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 04:09	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 04:09	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 04:09	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 04:09	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 04:09	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 04:09	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 04:09	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 04:09	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 04:09	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 04:09	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 04:09	jkg	

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Description: 9231-MW2 (MS/MSD)
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-02
Sampled: 12/13/07 11:41
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 04:09	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*42*	*1*	*50.0*	*84 %*	*69-120*	*7L22005*	*EPA 8260B*	*12/26/07 04:09*	*jkg*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*61-120*	*7L22005*	*EPA 8260B*	*12/26/07 04:09*	*jkg*	
Toluene-d8	*42*	*1*	*50.0*	*83 %*	*75-99*	*7L22005*	*EPA 8260B*	*12/26/07 04:09*	*jkg*	

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Description: 9231-MW2 (MS/MSD)
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-02
Sampled: 12/13/07 11:41
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:04	VLO	
Arsenic [7440-38-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Barium [7440-39-3] *	**697**		ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 10:40	JDH	
Beryllium [7440-41-7] *	**3.00**		ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 10:40	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 10:40	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Copper [7440-50-8] *	0.60	U	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Iron [7439-89-6] *	**328**		ug/L	1	20	50	300	EPA 6010B	12/17/07 10:40	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Manganese [7439-96-5] *	**123**		ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 10:40	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	2.0	U	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 10:40	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	
Thallium [7440-28-0] *	**0.141**	J	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:04	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 10:40	JDH	
Zinc [7440-66-6] *	**3.3**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 10:40	JDH	

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Description: 9231-MW2 (MS/MSD)
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-02
Sampled: 12/13/07 11:41
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Cary certified analyte [NC 591]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] *	**21**		mg/L	1	0.48	5.0	NE	SM4500-Cl/E	12/15/07 12:45	PEV	
Total Alkalinity [NA] *	**5.4**		mg/L	1	4.7	15	NE	EPA 310.2	12/15/07 11:30	PEV	
Total Dissolved Solids [NA] *	**360**		mg/L	1	10	10	NE	EPA 160.1	12/18/07 13:40	JOC	

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Description: 9231-MW2 (MS/MSD)
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-02
Sampled: 12/13/07 11:41
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Orlando certified analyte [NC 424]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Sulfate [14808-79-8] *	**1.2**	J	mg/L	1	0.03	2.0	250	EPA 300.0	12/17/07 19:48	RSA	

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Description: 9231-MW3
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-03
Sampled: 12/13/07 12:32
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 05:07	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 05:07	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 05:07	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 05:07	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 05:07	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 05:07	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 05:07	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 05:07	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 05:07	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 05:07	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 05:07	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 05:07	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 05:07	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 05:07	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 05:07	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 05:07	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 05:07	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 05:07	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 05:07	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Trichlorofluoromethane [75-69-4] *	**23**		ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 05:07	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 05:07	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:07	jkg	

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Description: 9231-MW3
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-03
Sampled: 12/13/07 12:32
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 05:07	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*41*	*1*	*50.0*	*82 %*	*69-120*	*7L22005*	*EPA 8260B*	*12/26/07 05:07*	*jkg*	
Dibromofluoromethane	*52*	*1*	*50.0*	*103 %*	*61-120*	*7L22005*	*EPA 8260B*	*12/26/07 05:07*	*jkg*	
Toluene-d8	*40*	*1*	*50.0*	*81 %*	*75-99*	*7L22005*	*EPA 8260B*	*12/26/07 05:07*	*jkg*	

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Description: 9231-MW3
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-03
Sampled: 12/13/07 12:32
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:15	VLO	
Arsenic [7440-38-2] *	**4.6**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Barium [7440-39-3] *	**5640**		ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 11:12	JDH	
Beryllium [7440-41-7] *	**10.8**		ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 11:12	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 11:12	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Cobalt [7440-48-4] *	**6.5**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Copper [7440-50-8] *	**1.40**	J	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Iron [7439-89-6] *	**124**	J	ug/L	1	20	50	300	EPA 6010B	12/17/07 11:12	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Manganese [7439-96-5] *	**356**		ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 11:12	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	**8.0**	J	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 11:12	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	
Thallium [7440-28-0] *	**0.492**	J	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:15	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 11:12	JDH	
Zinc [7440-66-6] *	**33.4**		ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 11:12	JDH	

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Description: 9231-MW3
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-03
Sampled: 12/13/07 12:32
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Cary certified analyte [NC 591]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] *	**47**		mg/L	1	0.48	5.0	NE	SM4500-Cl/E	12/15/07 12:47	PEV	
Total Alkalinity [NA] *	4.7	U	mg/L	1	4.7	15	NE	EPA 310.2	12/15/07 11:33	PEV	
Total Dissolved Solids [NA] *	**690**		mg/L	1	10	10	NE	EPA 160.1	12/18/07 13:40	JOC	

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Description: 9231-MW3
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-03
Sampled: 12/13/07 12:32
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Orlando certified analyte [NC 424]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Sulfate [14808-79-8] *	**1.4**	J	mg/L	1	0.03	2.0	250	EPA 300.0	12/17/07 20:03	RSA	

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Description: 9231-MW4
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-04
Sampled: 12/13/07 13:42
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 05:36	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 05:36	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 05:36	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 05:36	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 05:36	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 05:36	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 05:36	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 05:36	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 05:36	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 05:36	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 05:36	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 05:36	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 05:36	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 05:36	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 05:36	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 05:36	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 05:36	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 05:36	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 05:36	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 05:36	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 05:36	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 05:36	jkg	

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Description: 9231-MW4
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-04
Sampled: 12/13/07 13:42
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 05:36	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*42*	*1*	*50.0*	*84 %*	*69-120*	*7L22005*	*EPA 8260B*	*12/26/07 05:36*	*jkg*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*61-120*	*7L22005*	*EPA 8260B*	*12/26/07 05:36*	*jkg*	
Toluene-d8	*42*	*1*	*50.0*	*84 %*	*75-99*	*7L22005*	*EPA 8260B*	*12/26/07 05:36*	*jkg*	

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Description: 9231-MW4
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-04
Sampled: 12/13/07 13:42
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:18	VLO	
Arsenic [7440-38-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Barium [7440-39-3] *	**147**		ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 11:19	JDH	
Beryllium [7440-41-7] *	**1.00**		ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 11:19	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 11:19	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Copper [7440-50-8] *	**0.80**	J	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Iron [7439-89-6] *	**321**		ug/L	1	20	50	300	EPA 6010B	12/17/07 11:19	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Manganese [7439-96-5] *	**72.3**		ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 11:19	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	**4.0**	J	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 11:19	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	
Thallium [7440-28-0] *	**0.050**	J	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:18	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 11:19	JDH	
Zinc [7440-66-6] *	**3.2**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 11:19	JDH	

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Description: 9231-MW4
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-04
Sampled: 12/13/07 13:42
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Cary certified analyte [NC 591]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] *	**9.0**		mg/L	1	0.48	5.0	NE	SM4500-Cl/E	12/15/07 12:47	PEV	
Total Alkalinity [NA] *	**24**		mg/L	1	4.7	15	NE	EPA 310.2	12/15/07 11:34	PEV	
Total Dissolved Solids [NA] *	**110**		mg/L	1	10	10	NE	EPA 160.1	12/18/07 13:40	JOC	

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Description: 9231-MW4
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-04
Sampled: 12/13/07 13:42
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Orlando certified analyte [NC 424]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Sulfate [14808-79-8] *	**3.6**	J	mg/L	1	0.03	2.0	250	EPA 300.0	12/17/07 20:19	RSA	

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

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Description: 9231-MW5
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-05
Sampled: 12/13/07 15:14
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 06:05	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 06:05	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 06:05	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 06:05	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 06:05	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 06:05	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 06:05	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 06:05	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 06:05	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 06:05	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 06:05	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 06:05	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 06:05	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 06:05	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 06:05	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 06:05	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 06:05	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 06:05	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 06:05	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 06:05	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 06:05	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 06:05	jkg	

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Description: 9231-MW5
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-05
Sampled: 12/13/07 15:14
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 06:05	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*85 %*	*69-120*	*7L22005*	*EPA 8260B*	*12/26/07 06:05*	*jkg*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*61-120*	*7L22005*	*EPA 8260B*	*12/26/07 06:05*	*jkg*	
Toluene-d8	*42*	*1*	*50.0*	*83 %*	*75-99*	*7L22005*	*EPA 8260B*	*12/26/07 06:05*	*jkg*	

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Description: 9231-MW5
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-05
Sampled: 12/13/07 15:14
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:21	VLO	
Arsenic [7440-38-2] *	**2.2**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Barium [7440-39-3] *	**47.0**	J	ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 11:26	JDH	
Beryllium [7440-41-7] *	**1.00**		ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 11:26	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 11:26	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Copper [7440-50-8] *	**2.20**	J	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Iron [7439-89-6] *	**7340**		ug/L	1	20	50	300	EPA 6010B	12/17/07 11:26	JDH	
Lead [7439-92-1] *	**2.4**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Manganese [7439-96-5] *	**170**		ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 11:26	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	**2.3**	J	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 11:26	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	
Thallium [7440-28-0] *	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:21	VLO	
Vanadium [7440-62-2] *	**4.0**	J	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 11:26	JDH	
Zinc [7440-66-6] *	**5.0**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 11:26	JDH	

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Description: 9231-MW5
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-05
Sampled: 12/13/07 15:14
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Cary certified analyte [NC 591]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] *	**4.3**	J	mg/L	1	0.48	5.0	NE	SM4500-Cl/E	12/15/07 12:48	PEV	
Total Alkalinity [NA] *	**24**		mg/L	1	4.7	15	NE	EPA 310.2	12/15/07 11:35	PEV	
Total Dissolved Solids [NA] *	**66**		mg/L	1	10	10	NE	EPA 160.1	12/18/07 13:40	JOC	

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Description: 9231-MW5
Matrix: Ground Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-05
Sampled: 12/13/07 15:14
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Classical Chemistry Parameters

** - ENCO Orlando certified analyte [NC 424]*

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Sulfate [14808-79-8] *	**0.88**	J	mg/L	1	0.03	2.0	250	EPA 300.0	12/17/07 20:35	RSA	

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Description: 9231-SW1
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-06
Sampled: 12/13/07 15:36
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 19:14	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 19:14	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 19:14	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 19:14	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 19:14	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 19:14	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 19:14	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 19:14	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 19:14	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 19:14	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 19:14	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 19:14	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 19:14	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 19:14	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 19:14	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 19:14	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 19:14	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 19:14	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 19:14	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 19:14	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 19:14	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:14	jkg	

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Description: 9231-SW1
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-06
Sampled: 12/13/07 15:36
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 19:14	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*42*	*1*	*50.0*	*84 %*	*69-120*	*7L26010*	*EPA 8260B*	*12/26/07 19:14*	*jkg*	
Dibromofluoromethane	*55*	*1*	*50.0*	*110 %*	*61-120*	*7L26010*	*EPA 8260B*	*12/26/07 19:14*	*jkg*	
Toluene-d8	*42*	*1*	*50.0*	*83 %*	*75-99*	*7L26010*	*EPA 8260B*	*12/26/07 19:14*	*jkg*	

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Description: 9231-SW1
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-06
Sampled: 12/13/07 15:36
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:24	VLO	
Arsenic [7440-38-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Barium [7440-39-3] *	**31.3**	J	ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 11:33	JDH	
Beryllium [7440-41-7] *	0.70	U	ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 11:33	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 11:33	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Copper [7440-50-8] *	0.60	U	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Nickel [7440-02-0] *	2.0	U	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 11:33	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	
Thallium [7440-28-0] *	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:24	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 11:33	JDH	
Zinc [7440-66-6] *	**1.0**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 11:33	JDH	

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

Description: 9231-SW2
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-07
Sampled: 12/13/07 14:00
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 19:43	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 19:43	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 19:43	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 19:43	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 19:43	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 19:43	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 19:43	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 19:43	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 19:43	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 19:43	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 19:43	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 19:43	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 19:43	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 19:43	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 19:43	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 19:43	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 19:43	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 19:43	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 19:43	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 19:43	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 19:43	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 19:43	jkg	

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Description: 9231-SW2 | **Lab Sample ID:** C715578-07 | **Received:** 12/13/07 16:45
Matrix: Surface Water | **Sampled:** 12/13/07 14:00 | **Work Order:** C715578
Project: Material Recovery, LLC, LF | **Sampled By:** K. Higgs/B. Draper

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 19:43	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*86 %*	*69-120*	*7L26010*	*EPA 8260B*	*12/26/07 19:43*	*jkg*	
Dibromofluoromethane	*52*	*1*	*50.0*	*105 %*	*61-120*	*7L26010*	*EPA 8260B*	*12/26/07 19:43*	*jkg*	
Toluene-d8	*42*	*1*	*50.0*	*83 %*	*75-99*	*7L26010*	*EPA 8260B*	*12/26/07 19:43*	*jkg*	

Description: 9231-SW2
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-07
Sampled: 12/13/07 14:00
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:27	VLO	
Arsenic [7440-38-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Barium [7440-39-3] *	**36.5**	J	ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 12:01	JDH	
Beryllium [7440-41-7] *	0.70	U	ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 12:01	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 12:01	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Copper [7440-50-8] *	0.60	U	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Nickel [7440-02-0] *	2.0	U	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 12:01	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	
Thallium [7440-28-0] *	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:27	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 12:01	JDH	
Zinc [7440-66-6] *	**1.0**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 12:01	JDH	

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

Description: 9231-SW3
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-08
Sampled: 12/13/07 12:45
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 20:12	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 20:12	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 20:12	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 20:12	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 20:12	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 20:12	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 20:12	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 20:12	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 20:12	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 20:12	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 20:12	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 20:12	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 20:12	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 20:12	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 20:12	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 20:12	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 20:12	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 20:12	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 20:12	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 20:12	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 20:12	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 20:12	jkg	

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Description: 9231-SW3
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-08
Sampled: 12/13/07 12:45
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 20:12	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*86 %*	*69-120*	*7L26010*	*EPA 8260B*	*12/26/07 20:12*	*jkg*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*61-120*	*7L26010*	*EPA 8260B*	*12/26/07 20:12*	*jkg*	
Toluene-d8	*41*	*1*	*50.0*	*81 %*	*75-99*	*7L26010*	*EPA 8260B*	*12/26/07 20:12*	*jkg*	

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Description: 9231-SW3
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-08
Sampled: 12/13/07 12:45
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:35	VLO	
Arsenic [7440-38-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Barium [7440-39-3] *	**299**		ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 12:08	JDH	
Beryllium [7440-41-7] *	0.70	U	ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 12:08	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 12:08	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Copper [7440-50-8] *	0.60	U	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Nickel [7440-02-0] *	2.0	U	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 12:08	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:08	JDH	
Thallium [7440-28-0] *	**0.041**	J	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:35	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 12:08	JDH	
Zinc [7440-66-6] *	**2.2**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 12:08	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: Field Blank
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-09
Sampled: 12/13/07 15:50
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 18:45	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 18:45	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 18:45	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 18:45	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 18:45	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 18:45	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 18:45	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 18:45	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 18:45	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 18:45	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 18:45	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 18:45	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 18:45	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 18:45	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 18:45	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 18:45	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 18:45	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 18:45	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 18:45	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 18:45	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 18:45	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:45	jkg	

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Description: Field Blank
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-09
Sampled: 12/13/07 15:50
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 18:45	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*85 %*	*69-120*	*7L26010*	*EPA 8260B*	*12/26/07 18:45*	*jkg*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*61-120*	*7L26010*	*EPA 8260B*	*12/26/07 18:45*	*jkg*	
Toluene-d8	*43*	*1*	*50.0*	*86 %*	*75-99*	*7L26010*	*EPA 8260B*	*12/26/07 18:45*	*jkg*	

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Description: Field Blank
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-09
Sampled: 12/13/07 15:50
Sampled By: K. Higgs/B. Draper

Received: 12/13/07 16:45
Work Order: C715578

Metals 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] *	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	12/20/07 12:38	VLO	
Arsenic [7440-38-2] *	**2.5**	J	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Barium [7440-39-3] *	**0.30**	J	ug/L	1	0.20	10.0	100	EPA 6010B	12/17/07 12:15	JDH	
Beryllium [7440-41-7] *	0.70	U	ug/L	1	0.70	1.00	1	EPA 6010B	12/17/07 12:15	JDH	
Cadmium [7440-43-9] *	0.50	U	ug/L	1	0.50	1.00	1	EPA 6010B	12/17/07 12:15	JDH	
Chromium [7440-47-3] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Cobalt [7440-48-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Copper [7440-50-8] *	0.60	U	ug/L	1	0.60	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Iron [7439-89-6] *	20	U	ug/L	1	20	50	300	EPA 6010B	12/17/07 12:15	JDH	
Lead [7439-92-1] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Manganese [7439-96-5] *	1.4	U	ug/L	1	1.4	10.0	50	EPA 6010B	12/17/07 12:15	JDH	
Mercury [7439-97-6] *	0.11	U	ug/L	1	0.11	0.20	0.2	EPA 7470A	12/26/07 15:20	MPL	
Nickel [7440-02-0] *	2.0	U	ug/L	1	2.0	10.0	50	EPA 6010B	12/17/07 12:15	JDH	
Selenium [7782-49-2] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Silver [7440-22-4] *	2.0	U	ug/L	1	2.0	10.0	10	EPA 6010B	12/17/07 12:15	JDH	
Thallium [7440-28-0] *	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	12/20/07 12:38	VLO	
Vanadium [7440-62-2] *	1.0	U	ug/L	1	1.0	10.0	25	EPA 6010B	12/17/07 12:15	JDH	
Zinc [7440-66-6] *	**2.6**	J	ug/L	1	1.0	10.0	10	EPA 6010B	12/17/07 12:15	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: Trip Blank
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-10
Sampled: 12/13/07 00:00
Sampled By:

Received: 12/13/07 16:45
Work Order: C715578

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] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
1,1,1-Trichloroethane [71-55-6] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,1,2,2-Tetrachloroethane [79-34-5] *	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	12/26/07 18:15	jkg	
1,1,2-Trichloroethane [79-00-5] *	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,1-Dichloroethane [75-34-3] *	0.090	U	ug/L	1	0.090	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
1,1-Dichloroethene [75-35-4] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
1,2,3-Trichloropropane [96-18-4] *	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,2-Dibromo-3-chloropropane [96-12-8] *	0.19	U	ug/L	1	0.19	1.0	13	EPA 8260B	12/26/07 18:15	jkg	
1,2-Dibromoethane [106-93-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,2-Dichlorobenzene [95-50-1] *	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
1,2-Dichloroethane [107-06-2] *	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,2-Dichloropropane [78-87-5] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
1,4-Dichlorobenzene [106-46-7] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
2-Butanone [78-93-3] *	0.56	U	ug/L	1	0.56	5.0	100	EPA 8260B	12/26/07 18:15	jkg	
2-Hexanone [591-78-6] *	0.24	U	ug/L	1	0.24	5.0	50	EPA 8260B	12/26/07 18:15	jkg	
4-Methyl-2-pentanone [108-10-1] *	0.36	U	ug/L	1	0.36	5.0	100	EPA 8260B	12/26/07 18:15	jkg	
Acetone [67-64-1] *	0.90	U	ug/L	1	0.90	5.0	100	EPA 8260B	12/26/07 18:15	jkg	
Acrylonitrile [107-13-1] *	2.0	U	ug/L	1	2.0	5.0	200	EPA 8260B	12/26/07 18:15	jkg	
Benzene [71-43-2] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Bromochloromethane [74-97-5] *	0.19	U	ug/L	1	0.19	1.0	3	EPA 8260B	12/26/07 18:15	jkg	
Bromodichloromethane [75-27-4] *	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Bromoform [75-25-2] *	0.36	U	ug/L	1	0.36	1.0	3	EPA 8260B	12/26/07 18:15	jkg	
Bromomethane [74-83-9] *	0.21	U	ug/L	1	0.21	1.0	10	EPA 8260B	12/26/07 18:15	jkg	
Carbon disulfide [75-15-0] *	0.12	U	ug/L	1	0.12	5.0	100	EPA 8260B	12/26/07 18:15	jkg	
Carbon tetrachloride [56-23-5] *	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Chlorobenzene [108-90-7] *	0.16	U	ug/L	1	0.16	1.0	3	EPA 8260B	12/26/07 18:15	jkg	
Chloroethane [75-00-3] *	0.40	U	ug/L	1	0.40	1.0	10	EPA 8260B	12/26/07 18:15	jkg	
Chloroform [67-66-3] *	0.16	U	ug/L	1	0.16	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
Chloromethane [74-87-3] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
cis-1,2-Dichloroethene [156-59-2] *	0.14	U	ug/L	1	0.14	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
cis-1,3-Dichloropropene [10061-01-5] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Dibromochloromethane [124-48-1] *	0.18	U	ug/L	1	0.18	1.0	3	EPA 8260B	12/26/07 18:15	jkg	
Dibromomethane [74-95-3] *	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	12/26/07 18:15	jkg	
Ethylbenzene [100-41-4] *	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Iodomethane [74-88-4] *	0.23	U	ug/L	1	0.23	2.0	10	EPA 8260B	12/26/07 18:15	jkg	
Methylene chloride [75-09-2] *	0.088	U	ug/L	1	0.088	2.0	1	EPA 8260B	12/26/07 18:15	jkg	
Styrene [100-42-5] *	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Tetrachloroethene [127-18-4] *	0.25	U	ug/L	1	0.25	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Toluene [108-88-3] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
trans-1,2-Dichloroethene [156-60-5] *	0.10	U	ug/L	1	0.10	1.0	5	EPA 8260B	12/26/07 18:15	jkg	
trans-1,3-Dichloropropene [10061-02-6] *	0.18	U	ug/L	1	0.18	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
trans-1,4-Dichloro-2-butene [110-57-6] *	0.60	U	ug/L	1	0.60	1.0	100	EPA 8260B	12/26/07 18:15	jkg	
Trichloroethene [79-01-6] *	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Trichlorofluoromethane [75-69-4] *	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	12/26/07 18:15	jkg	
Vinyl acetate [108-05-4] *	0.19	U	ug/L	1	0.19	2.0	50	EPA 8260B	12/26/07 18:15	jkg	
Vinyl chloride [75-01-4] *	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	12/26/07 18:15	jkg	

Description: Trip Blank
Matrix: Surface Water
Project: Material Recovery, LLC, LF

Lab Sample ID: C715578-10
Sampled: 12/13/07 00:00
Sampled By:

Received: 12/13/07 16:45
Work Order: C715578

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]	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	12/26/07 18:15	jkg	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*41*	*1*	*50.0*	*82 %*	*69-120*	*7L26010*	*EPA 8260B*	*12/26/07 18:15*	*jkg*	
Dibromofluoromethane	*53*	*1*	*50.0*	*107 %*	*61-120*	*7L26010*	*EPA 8260B*	*12/26/07 18:15*	*jkg*	
Toluene-d8	*40*	*1*	*50.0*	*81 %*	*75-99*	*7L26010*	*EPA 8260B*	*12/26/07 18:15*	*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 7L22005 - EPA 5030B_MS

Blank (7L22005-BLK1) Prepared: 12/26/2007 00:00 Analyzed: 12/26/2007 01:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	0.18	U	1.0	ug/L							
Vinyl chloride	0.15	U	1.0	ug/L							
Bromomethane	0.21	U	1.0	ug/L							
Chloroethane	0.40	U	1.0	ug/L							
Trichlorofluoromethane	0.16	U	1.0	ug/L							
1,1-Dichloroethene	0.14	U	1.0	ug/L							
Acetone	0.90	U	5.0	ug/L							
Iodomethane	0.23	U	2.0	ug/L							
Carbon disulfide	0.12	U	5.0	ug/L							
Methylene chloride	0.088	U	2.0	ug/L							
Acrylonitrile	2.0	U	5.0	ug/L							
trans-1,2-Dichloroethene	0.10	U	1.0	ug/L							
1,1-Dichloroethane	0.090	U	1.0	ug/L							
Vinyl acetate	0.19	U	2.0	ug/L							
2-Butanone	0.56	U	5.0	ug/L							
cis-1,2-Dichloroethene	0.14	U	1.0	ug/L							
Bromochloromethane	0.19	U	1.0	ug/L							
Chloroform	0.16	U	1.0	ug/L							
1,1,1-Trichloroethane	0.24	U	1.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
1,2-Dichloroethane	0.36	U	1.0	ug/L							
Benzene	0.12	U	1.0	ug/L							
Trichloroethene	0.23	U	1.0	ug/L							
1,2-Dichloropropane	0.18	U	1.0	ug/L							
Dibromomethane	0.14	U	1.0	ug/L							
Bromodichloromethane	0.19	U	0.40	ug/L							
cis-1,3-Dichloropropene	0.16	U	0.20	ug/L							
4-Methyl-2-pentanone	0.36	U	5.0	ug/L							
Toluene	0.15	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.18	U	0.20	ug/L							
1,1,2-Trichloroethane	0.24	U	1.0	ug/L							
Tetrachloroethene	0.25	U	1.0	ug/L							
2-Hexanone	0.24	U	5.0	ug/L							
Dibromochloromethane	0.18	U	1.0	ug/L							
1,2-Dibromoethane	0.19	U	1.0	ug/L							
Chlorobenzene	0.16	U	1.0	ug/L							
1,1,1,2-Tetrachloroethane	0.16	U	1.0	ug/L							
Ethylbenzene	0.17	U	1.0	ug/L							
Styrene	0.12	U	1.0	ug/L							
Bromoform	0.36	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.27	U	1.0	ug/L							
1,2,3-Trichloropropane	0.32	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.60	U	1.0	ug/L							
1,4-Dichlorobenzene	0.15	U	1.0	ug/L							
1,2-Dichlorobenzene	0.17	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.19	U	1.0	ug/L							
Xylenes (Total)	0.21	U	1.0	ug/L							
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*96*	*61-120*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 7L22005 - EPA 5030B_MS

Blank (7L22005-BLK1) Continued Prepared: 12/26/2007 00:00 Analyzed: 12/26/2007 01:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Toluene-d8	*40*			*ug/L*	*50.0*		*81*	*75-99*			
Surrogate: 4-Bromofluorobenzene	*43*			*ug/L*	*50.0*		*85*	*69-120*			

LCS (7L22005-BS1) Prepared: 12/26/2007 00:00 Analyzed: 12/26/2007 02:12

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		108	57-141			
Benzene	20		1.0	ug/L	20.0		100	76-116			
Trichloroethene	19		1.0	ug/L	20.0		96	81-118			
Toluene	18		1.0	ug/L	20.0		92	77-120			
Chlorobenzene	18		1.0	ug/L	20.0		92	75-115			

Matrix Spike (7L22005-MS1) Prepared: 12/26/2007 00:00 Analyzed: 12/26/2007 02:41
Source: C715578-02

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	0.14 U	120	57-141			
Benzene	22		1.0	ug/L	20.0	0.12 U	109	76-116			
Trichloroethene	21		1.0	ug/L	20.0	0.23 U	107	81-118			
Toluene	21		1.0	ug/L	20.0	0.15 U	104	77-120			
Chlorobenzene	20		1.0	ug/L	20.0	0.16 U	102	75-115			

Matrix Spike Dup (7L22005-MSD1) Prepared: 12/26/2007 00:00 Analyzed: 12/26/2007 03:10
Source: C715578-02

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	0.14 U	120	57-141	0.2	12	
Benzene	22		1.0	ug/L	20.0	0.12 U	111	76-116	2	14	
Trichloroethene	22		1.0	ug/L	20.0	0.23 U	108	81-118	1	11	
Toluene	21		1.0	ug/L	20.0	0.15 U	107	77-120	2	17	
Chlorobenzene	22		1.0	ug/L	20.0	0.16 U	108	75-115	6	12	

Batch 7L26010 - EPA 5030B_MS

Blank (7L26010-BLK1) Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 13:53

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	0.18	U	1.0	ug/L							
Vinyl chloride	0.15	U	1.0	ug/L							
Bromomethane	0.21	U	1.0	ug/L							
Chloroethane	0.40	U	1.0	ug/L							
Trichlorofluoromethane	0.16	U	1.0	ug/L							
1,1-Dichloroethene	0.14	U	1.0	ug/L							
Acetone	0.90	U	5.0	ug/L							
Iodomethane	0.23	U	2.0	ug/L							
Carbon disulfide	0.12	U	5.0	ug/L							
Methylene chloride	0.088	U	2.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 7L26010 - EPA 5030B_MS

Blank (7L26010-BLK1) Continued Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 13:53

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acrylonitrile	2.0	U	5.0	ug/L							
trans-1,2-Dichloroethene	0.10	U	1.0	ug/L							
1,1-Dichloroethane	0.090	U	1.0	ug/L							
Vinyl acetate	0.19	U	2.0	ug/L							
2-Butanone	0.56	U	5.0	ug/L							
cis-1,2-Dichloroethene	0.14	U	1.0	ug/L							
Bromochloromethane	0.19	U	1.0	ug/L							
Chloroform	0.16	U	1.0	ug/L							
1,1,1-Trichloroethane	0.24	U	1.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
1,2-Dichloroethane	0.36	U	1.0	ug/L							
Benzene	0.12	U	1.0	ug/L							
Trichloroethene	0.23	U	1.0	ug/L							
1,2-Dichloropropane	0.18	U	1.0	ug/L							
Dibromomethane	0.14	U	1.0	ug/L							
Bromodichloromethane	0.19	U	0.40	ug/L							
cis-1,3-Dichloropropene	0.16	U	0.20	ug/L							
4-Methyl-2-pentanone	0.36	U	5.0	ug/L							
Toluene	0.15	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.18	U	0.20	ug/L							
1,1,2-Trichloroethane	0.24	U	1.0	ug/L							
Tetrachloroethene	0.25	U	1.0	ug/L							
2-Hexanone	0.24	U	5.0	ug/L							
Dibromochloromethane	0.18	U	1.0	ug/L							
1,2-Dibromoethane	0.19	U	1.0	ug/L							
Chlorobenzene	0.16	U	1.0	ug/L							
1,1,1,2-Tetrachloroethane	0.16	U	1.0	ug/L							
Ethylbenzene	0.17	U	1.0	ug/L							
Styrene	0.12	U	1.0	ug/L							
Bromoform	0.36	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.27	U	1.0	ug/L							
1,2,3-Trichloropropane	0.32	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.60	U	1.0	ug/L							
1,4-Dichlorobenzene	0.15	U	1.0	ug/L							
1,2-Dichlorobenzene	0.17	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.19	U	1.0	ug/L							
Xylenes (Total)	0.21	U	1.0	ug/L							
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*98*	*61-120*			
Surrogate: Toluene-d8	*42*			*ug/L*	*50.0*		*84*	*75-99*			
Surrogate: 4-Bromofluorobenzene	*41*			*ug/L*	*50.0*		*83*	*69-120*			

LCS (7L26010-BS1) Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 14:22

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		110	57-141			
Benzene	20		1.0	ug/L	20.0		102	76-116			
Trichloroethene	19		1.0	ug/L	20.0		96	81-118			
Toluene	19		1.0	ug/L	20.0		94	77-120			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 7L26010 - EPA 5030B_MS

LCS (7L26010-BS1) Continued Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 14:22

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chlorobenzene	19		1.0	ug/L	20.0		93	75-115			

Matrix Spike (7L26010-MS1) Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 14:51
Source: C716151-05

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	0.14 U	123	57-141			
Benzene	23		1.0	ug/L	20.0	0.12 U	115	76-116			
Trichloroethene	21		1.0	ug/L	20.0	0.23 U	107	81-118			
Toluene	21		1.0	ug/L	20.0	0.15 U	106	77-120			
Chlorobenzene	20		1.0	ug/L	20.0	0.16 U	102	75-115			

Matrix Spike Dup (7L26010-MSD1) Prepared: 12/26/2007 09:02 Analyzed: 12/26/2007 15:20
Source: C716151-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0	0.14 U	105	57-141	15	12	QM-11
Benzene	20		1.0	ug/L	20.0	0.12 U	99	76-116	15	14	QM-11
Trichloroethene	19		1.0	ug/L	20.0	0.23 U	93	81-118	14	11	QM-11
Toluene	19		1.0	ug/L	20.0	0.15 U	95	77-120	10	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.16 U	94	75-115	8	12	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 7L14002 - EPA 3005A

Blank (7L14002-BLK1) Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:22

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.0	U	10.0	ug/L							
Barium	0.20	U	10.0	ug/L							
Beryllium	0.70	U	1.00	ug/L							
Cadmium	0.50	U	1.00	ug/L							
Chromium	2.0	U	10.0	ug/L							
Cobalt	2.0	U	10.0	ug/L							
Copper	0.60	U	10.0	ug/L							
Iron	20	U	50	ug/L							
Lead	2.0	U	10.0	ug/L							
Manganese	1.4	U	10.0	ug/L							
Nickel	2.0	U	10.0	ug/L							
Selenium	2.0	U	10.0	ug/L							
Silver	2.0	U	10.0	ug/L							
Vanadium	1.0	U	10.0	ug/L							
Zinc	1.0	U	10.0	ug/L							

LCS (7L14002-BS1) Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:29

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

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 7L14002 - EPA 3005A

LCS (7L14002-BS1) Continued Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	558		10.0	ug/L	500		112	82-117			
Barium	548		10.0	ug/L	500		110	72-125			
Beryllium	278		1.00	ug/L	250		111	75-121			
Cadmium	279		1.00	ug/L	250		112	72-120			
Chromium	542		10.0	ug/L	500		108	78-119			
Cobalt	539		10.0	ug/L	500		108	76-117			
Copper	272		10.0	ug/L	250		109	80-117			
Iron	5440		50	ug/L	5000		109	84-133			
Lead	550		10.0	ug/L	500		110	72-121			
Manganese	268		10.0	ug/L	250		107	76-123			
Nickel	549		10.0	ug/L	500		110	78-116			
Selenium	584		10.0	ug/L	500		117	82-127			
Silver	48.9		10.0	ug/L	50.0		98	80-128			
Vanadium	267		10.0	ug/L	250		107	78-117			
Zinc	548		10.0	ug/L	500		110	80-120			

Matrix Spike (7L14002-MS1) Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:47

Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	546		10.0	ug/L	500	2.0 U	109	64-126			
Barium	1210		10.0	ug/L	500	697	102	74-119			
Beryllium	278		1.00	ug/L	250	3.00	110	70-131			
Cadmium	272		1.00	ug/L	250	0.50 U	109	68-121			
Chromium	525		10.0	ug/L	500	2.0 U	105	73-120			
Cobalt	527		10.0	ug/L	500	2.0 U	105	76-120			
Copper	260		10.0	ug/L	250	0.60 U	104	75-123			
Iron	5660		50	ug/L	5000	328	107	48-144			
Lead	530		10.0	ug/L	500	2.0 U	106	68-126			
Manganese	383		10.0	ug/L	250	123	104	55-146			
Nickel	538		10.0	ug/L	500	2.0 U	108	64-126			
Selenium	568		10.0	ug/L	500	2.0 U	114	65-129			
Silver	46.9		10.0	ug/L	50.0	2.0 U	94	69-121			
Vanadium	258		10.0	ug/L	250	1.0 U	103	71-130			
Zinc	540		10.0	ug/L	500	3.3	107	63-131			

Matrix Spike Dup (7L14002-MSD1) Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:54

Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	552		10.0	ug/L	500	2.0 U	110	64-126	1	12	
Barium	1220		10.0	ug/L	500	697	105	74-119	1	11	
Beryllium	280		1.00	ug/L	250	3.00	111	70-131	0.9	21	
Cadmium	274		1.00	ug/L	250	0.50 U	110	68-121	0.7	12	
Chromium	530		10.0	ug/L	500	2.0 U	106	73-120	1	10	
Cobalt	534		10.0	ug/L	500	2.0 U	107	76-120	1	17	
Copper	265		10.0	ug/L	250	0.60 U	106	75-123	2	16	
Iron	5740		50	ug/L	5000	328	108	48-144	1	23	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 7L14002 - EPA 3005A

Matrix Spike Dup (7L14002-MSD1) Continued Prepared: 12/14/2007 07:01 Analyzed: 12/17/2007 10:54

Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	539		10.0	ug/L	500	2.0 U	108	68-126	2	19	
Manganese	389		10.0	ug/L	250	123	107	55-146	2	19	
Nickel	542		10.0	ug/L	500	2.0 U	108	64-126	0.7	12	
Selenium	576		10.0	ug/L	500	2.0 U	115	65-129	1	10	
Silver	47.9		10.0	ug/L	50.0	2.0 U	96	69-121	2	12	
Vanadium	262		10.0	ug/L	250	1.0 U	105	71-130	1	16	
Zinc	542		10.0	ug/L	500	3.3	108	63-131	0.4	24	

Batch 7L14003 - EPA 3005A

Blank (7L14003-BLK1) Prepared: 12/14/2007 07:07 Analyzed: 12/20/2007 11:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.68	U	2.00	ug/L							
Thallium	0.036	U	1.00	ug/L							

LCS (7L14003-BS1) Prepared: 12/14/2007 07:07 Analyzed: 12/20/2007 12:01

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		98	85-115			
Thallium	24.7		1.00	ug/L	25.0		99	85-115			

Matrix Spike (7L14003-MS1) Prepared: 12/14/2007 07:07 Analyzed: 12/20/2007 12:07

Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.0		2.00	ug/L	25.0	0.68 U	96	85-115			
Thallium	23.6		1.00	ug/L	25.0	0.141	94	85-115			

Matrix Spike Dup (7L14003-MSD1) Prepared: 12/14/2007 07:07 Analyzed: 12/20/2007 12:10

Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.3		2.00	ug/L	25.0	0.68 U	93	85-115	3	20	
Thallium	23.2		1.00	ug/L	25.0	0.141	92	85-115	2	20	

Batch 7L26001 - EPA 7470A

Blank (7L26001-BLK1) Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.11	U	0.20	ug/L							

LCS (7L26001-BS1) Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:30

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

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 7L26001 - EPA 7470A

LCS (7L26001-BS1) Continued Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.11		0.20	ug/L	5.00		102	87-123			

Matrix Spike (7L26001-MS1) Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:36
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	1.85		0.20	ug/L	5.00	0.11 U	37	63-132			QM-07

Matrix Spike Dup (7L26001-MSD1) Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:40
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	1.93		0.20	ug/L	5.00	0.11 U	39	63-132	4	10	QM-07

Post Spike (7L26001-PS1) Prepared: 12/26/2007 06:14 Analyzed: 12/26/2007 11:42
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	1.88		0.20	ug/L	5.00	0.11 U	38	0-200			QM-08

Classical Chemistry Parameters - Quality Control

Batch 7L14008 - NO PREP

Blank (7L14008-BLK1) Prepared: 12/14/2007 12:00 Analyzed: 12/17/2007 17:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	10	U	10	mg/L							

LCS (7L14008-BS1) Prepared: 12/14/2007 12:00 Analyzed: 12/17/2007 17:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	300		10	mg/L	300		99	90-110			

Duplicate (7L14008-DUP1) Prepared: 12/14/2007 12:00 Analyzed: 12/17/2007 17:00
Source: C715578-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	72		10	mg/L		70			3	10	

Batch 7L15001 - NO PREP

Blank (7L15001-BLK1) Prepared: 12/15/2007 09:16 Analyzed: 12/15/2007 11:28

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	4.7	U	15	mg/L							

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 7L15001 - NO PREP

LCS (7L15001-BS1) Prepared: 12/15/2007 09:16 Analyzed: 12/15/2007 11:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	100		15	mg/L	100		100	80-120			

Matrix Spike (7L15001-MS1) Prepared: 12/15/2007 09:16 Analyzed: 12/15/2007 11:31
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	100		15	mg/L	100	5.4	99	80-120			

Matrix Spike Dup (7L15001-MSD1) Prepared: 12/15/2007 09:16 Analyzed: 12/15/2007 11:32
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	100		15	mg/L	100	5.4	98	80-120	0.08	25	

Batch 7L15003 - NO PREP

Blank (7L15003-BLK1) Prepared: 12/15/2007 09:25 Analyzed: 12/15/2007 12:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	0.48	U	5.0	mg/L							

LCS (7L15003-BS1) Prepared: 12/15/2007 09:25 Analyzed: 12/15/2007 12:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	99		5.0	mg/L	100		99	80-120			

Matrix Spike (7L15003-MS1) Prepared: 12/15/2007 09:25 Analyzed: 12/15/2007 12:45
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	120		5.0	mg/L	100	21	97	80-120			

Matrix Spike Dup (7L15003-MSD1) Prepared: 12/15/2007 09:25 Analyzed: 12/15/2007 12:46
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	120		5.0	mg/L	100	21	95	80-120	2	25	

Batch 7L17010 - NO PREP

Blank (7L17010-BLK1) Prepared: 12/17/2007 15:50 Analyzed: 12/18/2007 13:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	10	U	10	mg/L							

LCS (7L17010-BS1) Prepared: 12/17/2007 15:50 Analyzed: 12/18/2007 13:40

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 7L17010 - NO PREP

LCS (7L17010-BS1) Continued Prepared: 12/17/2007 15:50 Analyzed: 12/18/2007 13:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	320		10	mg/L	300		106	90-110			

Duplicate (7L17010-DUP1) Prepared: 12/17/2007 15:50 Analyzed: 12/18/2007 13:40
Source: C715578-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	360		10	mg/L		360			0.6	10	

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 7L17024 - NO PREP

Blank (7L17024-BLK1) Prepared: 12/17/2007 14:00 Analyzed: 12/17/2007 14:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate	0.03	U	2.0	mg/L							

LCS (7L17024-BS1) Prepared: 12/17/2007 14:00 Analyzed: 12/17/2007 14:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate	260		2.0	mg/L	250		104	90-115			

Matrix Spike (7L17024-MS1) Prepared: 12/17/2007 14:00 Analyzed: 12/17/2007 15:31
Source: A706823-12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate	260		2.0	mg/L	255		103	90-115			

Matrix Spike Dup (7L17024-MSD1) Prepared: 12/17/2007 14:00 Analyzed: 12/17/2007 15:47
Source: A706823-12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate	250		2.0	mg/L	255		99	90-115	4	10	

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.
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.
QM-08	Post-digestion spike did not meet method requirements due to confirmed matrix effects (dilution test).
QM-11	Precision between duplicate matrix spikes of the same sample was outside acceptance limits.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Client Name: Golder Associates, Inc. (GO007)	Project Number: 0739602407.200
Address: The Wingate Building 4900 Koger Blvd., Suite 140	Project Name/Desc: Material Recovery, LLC, LF
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: (336) 852-4903 / Fax: (336) 852-4904	Reporting Contact: Rachel Kirkman
Sampler(s) Name, Affiliation (Print): K. Higgs / B. Draper	Billing Contact: Accounts Payable
Sampler(s) Signature: [signature]	Facility # (if required):

Requested Analyses: 8260B Appendix 1; Ag/As,Ba,Be,Cd,Co,Cr,Cu,Fe,Hg,Mn,Ni,Pb,Sb,Se,Tl,V,Zn; Ag/As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn; Alkalinity 3-1-2 Chloride SM4500 Cl/E Sulfate 375.4 TDS 163.1

Requested Turnaround Times

Note: Rush requests subject to acceptance by the facility

✓ Standard

__ Expedited

Due __/__/__

Lab Workorder: C715578

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,Fe,Hg,Mn,Ni,Pb,Sb,Se,Tl,V,Zn	Ag/As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Alkalinity 3-1-2 Chloride SM4500 Cl/E Sulfate 375.4 TDS 163.1	Sample Comments
	9231-MW1	12-13-07	10:38	G	Water	6	X	X		X	NC App I, Hg, Mn, Fe, Chloride, Sulfate, Alkalinity + TDS
	9231-MW2 (MS/MSD)	12-13-07	11:41	G	Water	9	X	X		X	
	9231-MW3	12-13-07	12:32	G	Water	6	X	X		X	
	9231-MW4	12-13-07	13:42	G	Water	6	X	X		X	
	9231-MW5	12-13-07	15:14	G	Water	6	X	X		X	
	9231-SW1	12-13-07	15:36	G	Water	4	X		X		NC App I
	9231-SW2	12-13-07	14:00	G	Water	4	X		X		
	9231-SW3	12-13-07	12:45	G	Water	4	X		X		
	Field Blank	12-13-07	15:50	G	Water	4	X	X			NC App I, Hg, Mn, Fe
	Trip Blank	—	—	—	Water	2	X				NC App IVOCs

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
DSW	11/12/07	[signature]	12-13-07/16:30		
				John Louth	12/13/07 1645

Comments:
1. Please provide a "Level 2" data report
2. Unit rates per "Basic Ordering Agreement for Laboratory Services" dated April 9, 2004 + 2007, ENCO Price List
3. Estimated fee = $1999.0
4. KH

Cooler #'s & Temps on Receipt: C-328

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

LOA per Kyle Higgs: [signature] Approved by: [signature]

www.encolabs.com

WORK ORDER

C715578

ENCO Cary

Printed: 12/27/2007 2:08:41PM

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**Material Recovery, LLC, LF**	**Project Number:**	**0739602407.100**
PO #:			

Report To:

Golder Associates, Inc. (GO007)
Rachel Kirkman
The Wingate Building 4900 Koger Blvd., Suite 140
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:

Golder Associates, Inc. (GO007)
Accounts Payable
The Wingate Building 4900 Koger Blvd., Suite 140
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	John W. Lowther	Date Received:	13-Dec-07 16:45
Logged In By:	Robin C Bridges	Date Logged In:	13-Dec-07 17:50

Work Order Comments:

C-328 received at 8.0°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

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

1015 Passport Way
Cary, NC 27513
(919) 677-1669 Fax (919) 677-9846

Client Name: Golder Associates, Inc. (GO007)	Project Number: 0739602407.700
Address: The Wingate Building 4900 Koger Blvd., Suite 140	Project Name/Desc: Material Recovery, LLC, LF
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: (336) 852-4903 Fax: (336) 852-4904	Reporting Contact: Rachel Kirkman
Sampler(s) Name, Affiliation (Print): K. Higgs / B. Draper	Billing Contact: Accounts Payable
Sampler(s) Signature: K. Higgs	Facility # (if required):

Requested Analyses

- 8260B Appendix 1
- Ag,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Hg,Mn,Ni,Pb,Sb,Se,Tl,V,Zn
- Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn
- Alkalinity 310.2,Chloride SM4500-Cl/E,Sulfate 375.4,TDS 160.1

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C715578

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,Fe,Hg,Mn,Ni,Pb,Sb,Se,Tl,V,Zn	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Alkalinity 310.2,Chloride SM4500-Cl/E,Sulfate 375.4,TDS 160.1	Sample Comments
	9231-MW1	12-13-07	10:38	G	Water	6	X	X		X	NC App I, Hg, Mn, Fe, Chloride, Sulfate, Alkalinity + TDS
	9231-MW2 (MS/MSD)	12-13-07	11:41	G	Water	9	X	X		X	
	9231-MW3	12-13-07	12:32	G	Water	6	X	X		X	
	9231-MW4	12-13-07	13:42	G	Water	6	X	X		X	
	9231-MW5	12-13-07	15:14	G	Water	6	X	X		X	
	9231-SW1	12-13-07	15:36	G	Water	4	X		X		NC App I
	9231-SW2	12-13-07	14:00	G	Water	4	X		X		
	9231-SW3	12-13-07	12:45	G	Water	4	X		X		
	Field Blank	12-13-07	15:50	G	Water	4	X	X			NC App I, Hg, Mn, Fe
	Trip Blank	—	—	—	Water	2	X				NC App IVOCs

<-- Total # of Containers

Sample Kit Prepared By: DSW	Date/Time: 11/12/07	Relinquished By: K. Higgs	Date/Time: 12-13-07/1630	Received By:	Date/Time:
Comments: ① Please provide a "Level 2" data report. ② Unit rates per "Basic Ordering Agreement for Laboratory Services" dated April 9, 2007 ENCO Price List ③ Estimated fee = $1999.0 ④ KH		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Relinquished By:	Date/Time:	Received By: JOHN LOUTH	Date/Time: 12/13/07 1645
		Cooler #'s & Temps on Receipt: C-328		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

LOA per Kyle Higgs: K. Higgs Approved by:

WORK ORDER

Printed: 12/27/2007 2:08:41PM

C715578

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**Material Recovery, LLC, LF**	**Project Number:**	**0739602407.100**
PO #:			

Report To:

Golder Associates, Inc. (GO007)
Rachel Kirkman
The Wingate Building 4900 Koger Blvd., Suite 140
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Phone: (336) 852-4903
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Invoice To:

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The Wingate Building 4900 Koger Blvd., Suite 140
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	John W. Lowther	Date Received:	13-Dec-07 16:45
Logged In By:	Robin C Bridges	Date Logged In:	13-Dec-07 17:50

Work Order Comments:

C-328 received at 8.0°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

GOLDER ASSOCIATES NC, INC.
QUALITY ASSURANCE & QUALITY CONTROL
LABORATORY DATA REVIEW

Project Name: WCA – Wake (Material Recovery, LLC)

Project Reference Number: 073-9602407.100

Sampling Event Date: December 13, 2007

Review Date: December 28, 2007 *Initials:* RS

Review Date: January 4, 2008 *Initials:* JD

Report #: C715578

Person(s) performing the review are to initial each item on this form as acknowledgement of data acceptance, or as acknowledgement of a review issue. In the case of the latter, a brief explanation should follow the applicable item.

Golder Associates Inc. has reviewed the laboratory certificates of analysis, chain-of-custody form, and laboratory provided sample group quality assurance and quality control data for the above referenced sample group to identify potential bias or inaccuracy, in general accordance with the following United States Environmental Protection Agency documents:

- Region III Modifications to Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration, September 1994;
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, April 1993; and
- Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, July 1998.

COMPLIANCE ANALYTE LIST(S) (check all that apply)

___ NC Closed Facility/C & D List

X NC Appendix I

___ NC Appendix I + Detects

___ NC Appendix II

___ NC Subtitle D Leachate List

Other: _____

1.0 CHAIN OF CUSTODY (COC) REVIEW

RS JD COC was properly signed by all parties.

RS JD Correct project name and number are on the form.

- ***Correct project phase is 100.***

RS JD Sample receipt condition at laboratory was acceptable.

RS JD Each sample and blank submitted for analysis appears in the report.

Notes: _____

2.0 SAMPLE HOLDING TIMES

RS JD Holding times for extraction and/or analysis were met for each analytical Method (see below for reference).

Notes: _____

Review Criteria		
Method	**Analytes**	**Holding Time**
SW-846 Method 8260 and 8011	VOCs	14 days
SW-846 Methods 8270, 8080, 8081, 8082, and 8151	SVOCs, PCBs, pesticides and herbicides	7 days for extraction, 40 days from extraction for analysis
SW-846 Methods 6000 and 7000 Series	Metals except mercury	6 months (no temperature requirements)
SW-846 Method 7470	Mercury	28 days
SW-846 Method 376.1	Sulfide	7 days
SW-846 Method 9010	Cyanide	14 days
EPA Method 300	Nitrate/Sulfate	48 hours/28 days
EPA Method 353.2	Nitrate/Nitrite	28 days/48 hours
EPA Method 405.1	BOD	48 hours
EPA Method 410.4	COD	28 days
EPA Method 365.4	Phosphorous	28 days

3.0 LABORATORY QUALITY CONTROL REVIEW

RS JD Laboratory analyzed at least one internal blank for each method, where applicable.

RS JD Laboratory blank is interference-free.

RS JD Surrogate recoveries are provided for each analytical method, where applicable.

RS JD Surrogate recoveries for each method are within the acceptable limits (i.e., at least 50% of the surrogates were within range).

RS JD MS/MSD/LCS data results are provided for each analytical method.

RS ** MS/MSD/LCS recoveries for each method are within the acceptable limits (i.e., at least 1 of the 3 were within range).

- ***The spike recoveries for Mercury were outside acceptance limits for the MS and MSD 7L26001-MS1 and MSD1). The batch was accepted based on acceptable LCS recovery and is flagged with a QM-07 flag. The Post-Spike (7L26001-MS1, MSD1, PS1) due to confirmed matrix effects (dilution test) and is flagged with a QM-08 flag.***

Notes: The precision between duplicate matrix spikes of the same sample (7L26010-MS1 and MSD1) for 1,1-DCE, benzene and TCE was outside acceptance limits for the RPD and flagged with a QM-11 flag.

4.0 ANALYTE LISTS/METHODS

RS JD The proper number of constituents are present for each analyte list as identified above (including detects where applicable).

RS JD Proper EPA SW-846 analytical methods were used for analysis.

Notes: _____

5.0 DATA REPORTING

RS JD All analytical reporting associated with the event was performed by the contracted lab.

RS JD Trip, field and/or equipment, and laboratory blank results have all been reported. All detects for blanks are listed below by constituent. All laboratory method blanks, if any, have been 'flagged' with a 'B' where detected in other samples as appropriate and a laboratory narrative was provided. If the sample was flagged by the laboratory and is not within 5X of the concentration in the blank (or 10X for commonly detected laboratory contaminants-acetone, methylene chloride and phthalates), list below with explanation if flags should be removed. If flags need to be added for samples, also list below.

Field Blank:

- ***Arsenic @ 2.5 ug/L (J). Add B-flags to MW-1, MW-3, and MW-5***
- ***Barium @ 0.30 ug/L (J).***
- ***Zinc @ 2.6 ug/L (J). Add B-flags to MW-2, MW-4, MW-5, SW-1, SW-2, and SW-3..***

RS JD It is clear from the laboratory report that samples have or have not been diluted during analysis, and if the samples have been diluted, the result is reported as a multiple of the dilution (e.g., a sample diluted 10x resulting in an analytical detection of 1.0 should be reported as 10). Those that have been diluted are listed below with the dilution factor.

RS JD The report provides the reporting limit for each constituent.

RS JD The results were reported at or below their proper reporting limits (e.g., NC Solid Waste Section Approved NCSWSLs). Those that are not reported correctly are listed below (by constituent) with the proper reporting limit listed beside them. State if the reporting limit error is due to dilutions.

RS JD No inorganic and organic constituents were reported above their respective NC 2L Drinking Water Standards in wells, surface water standards in surface points, or field/equipment/trip blanks.

The following constituents were detected in sample MW-1:
- *Iron detected at 2970 µg/L (NC 2L standard is 300 µg/L)*
- *Thallium detected at 0.372 µg/L (J) (NC GWP standard is 0.28 µg/L)*
- *Manganese detected at 121 µg/L (NC 2L standard is 50 µg/L)*
- *Vanadium detected at 4.9 µg/L (J) (NC GWP standard is 3.5 µg/L)*

The following constituents were detected in sample MW-2:
- *Iron detected at 328 µg/L (NC 2L standard is 300 µg/L)*
- *Manganese detected at 123 µg/L (NC 2L standard is 50 µg/L)*

The following constituents were detected in sample MW-3:
- *Barium detected at 5640 µg/L (J) (NC 2L standard is 2000 µg/L)*
- *Beryllium detected at 10.8 µg/L (NC GWP standard is 4 µg/L)*
- *Thallium detected at 0.492 µg/L (J) (NC GWP standard is 0.28 µg/L)*
- *Manganese detected at 356 µg/L (NC 2L standard is 50 µg/L)*

The following constituents were detected in sample MW-4:
- *Iron detected at 321 µg/L (NC 2L standard is 300 µg/L)*
- *Manganese detected at 72.3 µg/L (NC 2L standard is 50 µg/L)*

The following constituents were detected in sample MW-5:
- *Iron detected at 7340 µg/L (NC 2L standard is 300 µg/L)*
- *Manganese detected at 170 µg/L (NC 2L standard is 50 µg/L)*
- *Vanadium detected at 4.0 µg/L (J) (NC GWP standard is 3.5 µg/L)*

RS JD No inorganic and organic constituents were detected in a well or surface water point at concentrations outside of their historical range (more than 5X previous concentrations or first-time detections).

MW-1:

- ***Barium detected at highest historical (417 µg/L).***
- ***Cobalt detected at highest historical (6.3 µg/L) (J).***
- ***Copper detected for first time (13.6 µg/L).***
- ***Iron detected for first time (2970 µg/L).***
- ***Manganese detected at historical high (121 µg/L).***
- ***Nickel detected for first time (3.4 µg/L) (J).***
- ***Vanadium detected for first time (4.9 µg/L) (J).***
- ***Zinc detected at historical high (22.2 µg/L).***

MW-2:

- *Iron detected at historical high (328 µg/L).*
- *Thallium detected at historical high (0.141 µg/L) (J).*
- *Zinc detected for first time (3.3 µg/L).*

MW-3:

- *Beryllium detected at historical high (10.8 µg/L).*
- *Cobalt detected at historical high (6.5 µg/L) (J).*
- *Manganese detected at historical high (356 µg/L).*
- *Nickel detected for first time (8 µg/L) (J).*
- *Thallium detected at historical high (0.492 µg/L).*
- *Zinc detected at historical high (33.4 µg/L).*
- *Trichlorofluoromethane detected at historical high (23 µg/L).*

MW-4:

- *Barium detected at historical high (147 µg/L).*
- *Copper detected for first time (0.8 µg/L) (J).*
- *Iron detected for first time (321 µg/L).*
- *Manganese detected at historical high (72.3 µg/L).*
- *Nickel detected for first time (4 µg/L) (J).*
- *Thallium detected at historical high (0.05 µg/L) (J).*
- *Zinc detected for first time (3.2 µg/L) (J).*

MW-5:

- *Beryllium detected at historical high (1 µg/L).*
- *Copper detected for first time (2.2 µg/L) (J).*
- *Iron detected at historical high (7340 µg/L).*
- *Manganese detected at historical high (170 µg/L).*
- *Nickel detected for first time (2.3 µg/L).*
- *Vanadium detected at historical high (4 µg/L) (J).*
- *Zinc detected for first time (5 µg/L) (J).*

SW-1:

- *Zinc detected for first time (1 µg/L) (J).*

SW-2:

- *Zinc detected for first time (1 µg/L) (J).*

SW-3:

- ***Zinc detected for first time (2.2 µg/L) (J).***
- ***Barium detected at historical high (299 µg/L).***

RS JD Other report issues/Communications with laboratory/etc.:

- ***Sample C715578-03 (MW-3) was originally reported with a 20 µg/L detection of 1,1-Dichloroethene. After review and reanalysis by a senior chemist, this detection was determined to be false, and has thus been removed from this report. (excerpt from updated report dated January 2, 2008).***

APPENDIX III

STATISTICAL EVALUATION WORKSHEETS

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Analyte: Barium

Sample No.	Sample Date	Location	Concentration (ug/L)	Quantitation Limit (ug/L)
1	8/7/02	MW-1	ND	---
2	6/16/03	MW-1	ND	---
3	12/16/03	MW-1	160	---
4	6/16/04	MW-1	ND	---
5	12/16/04	MW-1	ND	---
6	6/14/05	MW-1	ND	---
7	12/27/05	MW-1	ND	---
8	6/21/06	MW-1	ND	---
9	12/13/06	MW-1	217	10.0
10	6/29/07	MW-1	269	10.0
11	12/13/07	MW-1	417	10.0

Number of Data	11
Number of Truncated Data	7
Percentage of Truncated Data	64%

Nonparametric Prediction Interval: **417**

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Analyte: Barium (MW-2 Intrawell)

Sample No.	Sample Date	Location	Concentration (ug/L)		Quantitation Limit (ug/L)
1	8/7/02	MW-2	ND		500
2	6/16/03	MW-2	ND		500
3	12/16/03	MW-2	420		500
4	6/16/04	MW-2	540		500
5	12/16/04	MW-2	570		500
6	6/14/05	MW-2	520		500
7	12/27/05	MW-2	640		500
8	6/21/06	MW-2	708		500
9	12/13/06	MW-2	681		10.0
10	6/29/07	MW-2	628		10.0

Number of Data	10
Number of Truncated Data	2
Percentage of Truncated Data	20%

UPL = **984** ug/L

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Determination of reported background value as an outlier

Analyte: Barium (MW-2 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	12/16/03	MW-2	420	500
2	06/16/04	MW-2	540	500
3	12/16/04	MW-2	570	500
4	06/14/05	MW-2	520	500
5	12/27/05	MW-2	640	500
6	06/21/06	MW-2	708	500
7	12/13/06	MW-2	681	10
8	06/29/07	MW-2	628	10

mean = 588.375
STD = 94.739

Note: All concentrations are micrograms per liter

Using the data listed above, from the statistic Tn:

$$Tn = (Xn - mean) / STD$$

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

For
Xn = 708.000
mean = 588.375
STD = 94.739

Tn = 1.263

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

Number of samples = 8
Tc = 2.032

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

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Probability Plots to determine the distribution of Barium (MW-2 Intrawell)

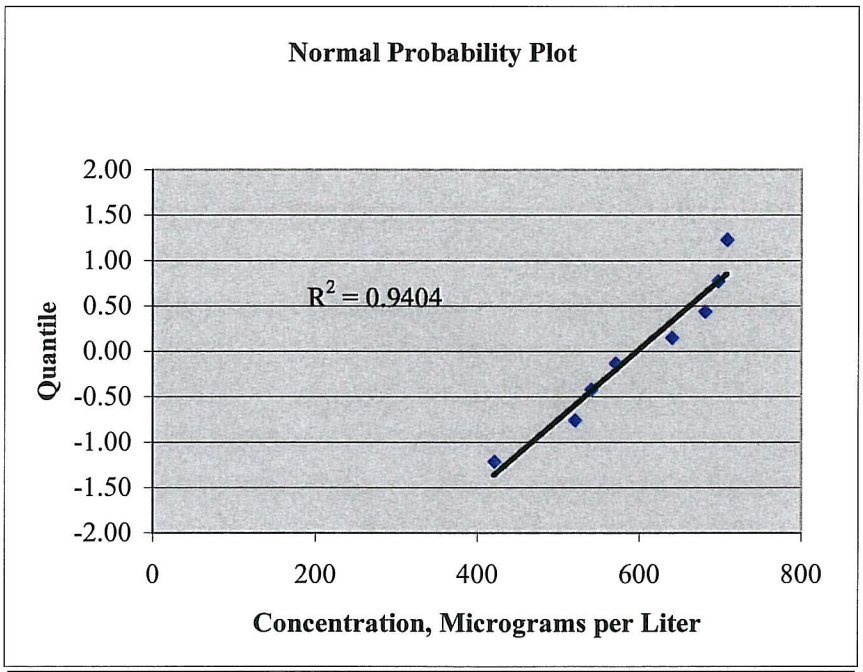
Complete the following table where:

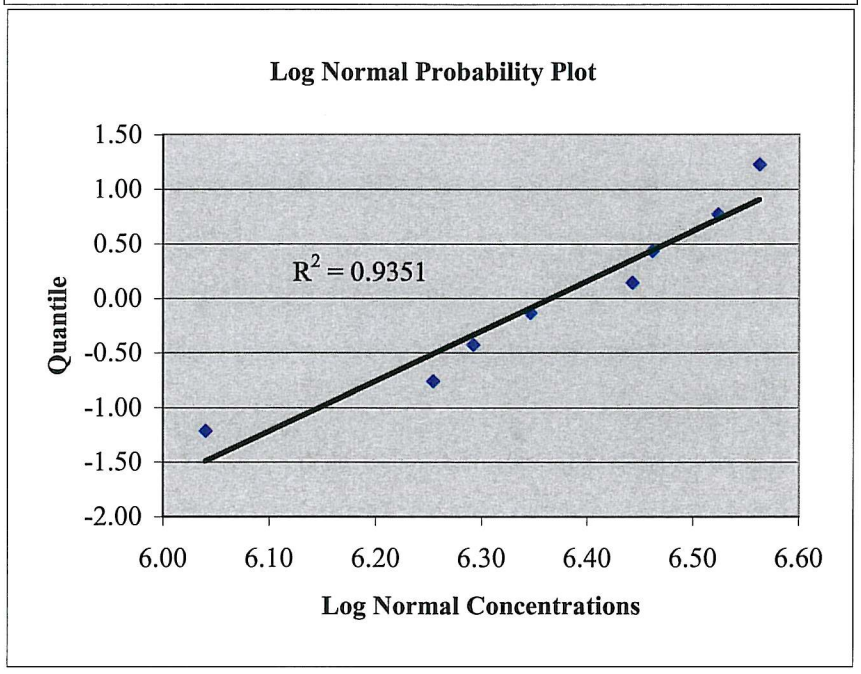
i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
LN[X(i)] = Natural Log Value of sample concentrations arranged from smallest to largest
[i/(n+1)] = Cumulative probability
n = number of samples = 8

X(i)	LN[X(i)]	i	Rank	[Rank/(n+1)]	Quantiles
420	6.04	1	1	0.111	-1.22
520	6.25	2	2	0.222	-0.76
540	6.29	3	3	0.333	-0.43
570	6.35	4	4	0.444	-0.14
640	6.44	5	5	0.556	0.14
681	6.46	6	6	0.667	0.43
697	6.52	7	7	0.778	0.76
708	6.56	8	8	0.889	1.22

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 01/15/08

Probability Plots to determine the distribution of Barium (MW-2 Intrawell)





The distribution of the data appears to be normal

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Shapiro Wilk Test Statistic (W) for normality of total Barium (MW-2 Intrawell)

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	420.00	708.00	288	0.6052	174.30
2	520.00	681.00	161	0.3164	50.94
3	540.00	640.00	100	0.1743	17.43
4	570.00	628.00	58	0.0561	3.25
5	628.00	570.00	-58		
6	640.00	540.00	-100		
7	681.00	520.00	-161		
8	708.00	420.00	-288		

The test statistic W can be found using:

W = SQR[B/(SD x SQRT(n-1))]

where:
B = summation of (X(n-i+1)-X(i))A(n-i+1) = 245.92
SD = standard deviation of the data group = 94.74
n = number of samples = 8

W = 0.963

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

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

W(crit) = 0.818
and the calculated W = 0.963

Therefore the data set is Normal

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Aitchison's Adjustment for Barium (MW-2 Intrawell)

Background Values (positive detects only)

Sample No.	Sample Date	Location	Concentration (ug/l)
1	08/07/02	MW-2	ND
2	06/16/03	MW-2	ND
3	12/16/03	MW-2	420
4	06/16/04	MW-2	540
5	12/16/04	MW-2	570
6	06/14/05	MW-2	520
7	12/27/05	MW-2	640
8	06/21/06	MW-2	708
9	12/13/06	MW-2	681
10	06/29/07	MW-2	628

Mean of detected values = 588.38
Standard Deviation of detected values = 94.74

The adjusted mean can be found using

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

where:	d =	number non- detected values	=	2
	n =	total number samples	=	10
	M =	mean detected values	=	588.38
		M(a)	=	**470.70**

The adjusted standard deviation squared may be found using

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

where:	n =	total number samples	=	10
	d =	number non-detected values	=	2
	S =	std deviation of detected values squared	=	8975.41
	MM =	mean of detected values squared	=	346185.14
		STD(a)	=	68524.90

and the adjusted standard deviation is then

S(a) = SQRT(STD(a)) = 261.77

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Parametric Prediction Interval for Aitchison's adjusted data

Analyte: Barium (MW-2 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	8/7/02	MW-2	ND	500
2	6/16/03	MW-2	ND	500
3	12/16/03	MW-2	420	500
4	6/16/04	MW-2	540	500
5	12/16/04	MW-2	570	500
6	6/14/05	MW-2	520	500
7	12/27/05	MW-2	640	500
8	6/21/06	MW-2	708	500
9	12/13/06	MW-2	681	10.0
10	6/29/07	MW-2	628	10.0

Note: All sample concentrations are micrograms per liter

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

the adjusted mean and standard deviation are

adjusted mean =	470.70
adjusted standard deviation =	261.77

Using the background data, the upper Prediction Limit can be determined using:

Upper Prediction Limit = (Mean Conc) + t(n-1,k,.95) x (Std Dev) x SQRT(1/m+1/n)

where:
Mean Conc = mean concentration background samples
t(n-1k,.95) = Bonferroni t-statistic from table 1, with
n-1 = degrees of freedom (number of samples - 1)
k = number of downgradient samples per event
.95 = confidence interval
Std Dev = standard deviation of background samples

Analyte: Barium (MW-2 Intrawell)

m = number independent samples from each sampling point
n = number of background samples

For:	Mean Conc =	470.700
	Std Dev =	261.773
t(n-1,k,.95)*sqrt(1/m+1/n) =		1.96
	k =	1
	m =	1
	n =	10
	UPL =	**984** ug/L

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/15/08

Parametric Tolerance Interval for Aitchison's adjusted data

Analyte: Barium (MW-2 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	8/7/02	MW-2	ND	500
2	6/16/03	MW-2	ND	500
3	12/16/03	MW-2	420.00	500
4	6/16/04	MW-2	540.00	500
5	12/16/04	MW-2	570.00	500
6	6/14/05	MW-2	520.00	500
7	12/27/05	MW-2	640.00	500
8	6/21/06	MW-2	708.00	500
9	12/13/06	MW-2	681.00	10.0
10	6/29/07	MW-2	628.00	10.0

Note: All sample concentrations are micrograms per liter

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

The adjusted mean and standard deviation are

adjusted mean =	470.70
adjusted standard deviation =	261.77

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

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

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

For: K = 2.911
n = 10

UTL = 1233

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/08

Analyte: Barium (MW-3 Intrawell)

Sample No.	Sample Date	Location	Concentration (ug/L)	Quantitation Limit (ug/L)
1	8/7/02	MW-3	4000	500
2	6/16/03	MW-3	3100	500
3	12/16/03	MW-3	1200	500
4	6/16/04	MW-3	1500	500
5	12/16/04	MW-3	3100	500
6	6/14/05	MW-3	2600	500
7	12/27/05	MW-3	5700	500
8	6/21/06	MW-3	4690	500
9	12/13/06	MW-3	6510	10.0
10	6/29/07	MW-3	3140	10.0

Number of Data	10
Number of Truncated Data	0
Percentage of Truncated Data	0%

UPL = **6891** ug/L

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/08

Determination of reported background value as an outlier

Analyte: Barium (MW-3 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	08/07/02	MW-3	4000	500
2	06/16/03	MW-3	3100	500
3	12/16/03	MW-3	1200	500
4	06/16/04	MW-3	1500	500
5	12/16/04	MW-3	3100	500
6	06/14/05	MW-3	2600	500
7	12/27/05	MW-3	5700	500
8	06/21/06	MW-3	4690	500
9	12/13/06	MW-3	6510	10.0
10	06/01/07	MW-3	3140	10.0

mean = 3554.000
STD = 1702.503

Note: All concentrations are micrograms per liter

Using the data listed above, form the statisitc Tn:

Tn = (Xn - mean) / STD

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

For
Xn = 6510.000
mean = 3554.000
STD = 1702.503

Tn = 1.736

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

Number of samples = 10
Tc = 2.176

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

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/08

Probability Plots to determine the distribution ofBarium (MW-3 Intrawell)

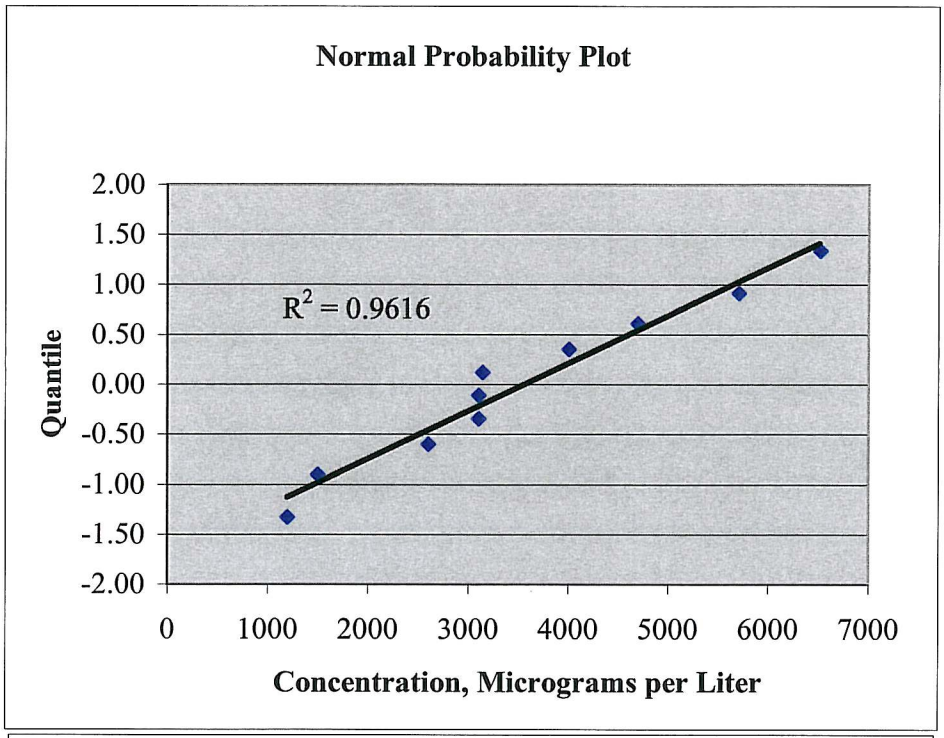
Complete the following table where:

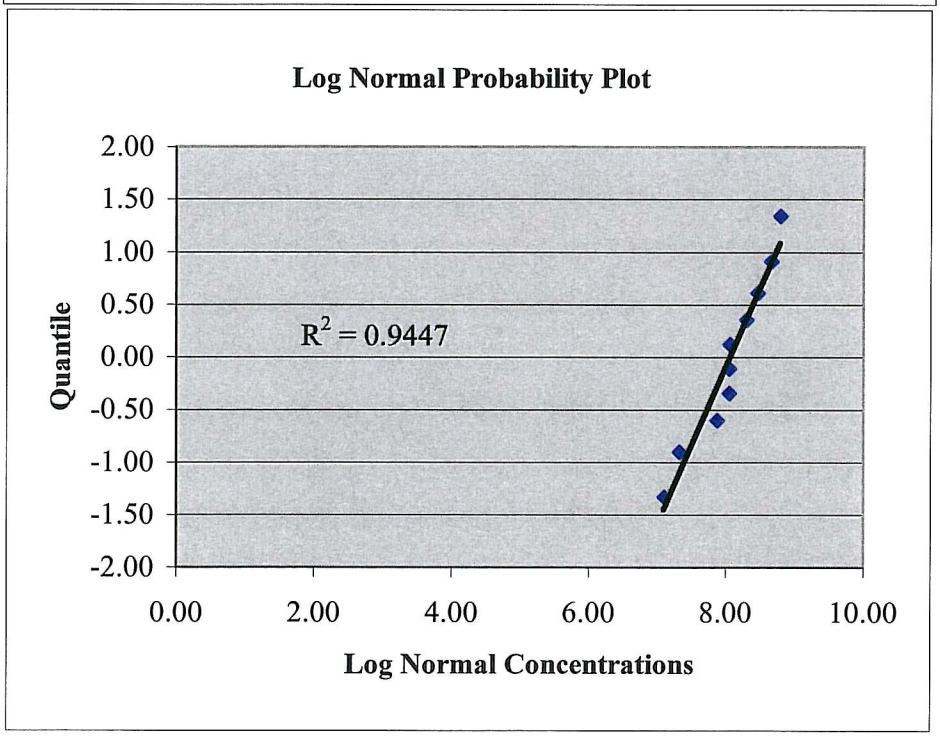
i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
LN[X(i)] = Natural Log Value of sample concentrations arranged from smallest to largest
[i/(n+1)] = Cumulative probability
n = number of samples = 10

X(i)	LN[X(i)]	i	Rank	[Rank/(n+1)]	Quantiles
1200	7.09	1	1	0.091	-1.34
1500	7.31	2	2	0.182	-0.91
2600	7.86	3	3	0.273	-0.60
3100	8.04	4	4	0.364	-0.35
3100	8.04	5	5	0.455	-0.11
3140	8.05	6	6	0.545	0.11
4000	8.29	7	7	0.636	0.35
4690	8.45	8	8	0.727	0.60
5700	8.65	9	9	0.818	0.91
6510	8.78	10	10	0.909	1.34

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 01/16/08

Probability Plots to determine the distribution of Barium (MW-3 Intrawell)





The distribution of the data appears to be normal

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/08

Shapiro Wilk Test Statistic (W) for normality of total Barium (MW-3 Intrawell)

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	1200.00	6510.00	5310.00	0.5739	3047.41
2	1500.00	5700.00	4200.00	0.3291	1382.22
3	2600.00	4690.00	2090.00	0.2141	447.47
4	3100.00	4000.00	900.00	0.1224	110.16
5	3100.00	3140.00	40.00	0.0399	1.60
6	3140.00	3100.00	-40.00		
7	4000.00	3100.00	-900.00		
8	4690.00	2600.00	-2090.00		
9	5700.00	1500.00	-4200.00		
10	6510.00	1200.00	-5310.00		

The test statistic W can be found using:

W = SQR[B/(SD x SQRT(n-1))]

where:
B = summation of (X(n-i+1)-X(i))A(n-i+1) = 4988.85
SD = standard deviation of the data group = 1702.50
n = number of samples = 10

W = 0.954

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

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

W(crit) = 0.842
and the calculated W = 0.954

Therefore the data set is Normal

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/08

Parametric Prediction Interval for normally distributed data

Analyte: Barium (MW-3 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	08/07/02	MW-3	4000	500
2	06/16/03	MW-3	3100	500
3	12/16/03	MW-3	1200	500
4	06/16/04	MW-3	1500	500
5	12/16/04	MW-3	3100	500
6	06/14/05	MW-3	2600	500
7	12/27/05	MW-3	5700	500
8	06/21/06	MW-3	4690	500
9	12/13/06	MW-3	6510	10.0
10	06/29/07	MW-3	3140	10.0

Note: All sample concentrations are micrograms per liter

Using the background data, the upper Prediction Limit can be determined using:

Upper Prediction Limit = (Mean Conc) + t(n-1,k,.95) x (Std Dev) x SQRT(1/m+1/n)

where:
Mean Conc = mean concentration background samples
t(n-1k,.95) = Bonferroni t-statistic with
n-1 = degrees of freedom (number of samples - 1)
k = number of downgradient samples per event
.95 = confidence interval
Std Dev = standard deviation of background samples
m = number independent samples from each sampling point
n = number of background samples

For:
Mean Conc = 3554.000
Std Dev = 1702.503
t(n-1,k,.95)*sqrt(1/m+1/n) = 1.960
k = 1
m = 1
n = 10

UPL = 6891 ug/L

Project Name: Material Recovery, LLC C&D Landfill
Project No: 073-9602407.100
Date: 1/16/2008

Parametric Tolerance Interval for normally distributed data

Analyte: Barium (MW-3 Intrawell)

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	8/7/2002	MW-3	4000	500
2	6/16/2003	MW-3	3100	500
3	12/16/2003	MW-3	1200	500
4	6/16/2004	MW-3	1500	500
5	12/16/2004	MW-3	3100	500
6	6/14/2005	MW-3	2600	500
7	12/27/2005	MW-3	5700	500
8	6/21/2006	MW-3	4690	500
9	12/13/2006	MW-3	6510	10.0
10	6/29/2007	MW-3	3140	10.0

Note: All sample concentrations are micrograms per liter

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

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

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

For:
n = 10
K = 2.911
Mean Conc = 3554.00
STDS = 1702.50

UTL = 8510

APPENDIX IV

GROUNDWATER MONITORING WELL MAINTENANCE RECORDS

GROUNDWATER MONITORING WELL MAINTENANCE RECORD

FACILITY: *WCA - Material Recovery, LLC* **PERMIT NO.:** *92-31*

LOCATION: *MW-1* **DATE:** *December 13, 2007*

INSPECTOR: *B. Draper/Kyle Higgs* **COMPANY:** *Golder Associates NC Inc.*

---

1. Is surface water diverted away from the well head? *YES*
2. Is the concrete pad still intact and free of cracks? *YES*
3. Has surface water runoff undercut the concrete pad? *NO*
4. Is the outer casing still secure and locked? *YES*
5. Is the well identification tag present and is it legible? *YES*

   5a. Does the well identification tag provide the following information:

   - The well identification number? *YES*
   - Drilling contractor and registration number? *YES*
   - Total well depth? *YES*
   - Depth to screen? *YES*
   - A warning that the well is not for water supply and that the ground water may contain hazardous materials? *YES*

6. Is the grout between the inner and outer well casings all the way to the ground surface? *YES*
7. Is the inner casing firmly grouted in place? *YES*
8. Are the inner and outer casings upright and unobstructed? *YES*
9. Is water collecting in the outer casing? Does a weep hole need to be bored in the outer casing to provide drainage? *NO*
10. Is the monitoring well accessible by a four-wheel drive vehicle? *YES*
11. Have brush and weeds been trimmed so that the well is easy to locate and access? *YES*
12. Does the inner well casing have a vented cap? *YES*
13. Is the monitoring well visible and adequately protected from moving equipment? YES

GROUNDWATER MONITORING WELL MAINTENANCE RECORD

FACILITY: *WCA - Material Recovery, LLC* **PERMIT NO.:** *92-31*

LOCATION: *MW-2* **DATE:** *December 13, 2007*

INSPECTOR: *B. Draper/Kyle Higgs* **COMPANY:** *Golder Associates NC Inc.*

---

1. Is surface water diverted away from the well head? *YES*

2. Is the concrete pad still intact and free of cracks? *YES*

3. Has surface water runoff undercut the concrete pad? *NO*

4. Is the outer casing still secure and locked? *YES*

5. Is the well identification tag present and is it legible? *YES*

   5a. Does the well identification tag provide the following information:

   - The well identification number? *YES*
   - Drilling contractor and registration number? *YES*
   - Total well depth? *YES*
   - Depth to screen? *YES*
   - A warning that the well is not for water supply and that the ground water may contain hazardous materials? *YES*

6. Is the grout between the inner and outer well casings all the way to the ground surface? *YES*

7. Is the inner casing firmly grouted in place? *YES*

8. Are the inner and outer casings upright and unobstructed? *YES*

9. Is water collecting in the outer casing? Does a weep hole need to be bored in the outer casing to provide drainage? *NO*

10. Is the monitoring well accessible by a four-wheel drive vehicle? *YES*

11. Have brush and weeds been trimmed so that the well is easy to locate and access? *NO*

12. Does the inner well casing have a vented cap? *YES*

13. Is the monitoring well visible and adequately protected from moving equipment? YES

GROUNDWATER MONITORING WELL MAINTENANCE RECORD

FACILITY: *WCA - Material Recovery, LLC* **PERMIT NO.:** *92-31*

LOCATION: *MW-3* **DATE:** *December 13, 2007*

INSPECTOR: *B. Draper/Kyle Higgs* **COMPANY:** *Golder Associates NC Inc.*

---

1. Is surface water diverted away from the well head? *YES*
2. Is the concrete pad still intact and free of cracks? *YES*
3. Has surface water runoff undercut the concrete pad? *NO*
4. Is the outer casing still secure and locked? *YES*
5. Is the well identification tag present and is it legible? *YES*

   5a. Does the well identification tag provide the following information:

   - The well identification number? *YES*
   - Drilling contractor and registration number? *YES*
   - Total well depth? *YES*
   - Depth to screen? *YES*
   - A warning that the well is not for water supply and that the ground water may contain hazardous materials? *YES*

6. Is the grout between the inner and outer well casings all the way to the ground surface? *YES*
7. Is the inner casing firmly grouted in place? *YES*
8. Are the inner and outer casings upright and unobstructed? *YES*
9. Is water collecting in the outer casing? Does a weep hole need to be bored in the outer casing to provide drainage? *NO*
10. Is the monitoring well accessible by a four-wheel drive vehicle? *YES*
11. Have brush and weeds been trimmed so that the well is easy to locate and access? *YES*
12. Does the inner well casing have a vented cap? *YES*
13. Is the monitoring well visible and adequately protected from moving equipment? YES

GROUNDWATER MONITORING WELL MAINTENANCE RECORD

FACILITY: *WCA - Material Recovery, LLC* **PERMIT NO.:** *92-31*

LOCATION: *MW-4* **DATE:** *December 13, 2007*

INSPECTOR: *B. Draper/Kyle Higgs* **COMPANY:** *Golder Associates NC Inc.*

---

1. Is surface water diverted away from the well head? *YES*

2. Is the concrete pad still intact and free of cracks? *YES*

3. Has surface water runoff undercut the concrete pad? *NO*

4. Is the outer casing still secure and locked? *YES*

5. Is the well identification tag present and is it legible? *YES*

   5a. Does the well identification tag provide the following information:

   - The well identification number? *YES*
   - Drilling contractor and registration number? *YES*
   - Total well depth? *YES*
   - Depth to screen? *YES*
   - A warning that the well is not for water supply and that the ground water may contain hazardous materials? *YES*

6. Is the grout between the inner and outer well casings all the way to the ground surface? *YES*

7. Is the inner casing firmly grouted in place? *YES*

8. Are the inner and outer casings upright and unobstructed? *YES*

9. Is water collecting in the outer casing? Does a weep hole need to be bored in the outer casing to provide drainage? *NO*

10. Is the monitoring well accessible by a four-wheel drive vehicle? *YES*

11. Have brush and weeds been trimmed so that the well is easy to locate and access? *YES*

12. Does the inner well casing have a vented cap? *YES*

13. Is the monitoring well visible and adequately protected from moving equipment? YES

GROUNDWATER MONITORING WELL MAINTENANCE RECORD

FACILITY: *WCA - Material Recovery, LLC* **PERMIT NO.:** *92-31*

LOCATION: *MW-5* **DATE:** *December 13, 2007*

INSPECTOR: *B. Draper/Kyle Higgs* **COMPANY:** *Golder Associates NC Inc.*

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1. Is surface water diverted away from the well head? *YES*

2. Is the concrete pad still intact and free of cracks? *YES*

3. Has surface water runoff undercut the concrete pad? *NO*

4. Is the outer casing still secure and locked? *YES*

5. Is the well identification tag present and is it legible? *YES*

   5a. Does the well identification tag provide the following information:

   - The well identification number? *YES*
   - Drilling contractor and registration number? *YES*
   - Total well depth? *YES*
   - Depth to screen? *YES*
   - A warning that the well is not for water supply and that the ground water may contain hazardous materials? *YES*

6. Is the grout between the inner and outer well casings all the way to the ground surface? *YES*

7. Is the inner casing firmly grouted in place? *YES*

8. Are the inner and outer casings upright and unobstructed? *YES*

9. Is water collecting in the outer casing? Does a weep hole need to be bored in the outer casing to provide drainage? *NO*

10. Is the monitoring well accessible by a four-wheel drive vehicle? *YES*

11. Have brush and weeds been trimmed so that the well is easy to locate and access? *YES*

12. Does the inner well casing have a vented cap? *YES*

13. Is the monitoring well visible and adequately protected from moving equipment? YES