P0967

[redacted] ☐ Paper Report ☑ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #: RC02398

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

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

Consultant - Camp Dresser & McKee

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

Name: Mathew F. Colone Phone: 919-787-5620

E-mail: colonemf@cdm.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Henderson County Stoney Mountain Road C&D Landfill	802 Stoney Mountain Road Hendersonville, NC 28791	4501	.0500	March 21, 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 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.

Mathew F. Colone	Consultant	(919) 787-5620
Facility Representative Name (Print)	Title	(Area Code) Telephone Number
Signature	5/1/2007 Date	Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1851 GEOLOGIST MATHEW F. COLONE

5/1/2007

Revised 01/2007

CDM
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
tel: 919 787-5620
fax: 919 781-5730

May 1, 2007

Mr. Ethan Brown
Solid Waste Section
Division of Waste Management
401 Oberlin Road
Suite 150
Raleigh, North Carolina 27605-1350

Subject: March 2007 Semi-Annual Monitoring Sampling Report
Henderson County Stoney Mountain Road C&D Landfill
Facility Permit # - 4501

Dear Mr. Brown:

CDM, on behalf of Henderson County, is submitting one copy of the March 2007 semi-annual sampling report for the recent event completed at the Stoney Mountain Road C&D Landfill. This letter report presents the results of the March 2007 semi-annual sampling event and constitutes the first semi-annual sampling for 2007. Additionally, this is the first sampling event that incorporates the new guidelines established by the SWS for reporting analytical data.

Field Activities
Groundwater samples from the Stoney Mountain Road C&D Landfill were collected on March 21, 2007. Groundwater samples were collected by use of disposable, laboratory decontaminated, Teflon™ bailers. The approved groundwater-monitoring network consists of the background well (MW-10) and 3 down-gradient compliance wells (MW-11, MW-12, and MW–13). Monitoring well locations are shown on Figure 1.

Groundwater elevations were measured at each well prior to sampling, and are presented in Table 1. These groundwater elevations were used to construct potentiometric contours for this sampling event. The potentiometric contours are presented on Figure 1. After depth to groundwater was determined, three well volumes of water were removed from each well prior to sampling to ensure fresh formation water within the well water column. Each well volume was measured in the field for pH, conductivity, and temperature. The field parameters at the time of sampling and groundwater elevations are presented in Table 1.

CDM

Sampling Results
SGS Environmental Services Inc. in Wilmington, North Carolina analyzed the groundwater samples for the North Carolina Appendix I Volatile Organic Compounds (VOC's) and metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).

According to the new guidelines established by the SWS, analytical data must be reported to the laboratory specific method detection limits and must be quantifiable at or below the Solid Waste Section Limits (SWSL). All monitoring wells had detections of analytes above the method detection limit (MDL) but below the SWSL, these detections were qualified as estimated or "J" values. Most of the analytes detected above the MDL but below the SWSL had not been previously detected. CDM will monitor future analytical data to determine if any trends appear.

All monitoring wells (MW-10, -11, -12, and -13) had estimated metals detections of barium, cadmium, chromium, and zinc. In addition, MW-10, -11, and -12 had estimated metals detections of lead. MW-12 had an estimated detection of mercury and MW-13 had an estimated detection of selenium. The estimated detections of cadmium in MW-12 and MW-13 exceeded the North Carolina 2L Standard (NC2L). A summary of detected metals is provided on Table 2a.

All Appendix I VOC constituents in MW-11 were below detection limits. All Appendix I VOC constituents in MW-10 and MW-13 were below detection limits, with the exception of methylene chloride, which was detected above the MDL but below the SWSL in both wells. Monitoring well MW-12 had estimated detections of chloroethane, 1,4-dichlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene , 1,1,1-trichloroethane, and total xylenes. The estimated detection of tetrachloroethene exceeded the NC2L. In addition, methylene chloride and trichlorofluoromethane were detected above the SWSL. Trichlorofluoromethane had been previously detected in MW-12 and MW-13, all other VOC's had never been detected in monitoring wells for the C&D area prior to the detection in MW-12 and MW-13 but had been historically detected in monitoring wells at the adjacent closed landfill. A summary of detected VOC's are provided in Table 2b.

All VOC constituents were below detection limits in the trip blank, with the exception of methylene chloride. Methylene chloride was detected above the MDL but below the SWSL. Complete laboratory results for this event are also provided in electronic data deliverable format.

CDM

If you have any questions or require further explanation, do not hesitate to call me at 787-5620.

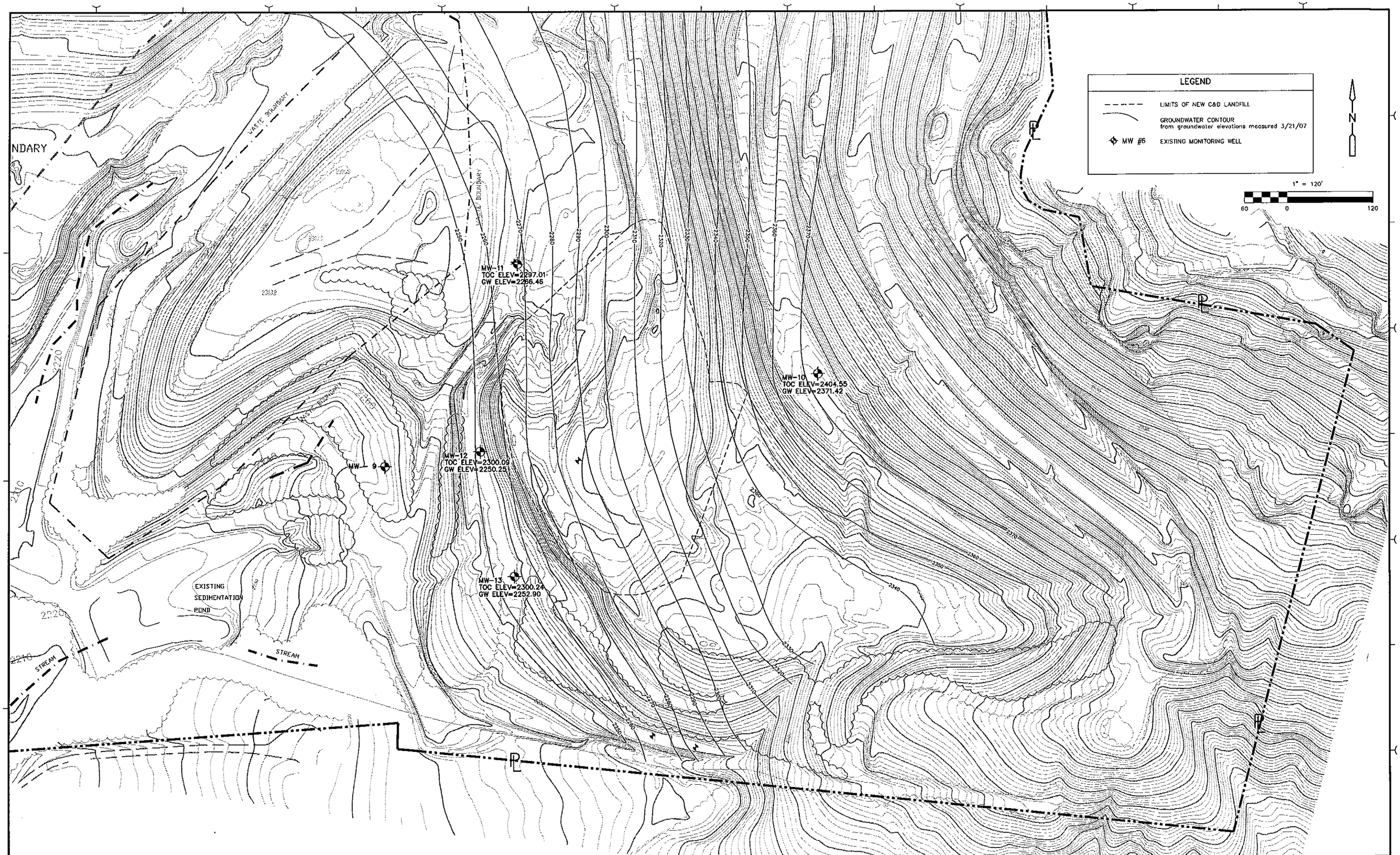
Very truly yours,

Mathew F. Colone, P.G.
Camp Dresser & McKee

NORTH CAROLINA LICENSED GEOLOGIST SEAL 1851 MATHEW F. COLONE

5/1/2007

cc: Gary Tweed, P.E., Henderson County
Bob Brossoie, P.G., CDM



REV. NO.	DATE	DRWN	CHKD	REMARKS
3	10/03	JSK	MC	REVISED POTENTIOMETRIC CONTOURS
2	8/01	PWD	MC	REVISED POTENTIOMETRIC CONTOURS
1	3/01	WMB	MC	REVISED LIMITS OF WASTE

DESIGNED BY: D. FORBES
DRAWN BY: J. KILLINGSWORTH
SHEET CHK'D BY: M. COLONE
CROSS CHK'D BY:
APPROVED BY:
DATE: MARCH 2007

CDM Camp Dresser & McKee
consulting engineering construction operations
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
Tel: 919-787-5620 Fax: 919-781-5730

HENDERSON COUNTY
NORTH CAROLINA

CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
HENDERSON COUNTY SOLID WASTE MANAGEMENT

POTENTIOMETRIC CONTOUR MAP

PROJECT NO. 10002-57720
FILE NAME: FIG1_APR.dwg

SHEET NO.
FIGURE 1

L:\cdm-geo\ FIG1_APR 12/18/03 13:52:16 21:09:56 Killingsworthja

Mr. Dan Forbes
Camp, Dresser & McKee
5400 Glenwood Avenue
Suite 300
Raleigh NC 27612
Report Number: G175-588

Client Project: Henderson County C&D Landfill

Dear Mr. Forbes:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.

4/10/2007

Laboratory Director — Date
J. Patrick Weaver

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-13
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-1A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 12:30
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	25.0	3.37	1	3/27/2007	
Acrylonitrile	BQL	100	8.27	1	3/27/2007	
Benzene	BQL	1.00	0.162	1	3/27/2007	
Bromochloromethane	BQL	1.00	0.312	1	3/27/2007	
Bromodichloromethane	BQL	1.00	0.185	1	3/27/2007	
Bromoform	BQL	1.00	0.0960	1	3/27/2007	
Bromomethane	BQL	10.0	0.104	1	3/27/2007	
2-butanone	BQL	25.0	1.09	1	3/27/2007	
Carbon disulfide	BQL	1.00	0.206	1	3/27/2007	
Carbon tetrachloride	BQL	1.00	0.181	1	3/27/2007	
Chlorobenzene	BQL	1.00	0.177	1	3/27/2007	
Chloroethane	BQL	1.00	0.416	1	3/27/2007	
Chloroform	BQL	1.00	0.220	1	3/27/2007	
Chloromethane	BQL	1.00	0.282	1	3/27/2007	
Dibromochloromethane	BQL	1.00	0.208	1	3/27/2007	
1,2-Dibromo-3-chloropropane	BQL	5.00	1.95	1	3/27/2007	
Dibromomethane	BQL	1.00	0.275	1	3/27/2007	
1,2-Dibromoethane	BQL	1.00	0.264	1	3/27/2007	
1,2-Dichlorobenzene	BQL	1.00	0.190	1	3/27/2007	
1,3-Dichlorobenzene	BQL	1.00	0.234	1	3/27/2007	
1,4-Dichlorobenzene	BQL	1.00	0.182	1	3/27/2007	
t-1,4-Dichloro-2-butene	BQL	1.00	1.42	1	3/27/2007	
1,1-Dichloroethane	BQL	1.00	0.215	1	3/27/2007	
1,1-Dichloroethene	BQL	1.00	0.164	1	3/27/2007	
1,2-Dichloroethane	BQL	1.00	0.244	1	3/27/2007	
cis-1,2-Dichloroethene	BQL	1.00	0.176	1	3/27/2007	
t-1,2-dichloroethene	BQL	1.00	0.230	1	3/27/2007	
1,1-Dichloropropene	BQL	1.00	0.176	1	3/27/2007	
cis-1,3-Dichloropropene	BQL	1.00	0.202	1	3/27/2007	
t-1,3-Dichloropropene	BQL	1.00	0.119	1	3/27/2007	
Ethylbenzene	BQL	1.00	0.206	1	3/27/2007	
2-hexanone	BQL	25.0	0.874	1	3/27/2007	
Iodomethane	BQL	5.00	0.129	1	3/27/2007	
Methylene chloride	**0.380**	1.00	0.188	1	3/27/2007	J
Methyl isobutyl ketone	BQL	25.0	0.495	1	3/27/2007	
Styrene	BQL	1.00	0.239	1	3/27/2007	
1,1,1,2-Tetrachloroethane	BQL	1.00	0.288	1	3/27/2007	
1,1,2,2-Tetrachloroethane	BQL	1.00	0.256	1	3/27/2007	
Tetrachloroethene	BQL	1.00	0.304	1	3/27/2007	
Toluene	BQL	1.00	0.175	1	3/27/2007	
Trichloroethene	BQL	1.00	0.209	1	3/27/2007	
1,1,1-Trichloroethane	BQL	1.00	0.197	1	3/27/2007	

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-13
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-1A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 12:30
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
1,1,2-Trichloroethane	BQL	1.00	0.267	1	3/27/2007	
Trichlorofluoromethane	BQL	1.00	0.428	1	3/27/2007	
1,2,3-Trichloropropane	BQL	1.00	0.234	1	3/27/2007	
Vinyl acetate	BQL	25.0	0.539	1	3/27/2007	
Vinyl chloride	BQL	1.00	0.400	1	3/27/2007	
m-,p-Xylene	BQL	1.00	0.386	1	3/27/2007	
o-Xylene	BQL	1.00	0.167	1	3/27/2007	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	10	100
Toluene-d8	10	9.81	98
4-Bromofluorobenzene	10	9.88	99

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-12
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-2A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 13:10
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	25.0	3.37	1	3/27/2007	
Acrylonitrile	BQL	100	8.27	1	3/27/2007	
Benzene	BQL	1.00	0.162	1	3/27/2007	
Bromochloromethane	BQL	1.00	0.312	1	3/27/2007	
Bromodichloromethane	BQL	1.00	0.185	1	3/27/2007	
Bromoform	BQL	1.00	0.0960	1	3/27/2007	
Bromomethane	BQL	10.0	0.104	1	3/27/2007	
2-butanone	BQL	25.0	1.09	1	3/27/2007	
Carbon disulfide	BQL	1.00	0.206	1	3/27/2007	
Carbon tetrachloride	BQL	1.00	0.181	1	3/27/2007	
Chlorobenzene	BQL	1.00	0.177	1	3/27/2007	
Chloroethane	**0.840**	1.00	0.416	1	3/27/2007	J
Chloroform	BQL	1.00	0.220	1	3/27/2007	
Chloromethane	BQL	1.00	0.282	1	3/27/2007	
Dibromochloromethane	BQL	1.00	0.208	1	3/27/2007	
1,2-Dibromo-3-chloropropane	BQL	5.00	1.95	1	3/27/2007	
Dibromomethane	BQL	1.00	0.275	1	3/27/2007	
1,2-Dibromoethane	BQL	1.00	0.264	1	3/27/2007	
1,2-Dichlorobenzene	BQL	1.00	0.190	1	3/27/2007	
1,3-Dichlorobenzene	BQL	1.00	0.234	1	3/27/2007	
1,4-Dichlorobenzene	**0.210**	1.00	0.182	1	3/27/2007	J
t-1,4-Dichloro-2-butene	BQL	1.00	1.42	1	3/27/2007	
1,1-Dichloroethane	**0.710**	1.00	0.215	1	3/27/2007	J
1,1-Dichloroethene	BQL	1.00	0.164	1	3/27/2007	
1,2-Dichloroethane	BQL	1.00	0.244	1	3/27/2007	
cis-1,2-Dichloroethene	**0.200**	1.00	0.176	1	3/27/2007	J
t-1,2-dichloroethene	BQL	1.00	0.230	1	3/27/2007	
1,1-Dichloropropene	BQL	1.00	0.176	1	3/27/2007	
cis-1,3-Dichloropropene	BQL	1.00	0.202	1	3/27/2007	
t-1,3-Dichloropropene	BQL	1.00	0.119	1	3/27/2007	
Ethylbenzene	BQL	1.00	0.206	1	3/27/2007	
2-hexanone	BQL	25.0	0.874	1	3/27/2007	
Iodomethane	BQL	5.00	0.129	1	3/27/2007	
Methylene chloride	**2.08**	1.00	0.188	1	3/27/2007	
Methyl isobutyl ketone	BQL	25.0	0.495	1	3/27/2007	
Styrene	BQL	1.00	0.239	1	3/27/2007	
1,1,1,2-Tetrachloroethane	BQL	1.00	0.288	1	3/27/2007	
1,1,2,2-Tetrachloroethane	BQL	1.00	0.256	1	3/27/2007	
Tetrachloroethene	**0.760**	1.00	0.304	1	3/27/2007	J
Toluene	BQL	1.00	0.175	1	3/27/2007	
Trichloroethene	**0.240**	1.00	0.209	1	3/27/2007	J
1,1,1-Trichloroethane	**0.240**	1.00	0.197	1	3/27/2007	J

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-12
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-2A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 13:10
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
1,1,2-Trichloroethane	BQL	1.00	0.267	1	3/27/2007	
Trichlorofluoromethane	**11.3**	1.00	0.428	1	3/27/2007	
1,2,3-Trichloropropane	BQL	1.00	0.234	1	3/27/2007	
Vinyl acetate	BQL	25.0	0.539	1	3/27/2007	
Vinyl chloride	BQL	1.00	0.400	1	3/27/2007	
m-,p-Xylene	BQL	1.00	0.386	1	3/27/2007	
o-Xylene	**0.170**	1.00	0.167	1	3/27/2007	J

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	10	100
Toluene-d8	10	9.83	98
4-Bromofluorobenzene	10	10.1	101

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-11
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-3A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 14:40
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	25.0	3.37	1	3/27/2007	
Acrylonitrile	BQL	100	8.27	1	3/27/2007	
Benzene	BQL	1.00	0.162	1	3/27/2007	
Bromochloromethane	BQL	1.00	0.312	1	3/27/2007	
Bromodichloromethane	BQL	1.00	0.185	1	3/27/2007	
Bromoform	BQL	1.00	0.0960	1	3/27/2007	
Bromomethane	BQL	10.0	0.104	1	3/27/2007	
2-butanone	BQL	25.0	1.09	1	3/27/2007	
Carbon disulfide	BQL	1.00	0.206	1	3/27/2007	
Carbon tetrachloride	BQL	1.00	0.181	1	3/27/2007	
Chlorobenzene	BQL	1.00	0.177	1	3/27/2007	
Chloroethane	BQL	1.00	0.416	1	3/27/2007	
Chloroform	BQL	1.00	0.220	1	3/27/2007	
Chloromethane	BQL	1.00	0.282	1	3/27/2007	
Dibromochloromethane	BQL	1.00	0.208	1	3/27/2007	
1,2-Dibromo-3-chloropropane	BQL	5.00	1.95	1	3/27/2007	
Dibromomethane	BQL	1.00	0.275	1	3/27/2007	
1,2-Dibromoethane	BQL	1.00	0.264	1	3/27/2007	
1,2-Dichlorobenzene	BQL	1.00	0.190	1	3/27/2007	
1,3-Dichlorobenzene	BQL	1.00	0.234	1	3/27/2007	
1,4-Dichlorobenzene	BQL	1.00	0.182	1	3/27/2007	
t-1,4-Dichloro-2-butene	BQL	1.00	1.42	1	3/27/2007	
1,1-Dichloroethane	BQL	1.00	0.215	1	3/27/2007	
1,1-Dichloroethene	BQL	1.00	0.164	1	3/27/2007	
1,2-Dichloroethane	BQL	1.00	0.244	1	3/27/2007	
cis-1,2-Dichloroethene	BQL	1.00	0.176	1	3/27/2007	
t-1,2-dichloroethene	BQL	1.00	0.230	1	3/27/2007	
1,1-Dichloropropene	BQL	1.00	0.176	1	3/27/2007	
cis-1,3-Dichloropropene	BQL	1.00	0.202	1	3/27/2007	
t-1,3-Dichloropropene	BQL	1.00	0.119	1	3/27/2007	
Ethylbenzene	BQL	1.00	0.206	1	3/27/2007	
2-hexanone	BQL	25.0	0.874	1	3/27/2007	
Iodomethane	BQL	5.00	0.129	1	3/27/2007	
Methylene chloride	BQL	1.00	0.188	1	3/27/2007	
Methyl isobutyl ketone	BQL	25.0	0.495	1	3/27/2007	
Styrene	BQL	1.00	0.239	1	3/27/2007	
1,1,1,2-Tetrachloroethane	BQL	1.00	0.288	1	3/27/2007	
1,1,2,2-Tetrachloroethane	BQL	1.00	0.256	1	3/27/2007	
Tetrachloroethene	BQL	1.00	0.304	1	3/27/2007	
Toluene	BQL	1.00	0.175	1	3/27/2007	
Trichloroethene	BQL	1.00	0.209	1	3/27/2007	
1,1,1-Trichloroethane	BQL	1.00	0.197	1	3/27/2007	

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-11
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-3A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 14:40
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
1,1,2-Trichloroethane	BQL	1.00	0.267	1	3/27/2007	
Trichlorofluoromethane	BQL	1.00	0.428	1	3/27/2007	
1,2,3-Trichloropropane	BQL	1.00	0.234	1	3/27/2007	
Vinyl acetate	BQL	25.0	0.539	1	3/27/2007	
Vinyl chloride	BQL	1.00	0.400	1	3/27/2007	
m-,p-Xylene	BQL	1.00	0.386	1	3/27/2007	
o-Xylene	BQL	1.00	0.167	1	3/27/2007	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	9.75	98
Toluene-d8	10	9.84	98
4-Bromofluorobenzene	10	10.2	102

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-10
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-4A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 15:30
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	25.0	3.37	1	3/27/2007	
Acrylonitrile	BQL	100	8.27	1	3/27/2007	
Benzene	BQL	1.00	0.162	1	3/27/2007	
Bromochloromethane	BQL	1.00	0.312	1	3/27/2007	
Bromodichloromethane	BQL	1.00	0.185	1	3/27/2007	
Bromoform	BQL	1.00	0.0960	1	3/27/2007	
Bromomethane	BQL	10.0	0.104	1	3/27/2007	
2-butanone	BQL	25.0	1.09	1	3/27/2007	
Carbon disulfide	BQL	1.00	0.206	1	3/27/2007	
Carbon tetrachloride	BQL	1.00	0.181	1	3/27/2007	
Chlorobenzene	BQL	1.00	0.177	1	3/27/2007	
Chloroethane	BQL	1.00	0.416	1	3/27/2007	
Chloroform	BQL	1.00	0.220	1	3/27/2007	
Chloromethane	BQL	1.00	0.282	1	3/27/2007	
Dibromochloromethane	BQL	1.00	0.208	1	3/27/2007	
1,2-Dibromo-3-chloropropane	BQL	5.00	1.95	1	3/27/2007	
Dibromomethane	BQL	1.00	0.275	1	3/27/2007	
1,2-Dibromoethane	BQL	1.00	0.264	1	3/27/2007	
1,2-Dichlorobenzene	BQL	1.00	0.190	1	3/27/2007	
1,3-Dichlorobenzene	BQL	1.00	0.234	1	3/27/2007	
1,4-Dichlorobenzene	BQL	1.00	0.182	1	3/27/2007	
t-1,4-Dichloro-2-butene	BQL	1.00	1.42	1	3/27/2007	
1,1-Dichloroethane	BQL	1.00	0.215	1	3/27/2007	
1,1-Dichloroethene	BQL	1.00	0.164	1	3/27/2007	
1,2-Dichloroethane	BQL	1.00	0.244	1	3/27/2007	
cis-1,2-Dichloroethene	BQL	1.00	0.176	1	3/27/2007	
t-1,2-dichloroethene	BQL	1.00	0.230	1	3/27/2007	
1,1-Dichloropropene	BQL	1.00	0.176	1	3/27/2007	
cis-1,3-Dichloropropene	BQL	1.00	0.202	1	3/27/2007	
t-1,3-Dichloropropene	BQL	1.00	0.119	1	3/27/2007	
Ethylbenzene	BQL	1.00	0.206	1	3/27/2007	
2-hexanone	BQL	25.0	0.874	1	3/27/2007	
Iodomethane	BQL	5.00	0.129	1	3/27/2007	
Methylene chloride	**0.200**	1.00	0.188	1	3/27/2007	J
Methyl isobutyl ketone	BQL	25.0	0.495	1	3/27/2007	
Styrene	BQL	1.00	0.239	1	3/27/2007	
1,1,1,2-Tetrachloroethane	BQL	1.00	0.288	1	3/27/2007	
1,1,2,2-Tetrachloroethane	BQL	1.00	0.256	1	3/27/2007	
Tetrachloroethene	BQL	1.00	0.304	1	3/27/2007	
Toluene	BQL	1.00	0.175	1	3/27/2007	
Trichloroethene	BQL	1.00	0.209	1	3/27/2007	
1,1,1-Trichloroethane	BQL	1.00	0.197	1	3/27/2007	

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW-10
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-4A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 15:30
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
1,1,2-Trichloroethane	BQL	1.00	0.267	1	3/27/2007	
Trichlorofluoromethane	BQL	1.00	0.428	1	3/27/2007	
1,2,3-Trichloropropane	BQL	1.00	0.234	1	3/27/2007	
Vinyl acetate	BQL	25.0	0.539	1	3/27/2007	
Vinyl chloride	BQL	1.00	0.400	1	3/27/2007	
m-,p-Xylene	BQL	1.00	0.386	1	3/27/2007	
o-Xylene	BQL	1.00	0.167	1	3/27/2007	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	10.1	101
Toluene-d8	10	9.85	98
4-Bromofluorobenzene	10	10.3	103

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: Trip Blank
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-5A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 0:00
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	25.0	3.37	1	3/27/2007	
Acrylonitrile	BQL	100	8.27	1	3/27/2007	
Benzene	BQL	1.00	0.162	1	3/27/2007	
Bromochloromethane	BQL	1.00	0.312	1	3/27/2007	
Bromodichloromethane	BQL	1.00	0.185	1	3/27/2007	
Bromoform	BQL	1.00	0.0960	1	3/27/2007	
Bromomethane	BQL	10.0	0.104	1	3/27/2007	
2-butanone	BQL	25.0	1.09	1	3/27/2007	
Carbon disulfide	BQL	1.00	0.206	1	3/27/2007	
Carbon tetrachloride	BQL	1.00	0.181	1	3/27/2007	
Chlorobenzene	BQL	1.00	0.177	1	3/27/2007	
Chloroethane	BQL	1.00	0.416	1	3/27/2007	
Chloroform	BQL	1.00	0.220	1	3/27/2007	
Chloromethane	BQL	1.00	0.282	1	3/27/2007	
Dibromochloromethane	BQL	1.00	0.208	1	3/27/2007	
1,2-Dibromo-3-chloropropane	BQL	5.00	1.95	1	3/27/2007	
Dibromomethane	BQL	1.00	0.275	1	3/27/2007	
1,2-Dibromoethane	BQL	1.00	0.264	1	3/27/2007	
1,2-Dichlorobenzene	BQL	1.00	0.190	1	3/27/2007	
1,3-Dichlorobenzene	BQL	1.00	0.234	1	3/27/2007	
1,4-Dichlorobenzene	BQL	1.00	0.182	1	3/27/2007	
t-1,4-Dichloro-2-butene	BQL	1.00	1.42	1	3/27/2007	
1,1-Dichloroethane	BQL	1.00	0.215	1	3/27/2007	
1,1-Dichloroethene	BQL	1.00	0.164	1	3/27/2007	
1,2-Dichloroethane	BQL	1.00	0.244	1	3/27/2007	
cis-1,2-Dichloroethene	BQL	1.00	0.176	1	3/27/2007	
t-1,2-dichloroethene	BQL	1.00	0.230	1	3/27/2007	
1,1-Dichloropropene	BQL	1.00	0.176	1	3/27/2007	
cis-1,3-Dichloropropene	BQL	1.00	0.202	1	3/27/2007	
t-1,3-Dichloropropene	BQL	1.00	0.119	1	3/27/2007	
Ethylbenzene	BQL	1.00	0.206	1	3/27/2007	
2-hexanone	BQL	25.0	0.874	1	3/27/2007	
Iodomethane	BQL	5.00	0.129	1	3/27/2007	
Methylene chloride	**0.390**	1.00	0.188	1	3/27/2007	J
Methyl isobutyl ketone	BQL	25.0	0.495	1	3/27/2007	
Styrene	BQL	1.00	0.239	1	3/27/2007	
1,1,1,2-Tetrachloroethane	BQL	1.00	0.288	1	3/27/2007	
1,1,2,2-Tetrachloroethane	BQL	1.00	0.256	1	3/27/2007	
Tetrachloroethene	BQL	1.00	0.304	1	3/27/2007	
Toluene	BQL	1.00	0.175	1	3/27/2007	
Trichloroethene	BQL	1.00	0.209	1	3/27/2007	
1,1,1-Trichloroethane	BQL	1.00	0.197	1	3/27/2007	

SGS ENVIRONMENTAL SERVICES, INC.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: Trip Blank
Client Project ID: Henderson County C&D Landfill
Lab Sample ID: G175-588-5A
Lab Project ID: G175-588

Analyzed By: CLP
Date Collected: 3/21/2007 0:00
Date Received: 3/23/2007
Matrix: Water

Compound	Result UG/L	Quantitation Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
1,1,2-Trichloroethane	BQL	1.00	0.267	1	3/27/2007	
Trichlorofluoromethane	BQL	1.00	0.428	1	3/27/2007	
1,2,3-Trichloropropane	BQL	1.00	0.234	1	3/27/2007	
Vinyl acetate	BQL	25.0	0.539	1	3/27/2007	
Vinyl chloride	BQL	1.00	0.400	1	3/27/2007	
m-,p-Xylene	BQL	1.00	0.386	1	3/27/2007	
o-Xylene	BQL	1.00	0.167	1	3/27/2007	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	10.1	101
Toluene-d8	10	9.8	98
4-Bromofluorobenzene	10	9.95	99

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

SGS ENVIRONMENTAL SERVICES, INC.

Results for Metals

Client Sample ID:	MW-13	Analyzed By:	PSW
Client Project ID:	Henderson County C&D Landfill	Date Collected:	3/21/2007 12:30
Lab Sample ID:	G175-588-1	Date Received:	3/23/2007
Lab Project ID:	G175-588	Matrix:	WATER
Batch ID:	7746 7792		

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Arsenic	BQL	0.0100	0.000412	10	MG/L	6020	4/9/2007	
Barium	**0.0200**	0.100	0.000900	1	MG/L	6010B	4/9/2007	JB
Cadmium	**0.00215**	0.0100	0.000170	1	MG/L	6010B	4/9/2007	JB
Chromium	**0.00297**	0.0100	0.000310	1	MG/L	6010B	4/9/2007	JB
Lead	BQL	0.0100	0.00121	1	MG/L	6010B	4/9/2007	B
Mercury	BQL	0.000285	0.000020	1	MG/L	7470	4/2/2007	
Selenium	**0.0102**	0.0200	0.00917	1	MG/L	6010B	4/9/2007	JB
Silver	**0.00296**	0.0100	0.000400	1	MG/L	6010B	4/6/2007	JB

Comments
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By:
MET_LIMS_4.2

SGS ENVIRONMENTAL SERVICES, INC.

Results for Metals

Client Sample ID:	MW-12	Analyzed By:	PSW
Client Project ID:	Henderson County C&D Landfill	Date Collected:	3/21/2007 13:10
Lab Sample ID:	G175-588-2	Date Received:	3/23/2007
Lab Project ID:	G175-588	Matrix:	WATER
Batch ID:	7746 7792		

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Arsenic	BQL	0.0100	0.000412	10	MG/L	6020	4/9/2007	
Barium	**0.0197**	0.100	0.000900	1	MG/L	6010B	4/9/2007	JB
Cadmium	**0.00231**	0.0100	0.000170	1	MG/L	6010B	4/9/2007	JB
Chromium	**0.00355**	0.0100	0.000310	1	MG/L	6010B	4/9/2007	JB
Lead	**0.00212**	0.0100	0.00121	1	MG/L	6010B	4/9/2007	JB
Mercury	**0.000093**	0.000285	0.000020	1	MG/L	7470	4/2/2007	J
Selenium	BQL	0.0200	0.00917	1	MG/L	6010B	4/9/2007	B
Silver	**0.00304**	0.0100	0.000400	1	MG/L	6010B	4/6/2007	JB

Comments
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By: [signature]
MET_LIMS_4.2

SGS ENVIRONMENTAL SERVICES, INC.

Results for Metals

Client Sample ID:	MW-11	Analyzed By:	PSW
Client Project ID:	Henderson County C&D Landfill	Date Collected:	3/21/2007 14:40
Lab Sample ID:	G175-588-3	Date Received:	3/23/2007
Lab Project ID:	G175-588	Matrix:	WATER
Batch ID:	7746 7792		

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Arsenic	BQL	0.0100	0.000412	10	MG/L	6020	4/9/2007	
Barium	**0.0250**	0.100	0.000900	1	MG/L	6010B	4/9/2007	JB
Cadmium	**0.00131**	0.0100	0.000170	1	MG/L	6010B	4/9/2007	JB
Chromium	**0.00326**	0.0100	0.000310	1	MG/L	6010B	4/9/2007	JB
Lead	**0.00357**	0.0100	0.00121	1	MG/L	6010B	4/9/2007	JB
Mercury	BQL	0.000285	0.000020	1	MG/L	7470	4/2/2007	
Selenium	BQL	0.0200	0.00917	1	MG/L	6010B	4/9/2007	B
Silver	**0.00341**	0.0100	0.000400	1	MG/L	6010B	4/6/2007	JB

Comments
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By:
MET_LIMS_4.2

SGS ENVIRONMENTAL SERVICES, INC.

Results for Metals

Client Sample ID:	MW-10	Analyzed By:	PSW
Client Project ID:	Henderson County C&D Landfill	Date Collected:	3/21/2007 15:30
Lab Sample ID:	G175-588-4	Date Received:	3/23/2007
Lab Project ID:	G175-588	Matrix:	WATER
Batch ID:	7746 7792		

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Arsenic	BQL	0.0100	0.000412	10	MG/L	6020	4/9/2007	
Barium	**0.0195**	0.100	0.000900	1	MG/L	6010B	4/9/2007	JB
Cadmium	**0.000750**	0.0100	0.000170	1	MG/L	6010B	4/9/2007	JB
Chromium	**0.00341**	0.0100	0.000310	1	MG/L	6010B	4/9/2007	JB
Lead	**0.00332**	0.0100	0.00121	1	MG/L	6010B	4/9/2007	JB
Mercury	BQL	0.000285	0.000020	1	MG/L	7470	4/2/2007	
Selenium	BQL	0.0200	0.00917	1	MG/L	6010B	4/9/2007	B
Silver	**0.00349**	0.0100	0.000400	1	MG/L	6010B	4/6/2007	JB

Comments
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By: _____
MET_LIMS_4.2

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

SGS

CHAIN OF CUSTODY RECORD
SGS Enviromental Services Inc.

Locations Nationwide
- Alaska
- Ohio
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

www.us.sgs.com

078040

SGS ENVIRONMENTAL SERVICES, INC.

N.C. CERTIFICATION #481

(1)

CLIENT: COM

CONTACT: DAN FORBES PHONE NO: (919) 787-5620

PROJECT: HENDERSON COUNTY CTD LANDFILL SITE/PWSID# :

REPORTS TO: DAN FORBES E-MAIL:

FAX NO.: (919) 781-5730

INVOICE TO: DAN FORBES QUOTE #

P.O. NUMBER

SGS Reference: G175-588

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Appendix I VOCs (3)	RCRA Metals								REMARKS
						Preservatives Used		HCL	HNO_3							
	MW-13	3/21/07	1230	W	4	G	3	1								- Report analytical
	MW-12	3/21/07	1310	W	4	G	3	1								results according to
	MW-11	3/21/07	1440	W	4	G	3	1								the Solid Waste
	MW-10	3/21/07	1530	W	4	G	3	1								Section limits.
	TRIP BLANK	—	—	W	2	G	2									

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:	Date	Time
Jonathan Fale	3/22/07	1430	[illegible]	3/23/07	1015
Relinquished By: (2)	Date	Time	Received By:	Date	Time
[illegible]uished By: (3)	Date	Time	Received By:	Date	Time
[illegible]uished By: (4)	Date	Time	Received By:	Date	Time

(4)

Shipping Carrier: FED-EX

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature °C: 18 °F:

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD