SGS

Ms. Harvi Cooper
NCDENR
401 Oberlin Rd.
Suite 150
Raleigh NC 27605
Report Number: G443-616

Client Project: Holcomb

Dear Ms. Cooper:

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 at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

Lori Lockamy 6/22/09

Project Manager Date
Lori Lockamy

Case Narrative
NCDENR DWM
SGS Project: **G443-616**
Project Name: **Holcomb**

SGS Environmental Services Inc.

June 22, 2009

- Eight soil samples were accepted into the laboratory on June 10th, 2009 at 1215 for analyses as indicated on the chain of custody. The samples were received in good condition, with a temperature of 3.9°C.
- All analyses were completed within holding time limits with the following quality control exceptions.

8270 Analysis

- The LCS/LCSD associated with extraction batch 14408 has reported recoveries for Benzo[b]fluoranthene and 4-Chlorophenyl phenyl ether that are below the method's QC limits but within 10% of the lower recovery range. These analytes are not reported in the submitted samples, but these compounds have been 'UJ' flagged in the affected samples and the associated blank.

Data Review Date 6/22/09

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification 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/CL = Reporting Limit / Control 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.

MI34.021808.4

Results for Volatiles
by GCMS 8260B

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: G443-616-1B
Lab Project ID: G443-616

Analyzed By: DVO
Date Collected: 6/9/2009 10:25
Date Received: 6/10/2009
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
Acetone	BQL	25.0	1	6/16/2009
Benzene	BQL	1.00	1	6/16/2009
Bromobenzene	BQL	1.00	1	6/16/2009
Bromochloromethane	BQL	1.00	1	6/16/2009
Bromodichloromethane	BQL	1.00	1	6/16/2009
Bromoform	BQL	1.00	1	6/16/2009
Bromomethane	BQL	1.00	1	6/16/2009
2-Butanone	BQL	25.0	1	6/16/2009
n-Butylbenzene	BQL	1.00	1	6/16/2009
sec-Butylbenzene	BQL	1.00	1	6/16/2009
tert-Butylbenzene	BQL	1.00	1	6/16/2009
Carbon disulfide	BQL	1.00	1	6/16/2009
Carbon tetrachloride	BQL	1.00	1	6/16/2009
Chlorobenzene	BQL	1.00	1	6/16/2009
Chloroethane	BQL	1.00	1	6/16/2009
Chloroform	BQL	1.00	1	6/16/2009
Chloromethane	BQL	1.00	1	6/16/2009
2-Chlorotoluene	BQL	1.00	1	6/16/2009
4-Chlorotoluene	BQL	1.00	1	6/16/2009
Dibromochloromethane	BQL	1.00	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	5.00	1	6/16/2009
Dibromomethane	BQL	1.00	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	1.00	1	6/16/2009
1,2-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,3-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,4-Dichlorobenzene	BQL	1.00	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	5.00	1	6/16/2009
1,1-Dichloroethane	BQL	1.00	1	6/16/2009
1,1-Dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloroethane	BQL	1.00	1	6/16/2009
cis-1,2-Dichloroethene	BQL	1.00	1	6/16/2009
trans-1,2-dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,3-Dichloropropane	BQL	1.00	1	6/16/2009
2,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,1-Dichloropropene	BQL	1.00	1	6/16/2009
cis-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
trans-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
Dichlorodifluoromethane	BQL	5.00	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	1.00	1	6/16/2009
Ethylbenzene	BQL	1.00	1	6/16/2009
Hexachlorobutadiene	BQL	1.00	1	6/16/2009
2-Hexanone	BQL	5.00	1	6/16/2009
Iodomethane	BQL	1.00	1	6/16/2009
Isopropylbenzene	BQL	1.00	1	6/16/2009

Results for Volatiles
by GCMS 8260B

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: G443-616-1B
Lab Project ID: G443-616

Analyzed By: DVO
Date Collected: 6/9/2009 10:25
Date Received: 6/10/2009
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
4-Isopropyltoluene	BQL	1.00	1	6/16/2009
Methylene chloride	BQL	5.00	1	6/16/2009
4-Methyl-2-pentanone	BQL	5.00	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	1.00	1	6/16/2009
Naphthalene	**49.1**	1.00	1	6/16/2009
n-Propyl benzene	BQL	1.00	1	6/16/2009
Styrene	BQL	1.00	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
Tetrachloroethene	BQL	1.00	1	6/16/2009
Toluene	BQL	1.00	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	1.00	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	1.00	1	6/16/2009
Trichloroethene	BQL	1.00	1	6/16/2009
1,1,1-Trichloroethane	BQL	1.00	1	6/16/2009
1,1,2-Trichloroethane	BQL	1.00	1	6/16/2009
Trichlorofluoromethane	BQL	1.00	1	6/16/2009
1,2,3-Trichloropropane	BQL	1.00	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	1.00	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	1.00	1	6/16/2009
Vinyl chloride	BQL	1.00	1	6/16/2009
m-,p-Xylene	BQL	2.00	1	6/16/2009
o-Xylene	BQL	1.00	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	9.48	95
Toluene-d8	10	10.2	102
4-Bromofluorobenzene	10	9.94	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: DVO

Reviewed By: [illegible]

Results of Library Search for Volatile Compounds

by GCMS

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: g443-616-1b
Lab Project ID: G443-616
Sample Vol: 5 mL
Dilution: 1

Analyzed By: DVO
Date Collected: 06-09-2009
Date Received: 06-10-2009
Matrix: Water

Date Analyzed: 06-16-2009

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/L
1	Indane	10.44	000496-11-7	81	5.32
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: DVO

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID G443-616-3A
Lab Project ID: G443-616
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-09-2009 10:35
Date Received: 6/10/2009
Matrix: Sediment
Sample Amount: 6.48 g
%Solids: 71.3

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	54.1	1	6/16/2009
Benzene	BQL	5.41	1	6/16/2009
Bromobenzene	BQL	5.41	1	6/16/2009
Bromochloromethane	BQL	5.41	1	6/16/2009
Bromodichloromethane	BQL	5.41	1	6/16/2009
Bromoform	BQL	5.41	1	6/16/2009
Bromomethane	BQL	5.41	1	6/16/2009
2-Butanone	BQL	27.1	1	6/16/2009
n-Butylbenzene	BQL	5.41	1	6/16/2009
sec-Butylbenzene	BQL	5.41	1	6/16/2009
tert-Butylbenzene	BQL	5.41	1	6/16/2009
Carbon disulfide	BQL	5.41	1	6/16/2009
Carbon tetrachloride	BQL	5.41	1	6/16/2009
Chlorobenzene	BQL	5.41	1	6/16/2009
Chloroethane	BQL	5.41	1	6/16/2009
Chloroform	BQL	5.41	1	6/16/2009
Chloromethane	BQL	5.41	1	6/16/2009
2-Chlorotoluene	BQL	5.41	1	6/16/2009
4-Chlorotoluene	BQL	5.41	1	6/16/2009
Dibromochloromethane	BQL	5.41	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	27.1	1	6/16/2009
Dibromomethane	BQL	5.41	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	5.41	1	6/16/2009
1,2-Dichlorobenzene	BQL	5.41	1	6/16/2009
1,3-Dichlorobenzene	BQL	5.41	1	6/16/2009
1,4-Dichlorobenzene	BQL	5.41	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	27.1	1	6/16/2009
1,1-Dichloroethane	BQL	5.41	1	6/16/2009
1,1-Dichloroethene	BQL	5.41	1	6/16/2009
1,2-Dichloroethane	BQL	5.41	1	6/16/2009
cis-1,2-Dichloroethene	BQL	5.41	1	6/16/2009
trans-1,2-dichloroethene	BQL	5.41	1	6/16/2009
1,2-Dichloropropane	BQL	5.41	1	6/16/2009
1,3-Dichloropropane	BQL	5.41	1	6/16/2009
2,2-Dichloropropane	BQL	5.41	1	6/16/2009
1,1-Dichloropropene	BQL	5.41	1	6/16/2009
cis-1,3-Dichloropropene	BQL	5.41	1	6/16/2009
trans-1,3-Dichloropropene	BQL	5.41	1	6/16/2009
Dichlorodifluoromethane	BQL	5.41	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	5.41	1	6/16/2009
Ethylbenzene	BQL	5.41	1	6/16/2009
Hexachlorobutadiene	BQL	5.41	1	6/16/2009
2-Hexanone	BQL	13.5	1	6/16/2009
Iodomethane	BQL	5.41	1	6/16/2009

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID G443-616-3A
Lab Project ID: G443-616
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-09-2009 10:35
Date Received: 6/10/2009
Matrix: Sediment
Sample Amount: 6.48 g
%Solids: 71.3

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.41	1	6/16/2009
4-Isopropyltoluene	BQL	5.41	1	6/16/2009
Methylene chloride	BQL	21.7	1	6/16/2009
4-Methyl-2-pentanone	BQL	13.5	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	5.41	1	6/16/2009
Naphthalene	**60.9**	5.41	1	6/16/2009
n-Propyl benzene	BQL	5.41	1	6/16/2009
Styrene	BQL	5.41	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	5.41	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	5.41	1	6/16/2009
Tetrachloroethene	BQL	5.41	1	6/16/2009
Toluene	BQL	5.41	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	5.41	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	5.41	1	6/16/2009
Trichloroethene	BQL	5.41	1	6/16/2009
1,1,1-Trichloroethane	BQL	5.41	1	6/16/2009
1,1,2-Trichloroethane	BQL	5.41	1	6/16/2009
Trichlorofluoromethane	BQL	5.41	1	6/16/2009
1,2,3-Trichloropropane	BQL	5.41	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	5.41	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	5.41	1	6/16/2009
Vinyl chloride	BQL	5.41	1	6/16/2009
m-,p-Xylene	BQL	10.8	1	6/16/2009
o-Xylene	BQL	5.41	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	59.5	119
Toluene-d8	50	48.8	98
4-Bromofluorobenzene	50	46.3	93

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results of Library Search for Volatile Compounds

by GCMS

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID: G443-616-3a
Lab Project ID: G443-616
Sample Vol: 5 g
Dilution: 1

Analyzed By: MJC
Date Collected: 06-09-2009
Date Received: 06-10-2009
Matrix: Sediment
% SOLIDS: 71.3
Date Analyzed: 06-16-2009

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/KG
1	1-Methyl-4-(1-methylethyl)-cyclohexane	9.11	000099-82-1	97	40.1
2	Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-, exo-	9.25	020536-41-8	83	18.5
3	Hexanal	7.22	000066-25-1	90	17.6
4	Cyclohexane, 1-methyl-4-(1-methylethyl)-, ci	9.31	006069-98-3	91	12.8
5	Indane	10.11	000496-11-7	95	11.6
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: _____

Results for Volatiles
by GCMS 8260B

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: G443-616-5B
Lab Project ID: G443-616

Analyzed By: DVO
Date Collected: 6/9/2009 10:40
Date Received: 6/10/2009
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
Acetone	BQL	25.0	1	6/16/2009
Benzene	BQL	1.00	1	6/16/2009
Bromobenzene	BQL	1.00	1	6/16/2009
Bromochloromethane	BQL	1.00	1	6/16/2009
Bromodichloromethane	BQL	1.00	1	6/16/2009
Bromoform	BQL	1.00	1	6/16/2009
Bromomethane	BQL	1.00	1	6/16/2009
2-Butanone	BQL	25.0	1	6/16/2009
n-Butylbenzene	BQL	1.00	1	6/16/2009
sec-Butylbenzene	BQL	1.00	1	6/16/2009
tert-Butylbenzene	BQL	1.00	1	6/16/2009
Carbon disulfide	BQL	1.00	1	6/16/2009
Carbon tetrachloride	BQL	1.00	1	6/16/2009
Chlorobenzene	BQL	1.00	1	6/16/2009
Chloroethane	BQL	1.00	1	6/16/2009
Chloroform	BQL	1.00	1	6/16/2009
Chloromethane	BQL	1.00	1	6/16/2009
2-Chlorotoluene	BQL	1.00	1	6/16/2009
4-Chlorotoluene	BQL	1.00	1	6/16/2009
Dibromochloromethane	BQL	1.00	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	5.00	1	6/16/2009
Dibromomethane	BQL	1.00	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	1.00	1	6/16/2009
1,2-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,3-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,4-Dichlorobenzene	BQL	1.00	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	5.00	1	6/16/2009
1,1-Dichloroethane	BQL	1.00	1	6/16/2009
1,1-Dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloroethane	BQL	1.00	1	6/16/2009
cis-1,2-Dichloroethene	BQL	1.00	1	6/16/2009
trans-1,2-dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,3-Dichloropropane	BQL	1.00	1	6/16/2009
2,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,1-Dichloropropene	BQL	1.00	1	6/16/2009
cis-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
trans-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
Dichlorodifluoromethane	BQL	5.00	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	1.00	1	6/16/2009
Ethylbenzene	BQL	1.00	1	6/16/2009
Hexachlorobutadiene	BQL	1.00	1	6/16/2009
2-Hexanone	BQL	5.00	1	6/16/2009
Iodomethane	BQL	1.00	1	6/16/2009
Isopropylbenzene	BQL	1.00	1	6/16/2009

Results for Volatiles
by GCMS 8260B

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: G443-616-5B
Lab Project ID: G443-616

Analyzed By: DVO
Date Collected: 6/9/2009 10:40
Date Received: 6/10/2009
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
4-Isopropyltoluene	BQL	1.00	1	6/16/2009
Methylene chloride	BQL	5.00	1	6/16/2009
4-Methyl-2-pentanone	BQL	5.00	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	1.00	1	6/16/2009
Naphthalene	BQL	1.00	1	6/16/2009
n-Propyl benzene	BQL	1.00	1	6/16/2009
Styrene	BQL	1.00	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
Tetrachloroethene	BQL	1.00	1	6/16/2009
Toluene	BQL	1.00	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	1.00	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	1.00	1	6/16/2009
Trichloroethene	BQL	1.00	1	6/16/2009
1,1,1-Trichloroethane	BQL	1.00	1	6/16/2009
1,1,2-Trichloroethane	BQL	1.00	1	6/16/2009
Trichlorofluoromethane	BQL	1.00	1	6/16/2009
1,2,3-Trichloropropane	BQL	1.00	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	1.00	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	1.00	1	6/16/2009
Vinyl chloride	BQL	1.00	1	6/16/2009
m-,p-Xylene	BQL	2.00	1	6/16/2009
o-Xylene	BQL	1.00	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	9.51	95
Toluene-d8	10	9.99	100
4-Bromofluorobenzene	10	10.5	105

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: DVO

Reviewed By: [signature]

Results of Library Search for Volatile Compounds

by GCMS

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: g443-616-5b
Lab Project ID: G443-616
Sample Vol: 5 mL
Dilution: 1

Analyzed By: DVO
Date Collected: 06-09-2009
Date Received: 06-10-2009
Matrix: Water

Date Analyzed: 06-16-2009

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/L
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID G443-616-7A
Lab Project ID: G443-616
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-09-2009 10:45
Date Received: 6/10/2009
Matrix: Sediment
Sample Amount: 5.15 g
%Solids: 52.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	93.2	1	6/16/2009
Benzene	BQL	9.32	1	6/16/2009
Bromobenzene	BQL	9.32	1	6/16/2009
Bromochloromethane	BQL	9.32	1	6/16/2009
Bromodichloromethane	BQL	9.32	1	6/16/2009
Bromoform	BQL	9.32	1	6/16/2009
Bromomethane	BQL	9.32	1	6/16/2009
2-Butanone	BQL	46.6	1	6/16/2009
n-Butylbenzene	BQL	9.32	1	6/16/2009
sec-Butylbenzene	BQL	9.32	1	6/16/2009
tert-Butylbenzene	BQL	9.32	1	6/16/2009
Carbon disulfide	BQL	9.32	1	6/16/2009
Carbon tetrachloride	BQL	9.32	1	6/16/2009
Chlorobenzene	BQL	9.32	1	6/16/2009
Chloroethane	BQL	9.32	1	6/16/2009
Chloroform	BQL	9.32	1	6/16/2009
Chloromethane	BQL	9.32	1	6/16/2009
2-Chlorotoluene	BQL	9.32	1	6/16/2009
4-Chlorotoluene	BQL	9.32	1	6/16/2009
Dibromochloromethane	BQL	9.32	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	46.6	1	6/16/2009
Dibromomethane	BQL	9.32	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	9.32	1	6/16/2009
1,2-Dichlorobenzene	BQL	9.32	1	6/16/2009
1,3-Dichlorobenzene	BQL	9.32	1	6/16/2009
1,4-Dichlorobenzene	BQL	9.32	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	46.6	1	6/16/2009
1,1-Dichloroethane	BQL	9.32	1	6/16/2009
1,1-Dichloroethene	BQL	9.32	1	6/16/2009
1,2-Dichloroethane	BQL	9.32	1	6/16/2009
cis-1,2-Dichloroethene	BQL	9.32	1	6/16/2009
trans-1,2-dichloroethene	BQL	9.32	1	6/16/2009
1,2-Dichloropropane	BQL	9.32	1	6/16/2009
1,3-Dichloropropane	BQL	9.32	1	6/16/2009
2,2-Dichloropropane	BQL	9.32	1	6/16/2009
1,1-Dichloropropene	BQL	9.32	1	6/16/2009
cis-1,3-Dichloropropene	BQL	9.32	1	6/16/2009
trans-1,3-Dichloropropene	BQL	9.32	1	6/16/2009
Dichlorodifluoromethane	BQL	9.32	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	9.32	1	6/16/2009
Ethylbenzene	BQL	9.32	1	6/16/2009
Hexachlorobutadiene	BQL	9.32	1	6/16/2009
2-Hexanone	BQL	23.3	1	6/16/2009
Iodomethane	BQL	9.32	1	6/16/2009

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID G443-616-7A
Lab Project ID: G443-616
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-09-2009 10:45
Date Received: 6/10/2009
Matrix: Sediment
Sample Amount: 5.15 g
%Solids: 52.1

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	9.32	1	6/16/2009
4-Isopropyltoluene	BQL	9.32	1	6/16/2009
Methylene chloride	BQL	37.3	1	6/16/2009
4-Methyl-2-pentanone	BQL	23.3	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	9.32	1	6/16/2009
Naphthalene	BQL	9.32	1	6/16/2009
n-Propyl benzene	BQL	9.32	1	6/16/2009
Styrene	BQL	9.32	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	9.32	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	9.32	1	6/16/2009
Tetrachloroethene	BQL	9.32	1	6/16/2009
Toluene	BQL	9.32	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	9.32	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	9.32	1	6/16/2009
Trichloroethene	BQL	9.32	1	6/16/2009
1,1,1-Trichloroethane	BQL	9.32	1	6/16/2009
1,1,2-Trichloroethane	BQL	9.32	1	6/16/2009
Trichlorofluoromethane	BQL	9.32	1	6/16/2009
1,2,3-Trichloropropane	BQL	9.32	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	9.32	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	9.32	1	6/16/2009
Vinyl chloride	BQL	9.32	1	6/16/2009
m-,p-Xylene	BQL	18.6	1	6/16/2009
o-Xylene	BQL	9.32	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	62.1	124
Toluene-d8	50	46.6	93
4-Bromofluorobenzene	50	44	88

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

Results of Library Search for Volatile Compounds

by GCMS

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID: G443-616-7a
Lab Project ID: G443-616
Sample Vol: 5 g
Dilution: 1

Analyzed By: MJC
Date Collected: 06-09-2009
Date Received: 06-10-2009
Matrix: Sediment
% SOLIDS: 52.1
Date Analyzed: 06-16-2009

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/KG
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9061609B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	50.0	1	6/16/2009
Benzene	BQL	5.00	1	6/16/2009
Bromobenzene	BQL	5.00	1	6/16/2009
Bromochloromethane	BQL	5.00	1	6/16/2009
Bromodichloromethane	BQL	5.00	1	6/16/2009
Bromoform	BQL	5.00	1	6/16/2009
Bromomethane	BQL	5.00	1	6/16/2009
2-Butanone	BQL	25.0	1	6/16/2009
n-Butylbenzene	BQL	5.00	1	6/16/2009
sec-Butylbenzene	BQL	5.00	1	6/16/2009
tert-Butylbenzene	BQL	5.00	1	6/16/2009
Carbon disulfide	BQL	5.00	1	6/16/2009
Carbon tetrachloride	BQL	5.00	1	6/16/2009
Chlorobenzene	BQL	5.00	1	6/16/2009
Chloroethane	BQL	5.00	1	6/16/2009
Chloroform	BQL	5.00	1	6/16/2009
Chloromethane	BQL	5.00	1	6/16/2009
2-Chlorotoluene	BQL	5.00	1	6/16/2009
4-Chlorotoluene	BQL	5.00	1	6/16/2009
Dibromochloromethane	BQL	5.00	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	25.0	1	6/16/2009
Dibromomethane	BQL	5.00	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	5.00	1	6/16/2009
1,2-Dichlorobenzene	BQL	5.00	1	6/16/2009
1,3-Dichlorobenzene	BQL	5.00	1	6/16/2009
1,4-Dichlorobenzene	BQL	5.00	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	25.0	1	6/16/2009
1,1-Dichloroethane	BQL	5.00	1	6/16/2009
1,1-Dichloroethene	BQL	5.00	1	6/16/2009
1,2-Dichloroethane	BQL	5.00	1	6/16/2009
cis-1,2-Dichloroethene	BQL	5.00	1	6/16/2009
trans-1,2-dichloroethene	BQL	5.00	1	6/16/2009
1,2-Dichloropropane	BQL	5.00	1	6/16/2009
1,3-Dichloropropane	BQL	5.00	1	6/16/2009
2,2-Dichloropropane	BQL	5.00	1	6/16/2009
1,1-Dichloropropene	BQL	5.00	1	6/16/2009
cis-1,3-Dichloropropene	BQL	5.00	1	6/16/2009
trans-1,3-Dichloropropene	BQL	5.00	1	6/16/2009
Dichlorodifluoromethane	BQL	5.00	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	5.00	1	6/16/2009
Ethylbenzene	BQL	5.00	1	6/16/2009
Hexachlorobutadiene	BQL	5.00	1	6/16/2009
2-Hexanone	BQL	12.5	1	6/16/2009
Iodomethane	BQL	5.00	1	6/16/2009

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9061609B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.00	1	6/16/2009
4-Isopropyltoluene	BQL	5.00	1	6/16/2009
Methylene chloride	BQL	20.0	1	6/16/2009
4-Methyl-2-pentanone	BQL	12.5	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	5.00	1	6/16/2009
Naphthalene	BQL	5.00	1	6/16/2009
n-Propyl benzene	BQL	5.00	1	6/16/2009
Styrene	BQL	5.00	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	5.00	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	5.00	1	6/16/2009
Tetrachloroethene	BQL	5.00	1	6/16/2009
Toluene	BQL	5.00	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	5.00	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	5.00	1	6/16/2009
Trichloroethene	BQL	5.00	1	6/16/2009
1,1,1-Trichloroethane	BQL	5.00	1	6/16/2009
1,1,2-Trichloroethane	BQL	5.00	1	6/16/2009
Trichlorofluoromethane	BQL	5.00	1	6/16/2009
1,2,3-Trichloropropane	BQL	5.00	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	5.00	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	5.00	1	6/16/2009
Vinyl chloride	BQL	5.00	1	6/16/2009
m-,p-Xylene	BQL	10.0	1	6/16/2009
o-Xylene	BQL	5.00	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	51.6	103
Toluene-d8	50	47.4	95
4-Bromofluorobenzene	50	47.7	95

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: _____

Reviewed By: _____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Soil

LCS: LCS9061609A — ilename: 0616903.D — Date Analyzed: 06/16/09 09:40

LCSD: LCS9061609B — ilename: 0616904.D — Date Analyzed: 06/16/09 10:06

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	75.0	53.6	71.4	75.0	43.3	57.8	21.1	30	16.7-286
acrolein	300	402	134	300	388	129	3.47	30	16.7-226
acrylonitrile	300	283	94.3	300	276	92.0	2.45	30	13.3-201
benzene	30.0	29.6	98.6	30.0	29.2	97.2	1.43	30	68.6-132
bromobenzene	30.0	32.9	110	30.0	32.2	107	2.27	30	56.7-146
bromochloromethane	30.0	30.0	100	30.0	29.6	98.7	1.48	30	52.5-154
bromodichloromethane	30.0	30.0	99.9	30.0	29.8	99.4	0.435	30	65.4-137
bromoform	30.0	33.4	111	30.0	33.1	110	0.722	30	48.3-147
bromomethane	30.0	17.8	59.2	30.0	19.3	64.5	8.57	30	16.7-246
2-butanone	75.0	59.5	79.4	75.0	53.7	71.6	10.4	30	16.7-314
n-butylbenzene	30.0	31.3	104	30.0	30.5	102	2.56	30	58.4-135
sec-butylbenzene	30.0	30.3	101	30.0	30.3	101	0.231	30	57.2-136
tert-butylbenzene	30.0	31.2	104	30.0	30.9	103	0.966	30	50.8-139
Carbon disulfide	30.0	30.3	101	30.0	30.2	101	0.297	30	16.7-276
carbon tetrachloride	30.0	32.0	106	30.0	31.9	106	0.219	30	61.1-141
chlorobenzene	30.0	32.1	107	30.0	31.9	106	0.939	30	63.0-129
chloroethane	30.0	23.3	77.7	30.0	23.1	77.1	0.818	30	22.5-200
2-chloroethyl vinyl ether	300	247	82.4	300	239	79.6	3.39	30	16.7-275
chloroform	30.0	29.4	98.1	30.0	29.1	97.1	1.02	30	65.0-137
chloromethane	30.0	26.9	89.7	30.0	26.4	88.1	1.84	30	16.7-182
2-chlorotoluene	30.0	31.2	104	30.0	30.8	103	1.00	30	61.1-138
4-chlorotoluene	30.0	31.3	104	30.0	30.8	103	1.42	30	63.8-134
dibromochloromethane	30.0	32.2	107	30.0	32.9	110	2.15	30	56.0-144
1,2-dibromo-3-chloropropane	150	134	89.3	150	128	85.2	4.60	30	16.7-213
1,2-dibromoethane	30.0	30.8	103	30.0	30.4	101	1.28	30	58.8-139
dibromomethane	30.0	29.0	96.7	30.0	28.6	95.4	1.35	30	54.1-154
1,2-dichlorobenzene	30.0	30.7	102	30.0	30.1	100	2.14	30	61.5-138
1,3-dichlorobenzene	30.0	30.9	103	30.0	30.9	103	0.0324	30	61.5-138
1,4-dichlorobenzene	30.0	31.0	104	30.0	30.5	102	1.72	30	61.1-138
trans-1,4-Dichloro-2-butene	150	148	98.4	150	145	96.6	1.79	30	16.7-212
dichlorodifluoromethane	30.0	25.3	84.4	30.0	25.1	83.8	0.753	30	25.4-165
1,1-dichloroethane	30.0	29.0	96.8	30.0	28.8	95.9	0.899	30	62.4-140
1,2-dichloroethane	30.0	28.6	95.4	30.0	28.1	93.7	1.76	30	55.3-152
1,1-dichloroethene	30.0	29.1	96.9	30.0	28.8	96.1	0.829	30	65.4-134
cis-1,2-dichloroethene	30.0	29.7	99.1	30.0	29.7	98.9	0.202	30	63.8-138
trans-1,2-dichloroethene	30.0	30.0	100	30.0	29.4	98.2	1.88	30	63.3-139
1,2-dichloropropane	30.0	29.2	97.2	30.0	28.6	95.3	2.01	30	60.0-139
1,3-dichloropropane	30.0	30.3	101	30.0	30.2	101	0.297	30	62.3-136
2,2-dichloropropane	30.0	30.4	102	30.0	30.2	100	0.924	30	62.5-140
1,1-dichloropropene	30.0	30.4	102	30.0	30.3	101	0.362	30	60.9-136
cis-1,3-dichloropropene	30.0	28.8	95.9	30.0	28.4	94.6	1.40	30	59.8-141

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Soil

LCS: LCS9061609A — ilename: 0616903.D — Date Analyzed: 06/16/09 09:40

LCSD: LCS9061609B — ilename: 0616904.D — Date Analyzed: 06/16/09 10:06

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	30.0	28.4	94.8	30.0	27.9	93.0	1.95	30	7.27-173
Diisopropyl ether	30.0	28.7	95.8	30.0	28.8	95.9	0.139	30	9.01-172
ethylbenzene	30.0	30.6	102	30.0	30.9	103	0.846	30	16.7-187
hexachlorobutadiene	30.0	34.3	114	30.0	33.8	113	1.53	30	16.7-173
2-hexanone	75.0	66.6	88.8	75.0	60.6	80.9	9.40	30	16.7-304
Iodomethane	30.0	28.7	95.8	30.0	28.0	93.4	2.47	30	16.7-200
isopropylbenzene	30.0	30.8	103	30.0	31.2	104	1.26	30	6.43-167
4-isopropyltoluene	30.0	31.3	104	30.0	31.3	104	0.0319	30	6.97-170
Methyl-tert-butyl ether	30.0	28.6	95.2	30.0	28.3	94.4	0.844	30	10.7-173
methylene chloride	30.0	29.4	98.2	30.0	29.3	97.6	0.613	30	8.58-169
4-methyl-2-pentanone	75.0	70.8	94.4	75.0	69.3	92.5	2.08	30	16.7-293
naphthalene	30.0	31.8	106	30.0	31.0	103	2.64	30	16.7-175
n-propyl benzene	30.0	29.9	99.7	30.0	30.0	100	0.300	30	7.25-172
styrene	30.0	30.6	102	30.0	30.9	103	0.877	30	10.2-168
1,1,1,2-tetrachloroethane	30.0	32.9	110	30.0	33.0	110	0.364	30	5.87-177
1,1,2,2-tetrachloroethane	30.0	30.7	102	30.0	29.5	98.4	4.02	30	10.9-168
tetrachloroethene	30.0	32.8	109	30.0	32.9	110	0.396	30	16.7-195
toluene	**30.0**	**29.8**	**99.4**	**30.0**	**29.5**	**98.4**	**1.01**	**30**	**26.6-159**
1,2,3-trichlorobenzene	30.0	33.5	112	30.0	31.7	106	5.55	30	4.64-169
1,2,4-trichlorobenzene	30.0	33.5	112	30.0	32.4	108	3.37	30	6.55-165
1,1,1-trichloroethane	30.0	30.6	102	30.0	30.4	101	0.720	30	8.40-173
1,1,2-trichloroethane	30.0	30.8	102	30.0	30.9	103	0.551	30	12.2-166
trichloroethene	**30.0**	**30.5**	**102**	**30.0**	**30.1**	**100**	**1.98**	**30**	**24.0-158**
trichlorofluoromethane	30.0	26.5	88.5	30.0	26.4	87.8	0.718	30	5.64-183
1,2,3-trichloropropane	30.0	30.2	101	30.0	29.3	97.7	3.06	30	16.7-186
1,2,4-trimethylbenzene	30.0	31.1	104	30.0	31.2	104	0.0963	30	8.60-168
1,3,5-trimethylbenzene	30.0	31.6	105	30.0	31.6	105	0.0633	30	8.09-168
Vinyl acetate	75.0	70.8	94.4	75.0	69.6	92.8	1.77	30	16.7-225
vinyl chloride	30.0	27.3	90.9	30.0	27.1	90.3	0.662	30	7.56-178
m/p-xylene	60.0	62.6	104	60.0	63.1	105	0.843	30	8.91-169
o-xylene	30.0	31.1	104	30.0	31.4	105	0.991	30	9.45-167

System Monitoring Compound Results

		LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	49.95	99.9	50	49.9	99.8	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	50.72	101	50	50.09	100	37.8-170
2037-26-5	Toluene-d8	50	48.9	97.8	50	48.58	97.2	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS Spike Recovery: 0 failure(s) out of 72. LCSD Spike Recovery: 0 failure(s) out of 72.

RPD: 0 out of 72 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Lab Code: NC00919 Inst: MSD9

	EPA Sample No.:	Amt.	Filenames:	Analysis Dates:	Batch: 9061609
Sample	G520-369-26a	4.95 g	0616913.D	2009-06-16 14:00:00	Dilution: 1
MS	G520-369-26a	4.95 g	0616914.D	2009-06-16 14:26:00	Matrix: Soil
MSD	G520-369-26a	4.95 g	0616915.D	2009-06-16 14:52:00	Solids: 92.6

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	BQL	32.7	92.8	284	32.7	86.8	265	6.68	30	6.81-355
acrolein	BQL	327	336	103	327	304	92.9	10.2	30	0.00-6510
acrylonitrile	BQL	327	290	88.6	327	280	85.5	3.59	30	0.00-5670
benzene	**BQL**	**32.7**	**28.5**	**87.1**	**32.7**	**27.1**	**82.9**	**5.02**	**30**	**74.8-133**
bromobenzene	BQL	32.7	28.2	86.2	32.7	26.2	80.2	7.17	30	66.1-140
bromochloromethane	BQL	32.7	30.2	92.3	32.7	29.4	89.8	2.71	30	85.1-136
bromodichloromethane	BQL	32.7	29.3	89.5	32.7	28.2	86.1	3.87	30	77.4-140
bromoform	BQL	32.7	31.9	97.5	32.7	29.9	91.4	6.49	30	74.7-161
bromomethane	BQL	32.7	18.1	55.3	32.7	18.0	55.2	0.241	30	30.4-127
2-butanone	BQL	32.7	89.2	272*	32.7	83.9	256*	6.11	30	40.9-256
n-butylbenzene	BQL	32.7	24.5	74.9	32.7	22.2	68.0	9.66	30	41.2-147
sec-butylbenzene	BQL	32.7	23.4	71.4	32.7	21.4	65.3	8.98	30	56.7-138
tert-butylbenzene	1.98	32.7	25.9	73.2	32.7	23.9	67.0	8.89	30	60.5-142
Carbon disulfide	BQL	32.7	27.9	85.2	32.7	27.2	83.1	2.54	30	64.3-145
carbon tetrachloride	BQL	32.7	29.5	90.2	32.7	29.9	91.5	1.47	30	64.2-142
chlorobenzene	**BQL**	**32.7**	**28.4**	**86.8**	**32.7**	**26.8**	**81.9**	**5.85**	**30**	**66.3-135**
chloroethane	BQL	32.7	28.6	87.5	32.7	25.0	76.3	13.7	30	20.7-182
2-chloroethyl vinyl ether	BQL	32.7	256	782*	32.7	243	742*	5.20	30	16.7-283
chloroform	BQL	32.7	28.6	87.6	32.7	27.9	85.2	2.78	30	71.1-143
chloromethane	BQL	32.7	24.0	73.4	32.7	23.3	71.1	3.14	30	69.1-138
2-chlorotoluene	BQL	32.7	25.3	77.4	32.7	23.7	72.5	6.49	30	59.8-144
4-chlorotoluene	BQL	32.7	25.2	77.1	32.7	23.3	71.2	8.05	30	59.0-141
dibromochloromethane	BQL	32.7	31.9	97.4	32.7	30.9	94.6	2.95	30	78.1-141
1,2-dibromo-3-chloropropane	BQL	164	136	82.9	164	120	73.7	11.7	30	43.4-229
1,2-dibromoethane	BQL	32.7	30.2	92.4	32.7	29.5	90.1	2.52	30	78.3-148
dibromomethane	BQL	32.7	29.7	90.7	32.7	28.4	86.9	4.32	30	80.0-150
1,2-dichlorobenzene	BQL	32.7	24.9	76.0	32.7	22.3	68.3	10.8	30	57.5-148
1,3-dichlorobenzene	BQL	32.7	24.3	74.4	32.7	21.7	66.4	11.3	30	55.0-145
1,4-dichlorobenzene	BQL	32.7	24.2	73.9	32.7	21.7	66.3	10.9	30	53.4-146
trans-1,4-Dichloro-2-butene	BQL	164	145	88.9	164	134	81.6	8.54	30	48.9-211
dichlorodifluoromethane	BQL	32.7	23.1	70.7*	32.7	21.7	66.2*	6.48	30	81.6-130
1,1-dichloroethane	BQL	32.7	28.1	85.9	32.7	28.0	85.5	0.428	30	71.6-139
1,2-dichloroethane	BQL	32.7	29.0	88.7	32.7	28.0	85.6	3.63	30	72.9-146
1,1-dichloroethene	**BQL**	**32.7**	**27.0**	**82.7**	**32.7**	**27.3**	**83.5**	**0.963**	**30**	**72.0-135**
cis-1,2-dichloroethene	BQL	32.7	28.7	87.8	32.7	28.3	86.6	1.38	30	76.9-134
trans-1,2-dichloroethene	BQL	32.7	28.0	85.6	32.7	27.9	85.4	0.234	30	72.0-135
1,2-dichloropropane	BQL	32.7	28.8	88.1	32.7	27.2	83.3	5.64	30	76.1-136
1,3-dichloropropane	BQL	32.7	30.3	92.5	32.7	28.8	88.0	4.99	30	83.2-137
2,2-dichloropropane	BQL	32.7	28.1	86.0	32.7	27.8	85.0	1.13	30	58.0-150
1,1-dichloropropene	BQL	32.7	27.7	84.7	32.7	26.8	82.1	3.16	30	68.5-137
cis-1,3-dichloropropene	BQL	32.7	27.8	84.9	32.7	26.6	81.2	4.50	30	72.1-146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Inst: MSD9

Lab Code: NC00919 — Batch: 9061609

EPA Sample No.: G520-369-26a, G520-369-26a, G520-369-26a — Dilution: 1

Filenames: 0616913.D, 0616914.D, 0616915.D — Matrix: Soil

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	BQL	32.7	27.8	84.8	32.7	26.4	80.7	4.99	30	44.7-144
Diisopropyl ether	BQL	32.7	28.7	87.8	32.7	27.5	84.0	4.35	30	79.4-122
ethylbenzene	1.48	32.7	28.2	81.8	32.7	26.9	77.8	4.93	30	73.8-126
hexachlorobutadiene	BQL	32.7	19.0	58.1	32.7	16.0	48.9*	17.3	30	51.8-134
2-hexanone	BQL	32.7	94.7	290*	32.7	86.7	265*	8.87	30	41.6-111
Iodomethane	BQL	32.7	26.4	80.8	32.7	27.7	84.6	4.68	30	40.6-126
isopropylbenzene	BQL	32.7	26.4	80.6	32.7	24.9	76.3	5.57	30	74.3-123
4-isopropyltoluene	BQL	32.7	24.5	75.0	32.7	21.9	66.8*	11.5	30	74.6-122
Methyl-tert-butyl ether	BQL	32.7	29.8	91.0	32.7	29.1	89.0	2.26	30	66.5-136
methylene chloride	BQL	131	30.4	21.0*	131	30.3	20.8*	0.518	30	48.6-155
4-methyl-2-pentanone	BQL	32.7	79.5	243*	32.7	77.0	235*	3.32	30	6.88-166
naphthalene	6.32	32.7	35.5	89.3	32.7	30.9	75.1	17.3	30	55.1-140
n-propyl benzene	2.41	32.7	26.2	72.6	32.7	24.5	67.6*	7.18	30	71.6-128
styrene	BQL	32.7	26.9	82.1	32.7	25.1	76.8	6.67	30	73.2-123
1,1,1,2-tetrachloroethane	BQL	32.7	31.0	94.7	32.7	29.7	90.8	4.24	30	69.4-120
1,1,2,2-tetrachloroethane	BQL	32.7	28.7	87.8	32.7	26.8	81.8	7.00	30	75.7-136
tetrachloroethene	BQL	32.7	42.5	130	32.7	41.2	126	3.18	30	45.8-153
toluene	**BQL**	**32.7**	**27.8**	**85.1**	**32.7**	**26.3**	**80.4**	**5.72**	**30**	**66.4-128**
1,2,3-trichlorobenzene	BQL	32.7	22.3	68.2	32.7	18.4	56.4*	19.0	30	61.0-126
1,2,4-trichlorobenzene	BQL	32.7	22.4	68.5	32.7	19.0	57.9*	16.7	30	60.6-125
1,1,1-trichloroethane	BQL	32.7	28.4	86.7	32.7	28.3	86.5	0.231	30	78.4-121
1,1,2-trichloroethane	BQL	32.7	30.6	93.6	32.7	29.6	90.4	3.40	30	64.8-128
trichloroethene	**BQL**	**32.7**	**28.9**	**88.3**	**32.7**	**28.0**	**85.5**	**3.14**	**30**	**84.9-136**
trichlorofluoromethane	BQL	32.7	23.9	73.0*	32.7	23.4	71.4*	2.17	30	76.8-132
1,2,3-trichloropropane	BQL	32.7	29.2	89.3	32.7	27.3	83.3	6.95	30	10.0-218
1,2,4-trimethylbenzene	19.9	32.7	40.9	64.3	32.7	40.8	63.8	0.728	30	31.0-172
1,3,5-trimethylbenzene	4.66	32.7	29.5	75.9	32.7	27.9	71.0	6.67	30	67.7-132
Vinyl acetate	BQL	81.8	36.0	44.0	81.8	30.1	36.8	17.9	30	0.00-355
vinyl chloride	BQL	32.7	25.1	76.6	32.7	23.8	72.8	5.08	30	68.1-137
m/p-xylene	2.46	65.4	56.8	83.1	65.4	54.1	78.9*	5.19	30	79.8-118
o-xylene	1.16	32.7	29.0	85.2	32.7	28.0	82.1	3.74	30	80.0-121

System Monitoring Compound Results

		MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	50	49.42	98.8	50	49.19	98.4	49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	51.82	104	50	52.69	105	37.8-170
2037-26-5	Toluene-d8	50	47.96	95.9	50	48.28	96.6	58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 7 failure(s) out of 72. MSD Spike Recovery: 13 failure(s) out of 72.

RPD: 0 out of 72 outside of limits

COMMENTS: _____

Analyst: _____ Reviewed by: _____

SGS North America, Inc.

Results for Volatiles
by GCMS 8260B

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK3061609B
Lab Project ID:

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
Acetone	BQL	25.0	1	6/16/2009
Benzene	BQL	1.00	1	6/16/2009
Bromobenzene	BQL	1.00	1	6/16/2009
Bromochloromethane	BQL	1.00	1	6/16/2009
Bromodichloromethane	BQL	1.00	1	6/16/2009
Bromoform	BQL	1.00	1	6/16/2009
Bromomethane	BQL	1.00	1	6/16/2009
2-Butanone	BQL	25.0	1	6/16/2009
n-Butylbenzene	BQL	1.00	1	6/16/2009
sec-Butylbenzene	BQL	1.00	1	6/16/2009
tert-Butylbenzene	BQL	1.00	1	6/16/2009
Carbon disulfide	BQL	1.00	1	6/16/2009
Carbon tetrachloride	BQL	1.00	1	6/16/2009
Chlorobenzene	BQL	1.00	1	6/16/2009
Chloroethane	BQL	1.00	1	6/16/2009
Chloroform	BQL	1.00	1	6/16/2009
Chloromethane	BQL	1.00	1	6/16/2009
2-Chlorotoluene	BQL	1.00	1	6/16/2009
4-Chlorotoluene	BQL	1.00	1	6/16/2009
Dibromochloromethane	BQL	1.00	1	6/16/2009
1,2-Dibromo-3-chloropropane	BQL	5.00	1	6/16/2009
Dibromomethane	BQL	1.00	1	6/16/2009
1,2-Dibromoethane (EDB)	BQL	1.00	1	6/16/2009
1,2-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,3-Dichlorobenzene	BQL	1.00	1	6/16/2009
1,4-Dichlorobenzene	BQL	1.00	1	6/16/2009
trans-1,4-Dichloro-2-butene	BQL	5.00	1	6/16/2009
1,1-Dichloroethane	BQL	1.00	1	6/16/2009
1,1-Dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloroethane	BQL	1.00	1	6/16/2009
cis-1,2-Dichloroethene	BQL	1.00	1	6/16/2009
trans-1,2-dichloroethene	BQL	1.00	1	6/16/2009
1,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,3-Dichloropropane	BQL	1.00	1	6/16/2009
2,2-Dichloropropane	BQL	1.00	1	6/16/2009
1,1-Dichloropropene	BQL	1.00	1	6/16/2009
cis-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
trans-1,3-Dichloropropene	BQL	1.00	1	6/16/2009
Dichlorodifluoromethane	BQL	5.00	1	6/16/2009
Diisopropyl ether (DIPE)	BQL	1.00	1	6/16/2009
Ethylbenzene	BQL	1.00	1	6/16/2009
Hexachlorobutadiene	BQL	1.00	1	6/16/2009
2-Hexanone	BQL	5.00	1	6/16/2009
Iodomethane	BQL	1.00	1	6/16/2009
Isopropylbenzene	BQL	1.00	1	6/16/2009

Results for Volatiles
by GCMS 8260B

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK3061609B
Lab Project ID:

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	Quantitation Limit UG/L	Dilution Factor	Date Analyzed
4-Isopropyltoluene	BQL	1.00	1	6/16/2009
Methylene chloride	BQL	5.00	1	6/16/2009
4-Methyl-2-pentanone	BQL	5.00	1	6/16/2009
Methyl-tert-butyl ether (MTBE)	BQL	1.00	1	6/16/2009
Naphthalene	BQL	1.00	1	6/16/2009
n-Propyl benzene	BQL	1.00	1	6/16/2009
Styrene	BQL	1.00	1	6/16/2009
1,1,1,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
1,1,2,2-Tetrachloroethane	BQL	1.00	1	6/16/2009
Tetrachloroethene	BQL	1.00	1	6/16/2009
Toluene	BQL	1.00	1	6/16/2009
1,2,3-Trichlorobenzene	BQL	1.00	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	1.00	1	6/16/2009
Trichloroethene	BQL	1.00	1	6/16/2009
1,1,1-Trichloroethane	BQL	1.00	1	6/16/2009
1,1,2-Trichloroethane	BQL	1.00	1	6/16/2009
Trichlorofluoromethane	BQL	1.00	1	6/16/2009
1,2,3-Trichloropropane	BQL	1.00	1	6/16/2009
1,2,4-Trimethylbenzene	BQL	1.00	1	6/16/2009
1,3,5-Trimethylbenzene	BQL	1.00	1	6/16/2009
Vinyl chloride	BQL	1.00	1	6/16/2009
m-,p-Xylene	BQL	2.00	1	6/16/2009
o-Xylene	BQL	1.00	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	10	9.48	95
Toluene-d8	10	10.2	102
4-Bromofluorobenzene	10	10.4	104

Comments:

Flags:
BQL = Below Quantitation Limits.

Analyst: DVO

Reviewed By: [signature]

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental
Dilution: 1
Lab Code: NC00919
Matrix: Water
LCS: LCS3061609A Filename: 0616303.D Date Analyzed: 06/16/09 10:06
LCSD: LCS3061609B Filename: 0616305.D Date Analyzed: 06/16/09 11:08

COMPOUND	LCS SPIKE (µg/L)	LCS CONC (µg/L)	LCS % REC #	LCSD SPIKE (µg/L)	LCSD CONC (µg/L)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	25.0	22.3	89.2	25.0	26.0	104	15.4	30	23.5-141
acrolein	125	113	90.5	125	106	84.7	6.63	30	31.4-182
acrylonitrile	125	116	92.7	125	108	86.4	7.12	30	64.2-140
benzene	5.00	4.86	97.2	5.00	4.89	97.8	0.615	30	76.6-120
bromobenzene	5.00	4.58	91.6	5.00	4.69	93.8	2.37	30	75.0-122
bromochloromethane	5.00	4.77	95.4	5.00	4.89	97.8	2.48	30	74.8-127
bromodichloromethane	5.00	4.85	97.0	5.00	4.80	96.0	1.04	30	76.4-117
bromoform	5.00	4.31	86.2	5.00	4.23	84.6	1.87	30	62.4-127
bromomethane	5.00	4.94	98.8	5.00	4.51	90.2	9.10	30	34.2-166
2-butanone	25.0	21.6	86.3	25.0	23.6	94.2	8.77	30	44.9-126
n-butylbenzene	5.00	4.93	98.6	5.00	4.99	99.8	1.21	30	72.0-122
sec-butylbenzene	5.00	4.79	95.8	5.00	4.82	96.4	0.624	30	78.3-116
tert-butylbenzene	5.00	4.77	95.4	5.00	5.00	100	4.71	30	53.1-148
Carbon disulfide	5.00	4.68	93.6	5.00	4.73	94.6	1.06	30	69.0-118
carbon tetrachloride	5.00	5.07	101	5.00	5.15	103	1.56	30	71.7-124
chlorobenzene	5.00	4.67	93.4	5.00	4.71	94.2	0.853	30	75.5-116
chloroethane	5.00	4.75	95.0	5.00	4.49	89.8	5.63	30	78.2-138
2-chloroethyl vinyl ether	125	131	105	125	124	98.9	6.01	30	5.57-235
chloroform	5.00	4.84	96.8	5.00	4.95	99.0	2.25	30	80.6-117
chloromethane	5.00	4.28	85.6	5.00	3.88	77.6	9.80	30	72.6-127
2-chlorotoluene	5.00	4.70	94.0	5.00	4.77	95.4	1.48	30	81.4-117
4-chlorotoluene	5.00	4.93	98.6	5.00	4.71	94.2	4.56	30	82.1-116
dibromochloromethane	5.00	4.43	88.6	5.00	4.72	94.4	6.34	30	73.1-117
1,2-dibromo-3-chloropropane	25.0	21.8	87.2	25.0	22.9	91.7	5.05	30	58.0-133
1,2-dibromoethane	5.00	4.39	87.8	5.00	4.71	94.2	7.03	30	75.5-118
dibromomethane	5.00	4.66	93.2	5.00	4.97	99.4	6.44	30	77.3-124
1,2-dichlorobenzene	5.00	4.74	94.8	5.00	4.79	95.8	1.05	30	76.3-115
1,3-dichlorobenzene	5.00	4.77	95.4	5.00	4.89	97.8	2.48	30	79.1-114
1,4-dichlorobenzene	5.00	4.66	93.2	5.00	4.82	96.4	3.38	30	76.8-115
trans-1,4-Dichloro-2-butene	25.0	22.7	90.8	25.0	24.0	95.8	5.40	30	52.3-130
dichlorodifluoromethane	5.00	3.63	72.6	5.00	3.39	67.8*	6.84	30	69.8-134
1,1-dichloroethane	5.00	4.93	98.6	5.00	4.97	99.4	0.808	30	78.0-120
1,2-dichloroethane	5.00	4.64	92.8	5.00	4.78	95.6	2.97	30	72.8-126
1,1-dichloroethene	5.00	5.03	101	5.00	5.13	103	1.96	30	74.6-121
cis-1,2-dichloroethene	5.00	5.04	101	5.00	5.00	100	0.797	30	78.0-121
trans-1,2-dichloroethene	5.00	4.94	98.8	5.00	5.01	100	1.41	30	60.7-144
1,2-dichloropropane	5.00	4.95	99.0	5.00	4.95	99.0	0.00	30	75.8-119
1,3-dichloropropane	5.00	4.85	97.0	5.00	4.59	91.8	5.51	30	78.5-113
2,2-dichloropropane	5.00	5.06	101	5.00	5.13	103	1.37	30	75.6-130
1,1-dichloropropene	5.00	4.97	99.4	5.00	5.00	100	0.602	30	79.7-117
cis-1,3-dichloropropene	5.00	4.91	98.2	5.00	4.92	98.4	0.203	30	79.8-113

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental — Dilution: 1

Lab Code: NC00919 — Matrix: Water

LCS: LCS3061609A — Filename: 0616303.D — Date Analyzed: 06/16/09 10:06

LCSD: LCS3061609B — Filename: 0616305.D — Date Analyzed: 06/16/09 11:08

COMPOUND	LCS SPIKE (µg/L)	LCS CONC (µg/L)	LCS % REC #	LCSD SPIKE (µg/L)	LCSD CONC (µg/L)	LCSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	5.00	4.75	95.0	5.00	4.88	97.6	2.70	30	79.0-113
Diisopropyl ether	5.00	4.53	90.6	5.00	4.61	92.2	1.75	30	71.8-115
ethylbenzene	5.00	4.72	94.4	5.00	4.80	96.0	1.68	30	80.5-115
hexachlorobutadiene	5.00	4.68	93.6	5.00	5.09	102	8.39	30	63.3-139
2-hexanone	25.0	21.0	84.0	25.0	22.1	88.3	4.92	30	46.8-123
Iodomethane	5.00	4.56	91.2	5.00	4.65	93.0	1.95	30	29.3-156
isopropylbenzene	5.00	4.78	95.6	5.00	5.00	100	4.50	30	81.6-114
4-isopropyltoluene	5.00	4.77	95.4	5.00	4.94	98.8	3.50	30	78.4-119
Methyl-tert-butyl ether	5.00	4.43	88.6	5.00	4.53	90.6	2.23	30	76.0-114
methylene chloride	5.00	4.44	88.8	5.00	4.59	91.8	3.32	30	72.9-120
4-methyl-2-pentanone	25.0	21.3	85.2	25.0	22.3	89.1	4.40	30	56.2-124
naphthalene	5.00	4.45	89.0	5.00	4.87	97.4	9.01	30	24.8-182
n-propyl benzene	5.00	4.79	95.8	5.00	4.85	97.0	1.24	30	79.0-116
styrene	5.00	4.75	95.0	5.00	4.78	95.6	0.630	30	64.8-132
1,1,1,2-tetrachloroethane	5.00	4.75	95.0	5.00	4.84	96.8	1.88	30	78.8-118
1,1,2,2-tetrachloroethane	5.00	4.54	90.8	5.00	4.74	94.8	4.31	30	69.7-119
tetrachloroethene	5.00	4.42	88.4	5.00	4.74	94.8	6.99	30	55.3-144
toluene	5.00	4.70	94.0	5.00	4.89	97.8	3.96	30	78.6-117
1,2,3-trichlorobenzene	5.00	4.65	93.0	5.00	4.84	96.8	4.00	30	20.8-193
1,2,4-trichlorobenzene	5.00	4.60	92.0	5.00	4.79	95.8	4.05	30	47.9-150
1,1,1-trichloroethane	5.00	4.99	99.8	5.00	5.06	101	1.39	30	78.8-120
1,1,2-trichloroethane	5.00	4.54	90.8	5.00	4.65	93.0	2.39	30	73.6-117
trichloroethene	5.00	4.99	99.8	5.00	5.08	102	2.18	30	80.1-116
trichlorofluoromethane	5.00	4.91	98.2	5.00	4.52	90.4	8.27	30	80.5-130
1,2,3-trichloropropane	5.00	4.56	91.2	5.00	4.51	90.2	1.10	30	35.6-152
1,2,4-trimethylbenzene	5.00	4.72	94.4	5.00	4.87	97.4	3.13	30	77.0-116
1,3,5-trimethylbenzene	5.00	4.83	96.6	5.00	4.90	98.0	1.44	30	79.4-114
Vinyl acetate	12.5	10.9	87.4	12.5	11.4	91.0	4.03	30	60.7-127
vinyl chloride	5.00	4.29	85.8	5.00	4.14	82.8	3.56	30	77.5-126
m/p-xylene	10.0	9.55	95.5	10.0	9.61	96.1	0.626	30	82.9-112
o-xylene	5.00	4.77	95.4	5.00	4.91	98.2	2.89	30	81.3-113

System Monitoring Compound Results

		LCS SPIKE (µg/L)	LCS CONC (µg/L)	LCS % REC #	LCSD SPIKE (µg/L)	LCSD CONC (µg/L)	LCSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	10	9.92	99.2	10	9.79	97.9	84.7-115
17060-07-0	1,2-Dichloroethane-d4	10	9.76	97.6	10	9.97	99.7	63.5-140
2037-26-5	Toluene-d8	10	10.02	100	10	10.1	101	81.8-117

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS Spike Recovery: 0 failure(s) out of 72. LCSD Spike Recovery: 1 failure(s) out of 72.

RPD: 0 out of 72 outside of limits

COMMENTS: _____

Analyst: DVO

Reviewed by: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Lab Code: NC00919 Inst: MSD3

	EPA Sample No.:	Amt.	Filenames:	Analysis Dates:	Batch: 3061609
Sample	g563-299-1a	5 mL	0616318.D	2009-06-16 18:16:00	Dilution: 40
MS	g563-299-1a	5 mL	0616319.D	2009-06-16 18:46:00	Matrix: Water
MSD	g563-299-1a	5 mL	0616320.D	2009-06-16 19:17:00	

COMPOUND	SAMPLE CONC (µg/L)	MS SPIKE (µg/L)	MS CONC (µg/L)	MS % REC #	MSD SPIKE (µg/L)	MSD CONC (µg/L)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
acetone	BQL	1000	958	95.8*	1000	905	90.5*	5.62	30	17.7-85.2
acrolein	BQL	5000	3650	73.0	5000	3930	78.6	7.40	30	0.00-424
acrylonitrile	BQL	5000	3760	75.2*	5000	3990	79.9*	6.07	30	85.0-175
benzene	BQL	200	210	97.8	200	213	99.4	1.62	30	61.6-135
bromobenzene	BQL	200	182	90.8	200	195	97.6	7.22	30	65.1-125
bromochloromethane	BQL	200	198	99.2	200	190	95.0	4.32	30	75.5-126
bromodichloromethane	BQL	200	197	98.4	200	196	97.8	0.612	30	74.3-123
bromoform	BQL	200	170	85.0	200	187	93.4	9.42	30	52.3-122
bromomethane	BQL	200	139	69.6	200	179	89.4	24.9	30	10.0-284
2-butanone	BQL	1000	915	91.5	1000	841	84.1	8.43	30	36.1-107
n-butylbenzene	BQL	200	240	120	200	257	128*	6.75	30	70.2-124
sec-butylbenzene	BQL	200	213	97.4	200	222	102	4.61	30	62.0-133
tert-butylbenzene	BQL	200	210	105	200	216	108	3.00	30	73.5-121
Carbon disulfide	BQL	200	185	92.6	200	188	94.2	1.71	30	68.8-129
carbon tetrachloride	BQL	200	200	100	200	202	101	1.19	30	71.8-122
chlorobenzene	BQL	200	185	92.6	200	199	99.4	7.08	30	77.2-118
chloroethane	BQL	200	158	79.2	200	180	90.0	12.8	30	10.0-233
2-chloroethyl vinyl ether	BQL	500	1070	215	500	790	158	30.4*	30	16.7-283
chloroform	BQL	200	196	98.0	200	204	102	4.20	30	74.0-128
chloromethane	BQL	200	133	66.4*	200	148	73.8	10.6	30	72.0-138
2-chlorotoluene	BQL	200	186	92.8	200	196	98.0	5.45	30	79.3-118
4-chlorotoluene	BQL	200	191	95.6	200	200	100	4.50	30	76.8-120
dibromochloromethane	BQL	200	182	90.8	200	190	95.2	4.73	30	69.0-117
1,2-dibromo-3-chloropropane	BQL	1000	870	87.0	1000	938	93.8	7.52	30	20.2-171
1,2-dibromoethane	BQL	200	176	87.8	200	194	97.2	10.2	30	78.5-123
dibromomethane	BQL	200	191	95.4	200	190	94.8	0.631	30	71.3-137
1,2-dichlorobenzene	BQL	200	188	93.8	200	196	98.2	4.58	30	75.1-120
1,3-dichlorobenzene	BQL	200	190	95.0	200	202	101	6.32	30	73.1-121
1,4-dichlorobenzene	BQL	200	193	96.4	200	196	98.2	1.85	30	74.8-118
trans-1,4-Dichloro-2-butene	BQL	1000	922	92.2	1000	927	92.7	0.519	30	25.7-149
dichlorodifluoromethane	BQL	200	115	57.4	200	132	65.8	13.6	30	41.7-166
1,1-dichloroethane	BQL	200	199	99.4	200	206	103	3.56	30	75.6-128
1,2-dichloroethane	BQL	200	196	97.8	200	192	96.2	1.65	30	71.1-127
1,1-dichloroethene	BQL	200	198	99.0	200	204	102	2.98	30	64.4-130
cis-1,2-dichloroethene	BQL	200	201	101	200	209	105	3.90	30	72.7-134
trans-1,2-dichloroethene	BQL	200	200	99.8	200	206	103	3.35	30	74.6-124
1,2-dichloropropane	BQL	200	200	100	200	200	100	0.00	30	76.5-129
1,3-dichloropropane	BQL	200	185	92.4	200	194	97.0	4.86	30	79.1-121
2,2-dichloropropane	BQL	200	195	97.6	200	202	101	3.42	30	31.5-157
1,1-dichloropropene	BQL	200	200	100	200	203	101	1.39	30	72.5-120
cis-1,3-dichloropropene	BQL	200	193	96.4	200	208	104	7.39	30	66.6-132

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental | Inst: MSD3

Lab Code: NC00919 | Batch: 3061609

EPA Sample No.: g563-299-1a, g563-299-1a, g563-299-1a | Dilution: 40

Filenames: 0616318.D, 0616319.D, 0616320.D | Matrix: Water

COMPOUND	SAMPLE CONC (µg/L)	MS SPIKE (µg/L)	MS CONC (µg/L)	MS % REC #	MSD SPIKE (µg/L)	MSD CONC (µg/L)	MSD % REC #	% RPD	QC LIMITS RPD	QC LIMITS REC
trans-1,3-dichloropropene	BQL	200	191	95.6	200	192	96.2	0.626	30	44.7-144
Diisopropyl ether	BQL	200	185	92.4	200	184	91.8	0.651	30	79.4-122
ethylbenzene	283	200	479	98.0	200	484	100	2.42	30	73.8-126
hexachlorobutadiene	BQL	200	186	92.8	200	209	104	11.8	30	51.8-134
2-hexanone	BQL	1000	902	90.2	1000	914	91.4	1.41	30	41.6-111
Iodomethane	BQL	200	185	92.6	200	196	97.8	5.46	30	40.6-126
isopropylbenzene	52.0	200	244	96.0	200	251	99.6	3.68	30	74.3-123
4-isopropyltoluene	BQL	200	214	98.6	200	225	104	5.52	30	74.6-122
Methyl-tert-butyl ether	BQL	200	184	92.0	200	183	91.4	0.654	30	66.5-136
methylene chloride	BQL	200	175	87.6	200	183	91.4	4.24	30	48.6-155
4-methyl-2-pentanone	BQL	1000	885	88.5	1000	864	86.4	2.47	30	6.88-166
naphthalene	302	200	497	97.8	200	504	101	3.42	30	55.1-140
n-propyl benzene	167	200	370	102	200	376	104	2.72	30	71.6-128
styrene	BQL	200	192	96.0	200	197	98.4	2.47	30	73.2-123
1,1,1,2-tetrachloroethane	BQL	200	188	93.8	200	196	98.0	4.38	30	69.4-120
1,1,2,2-tetrachloroethane	BQL	200	188	93.8	200	191	95.4	1.69	30	75.7-136
tetrachloroethene	BQL	200	182	91.2	200	197	98.4	7.59	30	45.8-153
toluene	BQL	200	195	97.6	200	195	97.6	0.00	30	66.4-128
1,2,3-trichlorobenzene	BQL	200	165	82.6	200	191	95.6	14.6	30	61.0-126
1,2,4-trichlorobenzene	BQL	200	171	85.6	200	186	93.2	8.50	30	60.6-125
1,1,1-trichloroethane	BQL	200	197	98.6	200	202	101	2.40	30	78.4-121
1,1,2-trichloroethane	BQL	200	198	98.8	200	202	101	2.20	30	64.8-128
trichloroethene	BQL	200	196	98.0	200	206	103	5.17	30	84.9-136
trichlorofluoromethane	BQL	200	150	75.2*	200	169	84.4	11.5	30	76.8-132
1,2,3-trichloropropane	BQL	200	186	93.2	200	188	93.8	0.642	30	10.0-218
1,2,4-trimethylbenzene	124	200	319	97.4	200	327	101	4.02	30	31.0-172
1,3,5-trimethylbenzene	BQL	200	220	94.6	200	228	98.8	4.34	30	67.7-132
Vinyl acetate	BQL	500	451	90.2	500	448	89.6	0.712	30	0.00-355
vinyl chloride	BQL	200	138	69.2	200	159	79.4	13.7	30	68.1-137
m/p-xylene	183	400	556	93.2	400	556	93.1	0.107	30	79.8-118
o-xylene	57.6	200	252	97.2	200	260	101	4.03	30	80.0-121

System Monitoring Compound Results

		MS SPIKE (µg/L)	MS CONC (µg/L)	MS % REC #	MSD SPIKE (µg/L)	MSD CONC (µg/L)	MSD % REC #	QC LIMITS REC
460-00-4	4-Bromofluorobenzene	10	9.91	99.1	10	10.05	100	84.7-115
17060-07-0	1,2-Dichloroethane-d4	10	10.02	100	10	9.81	98.1	63.5-140
2037-26-5	Toluene-d8	10	9.95	99.5	10	9.87	98.7	81.8-117

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 4 failure(s) out of 72. MSD Spike Recovery: 3 failure(s) out of 72.

RPD: 1 out of 72 outside of limits

COMMENTS: _____

Analyst: OVO

Reviewed by: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: G443-616-2C
Lab Project ID: G443-616

Initial Volume: 966 mL

Analyzed By: DCS
Date Collected: 6/9/2009 10:30
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Matrix: Water

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed	
Acenaphthene	BQL	5.18	1	6/15/2009	
Acenaphthylene	BQL	5.18	1	6/15/2009	
Anthracene	BQL	5.18	1	6/15/2009	
Benzo[a]anthracene	BQL	5.18	1	6/15/2009	
Benzo[a]pyrene	BQL	5.18	1	6/15/2009	
Benzo[b]fluoranthene	BQL	5.18	1	6/15/2009	UJ
Benzo[g,h,i]perylene	BQL	5.18	1	6/15/2009	
Benzo[k]fluoranthene	BQL	5.18	1	6/15/2009	
Benzoic Acid	BQL	25.9	1	6/15/2009	
Bis(2-chloroethoxy)methane	BQL	5.18	1	6/15/2009	
Bis(2-chloroethyl)ether	BQL	5.18	1	6/15/2009	
Bis(2-chloroisopropyl)ether	BQL	5.18	1	6/15/2009	
Bis(2-ethylhexyl)phthalate	BQL	5.18	1	6/15/2009	
4-bromophenyl phenyl ether	BQL	5.18	1	6/15/2009	
Butylbenzylphthalate	BQL	5.18	1	6/15/2009	
2-Chloronaphthalene	BQL	5.18	1	6/15/2009	
2-Chlorophenol	BQL	5.18	1	6/15/2009	
4-Chloro-3-methylphenol	BQL	5.18	1	6/15/2009	
4-Chloroaniline	BQL	25.9	1	6/15/2009	
4-Chlorophenyl phenyl ether	BQL	5.18	1	6/15/2009	UJ
Chrysene	BQL	5.18	1	6/15/2009	
Dibenzo[a,h]anthracene	BQL	5.18	1	6/15/2009	
Dibenzofuran	BQL	5.18	1	6/15/2009	
Di-n-Butylphthalate	BQL	5.18	1	6/15/2009	
1,2-Dichlorobenzene	BQL	5.18	1	6/15/2009	
1,3-Dichlorobenzene	BQL	5.18	1	6/15/2009	
1,4-Dichlorobenzene	BQL	5.18	1	6/15/2009	
3,3'-Dichlorobenzidine	BQL	10.4	1	6/15/2009	
2,4-Dichlorophenol	BQL	5.18	1	6/15/2009	
Diethylphthalate	BQL	5.18	1	6/15/2009	
Dimethylphthalate	BQL	5.18	1	6/15/2009	
2,4-Dimethylphenol	BQL	5.18	1	6/15/2009	
Di-n-octylphthalate	BQL	5.18	1	6/15/2009	
4,6-Dinitro-2-methylphenol	BQL	25.9	1	6/15/2009	
2,4-Dinitrophenol	BQL	25.9	1	6/15/2009	
2,4-Dinitrotoluene	BQL	5.18	1	6/15/2009	
2,6-Dinitrotoluene	BQL	5.18	1	6/15/2009	
Fluoranthene	BQL	5.18	1	6/15/2009	
Fluorene	BQL	5.18	1	6/15/2009	
Hexachlorobenzene	BQL	5.18	1	6/15/2009	
Hexachlorobutadiene	BQL	5.18	1	6/15/2009	
Hexachlorocyclopentadiene	BQL	10.4	1	6/15/2009	
Hexachloroethane	BQL	5.18	1	6/15/2009	
Indeno(1,2,3-c,d)pyrene	BQL	5.18	1	6/15/2009	
Isophorone	BQL	5.18	1	6/15/2009	
2-Methylnaphthalene	BQL	5.18	1	6/15/2009	
2-Methylphenol	BQL	5.18	1	6/15/2009	

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: G443-616-2C
Lab Project ID: G443-616

Initial Volume: 966 mL

Analyzed By: DCS
Date Collected: 6/9/2009 10:30
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Matrix: Water

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	5.18	1	6/15/2009
Naphthalene	BQL	5.18	1	6/15/2009
2-Nitroaniline	BQL	5.18	1	6/15/2009
3-Nitroaniline	BQL	25.9	1	6/15/2009
4-Nitroaniline	BQL	25.9	1	6/15/2009
Nitrobenzene	BQL	5.18	1	6/15/2009
2-Nitrophenol	BQL	5.18	1	6/15/2009
4-Nitrophenol	BQL	25.9	1	6/15/2009
Diphenylamine *	BQL	5.18	1	6/15/2009
Pentachlorophenol	BQL	25.9	1	6/15/2009
Phenanthrene	BQL	5.18	1	6/15/2009
Phenol	BQL	5.18	1	6/15/2009
Pyrene	BQL	5.18	1	6/15/2009
1,2,4-Trichlorobenzene	BQL	5.18	1	6/15/2009
2,4,5-Trichlorophenol	BQL	5.18	1	6/15/2009
2,4,6-Trichlorophenol	BQL	5.18	1	6/15/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.7	77
2-Fluorophenol	10	7.7	77
Nitrobenzene-d5	10	7.2	73
Phenol-d6	10	7.7	77
2,4,6-Tribromophenol	10	6.3	63
4-Terphenyl-d14	10	10	100

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: SW1
Client Project ID: Holcomb
Lab Sample ID: G443-616-2C
Lab Project ID: G443-616
Sample Wt/Vol: 966 ML
Dilution: 1

Analyzed By: DES
Date Collected: 6/9/2009 10:30
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Date Analyzed: 6/15/2009
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/L
	No TICs present				

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: _____

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID: G443-616-4B
Lab Project ID: G443-616
Report Basis: Dry weight
Initial Weight: 33.86 g

Analyzed By: DCS
Date Collected: 6/9/2009 10:39
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Matrix: Sediment
% Solids: 74.15

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed	
Acenaphthene	**749**	398	1	6/18/2009	
Acenaphthylene	BQL	398	1	6/18/2009	
Anthracene	**856**	398	1	6/18/2009	J+
Benzo[a]anthracene	**1730**	398	1	6/18/2009	
Benzo[a]pyrene	**1000**	398	1	6/18/2009	
Benzo[b]fluoranthene	**1970**	398	1	6/18/2009	
Benzo[g,h,i]perylene	**510**	398	1	6/18/2009	
Benzo[k]fluoranthene	**745**	398	1	6/18/2009	
Benzoic Acid	BQL	1990	1	6/18/2009	
Bis(2-chloroethoxy)methane	BQL	398	1	6/18/2009	
Bis(2-chloroethyl)ether	BQL	398	1	6/18/2009	
Bis(2-chloroisopropyl)ether	BQL	398	1	6/18/2009	
Bis(2-ethylhexyl)phthalate	BQL	398	1	6/18/2009	
4-bromophenyl phenyl ether	BQL	398	1	6/18/2009	
Butylbenzylphthalate	BQL	398	1	6/18/2009	
2-Chloronaphthalene	BQL	398	1	6/18/2009	
2-Chlorophenol	BQL	398	1	6/18/2009	
4-Chloro-3-methylphenol	BQL	398	1	6/18/2009	
4-Chloroaniline	BQL	1990	1	6/18/2009	
4-Chlorophenyl phenyl ether	BQL	398	1	6/18/2009	
Chrysene	**2870**	398	1	6/18/2009	
Dibenzo[a,h]anthracene	**494**	398	1	6/18/2009	
Dibenzofuran	**402**	398	1	6/18/2009	
Di-n-Butylphthalate	BQL	398	1	6/18/2009	
1,2-Dichlorobenzene	BQL	398	1	6/18/2009	
1,3-Dichlorobenzene	BQL	398	1	6/18/2009	
1,4-Dichlorobenzene	BQL	398	1	6/18/2009	
3,3'-Dichlorobenzidine	BQL	797	1	6/18/2009	
2,4-Dichlorophenol	BQL	398	1	6/18/2009	
Diethylphthalate	BQL	398	1	6/18/2009	
Dimethylphthalate	BQL	398	1	6/18/2009	
2,4-Dimethylphenol	BQL	398	1	6/18/2009	
Di-n-octylphthalate	BQL	398	1	6/18/2009	
4,6-Dinitro-2-methylphenol	BQL	1990	1	6/18/2009	
2,4-Dinitrophenol	BQL	1990	1	6/18/2009	
2,4-Dinitrotoluene	BQL	398	1	6/18/2009	
2,6-Dinitrotoluene	BQL	398	1	6/18/2009	
Fluoranthene	**5970**	398	1	6/18/2009	J+
Fluorene	**653**	398	1	6/18/2009	
Hexachlorobenzene	BQL	398	1	6/18/2009	
Hexachlorobutadiene	BQL	398	1	6/18/2009	
Hexachlorocyclopentadiene	BQL	797	1	6/18/2009	
Hexachloroethane	BQL	398	1	6/18/2009	
Indeno(1,2,3-c,d)pyrene	**669**	398	1	6/18/2009	
Isophorone	BQL	398	1	6/18/2009	
2-Methylnaphthalene	BQL	398	1	6/18/2009	
2-Methylphenol	BQL	398	1	6/18/2009	

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID: G443-616-4B
Lab Project ID: G443-616
Report Basis: Dry weight
Initial Weight: 33.86 g

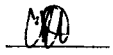
Analyzed By: DCS
Date Collected: 6/9/2009 10:39
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Matrix: Sediment
% Solids: 74.15

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	398	1	6/18/2009
Naphthalene	**1570**	398	1	6/18/2009
2-Nitroaniline	BQL	398	1	6/18/2009
3-Nitroaniline	BQL	1990	1	6/18/2009
4-Nitroaniline	BQL	1990	1	6/18/2009
Nitrobenzene	BQL	398	1	6/18/2009
2-Nitrophenol	BQL	398	1	6/18/2009
4-Nitrophenol	BQL	1990	1	6/18/2009
Diphenylamine *	BQL	398	1	6/18/2009
Pentachlorophenol	BQL	1990	1	6/18/2009
Phenanthrene	**2250**	398	1	6/18/2009
Phenol	BQL	398	1	6/18/2009
Pyrene	**4930**	398	1	6/18/2009
1,2,4-Trichlorobenzene	BQL	398	1	6/18/2009
2,4,5-Trichlorophenol	BQL	398	1	6/18/2009
2,4,6-Trichlorophenol	BQL	398	1	6/18/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	10	100
Nitrobenzene-d5	10	8.1	81
Phenol-d6	10	9.5	95
2,4,6-Tribromophenol	10	7	70
4-Terphenyl-d14	10	9.9	99

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: SED1
Client Project ID: Holcomb
Lab Sample ID: G443-616-4B
Lab Project ID: G443-616
Sample Wt/Vol: 33.86 g
Dilution: 1

Analyzed By: DES
Date Collected: 6/9/2009 10:39
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Date Analyzed: 6/18/2009
Matrix: Sediment
% Solids: 5.0

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/Kg
1	Ketone, Unknown	15.00			20100
2	Benzo[j]fluoranthene	12.80	205-82-3	98	18200
3	Tritetracontane	12.60	7098-21-7	91	17800
4	Aldehyde, Unknown	14.60			17600
5	Alkane, Unknown	13.60			13800
6	Aromatic, Unknown	9.01			12800
7	Ketone, Unknown	15.20			10100
8	Oxirane, hexadecyl-	13.30	7390-81-0	91	9760
9	Unknown	15.40			7750
10	Alkane, Unknown	15.80			7260

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: G443-616-6C
Lab Project ID: G443-616

Initial Volume: 984 mL

Analyzed By: DCS
Date Collected: 6/9/2009 10:43
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Matrix: Water

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed	
Acenaphthene	BQL	5.08	1	6/15/2009	
Acenaphthylene	BQL	5.08	1	6/15/2009	
Anthracene	BQL	5.08	1	6/15/2009	
Benzo[a]anthracene	BQL	5.08	1	6/15/2009	
Benzo[a]pyrene	BQL	5.08	1	6/15/2009	
Benzo[b]fluoranthene	BQL	5.08	1	6/15/2009	UJ
Benzo[g,h,i]perylene	BQL	5.08	1	6/15/2009	
Benzo[k]fluoranthene	BQL	5.08	1	6/15/2009	
Benzoic Acid	BQL	25.4	1	6/15/2009	
Bis(2-chloroethoxy)methane	BQL	5.08	1	6/15/2009	
Bis(2-chloroethyl)ether	BQL	5.08	1	6/15/2009	
Bis(2-chloroisopropyl)ether	BQL	5.08	1	6/15/2009	
Bis(2-ethylhexyl)phthalate	BQL	5.08	1	6/15/2009	
4-bromophenyl phenyl ether	BQL	5.08	1	6/15/2009	
Butylbenzylphthalate	BQL	5.08	1	6/15/2009	
2-Chloronaphthalene	BQL	5.08	1	6/15/2009	
2-Chlorophenol	BQL	5.08	1	6/15/2009	
4-Chloro-3-methylphenol	BQL	5.08	1	6/15/2009	
4-Chloroaniline	BQL	25.4	1	6/15/2009	
4-Chlorophenyl phenyl ether	BQL	5.08	1	6/15/2009	UJ
Chrysene	BQL	5.08	1	6/15/2009	
Dibenzo[a,h]anthracene	BQL	5.08	1	6/15/2009	
Dibenzofuran	BQL	5.08	1	6/15/2009	
Di-n-Butylphthalate	BQL	5.08	1	6/15/2009	
1,2-Dichlorobenzene	BQL	5.08	1	6/15/2009	
1,3-Dichlorobenzene	BQL	5.08	1	6/15/2009	
1,4-Dichlorobenzene	BQL	5.08	1	6/15/2009	
3,3'-Dichlorobenzidine	BQL	10.2	1	6/15/2009	
2,4-Dichlorophenol	BQL	5.08	1	6/15/2009	
Diethylphthalate	BQL	5.08	1	6/15/2009	
Dimethylphthalate	BQL	5.08	1	6/15/2009	
2,4-Dimethylphenol	BQL	5.08	1	6/15/2009	
Di-n-octylphthalate	BQL	5.08	1	6/15/2009	
4,6-Dinitro-2-methylphenol	BQL	25.4	1	6/15/2009	
2,4-Dinitrophenol	BQL	25.4	1	6/15/2009	
2,4-Dinitrotoluene	BQL	5.08	1	6/15/2009	
2,6-Dinitrotoluene	BQL	5.08	1	6/15/2009	
Fluoranthene	BQL	5.08	1	6/15/2009	
Fluorene	BQL	5.08	1	6/15/2009	
Hexachlorobenzene	BQL	5.08	1	6/15/2009	
Hexachlorobutadiene	BQL	5.08	1	6/15/2009	
Hexachlorocyclopentadiene	BQL	10.2	1	6/15/2009	
Hexachloroethane	BQL	5.08	1	6/15/2009	
Indeno(1,2,3-c,d)pyrene	BQL	5.08	1	6/15/2009	
Isophorone	BQL	5.08	1	6/15/2009	
2-Methylnaphthalene	BQL	5.08	1	6/15/2009	
2-Methylphenol	BQL	5.08	1	6/15/2009	

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: G443-616-6C
Lab Project ID: G443-616

Initial Volume: 984 mL

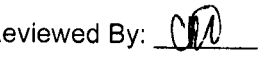
Analyzed By: DCS
Date Collected: 6/9/2009 10:43
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Matrix: Water

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	5.08	1	6/15/2009
Naphthalene	BQL	5.08	1	6/15/2009
2-Nitroaniline	BQL	5.08	1	6/15/2009
3-Nitroaniline	BQL	25.4	1	6/15/2009
4-Nitroaniline	BQL	25.4	1	6/15/2009
Nitrobenzene	BQL	5.08	1	6/15/2009
2-Nitrophenol	BQL	5.08	1	6/15/2009
4-Nitrophenol	BQL	25.4	1	6/15/2009
Diphenylamine *	BQL	5.08	1	6/15/2009
Pentachlorophenol	BQL	25.4	1	6/15/2009
Phenanthrene	BQL	5.08	1	6/15/2009
Phenol	BQL	5.08	1	6/15/2009
Pyrene	BQL	5.08	1	6/15/2009
1,2,4-Trichlorobenzene	BQL	5.08	1	6/15/2009
2,4,5-Trichlorophenol	BQL	5.08	1	6/15/2009
2,4,6-Trichlorophenol	BQL	5.08	1	6/15/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.7	97
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	9.6	96
2,4,6-Tribromophenol	10	7.8	78
4-Terphenyl-d14	10	12	120

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: SW3
Client Project ID: Holcomb
Lab Sample ID: G443-616-6C
Lab Project ID: G443-616
Sample Wt/Vol: 984 ML
Dilution: 1

Analyzed By: DES
Date Collected: 6/9/2009 10:43
Date Received: 6/10/2009
Date Extracted: 6/10/2009
Date Analyzed: 6/15/2009
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/L
	No TICs present				

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID: G443-616-8B
Lab Project ID: G443-616
Report Basis: Dry weight
Initial Weight: 31.9 g

Analyzed By: DCS
Date Collected: 6/9/2009 10:47
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Matrix: Sediment
% Solids: 48.89

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	641	1	6/18/2009
Acenaphthylene	BQL	641	1	6/18/2009
Anthracene	BQL	641	1	6/18/2009
Benzo[a]anthracene	BQL	641	1	6/18/2009
Benzo[a]pyrene	BQL	641	1	6/18/2009
Benzo[b]fluoranthene	BQL	641	1	6/18/2009
Benzo[g,h,i]perylene	BQL	641	1	6/18/2009
Benzo[k]fluoranthene	BQL	641	1	6/18/2009
Benzoic Acid	BQL	3210	1	6/18/2009
Bis(2-chloroethoxy)methane	BQL	641	1	6/18/2009
Bis(2-chloroethyl)ether	BQL	641	1	6/18/2009
Bis(2-chloroisopropyl)ether	BQL	641	1	6/18/2009
Bis(2-ethylhexyl)phthalate	BQL	641	1	6/18/2009
4-bromophenyl phenyl ether	BQL	641	1	6/18/2009
Butylbenzylphthalate	BQL	641	1	6/18/2009
2-Chloronaphthalene	BQL	641	1	6/18/2009
2-Chlorophenol	BQL	641	1	6/18/2009
4-Chloro-3-methylphenol	BQL	641	1	6/18/2009
4-Chloroaniline	BQL	3210	1	6/18/2009
4-Chlorophenyl phenyl ether	BQL	641	1	6/18/2009
Chrysene	BQL	641	1	6/18/2009
Dibenzo[a,h]anthracene	BQL	641	1	6/18/2009
Dibenzofuran	BQL	641	1	6/18/2009
Di-n-Butylphthalate	BQL	641	1	6/18/2009
1,2-Dichlorobenzene	BQL	641	1	6/18/2009
1,3-Dichlorobenzene	BQL	641	1	6/18/2009
1,4-Dichlorobenzene	BQL	641	1	6/18/2009
3,3'-Dichlorobenzidine	BQL	1280	1	6/18/2009
2,4-Dichlorophenol	BQL	641	1	6/18/2009
Diethylphthalate	BQL	641	1	6/18/2009
Dimethylphthalate	BQL	641	1	6/18/2009
2,4-Dimethylphenol	BQL	641	1	6/18/2009
Di-n-octylphthalate	BQL	641	1	6/18/2009
4,6-Dinitro-2-methylphenol	BQL	3210	1	6/18/2009
2,4-Dinitrophenol	BQL	3210	1	6/18/2009
2,4-Dinitrotoluene	BQL	641	1	6/18/2009
2,6-Dinitrotoluene	BQL	641	1	6/18/2009
Fluoranthene	BQL	641	1	6/18/2009
Fluorene	BQL	641	1	6/18/2009
Hexachlorobenzene	BQL	641	1	6/18/2009
Hexachlorobutadiene	BQL	641	1	6/18/2009
Hexachlorocyclopentadiene	BQL	1280	1	6/18/2009
Hexachloroethane	BQL	641	1	6/18/2009
Indeno(1,2,3-c,d)pyrene	BQL	641	1	6/18/2009
Isophorone	BQL	641	1	6/18/2009
2-Methylnaphthalene	BQL	641	1	6/18/2009
2-Methylphenol	BQL	641	1	6/18/2009

Results for Semivolatiles
by GCMS 8270

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID: G443-616-8B
Lab Project ID: G443-616
Report Basis: Dry weight
Initial Weight: 31.9 g

Analyzed By: DCS
Date Collected: 6/9/2009 10:47
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Matrix: Sediment
% Solids: 48.89

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	641	1	6/18/2009
Naphthalene	BQL	641	1	6/18/2009
2-Nitroaniline	BQL	641	1	6/18/2009
3-Nitroaniline	BQL	3210	1	6/18/2009
4-Nitroaniline	BQL	3210	1	6/18/2009
Nitrobenzene	BQL	641	1	6/18/2009
2-Nitrophenol	BQL	641	1	6/18/2009
4-Nitrophenol	BQL	3210	1	6/18/2009
Diphenylamine *	BQL	641	1	6/18/2009
Pentachlorophenol	BQL	3210	1	6/18/2009
Phenanthrene	BQL	641	1	6/18/2009
Phenol	BQL	641	1	6/18/2009
Pyrene	BQL	641	1	6/18/2009
1,2,4-Trichlorobenzene	BQL	641	1	6/18/2009
2,4,5-Trichlorophenol	BQL	641	1	6/18/2009
2,4,6-Trichlorophenol	BQL	641	1	6/18/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.5	85
2-Fluorophenol	10	10.5	105
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	12	120

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: DRC

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: SED3
Client Project ID: Holcomb
Lab Sample ID: G443-616-8B
Lab Project ID: G443-616
Sample Wt/Vol: 31.90 g
Dilution: 1

Analyzed By: DES
Date Collected: 6/9/2009 10:47
Date Received: 6/10/2009
Date Extracted: 6/11/2009
Date Analyzed: 6/18/2009
Matrix: Sediment
% Solids: 5.0

No.	Compound	Retention Time	CAS#	Match Probability	Result ug/Kg
1	Unknown	15.40			252000
2	Unknown	15.00			35000
3	Ketone, Unknown	15.60			9990
4	Aromatic, Unknown	15.20			5120
5	Aromatic, Unknown	10.90			5100
6	Carboxylic Acid, Unknown	15.80			2950
7	Alkane, Unknown	13.30			2890
8	Unknown	12.60			2590

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB14408
Lab Project ID:

Initial Volume: 1000 mL

Analyzed By: DCS
Date Collected:
Date Received:
Date Extracted: 6/10/2009
Matrix: WATER

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed	
Acenaphthene	BQL	5.00	1	6/15/2009	
Acenaphthylene	BQL	5.00	1	6/15/2009	
Anthracene	BQL	5.00	1	6/15/2009	
Benzo[a]anthracene	BQL	5.00	1	6/15/2009	
Benzo[a]pyrene	BQL	5.00	1	6/15/2009	
Benzo[b]fluoranthene	BQL	5.00	1	6/15/2009	UJ
Benzo[g,h,i]perylene	BQL	5.00	1	6/15/2009	
Benzo[k]fluoranthene	BQL	5.00	1	6/15/2009	
Benzoic Acid	BQL	25.0	1	6/15/2009	
Bis(2-chloroethoxy)methane	BQL	5.00	1	6/15/2009	
Bis(2-chloroethyl)ether	BQL	5.00	1	6/15/2009	
Bis(2-chloroisopropyl)ether	BQL	5.00	1	6/15/2009	
Bis(2-ethylhexyl)phthalate	BQL	5.00	1	6/15/2009	
4-bromophenyl phenyl ether	BQL	5.00	1	6/15/2009	
Butylbenzylphthalate	BQL	5.00	1	6/15/2009	
2-Chloronaphthalene	BQL	5.00	1	6/15/2009	
2-Chlorophenol	BQL	5.00	1	6/15/2009	
4-Chloro-3-methylphenol	BQL	5.00	1	6/15/2009	
4-Chloroaniline	BQL	25.0	1	6/15/2009	
4-Chlorophenyl phenyl ether	BQL	5.00	1	6/15/2009	UJ
Chrysene	BQL	5.00	1	6/15/2009	
Dibenzo[a,h]anthracene	BQL	5.00	1	6/15/2009	
Dibenzofuran	BQL	5.00	1	6/15/2009	
Di-n-Butylphthalate	BQL	5.00	1	6/15/2009	
1,2-Dichlorobenzene	BQL	5.00	1	6/15/2009	
1,3-Dichlorobenzene	BQL	5.00	1	6/15/2009	
1,4-Dichlorobenzene	BQL	5.00	1	6/15/2009	
3,3'-Dichlorobenzidine	BQL	10.0	1	6/15/2009	
2,4-Dichlorophenol	BQL	5.00	1	6/15/2009	
Diethylphthalate	BQL	5.00	1	6/15/2009	
Dimethylphthalate	BQL	5.00	1	6/15/2009	
2,4-Dimethylphenol	BQL	5.00	1	6/15/2009	
Di-n-octylphthalate	BQL	5.00	1	6/15/2009	
4,6-Dinitro-2-methylphenol	BQL	25.0	1	6/15/2009	
2,4-Dinitrophenol	BQL	25.0	1	6/15/2009	
2,4-Dinitrotoluene	BQL	5.00	1	6/15/2009	
2,6-Dinitrotoluene	BQL	5.00	1	6/15/2009	
Fluoranthene	BQL	5.00	1	6/15/2009	
Fluorene	BQL	5.00	1	6/15/2009	
Hexachlorobenzene	BQL	5.00	1	6/15/2009	
Hexachlorobutadiene	BQL	5.00	1	6/15/2009	
Hexachlorocyclopentadiene	BQL	10.0	1	6/15/2009	
Hexachloroethane	BQL	5.00	1	6/15/2009	
Indeno(1,2,3-c,d)pyrene	BQL	5.00	1	6/15/2009	
Isophorone	BQL	5.00	1	6/15/2009	
2-Methylnaphthalene	BQL	5.00	1	6/15/2009	
2-Methylphenol	BQL	5.00	1	6/15/2009	

Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB14408
Lab Project ID:

Initial Volume: 1000 mL

Analyzed By: DCS
Date Collected:
Date Received:
Date Extracted: 6/10/2009
Matrix: WATER

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	5.00	1	6/15/2009
Naphthalene	BQL	5.00	1	6/15/2009
2-Nitroaniline	BQL	5.00	1	6/15/2009
3-Nitroaniline	BQL	25.0	1	6/15/2009
4-Nitroaniline	BQL	25.0	1	6/15/2009
Nitrobenzene	BQL	5.00	1	6/15/2009
2-Nitrophenol	BQL	5.00	1	6/15/2009
4-Nitrophenol	BQL	25.0	1	6/15/2009
Diphenylamine *	BQL	5.00	1	6/15/2009
Pentachlorophenol	BQL	25.0	1	6/15/2009
Phenanthrene	BQL	5.00	1	6/15/2009
Phenol	BQL	5.00	1	6/15/2009
Pyrene	BQL	5.00	1	6/15/2009
1,2,4-Trichlorobenzene	BQL	5.00	1	6/15/2009
2,4,5-Trichlorophenol	BQL	5.00	1	6/15/2009
2,4,6-Trichlorophenol	BQL	5.00	1	6/15/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.1	81
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	7.6	76
Phenol-d6	10	8	80
2,4,6-Tribromophenol	10	6.6	66
4-Terphenyl-d14	10	11.4	114

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

SGS Environmental Services, Inc.

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) WATER

Lab Sample ID: LCS14408 DUP Sample ID: LCSD14408

Sample wt/vol: 1.0 (L)

Lab File ID: 0615605.D DUP File ID: 0615606.D

Level: (low/med) LOW

% Moisture: NA Decanted:(Y/N) NA

Date Analyzed: 06/15/09 1 DUP Date Analyzed: 06/15/09 10:57

Concentrated Extract Volume: 5000 (µL)

Dilution Factor: 1

Injection Volume: 1 (µL)

Extraction: (Type) CONT

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/L)	LCS (µg/L)	LCS % REC	LCSD (µg/L)	LCSD % REC	% RPD	QC LIMITS
83-32-9	Acenaphthene	50.0	43.1	86.2	42.5	84.9	1.52	72.4-98.1
208-96-8	Acenaphthylene	50.0	44.6	89.1	43.4	86.9	2.50	68.9-101
120-12-7	Anthracene	50.0	47.9	95.9*	46.8	93.6*	2.43	66.5-92.5
56-55-3	Benzo[a]anthracene	50.0	48.3	96.7	46.6	93.2	3.69	74.6-102
50-32-8	Benzo[a]pyrene	50.0	40.6	81.2	39.9	79.8	1.74	66.9-101
205-99-2	Benzo[b]fluoranthene	50.0	34.2	68.5*	34.8	69.6*	1.59	70.8-107
191-24-2	Benzo[g,h,i]perylene	50.0	41.8	83.6	41.2	82.4	1.45	56.1-130
207-08-9	Benzo[k]fluoranthene	50.0	41.3	82.5	40.9	81.8	0.852	74.3-111
65-85-0	Benzoic Acid	50.0	44.0	88.0	43.2	86.3	1.95	0.00-157
100-51-6	Benzyl Alcohol	50.0	47.5	94.9	45.3	90.7	4.53	67.6-97.3
111-91-1	Bis(2-chloroethoxy)methane	50.0	44.7	89.3	43.4	86.9	2.72	64.2-105
111-44-4	Bis(2-chloroethyl)ether	50.0	38.5	77.0	38.0	76.1	1.18	61.6-101
108-60-1	Bis(2-chloroisopropyl)ether	50.0	38.6	77.2	37.5	74.9	3.02	54.6-103
117-81-7	Bis(2-ethylhexyl)phthalate	50.0	48.8	97.5	46.9	93.8	3.87	79.6-107
101-55-3	4-bromophenyl phenyl ether	50.0	47.2	94.3	45.0	90.0	4.67	67.7-102
85-68-7	Butylbenzylphthalate	50.0	47.2	94.3	45.8	91.5	3.01	77.6-106
106-47-8	4-Chloroaniline	50.0	40.6	81.3	40.0	80.1	1.49	44.3-108
59-50-7	4-Chloro-3-methylphenol	50.0	46.1	92.1	44.5	88.9	3.54	71.2-116
91-58-7	2-Chloronaphthalene	50.0	35.9	71.8	34.8	69.6	3.11	56.6-80.6
95-57-8	2-Chlorophenol	50.0	45.6	91.2	44.6	89.2	2.22	50.2-99.5
7005-72-3	4-Chlorophenyl phenyl ether	50.0	35.0	69.9	34.1	68.3*	2.32	69.7-103
218-01-9	Chrysene	50.0	47.8	95.5	45.8	91.6	4.17	75.1-102
84-74-2	Di-n-Butylphthalate	50.0	51.8	104*	50.4	101	2.74	77.3-101
117-84-0	Di-n-octylphthalate	50.0	42.2	84.3	42.1	84.2	0.119	69.6-119
53-70-3	Dibenzo[a,h]anthracene	50.0	43.6	87.1	42.2	84.4	3.15	67.8-119
132-64-9	Dibenzofuran	50.0	46.8	93.7	45.4	90.8	3.14	75.3-99.6
95-50-1	1,2-Dichlorobenzene	50.0	32.1	64.2	31.7	63.3	1.41	34.5-82.1
541-73-1	1,3-Dichlorobenzene	50.0	29.4	58.8	29.4	58.8	0.00	28.7-76.7
106-46-7	1,4-Dichlorobenzene	50.0	29.8	59.7	30.2	60.4	1.17	31.4-79.7
91-94-1	3,3'-Dichlorobenzidine	50.0	47.2	94.3	46.2	92.3	2.14	59.7-101
120-83-2	2,4-Dichlorophenol	50.0	49.2	98.4	48.5	97.0	1.43	62.9-107
84-66-2	Diethylphthalate	50.0	45.8	91.5	43.2	86.4	5.73	75.9-105
105-67-9	2,4-Dimethylphenol	50.0	42.0	84.0	39.8	79.6	5.38	31.6-95.6
131-11-3	Dimethylphthalate	50.0	47.6	95.3	45.8	91.5	4.07	75.7-102
534-52-1	4,6-Dinitro-2-methylphenol	50.0	57.4	115*	55.7	111	3.01	40.1-112
51-28-5	2,4-Dinitrophenol	50.0	53.4	107	52.8	106	1.13	7.14-118
121-14-2	2,4-Dinitrotoluene	50.0	43.7	87.4	42.3	84.5	3.37	72.7-106
606-20-2	2,6-Dinitrotoluene	50.0	48.1	96.2	47.5	95.1	1.15	71.2-105
206-44-0	Fluoranthene	50.0	50.3	101	48.2	96.4	4.16	72.4-102
86-73-7	Fluorene	50.0	38.5	77.0	37.5	75.1	2.50	74.8-103
118-74-1	Hexachlorobenzene	50.0	46.3	92.6	42.9	85.8	7.62	69.3-103

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: LCS14408

Sample wt/vol: 0.5 (L) Lab File ID: 0615605.D

Level: (low/med) LOW

% Moisture: NA Decanted:(Y/N) NA Date Analyzed: 06/15/09 10:33

Concentrated Extract Volume: 5000 (µL) Dilution Factor: 1

Injection Volume: 1 (µL) Extraction: (Type) CONT

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/L)	LCS (µg/L)	LCS % REC #	LCSD (µg/L)	LCSD % REC #	% RPD #	QC LIMITS
87-68-3	Hexachlorobutadiene	50.0	31.5	62.9	35.1	70.2	11.0	41.2-96.0
77-47-4	Hexachlorocyclopentadiene	50.0	14.8	29.5	17.0	34.0	14.2	0.00-417
67-72-1	Hexachloroethane	50.0	23.3	46.6	25.0	49.9	6.84	21.2-79.7
193-39-5	Indeno(1,2,3-c,d)pyrene	50.0	43.7	87.4	43.0	85.9	1.73	67.4-122
78-59-1	Isophorone	50.0	38.4	76.9	38.0	76.1	1.05	74.2-106
90-12-0	1-Methylnaphthalene	50.0	42.8	85.5	42.2	84.4	1.29	69.3-96.7
91-57-6	2-Methylnaphthalene	50.0	46.5	93.0	47.0	94.0	1.07	70.4-101
95-48-7	2-Methylphenol	50.0	44.5	89.0	42.6	85.2	4.36	55.3-103
108-39-4	3-, 4-Methylphenol	100	88.2	88.2	82.3	82.3	6.92	57.3-109
621-64-7	N-Nitrosodi-n-propylamine	50.0	37.2	74.4	35.0	70.1	5.95	59.4-109
86-30-6	Diphenylamine	50.0	49.6	99.2	47.2	94.3	5.06	63.8-99.5
91-20-3	Naphthalene	50.0	38.7	77.4	38.5	77.1	0.388	62.2-100
88-74-4	2-Nitroaniline	50.0	32.1	64.1	31.0	62.1	3.17	55.0-114
99-09-2	3-Nitroaniline	50.0	44.1	88.2	42.0	83.9	5.00	65.4-96.9
100-01-6	4-Nitroaniline	50.0	41.4	82.9	40.8	81.5	1.70	66.7-103
98-95-3	Nitrobenzene	50.0	41.7	83.5	40.6	81.3	2.67	69.7-103
88-75-5	2-Nitrophenol	50.0	50.3	101	48.8	97.5	3.03	64.3-104
100-02-7	4-Nitrophenol	50.0	33.3	66.7	31.9	63.7	4.60	48.4-115
87-86-5	Pentachlorophenol	50.0	40.0	80.0	39.6	79.1	1.13	44.3-113
85-01-8	Phenanthrene	50.0	48.7	97.4	46.9	93.8	3.77	74.8-101
108-95-2	Phenol	50.0	43.3	86.6	42.1	84.2	2.81	54.5-99.3
129-00-0	Pyrene	50.0	48.4	96.8	46.2	92.5	4.54	76.2-102
110-86-1	Pyridine	50.0	29.8	59.6	26.7	53.3	11.2	0.00-101
120-82-1	1,2,4-Trichlorobenzene	50.0	36.2	72.4	38.3	76.6	5.64	51.6-91.7
95-95-4	2,4,5-Trichlorophenol	50.0	44.9	89.9	42.8	85.5	5.02	67.7-101
88-06-2	2,4,6-Trichlorophenol	50.0	42.0	84.1	40.0	80.1	4.87	66.9-102

System Monitoring Compound Results		**Spike Added** (µg/L)	**LCS Result** (µg/L)	**LCS Rec.** (%)	**LCSD Result** (µg/L)	**LCSD Rec.** (%)		**Percent Recovery** (%)
118-79-6	2,4,6-Tribromophenol	10	88.1	88.1	85.8	85.8		29.3-152
321-60-8	2-Fluorobiphenyl	10	95.2	95.2	93.3	93.3		61.0-112
367-12-4	2-Fluorophenol	10	90.1	90.1	88	88.0		33.1-118
1718-51-0	4-Terphenyl-d14	10	110	110	106.8	107		22.1-142
4165-60-0	Nitrobenzene-d5	10	86.6	86.6	85.7	85.7		46.0-118
13127-88-3	Phenol-d6	10	89.9	89.9	89.3	89.3		49.0-120

LCS Spike Recovery: 4 out of 67 outside of limits. LCSD Spike Recovery: 3 out of 67 outside of limits
RPD: 0 out of 67 outside of limits

Analyst: _____

Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB14422
Lab Project ID:
Report Basis: Dry Weight
Initial Weight: 32 g

Analyzed By: DCS
Date Collected:
Date Received:
Date Extracted: 6/11/2009
Matrix: SOIL
% Solids: 100

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	313	1	6/16/2009
Acenaphthylene	BQL	313	1	6/16/2009
Anthracene	BQL	313	1	6/16/2009
Benzo[a]anthracene	BQL	313	1	6/16/2009
Benzo[a]pyrene	BQL	313	1	6/16/2009
Benzo[b]fluoranthene	BQL	313	1	6/16/2009
Benzo[g,h,i]perylene	BQL	313	1	6/16/2009
Benzo[k]fluoranthene	BQL	313	1	6/16/2009
Benzoic Acid	BQL	1560	1	6/16/2009
Bis(2-chloroethoxy)methane	BQL	313	1	6/16/2009
Bis(2-chloroethyl)ether	BQL	313	1	6/16/2009
Bis(2-chloroisopropyl)ether	BQL	313	1	6/16/2009
Bis(2-ethylhexyl)phthalate	BQL	313	1	6/16/2009
4-bromophenyl phenyl ether	BQL	313	1	6/16/2009
Butylbenzylphthalate	BQL	313	1	6/16/2009
2-Chloronaphthalene	BQL	313	1	6/16/2009
2-Chlorophenol	BQL	313	1	6/16/2009
4-Chloro-3-methylphenol	BQL	313	1	6/16/2009
4-Chloroaniline	BQL	1560	1	6/16/2009
4-Chlorophenyl phenyl ether	BQL	313	1	6/16/2009
Chrysene	BQL	313	1	6/16/2009
Dibenzo[a,h]anthracene	BQL	313	1	6/16/2009
Dibenzofuran	BQL	313	1	6/16/2009
Di-n-Butylphthalate	BQL	313	1	6/16/2009
1,2-Dichlorobenzene	BQL	313	1	6/16/2009
1,3-Dichlorobenzene	BQL	313	1	6/16/2009
1,4-Dichlorobenzene	BQL	313	1	6/16/2009
3,3'-Dichlorobenzidine	BQL	625	1	6/16/2009
2,4-Dichlorophenol	BQL	313	1	6/16/2009
Diethylphthalate	BQL	313	1	6/16/2009
Dimethylphthalate	BQL	313	1	6/16/2009
2,4-Dimethylphenol	BQL	313	1	6/16/2009
Di-n-octylphthalate	BQL	313	1	6/16/2009
4,6-Dinitro-2-methylphenol	BQL	1560	1	6/16/2009
2,4-Dinitrophenol	BQL	1560	1	6/16/2009
2,4-Dinitrotoluene	BQL	313	1	6/16/2009
2,6-Dinitrotoluene	BQL	313	1	6/16/2009
Fluoranthene	BQL	313	1	6/16/2009
Fluorene	BQL	313	1	6/16/2009
Hexachlorobenzene	BQL	313	1	6/16/2009
Hexachlorobutadiene	BQL	313	1	6/16/2009
Hexachlorocyclopentadiene	BQL	625	1	6/16/2009
Hexachloroethane	BQL	313	1	6/16/2009
Indeno(1,2,3-c,d)pyrene	BQL	313	1	6/16/2009
Isophorone	BQL	313	1	6/16/2009
2-Methylnaphthalene	BQL	313	1	6/16/2009
2-Methylphenol	BQL	313	1	6/16/2009

Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB14422
Lab Project ID:
Report Basis: Dry Weight
Initial Weight: 32 g

Analyzed By: DCS
Date Collected:
Date Received:
Date Extracted: 6/11/2009
Matrix: SOIL
% Solids: 100

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	313	1	6/16/2009
Naphthalene	BQL	313	1	6/16/2009
2-Nitroaniline	BQL	313	1	6/16/2009
3-Nitroaniline	BQL	1560	1	6/16/2009
4-Nitroaniline	BQL	1560	1	6/16/2009
Nitrobenzene	BQL	313	1	6/16/2009
2-Nitrophenol	BQL	313	1	6/16/2009
4-Nitrophenol	BQL	1560	1	6/16/2009
Diphenylamine *	BQL	313	1	6/16/2009
Pentachlorophenol	BQL	1560	1	6/16/2009
Phenanthrene	BQL	313	1	6/16/2009
Phenol	BQL	313	1	6/16/2009
Pyrene	BQL	313	1	6/16/2009
1,2,4-Trichlorobenzene	BQL	313	1	6/16/2009
2,4,5-Trichlorophenol	BQL	313	1	6/16/2009
2,4,6-Trichlorophenol	BQL	313	1	6/16/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.3	73
2-Fluorophenol	10	8.5	85
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	8.2	82
2,4,6-Tribromophenol	10	5.8	58
4-Terphenyl-d14	10	9.7	97

Comments:
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS North America, Inc.

SGS Environmental Services

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) SOIL

Lab Sample ID: LCS14422

Sample wt/vol: 32 (g)

Lab File ID: 0616605.D

Level: (low/med) LOW

% Moisture: 0% Decanted:(Y/N) N

Date Analyzed: 06/16/09 11:24

Concentrated Extract Volume: 10000 (µL)

Dilution Factor: 1

Injection Volume: 1 (µL)

Extraction: (Type) SOXH

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
83-32-9	Acenaphthene	3125	2960	94.8	73.3-108
208-96-8	Acenaphthylene	3125	3110	99.6	76.0-113
120-12-7	Anthracene	3125	3330	107*	67.6-104
56-55-3	Benzo[a]anthracene	3125	3220	103	71.6-113
50-32-8	Benzo[a]pyrene	3125	2840	90.9	68.1-116
205-99-2	Benzo[b]fluoranthene	3125	2440	78.1	61.3-129
191-24-2	Benzo[g,h,i]perylene	3125	2900	92.8	62.4-136
207-08-9	Benzo[k]fluoranthene	3125	2760	88.4	72.8-117
65-85-0	Benzoic Acid	3125	1590	50.9	9.27-93.0
100-51-6	Benzyl Alcohol	3125	3140	100	71.8-108
111-91-1	Bis(2-chloroethoxy)methane	3125	3120	99.8	72.8-110
111-44-4	Bis(2-chloroethyl)ether	3125	2640	84.6	72.1-110
108-60-1	Bis(2-chloroisopropyl)ether	3125	2690	86.1	68.4-107
117-81-7	Bis(2-ethylhexyl)phthalate	3125	3280	105	71.1-120
101-55-3	4-bromophenyl phenyl ether	3125	3100	99.1	68.1-107
85-68-7	Butylbenzylphthalate	3125	3190	102	70.3-120
106-47-8	4-Chloroaniline	3125	2580	82.5	43.7-101
59-50-7	4-Chloro-3-methylphenol	3125	3110	99.4	76.4-125
91-58-7	2-Chloronaphthalene	3125	2400	76.7	61.2-88.4
95-57-8	2-Chlorophenol	3125	3130	100	72.5-108
7005-72-3	4-Chlorophenyl phenyl ether	3125	2300	73.6	69.8-111
218-01-9	Chrysene	3125	3230	104	70.0-111
84-74-2	Di-n-Butylphthalate	3125	3450	110	72.1-111
117-84-0	Di-n-octylphthalate	3125	2980	95.3	70.4-126
53-70-3	Dibenzo[a,h]anthracene	3125	2910	93.2	64.9-133
132-64-9	Dibenzofuran	3125	3040	97.4	73.7-111
95-50-1	1,2-Dichlorobenzene	3125	2940	94.2	71.0-103
541-73-1	1,3-Dichlorobenzene	3125	2960	94.8	70.0-102
106-46-7	1,4-Dichlorobenzene	3125	2950	94.3	72.2-103
91-94-1	3,3'-Dichlorobenzidine	3125	3150	101	64.9-110
120-83-2	2,4-Dichlorophenol	3125	3290	105	74.6-115
84-66-2	Diethylphthalate	3125	2930	93.8	63.6-117
105-67-9	2,4-Dimethylphenol	3125	3210	103	71.2-112
131-11-3	Dimethylphthalate	3125	3130	100	72.9-111
534-52-1	4,6-Dinitro-2-methylphenol	3125	3640	116	33.0-122
51-28-5	2,4-Dinitrophenol	3125	3430	110	11.2-121
121-14-2	2,4-Dinitrotoluene	3125	2870	91.8	69.5-117
606-20-2	2,6-Dinitrotoluene	3125	3220	103	67.2-116
206-44-0	Fluoranthene	3125	3410	109*	71.2-109
86-73-7	Fluorene	3125	2510	80.2	72.4-112
118-74-1	Hexachlorobenzene	3125	2990	95.7	68.8-109

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919 Case No.: SAS No.: SDG No:

Matrix: (soil/water) SOIL Lab Sample ID: LCS14422

Sample wt/vol: 32 (g) Lab File ID: 0616605.D

Level: (low/med) LOW

% Moisture: 0% Decanted:(Y/N) N Date Analyzed: 06/16/09 11:24

Concentrated Extract Volume: 10000 (µL) Dilution Factor: 1

Injection Volume: 1 (µL) Extraction: (Type) SOXH

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
87-68-3	Hexachlorobutadiene	3125	2890	92.4	73.1-114
77-47-4	Hexachlorocyclopentadiene	3125	1530	48.8	0.00-854
67-72-1	Hexachloroethane	3125	2690	86.0	70.9-106
193-39-5	Indeno(1,2,3-c,d)pyrene	3125	2980	95.2	65.2-135
78-59-1	Isophorone	3125	2670	85.4	76.7-116
90-12-0	1-Methylnaphthalene	3125	2960	94.6	73.1-108
91-57-6	2-Methylnaphthalene	3125	3310	106	75.3-113
95-48-7	2-Methylphenol	3125	3030	96.9	69.4-110
108-39-4	4-Methylphenol	6250	5950	95.1	70.0-116
621-64-7	N-Nitrosodi-n-propylamine	3125	2500	80.1	69.7-117
86-30-6	Diphenylamine	3125	3330	106*	69.1-105
91-20-3	Naphthalene	3125	2900	92.8	78.4-115
88-74-4	2-Nitroaniline	3125	2130	68.0	65.0-109
99-09-2	3-Nitroaniline	3125	2680	85.7	57.4-102
100-01-6	4-Nitroaniline	3125	2710	86.8	62.8-113
98-95-3	Nitrobenzene	3125	2870	91.8	72.7-113
88-75-5	2-Nitrophenol	3125	3370	108	71.8-113
100-02-7	4-Nitrophenol	3125	2080	66.5	39.6-116
87-86-5	Pentachlorophenol	3125	2350	75.1	49.8-106
85-01-8	Phenanthrene	3125	3290	105	70.9-110
108-95-2	Phenol	3125	2980	95.5	72.1-106
129-00-0	Pyrene	3125	3370	108	71.9-112
110-86-1	Pyridine	3125	2640	84.6	31.1-97.3
120-82-1	1,2,4-Trichlorobenzene	3125	2990	95.7	73.6-107
95-95-4	2,4,5-Trichlorophenol	3125	2910	93.0	69.1-114
88-06-2	2,4,6-Trichlorophenol	3125	2740	87.7	71.2-112

System Monitoring Compound Results

		Spike Added (µg/kg)	Spike Result (µg/kg)	Percent Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	3125	2740	87.6	41.1-129
321-60-8	2-Fluorobiphenyl	3125	3080	98.7	56.4-116
367-12-4	2-Fluorophenol	3125	3090	98.9	41.8-123
1718-51-0	4-Terphenyl-d14	3125	3640	117	43.8-140
4165-60-0	Nitrobenzene-d5	3125	2880	92.0	46.1-117
13127-88-3	Phenol-d6	3125	3040	97.2	47.9-125

LCS Spike Recovery: 3 out of 67 outside of limits.

Analyst: _____

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
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- North Carolina
- Maryland
- New York
- Ohio

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098276

(1)

CLIENT: NCDENR DWM

CONTACT: Harvi Cooper PHONE NO:(919) 467-1999

PROJECT: Holcomb SITE/PWSID#: Yadkinville

REPORTS TO: Harvi.Cooper@ncdenr.gov and Qu.Qi@ncdenr.gov FAX NO.:( )

INVOICE TO: Linda Culpepper 401 Oberlin Rd Suite 150 Raleigh NC 27605 QUOTE #:

P.O. NUMBER: EP449709 2 LLC

SGS Reference: G443-616

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(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP G=GRAB)	Preservatives Used	Analysis Required (3) 8260 w/ 10 TICs	8270 w/ 10 TICs	8260 w/ 10 TICs	8270 w/ 10 TICs	REMARKS
							HCl			MeoH Na2S2O3		
3V 1	SW1	6/9/09	10:25	W	3	G		✓				
2V 2	SW1	6/9/09	10:30	W	2	G			✓			
3V 3	SED1	6/9/09	10:35	Sed	3	G				✓		
1jar 4	SED1	6/9/09	10:39	Sed	1	G					✓	
3V 5	SW3	6/9/09	10:40	W	3	G		✓				
empty 6	SW3	6/9/09	10:43	W	2	G			✓			
3V 7	SED3	6/9/09	10:45	Sed	3	G				✓		
empty 8	SED3	6/9/09	10:47	Sed	1	G					✓	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
Harvi Cooper	6/9/09	12:15	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4) ✓	6/10/09	10:15	Received By:

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 3.9, 3.6

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

SGS North America, Inc.

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client