DATA REVIEW FOR

MCKESSON - BEAR STREET SITE

SDG# BEL0448

VOLATILE AND
SEMIVOLATILE ANALYSES

Analyses performed by:

Buck Environmental Laboratories
Cortland, New York

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG # BEL0448 for sampling at the McKesson - Bear Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis Method		
				8260[1]	8015[2]	8270[3]
DUP-1[4]	0411082-11	water	11/04/04	x	x	x
DUP-2[5]	0411082-12	water	11/04/04	x	x	x
MW-3S	0411097-02	water	11/05/04	x	x	x
MW-8SR	0411097-01	water	11/05/04	x	x	x
MW-28[6]	0411082-08	water	11/04/04	x	x	x
MW-34	0411082-02	water	11/04/04	x	x	x
MW-35	0411082-03	water	11/04/04	x	x	x
MW-36	0411082-04	water	11/04/04	x	x	x
TW-02RR	0411082-01	water	11/04/04	x	x	x
Trip Blank	0411082-13	water	11/04/04	x	x	
Trip Blank	0411097-03	water	11/05/04	x	x	

1 VOC analyses for: methylene chloride, acetone, trichloroethene, benzene, toluene, ethylbenzene, and xylenes
2 Alcohol analyses for: methanol
3 Compounds include: aniline and N,N'-dimethylaniline
4 Duplicate of sample MW-28
5 Duplicate of sample MW-27, located in SDG# BEL0446
6 MS/MSD analyses performed on sample

VOLATILE ANALYSES

METHOD 8260

Introduction

Analyses were performed according to USEPA method 8260 as referenced in the NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for volatile analyses under the Quality Assurance Project Plan (QAPP) is 7 days from sample receipt. The technical holding time is 14 days from sample collection to analysis.

All samples were analyzed within the specified technical holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Field and rinse blanks measure contamination of samples during field operations.

No target compounds were detected in the method or trip blanks.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies various percent relative standard deviation (%RSD) limits for select compounds and allows two outliers. A technical review of the data applies a RSD limit of 30% to all compounds with no exceptions.

The %RSD were less than 30% and the response factors were greater than 0.05 for all compounds.

4.2 Continuing Calibration

All continuing calibration standards were within 25% difference (%D) of the initial calibration.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every experimental run.

All internal standard areas and retention times were within established limits.

7. Compound Identification

Target compounds are identified on the GC/MS by using the analyte's relative retention time and ion spectra.

Methylene chloride exceeded the linear range in sample DUP-2. Data for methylene chloride have been replaced with data from the dilution analyses in sample DUP-2. All other identified compounds met the specified criteria.

8. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix. Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All MS/MSD recoveries and relative percent differences between recoveries were within control limits. All MSB recoveries were also within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-1	benzene	ND	4J	NA
	ethylbenzene	ND	5J	NA
	o-xylene	ND	3J	NA
MW-27 / DUP-2	acetone	ND	28	NA
	benzene	ND	4J	NA
	methylene chloride	310	490	45.0%

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-27 / DUP-2	toluene	ND	2J	NA

ND not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

Duplicate results are acceptable.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Volatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?		X	
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are surrogate recovery forms present?	X		
Are all the samples listed on the appropriate surrogate recovery form?	X		
Was one or more surrogate recoveries outside of specified limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 10			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
0 out of 5			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every twelve hours for each system used?	X		
Do any method/reagent/instrument blanks have positive results?		X	
Are there trip/field/rinse/equipment blanks associated with every sample?	X		
Do any trip/field/rinse blanks have positive results?		X	

Volatile Organics Data Validation Checklist - Page 2

	YES	NO	NA
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for BFB?	X		
Are the bar graph spectrum and mass/charge listing provided for each BFB?	X		
Has a BFB been analyzed for each twelve hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Is the RRT of each reported compound within 0.06 RRT units of the continuing calibration standard?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and there associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X

Volatile Organics Data Validation Checklist - Page 3

	YES	NO	NA
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within specified limits?	X		
Are the average RRF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of every sample and blank within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Volatile Qualifier Summary
Holding Time, Surrogates, Internal Standards

Sample ID	Holding Time*	Surrogates*			Internal Standards*		
		TOL	BFB	DCE	DFB	DCB	CBZ
DUP-1							
DUP-2							
MW-3S							
MW-8SR							
MW-28							
MW-28 MS							
MW-28MSD							
MW-34							
MW-35							
MW-36							
TW-02RR							
Trip Blank							
Trip Blank							

Surrogates:
TOL Toluene-d8
BFB Bromofluorobenzene
DCE 1,4-Dichloroethane-d4

Internal Standards:
DCB 1,4-Difluorobenzene
DFB 1,4-Dichlorobenzene-d4
CBZ Chlorobenzene-d5

Qualifiers:
↑ Recovery high
↓ Recovery low

* Unless otherwise specified, all parameters are within acceptable limits.

Volatile Calibration Outliers

Instrument: MSD3
Matrix: water
Level: low

Date/Time	11/12/04		11/12/04 0708		11/12/04 1741		11/12/04 0708			
	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
	RF	%RSD	RF	%D	RF	%D	RF	%D	RF	%D
Methylene chloride										
Acetone										
Trichloroethene										
Benzene										
Toluene										
Ethylbenzene										
m,p-xylene										
o-xylene										

Affected Samples:				

Corrected Sample Analysis Data Sheets

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-1

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-11B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A0901009.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	4	J
100-41-4	Ethylbenzene	5	J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	3	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-2

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-12B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A0801008.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	28	
71-43-2	Benzene	4	J
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	~~410~~ 490	BD
108-88-3	Toluene	2	J
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

EPA SAMPLE NO.

DUP-2DL

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-12B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \0801008.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 5.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	120	U
71-43-2	Benzene	50	U
100-41-4	Ethylbenzene	50	U
75-09-2	Methylene chloride	490	
108-88-3	Toluene	50	U
79-01-6	Trichloroethene	50	U
1330-20-7	m,p-Xylene	100	U
95-47-6	o-Xylene	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3S

Lab Name: Buck Environmental Labs, Inc Contract:)

Lab Code: 10795 Case No.: C SAS No.: SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-02B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1701017.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8SR

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1401014.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 100.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	2500	U
71-43-2	Benzene	1000	U
100-41-4	Ethylbenzene	1000	U
75-09-2	Methylene chloride	9500	
108-88-3	Toluene	1000	U
79-01-6	Trichloroethene	1000	U
1330-20-7	m,p-Xylene	2000	U
95-47-6	o-Xylene	1000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8SR

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \0901009.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 50.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	1200	U
71-43-2	Benzene	500	U
100-41-4	Ethylbenzene	500	U
75-09-2	Methylene chloride	10000	D
108-88-3	Toluene	100	DJ
79-01-6	Trichloroethene	500	U
1330-20-7	m,p-Xylene	110	DJ
95-47-6	o-Xylene	54	DJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-28

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-08B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1801018.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 5.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	120	U
71-43-2	Benzene	50	U
100-41-4	Ethylbenzene	50	U
75-09-2	Methylene chloride	50	U
108-88-3	Toluene	50	U
79-01-6	Trichloroethene	50	U
1330-20-7	m,p-Xylene	100	U
95-47-6	o-Xylene	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-34

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-02B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1101011.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-35

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-03B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1201012.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-36

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-04B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1301013.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	13	J
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TW-02RR

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-01B

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1001010.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	18	J
71-43-2	Benzene	4	J
100-41-4	Ethylbenzene	4	J
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	8	J
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	10	J
95-47-6	o-Xylene	6	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: Buck Environmental Labs, Inc Contract: BLASLAND

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-13A

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A0701007.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/12/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRIP BLANK

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-03A

Sample wt/vol: 5 (g/mL) ML Lab File ID: \A1601016.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/13/04

GC Column: J&W,DB624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
67-64-1	Acetone	25	U
71-43-2	Benzene	10	U
100-41-4	Ethylbenzene	10	U
75-09-2	Methylene chloride	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
1330-20-7	m,p-Xylene	20	U
95-47-6	o-Xylene	10	U

VOLATILE ANALYSES

METHOD 8015

Introduction

Analyses were performed according to USEPA method 8015 as referenced in the NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for volatile analyses under the Quality Assurance Project Plan (QAPP) is 7 days from sample receipt. The technical holding time is 14 days from sample collection to analysis.

All samples were analyzed within the specified holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, trip, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment.

No target compounds were detected in the method or trip blanks.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

The method specifies a percent relative standard deviation (%RSD) limit of 20% or, alternately, a correlation coefficient of 0.99 or greater.

The initial calibration was acceptable.

3.2 Continuing Calibration

All continuing calibration standards were within 15%D of the initial calibration.

4. Compound Identification

Target compounds are identified by using the analyte's retention time.

All identified compounds met the specified criteria.

5. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix.

Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All MS/MSD recoveries and the relative percent difference between recoveries were within control limits. All MSB recoveries were within control limits.

6. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-1	methanol	0.19J	0.098J	AC
MW-27 / DUP-2	ND	--	--	NA

ND not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.
AC Acceptable. RPD for sample results less than the PQL must be with +/- two time PQL.a

Duplicate results are acceptable.

7. System Performance and Overall Assessment

Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Organic Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits?			
0 out of 2			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
0 out of 1			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed at least once every twelve hours for each system used?	X		
Do any method/reagent/instrument blanks have positive results?		X	
Are there trip/field/rinse/equipment blanks associated with every sample?	X		
Do any trip/field/rinse blanks have positive results?		X	
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		

Organic Data Validation Checklist - Page 2

	YES	NO	NA
Are the chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs or correlation coefficients within acceptable limits?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Calibration Outliers

Instrument: GC-03
Matrix: water

Date	11/10/04	11/10/04	11/10/04	11/11/04		
Time		1446	1537	1622		
	Initial Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.
	RSD	%D	%D	%D	%D	%D
methanol	ok	ok	ok	ok		
Affected Samples:						

Corrected Sample Analysis Data Sheets

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-1

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-11C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5501055.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		0.098	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-2

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-12C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5601056.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3S

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-02C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5901059.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		0.15	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8SR

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5801058.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-28

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-08C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4101041.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		0.19	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-34

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-02C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4301043.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		0.18	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-35

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-03C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4401044.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		0.24	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-36

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-04C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5401054.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TW-02RR

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-01C

Sample wt/vol: 5 (g/mL) uL Lab File ID: 4201042.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: Blasland SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-13B

Sample wt/vol: 5 (g/mL) uL Lab File ID: 5701057.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: Buck Environmental Labs, Inc Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-03B

Sample wt/vol: 5 (g/mL) uL Lab File ID: 6001060.D

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: not dec. Date Analyzed: 11/10/04

GC Column: J&W, DB-VRX ID: .45 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg)	MG/L	Q
67-56-1	Methanol		1	U

SEMIVOLATILE ANALYSES

METHOD 8270

Introduction

Analyses were performed according to USEPA SW-846 Method 8270 as referenced in NYSDEC ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC test, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for semi-volatile analyses under the Quality Assurance Project Plan (QAPP) are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times are 7 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No target compounds were detected in the method blanks.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies various percent relative standard deviation (%RSD) limits for select compounds and allows two outliers. A technical review of the data applies a RSD limit of 30% to all compounds with no exceptions.

The %RSD was less than 30% for all compounds.

4.2 Continuing Calibration

All continuing calibration standards were within 25% difference (%D) of the initial calibration.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Surrogate recoveries were below control limits for one compound in sample MW-35. Since all other surrogate recoveries were within control limits, no data have been qualified based on the deviation.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every experimental run.

All internal standard areas and retention times were within established limits.

7. Compound Identification

Target compounds are identified on the GC/MS by using the analyte's relative retention time and ion spectra.

Aniline was detected above the linear range in samples TW-02RR, MW-28, DUP-1, DUP-2, MW-8SR and MW-8SRDL and N,N'-Dimethylaniline was detected above the linear range in sample MW-8SR. Data for aniline and N,N'-Dimethylaniline have been replaced with data from the dilution analyses in the associated samples. All other identified compounds met the specified criteria.

8. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix and matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method relative to the sample matrix. Matrix spike blank (MSB) data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The MS/MSD recoveries were above control limits for aniline. Data for aniline have been qualified as estimated in sample MW-28 based on the deviation.

The MSB results were within control limits.

9. Field Duplicates

Results for duplicate samples are summarized as follows:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-28 / DUP-1	aniline	640	710	10.4%
MW-27 / DUP-2	aniline	1100	690	45.8%

ND not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

Duplicate results are acceptable.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

Semivolatile Organics Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all the samples listed on the appropriate surrogate recovery form?	X		
Were two or more surrogate recoveries outside of specified limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency	X		
How many spike recoveries were outside of QC limits?			
2 out of 4			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?			
1 out of 2			
Blanks			
Is the method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Has a blank been analyzed for each GC/MS system used?	X		
Do any method/reagent/instrument blanks have positive results?		X	
Are there field/rinse/equipment blanks associated with every sample?		X	

Semivolatile Organics Data Validation Checklist - Page 2

	YES	NO	NA
Do any field/rinse blanks have positive results?			X
Tuning and Mass Calibration			
Are the GC/MS tuning forms present for DFTPP?	X		
Are the bar graph spectrum and mass/charge listing provided for each DFTPP?	X		
Has a DFTPP been analyzed for each twelve hours of analysis per instrument?	X		
Have the ion abundance criteria been met for each instrument used?	X		
Target Analytes			
Is an organics analysis data sheet present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Has GPC cleanup been performed on all soil/sediment sample extracts?			X
Are the reconstructed ion chromatograms present for each of the following:			
Samples	X		
Matrix spikes	X		
Blanks	X		
Is the chromatographic performance acceptable?	X		
Are the mass spectra of the identified compounds present?	X		
Are all ions present in the standard mass spectrum at a relative intensity of 10% or greater also present in the sample spectrum?	X		
Do the samples and standard relative ion intensities agree within 20%?	X		
Tentatively Identified Compounds			
Are all the TIC summary forms present?		X	
Are the mass spectra for the tentatively identified compounds and their associated "best match" spectra present?			X
Are any target compounds listed as TICs?			X

Semivolatile Organics Data Validation Checklist - Page 3

	YES	NO	NA
Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
Do the TIC and "best match" spectrum agree within 20%?			X
Quantitation and Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions, and for soils, sample moisture?	X		
Standard Data			
Are the quantitation reports and reconstructed ion chromatograms present for the initial and continuing calibration standards?	X		
Initial Calibration			
Are the initial calibration forms present for each instrument used?	X		
Are the response factor RSDs within acceptable limits?	X		
Are the average RRF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting the RRF or RSD?		X	
Continuing Calibration			
Are the continuing calibration forms present for each day and each instrument?	X		
Has a continuing calibration standard been analyzed for each twelve hours of analysis per instrument?	X		
All %D within acceptable limits?	X		
Are all RF equal to or greater than minimum requirements?	X		
Are there any transcription/calculation errors in reporting of RF or %D?		X	
Internal Standards			
Are internal standard areas of the samples and blanks within the upper and lower limits for each continuing calibration?	X		
Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		

Semivolatile Organics Data Validation Checklist - Page 4

	YES	NO	NA
Field Duplicates			
Were field duplicates submitted with the samples?	X		

Semi-Volatile Qualifier Summary
Holding Time, Surrogates, Internal Standards

Sample ID	Holding Time*	Surrogates*			Internal Standards*					
		NBZ	FBP	TPH	DCB	NPT	ANT	PHN	CRY	PRY
DUP-1										
DUP-1 DL		D	D	D						
DUP-2										
DUP-2 DL										
MW-3S										
MW-8SR										
MW-8SR DL		D	D	D						
MW-8SR DL 2		D	D	D						
MW-28										
MW-28 MS										
MW-28 MSD										
MW-28 DL										
MW-34										
MW-35				↓						
MW-36										
TW-02RR										
TW-02RR DL		D	D	D						

Surrogates:
NBZ Nitrobenzene-d5
FBP 2-Fluorobiphenyl
TPH Terphenyl-d14
DCB 1,2-Dichlorobenzene-d4

Internal Standards:
DCB 1,4-Dichlorobenzene-d4
NPT Naphthalene-d8
ANT Acenaphthene-d10
PHN Phenanthrene-d10
CRY Chrysene-d12
PRY Perylene-d12

Qualifiers:
D Diluted
↓ Recovery low
↑ Recovery high
↓↓ Recovery below 10%

* Unless otherwise specified, all parameters are within acceptable limits.

Semivolatile Calibration Outliers

Instrument: MSD2
Level: low

Date/Time	12/07/04		12/8/04 1633		12/9/04 0625		12/14/04 1037			
	Initial Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal.	
	RF	%RSD	RF	%D	RF	%D	RF	%D	RF	%D
aniline										
n,n'-dimethylaniline										

Affected Samples:				

Corrected Sample Analysis Data Sheets

1C

EPA SAMPLE NO.

DUP-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-11A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\A1701017

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	~~600~~ 710	ED
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-1DL

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-11A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\1601016.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	710	
121-69-7	N,N-Dimethylaniline	50	U

1C

EPA SAMPLE NO.

DUP-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-12A

Sample wt/vol: 960 (g/mL) ML Lab File ID: 4\0201002.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	~~600~~ 690	~~E~~ D
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-2DL

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-12A

Sample wt/vol: 960 (g/mL) ML Lab File ID: 4\1501015.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	690	
121-69-7	N,N-Dimethylaniline	52	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3S

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-02A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\0501005.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	4	J
121-69-7	N,N-Dimethylaniline	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8SR

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\0601006.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	~~16000~~ 3.5cu	E D
121-69-7	N,N-Dimethylaniline	~~200~~ 5.3cu	E D

1C

EPA SAMPLE NO.

MW-8SRDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\1301013.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 200.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	54000	E
121-69-7	N,N-Dimethylaniline	5300	

1C

EPA SAMPLE NO.

MW-8SRDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: _____

Lab Code: 10795 Case No.: C SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411097-01A

Sample wt/vol: 990 (g/mL) G Lab File ID: 4\0401004.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/14/04

Injection Volume: 1 (µL) Dilution Factor: 500.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	35000	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-28

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-08A

Sample wt/vol: 950 (g/mL) ML Lab File ID: 4\A1401014

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	~~560~~ 640	E D J
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

MW-28DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-08A

Sample wt/vol: 950 (g/mL) ML Lab File ID: 4\1401014.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	640	
121-69-7	N,N-Dimethylaniline	53	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-34

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-02A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\A0801008

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/08/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	14	
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-35

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-03A

Sample wt/vol: 960 (g/mL) ML Lab File ID: 4\0701007.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/09/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	82	
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-36

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-04A

Sample wt/vol: 930 (g/mL) ML Lab File ID: 4\A1001010

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/08/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	22	
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TW-02RR

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-01A

Sample wt/vol: 990 (g/mL) ML Lab File ID: 4\A0701007

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/08/04

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	~~5000~~ 7100	~~E~~ D
121-69-7	N,N-Dimethylaniline	5	U

1C

EPA SAMPLE NO.

TW-02RRDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Buck Environmental Labs, In Contract: BBL

Lab Code: 10795 Case No.: SAS No.: _____ SDG No.: BEL0448

Matrix: (soil/water) WATER Lab Sample ID: 0411082-01A

Sample wt/vol: 990 (g/mL) G Lab File ID: 4\0301003.

Level: (low/med) LOW Date Received: 11/05/04

% Moisture: Decanted: (Y/N) N Date Extracted: 11/08/04

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/14/04

Injection Volume: 1 (µL) Dilution Factor: 100.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
62-53-3	Aniline	7100	
121-69-7	N,N-Dimethylaniline	500	

Chain of Custody

SDG BEL0448

0411082 0411083

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

ID#: 2494

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 2

Lab Work Order #

Contact & Company Name: Keith White BBL	Telephone: (315) 446-9120
Address: 6723 Towpath Rd.	Fax: (315) 446-8053
City / State / Zip: Syracuse NY 13214	e-mail address:
Name/Location (City/State): Lesar - Bear St. Syracuse NY	Project #: 26003.190
Sampler's Printed Name: Joseph Lisi	Sampler's Signature: Joseph Lisi

Keys

Preservation Key: A. H_2SO_4 B. HCL C. HNO_3 D. NaOH E. None F. Other: Zn Ac G. Other: H. Other:

Container Information Key: 1. 40 ml Vial 2. 1 L Amber 3. 250 ml Plastic 4. 500 ml Plastic 5. Encore 6. 2 oz Glass 7. 4 oz Glass 8. 8 oz Glass 9. Other: 10. Other:

Matrix Key: SO - Soil W - Water T - Tissue SE - Sediment SL - Sludge A - Air NL - NAPL/Oil SW - Sample Wipe Other:

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix	SVOCs	VOCs	Alcohols	Total Metals (Fe, Mn, K)	Dissolved Metals (Fe, Mn, K)	Total Chloride, Phosphate	Sulfide	REMARKS
Preservative						F	B	E	C	C	E	F	
Filtered (✓)										✓			
# of Containers						2	3	3	1	1	1	1	
Container Information													
TW-02RR	11/4/04	855		X	W	X	X	X	X	X	X	X	
MW-34	11/4/04	1030		X	W	X	X	X	X	X	X	X	
MW-35	11/4/04	1030		X	W	X	X	X	X	X	X	X	
MW-36	11/4/04	1145		X	W	X	X	X	X	X	X	X	
MW-27	11/4/04	1500		X	W	X	X	X	X	X	X	X	
MW-27 MS	11/4/04	1500		X	W	X	X	X					
MW-27 MSD	11/4/04	1500		X	W	X	X	X					
MW-28	11/4/04	1505		X	W	X	X	X	X	X	X	X	
MW-28 MS	11/4/04	1505		X	W	X	X	X					
MW-28 MSD	11/4/04	1505		X	W	X	X	X					
DUP-1	11/4/04	—		X	W	X	X	X					
DUP-2	11/4/04	—		X	W	X	X	X					
TRIP BLANK	11/4/04	—			W		X	X					

REMARKS: PD T Christie re: MW-36 / MW-34 labels

Special Instructions/Comments:

☐ Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Name:	Cooler Custody Seal (✓):	Printed Name: Joseph Lisi	Printed Name:	Printed Name:	Printed Name:
Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature: Joseph Lisi	Signature:	Signature:	Signature:
Turnaround Requirements:	Sample Receipt:	Firm: BBL	Firm/Courier:	Firm/Courier:	Firm:

SNo BEL-0448

0411097

0411098

BBL
SLATER, BOUCK & LEE, INC.
engineers, scientists, economists

ID#: 4007

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 2

Lab Work Order #

Contact & Company Name:	Telephone:
Christie Sobol BBL	(315) 446-9120
Address: 6723 Tower Pk.	Fax: (315) 446-8053
City / State / Zip: Syracuse NY 13214	e mail address:
Name/Location (City/State): Lessa - Bar St. Syracuse, NY	Project #: 26003.150
Sampler's Printed Name: Joseph Lis	Sampler's Signature: Joseph Lis

Preservative	E	B	E	C	C	E	F
Filtered (✓)					✓		
# of Containers	2	3	3	1	1	1	1
Container Information							

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	SVOCs	VOCs	Alcohols	Total metals (Fe, Mn, K)	Dissolved metals (Fe, Mn, K)	Total ortho-Phosphate	Sulfide	REMARKS
MW-8SR	11/5/04	815		X	W	X	X	X	X	X	X	X	
MW-3S	11/5/04	1030		X	W	X	X	X	X	X	X	X	
Trip Blank	11/5/04	—			W		X	X					

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: ZnAc
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz Glass
7. 4 oz Glass
8. 8 oz Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil
SE - Sediment
NL - NAPL/Oil
W - Water
SL - Sludge
SW - Sample Wipe
T - Tissue
A - Air
Other: _____

Instructions/Comments:

☐ Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Name:	Cooler Custody Seal (✓):	Printed Name: Christie Sobol	Printed Name:	Printed Name:	Printed Name: Pam Davis
Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature: Christie Sobol	Signature:	Signature:	Signature: Pamela Davis
Turnaround Requirements:	Sample Receipt:	Firm: BBL	Firm/Courier:	Firm/Courier:	Firm: