UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE : February 24, 2012

SUBJECT: Region III Data QA Review

FROM: Colleen Walling
Region III ESAT RPO (3EA20)

TO: Rich Fetzer
Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #480-16100-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042 TDF: 02100 Data Validation
TO: #0042 TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw)
Suddha Graves (Techlaw)

Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

LOCKHEED MARTIN
We never forget who we're working for™

Date: February 23, 2012

Subject: Organic Data Validation (M3 Level)
Case: R33917
Project: 480-16100-1
Site: Dimock

From: Ex. 4 - CBI
Senior Data Reviewer

Ex. 4 - CBI
Senior Oversight Chemist

To: Colleen Walling
ESAT Region 3 Project Officer

OVERVIEW

Third party Case R33917, Project 480-16100-1, consisted of twenty (20) aqueous samples including three (3) field blanks analyzed for ethylene glycol. Samples were analyzed by TestAmerica Buffalo (TAL BUF) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

SUMMARY

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual). Areas of concern with respect to data usability are listed below.

MINOR PROBLEM

- The laboratory employed a four (4) point calibration curve for the analysis of the compounds requested; however, Method 8015B specifies the use of a five (5) point curve. No action was taken by the reviewer based on this deviation from the method.

NOTES

- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample (LCS) analyses and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW44 were within control limits.

- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Results calculated using these calibration factors were within rounding errors from laboratory and data validation results.

ATTACHMENTS

Appendix A – Glossary of Data Qualifier Codes
Appendix B – Data Summary Form(s)
Appendix C – Chain of Custody Records
Appendix D – Laboratory Case Narrative

DCN: R33917_480-16100-1

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

DATA SUMMARY FORM: Glycols

CASE: R33917
Site :
Lab. :

PROJECT #: 480-16100-1
DIMOCK
TALBUF

Number of Soil Samples : 0
Number of Water Samples : 20

Sample Number :		FB12		FB13		FB14		HW21		HW21Z	
Sampling Location :		FB12		FB13		FB14		HW21		HW21	
Laboratory ID:		480-16100-1		480-16100-2		480-16100-3		480-16100-4		480-16100-5	
Field QC:		Field Blank		Field Blank		Field Blank					
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/07/2012		2/08/2012		2/09/2012		2/09/2012		2/09/2012	
Time Sampled :		13:35		09:00		13:36		10:53		10:53	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										

Sample Number :		HW22		HW22-P		HW23		HW23-P		HW38	
Sampling Location :		HW22		HW22-P		HW23		HW23-P		HW38	
Laboratory ID:		480-16100-6		480-16100-7		480-16100-8		480-16100-9		480-16100-10	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/09/2012		2/09/2012		2/08/2012		2/08/2012		2/08/2012	
Time Sampled :		10:42		10:50		15:42		15:39		10:41	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag		Flag
Ethylene glycol	10										

Sample Number :		HW38-P		HW44		HW47		HW47-P		HW48	
Sampling Location :		HW38-P		HW44		HW47		HW47-P		HW48	
Laboratory ID:		480-16100-11		480-16100-12		480-16100-13		480-16100-14		480-16100-15	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/08/2012		2/09/2012		2/08/2012		2/08/2012		2/08/2012	
Time Sampled :		10:52		14:49		11:50		12:25		16:06	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										

Sample Number :		HW48Z		HW49		HW49-P		HW51		HW51-P	
Sampling Location :		HW48		HW49		HW49-P		HW51		HW51-P	
Laboratory ID:		480-16100-16		480-16100-17		480-16100-18		480-16100-19		480-16100-20	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/08/2012		2/09/2012		2/09/2011		2/07/2012		2/07/2012	
Time Sampled :		16:06		14:11		14:26		13:48		13:56	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										

RL = Reporting Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor) Revised 09/99

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/13/2012
CarrierName: FedEx
AirbillNo: 7980 5367 6448

CHAIN OF CUSTODY RECORD

Project Code: TL01-11-12-001

No: 3-021012-100338-0184

Lab: Test America DIM
Lab Contact:
Lab Phone: 716.504.9822

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW23	Drinking Water/ Tom Sedlacek	Grab	EthyGlycol(7), EthyGlycol(7)	4450 (-NA- / 40mlGlassVial), 4451 (-NA- / 40mlGlassVial) (2)	HW23	02/08/2012 15:42	
HW23-P	Drinking Water/ Dan Jacobsen	Grab	EthyGlycol(7), EthyGlycol(7)	4476 (-NA- / 40mlGlassVial), 4477 (-NA- / 40mlGlassVial) (2)	HW23-P	02/08/2012 15:39	
HW38	Drinking Water/ Tom Sedlacek	Grab	EthyGlycol(7), EthyGlycol(7)	4287 (-NA- / 40mlGlassVial), 4288 (-NA- / 40mlGlassVial) (2)	HW38	02/08/2012 10:41	
HW38-P	Drinking Water/ Dan Jacobsen	Grab	EthyGlycol(7), EthyGlycol(7)	4321 (-NA- / 40mlGlassVial), 4322 (-NA- / 40mlGlassVial) (2)	HW38-P	02/08/2012 10:52	
HW44	Drinking Water/ Bryan Berna	Grab	EthyGlycol(7), EthyGlycol(7), EthyGlycol(7), EthyGlycol(7)	4828 (-NA- / 40mlGlassVial), 4829 (-NA- / 40mlGlassVial), 4843 (-NA- / 40mlGlassVial), 4844 (-NA- / 40mlGlassVial) (4)	HW44	02/09/2012 14:49	
HW47	Drinking Water/ David Johnson	Grab	EthyGlycol(7), EthyGlycol(7)	4356 (-NA- / 40mlGlassVial), 4357 (-NA- / 40mlGlassVial) (2)	HW47	02/08/2012 11:50	
HW47-P	Drinking Water/ Francisco Lapostol	Grab	EthyGlycol(7), EthyGlycol(7)	4390 (-NA- / 40mlGlassVial), 4391 (-NA- / 40mlGlassVial) (2)	HW47-P	02/08/2012 12:25	

Sample(s) to be used for Lab QC: HW44	**Shipment for Case Complete? N**
	Samples Transferred From Chain of Custody #
Analysis Key: EthyGlycol=17-Ethylene Glycol	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
7	[illegible]		[illegible]	2/14/12	1015						

2.7, 2.9
#2

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/13/2012
CarrierName: FedEx
AirbillNo: 7980 5367 6448

CHAIN OF CUSTODY RECORD

Project Code: TL01-11-12-001

No: 3-021012-100338-0184
Lab: Test America DIM
Lab Contact:
Lab Phone: 716.504.9822

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW48	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4510 (-NA- / 40mlGlassVial), 4511 (-NA- / 40mlGlassVial) (2)	HW48	02/08/2012 16:06	
HW48z	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4544 (-NA- / 40mlGlassVial), 4545 (-NA- / 40mlGlassVial) (2)	HW48	02/08/2012 16:06	
HW49	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4734 (-NA- / 40mlGlassVial), 4735 (-NA- / 40mlGlassVial) (2)	HW49	02/09/2012 14:11	
HW49-P	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4760 (-NA- / 40mlGlassVial), 4761 (-NA- / 40mlGlassVial) (2)	HW49-P	02/09/2012 14:26	
HW51	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4117 (-NA- / 40mlGlassVial), 4118 (-NA- / 40mlGlassVial) (2)	HW51	02/07/2012 13:48	
HW51-P	Drinking Water/ Ex. 4 - CBI	Grab	EthyGlycol(7), EthyGlycol(7)	4153 (-NA- / 40mlGlassVial), 4154 (-NA- / 40mlGlassVial) (2)	HW51-P	02/07/2012 13:56	

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: EthyGlycol=17-Ethylene Glycol

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
6	Ex. 4 - CBI	2/13/12	[illegible]	2/14/12	1015						

2.7, 2.9
#2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 480-16100-1

Job Description: TechLaw Project No. R33917 (EG only)

For:
Techlaw, Inc
2208 Warwood Ave.
Wheeling, WV 26003-6546

Attention: Mr. Gene Nance

Approved for release.
Brian Fischer
Project Manager II
2/21/2012 11:49 AM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com
02/21/2012

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

TestAmerica Laboratories, Inc.
TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298
Tel (716) 691-2600 Fax (716) 691-7991 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Instrument ID: PE-01 Analysis Batch Number: 49964

Lab Sample ID: STD 480-49964/6 IC Client Sample ID:

Date Analyzed: 02/01/12 11:32 Lab File ID: PE08206.d GC Column: ZB-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Ethoxyethanol	2.08	Peak Tail	dosierc	02/01/12 13:24

Lab Sample ID: STD 480-49964/7 IC Client Sample ID:

Date Analyzed: 02/01/12 11:49 Lab File ID: PE08207.d GC Column: ZB-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Ethoxyethanol	2.07	Peak Tail	dosierc	02/01/12 13:25

Lab Sample ID: STD 480-49964/8 IC Client Sample ID:

Date Analyzed: 02/01/12 12:06 Lab File ID: PE08208.d GC Column: ZB-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methoxyethanol	1.91	Incomplete Integration	dosierc	02/01/12 13:27
2-Ethoxyethanol	2.07	Peak Tail	dosierc	02/01/12 13:27

METHOD SUMMARY

Client: Techlaw, Inc

Job Number: 480-16100-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Glycols -Direct Injection (GC/FID)	TAL BUF	SW846 8015B	
8015 Direct Injection Prep (Aqueous)	TAL BUF		SW846 8015 Prep

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

ATTACHMENT 2

Appendix A

Form Is

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: FB12
Lab Sample ID: 480-16100-1
Matrix: Water
Lab File ID: PE09186.d
Analysis Method: 8015B
Date Collected: 02/07/2012 13:35
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 11:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	108		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: FB13
Lab Sample ID: 480-16100-2
Matrix: Water
Lab File ID: PE09187.d
Analysis Method: 8015B
Date Collected: 02/08/2012 09:00
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 11:17
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	104		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: FB14
Lab Sample ID: 480-16100-3
Matrix: Water
Lab File ID: PE09188.d
Analysis Method: 8015B
Date Collected: 02/09/2012 13:36
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 11:34
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	111		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW21
Lab Sample ID: 480-16100-4
Matrix: Water
Lab File ID: PE09189.d
Analysis Method: 8015B
Date Collected: 02/09/2012 10:53
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 11:52
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	100		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW21Z
Lab Sample ID: 480-16100-5
Matrix: Water
Lab File ID: PE09190.d
Analysis Method: 8015B
Date Collected: 02/09/2012 10:53
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 12:09
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5
ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	113		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW22
Lab Sample ID: 480-16100-6
Matrix: Water
Lab File ID: PE09191.d
Analysis Method: 8015B
Date Collected: 02/09/2012 10:42
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 12:26
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	103		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-16100-1

SDG No.:

Client Sample ID: HW22-P | Lab Sample ID: 480-16100-7

Matrix: Water | Lab File ID: PE09192.d

Analysis Method: 8015B | Date Collected: 02/09/2012 10:50

Sample wt/vol: 0.5(mL) | Date Analyzed: 02/15/2012 12:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-5 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 51671 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	108		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW23
Lab Sample ID: 480-16100-8
Matrix: Water
Lab File ID: PE09193.d
Analysis Method: 8015B
Date Collected: 02/08/2012 15:42
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 13:01
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	102		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW23-P
Lab Sample ID: 480-16100-9
Matrix: Water
Lab File ID: PE09195.d
Analysis Method: 8015B
Date Collected: 02/08/2012 15:39
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 13:35
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	110		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW38
Lab Sample ID: 480-16100-10
Matrix: Water
Lab File ID: PE09196.d
Analysis Method: 8015B
Date Collected: 02/08/2012 10:41
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 13:53
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	105		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-16100-1

SDG No.:

Client Sample ID: HW38-P | Lab Sample ID: 480-16100-11

Matrix: Water | Lab File ID: PE09197.d

Analysis Method: 8015B | Date Collected: 02/08/2012 10:52

Sample wt/vol: 0.5(mL) | Date Analyzed: 02/15/2012 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-5 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 51671 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	108		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW44
Lab Sample ID: 480-16100-12
Matrix: Water
Lab File ID: PE09198.d
Analysis Method: 8015B
Date Collected: 02/09/2012 14:49
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 14:27
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	103		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW47
Lab Sample ID: 480-16100-13
Matrix: Water
Lab File ID: PE09201.d
Analysis Method: 8015B
Date Collected: 02/08/2012 11:50
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 15:19
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	109		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-16100-1

SDG No.:

Client Sample ID: HW47-P | Lab Sample ID: 480-16100-14

Matrix: Water | Lab File ID: PE09202.d

Analysis Method: 8015B | Date Collected: 02/08/2012 12:25

Sample wt/vol: 0.5(mL) | Date Analyzed: 02/15/2012 15:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-5 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 51671 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	106		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW48
Lab Sample ID: 480-16100-15
Matrix: Water
Lab File ID: PE09203.d
Analysis Method: 8015B
Date Collected: 02/08/2012 16:06
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 15:54
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	110		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW48Z
Lab Sample ID: 480-16100-16
Matrix: Water
Lab File ID: PE09204.d
Analysis Method: 8015B
Date Collected: 02/08/2012 16:06
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 16:11
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	105		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW49
Lab Sample ID: 480-16100-17
Matrix: Water
Lab File ID: PE09206.d
Analysis Method: 8015B
Date Collected: 02/09/2012 14:11
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 16:46
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	106		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW49-P
Lab Sample ID: 480-16100-18
Matrix: Water
Lab File ID: PE09207.d
Analysis Method: 8015B
Date Collected: 02/09/2012 14:26
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 17:03
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	106		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW51
Lab Sample ID: 480-16100-19
Matrix: Water
Lab File ID: PE09227.d
Analysis Method: 8015B
Date Collected: 02/07/2012 13:48
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 09:59
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51962
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	102		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW51-P
Lab Sample ID: 480-16100-20
Matrix: Water
Lab File ID: PE09228.d
Analysis Method: 8015B
Date Collected: 02/07/2012 13:56
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 10:17
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51962
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	109		66-130

Appendix B

Support Documentation

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1 Analy Batch No.: 49964

SDG No.:

Instrument ID: PE-01 GC Column: ZB-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/01/2012 10:57 Calibration End Date: 02/01/2012 12:06 Calibration ID: 5852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 480-49964/5	PE08205.d
Level 2	STD 480-49964/6	PE08206.d
Level 3	STD 480-49964/7	PE08207.d
Level 4	STD 480-49964/8	PE08208.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4							RT WINDOW	AVG RT
2-Methoxyethanol	1.904	1.920	1.912	1.907							1.870 - 1.970	1.911
2-Ethoxyethanol	2.067	2.083	2.073	2.068							2.033 - 2.133	2.073
Propylene glycol	4.515	4.524	4.519	4.523							4.474 - 4.574	4.520
Ethylene glycol	4.771	4.780	4.773	4.779							4.730 - 4.830	4.776
2,2'-Oxybisethanol	7.180	7.188	7.179	7.187							7.138 - 7.238	7.184
Triethylene Glycol	8.828	8.833	8.827	8.833							8.783 - 8.883	8.830
1,4-Butanediol	6.829	6.839	6.831	6.837							6.789 - 6.889	6.834

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1 Analy Batch No.: 49964

SDG No.:

Instrument ID: PE-01 GC Column: ZB-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/01/2012 10:57 Calibration End Date: 02/01/2012 12:06 Calibration ID: 5852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 480-49964/5	PE08205.d
Level 2	STD 480-49964/6	PE08206.d
Level 3	STD 480-49964/7	PE08207.d
Level 4	STD 480-49964/8	PE08208.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
2-Methoxyethanol	563452	596737	595761	513714	Ave		571859.509				6.2		20.0			
2-Ethoxyethanol	751570	792686	787469	694526	Ave		760510.780				5.3		20.0			
Propylene glycol	617951	671784	682739	601502	Ave		643217.933				5.4		20.0			
Ethylene glycol	459250	498692	513964	454783	Ave		480568.287				5.3		20.0			
2,2'-Oxybisethanol	548106	538716	560304	500903	Ave		540870.511				4.4		20.0			
Triethylene Glycol	362706	305218	329041	307007	Ave		350933.990				17.0		20.0			
1,4-Butanediol	913252	977122	967058	853325	Ave		917742.130				5.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1 Analy Batch No.: 49964

SDG No.:

Instrument ID: PE-01 GC Column: ZB-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/01/2012 10:57 Calibration End Date: 02/01/2012 12:06 Calibration ID: 5852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 480-49964/5	PE08205.d
Level 2	STD 480-49964/6	PE08206.d
Level 3	STD 480-49964/7	PE08207.d
Level 4	STD 480-49964/8	PE08208.d

ANALYTE	CURVE TYPE	RESPONSE				CONCENTRATION (NG/UL)			
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 1	LVL 2	LVL 3	LVL 4
2-Methoxyethanol	Ave	5634515	11934735	23830431	25685716	10.0	20.0	40.0	50.0
2-Ethoxyethanol	Ave	7515699	15853713	31498762	34726285	10.0	20.0	40.0	50.0
Propylene glycol	Ave	6179509	13435683	27309567	30075112	10.0	20.0	40.0	50.0
Ethylene glycol	Ave	4592495	9973849	20558557	22739168	10.0	20.0	40.0	50.0
2,2'-Oxybisethanol	Ave	5481057	10774329	22412169	25045139	10.0	20.0	40.0	50.0
Triethylene Glycol	Ave	3627055	6104360	13161638	15350365	10.0	20.0	40.0	50.0
1,4-Butanediol	Ave	36530103	48856122	58023475	68266023	40.0	50.0	60.0	80.0

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/2 Calibration Date: 02/15/2012 09:45

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09183.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	651176		22.8	20.0	13.9	20.0
2-Ethoxyethanol	Ave	760511	863288		22.7	20.0	13.5	20.0
Propylene glycol	Ave	643218	696106		21.6	20.0	8.2	20.0
Ethylene glycol	Ave	480568	498317		20.7	20.0	3.7	20.0
2,2'-Oxybisethanol	Ave	540871	338384		12.5	20.0	-37.4	~~20.0~~ NTC
Triethylene Glycol	Ave	350934	79713		4.54	20.0	-77.3*	20.0
1,4-Butanediol	Ave	917742	887402		48.3	50.0	-3.3	20.0

NTC = Nontarget compound

FORM VII 8015B

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/2 Calibration Date: 02/15/2012 09:45

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09183.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.92	1.87	1.97
2-Ethoxyethanol	2.07	2.02	2.12
Propylene glycol	4.52	4.47	4.57
Ethylene glycol	4.78	4.73	4.83
2,2'-Oxybisethanol	7.18	7.13	7.23
Triethylene Glycol	8.84	8.79	8.89
1,4-Butanediol	6.83	6.78	6.88

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/13 Calibration Date: 02/15/2012 13:18

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09194.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	660012		23.1	20.0	15.4	20.0
2-Ethoxyethanol	Ave	760511	875533		23.0	20.0	15.1	20.0
Propylene glycol	Ave	643218	729182		22.7	20.0	13.4	20.0
Ethylene glycol	Ave	480568	529022		22.0	20.0	10.1	20.0
2,2'-Oxybisethanol	Ave	540871	463944		17.2	20.0	-14.2	20.0
Triethylene Glycol	Ave	350934	162630		9.27	20.0	-53.7*	20.0
1,4-Butanediol	Ave	917742	964817		52.6	50.0	5.1	20.0

FORM VII 8015B

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/13 Calibration Date: 02/15/2012 13:18

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09194.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.92	1.87	1.97
2-Ethoxyethanol	2.08	2.03	2.13
Propylene glycol	4.52	4.47	4.57
Ethylene glycol	4.77	4.72	4.82
2,2'-Oxybisethanol	7.18	7.13	7.23
Triethylene Glycol	8.84	8.79	8.89
1,4-Butanediol	6.83	6.78	6.88

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/24 Calibration Date: 02/15/2012 16:28

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09205.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	654310		22.9	20.0	14.4	20.0
2-Ethoxyethanol	Ave	760511	869251		22.9	20.0	14.3	20.0
Propylene glycol	Ave	643218	727630		22.6	20.0	13.1	20.0
Ethylene glycol	Ave	480568	538536		22.4	20.0	12.1	20.0
2,2'-Oxybisethanol	Ave	540871	439873		16.3	20.0	-18.7	20.0
Triethylene Glycol	Ave	350934	111995		6.38	20.0	-68.1*	20.0
1,4-Butanediol	Ave	917742	983190		53.6	50.0	7.1	20.0

NC

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/24 Calibration Date: 02/15/2012 16:28

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09205.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.91	1.86	1.96
2-Ethoxyethanol	2.07	2.02	2.12
Propylene glycol	4.52	4.47	4.57
Ethylene glycol	4.78	4.73	4.83
2,2'-Oxybisethanol	7.18	7.13	7.23
Triethylene Glycol	8.83	8.78	8.88
1,4-Butanediol	6.83	6.78	6.88

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/27 Calibration Date: 02/15/2012 17:20

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09208.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	665583		23.3	20.0	16.4	20.0
2-Ethoxyethanol	Ave	760511	884057		23.2	20.0	16.2	20.0
Propylene glycol	Ave	643218	741537		23.1	20.0	15.3	20.0
Ethylene glycol	Ave	480568	545151		22.7	20.0	13.4	20.0
2,2'-Oxybisethanol	Ave	540871	516044		19.1	20.0	-4.6	20.0
Triethylene Glycol	Ave	350934	243331		13.9	20.0	-30.7*	20.0
1,4-Butanediol	Ave	917742	962915		52.5	50.0	4.9	20.0

N/C

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51671/27 Calibration Date: 02/15/2012 17:20

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09208.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.92	1.87	1.97
2-Ethoxyethanol	2.08	2.03	2.13
Propylene glycol	4.52	4.47	4.57
Ethylene glycol	4.78	4.73	4.83
2,2'-Oxybisethanol	7.18	7.13	7.23
Triethylene Glycol	8.84	8.79	8.89
1,4-Butanediol	6.84	6.79	6.89

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51962/3 Calibration Date: 02/17/2012 08:17

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09224.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	664669		23.2	20.0	16.2	20.0
2-Ethoxyethanol	Ave	760511	893385		23.5	20.0	17.5	20.0
Propylene glycol	Ave	643218	732179		22.8	20.0	13.8	20.0
Ethylene glycol	Ave	480568	537733		22.4	20.0	11.9	20.0
2,2'-Oxybisethanol	Ave	540871	566183		20.9	20.0	4.7	20.0
Triethylene Glycol	Ave	350934	271488		15.5	20.0	-22.6*	20.0
1,4-Butanediol	Ave	917742	923292		50.3	50.0	0.6	20.0

nc

FORM VII 8015B

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51962/3 Calibration Date: 02/17/2012 08:17

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09224.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.91	1.86	1.96
2-Ethoxyethanol	2.07	2.02	2.12
Propylene glycol	4.51	4.46	4.56
Ethylene glycol	4.77	4.72	4.82
2,2'-Oxybisethanol	7.17	7.12	7.22
Triethylene Glycol	8.83	8.78	8.88
1,4-Butanediol	6.82	6.77	6.87

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51962/14 Calibration Date: 02/17/2012 12:18

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09235.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Methoxyethanol	Ave	571860	666993		23.3	20.0	16.6	20.0
2-Ethoxyethanol	Ave	760511	894740		23.5	20.0	17.6	20.0
Propylene glycol	Ave	643218	746011		23.2	20.0	16.0	20.0
Ethylene glycol	Ave	480568	552710		23.0	20.0	15.0	20.0
2,2'-Oxybisethanol	Ave	540871	603813		22.3	20.0	11.6	20.0
Triethylene Glycol	Ave	350934	313129		17.8	20.0	-10.8	20.0
1,4-Butanediol	Ave	917742	947260		51.6	50.0	3.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: CCV 480-51962/14 Calibration Date: 02/17/2012 12:18

Instrument ID: PE-01 Calib Start Date: 02/01/2012 10:57

GC Column: ZB-5 ID: 0.25(mm) Calib End Date: 02/01/2012 12:06

Lab File ID: PE09235.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
2-Methoxyethanol	1.91	1.86	1.96
2-Ethoxyethanol	2.07	2.02	2.12
Propylene glycol	4.51	4.46	4.56
Ethylene glycol	4.77	4.72	4.82
2,2'-Oxybisethanol	7.17	7.12	7.22
Triethylene Glycol	8.83	8.78	8.88
1,4-Butanediol	6.82	6.77	6.87

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Instrument ID: PE-01 Start Date: 02/01/2012 10:57

Analysis Batch Number: 49964 End Date: 02/01/2012 19:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/01/2012 10:57	1		ZB-5 0.25(mm)
STD 480-49964/5 IC		02/01/2012 11:15	1	PE08205.d	ZB-5 0.25(mm)
STD 480-49964/6 IC		02/01/2012 11:32	1	PE08206.d	ZB-5 0.25(mm)
STD 480-49964/7 IC		02/01/2012 11:49	1	PE08207.d	ZB-5 0.25(mm)
STD 480-49964/8 IC		02/01/2012 12:06	1	PE08208.d	ZB-5 0.25(mm)
ICV 480-49964/9		02/01/2012 12:24	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 13:43	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 14:11	1		ZB-5 0.25(mm)
ICV 480-49964/12		02/01/2012 14:48	1		ZB-5 0.25(mm)
CCV 480-49964/13		02/01/2012 15:52	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:09	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:26	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 16:44	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 17:01	1		ZB-5 0.25(mm)
MDLV 480-49832/5-A		02/01/2012 17:18	1		ZB-5 0.25(mm)
MDLV 480-49832/6-A		02/01/2012 17:36	1		ZB-5 0.25(mm)
ZZZZZ		02/01/2012 17:53	50		ZB-5 0.25(mm)
		02/01/2012 18:10	1		ZB-5 0.25(mm)
CCV 480-49964/24		02/01/2012 19:02	1		ZB-5 0.25(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Instrument ID: PE-01 Start Date: 02/15/2012 09:45

Analysis Batch Number: 51671 End Date: 02/15/2012 17:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 480-51671/2		02/15/2012 09:45	1	PE09183.d	ZB-5 0.25(mm)
MB 480-51622/1-A		02/15/2012 10:25	1	PE09184.d	ZB-5 0.25(mm)
LCS 480-51622/2-A		02/15/2012 10:42	1	PE09185.d	ZB-5 0.25(mm)
480-16100-1	FB12	02/15/2012 11:00	1	PE09186.d	ZB-5 0.25(mm)
480-16100-2	FB13	02/15/2012 11:17	1	PE09187.d	ZB-5 0.25(mm)
480-16100-3	FB14	02/15/2012 11:34	1	PE09188.d	ZB-5 0.25(mm)
480-16100-4	HW21	02/15/2012 11:52	1	PE09189.d	ZB-5 0.25(mm)
480-16100-5	HW21Z	02/15/2012 12:09	1	PE09190.d	ZB-5 0.25(mm)
480-16100-6	HW22	02/15/2012 12:26	1	PE09191.d	ZB-5 0.25(mm)
480-16100-7	HW22-P	02/15/2012 12:43	1	PE09192.d	ZB-5 0.25(mm)
480-16100-8	HW23	02/15/2012 13:01	1	PE09193.d	ZB-5 0.25(mm)
CCV 480-51671/13		02/15/2012 13:18	1	PE09194.d	ZB-5 0.25(mm)
480-16100-9	HW23-P	02/15/2012 13:35	1	PE09195.d	ZB-5 0.25(mm)
480-16100-10	HW38	02/15/2012 13:53	1	PE09196.d	ZB-5 0.25(mm)
480-16100-11	HW38-P	02/15/2012 14:10	1	PE09197.d	ZB-5 0.25(mm)
480-16100-12	HW44	02/15/2012 14:27	1	PE09198.d	ZB-5 0.25(mm)
480-16100-12 MS	HW44 MS	02/15/2012 14:45	1	PE09199.d	ZB-5 0.25(mm)
480-16100-12 MSD	HW44 MSD	02/15/2012 15:02	1	PE09200.d	ZB-5 0.25(mm)
480-16100-13	HW47	02/15/2012 15:19	1	PE09201.d	ZB-5 0.25(mm)
480-16100-14	HW47-P	02/15/2012 15:36	1	PE09202.d	ZB-5 0.25(mm)
480-16100-15	HW48	02/15/2012 15:54	1	PE09203.d	ZB-5 0.25(mm)
480-16100-16	HW48Z	02/15/2012 16:11	1	PE09204.d	ZB-5 0.25(mm)
CCV 480-51671/24		02/15/2012 16:28	1	PE09205.d	ZB-5 0.25(mm)
480-16100-17	HW49	02/15/2012 16:46	1	PE09206.d	ZB-5 0.25(mm)
480-16100-18	HW49-P	02/15/2012 17:03	1	PE09207.d	ZB-5 0.25(mm)
CCV 480-51671/27		02/15/2012 17:20	1	PE09208.d	ZB-5 0.25(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Instrument ID: PE-01 Start Date: 02/17/2012 08:17

Analysis Batch Number: 51962 End Date: 02/17/2012 20:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 480-51962/3		02/17/2012 08:17	1	PE09224.d	ZB-5 0.25(mm)
MB 480-51944/1-A		02/17/2012 08:57	1	PE09225.d	ZB-5 0.25(mm)
LCS 480-51944/2-A		02/17/2012 09:14	1	PE09226.d	ZB-5 0.25(mm)
480-16100-19	HW51	02/17/2012 09:59	1	PE09227.d	ZB-5 0.25(mm)
480-16100-20	HW51-P	02/17/2012 10:17	1	PE09228.d	ZB-5 0.25(mm)
ZZZZZ		02/17/2012 10:34	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 10:51	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 11:09	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 11:26	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 11:43	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 12:01	1		ZB-5 0.25(mm)
CCV 480-51962/14		02/17/2012 12:18	1	PE09235.d	ZB-5 0.25(mm)
ZZZZZ		02/17/2012 12:35	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 12:53	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 13:10	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 13:27	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 13:45	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 14:02	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 14:19	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 14:37	1		ZB-5 0.25(mm)
CCV 480-51962/23		02/17/2012 14:54	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 15:11	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 15:29	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 15:46	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 16:03	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 16:20	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 16:38	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 16:55	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 17:12	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 17:30	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 17:47	1		ZB-5 0.25(mm)
CCV 480-51962/34		02/17/2012 18:04	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 18:21	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 18:39	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 18:56	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 19:13	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 19:31	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 19:48	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 20:05	1		ZB-5 0.25(mm)
CCV 480-51962/42		02/17/2012 20:23	1		ZB-5 0.25(mm)

8015B

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ZB-5 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	14BD1 #
FB12	480-16100-1	108
FB13	480-16100-2	104
FB14	480-16100-3	111
HW21	480-16100-4	100
HW21Z	480-16100-5	113
HW22	480-16100-6	103
HW22-P	480-16100-7	108
HW23	480-16100-8	102
HW23-P	480-16100-9	110
HW38	480-16100-10	105
HW38-P	480-16100-11	108
HW44	480-16100-12	103
HW47	480-16100-13	109
HW47-P	480-16100-14	106
HW48	480-16100-15	110
HW48Z	480-16100-16	105
HW49	480-16100-17	106
HW49-P	480-16100-18	106
HW51	480-16100-19	102
HW51-P	480-16100-20	109
	MB 480-51622/1-A	107
	MB 480-51944/1-A	100
	LCS 480-51622/2-A	110
	LCS 480-51944/2-A	101
HW44 MS	480-16100-12 MS	111
HW44 MSD	480-16100-12 MSD	109

QC LIMITS
66-130

14BD = 1,4-Butanediol

Column to be used to flag recovery values

FORM II 8015B

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Batch Number: 51622 Batch Start Date: 02/15/12 07:17 Batch Analyst: Neary, Mary Ann

Batch Method: 8015 Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GLY_CCV_1000 00014	GLY_SURR1000 00016		
MB 480-51622/1		8015 Prep, 8015B		0.5 mL	1 mL		50 uL		
LCS 480-51622/2		8015 Prep, 8015B		0.5 mL	1 mL	10 uL	50 uL		
480-16100-A-1	FB12	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-2	FB13	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-3	FB14	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-4	HW21	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-5	HW21Z	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-6	HW22	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-7	HW22-P	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-8	HW23	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-9	HW23-P	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-10	HW38	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-11	HW38-P	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-12	HW44	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-12 MS	HW44	8015 Prep, 8015B	T	0.5 mL	1 mL	10 uL	50 uL		
480-16100-A-12 MSD	HW44	8015 Prep, 8015B	T	0.5 mL	1 mL	10 uL	50 uL		
480-16100-A-13	HW47	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-14	HW47-P	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-15	HW48	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-A-16	HW48Z	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-17	HW49	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		
480-16100-B-18	HW49-P	8015 Prep, 8015B	T	0.5 mL	1 mL		50 uL		

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Batch Number: 51622 Batch Start Date: 02/15/12 07:17 Batch Analyst: Neary, Mary Ann

Batch Method: 8015 Prep Batch End Date:

Batch Notes	
Methanol Lot Number	de997

Basis	Basis Description
T	Total/NA

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Batch Number: 51944 Batch Start Date: 02/17/12 06:50 Batch Analyst: Neary, Mary Ann

Batch Method: 8015 Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GLY_CCV_1000 00014	GLY_SURR1000 00016		
MB 480-51944/1		8015 Prep, 8015B		.5 mL	1 mL		50 uL		
LCS 480-51944/2		8015 Prep, 8015B		.5 mL	1 mL	10 uL	50 uL		
480-16100-A-19	HW51	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16100-A-20	HW51-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		

Batch Notes	
Methanol Lot Number	de997

Basis	Basis Description
T	Total/NA

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: MB 480-51622/1-A

Matrix: Water Date Extracted: 02/15/2012 07:17

Lab File ID:(1) PE09184.d Lab File ID:(2)

Date Analyzed:(1) 02/15/2012 10:25 Date Analyzed:(2)

Instrument ID:(1) PE-01 Instrument ID:(2)

GC Column:(1) ZB-5 ID: 0.25(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 480-51622/2-A	02/15/2012 10:42	
FB12	480-16100-1	02/15/2012 11:00	
FB13	480-16100-2	02/15/2012 11:17	
FB14	480-16100-3	02/15/2012 11:34	
HW21	480-16100-4	02/15/2012 11:52	
HW21Z	480-16100-5	02/15/2012 12:09	
HW22	480-16100-6	02/15/2012 12:26	
HW22-P	480-16100-7	02/15/2012 12:43	
HW23	480-16100-8	02/15/2012 13:01	
HW23-P	480-16100-9	02/15/2012 13:35	
HW38	480-16100-10	02/15/2012 13:53	
HW38-P	480-16100-11	02/15/2012 14:10	
HW44	480-16100-12	02/15/2012 14:27	
HW44 MS	480-16100-12 MS	02/15/2012 14:45	
HW44 MSD	480-16100-12 MSD	02/15/2012 15:02	
HW47	480-16100-13	02/15/2012 15:19	
HW47-P	480-16100-14	02/15/2012 15:36	
HW48	480-16100-15	02/15/2012 15:54	
HW48Z	480-16100-16	02/15/2012 16:11	
HW49	480-16100-17	02/15/2012 16:46	
HW49-P	480-16100-18	02/15/2012 17:03	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 480-51622/1-A
Matrix: Water
Lab File ID: PE09184.d
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 10:25
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	0.820	J	10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	107		66-130

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09185.d

Lab ID: LCS 480-51622/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	19.2	96	62-148	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 480-51622/2-A

Matrix: Water Lab File ID: PE09185.d

Analysis Method: 8015B Date Collected:

Sample wt/vol: 0.5(mL) Date Analyzed: 02/15/2012 10:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-5 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 51671 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	19.2		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	110		66-130

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09199.d

Lab ID: 480-16100-12 MS Client ID: HW44 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	ND	20.0	100	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW44 MS
Lab Sample ID: 480-16100-12 MS
Matrix: Water
Lab File ID: PE09199.d
Analysis Method: 8015B
Date Collected: 02/09/2012 14:49
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 14:45
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	20.0		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	111		66-130

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09200.d

Lab ID: 480-16100-12 MSD Client ID: HW44 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethylene glycol	20.0	22.8	114	13	50	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID: HW44 MSD
Lab Sample ID: 480-16100-12 MSD
Matrix: Water
Lab File ID: PE09200.d
Analysis Method: 8015B
Date Collected: 02/09/2012 14:49
Sample wt/vol: 0.5(mL)
Date Analyzed: 02/15/2012 15:02
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5
ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51671
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	22.8		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	109		66-130

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Lab Sample ID: MB 480-51944/1-A

Matrix: Water Date Extracted: 02/17/2012 06:50

Lab File ID:(1) PE09225.d Lab File ID:(2)

Date Analyzed:(1) 02/17/2012 08:57 Date Analyzed:(2)

Instrument ID:(1) PE-01 Instrument ID:(2)

GC Column:(1) ZB-5 ID: 0.25(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 480-51944/2-A	02/17/2012 09:14	
HW51	480-16100-19	02/17/2012 09:59	
HW51-P	480-16100-20	02/17/2012 10:17	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 480-51944/1-A
Matrix: Water
Lab File ID: PE09225.d
Analysis Method: 8015B
Date Collected:
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 08:57
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51962
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	ND		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	100		66-130

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16100-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09226.d

Lab ID: LCS 480-51944/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	19.2	96	62-148	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16100-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 480-51944/2-A
Matrix: Water
Lab File ID: PE09226.d
Analysis Method: 8015B
Date Collected:
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 09:14
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: ZB-5 ID: 0.25(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 51962
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	19.2		10	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
110-63-4	1,4-Butanediol	101		66-130