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

DATE : March 7, 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: #480-16102-1) 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: 03013 Data Validation
TO: #0042 TDF: #02085 Sample log-in processing

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

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

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

DATE: March 7, 2012

SUBJECT: Organic Data Validation (Level M3)
Site: Dimock
CASE: R33917, PROJECT: 480-16102-1

FROM: [redacted]
Senior Data Reviewer

[redacted]
Senior Oversight Chemist

TO: Colleen Walling
ESAT Region 3 Project Officer

OVERVIEW

Case R33917, Project 480-16102-1, from the Dimock site consisted of twelve (12) aqueous samples including two (2) field blanks analyzed for ethylene glycol. All samples were submitted to TestAmerica (TALBUF) for analysis. The sample set contained two (2) field blanks. The samples were analyzed 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

- No positive results were reported in the field samples in this data set. Therefore, no confirmation analyses were required.

- Reported recoveries and Relative Percent Differences (RPDs) in the Laboratory Control Sample (LCS) and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW55 were within control limits.

- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Differences in calibration factors were due to rounding by the laboratory.

ATTACHMENTS

1) Appendix A - Glossary of Data Qualifiers
2) Appendix B - Data Summary Forms
3) Appendix C - Chain of Custody (COC) Records
4) Appendix D - Laboratory Case Narrative

DCN: R33917_Project 480-16102-1DimockM3

Appendix A

Glossary of Data Qualifiers

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.

Appendix B

Data Summary Forms

DATA SUMMARY FORM: Glycols

CASE: R33917
Site :
Lab. :

PROJECT #: 480-16102-1
DIMOCK
TALBUF

Number of Soil Samples : 0
Number of Water Samples : 12

Sample Number :		FB15		FB16		HW16		HW16-P		HW16z	
Sampling Location :		FB15		FB16		HW16		HW16-P		HW16	
Laboratory ID:		Field Blank		Field Blank							
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/10/2012		2/13/2012		2/10/2012		2/10/2012		2/10/2012	
Time Sampled :		11:21		09:06		11:21		11:37		11:22	
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 :		HW27		HW27z		HW36n		HW3n-P		HW54	
Sampling Location :		HW27		HW27		HW36n		HW3n-P		HW54	
Laboratory ID:											
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/13/2012		2/13/2012		2/10/2012		2/10/2012		2/10/2012	
Time Sampled :		10:37		10:38		10:53		11:02		14:08	
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 :		HW54-P		HW55							
Sampling Location :		HW54-P		HW55							
Laboratory ID:											
Field QC:											
Matrix :		Water		Water							
Units :		mg/L		mg/L							
Date Sampled :		2/10/2012		2/13/2012							
Time Sampled :		14:30		10:21							
Dilution Factor :		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

Appendix C

Chain of Custody (COC) Records

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/13/2012
CarrierName: FedEx
AirbillNo: 7980 5367 6426

CHAIN OF CUSTODY RECORD

Project Code: TL01-11-12-001

No: 3-021312-155638-0206
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
FB15	Aqueous/ Jason Lord	Grab	EthyGlycol(7), EthyGlycol(7)	5073 (-NA- / 40mlGlassVial), 5074 (-NA- / 40mlGlassVial) (2)	FB15	02/10/2012 11:21	
FB16	Aqueous/ Dan Jacobsen	Grab	EthyGlycol(7), EthyGlycol(7)	5263 (-NA- / 40mlGlassVial), 5264 (-NA- / 40mlGlassVial) (2)	FB16	02/13/2012 09:06	
HW16	Drinking Water/ Bryan Berna	Grab	EthyGlycol(7), EthyGlycol(7)	4979 (-NA- / 40mlGlassVial), 4980 (-NA- / 40mlGlassVial) (2)	HW16	02/10/2012 11:21	
HW16-P	Drinking Water/ Dan Jacobsen	Grab	EthyGlycol(7), EthyGlycol(7)	5039 (-NA- / 40mlGlassVial), 5040 (-NA- / 40mlGlassVial) (2)	HW16-P	02/10/2012 11:37	
HW16z	Drinking Water/ Bryan Berna	Grab	EthyGlycol(7), EthyGlycol(7)	5013 (-NA- / 40mlGlassVial), 5014 (-NA- / 40mlGlassVial) (2)	HW16	02/10/2012 11:22	
HW27	Drinking Water/ David Johnson	Grab	EthyGlycol(7), EthyGlycol(7)	5195 (-NA- / 40mlGlassVial), 5196 (-NA- / 40mlGlassVial) (2)	HW27	02/13/2012 10:37	
HW27z	Drinking Water/ David Johnson	Grab	EthyGlycol(7), EthyGlycol(7)	5229 (-NA- / 40mlGlassVial), 5230 (-NA- / 40mlGlassVial) (2)	HW27	02/13/2012 10:38	

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
14	Dan Bly	2/13/12	CW	2/14/12	1015						

2.7, 2.9
#2

Appendix D

Laboratory Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 480-16102-1

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

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

Attention: Mr. Gene Nance

Joseph V. Giacomazza

Approved for release
Joe Giacomazza
Project Administrator
3/5/2012 11:35 AM

Designee for
Brian Fischer
Project Manager II
brian.fischer@testamericainc.com
03/05/2012

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.: 480-16102-1

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: 480-16102-1

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.

Client: Techlaw, Inc

Job Number: 480-16102-1

Surrogate Recovery Report

8015B Glycols -Direct Injection (GC/FID)

Client Matrix: Water

Lab Sample ID	Client Sample ID	14BD1 %Rec
480-16102-1	FB15	106
480-16102-2	FB16	107
480-16102-3	HW16	105
480-16102-4	HW16-P	106
480-16102-5	HW16z	107
480-16102-6	HW27	106
480-16102-7	HW27z	114
480-16102-8	HW36n	106
480-16102-9	HW36n-P	105
480-16102-10	HW54	106
480-16102-11	HW54-P	107
480-16102-12	HW55	103
MB 480-51944/1-A		100
LCS 480-51944/2-A		101
480-16102-12 MS	HW55 MS	106
480-16102-12 MSD	HW55 MSD	105

Surrogate	Acceptance Limits
14BD = 1,4-Butanediol	66-130

Certification Summary

Client: Techlaw, Inc
Project/Site: TechLaw Project No. R33917 (EG only)

TestAmerica Job ID: 480-16102-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	USDA		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

ATTACHMENT 2

Appendix A

Form Is

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: FB15
Lab Sample ID: 480-16102-1
Matrix: Water
Lab File ID: PE09229.d
Analysis Method: 8015B
Date Collected: 02/10/2012 11:21
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 10:34
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.: 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	106		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: FB16
Lab Sample ID: 480-16102-2
Matrix: Water
Lab File ID: PE09230.d
Analysis Method: 8015B
Date Collected: 02/13/2012 09:06
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 10:51
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	107		66-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW16
Lab Sample ID: 480-16102-3
Matrix: Water
Lab File ID: PE09231.d
Analysis Method: 8015B
Date Collected: 02/10/2012 11:21
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 11:09
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.: 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	105		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW16-P
Lab Sample ID: 480-16102-4
Matrix: Water
Lab File ID: PE09232.d
Analysis Method: 8015B
Date Collected: 02/10/2012 11:37
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 11:26
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.: 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	106		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW16z
Lab Sample ID: 480-16102-5
Matrix: Water
Lab File ID: PE09233.d
Analysis Method: 8015B
Date Collected: 02/10/2012 11:22
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 11:43
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.: 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	107		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-16102-1

SDG No.:

Client Sample ID: HW27 | Lab Sample ID: 480-16102-6

Matrix: Water | Lab File ID: PE09234.d

Analysis Method: 8015B | Date Collected: 02/13/2012 10:37

Sample wt/vol: .5(mL) | Date Analyzed: 02/17/2012 12:01

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.: 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	106		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW27z
Lab Sample ID: 480-16102-7
Matrix: Water
Lab File ID: PE09236.d
Analysis Method: 8015B
Date Collected: 02/13/2012 10:38
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 12:35
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.: 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	114		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW36n
Lab Sample ID: 480-16102-8
Matrix: Water
Lab File ID: PE09237.d
Analysis Method: 8015B
Date Collected: 02/10/2012 10:53
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 12:53
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.: 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	106		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW36n-P
Lab Sample ID: 480-16102-9
Matrix: Water
Lab File ID: PE09238.d
Analysis Method: 8015B
Date Collected: 02/10/2012 11:02
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 13:10
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.: 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	105		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW54
Lab Sample ID: 480-16102-10
Matrix: Water
Lab File ID: PE09239.d
Analysis Method: 8015B
Date Collected: 02/10/2012 14:08
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 13:27
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.: 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	106		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW54-P
Lab Sample ID: 480-16102-11
Matrix: Water
Lab File ID: PE09240.d
Analysis Method: 8015B
Date Collected: 02/10/2012 14:30
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 13:45
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.: 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	107		66-130

FORM I 8015B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
SDG No.:
Client Sample ID: HW55
Lab Sample ID: 480-16102-12
Matrix: Water
Lab File ID: PE09241.d
Analysis Method: 8015B
Date Collected: 02/13/2012 10:21
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 14:02
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.: 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	103		66-130

FORM I 8015B

Appendix B

Support Documentation

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	14BD1 #
FB15	480-16102-1	106
FB16	480-16102-2	107
HW16	480-16102-3	105
HW16-P	480-16102-4	106
HW16z	480-16102-5	107
HW27	480-16102-6	106
HW27z	480-16102-7	114
HW36n	480-16102-8	106
HW36n-P	480-16102-9	105
HW54	480-16102-10	106
HW54-P	480-16102-11	107
HW55	480-16102-12	103
	MB 480-51944/1-A	100
	LCS 480-51944/2-A	101
HW55 MS	480-16102-12 MS	106
HW55 MSD	480-16102-12 MSD	105

QC LIMITS
66-130

14BD = 1,4-Butanediol

Column to be used to flag recovery values

FORM II 8015B

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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)

8015B

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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)
ZZZZZ		02/17/2012 09:59	1		ZB-5 0.25(mm)
ZZZZZ		02/17/2012 10:17	1		ZB-5 0.25(mm)
480-16102-1	FB15	02/17/2012 10:34	1	PE09229.d	ZB-5 0.25(mm)
480-16102-2	FB16	02/17/2012 10:51	1	PE09230.d	ZB-5 0.25(mm)
480-16102-3	HW16	02/17/2012 11:09	1	PE09231.d	ZB-5 0.25(mm)
480-16102-4	HW16-P	02/17/2012 11:26	1	PE09232.d	ZB-5 0.25(mm)
480-16102-5	HW16z	02/17/2012 11:43	1	PE09233.d	ZB-5 0.25(mm)
480-16102-6	HW27	02/17/2012 12:01	1	PE09234.d	ZB-5 0.25(mm)
CCV 480-51962/14		02/17/2012 12:18	1	PE09235.d	ZB-5 0.25(mm)
480-16102-7	HW27z	02/17/2012 12:35	1	PE09236.d	ZB-5 0.25(mm)
480-16102-8	HW36n	02/17/2012 12:53	1	PE09237.d	ZB-5 0.25(mm)
480-16102-9	HW36n-P	02/17/2012 13:10	1	PE09238.d	ZB-5 0.25(mm)
480-16102-10	HW54	02/17/2012 13:27	1	PE09239.d	ZB-5 0.25(mm)
480-16102-11	HW54-P	02/17/2012 13:45	1	PE09240.d	ZB-5 0.25(mm)
480-16102-12	HW55	02/17/2012 14:02	1	PE09241.d	ZB-5 0.25(mm)
480-16102-12 MS	HW55 MS	02/17/2012 14:19	1	PE09242.d	ZB-5 0.25(mm)
480-16102-12 MSD	HW55 MSD	02/17/2012 14:37	1	PE09243.d	ZB-5 0.25(mm)
CCV 480-51962/23		02/17/2012 14:54	1	PE09244.d	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 VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1 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 VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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

FORM VII 8015B

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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 8015B

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

SDG No.:

Lab Sample ID: CCV 480-51962/23 Calibration Date: 02/17/2012 14:54

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: PE09244.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	664765		23.2	20.0	16.2	20.0
2-Ethoxyethanol	Ave	760511	886892		23.3	20.0	16.6	20.0
Propylene glycol	Ave	643218	742282		23.1	20.0	15.4	20.0
Ethylene glycol	Ave	480568	549536		22.9	20.0	14.4	20.0
2,2'-Oxybisethanol	Ave	540871	606742		22.4	20.0	12.2	20.0
Triethylene Glycol	Ave	350934	315363		18.0	20.0	-10.1	20.0
1,4-Butanediol	Ave	917742	944359		51.5	50.0	2.9	20.0

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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		
480-16102-B-1	FB15	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-2	FB16	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-3	HW16	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-B-4	HW16-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-5	HW16z	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-B-6	HW27	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-B-7	HW27z	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-8	HW36n	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-B-9	HW36n-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-B-10	HW54	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-11	HW54-P	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-12	HW55	8015 Prep, 8015B	T	.5 mL	1 mL		50 uL		
480-16102-A-12 MS	HW55	8015 Prep, 8015B	T	.5 mL	1 mL	10 uL	50 uL		
480-16102-A-12 MSD	HW55	8015 Prep, 8015B	T	.5 mL	1 mL	10 uL	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.: 480-16102-1

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	
FB15	480-16102-1	02/17/2012 10:34	
FB16	480-16102-2	02/17/2012 10:51	
HW16	480-16102-3	02/17/2012 11:09	
HW16-P	480-16102-4	02/17/2012 11:26	
HW16z	480-16102-5	02/17/2012 11:43	
HW27	480-16102-6	02/17/2012 12:01	
HW27z	480-16102-7	02/17/2012 12:35	
HW36n	480-16102-8	02/17/2012 12:53	
HW36n-P	480-16102-9	02/17/2012 13:10	
HW54	480-16102-10	02/17/2012 13:27	
HW54-P	480-16102-11	02/17/2012 13:45	
HW55	480-16102-12	02/17/2012 14:02	
HW55 MS	480-16102-12 MS	02/17/2012 14:19	
HW55 MSD	480-16102-12 MSD	02/17/2012 14:37	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo
Job No.: 480-16102-1
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 I 8015B

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

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.: 480-16102-1
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

FORM I 8015B

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09242.d

Lab ID: 480-16102-12 MS Client ID: HW55 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Ethylene glycol	20.0	ND	19.3	96	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.: 480-16102-1
SDG No.:
Client Sample ID: HW55 MS
Lab Sample ID: 480-16102-12 MS
Matrix: Water
Lab File ID: PE09242.d
Analysis Method: 8015B
Date Collected: 02/13/2012 10:21
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 14:19
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.: 51962
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-21-1	Ethylene glycol	19.3		10	0.76

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

FORM I 8015B

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-16102-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PE09243.d

Lab ID: 480-16102-12 MSD Client ID: HW55 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethylene glycol	20.0	20.2	101	5	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.: 480-16102-1
SDG No.:
Client Sample ID: HW55 MSD
Lab Sample ID: 480-16102-12 MSD
Matrix: Water
Lab File ID: PE09243.d
Analysis Method: 8015B
Date Collected: 02/13/2012 10:21
Sample wt/vol: .5(mL)
Date Analyzed: 02/17/2012 14:37
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	20.2		10	0.76

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

FORM I 8015B