MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Matrix.....:** WATER
Date Sampled...: 12/29/09 **Date Received..:** 12/29/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Ammonia Nitrogen		WO#: LRDCV1A3-MS/LRDCV1A4-MSD				MS Lot-Sample #: C9L180595-006	
	109	(90 - 110)			MCAWW 350.1	12/26-12/28/09	9362110
	109	(90 - 110)	0.45	(0-20)	MCAWW 350.1	12/26-12/28/09	9362110
		Dilution Factor: 1					
		Analysis Time..: 13:37					
		MS Run #.....: 9362056					
Total Recoverable Phenolics		WO#: LRNWW1AK-MS/LRNWW1AL-MSD				MS Lot-Sample #: C9L290416-003	
	6.4 N	(75 - 125)			MCAWW 420.4	12/29-12/30/09	9363316
	6.7 N	(75 - 125)	2.3	(0-20)	MCAWW 420.4	12/29-12/30/09	9363316
		Dilution Factor: 1					
		Analysis Time..: 11:30					
		MS Run #.....: 9363169					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Work Order #...:** LRRRW-SMP LRRRW-DUP **Matrix.....:** WATER

Date Sampled...: 12/31/09 **Date Received..:** 12/31/09

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3						SD Lot-Sample #: C9L310491-001		
	660	670	mg/L	1.5	(0-20)	SM20 2340C	01/07/10	0007116
		Dilution Factor: 5				Analysis Time..: 08:25	MS Run Number..: 0007073	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Work Order #...:** LRVN2-SMP LRVN2-DUP **Matrix.....:** WATER

Date Sampled...: 01/05/10 **Date Received..:** 01/05/10

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hardness, as CaCO3						SD Lot-Sample #: C0A050480-002		
	96.0	94.0	mg/L	2.1	(0-20)	SM20 2340C	01/07/10	0007116
			Dilution Factor: 1			Analysis Time..: 08:25	MS Run Number..: 0007073	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Work Order #...:** LRGTL-SMP LRGTL-DUP **Matrix.....:** WATER

Date Sampled...: 12/21/09 **Date Received..:** 12/22/09

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Biochemical Oxygen Demand (BOD)						SD Lot-Sample #: C9L220412-001		
	ND	ND	mg/L	0	(0-20)	SM20 5210B	12/23-12/28/09	9357224
		Dilution Factor: 1				Analysis Time..: 00:00	MS Run Number..: 9357149	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Work Order #...:** LRJL0-SMP LRJL0-DUP **Matrix.....:** WATER

Date Sampled...: 12/21/09 **Date Received..:** 12/23/09

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Alkalinity						SD Lot-Sample #: C9L230421-002		
	52.3 J	57.5	mg/L	9.4	(0-10)	SM18 2320 B	12/28-12/29/09	9362359
			Dilution Factor: 1			Analysis Time..: 00:00	MS Run Number..: 9362187	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 **Work Order #...:** LRJLW-SMP LRJLW-DUP **Matrix.....:** WATER

Date Sampled...: 12/22/09 **Date Received..:** 12/23/09

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Acidity						SD Lot-Sample #: C9L230421-001		
	ND	ND	mg/L	0	(0-20)	SM20 2310B (4a)	12/31/09	9365043
			Dilution Factor: 1			Analysis Time..: 09:48	MS Run Number..: 9365018	
Total Dissolved Solids						SD Lot-Sample #: C9L230421-001		
	26100	26400	mg/L	0.91	(0-20)	SM20 2540C	12/24-12/28/09	9358059
			Dilution Factor: 20			Analysis Time..: 10:26	MS Run Number..: 9358032	
Total Suspended Solids						SD Lot-Sample #: C9L230421-001		
	276	278	mg/L	0.72	(0-20)	SM20 2540D	12/24/09	9358061
			Dilution Factor: 5			Analysis Time..: 14:15	MS Run Number..: 9358034	
Specific Conductance						SD Lot-Sample #: C9L230421-001		
	59800	57900	umhos/cm	3.1	(0-20)	SM20 2510B	01/05/10	0005157
			Dilution Factor: 1			Analysis Time..: 15:04	MS Run Number..: 0005078	
pH						SD Lot-Sample #: C9L230421-001		
	6.9	7.0	--	0.14	(0-2.0)	SM20 4500-H+B	01/04/10	0004194
			Dilution Factor: 1			Analysis Time..: 13:47	MS Run Number..: 0004120	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

January 07, 2010 10:31:14AM

Client: TestAmerica Pittsburgh
301 Alpha, RIDC Park
Pittsburgh, PA 15238
Attn: Chris Kovitch

Work Order: NSL2726
Project Name: TA-Pennsylvania Sites
Project Nbr: C9L230421
P/O Nbr:
Date Received: 12/26/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
C9L230421-1	NSL2726-01	12/22/09 10:00
C9L230421-2	NSL2726-02	12/21/09 10:00
C9L230421-3	NSL2726-03	12/22/09 10:00
C9L230421-4	NSL2726-04	12/21/09 10:30
C9L230421-6	NSL2726-05	12/22/09 10:00
C9L230421-7	NSL2726-06	12/22/09 10:00
C9L230421-8	NSL2726-07	12/22/09 10:00

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Pennsylvania Certification Number: 68-00585

The Chain(s) of Custody, 5 pages, are included and are an integral part of this report.

All solids results are reported in wet weight unless specifically stated.
Estimated uncertainty is available upon request.
This report has been electronically signed.
Report Approved By:

Debbie LaValle

Debbie LaValle

Project Manager

t	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSL2726-01 (C9L230421-1 - Water) Sampled: 12/22/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**0.129**	H3	mg/L	0.0500	1	12/29/09 15:34	SM5540 C	9124869
Total Kjeldahl Nitrogen	**5.46**		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-02 (C9L230421-2 - Water) Sampled: 12/21/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**1.71**	H3	mg/L	0.0500	1	12/29/09 15:34	SM5540 C	9124869
Total Kjeldahl Nitrogen	**9.44**		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-03 (C9L230421-3 - Water) Sampled: 12/22/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**5.48**	H3	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	**6.79**		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-04 (C9L230421-4 - Water) Sampled: 12/21/09 10:30								
ral Chemistry Parameters								
M..S (mol.wt 320)	**6.69**	H3	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	**3.95**		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-05 (C9L230421-6 - Water) Sampled: 12/22/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**7.50**	H3	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	**4.05**		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-06 (C9L230421-7 - Water) Sampled: 12/22/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**0.879**	H3	mg/L	0.0500	1	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	**268**		mg/L	10.0	100	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-07 (C9L230421-8 - Water) Sampled: 12/22/09 10:00								
General Chemistry Parameters								
MBAS (mol.wt 320)	**0.201**	H3	mg/L	0.0500	1	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	**195**		mg/L	2.00	20	01/05/10 11:00	EPA 351.2	9125286

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

TestAmerica Pittsburgh
301 Alpha, RIDC Park
Pittsburgh, PA 15238
Attn Chris Kovitch

Work Order: NSL2726
Project Name: TA-Pennsylvania Sites
Project Number: C9L230421
Received: 12/26/09 08:10

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
General Chemistry Parameters						
9124869-BLK1						
MBAS (mol.wt 320)	<0.0300		mg/L	9124869	9124869-BLK1	12/29/09 15:34
9125286-BLK1						
Total Kjeldahl Nitrogen	<0.0500		mg/L	9125286	9125286-BLK1	01/05/10 11:00

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	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

PROJECT QUALITY CONTROL DATA
Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9124869-DUP1										
MBAS (mol.wt 320)	1.71	1.71		mg/L	0.07	20	9124869	NSL2726-02		12/29/09 15:34
9124869-DUP2										
MBAS (mol.wt 320)	0.950	0.921		mg/L	3	20	9124869	NSL2749-01		12/29/09 15:34
9125286-DUP1										
Total Kjeldahl Nitrogen	195	179		mg/L	9	46	9125286	NSL2726-07		01/05/10 11:00

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	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
General Chemistry Parameters								
9124869-BS1								
MBAS (mol.wt 320)	0.750	0.726		mg/L	97%	85 - 115	9124869	12/29/09 15:34
9125286-BS1								
Total Kjeldahl Nitrogen	2.50	2.47		mg/L	99%	90 - 110	9125286	01/05/10 11:00

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

.t	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters												
9124869-BSD1												
MBAS (mol.wt 320)		0.742		mg/L	0.750	99%	85 - 115	2	20	9124869		12/29/09 15:34

it TestAmerica Pittsburgh
301 Alpha, RIDC Park
Pittsburgh, PA 15238
Attn Chris Kovitch

Work Order: NSL2726
Project Name: TA-Pennsylvania Sites
Project Number: C9L230421
Received: 12/26/09 08:10

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
General Chemistry Parameters										
9124869-MS1										
MBAS (mol.wt 320)	0.0509	0.730		mg/L	0.750	91%	85 - 115	9124869	NSL2759-01	12/29/09 15:34
9125286-MS1										
Total Kjeldahl Nitrogen	5.46	6.49	M8	mg/L	2.50	41%	90 - 110	9125286	NSL2726-01	01/05/10 11:00

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

At	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters												
9124869-MSD1												
MBAS (mol.wt 320)	0.0509	0.734		mg/L	0.750	91%	85 - 115	0.5	20	9124869	NSL2759-01	12/29/09 15:34
9125286-MSD1												
Total Kjeldahl Nitrogen	5.46	9.73	M8	mg/L	5.00	85%	90 - 110	40	46	9125286	NSL2726-01	01/05/10 11:00

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	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

CERTIFICATION SUMMARY

TestAmerica Nashville

Method	Matrix	AIHA	Nelac	Pennsylvania
EPA 351.2	Water	N/A	X	X
SM5540 C	Water		X	X

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

	TestAmerica Pittsburgh	Work Order:	NSL2726
	301 Alpha, RIDC Park	Project Name:	TA-Pennsylvania Sites
	Pittsburgh, PA 15238	Project Number:	C9L230421
Attn	Chris Kovitch	Received:	12/26/09 08:10

DATA QUALIFIERS AND DEFINITIONS

H3	Sample was received and analyzed past holding time.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
ND	Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER REC[illegible]

NSL2726

Cooler Received/Opened On 12/26/2009 @ 0810

1. Tracking # 2876 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID Raynger

2. Temperature of rep. sample or temp blank when opened: 0.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO..(NA)

4. Were custody seals on outside of cooler? YES...(NO)...NA

If yes, how many and where: NA

5. Were the seals intact, signed, and dated correctly? YES...NO...(NA)

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) MB

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? YES...(NO)...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...(NA)

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (intial) MB

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? (YES)...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...(NO)...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) MB

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) MB

I certify that I attached a label with the unique LIMS number to each container (intial) MB

21. Were there Non-Conformance issues at login? YES...(NO) Was a PIPE generated? YES...(NO)...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 6/24/09

C9L230421 NSL2726

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS: 01/07/10 23:59
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
at: 367970 - Cash in Advance / Prepaid Sales

Date Received: 2009-12-23
Analytical Due Date: 2010-01-11
Report Due Date: 2010-01-11

WORK LOCATION: ***W5*** ***TestAmerica Nashville***

ADDRESS: 2960 Foster Creighton Drive
Nashville TN 37204

SMP# 1 CLIENT ID: WASHINGTON COUNTY FLOW BACK DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

1

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJLW1A2 METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJLW1A3 METAL: XX

SMP# 2 CLIENT ID: WESTMORELAND PRODUCTION BRIN DATE/TIME SAMPLED: 20091221 1000 MATRIX: I WATER
SAMPLE COMMENT

2

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL01AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL01AE METAL: XX

SMP# 3 CLIENT ID: FAYETTE COUNTY BRINE DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

3

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL11AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL11AE METAL: XX

SMP# 4 CLIENT ID: WESTMORELAND FLOW BACK DATE/TIME SAMPLED: 20091221 1030 MATRIX: I WATER
SAMPLE COMMENT

4

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL21AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL21AE METAL: XX

SMP# 6 CLIENT ID: GREENE COUNTY FLOW BACK 1 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

5

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**

COMMENTS:
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
Client: 367970 - Cash In Advance / Prepaid Sales

NSL2726
01/07/10 23:59

Date Received: 2009-12-23
Analytical Due Date: 2010-01-11
Report Due Date: 2010-01-11

EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPK1AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPK1AE METAL: XX

SMP# 7 CLIENT ID: FAYETTE COUNTY FLOW BACK 2 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPM1AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPM1AE METAL: XX

SMP# 8 CLIENT ID: GREENE COUNTY PRODUCTION BRIN DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

METHOD: Z0 NONE NONE **WATER, 351.2 TKN TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPP1AD METAL: XX

METHOD: Z0 NONE NONE **WATER, 425.1 MBAS TA Nashville**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPP1AE METAL: XX

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

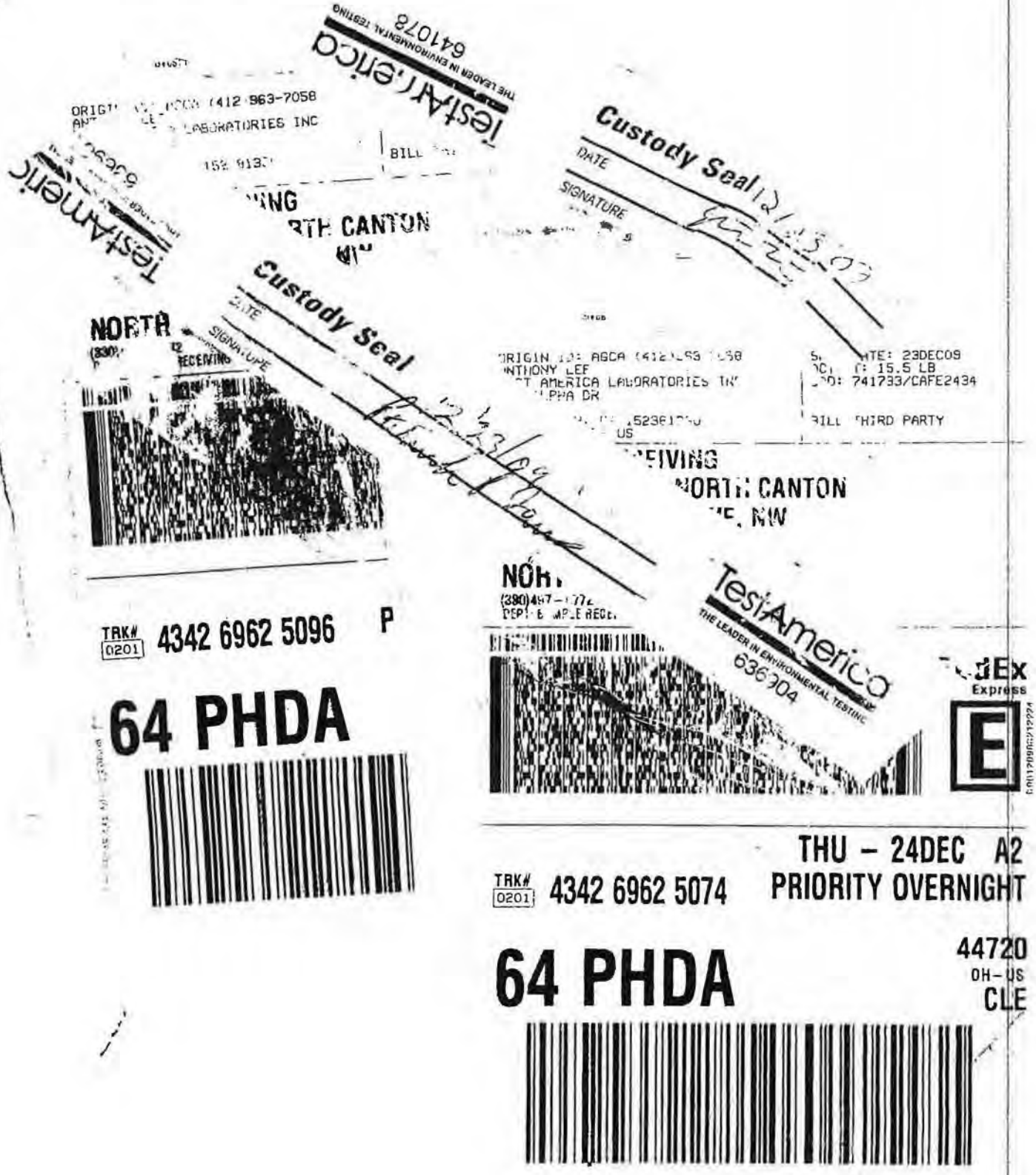
Thank You

TestAmerica Pittsburgh
Sample Receiving

RELINQUISHED BY: _____ DATE: 12/23/09 TIME: 1730

RECEIVED FOR LAB BY: _____ DATE: 12/26/09 TIME: 810

NSL2726
01/07/10 23:59



Ferrel, Matthew

From: Kovitch, Chris
Sent: Thursday, December 24, 2009 12:23 PM
To: McFadden, John; Pittsburgh - Receiving
Cc: Ferrel, Matthew
Subject: RE: We received samples that were suppose to go to Nashville

Ok.. Thank You.. Please shipp.. :)

From: McFadden, John
Sent: Thursday, December 24, 2009 12:21 PM
To: Kovitch, Chris; Pittsburgh - Receiving
Cc: Ferrel, Matthew
Subject: RE: We received samples that were suppose to go to Nashville

Yes it did say Nashville

From: Kovitch, Chris
Sent: Thursday, December 24, 2009 12:21 PM
To: McFadden, John; Pittsburgh - Receiving
Cc: Ferrel, Matthew
Subject: RE: We received samples that were suppose to go to Nashville

Nashville is going to do the TKN and MBAS... The paperwork did say Nashville Right

---

From: McFadden, John
Sent: Thursday, December 24, 2009 12:10 PM
To: Kovitch, Chris
Cc: Ferrel, Matthew
Subject: We received samples that were suppose to go to Nashville
Importance: High

Chris,

We received lot C9L230421 for TKN and MBAS that looks as though it was suppose to go to Nashville. Would you like us to ship these to Nashville for Saturday delivery? Just let us know.

Thanks

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Analytical Report

SDG Number: C9L230421

Project Description(s)
367970 CIA

For:

Chris Kovitch

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

Sally J Hoffman

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Monday, January 11, 2010

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
'irgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

SAMPLE DATA SUMMARY PACKAGE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
irgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
FAYETTE COUNTY BRINE	RSL1004-03	Water	12/22/09 10:00	12/24/09 10:00	
FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY FLOW BACK 1	RSL1004-05	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	12/22/09 10:00	12/24/09 10:00	
WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	12/22/09 10:00	12/24/09 10:00	
WESTMORELAND FLOW BACK	RSL1004-04	Water	12/21/09 10:30	12/24/09 10:00	
WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	12/21/09 10:00	12/24/09 10:00	

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
'rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
C7	Calibration Verification recovery was below the method control limit due to matrix interference carried over from analytical samples. The matrix interference was confirmed by reanalysis with the same result.
D08	Dilution required due to high concentration of target analyte(s)
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
P9	This analyte has been shown to degrade upon preservation with HCl and cannot accurately be quantitated.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Z6	Surrogate recovery was below acceptance limits.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTE COUNTY BRINE (RSL1004-03 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**6.9**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015
Client ID: FAYETTE COUNTY FLOW BACK 2 (RSL1004-06 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**3.6**	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:10	GFD	9L29024	8015
Client ID: GREENE COUNTY FLOW BACK 1 (RSL1004-05 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**9.6**	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD	9L29024	8015
Client ID: GREENE COUNTY PRODUCTION BRINE (RSL1004-07 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**2.2**	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:40	GFD	9L29024	8015
Client ID: WESTMORELAND FLOW BACK (RSL1004-04 - Water)							**Sampled: 12/21/09 10:30**		**Recvd: 12/24/09 10:00**	
N .alogenated Volatile Organics										
Ethylene Glycol	**6.7**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58	GFD	9L29024	8015
Client ID: WESTMORELAND PRODUCTION BRIN (RSL1004-02 - Water)							**Sampled: 12/21/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**1.3**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 09:40	GFD	9L29024	8015

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
'rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTE COUNTY BRINE (RSL1004-03 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	6.9	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015
1,4-Butanediol	*86 %*	*P9*	*Surr Limits: (66-130%)*				*12/30/09 10:28*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Irgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTE COUNTY FLOW BACK 2 (RSL1004-06 - Water) Sampled: 12/22/09 10:00 Recvd: 12/24/09 10:00										
Non-Halogenated Volatile Organics										
Ethylene Glycol	3.6	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:10	GFD	9L29024	8015
1,4-Butanediol	*65 %*	*P9, C7,Z*	*Surr Limits: (66-130%)*				*12/30/09 12:10*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: GREENE COUNTY FLOW BACK 1 (RSL1004-05 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	9.6	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD	9L29024	8015
1,4-Butanediol	*109 %*	*D08, P9, C7 Surr Limits: (66-130%)*					*12/30/09 15:03*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Pittsburgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: GREENE COUNTY PRODUCTION BRINE (RSL1004-07 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**2.2**	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:40	GFD	9L29024	8015
1,4-Butanediol	*51 %*	*P9, C7,Z*	*Surr Limits: (66-130%)*				*12/30/09 12:40*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
'rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: WASHINGTON COUNTY FLOW BACK (RSL1004-01 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	ND	D08, P9	100	7.6	mg/L	10.0	12/30/09 09:10	GFD	9L29024	8015
1,4-Butanediol	*	*D08, P9,Z3*	*Surr Limits: (66-130%)*				*12/30/09 09:10*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
'rgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: WESTMORELAND FLOW BACK (RSL1004-04 - Water)							**Sampled: 12/21/09 10:30**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**6.7**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58	GFD	9L29024	8015
1,4-Butanediol	*83 %*	*P9*	*Surr Limits: (66-130%)*				*12/30/09 10:58*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
irgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: WESTMORELAND PRODUCTION BRIN (RSL1004-02 - Water)							**Sampled: 12/21/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	1.3	P9,J, B	10	0.76	mg/L	1.00	12/30/09 09:40	GFD	9L29024	8015
1,4-Butanediol	*78 %*	*P9*	*Surr Limits: (66-130%)*				*12/30/09 09:40*	*GFD*	*9L29024*	*8015*

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
urgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally J Hoffman

Sally Hoffman
Project Manager

Monday, January 11, 2010

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

QUALITY CONTROL DATA

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Irgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Non-Halogenated Volatile Organics											
Blank Analyzed: 12/30/09 (Lab Number:9L29024-BLK1, Batch: 9L29024)											
Ethylene Glycol			10	0.76	mg/L	1.8					J
Surrogate: 1,4-Butanediol					*mg/L*		*109*	*66-130*			
LCS Analyzed: 12/30/09 (Lab Number:9L29024-BS1, Batch: 9L29024)											
Ethylene Glycol		20.0	10	0.76	mg/L	23.4	117	50-150			B
Surrogate: 1,4-Butanediol					*mg/L*		*108*	*66-130*			
Matrix Spike Analyzed: 12/30/09 (Lab Number:9L29024-MS1, Batch: 9L29024)											
QC Source Sample: RSL1004-02											
Ethylene Glycol	1.34	20.0	10	0.76	mg/L	14.7	67	50-150			P9,C7,B
Surrogate: 1,4-Butanediol					*mg/L*		*71*	*66-130*			*P9,C7*
Matrix Spike Dup Analyzed: 12/30/09 (Lab Number:9L29024-MSD1, Batch: 9L29024)											
QC Source Sample: RSL1004-02											
Ethylene Glycol	1.34	20.0	10	0.76	mg/L	9.68	42	50-150	41	50	P9,C7,M8 ,J,B
Surrogate: 1,4-Butanediol					*mg/L*		*51*	*66-130*			*P9,C7,Z6*

SAMPLE DATA PACKAGE

SDG NARRATIVE

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
urgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
FAYETTE COUNTY BRINE	RSL1004-03	Water	12/22/09 10:00	12/24/09 10:00	
FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY FLOW BACK 1	RSL1004-05	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	12/22/09 10:00	12/24/09 10:00	
WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	12/22/09 10:00	12/24/09 10:00	
WESTMORELAND FLOW BACK	RSL1004-04	Water	12/21/09 10:30	12/24/09 10:00	
WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	12/21/09 10:00	12/24/09 10:00	

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
Urgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
C7	Calibration Verification recovery was below the method control limit due to matrix interference carried over from analytical samples. The matrix interference was confirmed by reanalysis with the same result.
D08	Dilution required due to high concentration of target analyte(s)
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
P9	This analyte has been shown to degrade upon preservation with HCl and cannot accurately be quantitated.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Z6	Surrogate recovery was below acceptance limits.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
urgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTE COUNTY BRINE (RSL1004-03 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**6.9**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015
Client ID: FAYETTE COUNTY FLOW BACK 2 (RSL1004-06 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**3.6**	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:10	GFD	9L29024	8015
Client ID: GREENE COUNTY FLOW BACK 1 (RSL1004-05 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**9.6**	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD	9L29024	8015
Client ID: GREENE COUNTY PRODUCTION BRINE (RSL1004-07 - Water)							**Sampled: 12/22/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**2.2**	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:40	GFD	9L29024	8015
Client ID: WESTMORELAND FLOW BACK (RSL1004-04 - Water)							**Sampled: 12/21/09 10:30**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**6.7**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58	GFD	9L29024	8015
Client ID: WESTMORELAND PRODUCTION BRIN (RSL1004-02 - Water)							**Sampled: 12/21/09 10:00**		**Recvd: 12/24/09 10:00**	
Non-Halogenated Volatile Organics										
Ethylene Glycol	**1.3**	P9,J, B	10	0.76	mg/L	1.00	12/30/09 09:40	GFD	9L29024	8015

TestAmerica Pittsburgh
301 Alpha Drive; RIDC Park
urgh, PA 15238

SDG Number: C9L230421

Project: 367970 CIA
Project Number: C9L230421

Received: 12/24/09
Reported: 01/11/10 11:25

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman
Project Manager

Monday, January 11, 2010

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

CHAIN OF CUSTODY DOCUMENTS

C9L230421

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
ant: 367970 - Cash in Advance / Prepaid Sales

Date Received: 2009-12-23
Analytical Due Date: 2010-01-11
Report Due Date: 2010-01-11

WORK LOCATION: *I3* ***TestAmerica Buffalo***

ADDRESS: 10 Hazelwood Drive
Amherst NY 14228

SMP# 1 CLIENT ID: WASHINGTON COUNTY FLOW BACK DATE/TIME SAMPLED: 20091222 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJLW1A4 METAL: **XX**

SMP# 2 CLIENT ID: WESTMORELAND PRODUCTION BRIN DATE/TIME SAMPLED: 20091221 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL01AF METAL: **XX**

SMP# 3 CLIENT ID: FAYETTE COUNTY BRINE DATE/TIME SAMPLED: 20091222 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL11AF METAL: **XX**

SMP# 4 CLIENT ID: WESTMORELAND FLOW BACK DATE/TIME SAMPLED: 20091221 1030 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJL21AF METAL: **XX**

SMP# 6 CLIENT ID: GREENE COUNTY FLOW BACK 1 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPK1AF METAL: **XX**

SMP# 7 CLIENT ID: FAYETTE COUNTY FLOW BACK 2 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJPM1AF METAL: **XX**

SMP# 8 CLIENT ID: GREENE COUNTY PRODUCTION BRIN DATE/TIME SAMPLED: 20091222 1000 MATRIX: I **WATER**
SAMPLE COMMENT

METHOD: **Z0** NONE NONE **WATER, 8015 Ethylene Glycol TA Buffalo**
EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

C9L230421

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:	Chris Kovitch	Date Received:	2009-12-23
Project:	Form 26R	Analytical Due Date:	2010-01-11
Report Type:	B1 Std Rep - CD only	Report Due Date:	2010-01-11
Client:	367970 - Cash in Advance / Prepaid Sales		

WORKORDER LRJPP1AF METAL: XX

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

Thank You

TestAmerica Pittsburgh
Sample Receiving

RELINQUISHED BY: _____ DATE: 12/23/09 TIME: 1730

RECEIVED FOR LAB BY: _____ DATE: 12/24/09 TIME: 1000

2.0°

Work Order RS 6L1004	**Storage #** 12260

Shipment ID ______

Strict Internal COC: YES / NO (NO circled)
Radiation Check <0.02 mR/hr: YES / NO (YES circled)

Residual Chlorine Check: ☐

Client TA Pitt **Project** ATLAS

Pre-log RS ______

TAT 10 BD/____ CD # OF SAMPLES 17 TRIP BLANK Y/N (N circled) # ____

SHIPPED BY FedEx	**ATTACH SHIPPING TAGS**
RECEIVED DATE / TIME:	12/24/09 10:00

COOLER TEMP 2.0 °C (<6 °C)	OK (circled)	NO

Cooler Custody Seal intact? YES/NO (YES circled) NONE SEAL # —

If NO to cooler temp or seal, PM notified? YES — (PM Name)

WORKSHARE/SUB YES/NO (NO circled) **LAB** — **Analysis** —

COMMENTS: SAMPLE TIME (ET) (circled) (CT) (MT) (PT) NONE

Sample received outside hold time —

Condition (Issues) Yes/NO —

Resolved at login — **ARRF** —

Tests added from All Analyses list Sally I put this under ATLAS for 8015 Glycols, change if needed.

PRESERVATION CHECKED YES ✓ NO ___ NA ___ Initials [initials]

ARE SAMPLE DATES AND TIMES CORRECT? Initials [initials]

WERE ALL THE APPROPRIATE TESTS ASSIGNED? Initials ✓

Temp.Cert.Loss:

ORGANICS DATA

GC
METHOD 8015

ANALYSES DATA PACKAGE COVER PAGE

8015

Laboratory: TestAmerica Buffalo
SDG: C9L230421
Client: TestAmerica Pittsburgh
Project: 367970 CIA

Client Sample Id:	Lab Sample Id:
WASHINGTON COUNTY FLOW BACK	RSL1004-01
WESTMORELAND PRODUCTION BRIN	RSL1004-02
FAYETTE COUNTY BRINE	RSL1004-03
WESTMORELAND FLOW BACK	RSL1004-04
GREENE COUNTY FLOW BACK 1	RSL1004-05
FAYETTE COUNTY FLOW BACK 2	RSL1004-06
GREENE COUNTY PRODUCTION BRINE	RSL1004-07

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
8015

›ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Sequence:	RL93102	Instrument:	HP5890-9
Matrix:	Water	Calibration:	R9F0102

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
WASHINGTON COUNTY FLOW BACK (RSL1004-01) Lab File ID: 9b32043 Analyzed: 12/30/09 09:10								
1,4-Butanediol	100		66 - 130	5.520754	5.794813	-0.2741	+/-1.0	*
WESTMORELAND PRODUCTION BRIN (RSL1004-02) Lab File ID: 9b32045 Analyzed: 12/30/09 09:40								
1,4-Butanediol	100	78	66 - 130	5.52941	5.794813	-0.2654	+/-1.0	
FAYETTE COUNTY BRINE (RSL1004-03) Lab File ID: 9b32048 Analyzed: 12/30/09 10:28								
1,4-Butanediol	100	86	66 - 130	5.533468	5.794813	-0.2613	+/-1.0	
WESTMORELAND FLOW BACK (RSL1004-04) Lab File ID: 9b32050 Analyzed: 12/30/09 10:58								
1,4-Butanediol	100	83	66 - 130	5.536228	5.794813	-0.2586	+/-1.0	
GREENE COUNTY FLOW BACK 1 (RSL1004-05) Lab File ID: 9b32064 Analyzed: 12/30/09 15:03								
1,4-Butanediol	100	109	66 - 130	5.513425	5.794813	-0.2814	+/-1.0	
FAYETTE COUNTY FLOW BACK 2 (RSL1004-06) Lab File ID: 9b32054 Analyzed: 12/30/09 12:10								
'-Butanediol	100	65	66 - 130	5.537772	5.794813	-0.2570	+/-1.0	*
GREENE COUNTY PRODUCTION BRINE (RSL1004-07 Lab File ID: 9b32056 Analyzed: 12/30/09 12:40								
1,4-Butanediol	100	51	66 - 130	5.545058	5.794813	-0.2498	+/-1.0	*

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
8015

Laboratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Sequence:	RL93102	Instrument:	HP5890-9
Matrix:	Water	Calibration:	R9F0102

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (9L29024-BLK1)			Lab File ID: 9b32042		Analyzed: 12/30/09 08:45			
1,4-Butanediol	100	109	66 - 130	5.519123	5.794813	-0.2757	+/-1.0	
LCS (9L29024-BS1)			Lab File ID: 9b32044		Analyzed: 12/30/09 09:25			
1,4-Butanediol	100	108	66 - 130	5.519015	5.794813	-0.2758	+/-1.0	
Matrix Spike (9L29024-MS1)			Lab File ID: 9b32065		Analyzed: 12/30/09 15:19			
1,4-Butanediol	100	71	66 - 130	5.531807	5.794813	-0.2630	+/-1.0	
Matrix Spike Dup (9L29024-MSD1)			Lab File ID: 9b32066		Analyzed: 12/30/09 15:34			
1,4-Butanediol	100	51	66 - 130	5.54603	5.794813	-0.2488	+/-1.0	*

Form 3

LCS / LCS DUPLICATE RECOVERY

8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Matrix:	Water	Spike standard:	9121239
Batch:	9L29024	Laboratory ID:	9L29024-BS1
Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL

COMPOUND	SPIKE ADDED	UNITS	LCS CONCENTRATION	LCS % REC. #	QCLIMITS REC.
Ethylene Glycol	20.0	mg/L	23.4	117	50 - 150

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

* Values outside of QC limits

Form 3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

MORELAND PRODUCTION

8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Matrix:	Water	Spike standard:	9121239
Batch:	9L29024	Laboratory ID:	9L29024-MS1
Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL

Source Sample Name: WESTMORELAND PRODUCTION BRI

COMPOUND	SPIKE ADDED	UNITS	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC. #	QC LIMITS REC.
Ethylene Glycol	20.0	mg/L	1.34	14.7	67	50 - 150

COMPOUND	SPIKE ADDED	UNITS	MSD CONCENTRATION	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Ethylene Glycol	20.0	mg/L	9.68	42 *	41	50	50 - 150

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

* Values outside of QC limits

PREPARATION BATCH SUMMARY
8015

ratory: TestAmerica Buffalo SDG: C9L230421

Client: TestAmerica Pittsburgh Project: 367970 CIA

Batch: 9L29024 Batch Matrix: Water Preparation: 8015 Glycols

SAMPLE NAME	LAB SAMPLE ID	INITIAL	FINAL	DATE PREPARED	TOT/DIS
Blank	9L29024-BLK1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
LCS	9L29024-BS1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUCT	9L29024-MS1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUCT	9L29024-MSD1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WASHINGTON COUNTY FL	RSL1004-01	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUC	RSL1004-02	0.500 mL	1.00 mL	12/30/09 06:00	N/A
FAYETTE COUNTY BRINE	RSL1004-03	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND FLOW BA	RSL1004-04	0.500 mL	1.00 mL	12/30/09 06:00	N/A
GREENE COUNTY FLOW BA	RSL1004-05	0.500 mL	1.00 mL	12/30/09 06:00	N/A
FAYETTE COUNTY FLOW B	RSL1004-06	0.500 mL	1.00 mL	12/30/09 06:00	N/A
GREENE COUNTY PRODUC	RSL1004-07	0.500 mL	1.00 mL	12/30/09 06:00	N/A

METHOD DETECTION AND REPORTING LIMITS

8015

Laboratory: TestAmerica Buffalo **SDG:** C9L230421

Client: TestAmerica Pittsburgh **Project:** 367970 CIA

Matrix: Water **Instrument:** HP5890-9

Analyte	MDL	MRL	Units
Ethylene Glycol	0.76	10	mg/L

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

IINGTON COUNTY FLOW

Laboratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-01	File ID:	9b32043
Sampled:	12/22/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 09:10
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

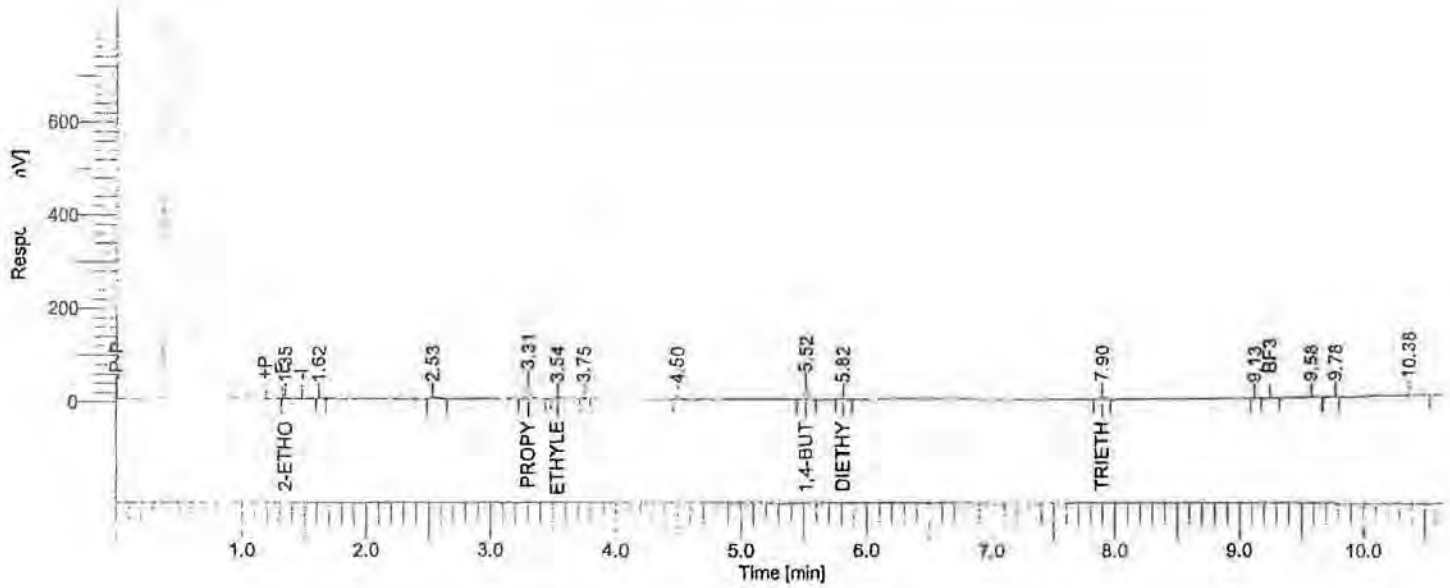
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	10	100	UD

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	0.00		66 - 130	D

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:29:58
Reprocess Number	: buf2042: 241620		
Operator	: tchrom	Sample Name	: RSL1004-01
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 10.00
Data Acquisition Time	: 12/30/2009 09:10:02	Cycle	: 4

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32043.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32043.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32043.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32043.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32043.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	1204.00	776	1.35	2-ETHOXYETHANOL	0.16
2	*B	1539.60	918	1.62		0.00
3	B	9202.20	2737	2.53		0.01
4	B	61888.40	29046	3.31	PROPYLENE GLYCOL	9.65
5	B	1572.20	735	3.54	ETHYLENE GLYCOL	0.32
6	B	1936.80	933	3.75		0.00
7	B	1192.00	562	4.50		0.00
8	B	49133.20	23603	5.52	1,4-BUTANEDIOL	5.86
9	B	3462.80	1390	5.82	DIETHYLENE GLYCOL	0.69

DEC 31

12/31/2009 04:29:58 Result: H:\TURBO6\5890-09\9-SEQ32\9b32043.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	11284.00	4138	7.90	TRIETHYLENE GLYCOL	4.52
11	B	1357.80	624	9.13		0.00
12	*B	10024.40	1050	9.58		0.01
13	*B	2947.10	1197	9.78		0.00
14	*V	57800.30	3669	10.38		0.06
		214544.80	71377			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

MORELAND PRODUCTIO

Laboratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-02	File ID:	9b32045
Sampled:	12/21/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 09:40
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

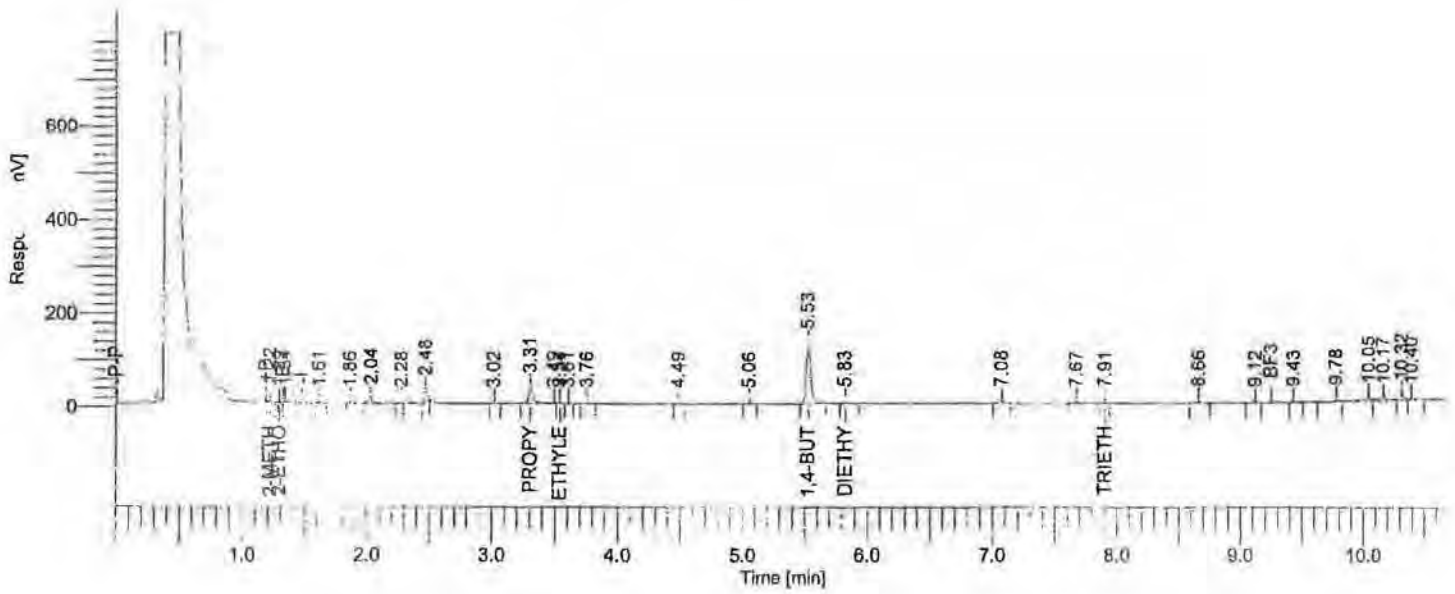
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	1.3	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	77.9	78	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:06
Reprocess Number	: buf2042: 241622		
ıerator	: tchrom	Sample Name	: RSL1004-02
ımple Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 09:40:19	Cycle	: 6

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32045.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32045.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32045.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32045.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32045.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	5571.60	4017	1.22	2-METHOXYETHANOL	1.00
2	*B	886.72	522	1.29	2-ETHOXYETHANOL	0.12
3	*V	4360.88	2180	1.34		0.00
4	B	1932.00	1019	1.61		0.00
5	B	812.60	467	1.86		0.00
6	B	11589.80	6071	2.04		0.01
7	B	960.80	527	2.28		0.00
8	B	33924.00	21321	2.48		0.03
9	B	1381.20	703	3.02		0.00

DEC 3 1

12/31/2009 04:30:06 Result: H:\TURBO6\5890-09\9-SEQ32\9b32045.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	79735.11	31631	3.31	PROPYLENE GLYCOL	12.43
11	E	2838.00	925	3.49		0.00
12	V	3290.22	1420	3.54	ETHYLENE GLYCOL	0.67
13	V	1783.47	838	3.61		0.00
14	B	2215.40	917	3.76		0.00
15	B	1640.40	802	4.49		0.00
16	B	2120.00	825	5.06		0.00
17	B	326214.80	126429	5.53	1,4-BUTANEDIOL	38.93
18	B	6235.80	1902	5.83	DIETHYLENE GLYCOL	1.23
19	B	6391.20	2173	7.08		0.01
20	B	1270.00	512	7.67		0.00
21	B	1049.80	459	7.91	TRIETHYLENE GLYCOL	1.81
22	B	9528.40	2699	8.66		0.01
23	B	2490.80	590	9.12		0.00
24	*B	1950.00	835	9.43		0.00
25	*B	8659.12	2421	9.78		0.01
26	*V	32916.09	5632	10.05		0.03
27	*V	36111.38	3626	10.17		0.04
28	*V	26090.53	9651	10.32		0.03
29	*V	7112.87	1959	10.40		0.01
		621063.00	233073			

Missing Component Report

Component	Expected Retention (Calibration File)

. .l components were found

Form 1

ORGANIC ANALYSIS DATA SHEET

8015

FAYETTE COUNTY BRINE

atory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-03	File ID:	9b32048
Sampled:	12/22/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 10:28
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102
Instrument:	HP5890-9				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	6.9	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	86.0	86	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:17
Reprocess Number	: buf2042; 241625		
Operator	: tchrom	Sample Name	: RSL1004-03
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 10:28:03	Cycle	: 9

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32048.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32048.rst
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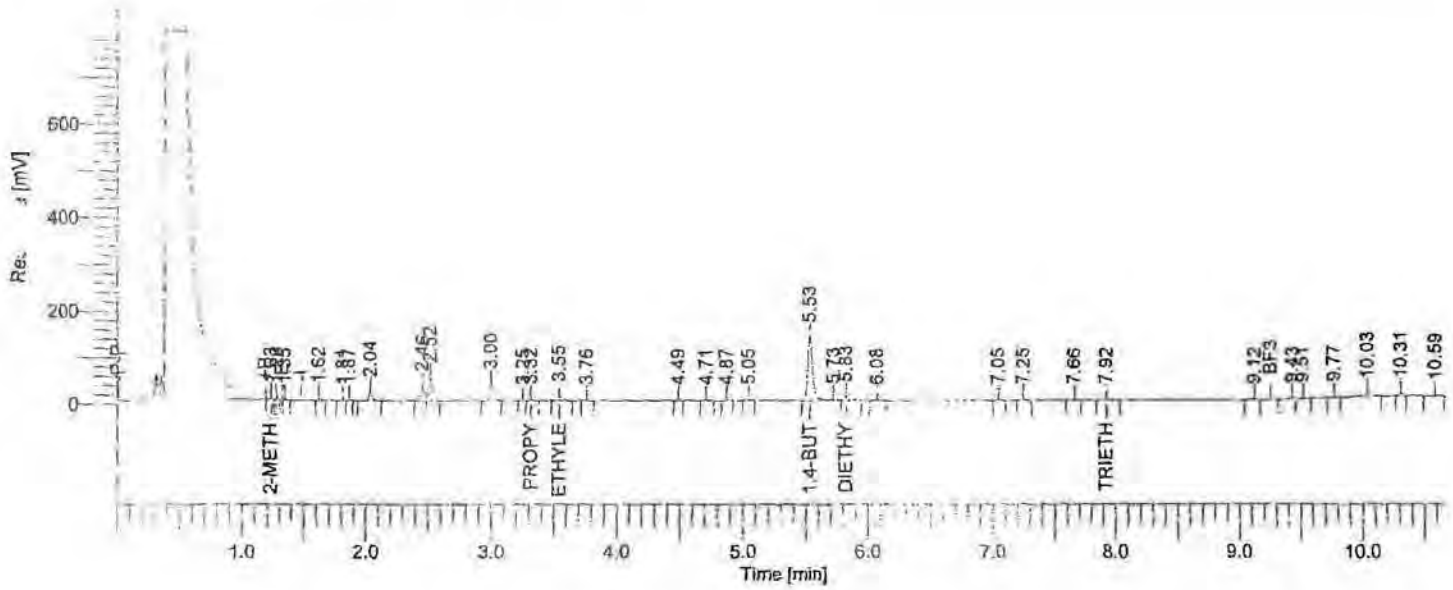
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32048.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32048.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	5083.68	2754	1.23	2-METHOXYETHANOL	0.92
2	V	3239.52	2230	1.28	2-ETHOXYETHANOL	0.43
3	*B	967.20	775	1.35		0.00
4	B	4344.40	3120	1.62		0.00
5	B	1613.24	883	1.81		0.00
6	V	1735.36	1041	1.87		0.00
7	B	33900.80	16641	2.04		0.03
8	B	59426.85	29302	2.46		0.06
9	V	107581.95	48010	2.52		0.11

12/31/2009 04:30:17 Result: H:\TURBO6\5890-09\9-SEQ32\9b32048.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	69944.60	33555	3.00		0.07
11	B	885.89	447	3.25		0.00
12	V	5336.91	2288	3.32	PROPYLENE GLYCOL	0.83
13	B	16901.20	6982	3.55	ETHYLENE GLYCOL	3.45
14	B	2214.40	890	3.76		0.00
15	B	1328.40	679	4.49		0.00
16	B	1847.80	633	4.71		0.00
17	B	935.20	396	4.87		0.00
18	B	903.40	413	5.05		0.00
19	B	360336.53	133696	5.53	1,4-BUTANEDIOL	43.01
20	E	9944.40	2134	5.73		0.01
21	V	21121.87	6733	5.83	DIETHYLENE GLYCOL	4.18
22	B	2656.40	673	6.08		0.00
23	B	4216.00	1683	7.05		0.00
24	B	3241.80	1075	7.25		0.00
25	B	2640.60	978	7.66		0.00
26	B	8288.40	1593	7.92	TRIETHYLENE GLYCOL	3.73
27	B	1710.40	410	9.12		0.00
28	*B	2294.30	977	9.43		0.00
29	*V	4707.50	1698	9.51		0.00
30	*B	5447.92	1849	9.77		0.01
31	*V	24164.88	5026	10.03		0.02
32	*B	12479.20	5862	10.31		0.01
33	*B	3158.80	606	10.59		0.00
		784599.80	316031			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 1

ORGANIC ANALYSIS DATA SHEET

8015

ESTMORELAND FLOW BA

ratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-04	File ID:	9b32050
Sampled:	12/21/09 10:30	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 10:58
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

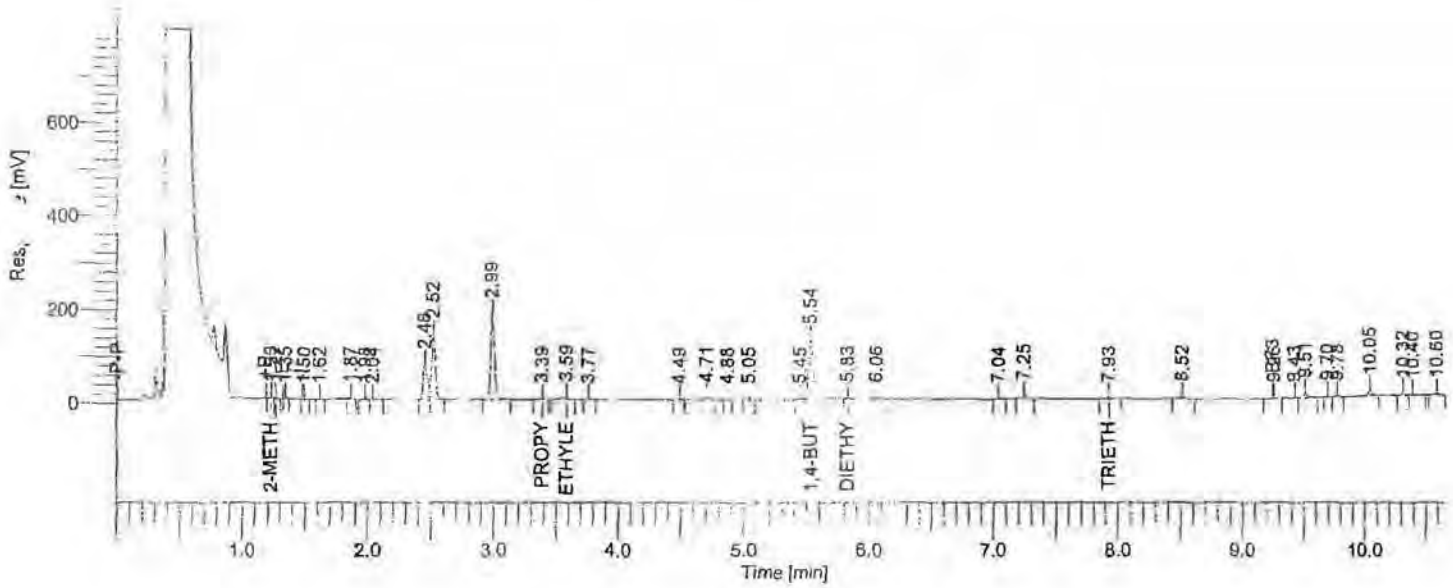
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	6.7	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	83.4	83	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:25
Reprocess Number	: buf2042: 241627		
Operator	: tchrom	Sample Name	: RSL1004-04
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 10:58:30	Cycle	: 11

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32050.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32050.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32050.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32050.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32050.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	3643.36	1622	1.23	2-METHOXYETHANOL	0.66
2	V	2841.84	1831	1.27	2-ETHOXYETHANOL	0.37
3	*B	1326.00	1052	1.35		0.00
4	*B	1219.20	670	1.50		0.00
5	B	804.40	579	1.62		0.00
6	B	2570.00	1429	1.87		0.00
7	B	4705.81	1923	1.98		0.00
8	V	2750.19	1121	2.04		0.00
9	B	175738.11	74229	2.46		0.18

12/31/2009 04:30:25 Result: H:\TURBO6\5890-09\9-SEQ32\9b32050.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	301049.69	137829	2.52		0.30
11	B	387684.40	180248	2.99		0.39
12	B	4732.00	1646	3.39	PROPYLENE GLYCOL	0.74
13	B	16417.20	4980	3.59	ETHYLENE GLYCOL	3.35
14	B	1598.00	665	3.77		0.00
15	B	1336.60	638	4.49		0.00
16	B	8540.00	3183	4.71		0.01
17	B	520.60	252	4.88		0.00
18	B	1043.60	471	5.05		0.00
19	B	866.40	394	5.45		0.00
20	B	349428.00	125461	5.54	1,4-BUTANEDIOL	41.70
21	B	4413.00	2073	5.83	DIETHYLENE GLYCOL	0.87
22	B	10638.20	2965	6.06		0.01
23	B	2992.60	1172	7.04		0.00
24	B	17696.00	5756	7.25		0.02
25	B	6552.60	1487	7.93	TRIETHYLENE GLYCOL	3.27
26	B	16164.00	3753	8.52		0.02
27	*B	2004.00	744	9.26		0.00
28	*B	2123.66	868	9.43		0.00
29	*V	20073.54	8677	9.51		0.02
30	*B	2419.60	1802	9.70		0.00
31	*B	4353.63	1709	9.78		0.00
32	*V	27352.37	11352	10.05		0.03
33	*B	10329.57	4484	10.32		0.01
34	*V	4893.63	1511	10.40		0.00
35	*B	10028.80	3316	10.60		0.01
		1410850.60	591892			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

EENE COUNTY FLOW BA

ratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-05	File ID:	9b32064
Sampled:	12/22/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 15:03
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102
Instrument:	HP5890-9				

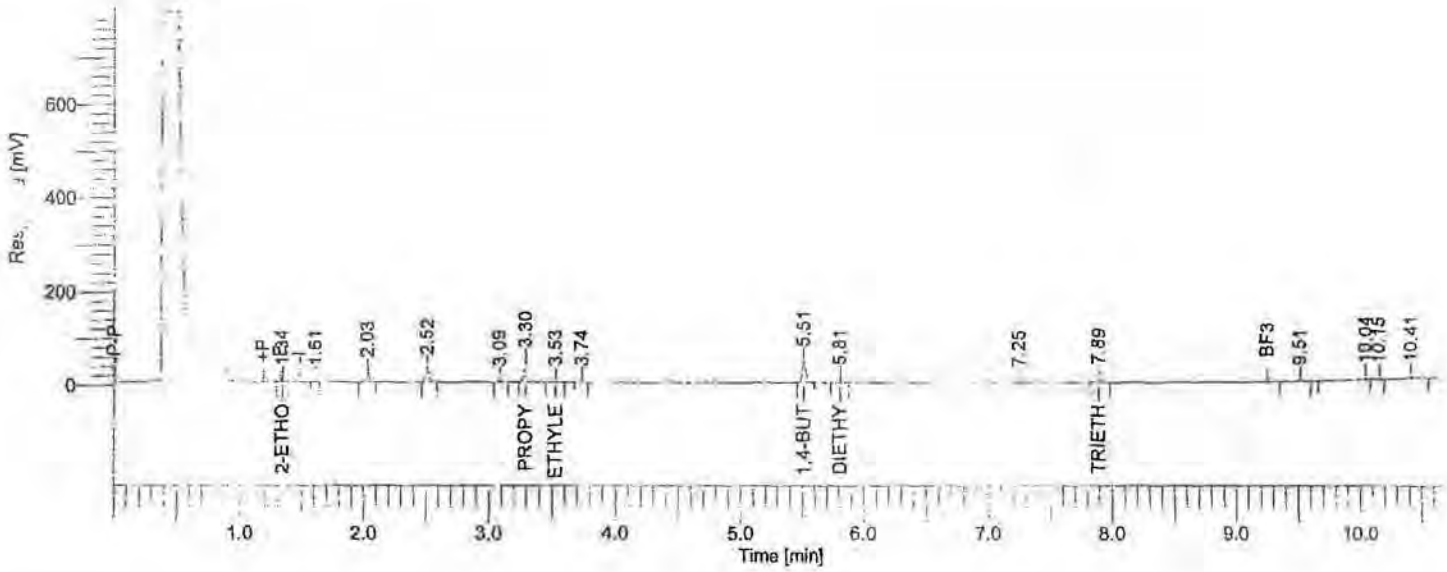
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	5	9.6	JBD

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	109	109	66 - 130	D

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:09
Reprocess Number	: buf2042: 241641		
Operator	: tchrom	Sample Name	: RSL1004-05
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 5.00
Data Acquisition Time	: 12/30/2009 15:03:52	Cycle	: 25

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32064.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32064.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32064.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32064.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32064.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	923.60	498	1.34	2-ETHOXYETHANOL	0.12
2	*B	1099.60	819	1.61		0.00
3	B	35799.20	18664	2.03		0.04
4	B	50894.80	23910	2.52		0.05
5	B	2021.20	597	3.09		0.00
6	B	88750.99	39840	3.30	PROPYLENE GLYCOL	13.84
7	V	4694.41	1797	3.53	ETHYLENE GLYCOL	0.96
8	B	1341.40	637	3.74		0.00
9	B	91436.40	43641	5.51	1,4-BUTANEDIOL	10.91

12/31/2009 04:31:09 Result: H:\TURBO6\5890-09\9-SEQ32\9b32064.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	11356.40	4553	5.81	DIETHYLENE GLYCOL	2.25
11	B	2441.60	801	7.25		0.00
12	B	15963.20	5538	7.89	TRIETHYLENE GLYCOL	5.75
13	*B	5646.40	1330	9.51		0.01
14	*B	22465.85	2707	10.04		0.02
15	*V	8446.88	1310	10.15		0.01
16	*V	21578.47	2584	10.41		0.02
		364860.40	149227			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

'ETTE COUNTY FLOW BA

ratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-06	File ID:	9b32054
Sampled:	12/22/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 12:10
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

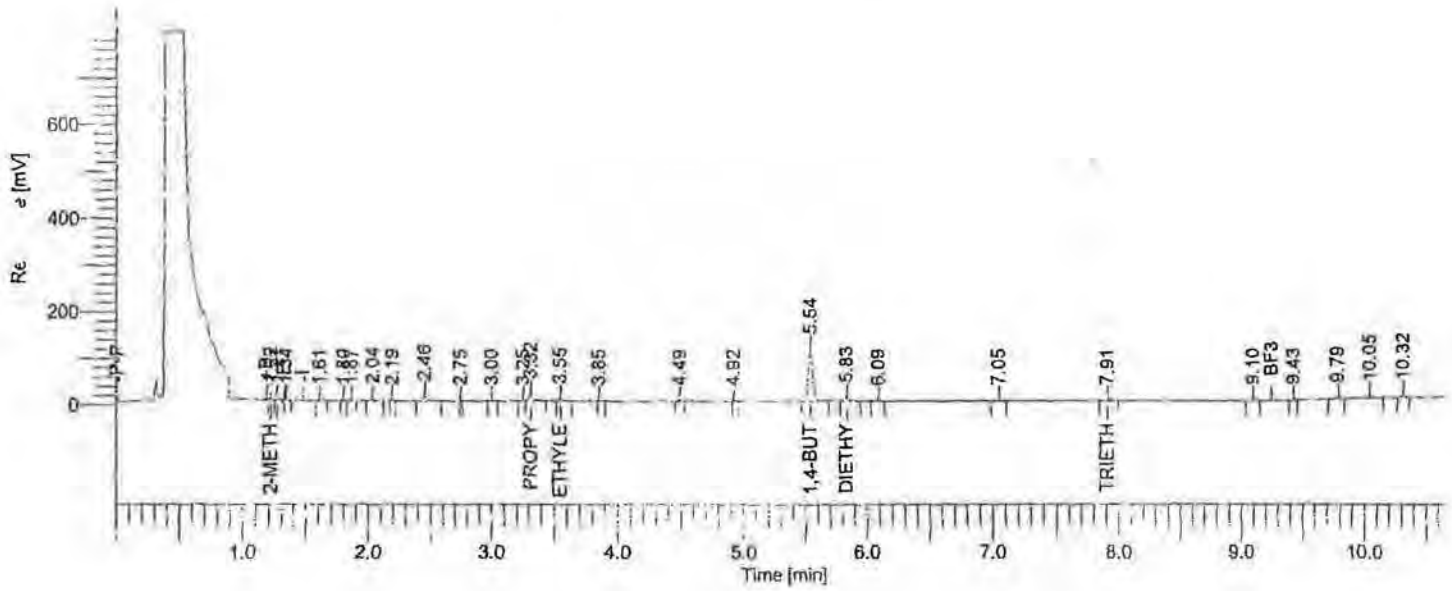
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	3.6	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	65.4	65	66 - 130	*

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:39
Reprocess Number	: buf2042; 241631		
Operator	: tchrom	Sample Name	: RSL1004-06
ımple Number	: WATER	Study	:
.utoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 12:10:28	Cycle	: 15

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32054.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32054.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32054.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32054.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32054.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	3153.60	2533	1.22	2-METHOXYETHANOL	0.57
2	B	2235.60	1419	1.27	2-ETHOXYETHANOL	0.29
3	*B	1678.00	1242	1.34		0.00
4	B	1456.40	778	1.61		0.00
5	B	700.31	414	1.80		0.00
6	V	1828.69	834	1.87		0.00
7	B	8406.00	4333	2.04		0.01
8	B	659.60	514	2.19		0.00
9	B	24669.00	10307	2.46		0.02

12/31/2009 04:30:39 Result: H:\TURBO6\5890-09\9-SEQ32\9b32054.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
11	B	1052.60	540	3.00		0.00
12	B	1174.20	567	3.25		0.00
13	V	38472.40	15185	3.32	PROPYLENE GLYCOL	6.00
14	B	8849.20	4005	3.55	ETHYLENE GLYCOL	1.81
15	B	704.80	537	3.85		0.00
16	B	1051.20	544	4.49		0.00
18	B	273794.00	110028	5.54	1,4-BUTANEDIOL	32.68
19	B	18724.00	6310	5.83	DIETHYLENE GLYCOL	3.71
20	B	1260.80	468	6.09		0.00
21	B	2031.20	766	7.05		0.00
22	B	3942.40	930	7.91	TRIETHYLENE GLYCOL	2.58
23	B	1262.40	399	9.10		0.00
24	*B	1249.40	782	9.43		0.00
25	*B	5007.60	1532	9.79		0.01
26	*B	12866.80	2875	10.05		0.01
27	*B	10337.20	4831	10.32		0.01
		426567.40	172674			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

IE COUNTY PRODUCTION

ratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	RSL1004-07	File ID:	9b32056
Sampled:	12/22/09 10:00	Prepared:	12/30/09 06:00	Analyzed:	12/30/09 12:40
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

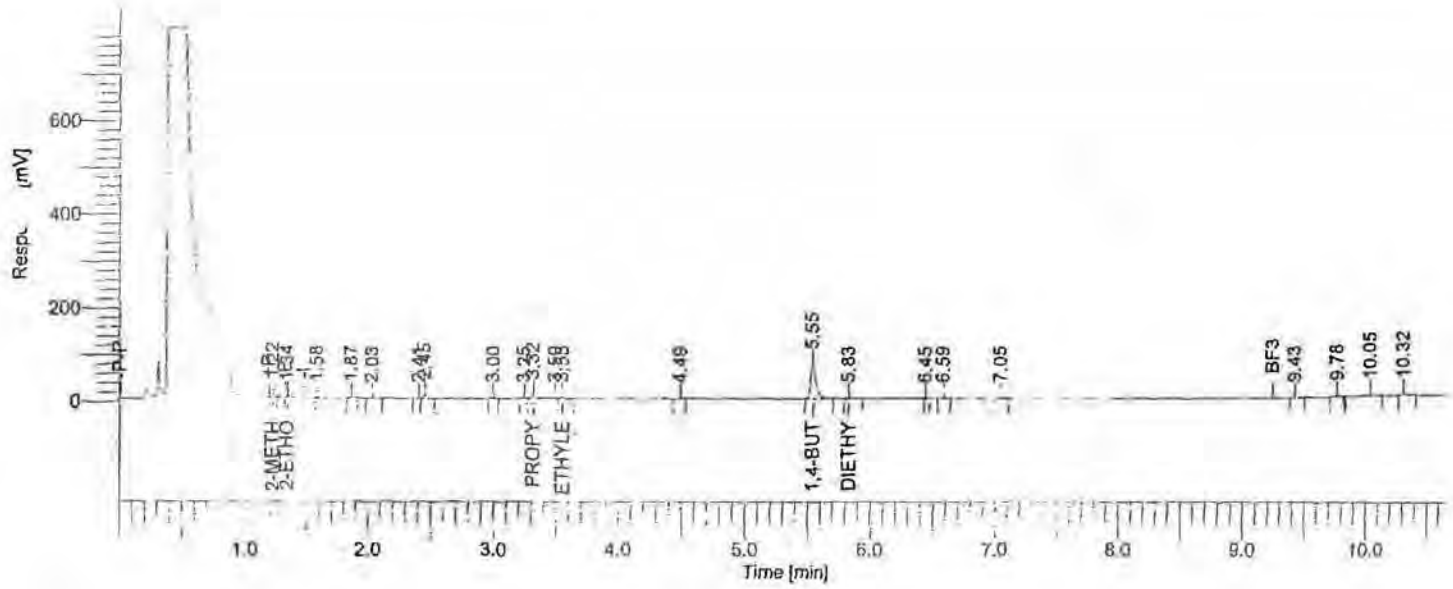
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	2.2	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	51.3	51	66 - 130	*

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:46
Reprocess Number	: buf2042: 241633		
Operator	: tchrom	Sample Name	: RSL1004-07
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 12:40:57	Cycle	: 17

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32056.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32056.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32056.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32056.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32056.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	7260.80	4855	1.22	2-METHOXYETHANOL	1.31
2	*B	1578.80	1134	1.34	2-ETHOXYETHANOL	0.21
4	B	2703.20	1333	1.87		0.00
5	B	1713.20	443	2.03		0.00
7	B	14078.40	7016	2.45		0.01
8	B	926.20	549	3.00		0.00
9	B	1307.31	450	3.25		0.00
10	V	25390.92	7792	3.32	PROPYLENE GLYCOL	3.96
11	E	2936.00	953	3.50		0.00

12/31/2009 04:30:46 Result: H:\TURBO6\5890-09\9-SEQ32\9b32056.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
12	V	5396.16	1906	3.55	ETHYLENE GLYCOL	1.10
13	B	815.60	398	4.49		0.00
14	B	215096.20	73227	5.55	1,4-BUTANEDIOL	25.67
15	B	4107.40	1246	5.83	DIETHYLENE GLYCOL	0.81
17	B	1782.40	702	6.59		0.00
18	B	2144.00	778	7.05		0.00
19	*B	1579.60	740	9.43		0.00
20	*B	3624.00	1485	9.78		0.00
21	*B	10400.00	2346	10.05		0.01
22	*B	8386.60	3121	10.32		0.01
		311226.80	110475			

Missing Component Report

Component	Expected Retention (Calibration File)
TRIETHYLENE GLYCOL	7.933

Form 6
INITIAL CALIBRATION DATA
8015

ıratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Calibration:	R9F0102	Instrument:	HP5890-9
		Calibration Date:	05/26/09 13:07

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/ul	RF	ng/ul	RF	ng/ul	RF	ng/ul	RF	ng/ul	RF	ng/ul	RF
1,4-Butanediol	20	7991.76	30	8471.047	40	8505.495	50	8439.788	60	8418.707	80	8446.11
2-Ethoxyethanol	5	7061.332	10	7829.521	20	7732.99	30	7661.21	40	7664.853	50	7557.188
Diethylene glycol	5	4536.6	10	5167.44	20	5113.66	30	5148.96	40	5154.47	50	5199.82
Ethylene Glycol	5	4467.36	10	5027.92	20	4944.06	30	4988.42	40	4974.69	50	5002.368
Ethylene Glycol Monomethyl E	5	5210.708	10	5759.52	20	5587.27	30	5588.617	40	5524.632	50	5637.82
Propylene glycol	5	5889.76	10	6572.84	20	6479.38	30	6509.693	40	6502.99	50	6522.064
Triethylene Glycol	5	2639.2	10	3257.84	20	3423.01	30	3565.64	40	3610.38	50	3723.488

Form 6
INITIAL CALIBRATION DATA (Continued)
8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Calibration:	R9F0102	Instrument:	HP5890-9
		Calibration Date:	05/26/09 13:07

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r^2	Quad COD	LIMIT	Q
1,4-Butanediol	8378.818	2.29077	5.794813	1.025743E-02			20	
2-Ethoxyethanol	7584.515	3.581189	1.462997	0.6149714			20	
Diethylene glycol	5053.492	5.041196	6.096846	1.316654E-02			20	
Ethylene Glycol	4900.803	4.370196	3.785177	1.212752E-02			20	
Ethylene Glycol Monomethyl Ether	5551.428	3.323864	1.366535	0.5548354			20	
Propylene glycol	6412.788	4.024767	3.553872	3.072024E-02			20	
Triethylene Glycol	3369.926	11.64857	8.240788	1.302876E-02	0.99976			

TotalChrom Method File H:\TURBO6\5890-09\NEW-9B-05-26-09 GLYCOLS.mth

Printed by : DelongG on: 05/27/2009 04:46:22
Created by : DelongG on: 05/26/2009 11:54:05
Edited by : DelongG on: 05/27/2009 04:46:17
Number of Times Edited : 7
Number of Times Calibrated : 1942
Description: New 8015 GLYCOL Curve 05/26/09.

Processed by: GD 5/27/09
Reviewed by: LMW 5/27/09

Global Sample Information

Default Sample Volume : 1.000 ul
Quantitation Units : ng
Void Time : 0.000 min
Correct amounts during calibration : Yes
Convert unknowns to concentration units : Yes
Reject outliers during calibration : No

An External Standard calibration will be used
Unknown peaks will be quantitated using a response factor of 1.000000e+06
First peak will be relative retention reference

Component Information

2-METHOXYETHANOL

Component Type : Single Peak Component
Retention Time : 1.367 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 100.000000
Value 4 : 80.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	26053.54	15568.45	———	———	1
B	10.0000	57595.20	34223.13	———	———	1
C	20.0000	111745.36	63985.13	———	———	1
D	30.0000	167658.54	99708.02	———	———	1
E	40.0000	220985.34	126901.67	———	———	1
F	50.0000	281890.97	169412.97	———	———	1

Average Calibration Factor = 5551.427811 (%RSD = 3.32)

2-ETHOXYETHANOL

Component Type : Single Peak Component
Retention Time : 1.463 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

05/27/2009 04:46:22 Method: H:\TURBO6\5890-09\NEW-9B-05-26-09 GLYCOLS.mth

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	35306.66	10225.10			1
B	10.0000	78295.20	21126.61			1
C	20.0000	154659.84	38587.98			1
D	30.0000	229836.26	57336.79			1
E	40.0000	306594.06	73265.89			1
F	50.0000	377859.43	103045.68			1

Average Calibration Factor = 7584.515466 (%RSD = 3.58)

PROPYLENE GLYCOL
Component Type : Single Peak Component
Retention Time : 3.554 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	29448.80	14749.08			1
B	10.0000	65728.40	34731.13			1
C	20.0000	129587.60	64454.66			1
D	30.0000	195290.80	102770.87			1
E	40.0000	260119.60	133156.57			1
F	50.0000	326193.20	176685.94			1

Average Calibration Factor = 6412.787889 (%RSD = 4.02)

ETHYLENE GLYCOL
Component Type : Single Peak Component
Retention Time : 3.785 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

05/27/2009 04:46:22 Method: H:\TURBO6\5890-09\NEW-9B-05-26-09 GLYCOLS.mth

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	22336.80	11634.38	———	———	1
B	10.0000	50279.20	27689.06	———	———	1
C	20.0000	98881.20	52090.11	———	———	1
D	30.0000	149652.60	82069.67	———	———	1
E	40.0000	198987.60	108551.39	———	———	1
F	50.0000	250118.40	142843.81	———	———	1

Average Calibration Factor = 4900.803000 (%RSD = 4.37)

1,4-BUTANEDIOL
Component Type : Single Peak Component
Retention Time : 5.795 min
Search Window : 4.00 s, 0.00 %
This component is a reference
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 50.000000
Value 2 : 50.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	20.0000	159835.20	81868.87	———	———	1
B	30.0000	254131.40	131571.70	———	———	1
C	40.0000	340219.80	174348.36	———	———	1
D	50.0000	421989.40	215049.87	———	———	1
E	60.0000	505122.40	256975.61	———	———	1
F	80.0000	675688.80	342082.01	———	———	1

Average Calibration Factor = 8378.817722 (%RSD = 2.29)

DIETHYLENE GLYCOL
Component Type : Single Peak Component
Retention Time : 6.097 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

05/27/2009 04:46:22 Method: H:\TURBO6\5890-09\NEW-9B-05-26-09 GLYCOLS.mth

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	22683.00	10552.67			1
B	10.0000	51674.40	24190.78			1
C	20.0000	102273.20	48239.23			1
D	30.0000	154468.80	72657.65			1
E	40.0000	206178.80	97352.83			1
F	50.0000	259981.00	123107.26			1

Average Calibration Factor = 5053.491667 (%RSD = 5.04)

TRIETHYLENE GLYCOL
Component Type : Single Peak Component
Retention Time : 8.241 min
Search Window : 4.00 s, 0.00 %
Reference Component :
Find peak closest to expected RT in window
Calibrating Area versus Amount using a 1st Order Fit
Curve will ignore the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: 1/x
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 20.000000
Value 2 : 20.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	13196.00	4510.27			1
B	10.0000	32578.40	11136.73			1
C	20.0000	68460.20	23480.68			1
D	30.0000	106969.20	36320.19			1
E	40.0000	144415.20	49044.74			1
F	50.0000	186174.40	62853.77			1

Calibration Curve : y = (-5815.045023) + (3785.055936)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999669

******* Cal Factor Curve Summary Report ******

File Name	Date of Injection	2-METHOXYETHANOL Ret. Time	Ng	Area	Area/Amount (CF)	2-ETHOXYETHANOL Ret. Time	Ng	Area	Area/Amount (CF)	PROPYLENE GLYCOL Ret. Time	Ng	Area	Area/Amount (CF)
9B27010.rst	05/26/2009	1.35	5.0	26054	5210.71	1.46	5.0	35307	7061.33	3.55	5.0	29449	5889.76
9B27011.rst	05/26/2009	1.37	10.0	57595	5759.52	1.47	10.0	78295	7829.52	3.55	10.0	65728	6572.84
9B27012.rst	05/26/2009	1.37	20.0	111745	5587.27	1.46	20.0	154660	7732.99	3.55	20.0	129588	6479.38
9B27013.rst	05/26/2009	1.37	30.0	167659	5588.62	1.46	30.0	229836	7661.21	3.55	30.0	195291	6509.69
9B27014.rst	05/26/2009	1.37	40.0	220985	5524.63	1.46	40.0	306594	7664.85	3.55	40.0	260120	6502.99
9B27015.rst	05/26/2009	1.37	50.0	281691	5637.82	1.47	50.0	377859	7557.19	3.55	50.0	326103	6522.06
Averages		1.37	25.8	144321	5551.43	1.46	25.8	197092	7584.52	3.55	25.8	167713	6412.79
%RSD		0.55	67.5	68	3.32	0.62	67.5	67	3.56	0.03	67.5	68	4.02

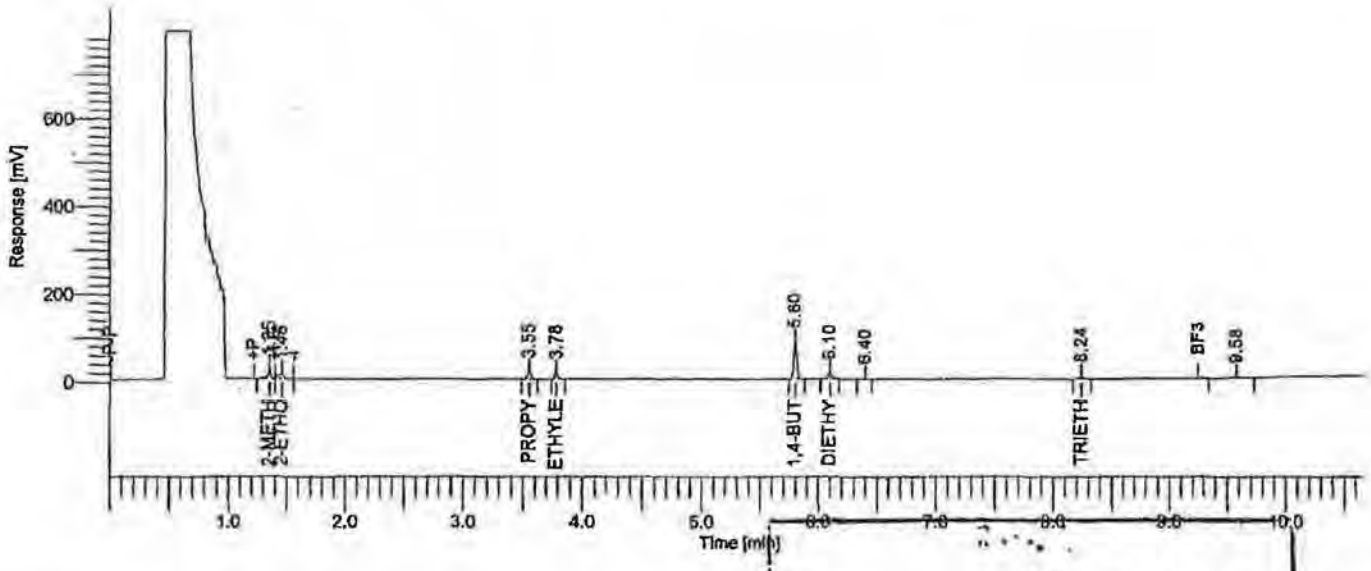
File Name	Date of Injection	ETHYLENE GLYCOL Ret. Time	Ng	Area	Area/Amount (CF)	1,4-BUTANEDIOL Ret. Time	Ng	Area	Area/Amount (CF)	DIETHYLENE GLYCOL Ret. Time	Ng	Area	Area/Amount (CF)
9B27010.rst	05/26/2009	3.78	5.0	22337	4467.38	5.80	20.0	159835	7991.76	6.10	5.0	22883	4536.60
9B27011.rst	05/26/2009	3.79	10.0	50279	5027.92	5.79	30.0	254131	8471.05	6.10	10.0	51674	5167.44
9B27012.rst	05/26/2009	3.78	20.0	98881	4944.06	5.79	40.0	340220	8505.50	6.10	20.0	102273	5113.66
9B27013.rst	05/26/2009	3.79	30.0	149653	4988.42	5.79	50.0	421989	8439.79	6.10	30.0	154469	5148.96
9B27014.rst	05/26/2009	3.79	40.0	198988	4974.69	5.80	60.0	505122	8418.71	6.10	40.0	206179	5154.47
9B27015.rst	05/26/2009	3.79	50.0	250118	5002.37	5.80	80.0	675689	8446.11	6.10	50.0	259991	5199.82
Averages		3.79	25.8	128376	4900.80	5.79	46.7	392831	8378.82	6.10	25.8	132978	5053.49
%RSD		0.02	67.5	68	4.37	0.01	46.3	47	2.29	0.02	67.5	69	5.04

File Name	Date of Injection	TRIETHYLENE GLYCOL Ret. Time	Ng	Area	Area/Amount (CF)
9B27010.rst	05/26/2009	8.24	5.0	13196	2639.20
9B27011.rst	05/26/2009	8.24	10.0	32578	3257.84
9B27012.rst	05/26/2009	8.24	20.0	68460	3423.01
9B27013.rst	05/26/2009	8.24	30.0	106969	3565.64
9B27014.rst	05/26/2009	8.24	40.0	144415	3610.38
9B27015.rst	05/26/2009	8.24	50.0	186174	3723.49
Averages		8.24	25.8	91966	~~3566.93~~
%RSD		0.01	67.5	72	~~1.66~~

linear 5/27/09

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:34
Reprocess Number	: buf2042: 232288		
Operator	: tchrom	Sample Name	: 9051354
Sample Number	: 8015GLY	Study	: LEVEL A
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:07:59	Cycle	: 1

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27010.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27010.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27010.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27010.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27010.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: BD 5/27/09

FID

Reviewed by: LMW 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	26053.54	15568	1.35	2-METHOXYETHANOL	5.00
2	*V	35306.66	10225	1.46	2-ETHOXYETHANOL	5.00
3	B	29448.80	14749	3.55	PROPYLENE GLYCOL	5.00
4	B	22336.80	11634	3.78	ETHYLENE GLYCOL	5.00
5	B	159835.20	81869	5.80	1,4-BUTANEDIOL	20.00

05/27/2009 04:42:34 Result: H:\TURBO6\5890-09\9-seq27\9b27010.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
6	B	22683.00	10553	6.10	DIETHYLENE GLYCOL	5.00
7	B	3684.80	1497	6.40		0.00
8	B	13196.00	4510	8.24	TRIETHYLENE GLYCOL	5.00
9	*B	8134.00	792	9.58		0.01
		320678.80	151398			

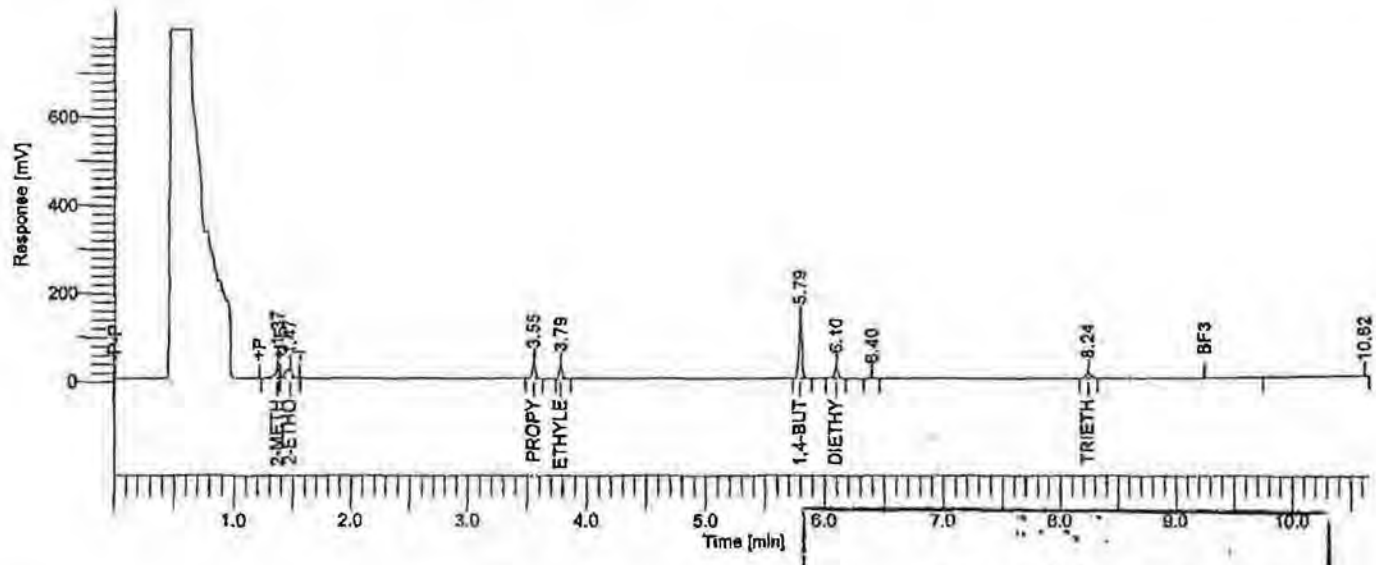
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:37
Reprocess Number	: buf2042: 232289		
Operator	: tchrom	Sample Name	: 9051355
Sample Number	: 8015GLY	Study	: LEVEL B
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:23:16	Cycle	: 2

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27011.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27011.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27011.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27011.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27011.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: 5/27/09

FID

Reviewed by: 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	57595.20	34223	1.37	2-METHOXYETHANOL	10.00
2	*V	78295.20	21127	1.47	2-ETHOXYETHANOL	10.00
3	B	65728.40	34731	3.55	PROPYLENE GLYCOL	10.00
4	B	50279.20	27689	3.79	ETHYLENE GLYCOL	10.00
5	B	254131.40	131572	5.79	1,4-BUTANEDIOL	30.00

05/27/2009 04:42:37 Result: H:\TURBO6\5890-09\9-seq27\9b27011.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
6	B	51674.40	24191	6.10	DIETHYLENE GLYCOL	10.00
7	B	5746.00	2357	6.40		0.01
8	B	32578.40	11137	8.24	TRIETHYLENE GLYCOL	10.00
9	*B	33700.40	764	10.62		0.03
		629728.60	287790			

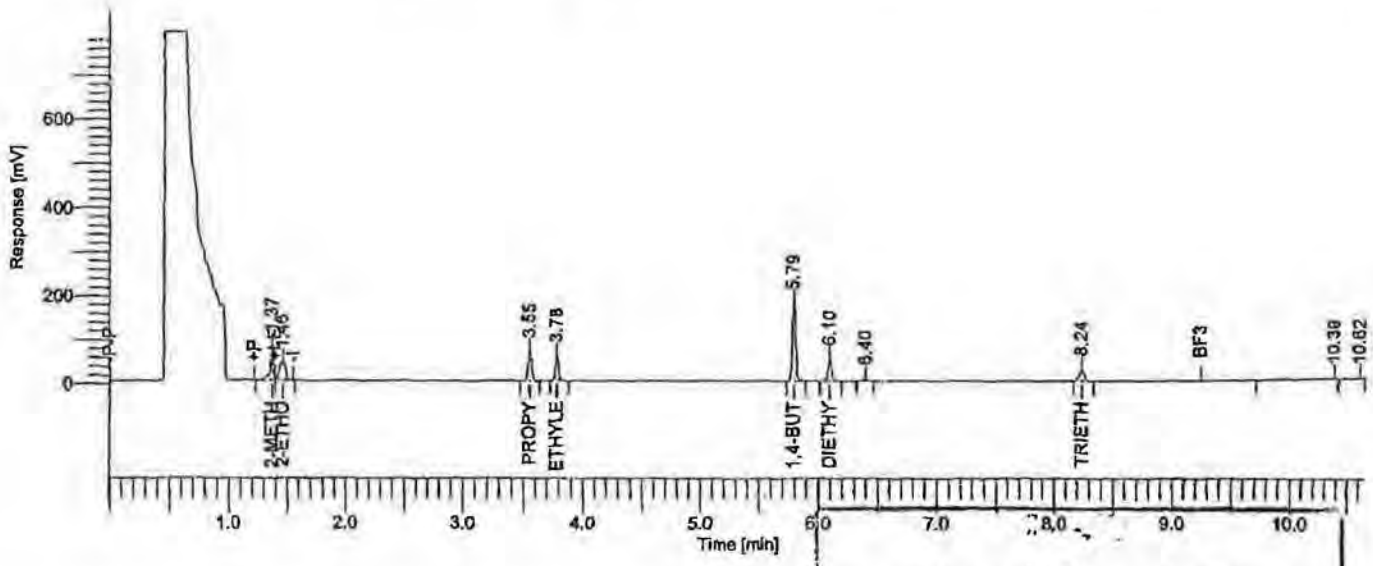
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:40
Reprocess Number	: buf2042: 232290		
Operator	: tchrom	Sample Name	: 9051356
Sample Number	: 8015GLY	Study	: LEVEL C
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:38:33	Cycle	: 3

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27012.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27012.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27012.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27012.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27012.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: [signature] 5/27/09

FID

Reviewed by: [signature] 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	111745.36	63985	1.37	2-METHOXYETHANOL	20.00
2	*V	154659.84	38588	1.46	2-ETHOXYETHANOL	20.00
3	B	129587.60	64455	3.55	PROPYLENE GLYCOL	20.00
4	B	98881.20	52090	3.78	ETHYLENE GLYCOL	20.00
5	B	340219.80	174348	5.79	1,4-BUTANEDIOL	40.00
6	B	102273.20	48239	6.10	DIETHYLENE GLYCOL	20.00

05/27/2009 04:42:40 Result: H:\TURBO6\5890-09\9-seq27\9b27012.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
7	B	7727.60	3166	6.40		0.01
8	B	68460.20	23481	8.24	TRIETHYLENE GLYCOL	20.00
9	*B	29682.79	723	10.39		0.03
10	*V	3091.21	657	10.62		0.00
		1046328.80	469732			

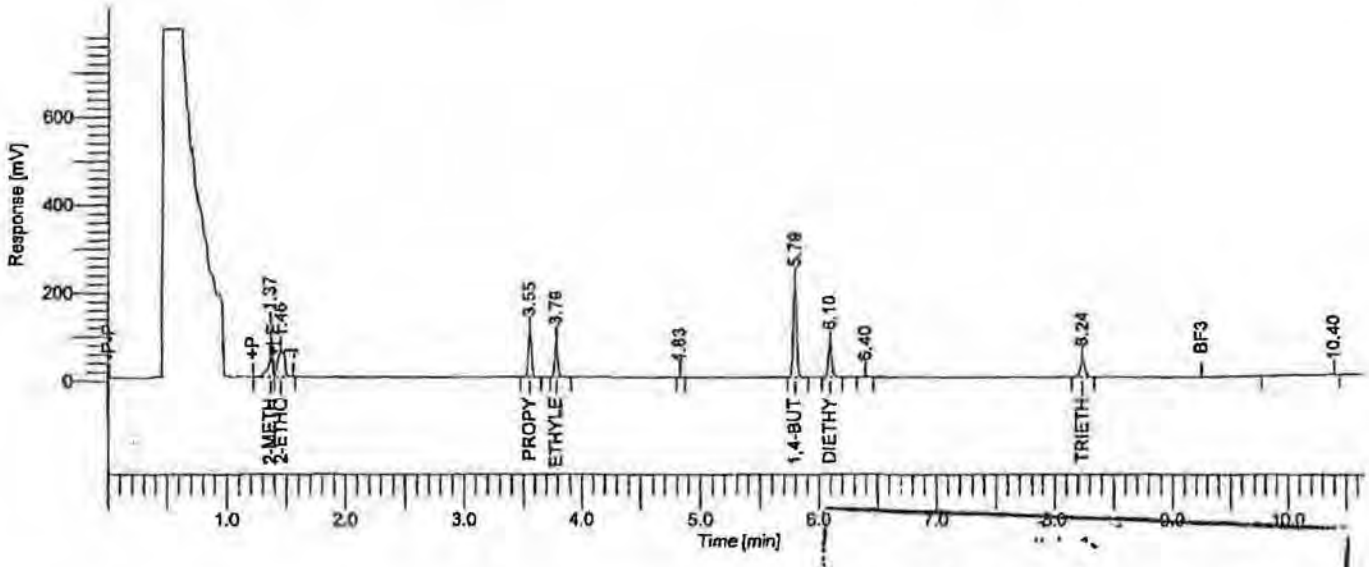
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:44
Reprocess Number	: buf2042: 232291		
Operator	: tchrom	Sample Name	: 9051357
Sample Number	: 8015GLY	Study	: LEVEL D
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:53:52	Cycle	: 4

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27013.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27013.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27013.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27013.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27013.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: 5/27/09

FID

Reviewed by: 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	167658.54	99708	1.37	2-METHOXYETHANOL	30.00
2	*V	229836.26	57337	1.46	2-ETHOXYETHANOL	30.00
3	B	195290.80	102771	3.55	PROPYLENE GLYCOL	30.00
4	B	149652.60	82070	3.79	ETHYLENE GLYCOL	30.00
5	B	816.00	440	4.83		0.00
6	B	421989.40	215050	5.79	1,4-BUTANEDIOL	50.00

05/27/2009 04:42:44 Result: H:\TURBO6\5890-09\9-seq27\9b27013.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
7	B	154468.80	72658	6.10	DIETHYLENE GLYCOL	30.00
8	B	9645.20	3957	6.40		0.01
9	B	106969.20	36320	8.24	TRIETHYLENE GLYCOL	30.00
10	*B	26417.00	763	10.40		0.03
		1462743.80	671073			

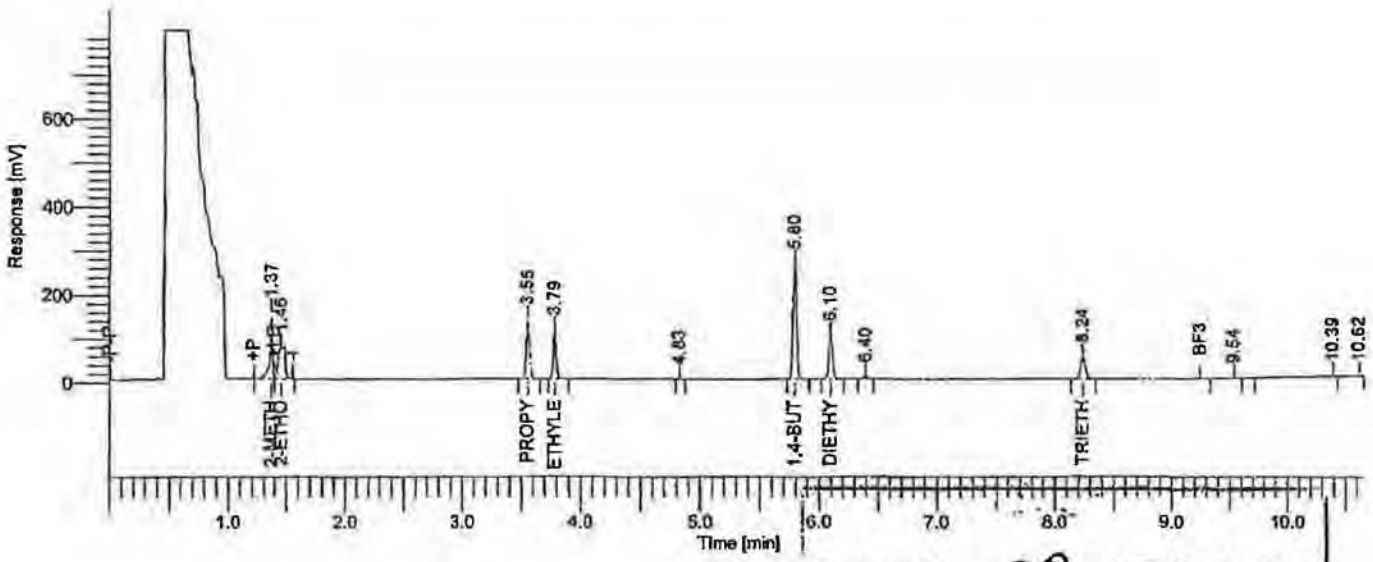
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:47
Reprocess Number	: buf2042: 232292		
Operator	: tchrom	Sample Name	: 9051358
Sample Number	: 8015GLY	Study	: LEVEL E
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 14:09:10	Cycle	: 5

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27014.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27014.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27014.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27014.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27014.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: BD 5/27/09

FID

Reviewed by: CMW 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	220985.34	126902	1.37	2-METHOXYETHANOL	40.00
2	*V	306594.06	73266	1.46	2-ETHOXYETHANOL	40.00
3	B	260119.60	133157	3.55	PROPYLENE GLYCOL	40.00
4	B	198987.60	108551	3.79	ETHYLENE GLYCOL	40.00
5	B	1102.40	580	4.83		0.00
6	B	505122.40	256976	5.80	1,4-BUTANEDIOL	60.00
7	B	206178.80	97353	6.10	DIETHYLENE GLYCOL	40.00
8	B	11435.40	4692	6.40		0.01

05/27/2009 04:42:47 Result: H:\TURBO6\5890-09\9-seq27\9b27014.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
9	B	144415.20	49045	8.24	TRIETHYLENE GLYCOL	40.00
10	*B	2554.80	506	9.54		0.00
11	*B	32127.67	1268	10.39		0.03
12	*V	3320.33	659	10.62		0.00
		1892943.60	852954			

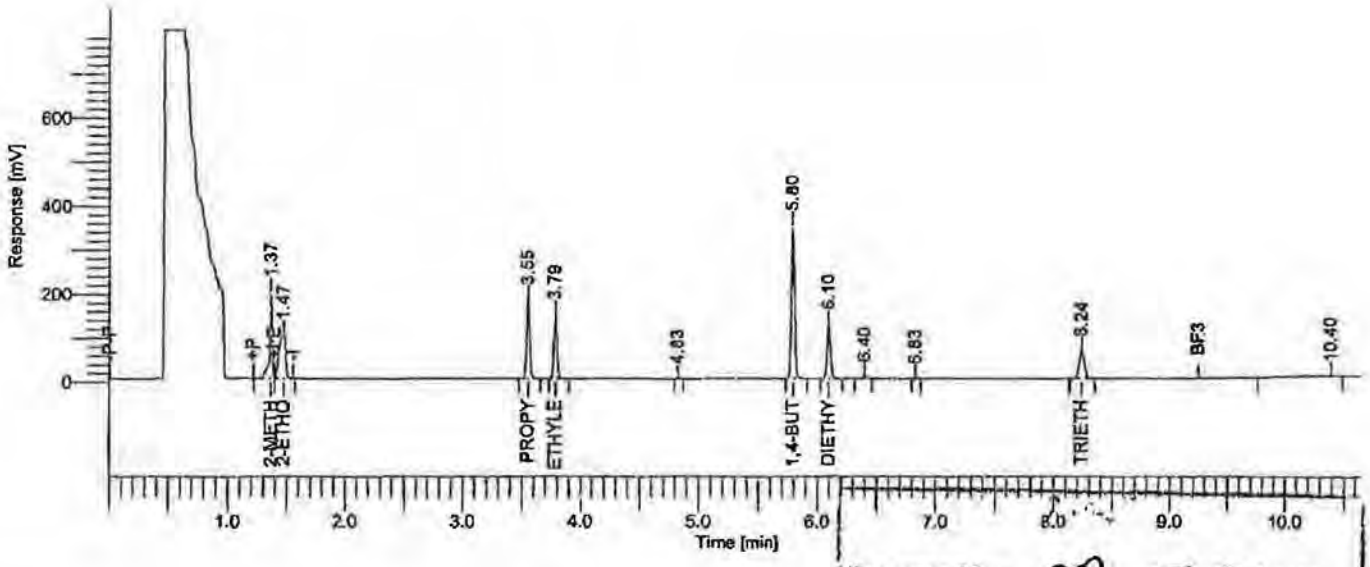
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:50
Reprocess Number	: buf2042: 232293		
Operator	: tchrom	Sample Name	: 9051359
Sample Number	: 8015GLY	Study	: LEVEL F
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 14:24:32	Cycle	: 6

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27015.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27015.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27015.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27015.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27015.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



Processed by: [signature] 5/27/09

FID

Reviewed by: [signature] 5/27/09

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	281890.97	169413	1.37	2-METHOXYETHANOL	50.00
2	*V	377859.43	103046	1.47	2-ETHOXYETHANOL	50.00
3	B	326103.20	176686	3.55	PROPYLENE GLYCOL	50.00
4	B	250118.40	142844	3.79	ETHYLENE GLYCOL	50.00
5	B	1421.20	745	4.83		0.00
6	B	675688.80	342082	5.80	1,4-BUTANEDIOL	80.00
7	B	259991.00	123107	6.10	DIETHYLENE GLYCOL	50.00

05/27/2009 04:42:50 Result: H:\TURBO6\5890-09\9-seq27\9b27015.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	B	15347.60	6311	6.40		0.02
9	B	900.80	454	6.83		0.00
10	B	186174.40	62854	8.24	TRIETHYLENE GLYCOL	50.00
11	*B	28734.80	1378	10.40		0.03
		2404230.60	1128918			

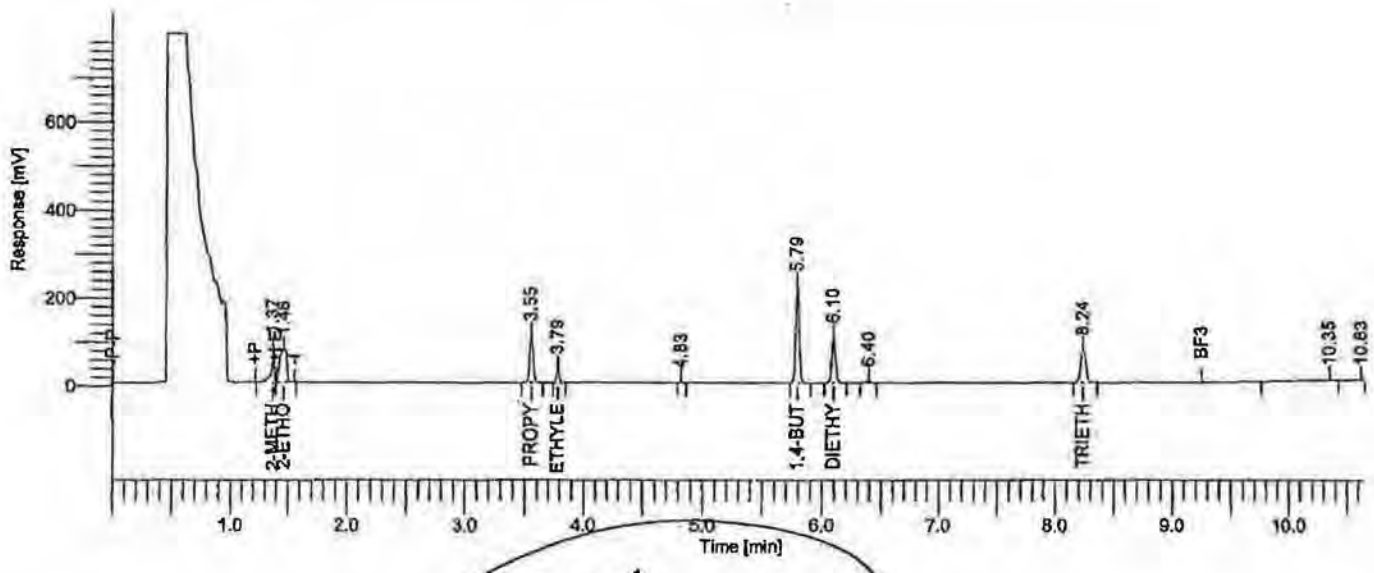
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:48:42
Reprocess Number	: buf2042: 232294		
Operator	: tchrom	Sample Name	: 9051360
Sample Number	: 8015GLY	Study	: SSC
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 14:39:51	Cycle	: 1

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27016.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27016.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27016.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27016.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27016.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



2nd SOURCE

FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	115597.02	64995	1.37	2-METHOXYETHANOL	20.82
2	*V	293381.78	73433	1.46	2-ETHOXYETHANOL	38.68
3	B	211088.40	104702	3.55	PROPYLENE GLYCOL	32.92
4	B	58561.20	31013	3.79	ETHYLENE GLYCOL	11.95
5	B	1274.40	680	4.83		0.00
6	B	425268.60	216528	5.79	1,4-BUTANEDIOL	50.76
7	B	216714.60	101642	6.10	DIETHYLENE GLYCOL	42.88

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05/27/2009 04:48:42 Result: H:\TURBO6\5890-09\9-seq27\9b27016.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	B	9829.20	4039	6.40		0.01
9	B	217079.60	73373	8.24	TRIETHYLENE GLYCOL	58.89
10	*B	31537.63	1120	10.35		0.03
11	*V	3663.57	527	10.63		0.00
		1583996.00	672054			

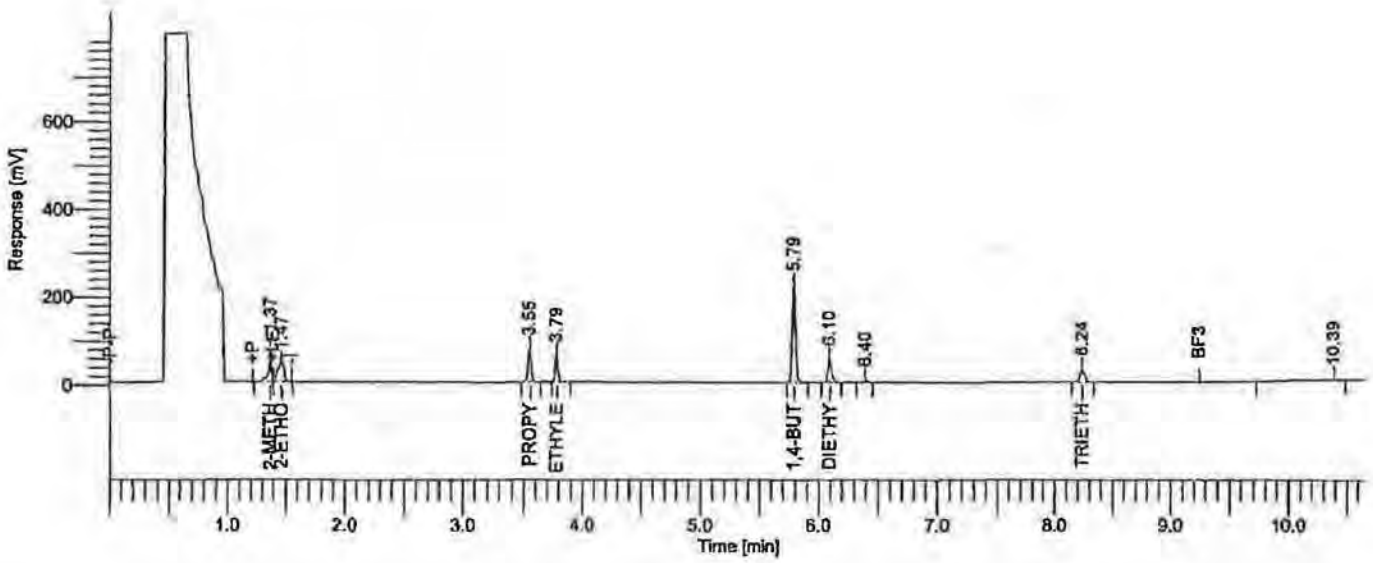
Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:48:44
Reprocess Number	: buf2042: 232295		
Operator	: tchrom	Sample Name	: 9051361
Sample Number	: 8015GLY	Study	: CCV
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 1000.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 14:55:08	Cycle	: 2

Raw Data File : H:\TURBO6\5890-09\9-seq27\9b27017.raw <Modified>
Result File : H:\TURBO6\5890-09\9-seq27\9b27017.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27017.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27017.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27017.rst
Report Format File: h:\turbo6\5890-09\9bgly%d.rpt
Sequence File : H:\TURBO6\5890-09\9-seq27\9b27.seq



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Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	%D
1	*B	113799	66492.28	1.37	2-METHOXYETHANOL	20.5	2.5
2	*V	153421	38762.34	1.47	2-ETHOXYETHANOL	20.2	1.1
3	B	130501	70824.45	3.55	PROPYLENE GLYCOL	20.4	1.8
4	B	100653	56311.57	3.79	ETHYLENE GLYCOL	20.5	2.7
5	B	419618	215414.04	5.79	1,4-BUTANEDIOL	50.1	0.2
6	B	105832	49875.39	6.10	DIETHYLENE GLYCOL	20.9	4.7
8	B	78046	26535.49	8.24	TRIETHYLENE GLYCOL	22.2	10.8
		1101869	524215.56				23.7

MAY 27 2009

Form 7

CONTINUING CALIBRATION CHECK

8015

ɹratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32041	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV1	Injection Time:	08:30

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	20.8	4900.803	5100.67		4.1	15

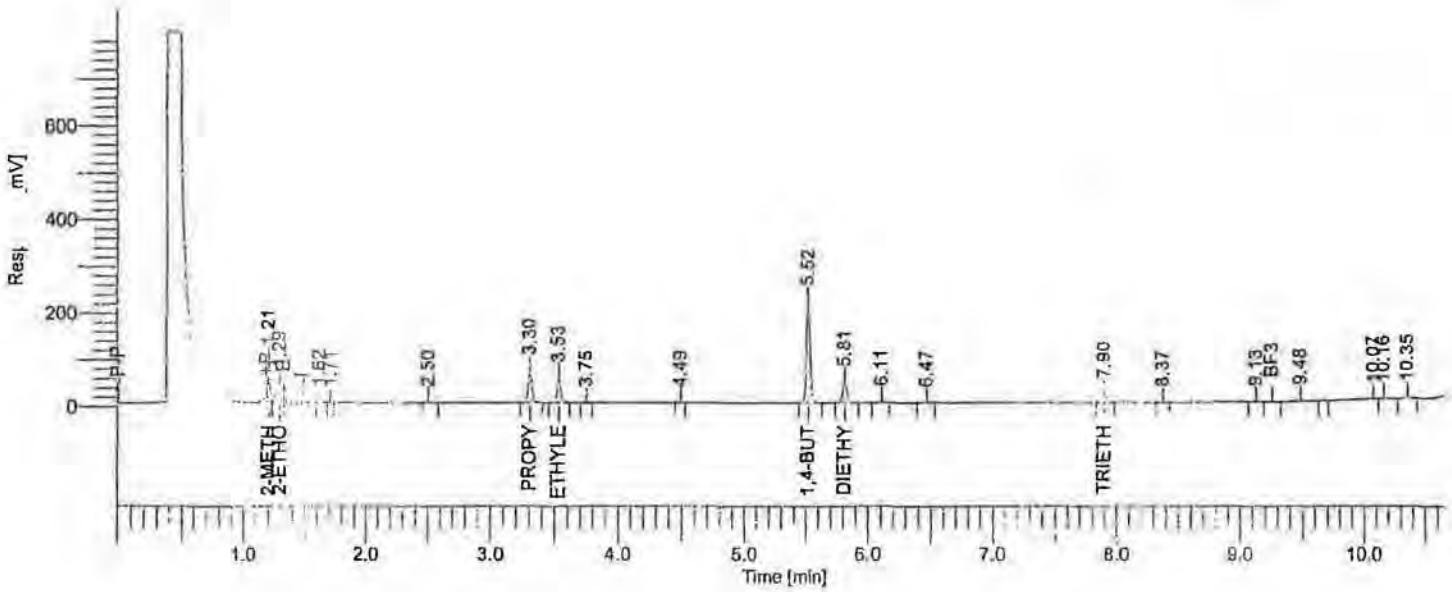
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:29:49
Reprocess Number	: buf2042: 241618		
Operator	: tchrom	Sample Name	: CCV-1
mple Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 08:30:27	Cycle	: 2

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32041.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32041.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32041.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32041.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32041.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	56206.40	57738	1.21	2-METHOXYETHANOL	10.12
2	*B	128247.60	36231	1.29	2-ETHOXYETHANOL	16.91
3	*B	2685.40	1525	1.62		0.00
4	B	590.40	334	1.71		0.00
5	B	5153.20	1675	2.50		0.01
6	B	135063.00	66927	3.30	PROPYLENE GLYCOL	21.06
7	B	102013.40	52960	3.53	ETHYLENE GLYCOL	20.82
8	B	1598.80	821	3.75		0.00
9	B	1113.80	548	4.49		0.00

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12/31/2009 04:29:49 Result: H:\TURBO6\5890-09\9-SEQ32\9b32041.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	444656.40	215720	5.52	1,4-BUTANEDIOL	53.07
11	B	100179.80	44123	5.81	DIETHYLENE GLYCOL	19.82
12	B	9176.80	3507	6.11		0.01
13	B	4085.20	1310	6.47		0.00
14	B	53202.00	19471	7.90	TRIETHYLENE GLYCOL	15.59
15	B	1598.00	568	8.37		0.00
16	B	1713.40	666	9.13		0.00
17	*B	12419.00	1649	9.48		0.01
18	*B	30263.81	2059	10.07		0.03
19	*V	12710.69	1937	10.16		0.01
20	*V	12124.30	3451	10.35		0.01
		1114801.40	513220			

Missing Component Report

Component	Expected Retention (Callbration File)

All components were found

Form 7
CONTINUING CALIBRATION CHECK
8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 C1A
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32047	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV2	Injection Time:	10:12

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	18.8	4900.803	4597.631		-6.2	15

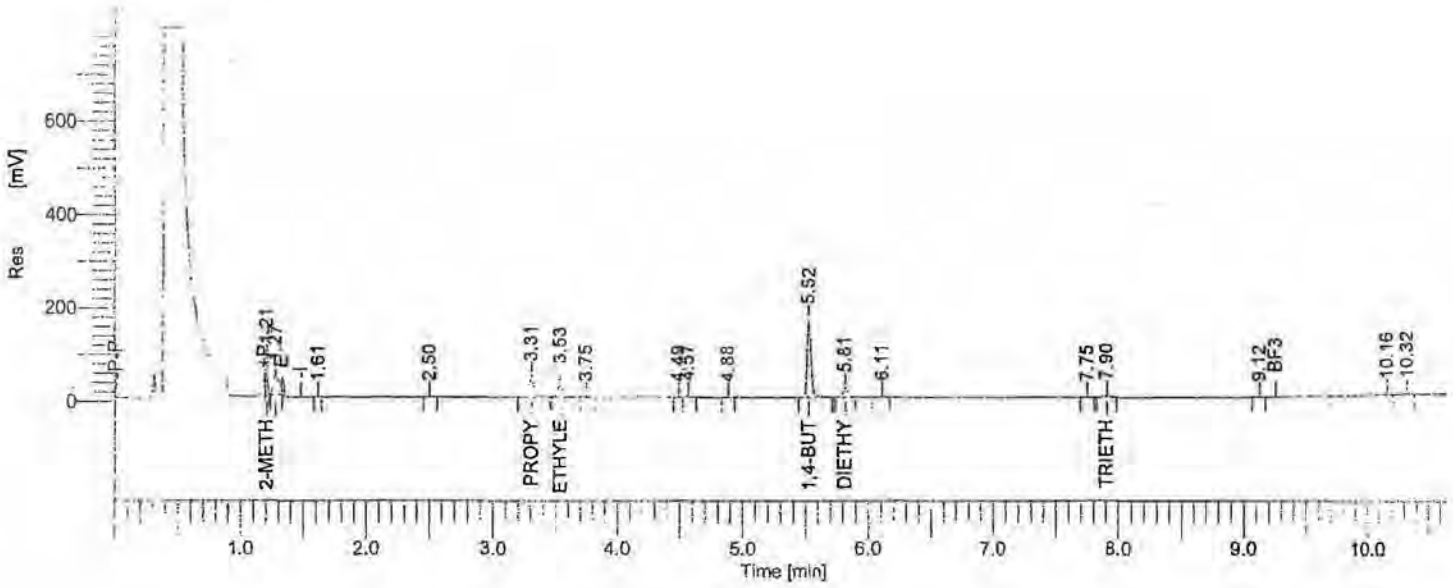
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:14
Reprocess Number	: buf2042: 241624		
Operator	: tchrom	Sample Name	: CCV-2
mple Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 10:12:52	Cycle	: 8

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32047.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32047.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32047.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32047.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32047.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



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Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	45969.00	47959	1.21	2-METHOXYETHANOL	8.28
2	*B	129646.56	37246	1.27	2-ETHOXYETHANOL	17.09
3	*B	1002.00	747	1.61		0.00
4	B	2886.80	882	2.50		0.00
5	B	120956.46	43822	3.31	PROPYLENE GLYCOL	18.86
6	V	91952.61	38614	3.53	ETHYLENE GLYCOL	18.76
7	V	2675.48	973	3.75		0.00
8	B	806.25	417	4.49		0.00
9	V	4891.75	2045	4.57		0.00

DEC 31

12/31/2009 04:30:14 Result: H:\TURBO6\5890-09\9-SEQ32\9b32047.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	1962.40	741	4.88		0.00
11	B	375260.80	164599	5.52	1,4-BUTANEDIOL	44.79
12	B	45329.20	19241	5.81	DIETHYLENE GLYCOL	8.97
13	B	6752.40	2548	6.11		0.01
14	B	1125.40	469	7.75		0.00
15	B	12743.20	4375	7.90	TRIETHYLENE GLYCOL	4.90
16	B	1117.60	432	9.12		0.00
17	*B	30249.01	1460	10.16		0.03
18	*V	7685.79	1591	10.32		0.01
		883012.71	368160			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32053	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV3	Injection Time:	11:55

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	20.1	4900.803	4918.598		0.4	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.10[illegible]0104	Date	: 12/31/2009 04:30:35
Reprocess Number	: buf2042: 241630		
Operator	: tchrom	Sample Name	: CCV-3
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 11:55:16	Cycle	: 14

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32053.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32053.rst
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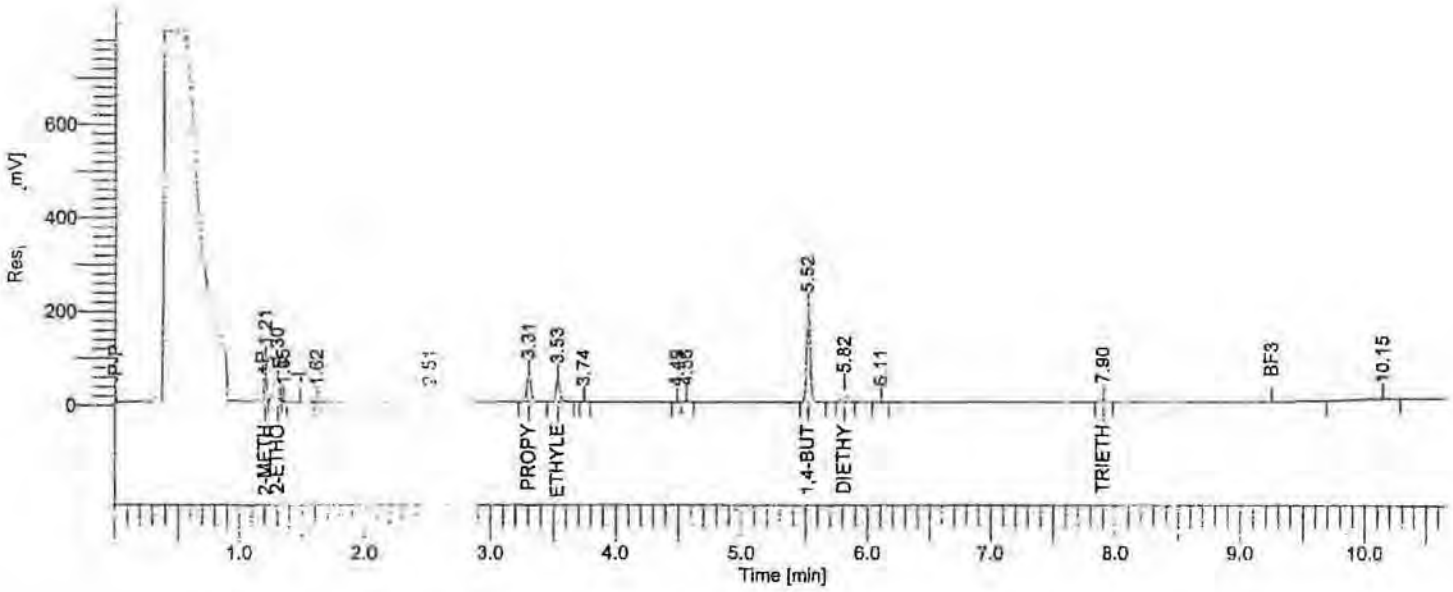
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32053.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32053.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



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DEC 31

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	53786.80	55281	1.21	2-METHOXYETHANOL	9.69
2	*B	118703.60	40802	1.30	2-ETHOXYETHANOL	15.65
3	*B	1272.00	925	1.35		0.00
4	B	829.60	581	1.62		0.00
5	B	1804.00	790	2.51		0.00
6	B	130657.26	56972	3.31	PROPYLENE GLYCOL	20.37
7	V	98371.94	47295	3.53	ETHYLENE GLYCOL	20.07
8	B	1506.00	754	3.74		0.00
9	B	848.00	407	4.49		0.00

12/31/2009 04:30:35 Result: H:\TURBO6\5890-09\9-SEQ32\9b32053.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	3092.00	1281	4.56		0.00
11	B	418473.60	197331	5.52	1,4-BUTANEDIOL	49.94
12	B	64212.60	28197	5.82	DIETHYLENE GLYCOL	12.71
13	B	4571.60	1733	6.11		0.00
14	B	19398.20	6893	7.90	TRIETHYLENE GLYCOL	6.66
15	*B	31565.60	1522	10.15		0.03
		949092.80	440763			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32058	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV4	Injection Time:	13:11

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	12.8	4900.803	3145.551		-35.8	15 *

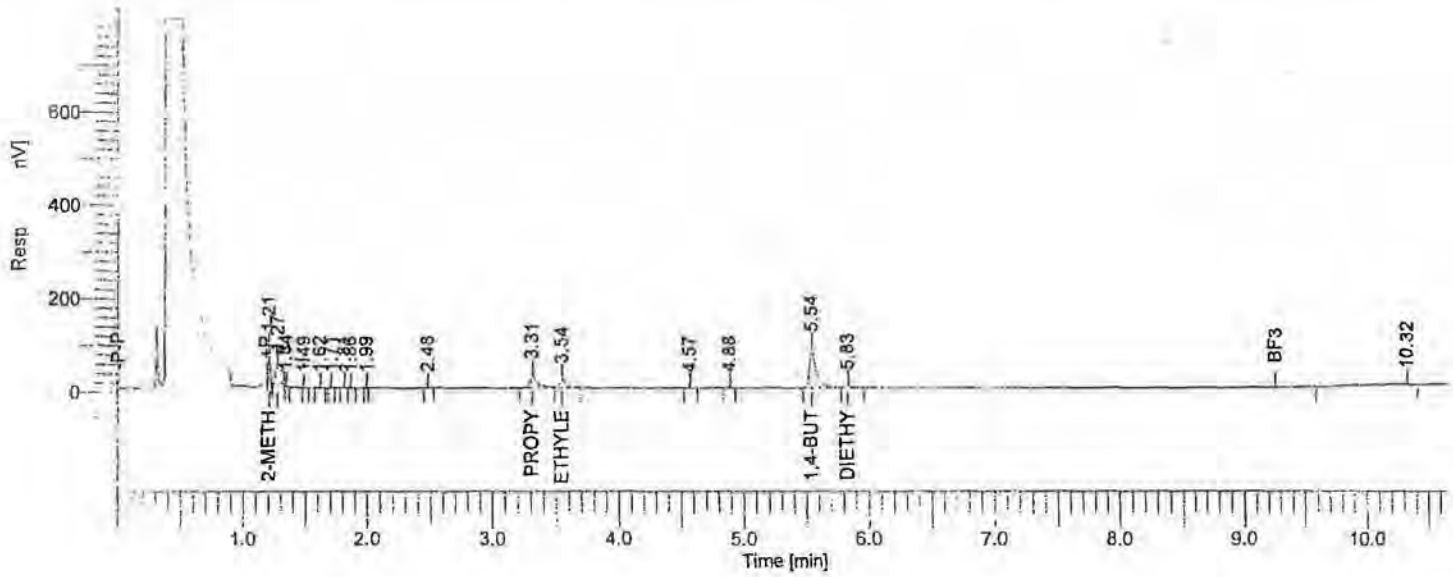
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:52
Reprocess Number	: buf2042: 241635		
Operator	: tchrom	Sample Name	: CCV-4
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 13:11:23	Cycle	: 19

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32058.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32058.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32058.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32058.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32058.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	49592.20	51970	1.21	2-METHOXYETHANOL	8.93
2	*B	122020.47	35525	1.27	2-ETHOXYETHANOL	16.09
3	*B	1078.40	791	1.34		0.00
4	B	535.20	364	1.49		0.00
5	B	1082.00	558	1.62		0.00
6	B	679.60	484	1.71		0.00
7	B	704.56	548	1.81		0.00
8	V	1048.24	581	1.86		0.00
10	B	2422.60	1306	2.48		0.00

DEC 31

12/31/2009 04:30:52 Result: H:\TURBO6\5890-09\9-SEQ32\9b32058.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
11	B	108105.59	28748	3.31	PROPYLENE GLYCOL	16.86
12	V	62911.01	19066	3.54	ETHYLENE GLYCOL	12.84
13	B	2658.00	885	4.57		0.00
14	B	1283.60	491	4.88		0.00
15	B	319694.21	87401	5.54	1,4-BUTANEDIOL	38.16
16	V	19659.39	5746	5.83	DIETHYLENE GLYCOL	3.89
17	*B	42171.00	1106	10.32		0.04
		735646.07	235569			

Missing Component Report

Component	Expected Retention (Calibration File)
TRIETHYLENE GLYCOL	7.933

Form 7
CONTINUING CALIBRATION CHECK
8015

ɔratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32061	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV5	Injection Time:	14:12

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	20.7	4900.803	5075.68		3.6	15

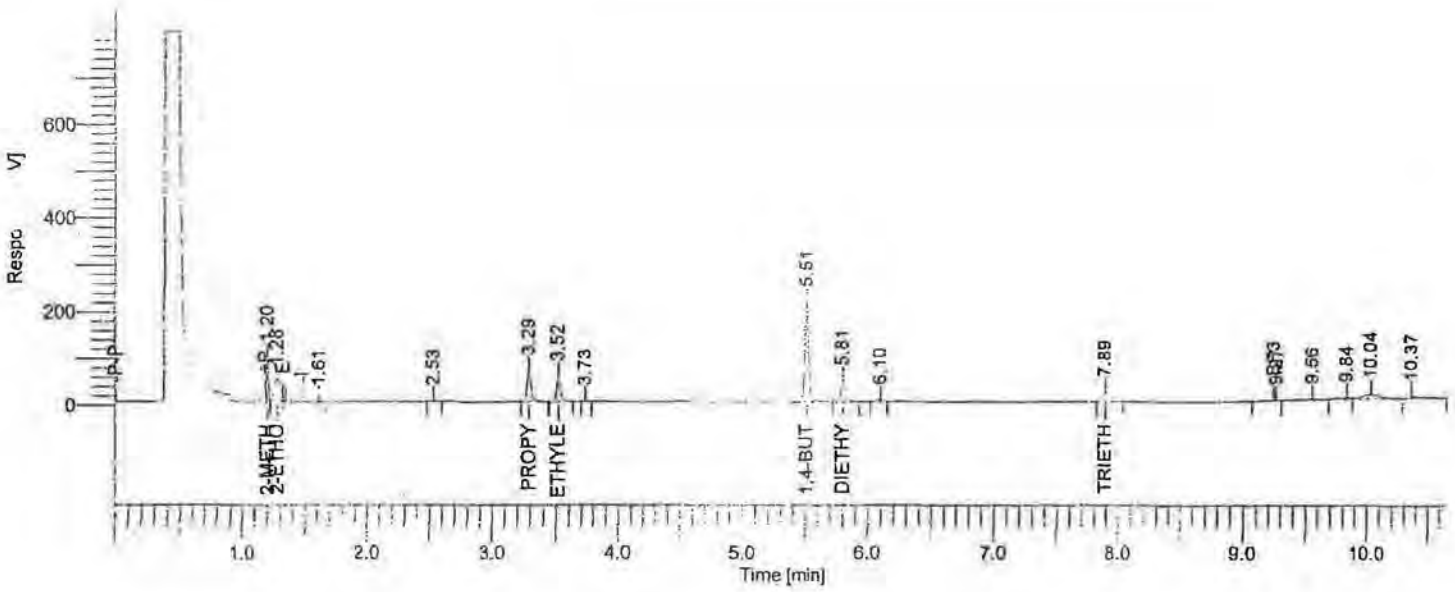
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:01
Reprocess Number	: buf2042: 241638		
erator	: tchrom	Sample Name	: CCV-5
mple Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 14:12:54	Cycle	: 22

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32061.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32061.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32061.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32061.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32061.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	58188.00	60614	1.20	2-METHOXYETHANOL	10.48
2	*B	150725.17	41825	1.28	2-ETHOXYETHANOL	19.87
3	*B	649.40	387	1.61		0.00
4	B	1891.20	575	2.53		0.00
5	B	139862.80	65805	3.29	PROPYLENE GLYCOL	21.81
6	B	101513.60	52126	3.52	ETHYLENE GLYCOL	20.71
7	B	1630.00	825	3.73		0.00
8	B	458695.81	210546	5.51	1,4-BUTANEDIOL	54.74
9	V	103504.39	43864	5.81	DIETHYLENE GLYCOL	20.48

DEC 31

12/31/2009 04:31:01 Result: H:\TURBO6\5890-09\9-SEQ32\9b32061.rst

Peak	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	9333.40	3595	6.10		0.01
11	B	61678.80	19975	7.89	TRIETHYLENE GLYCOL	17.83
12	*B	10128.28	938	9.27		0.01
13	*V	27502.24	1929	9.56		0.03
14	*V	28648.40	3222	9.84		0.03
15	*V	106489.66	9523	10.04		0.11
16	*V	39897.62	4452	10.37		0.04
		1300338.77	520200			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 7
CONTINUING CALIBRATION CHECK
8015

atory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32063	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV6	Injection Time:	14:44

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	21.1	4900.803	5175.59		5.6	15

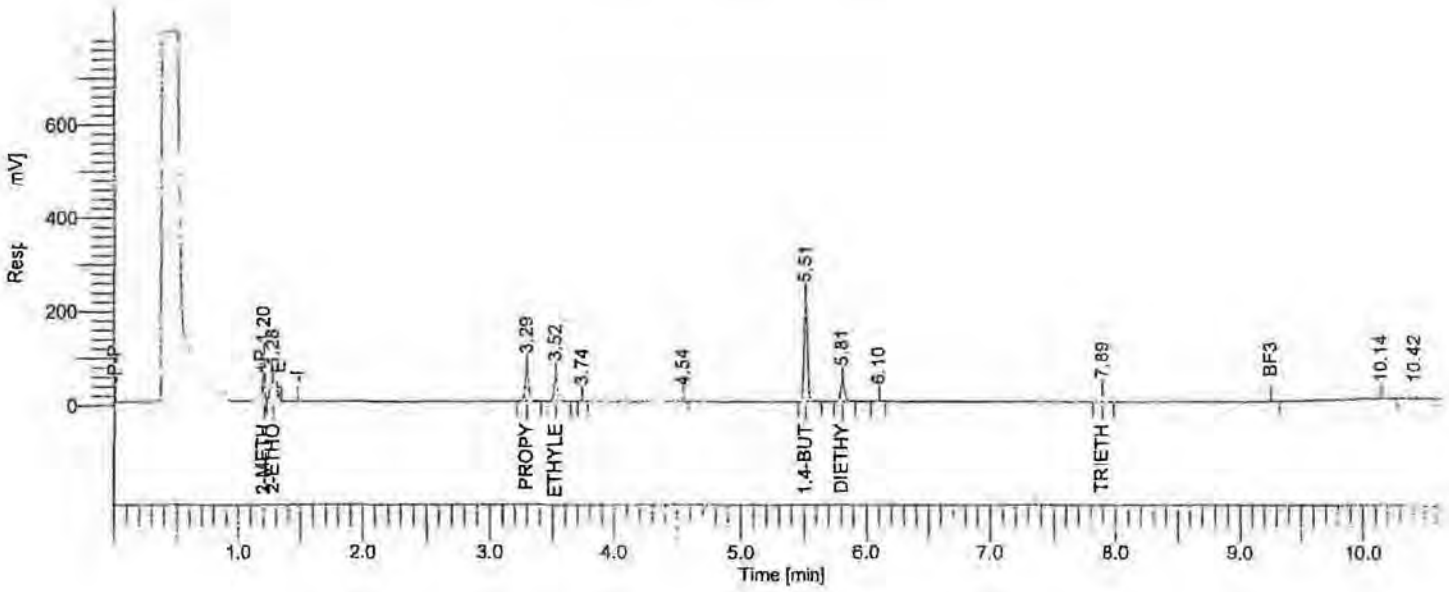
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:06
Reprocess Number	: buf2042: 241640		
Operator	: tchrom	Sample Name	: CCV-6
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 14:44:09	Cycle	: 24

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32063.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32063.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32063.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32063.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32063.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	54801.00	56446	1.20	2-METHOXYETHANOL	9.87
2	B	46803.20	16813	1.28	2-ETHOXYETHANOL	6.17
3	B	141710.80	67489	3.29	PROPYLENE GLYCOL	22.10
4	B	103511.80	51561	3.52	ETHYLENE GLYCOL	21.12
5	B	1072.00	565	3.74		0.00
6	B	665.00	342	4.54		0.00
7	B	454359.00	219082	5.51	1,4-BUTANEDIOL	54.23
8	B	94948.00	41398	5.81	DIETHYLENE GLYCOL	18.79

DEC 31

12/31/2009 04:31:06 Result: H:\TURBO6\5890-09\9-SEQ32\9b32063.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
9	B	9440.40	3686	6.10		0.01
10	B	45877.20	16257	7.89	TRIETHYLENE GLYCOL	13.66
11	*B	52892.46	2477	10.14		0.05
12	*V	13531.14	1228	10.42		0.01
		1019612.00	477345			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 7

CONTINUING CALIBRATION CHECK

8015

atory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Instrument ID:	HP5890-9	Calibration:	R9F0102
Lab File ID:	9b32067	Calibration Date:	05/26/09 13:07
Sequence:	RL93102	Injection Date:	12/30/09
Lab Sample ID:	RL93102-CCV7	Injection Time:	15:49

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	13.7	4900.803	3365.478		-31.3	15 *

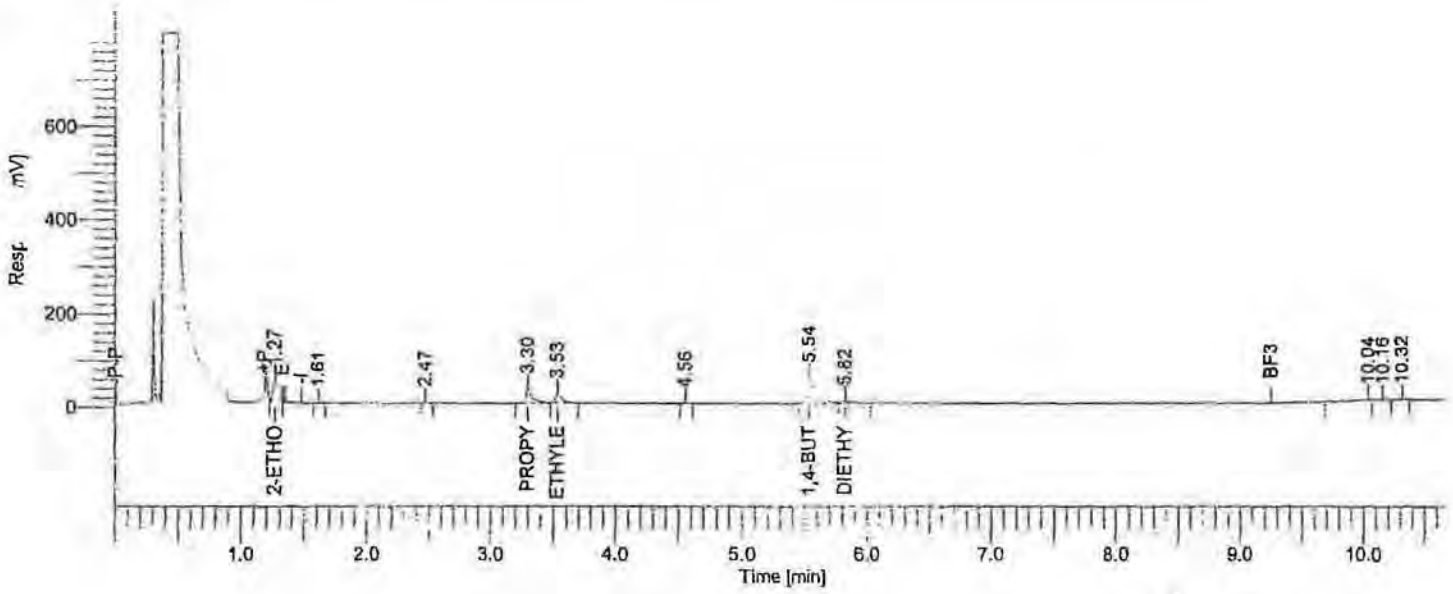
Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Calibration Type Legend:
A: Average RF
L: Linear through Intercept
Q: Quadratic
L0: Linear forced through Zero
L1: 1/x Weighted Linear through Intercept
L2: 1/x2 Weighted Linear through Intercept
L01: 1/x Weighted Linear forced through Zero
L02: 1/x2 Weighted Linear forced through Zero

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:16
Reprocess Number	: buf2042: 241644		
Operator	: tchrom	Sample Name	: CCV-7
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 15:49:40	Cycle	: 28

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32067.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32067.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32067.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32067.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32067.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	141784.59	41697	1.27	2-ETHOXYETHANOL	18.69
2	*B	1067.60	581	1.61		0.00
3	B	4832.20	2568	2.47		0.00
4	B	107844.66	29737	3.30	PROPYLENE GLYCOL	16.82
5	V	67309.54	18979	3.53	ETHYLENE GLYCOL	13.73
6	B	2507.60	903	4.56		0.00
7	B	280001.03	54887	5.54	1,4-BUTANEDIOL	33.42

DEC 31

12/31/2009 04:31:16 Result: H:\TURBO6\5890-09\9-SEQ32\9b32067.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	V	27531.77	5150	5.82	DIETHYLENE GLYCOL	5.45
9	*B	24261.14	2181	10.04		0.02
10	*V	14828.84	1700	10.16		0.01
11	*V	9431.22	2253	10.32		0.01
		681400.19	160635			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227
TRIETHYLENE GLYCOL	7.933

Form 8

ANALYSIS BATCH (SEQUENCE) SUMMARY

8015

ratory:	TestAmerica Buffalo	SDG:	C9L230421
Client:	TestAmerica Pittsburgh	Project:	367970 CIA
Sequence:	RL93102	Instrument:	HP5890-9
		Calibration:	R9F0102

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	RL93102-CCV1	9b32041	12/30/09 08:30
Blank	9L29024-BLK1	9b32042	12/30/09 08:45
WASHINGTON COUNTY FLC	RSL1004-01	9b32043	12/30/09 09:10
LCS	9L29024-BS1	9b32044	12/30/09 09:25
WESTMORELAND PRODUCT	RSL1004-02	9b32045	12/30/09 09:40
Calibration Check	RL93102-CCV2	9b32047	12/30/09 10:12
FAYETTE COUNTY BRINE	RSL1004-03	9b32048	12/30/09 10:28
WESTMORELAND FLOW BA	RSL1004-04	9b32050	12/30/09 10:58
Calibration Check	RL93102-CCV3	9b32053	12/30/09 11:55
FAYETTE COUNTY FLOW B/	RSL1004-06	9b32054	12/30/09 12:10
GREENE COUNTY PRODUCT	RSL1004-07	9b32056	12/30/09 12:40
Calibration Check	RL93102-CCV4	9b32058	12/30/09 13:11
Calibration Check	RL93102-CCV5	9b32061	12/30/09 14:12
'ibration Check	RL93102-CCV6	9b32063	12/30/09 14:44
GREENE COUNTY FLOW BA	RSL1004-05	9b32064	12/30/09 15:03
WESTMORELAND PRODUCT	9L29024-MS1	9b32065	12/30/09 15:19
WESTMORELAND PRODUCT	9L29024-MSD1	9b32066	12/30/09 15:34
Calibration Check	RL93102-CCV7	9b32067	12/30/09 15:49

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

Blank

Laboratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	9L29024-BLK1	File ID:	9b32042
Sampled:		Prepared:	12/30/09 06:00	Analyzed:	12/30/09 08:45
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102
Instrument:	HP5890-9				

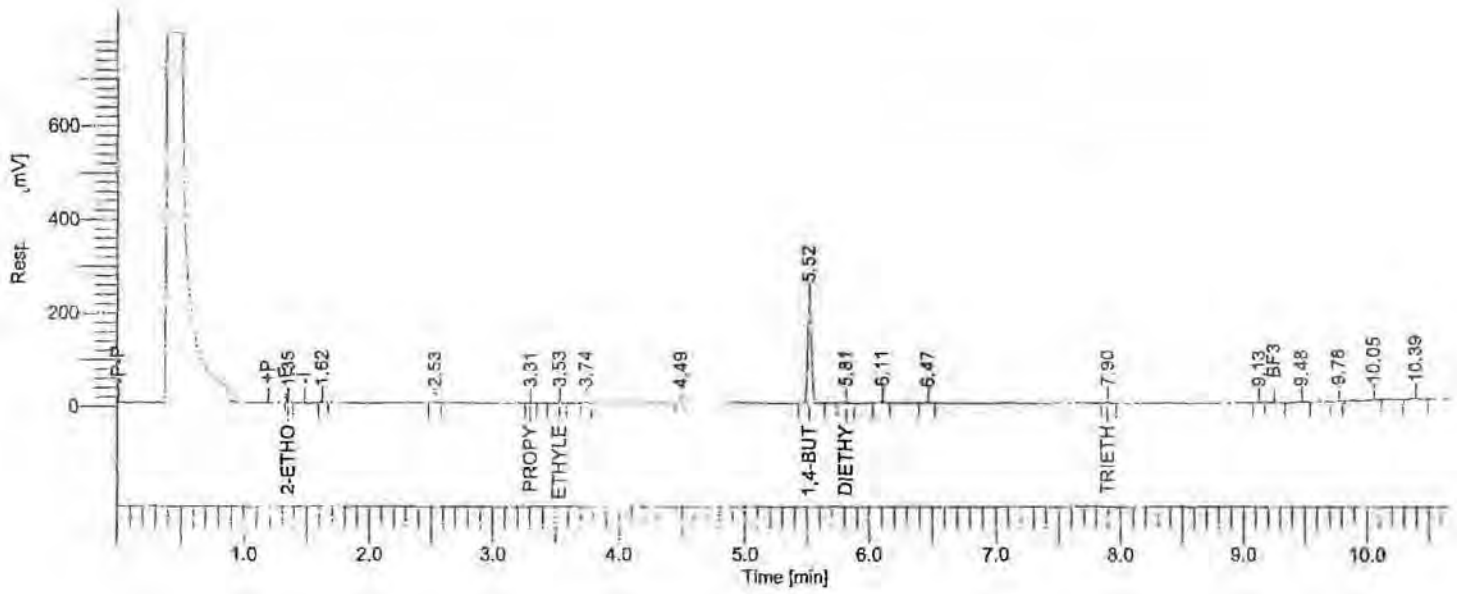
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	1.8	J

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	109	109	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:29:54
Reprocess Number	: buf2042: 241619		
Operator	: tchrom	Sample Name	: 9L29024-BLK1
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 08:45:33	Cycle	: 3

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32042.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32042.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32042.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32042.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32042.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	963.40	633	1.35	2-ETHOXYETHANOL	0.13
2	B	1409.20	961	1.62		0.00
3	B	1768.80	541	2.53		0.00
4	B	961.80	452	3.31	PROPYLENE GLYCOL	0.15
5	B	4469.20	1247	3.53	ETHYLENE GLYCOL	0.91
6	B	1567.60	809	3.74		0.00
7	B	926.40	422	4.49		0.00
8	B	458540.00	222221	5.52	1,4-BUTANEDIOL	54.73
9	B	6812.00	2717	5.81	DIETHYLENE GLYCOL	1.35

DEC 31

12/31/2009 04:29:54 Result: H:\TURBO6\5890-09\9-SEQ32\9b32042.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	9154.00	3498	6.11		0.01
11	B	2246.80	736	6.47		0.00
12	B	8010.00	2930	7.90	TRIETHYLENE GLYCOL	3.65
13	B	1218.80	485	9.13		0.00
14	*B	3099.60	676	9.48		0.00
15	*B	1944.40	1140	9.78		0.00
16	*B	8675.60	2340	10.05		0.01
17	*B	11389.20	3001	10.39		0.01
		523156.80	244809			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227

Form 1

ORGANIC ANALYSIS DATA SHEET

8015

LCS

Laboratory:	TestAmerica Buffalo			SDG:	C9L230421
Client:	TestAmerica Pittsburgh			Project:	367970 CIA
Matrix:	Water	Laboratory ID:	9L29024-BS1	File ID:	9b32044
Sampled:		Prepared:	12/30/09 06:00	Analyzed:	12/30/09 09:25
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102
Instrument:	HP5890-9				

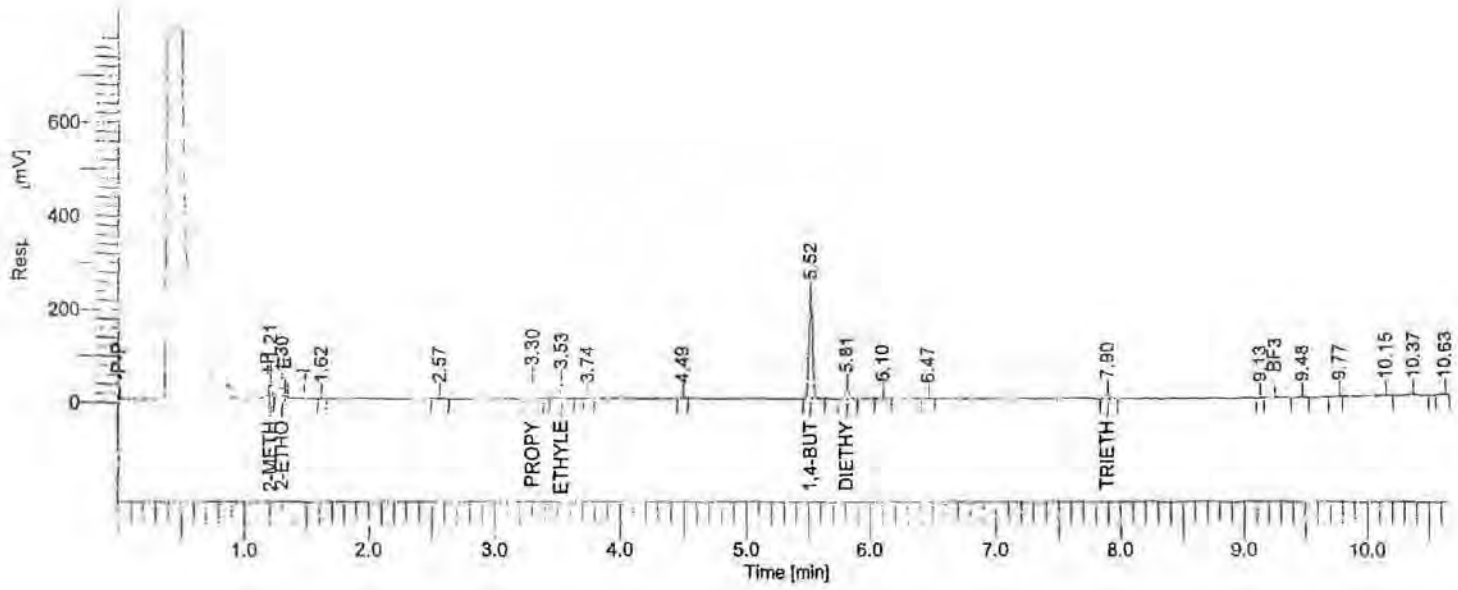
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	23.4	B

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	108	108	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:02
Reprocess Number	: buf2042: 241621		
Operator	: tchrom	Sample Name	: 9L29024-BS1
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 09:25:08	Cycle	: 5

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32044.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32044.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32044.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32044.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32044.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	B	32293.60	32624	1.21	2-METHOXYETHANOL	5.82
2	*B	66121.31	18472	1.30	2-ETHOXYETHANOL	8.72
3	*B	1078.80	765	1.62		0.00
4	B	2393.20	663	2.57		0.00
5	B	74968.60	37344	3.30	PROPYLENE GLYCOL	11.69
6	B	57420.80	29082	3.53	ETHYLENE GLYCOL	11.72
7	B	1671.60	869	3.74		0.00
8	B	876.80	430	4.49		0.00
9	B	452912.80	218246	5.52	1,4-BUTANEDIOL	54.05

DEC 31

12/31/2009 04:30:02 Result: H:\TURBO6\5890-09\9-SEQ32\9b32044.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	B	50246.80	22181	5.81	DIETHYLENE GLYCOL	9.94
11	B	9670.00	3685	6.10		0.01
12	B	1488.80	545	6.47		0.00
13	B	24536.00	8858	7.90	TRIETHYLENE GLYCOL	8.02
15	*B	1935.00	490	9.48		0.00
16	*B	2405.64	1125	9.77		0.00
17	*V	33870.57	1987	10.15		0.03
18	*V	13885.00	1864	10.37		0.01
19	*B	3442.00	1037	10.63		0.00
		831217.31	380266			

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

Matrix Spike

Laboratory:	TestAmerica Buffalo			SDG:	C9L230421
Client:	TestAmerica Pittsburgh			Project:	367970 CIA
Matrix:	Water	Laboratory ID:	9L29024-MS1	File ID:	9b32065
Sampled:		Prepared:	12/30/09 06:00	Analyzed:	12/30/09 15:19
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102
Instrument:	HP5890-9				

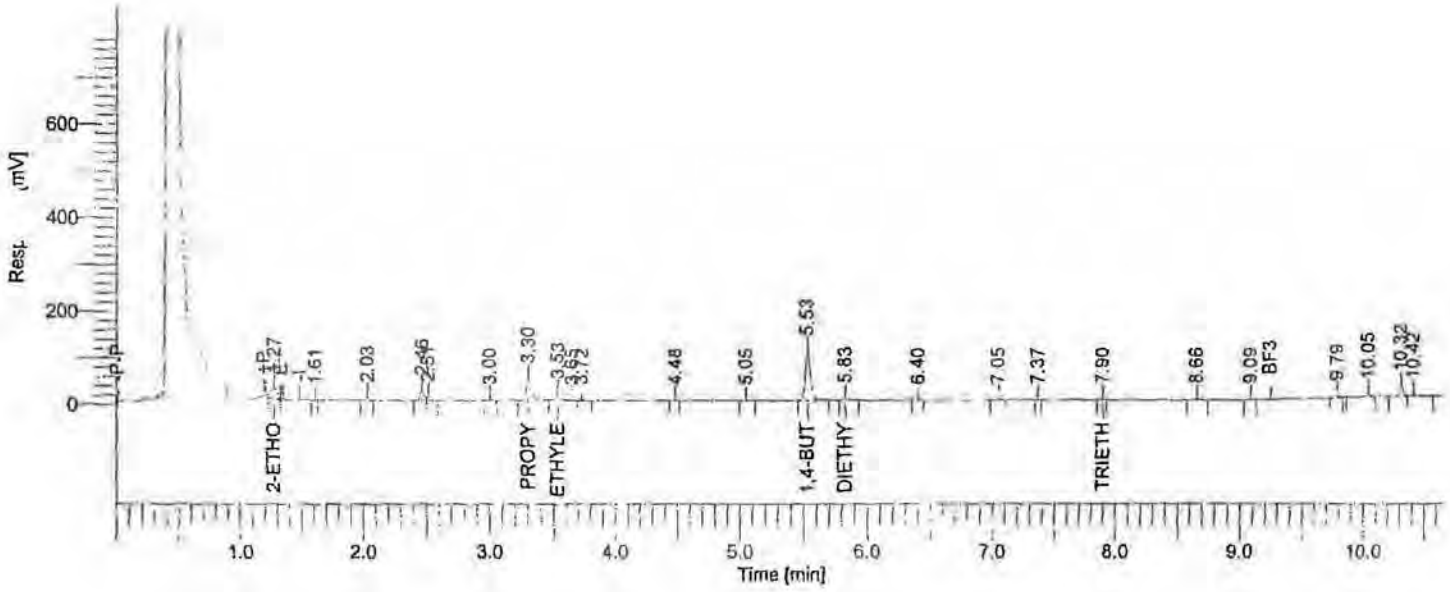
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	14.7	B

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	70.6	71	66 - 130	

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:11
Reprocess Number	: buf2042: 241642		
Operator	: tchrom	Sample Name	: 9L29024-MS1
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 15:19:08	Cycle	: 26

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32065.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32065.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32065.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32065.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32065.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	69446.67	20918	1.27	2-ETHOXYETHANOL	9.16
2	*B	521.20	392	1.61		0.00
3	B	11327.60	5980	2.03		0.01
4	B	43291.00	20434	2.46		0.04
5	V	13569.40	6708	2.51		0.01
6	B	1630.40	811	3.00		0.00
7	B	132432.80	46107	3.30	PROPYLENE GLYCOL	20.65
8	V	35986.02	13438	3.53	ETHYLENE GLYCOL	7.34
9	E	2144.00	500	3.65		0.00

12/31/2009 04:31:11 Result: H:\TURBO6\5890-09\9-SEQ32\9b32065.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	1740.78	435	3.72		0.00
11	B	948.80	447	4.48		0.00
12	B	1961.20	734	5.05		0.00
13	B	295976.00	106420	5.53	1,4-BUTANEDIOL	35.32
14	B	11266.80	3652	5.83	DIETHYLENE GLYCOL	2.23
15	B	1589.40	576	6.40		0.00
16	B	4493.60	1758	7.05		0.00
18	B	910.80	396	7.90	TRIETHYLENE GLYCOL	1.78
19	B	3506.00	880	8.66		0.00
20	B	2047.60	776	9.09		0.00
21	*B	8073.80	3125	9.79		0.01
22	*B	9072.00	3840	10.05		0.01
23	*B	49244.80	20455	10.32		0.05
24	*V	13835.60	3315	10.42		0.01
		715016.27	262096			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227

Form 1
ORGANIC ANALYSIS DATA SHEET
8015

Matrix Spike Dup

Laboratory:	TestAmerica Buffalo		SDG:	C9L230421	
Client:	TestAmerica Pittsburgh		Project:	367970 CIA	
Matrix:	Water	Laboratory ID:	9L29024-MSD1	File ID:	9b32066
Sampled:		Prepared:	12/30/09 06:00	Analyzed:	12/30/09 15:34
Solids:		Preparation:	8015 Glycols	Initial/Final:	0.5 mL / 1 mL
Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9

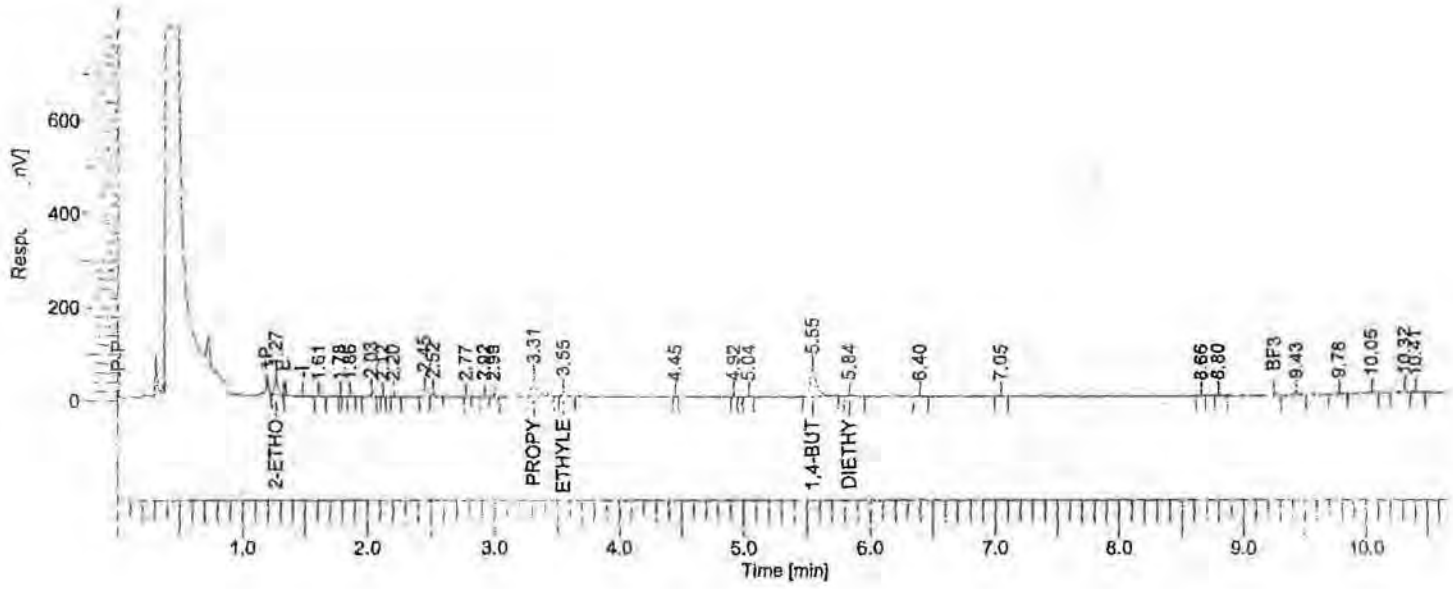
CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
107-21-1	Ethylene Glycol	1	9.68	JB

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol	100	50.5	51	66 - 130	*

* Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:31:14
Reprocess Number	: buf2042: 241643		
Operator	: tchrom	Sample Name	: 9L29024-MSD1
Sample Number	: WATER	Study	:
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 15:34:25	Cycle	: 27

Raw Data File : H:\TURBO6\5890-09\9-SEQ32\9b32066.raw <Modified>
Result File : H:\TURBO6\5890-09\9-SEQ32\9b32066.rst
Inst Method : h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32066.raw
Proc Method : h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32066.rst
Calib Method : h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32066.rst
Report Format File: h:\turbo6\5890-09\9brpt.rpt
Sequence File : H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	68826.72	25576	1.27	2-ETHOXYETHANOL	9.07
2	*B	1049.20	422	1.61		0.00
4	B	1653.00	996	1.86		0.00
5	B	11424.40	6004	2.03		0.01
7	B	869.60	588	2.20		0.00
8	B	36206.14	18503	2.45		0.04
9	V	12529.86	5790	2.52		0.01
11	B	1898.79	1128	2.92		0.00
12	V	1236.61	599	2.99		0.00

12/31/2009 04:31:14 Result: H:\TURBO6\5890-09\9-SEQ32\9b32066.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
13	B	108565.40	36367	3.31	PROPYLENE GLYCOL	16.93
14	B	23725.20	9230	3.55	ETHYLENE GLYCOL	4.84
16	B	897.40	692	4.92		0.00
17	B	1082.40	482	5.04		0.00
18	B	211574.00	57794	5.55	1,4-BUTANEDIOL	25.25
19	B	4359.20	1135	5.84	DIETHYLENE GLYCOL	0.86
20	B	1674.00	615	6.40		0.00
21	B	1649.40	607	7.05		0.00
22	B	651.80	245	8.66		0.00
23	B	1446.80	761	8.80		0.00
24	*B	4315.60	1188	9.43		0.00
25	*B	4693.80	1570	9.78		0.00
26	*B	8720.60	2521	10.05		0.01
27	*B	16727.56	6866	10.32		0.02
28	*V	5789.24	1468	10.41		0.01
		531566.72	181147			

Missing Component Report

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227
TRIETHYLENE GLYCOL	7.933

HOLDING TIME SUMMARY

8015

Laboratory: TestAmerica Buffalo
t: TestAmerica Pittsburgh

SDG: DRAFT C9L230421
Project: 367970 CIA

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
WASHINGTON COUNTY FLO'	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 09:10	8	14	
WESTMORELAND PRODUCTI	12/21/09 10:00	12/24/09 10:00	12/30/09 06:00	9	14	12/30/09 09:40	9	14	
FAYETTE COUNTY BRINE	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 10:28	8	14	
WESTMORELAND FLOW BAC	12/21/09 10:30	12/24/09 10:00	12/30/09 06:00	9	14	12/30/09 10:58	9	14	
GREENE COUNTY FLOW BAC	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 15:03	8	14	
FAYETTE COUNTY FLOW BA	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 12:10	8	14	
GREENE COUNTY PRODUCTI	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 12:40	8	14	

* Indicates a Holding Time violation.

PREPARATION BENCH SHEET

9L29024

TestAmerica Buffalo

Printed: 12/31/2009 04:25:15

Matrix: Water **Prepared using: GC Volatiles - 8015 Glycols** **Surrogate used: 9121231**

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Bar Code	Extraction Comments
9L29024-BLK1	QC	12/30/09 06:00	0.5	1				50		
9L29024-BS1	QC	12/30/09 06:00	0.5	1	9121239		10	50		
9L29024-MS1	QC	12/30/09 06:00	0.5	1	9121239	RSL1004-02	10	50		
9L29024-MSD1	QC	12/30/09 06:00	0.5	1	9121239	RSL1004-02	10	50		
RSL1004-01	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-02	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-03	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-04	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-05	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-06	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1004-07	8015 Glycols	12/30/09 06:00	0.5	1				50		
RSL1069-01	8015 Glycols	12/30/09 06:00	0.5	1				50		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Test America Buffalo
GC Volatile INJECTION LOGBOOK

Instrument ID HP 5890-9 | Columns: A / B ________ / STABILWAX | Sequence: 27
Logbook # A07-18-15

Date & Initial	Job #	Sample ID	DF	Matrix	pH	File #	Surrogate	Spike	Comments
~~5/23/09~~	~~MDL~~	~~MDL #6~~	~~SOIL~~			09			
		~~#7~~				10			
		~~MDLV 1~~			5/24/09				
		~~MDLV 2~~							
5/24/09		TEST				01			
						05			
		BLK		H2O			9051104		
		BLK							
	ICAL	LEVEL A 9051354				10			
		B 9051355							
		C 9051356							
		D 9051357							
		E 9051358							
		F 9051359				15			
	SSC	9051360							
	CCV	9051361							
5/27/09	—	BLK		SOIL					
	—	BLK							
	—	BLK				20			
	MDL	MBLK							
		MDL #1							
		#2				23			

Rev.0
12/20/2007

000062

Reviewed By: __________ Date: __________

Test Ame *Buffalo*

GC Volatile INJECTION LOGBOOK

Instrument ID HP 5890-9
Logbook # A07-18-15

Columns: A / B Stabilwax

Sequence: 32

Date & Initial	Job #	Sample ID	DF	Matrix	pH	File #	Surrogate	Spike	Comments
12/30/09 (rhw)	—	blk	—	H_2O	—	20			
	QC	CCV-1						9121240	QC Short list
		9C29024-BLK1							
		↓ -BS1	↓						
	C1004	RSC1004-01	1		2				
		-02				25			
		-03							
		-04							
		-05							
		-06							Surrogate ↓
		-07	↓			30			11 11
		↓ -01	10		↓				
1/6/11	QC	CCV-2	I		J			9121241	10W
		↓	↓		↓				10W
		RSC1004-05	5		2				
		↓ -06	1			35			
		↓ -07	1						Surrogate ↓
		9C29024-MS1	10						
		↓ -MSD1	10		↓				
		CCV-3	—		—				10W
12/30/09 (rhw)		BLANK				40	9/2/231		
		~~CCV-4~~				~~—~~		9121293	OK Short list
		9C29024-BLK1	↓		↓				
		RSC1004-01	10		2				
		9C29024-BS1	—		—			9/2/239	
		RSC1004-02	1		2	45			
		CCV-2	—	↓	—			9121294	Ethyl low ↓

Reviewed By: Date:

Test Ameri Buffalo

GC Volatile INJECTION LOGBOOK

Instrument ID HP 5890-9 Columns: A / B Stabilwax Sequence: 32

Logbook # A07-18-15

Date & Initial	Job #	Sample ID	DF	Matrix	pH	File #	Surrogate	Spike	Comments
9/30/09 CMW	QC	[redacted]	—	H2O	—	[redacted]	912123I	912129Y	OK Short list
	L1004	RSL1004-03	1		2				
	—	BLK	—		—				
	L1004	RSL1004-04	1		2	50			
	—	Blank	—		—				
	QC	CCV-3						912125	Ethylene L
	"	[redacted]	"		"	[redacted]		"	OK Short list
	L1004	RSL1004-06	1		2				
	—	Blank	—		—	55			
	L1004	RSL1004-07	1		2				
	—	BLK	—		—				
	QC	[redacted]				[redacted]		912126	Very low
	—	BLK							
	"	BLK	"		"	106			
	QC	[redacted]	"		"	[redacted]		912128	OK Short list
	L1065	RSL1065-01	10		7				Color
	QC	[redacted]	—		—	[redacted]		912129	OK Short list
	L1004	RSL1004-05	5		2				
		912924-MS1	1			65		9/2/259	
	"	" -MSD1	1		"				
	QC	[redacted]	—		—	[redacted]		912B30	Low

Reviewed By: Date:

LABORATORY	LAB SAMPLE ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	SDG	CAS NUMBER	PARAMETER	RESULT	MDL	QUALIFIER	UNITS	REPORTING LIMIT	DILUTION FACTOR	METHOD
TestAmerica Pittsburgh	C0A020000053B	INTRA-LAB BLANK	WATER	12/18/2009	9:15	1/5/2010	C9L230421	7439-89-6	Iron-DISS	100	11.9	U	ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000053C	CHECK SAMPLE	WATER	12/18/2009	9:15	1/5/2010	C9L230421	7439-89-6	Iron-DISS	1020	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-38-2	Arsenic	10	2.7	U	ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-89-6	Iron	100	11.9	U	ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-93-2	Lithium	50	2.8	U	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-95-4	Magnesium	5000	20.7	U	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-96-5	Manganese	15	0.68	U	ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	40	1.4	U	ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-39-3	Barium	200	0.62	U	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-02-0	Nickel	40	1.6	U	ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-41-7	Beryllium	4	0.23	U	ug/L	4	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7782-49-2	Selenium	5	3	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-22-4	Silver	5	0.68	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-23-5	Sodium	5000	215	U	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-24-6	Strontium	50	0.093	U	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-66-6	Zinc	20	2.5	U	ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-47-3	Chromium	5	0.57	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-42-8	Boron	200	1.3	U	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-43-9	Cadmium	5	0.13	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-70-2	Calcium	5000	9.7	U	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-48-4	Cobalt	50	0.4	U	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-50-8	Copper	25	2.7	U	ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7429-90-5	Aluminum	200	9.7	U	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-38-2	Arsenic	1990	2.7		ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-89-6	Iron	1040	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-93-2	Lithium	1030	2.8		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-95-4	Magnesium	50000	20.7		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-96-5	Manganese	489	0.68		ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	1010	1.4		ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-39-3	Barium	1980	0.62		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-02-0	Nickel	495	1.6		ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-41-7	Beryllium	49.6	0.23		ug/L	4	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7782-49-2	Selenium	2000	3		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-22-4	Silver	48.9	0.68		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-23-5	Sodium	50500	215		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-24-6	Strontium	1000	0.093		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-66-6	Zinc	501	2.5		ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-47-3	Chromium	191	0.57		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-42-8	Boron	1030	1.3		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-43-9	Cadmium	47	0.13		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-70-2	Calcium	50400	9.7		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-48-4	Cobalt	491	0.4		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-50-8	Copper	251	2.7		ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7429-90-5	Aluminum	2020	9.7		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A040000194C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	7.03	0		—		1	SM20 4500-H+B
TestAmerica Pittsburgh	C0A050000053B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	10	5.2	U	mg/L	10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000053C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	613	5.2		mg/L	10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000053L	DUPLICATE CHECK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	612	5.2		mg/L	10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000157B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	1		U	umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C0A050000157C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	76.5			umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C0A060000015B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.039	0.038	B	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C0A060000015C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	2.44	0.038		ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C0A070000116B	INTRA-LAB BLANK	WATER	1/5/2010	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	5	1.5	U	mg/L	5	1	SM20 2340C
TestAmerica Pittsburgh	C0A070000116C	CHECK SAMPLE	WATER	1/5/2010	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	50	1.5		mg/L	5	1	SM20 2340C
TestAmerica Pittsburgh	C9L230000224B	INTRA-LAB BLANK	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	2	0.79	U	mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230000224C	CHECK SAMPLE	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	197	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230000224L	DUPLICATE CHECK	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	200	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230000364B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.05	0.0077	U	mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000364C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	2.45	0.0077		mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000364L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q479	Nitrate as N	2.46	0.0077		mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000365B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.05	0.0032	U	mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000365C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	2.67	0.0032		mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000365L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q481	Nitrite as N	2.67	0.0032		mg/L	0.05	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000366B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	1	0.053	U	mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000366C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	50	0.053		mg/L	1	1	MCAWW 300.0A

TestAmerica Pittsburgh	C9L230000366L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q138	Chloride	50.1	0.053		mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	0.059	0.031	B	mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	50	0.031		mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q605	Sulfate	50	0.031		mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	0.2	0.014	U	mg/L	0.2	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	9.46	0.014		mg/L	0.2	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q85	Bromide	9.42	0.014		mg/L	0.2	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	15300	13.2		mg/L	250	250	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	116	0.31	J	mg/L	10	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	210	0.14		mg/L	2	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	157	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	190	1.5		mg/L	4.6	0.93	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	240	9.9		ug/L	50	10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	530	8.5		ug/L	50	10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	107			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	92			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	104			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	101			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-89-6	Iron-DISS	6270	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-38-2	Arsenic	17.2	2.7		ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-89-6	Iron	6470	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-93-2	Lithium	12500	2.8		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-95-4	Magnesium	188000	20.7		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-96-5	Manganese	1310	0.68		ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	14.1	1.4	B	ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-39-3	Barium	9430	0.62		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-41-7	Beryllium	4	0.23	U	ug/L	4	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7782-49-2	Selenium	5	3	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-22-4	Silver	5	0.68	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-66-6	Zinc	32.1	2.5		ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-47-3	Chromium	0.84	0.57	B	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-42-8	Boron	7760	1.3		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-43-9	Cadmium	0.19	0.13	B	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-50-8	Copper	6.5	2.7	B	ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7429-90-5	Aluminum	180	9.7	B	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	29.2	15.6	B	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	1790000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	4.2	4	B	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	6920000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-24-6	Strontium	215000	4.6		ug/L	2500	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	37.7	0.094		mg/L	1	10	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	1520	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.054	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	5600	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	6.9	0		--	--	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	26100	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	276	10		mg/L	20	5	SM20 2540D
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	59800			umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	>399	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	7	0		--		1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	26400	10		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	278	2		mg/L	20	5	SM20 2540D
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	57900			umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	157000	132		mg/L	2500	2500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	41.9	1.6	B J	mg/L	50	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	2.5	0.38	G U	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	1590	0.72		mg/L	10	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	2.5	0.16	G U	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	52.3	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	17.6	1.5		mg/L	4.7	0.94	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.045	0.038	B J	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B

TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	118			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	101			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	112			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	80			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	110000	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	7440-23-5	Sodium	48400	215		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	7440-24-6	Strontium	5800000	93		ug/L	50000	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	90.8	68.5	B	ug/L	250	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	119000	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	104000	69.5		ug/L	1250	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-95-4	Magnesium	1300000	518		ug/L	125000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese	2040	17		ug/L	375	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-98-7	Molybdenum	1000	34.5	U	ug/L	1000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-41-7	Beryllium	100	5.8	U	ug/L	100	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7782-49-2	Selenium	125	76	U	ug/L	125	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-22-4	Silver	125	17	U	ug/L	125	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-66-6	Zinc	146	61.5	B	ug/L	500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-47-3	Chromium	16	14.2	B	ug/L	125	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-42-8	Boron	94700	32.8		ug/L	5000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	125	3.2	U	ug/L	125	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	90.2	67.8	B	ug/L	625	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	1880	242	B	ug/L	5000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-39-3	Barium	1410000	31		ug/L	10000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	2000	78	U	ug/L	2000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	17600000	484		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	2500	20	U	ug/L	2500	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	372	1.9		mg/L	20	200	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	12300	130		mg/L	250	25	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.38	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	66000	769		mg/L	2500	500	SM20 2340C
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/4/2010	C9L230421	Q925	pH	5.7	0		–	–	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	277000	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	74.8	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	540	5		mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	614000			umhos/cm	500	500	SM20 2510B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	40.3	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230421002X	WESTMORELAND PRODUCTION BRINE DUP	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	57.5	0.41		mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	31300	26.4		mg/L	500	500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	105	0.31	J	mg/L	10	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	359	0.14		mg/L	2	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	115	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	7.9	1.5		mg/L	4.6	0.93	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	111			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	89			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	113			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	98			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	28000	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	100	27.4	U	ug/L	100	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	27400	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	21500	27.8		ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-95-4	Magnesium	295000	207		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese	722	6.8		ug/L	150	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-98-7	Molybdenum	400	13.8	U	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-39-3	Barium	19000	6.2		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	400	15.6	U	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-41-7	Beryllium	40	2.3	U	ug/L	40	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7782-49-2	Selenium	50	30.4	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-22-4	Silver	50	6.8	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-66-6	Zinc	83.9	24.6	B	ug/L	200	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-47-3	Chromium	11.5	5.7	B	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-42-8	Boron	25500	13.1		ug/L	2000	10	SW846 6010B

TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	3140000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	8.8	4	B	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	508	96.8	B	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	7440-24-6	Strontium	693000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	12000000	5380		ug/L	125000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	84.7	0.24		mg/L	2.5	25	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	2600	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.013	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	10600	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	6.6	0		--	--	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	54800	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	9.6	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	125000			umhos/cm	100	100	SM20 2510B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	283	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230421003D	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	12	0.038	N *	PERCENT	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421003S	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	15	0.038	N	PERCENT	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/24/2009	C9L230421	Q138	Chloride	27700	26.4		mg/L	500	500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q605	Sulfate	69.3	0.31	J	mg/L	10	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q85	Bromide	261	0.14		mg/L	2	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	G U	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/29/2009	C9L230421	Q18	Total Alkalinity	174	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	5.8	1.6		mg/L	4.8	0.97	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	71-43-2	Benzene	1.1	0.99	J	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	108-88-3	Toluene	1.1	0.85	J	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	107			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	2037-26-5	Toluene-d8	92			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	108			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	97			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-89-6	Iron-DISS	43000	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-38-2	Arsenic	100	27.4	U	ug/L	100	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-89-6	Iron	43500	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-93-2	Lithium	19800	27.8		ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-95-4	Magnesium	278000	207		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-96-5	Manganese	2540	6.8		ug/L	150	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-98-7	Molybdenum	400	13.8	U	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-39-3	Barium	107000	6.2		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-02-0	Nickel	33.2	15.6	B	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-41-7	Beryllium	40	2.3	U	ug/L	40	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7782-49-2	Selenium	50	30.4	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-22-4	Silver	50	6.8	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-66-6	Zinc	65.7	24.6	B	ug/L	200	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-47-3	Chromium	7.8	5.7	B	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-42-8	Boron	12800	13.1		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-70-2	Calcium	2730000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-48-4	Cobalt	500	4	U	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7429-90-5	Aluminum	519	96.8	B	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-24-6	Strontium	670000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-23-5	Sodium	12700000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	52.4	0.094		mg/L	1	10	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	2740	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.012	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	8900	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/4/2010	C9L230421	Q925	pH	6.5	0		--	--	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/28/2009	C9L230421	Q594	Total Dissolved Solids	41700	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/24/2009	C9L230421	Q595	Total Suspended Solids	30.8	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/31/2009	C9L230421	Q1083	Acidity	108	5		mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/5/2010	C9L230421	Q181	Specific Conductance	116000			umhos/cm	100	100	SM20 2510B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	821	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B

TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	105			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	90			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	107			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	99			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q138	Chloride	192000	132		mg/L	2500	2500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q605	Sulfate	41.8	1.6	B J	mg/L	50	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q479	Nitrate as N	0.74	0.38	B	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q85	Bromide	1920	0.72		mg/L	10	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q481	Nitrite as N	2.5	0.16	G U	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	190	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	9.4	1.5		mg/L	4.7	0.94	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2658-24-4	Aziridine, 2,2-dimethyl-	0.2		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	75-83-2	Butane, 2,2-dimethyl-	0.66		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-00-1	Butanoic acid, 2-ethylhexyl ester	0.48		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	124-38-9	Carbon dioxide	290		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	67-63-0	Isopropyl Alcohol	45		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	112-30-1	1-Decanol	5.4		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	104-76-7	1-Hexanol, 2-ethyl-	41		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	32038-83-8	2-Propynenitrile, 3-fluoro-	0.18		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-32-6	3,3-Dimethyl-4-phenylamino-butan-2-one	0.17		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-76-4	6-Nitro-8-methoxy-2H-chromene	0.19		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-76-4	6-Nitro-8-methoxy-2H-chromene	0.35		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	105			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	91			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	110			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	101			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	99900	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	27.4	27.4	B	ug/L	100	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	21100	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	15300	27.8		ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-95-4	Magnesium	250000	207		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese	1080	6.8		ug/L	150	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-98-7	Molybdenum	15	13.8	B	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-39-3	Barium	3700	6.2		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	23.4	15.6	B	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-41-7	Beryllium	40	2.3	U	ug/L	40	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7782-49-2	Selenium	50	30.4	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-22-4	Silver	50	6.8	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-66-6	Zinc	61.8	24.6	B	ug/L	200	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-47-3	Chromium	24.7	5.7	B	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-42-8	Boron	25700	13.1		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	2440000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	8.8	4	B	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	629	96.8	B	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-24-6	Strontium	587000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	11900000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	72.3	0.47		mg/L	5	50	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	3060	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.014	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	7700	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	5.6	0		--	--	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	313000	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	53.6	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	779000			umhos/cm	500	500	SM20 2510B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	4.9	0.79		mg/L	2	1	SM20 5210B
TestAmerica Pittsburgh	C9L240000059B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	10	10	U	mg/L	10	1	SM20 2540C
TestAmerica Pittsburgh	C9L240000059C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	530	10		mg/L	10	1	SM20 2540C
TestAmerica Pittsburgh	C9L240000061B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	4	2	U	mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L240000061C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	84	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L280000110B	INTRA-LAB BLANK	WATER	12/18/2009	8:45	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	0.1	0.0094	U	mg/L	0.1	1	MCAWW 350.1
TestAmerica Pittsburgh	C9L280000110C	CHECK SAMPLE	WATER	12/18/2009	8:45	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	2.09	0.0094		mg/L	0.1	1	MCAWW 350.1

TestAmerica Pittsburgh	C9L280000359B	INTRA-LAB BLANK	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	1.4	0.41	B	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L280000359C	CHECK SAMPLE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q18	Total Alkalinity	245	0.41		mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L290000255B	INTRA-LAB BLANK	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	5	1.6	U	mg/L	5	1	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L290000255C	CHECK SAMPLE	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	33.3	1.6		mg/L	5	1	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L290000255L	DUPLICATE CHECK	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	33.9	1.6		mg/L	5	1	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L290000316B	INTRA-LAB BLANK	WATER	12/29/2009	8:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.0053	0.0014	B	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L290000316C	CHECK SAMPLE	WATER	12/29/2009	8:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.185	0.0014		mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	104			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	2037-26-5	Toluene-d8	102			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	100			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	103			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	71-43-2	Benzene	39.4	0.99		ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-88-3	Toluene	40.2	0.85		ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	79-01-6	Trichloroethene	38.5	0.8		ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	97			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	2037-26-5	Toluene-d8	96			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	95			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	97			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-90-7	Chlorobenzene	40.1	0.53		ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	75-35-4	1,1-Dichloroethene	37	1.1		ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L310000043B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L310000043C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	256	5		mg/L	5	1	SM20 2310B (4a)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Form 26R

Lot #: C9L230458

Stephanie Eliason

Environmental Coordination Srv
3237 US Hwy 19
Cochranton, PA 16314

TESTAMERICA LABORATORIES, INC.

Christina M. Kovitch
Project Manager

January 26, 2010

METHODS SUMMARY

C9L230458

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta by GFPC	SW846 9310 MOD	
Strontium 90 by GFPC	EML SR-03-RC MO	
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010C	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL" HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

TestAmerica Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12-22-09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
Greene County Flow Back	12/22/09 1000 AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
Greene County Flow Back	12-22-09 300PM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	*Date/Time:* 12/22/09 300 PM	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:* 12/23/09 9 4C

Comments:

Printed On: 12/16/2009 01:50 PM

(NOTE: this ORIGINAL Chain of Custody MUST accompany the samples from collection to receipt at the laboratory)

TestAmerica — Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12-21-09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield
					PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
WESTMORELAND FLOW BACK	12/21/09 1030AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
WESTMORELAND FLOW BACK	12/21/09 1030AM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER. Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☒ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	Date/Time: 12/21/09 2:00PM	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/23/09 9:20

Comments:

Printed On: 12/16/2009 01:50 PM

(NOTE: this ORIGINAL Chain of Custody MUST accompany the samples from collection to receipt at the laboratory)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12-22-09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield
					PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
Washington County Flow Back	12-22-09 1000AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
Washington County Flow Back	12-22-09 1000AM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	*Date/Time:* 12/22/09 800PM	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:* 12/23/09 9:40

Comments:

TestAmerica — Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12-21-09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
WESTMORELAND Production Brine	12-21-09 10:00AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
WESTMORELAND Production Brine	12-21-09 10:00AM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☒ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	Date/Time: 12-21-09 1:00PM	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/23/09 940

Comments:

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12-22-09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield
					PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
Fayette County Flow Back	12-22-09 1000AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
Fayette County Flow Back	12-22-09 1000AM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	Date/Time: 12-22-09/1000AM	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/23/09 940

Comments:

(NOTE: this ORIGINAL Chain of Custody MUST accompany the samples from collection to receipt at the laboratory)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12/22/09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
FAyette County-Brine	12/22/09 -10:00AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
		WATER	1GP	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: Kevin Stump	*Date/Time:* 12-22-09 / 3:00 PM	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:*
Relinquished by:	*Date/Time:*	*Received by:*	*Date/Time:* 12/23/09 9:00

Comments:

TestAmerica — Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

TestAmerica, Inc.
TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
(412) 963-7058
(412) 963-2468 - fax

Project Information:	Form 26R	Quote #:	84855	Client:	Atlas
Date: 12.22.09		Carrier/Waybill #:			800 Mountain View Dr.
Project Manager:	John Collins				
Phone:	724-317-2293				Smithfield
					PA 15478

SAMPLE ID	DATE/TIME	MATRIX	BOTTLE TYPE		#	PRESERVATIVE	ANALYSIS
Greene County Production Brine	12-22-09 10:00AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,Cond,TDS,TSS
		WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
		WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
		WATER	250AG	Glass - 250mL (8oz) Amber	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
		WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
		WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
		WATER	VV	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
		WATER	VV	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
		WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,Cl,N02, N03,S04
		WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
Greene County Production Brine	12.22.09 10:00AM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER. Gamma Emitters Cesium Grass Alpha Beta

Special Requirements:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may apply if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ___ I ___ II ___ III

Project Specific Requirements (Specify):

Relinquished by: John Collins	Date/Time: 12-22-09 300PM	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/23/09 940

Comments:

(NOTE: this ORIGINAL Chain of Custody MUST accompany the samples from collection to receipt at the laboratory)

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:	Chris Kovitch	Date Received:	2009-12-23
Project:	Form 26R	Analytical Due Date:	2010-01-22
Report Type:	B1 Std Rep - CD only	Report Due Date:	2010-01-22
lent:	367970 - Cash in Advance / Prepaid Sales		

cw 1/1   i.40 sub & HETS

WORK LOCATION: 06 **TestAmerica St. Louis**

ADDRESS: 13715 Rider Trail North
Earth City MO 63045

SMP# 1 CLIENT ID: GREENE COUNTY FLOW BACK 1 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER

SAMPLE COMMENT - sulltos sealle 007

4LP, 500P

Bottles for #1

METHOD:	Z7	EPA	901.1 MOD	Gamma Cs-137 & Hits by EPA 901.1 MOD	
EXTRACTION:	G7	Direct Addition of Sample to Geometry		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJT71AH		METAL: XX
METHOD:	ZA	SW846	9310 MOD	GROSS A/B BY GFPC SW846 9310 MOD	
EXTRACTION:	FR	Evaporative Preparation, Total		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJT71AC		METAL: XX
METHOD:	I$	SW846	6010C	Inductively Coupled Plasma (6010C Trace)	
EXTRACTION:	GJ	METALS, TOTAL - 2% HCL		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJT71AE		METAL: TH
		WORKORDER	LRJT71AF		METAL: UX
		WORKORDER	LRJT71AD		METAL: SR
METHOD:	ZV		RAD SCREEN	RAD SCREEN	
EXTRACTION:	RA	IN-HOUSE RAD SCREEN		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJT71AG		METAL: XX
METHOD:	ZK	EML	SR-03-RC MOD	Strontium-90 by GFPC DOE SR-03-RC MOD	
EXTRACTION:	FX	Precipitate, Separation		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJT71AA		METAL: XX

SMP# 2 CLIENT ID: WESTMORELAND FLOW BACK DATE/TIME SAMPLED: 20091221 1030 MATRIX: I WATER

SAMPLE COMMENT

4LP LP

METHOD:	Z7	EPA	901.1 MOD	Gamma Cs-137 & Hits by EPA 901.1 MOD	
EXTRACTION:	G7	Direct Addition of Sample to Geometry		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJVE1AH		METAL: XX
METHOD:	ZA	SW846	9310 MOD	GROSS A/B BY GFPC SW846 9310 MOD	
EXTRACTION:	FR	Evaporative Preparation, Total		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJVE1AC		METAL: XX
METHOD:	I$	SW846	6010C	Inductively Coupled Plasma (6010C Trace)	
EXTRACTION:	GJ	METALS, TOTAL - 2% HCL		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJVE1AD		METAL: SR
		WORKORDER	LRJVE1AF		METAL: UX
		WORKORDER	LRJVE1AE		METAL: TH
METHOD:	ZV		RAD SCREEN	RAD SCREEN	
EXTRACTION:	RA	IN-HOUSE RAD SCREEN		QC TYPE: 01 STANDARD TEST SET	
		WORKORDER	LRJVE1AG		METAL: XX
METHOD:	ZK	EML	SR-03-RC MOD	Strontium-90 by GFPC DOE SR-03-RC MOD	

COMMENTS:
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
lient: 367970 - Cash In Advance / Prepaid Sales

Date Received: 2009-12-23
Analytical Due Date: 2010-01-22
Report Due Date: 2010-01-22

EXTRACTION: FX Precipitate, Separation QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVE1AA METAL: XX

SMP# 3 CLIENT ID: WASHINGTON COUNTY FLOW BACK DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

4LP
300P

METHOD: Z7 EPA 901.1 MOD **Gamma Cs-137 & Hits by EPA 901.1 MOD**
EXTRACTION: G7 Direct Addition of Sample to Geometry QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVJ1AH METAL: XX

METHOD: ZA SW846 9310 MOD **GROSS A/B BY GFPC SW846 9310 MOD**
EXTRACTION: FR Evaporative Preparation, Total QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVJ1AC METAL: XX

METHOD: I$ SW846 6010C **Inductively Coupled Plasma (6010C Trace)**
EXTRACTION: GJ METALS, TOTAL - 2% HCL QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVJ1AD METAL: SR
WORKORDER LRJVJ1AE METAL: TH
WORKORDER LRJVJ1AF METAL: UX

METHOD: ZV RAD SCREEN **RAD SCREEN**
EXTRACTION: RA IN-HOUSE RAD SCREEN QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVJ1AG METAL: XX

METHOD: ZK EML SR-03-RC MOD **Strontium-90 by GFPC DOE SR-03-RC MOD**
EXTRACTION: FX Precipitate, Separation QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVJ1AA METAL: XX

SMP# 4 CLIENT ID: WESTMORELAND PRODUCTION BRIN DATE/TIME SAMPLED: 20091221 1000 MATRIX: I WATER
SAMPLE COMMENT

4LP
LP

METHOD: Z7 EPA 901.1 MOD **Gamma Cs-137 & Hits by EPA 901.1 MOD**
EXTRACTION: G7 Direct Addition of Sample to Geometry QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVL1AH METAL: XX

METHOD: ZA SW846 9310 MOD **GROSS A/B BY GFPC SW846 9310 MOD**
EXTRACTION: FR Evaporative Preparation, Total QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVL1AC METAL: XX

METHOD: I$ SW846 6010C **Inductively Coupled Plasma (6010C Trace)**
EXTRACTION: GJ METALS, TOTAL - 2% HCL QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVL1AE METAL: TH
WORKORDER LRJVL1AD METAL: SR
WORKORDER LRJVL1AF METAL: UX

METHOD: ZV RAD SCREEN **RAD SCREEN**
EXTRACTION: RA IN-HOUSE RAD SCREEN QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVL1AG METAL: XX

METHOD: ZK EML SR-03-RC MOD **Strontium-90 by GFPC DOE SR-03-RC MOD**
EXTRACTION: FX Precipitate, Separation QC TYPE: 01 STANDARD TEST SET

COMMENTS:
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
Client: 367970 - Cash In Advance / Prepaid Sales

Date Received: 2009-12-23
Analytical Due Date: 2010-01-22
Report Due Date: 2010-01-22

WORKORDER LRJVL1AA METAL: XX

SMP# 5 CLIENT ID: FAYETTE COUNTY FLOW BACK 2 DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT dump Sample

METHOD:	Z7	EPA	901.1 MOD	Gamma Cs-137 & Hits by EPA 901.1 MOD	
EXTRACTION:	G7	Direct Addition of Sample to Geometry		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVN1AH				METAL: XX
METHOD:	ZA	SW846	9310 MOD	GROSS A/B BY GFPC SW846 9310 MOD	
EXTRACTION:	FR	Evaporative Preparation, Total		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVN1AC				METAL: XX
METHOD:	I$	SW846	6010C	Inductively Coupled Plasma (6010C Trace)	
EXTRACTION:	GJ	METALS, TOTAL - 2% HCL		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVN1AD				METAL: SR
WORKORDER	LRJVN1AE				METAL: TH
WORKORDER	LRJVN1AF				METAL: UX
METHOD:	ZV		RAD SCREEN	RAD SCREEN	
EXTRACTION:	RA	IN-HOUSE RAD SCREEN		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVN1AG				METAL: XX
METHOD:	ZK	EML	SR-03-RC MOD	Strontium-90 by GFPC DOE SR-03-RC MOD	
EXTRACTION:	FX	Precipitate, Separation		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVN1AA				METAL: XX

SMP# 6 CLIENT ID: FAYETTE COUNTY BRINE DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

METHOD:	Z7	EPA	901.1 MOD	Gamma Cs-137 & Hits by EPA 901.1 MOD	
EXTRACTION:	G7	Direct Addition of Sample to Geometry		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVQ1AH				METAL: XX
METHOD:	ZA	SW846	9310 MOD	GROSS A/B BY GFPC SW846 9310 MOD	
EXTRACTION:	FR	Evaporative Preparation, Total		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVQ1AC				METAL: XX
METHOD:	I$	SW846	6010C	Inductively Coupled Plasma (6010C Trace)	
EXTRACTION:	GJ	METALS, TOTAL - 2% HCL		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVQ1AD				METAL: SR
WORKORDER	LRJVQ1AF				METAL: UX
WORKORDER	LRJVQ1AE				METAL: TH
METHOD:	ZV		RAD SCREEN	RAD SCREEN	
EXTRACTION:	RA	IN-HOUSE RAD SCREEN		QC TYPE: 01	STANDARD TEST SET
WORKORDER	LRJVQ1AG				METAL: XX
METHOD:	ZK	EML	SR-03-RC MOD	Strontium-90 by GFPC DOE SR-03-RC MOD	
EXTRACTION:	FX	Precipitate, Separation		QC TYPE: 01	STANDARD TEST SET

C9L230458

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:
Project Manager: Chris Kovitch
Project: Form 26R
Report Type: B1 Std Rep - CD only
Client: 367970 - Cash In Advance / Prepaid Sales

Date Received: 2009-12-23
Analytical Due Date: 2010-01-22
Report Due Date: 2010-01-22

WORKORDER LRJVQ1AA METAL: XX

SMP# 7 CLIENT ID: GREENE COUNTY PRODUCTION BRIN DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER
SAMPLE COMMENT

METHOD: Z7 EPA 901.1 MOD Gamma Cs-137 & Hits by EPA 901.1 MOD
EXTRACTION: G7 Direct Addition of Sample to Geometry QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVR1AH METAL: XX

METHOD: ZA SW846 9310 MOD GROSS A/B BY GFPC SW846 9310 MOD
EXTRACTION: FR Evaporative Preparation, Total QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVR1AC METAL: XX

METHOD: I$ SW846 6010C Inductively Coupled Plasma (6010C Trace)
EXTRACTION: GJ METALS, TOTAL - 2% HCL QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVR1AF METAL: UX
WORKORDER LRJVR1AE METAL: TH
WORKORDER LRJVR1AD METAL: SR

METHOD: ZV RAD SCREEN RAD SCREEN
EXTRACTION: RA IN-HOUSE RAD SCREEN QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVR1AG METAL: XX

METHOD: ZK EML SR-03-RC MOD Strontium-90 by GFPC DOE SR-03-RC MOD
EXTRACTION: FX Precipitate, Separation QC TYPE: 01 STANDARD TEST SET
WORKORDER LRJVR1AA METAL: XX

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

Thank You

TestAmerica Pittsburgh
Sample Receiving

RELINQUISHED BY: _____ DATE: 12/23/09 TIME: 1730

RECEIVED FOR LAB BY: _____ DATE: 12.24.09 TIME: 0930

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): C9L230458

CONDITION UPON RECEIPT FORM

Client: TA Pitts

Quote No:

COC/RFA No: N/A

297

Initiated By: [initials] Date: 12-24-09 Time: 0930

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: Multiple Packages: (Y) N

Shipping # (s):*

1. 4342 6962 5111
2. ↓ 5101
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1. ambient [initials] 12-24-09
2. 2
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N (N/A)	Was sample received with proper pH[1]? (If not, make note below)
	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	(Y) N N/A	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	(Y) N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Sample #1 "green county flowback" is labeled as #7

Initial Sample 005 & 007 should not be analyzed. [initials] 12-30-09

Corrective Action:

- ☐ Client Contact Name: Informed by:
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: If released, notify:

Project Management Review: [signature] Date: 12-31-09

S FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Stlsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

SAMPLE SUMMARY

C9L230458

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LRJVE	002	WESTMORELAND FLOW BACK	12/21/09	10:30
LRJVJ	003	WASHINGTON COUNTY FLOW BACK	12/22/09	10:00
LRJVL	004	WESTMORELAND PRODUCTION BRINE	12/21/09	10:00
LRJVQ	006	FAYETTE COUNTY BRINE	12/22/09	10:00
LRJVR	007	GREENE COUNTY PRODUCTION BRINE 3	12/22/09	10:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Cash in Advance / Prepaid Sales

Client Sample ID: WESTMORELAND FLOW BACK

TOTAL Metals

Lot-Sample #...: C9L230458-002 **Matrix.....:** WATER
Date Sampled...: 12/21/09 **Date Received..:** 12/23/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0008078						
Strontium	**562000 J**	**500**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVE1AD**
		Dilution Factor: 100		Analysis Time..: 12:09	MS Run #.....: 0008074	
		MDL.....: 54.0				
Thorium	**2620 B**	**4000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVE1AE**
		Dilution Factor: 20		Analysis Time..: 13:38	MS Run #.....: 0008074	
		MDL.....: 712				
Uranium	ND	500	ug/L	SW846 6010C	01/08-01/11/10	LRJVE1AF
		Dilution Factor: 1		Analysis Time..: 15:11	MS Run #.....: 0008074	
		MDL.....: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Cash in Advance / Prepaid Sales

Client Sample ID: WASHINGTON COUNTY FLOW BACK

TOTAL Metals

Lot-Sample #...: C9L230458-003 **Matrix.....:** WATER
Date Sampled...: 12/22/09 **Date Received..:** 12/23/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0008078						
Strontium	**213000 J**	**250**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVJ1AD**
		Dilution Factor: 50		Analysis Time..: 10:42	MS Run #.....: 0008074	
		MDL.....: 27.0				
Thorium	**754 B**	**2000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVJ1AE**
		Dilution Factor: 10		Analysis Time..: 10:27	MS Run #.....: 0008074	
		MDL.....: 356				
Uranium	ND	500	ug/L	SW846 6010C	01/08-01/11/10	LRJVJ1AF
		Dilution Factor: 1		Analysis Time..: 15:49	MS Run #.....: 0008074	
		MDL.....: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level

B Estimated result. Result is less than RL.

Cash in Advance / Prepaid Sales

Client Sample ID: WESTMORELAND PRODUCTION BRINE

TOTAL Metals

Lot-Sample #...: C9L230458-004 **Matrix.....:** WATER
Date Sampled...: 12/21/09 **Date Received..:** 12/23/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0008078						
Strontium	**5870000 J**	**5000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVL1AD**
		Dilution Factor: 1000		Analysis Time..: 17:21	MS Run #.....: 0008074	
		MDL.....: 540				
Thorium	**35900 B**	**100000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVL1AE**
		Dilution Factor: 500		Analysis Time..: 14:19	MS Run #.....: 0008074	
		MDL.....: 17800				
Uranium	ND	500	ug/L	SW846 6010C	01/08-01/11/10	LRJVL1AF
		Dilution Factor: 1		Analysis Time..: 15:56	MS Run #.....: 0008074	
		MDL.....: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Cash in Advance / Prepaid Sales

Client Sample ID: FAYETTE COUNTY BRINE

TOTAL Metals

Lot-Sample #...: C9L230458-006 **Matrix.....:** WATER
Date Sampled...: 12/22/09 **Date Received..:** 12/23/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0008078						
Strontium	**780000 J**	**1000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVQ1AD**
		Dilution Factor: 200		Analysis Time..: 12:54	MS Run #.....: 0008074	
		MDL.....: 108				
Thorium	**3650 B**	**4000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVQ1AE**
		Dilution Factor: 20		Analysis Time..: 14:09	MS Run #.....: 0008074	
		MDL.....: 712				
Uranium	ND	500	ug/L	SW846 6010C	01/08-01/11/10	LRJVQ1AF
		Dilution Factor: 1		Analysis Time..: 16:02	MS Run #.....: 0008074	
		MDL.....: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Cash in Advance / Prepaid Sales

Client Sample ID: GREENE COUNTY PRODUCTION BRINE 3

TOTAL Metals

Lot-Sample #...: C9L230458-007 **Matrix.....:** WATER
Date Sampled...: 12/22/09 **Date Received..:** 12/23/09

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0008078						
Strontium	**3870000 J**	**5000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVR1AD**
		Dilution Factor: 1000		Analysis Time..: 17:27	MS Run #.....: 0008074	
		MDL.....: 540				
Thorium	**24100 B**	**100000**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LRJVR1AE**
		Dilution Factor: 500		Analysis Time..: 14:25	MS Run #.....: 0008074	
		MDL.....: 17800				
Uranium	**455 B,J**	**500**	**ug/L**	**SW846 6010C**	**01/08-01/11/10**	**LRJVR1AF**
		Dilution Factor: 1		Analysis Time..: 16:09	MS Run #.....: 0008074	
		MDL.....: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C9L230458 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A080000-078 **Prep Batch #...:** 0008078						
Strontium	**1.1 B**	**5.0**	**ug/L**	**SW846 6010C**	**01/08-01/12/10**	**LR0WW1AA**
		Dilution Factor: 1				
		Analysis Time..: 09:50				
Thorium	ND	200	ug/L	SW846 6010C	01/08-01/11/10	LR0WW1AC
		Dilution Factor: 1				
		Analysis Time..: 18:55				
Uranium	**92.9 B**	**500**	**ug/L**	**SW846 6010C**	**01/08-01/11/10**	**LR0WW1AD**
		Dilution Factor: 1				
		Analysis Time..: 14:58				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C9L230458 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F0A080000-078 **Prep Batch #...:** 0008078					
Strontium	105	(80 - 120)	SW846 6010C	01/08-01/12/10	LR0WW1AE
		Dilution Factor: 1	Analysis Time..: 09:56		
Thorium	96	(80 - 120)	SW846 6010C	01/08-01/11/10	LR0WW1AF
		Dilution Factor: 1	Analysis Time..: 19:01		
Uranium	108	(80 - 120)	SW846 6010C	01/08-01/11/10	LR0WW1AG
		Dilution Factor: 1	Analysis Time..: 15:04		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C9L230458 **Matrix.....:** WATER
Date Sampled...: 12/21/09 **Date Received..:** 12/23/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C9L230458-002 **Prep Batch #...:** 0008078							
Strontium	3300 N	(75 - 125)			SW846 6010C	01/08-01/12/10	LRJVE1AK
	1110 N	(75 - 125)	3.8	(0-20)	SW846 6010C	01/08-01/12/10	LRJVE1AL
		Dilution Factor: 100					
		Analysis Time..: 12:22					
		MS Run #.....: 0008074					
Thorium	87	(75 - 125)			SW846 6010C	01/08-01/12/10	LRJVE1AM
	78	(75 - 125)	2.4	(0-20)	SW846 6010C	01/08-01/12/10	LRJVE1AN
		Dilution Factor: 20					
		Analysis Time..: 13:50					
		MS Run #.....: 0008074					
Uranium	99	(75 - 125)			SW846 6010C	01/08-01/11/10	LRJVE1AP
	100	(75 - 125)	1.4	(0-20)	SW846 6010C	01/08-01/11/10	LRJVE1AQ
		Dilution Factor: 1					
		Analysis Time..: 15:37					
		MS Run #.....: 0008074					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Cash in Advance / Prepaid Sales

Client Sample ID: WESTMORELAND FLOW BACK

Radiochemistry

Lab Sample ID: C9L230458-002
Work Order: LRJVE
Matrix: WATER

Date Collected: 12/21/09 1030
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Strontium-90 by GFPC DOE SR-03-RC MOD				**pCi/L**		**Batch # 9363104**	**Yld % 96**
Strontium 90	0.008	U	0.18	3.00	0.32	12/29/09	01/06/10
GROSS A/B BY GFPC SW846 9310 MOD				**pCi/L**		**Batch # 9362134**	**Yld %**
Gross Alpha	480		260	3	310	12/28/09	12/31/09
Gross Beta	290		160	4	240	12/28/09	12/31/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**		**Batch # 9362322**	**Yld %**
Cesium 137	-5	U	12	20	21	12/28/09	01/18/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Cash in Advance / Prepaid Sales

Client Sample ID: WESTMORELAND FLOW BACK DUP

Radiochemistry

Lab Sample ID: C9L230458-002X
Work Order: LRJVE
Matrix: WATER

Date Collected: 12/21/09 1030
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9362322	Yld %
Cesium 137	-0.9	U	8.3	20.0	15	12/28/09	01/18/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Yld results are greater than the MDC.

U Result is less than the sample detection limit.

Cash in Advance / Prepaid Sales

Client Sample ID: WASHINGTON COUNTY FLOW BACK

Radiochemistry

Lab Sample ID: C9L230458-003
Work Order: LRJVJ
Matrix: WATER

Date Collected: 12/22/09 1000
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Strontium-90 by GFPC DOE SR-03-RC MOD				pCi/L	Batch # 9363104		Yld % 89
Strontium 90	0.44	U	0.35	3.00	0.55	12/29/09	01/06/10
GROSS A/B BY GFPC SW846 9310 MOD				pCi/L	Batch # 9362134		Yld %
Gross Alpha	340		160	3	180	12/28/09	12/31/09
Gross Beta	103	U	80	4	120	12/28/09	12/31/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 9362322		Yld %
Cesium 137	1.2	U	8.3	20.0	15	12/28/09	01/18/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Old results are greater than the MDC.

U Result is less than the sample detection limit.

Cash in Advance / Prepaid Sales

Client Sample ID: WESTMORELAND PRODUCTION BRINE

Radiochemistry

Lab Sample ID: C9L230458-004
Work Order: LRJVL
Matrix: WATER

Date Collected: 12/21/09 1000
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Strontium-90 by GFPC DOE SR-03-RC MOD				pCi/L	Batch # 9363104		Yld % 91
Strontium 90	0.005	U	0.18	3.00	0.31	12/29/09	01/06/10
GROSS A/B BY GFPC BW846 9310 MOD				pCi/L	Batch # 9362134		Yld %
Gross Alpha	2610		980	3	940	12/28/09	12/31/09
Gross Beta	2190		460	4	460	12/28/09	12/31/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 9362322		Yld %
Cesium 137	-13	U	19	20	31	12/28/09	01/25/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
'd results are greater than the MDC.

U Result is less than the sample detection limit.

Cash in Advance / Prepaid Sales

Client Sample ID: FAYETTE COUNTY BRINE

Radiochemistry

Lab Sample ID: C9L230458-006
Work Order: LRJVQ
Matrix: WATER

Date Collected: 12/22/09 1000
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 s+/-)	RL	mdc	Prep Date	Analysis Date
Strontium-90 by GFPC DOE SR-03-RC MOD				pCi/L	Batch # 9363104		Yld % 91
Strontium 90	0.20	U	0.18	3.00	0.28	12/29/09	01/06/10
GROSS A/B BY GFPC SW846 9310 MOD				pCi/L	Batch # 9362134		Yld %
Gross Alpha	130	U	200	3	340	12/28/09	12/31/09
Gross Beta	370		160	4	220	12/28/09	12/31/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 9362322		Yld %
Cesium 137	-2.2	U	9.3	20.0	17	12/28/09	01/18/10

NOTE(S)

Data are incomplete without the case narrative.

*MDC is determined by instrument performance only.
Id results are greater than the MDC.

U Result is less than the sample detection limit.

Cash in Advance / Prepaid Sales

Client Sample ID: GREENE COUNTY PRODUCTION BRINE 3

Radiochemistry

Lab Sample ID: C9L230458-007
Work Order: LRJVR
Matrix: WATER

Date Collected: 12/22/09 1000
Date Received: 12/23/09 0940

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
GROSS A/B BY GFPC SW846 9310 MOD				pCi/L		Batch # 0012128	Yld %
Gross Alpha	70	U	180	3	320	01/12/10	01/13/10
Gross Beta	250		150	4	230	01/12/10	01/13/10
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9362322	Yld %
Cesium 137	-2.6	U	8.9	20.0	15	12/28/09	01/18/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
d results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: C9L230458
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L	Batch #	0012128	Yld %			F0A120000-128B
Gross Alpha	0.11	U	0.37	3.00	0.69		01/12/10	01/13/10	
Gross Beta	-0.23	U	0.84	4.00	1.5		01/12/10	01/13/10	
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L	Batch #	9362134	Yld %			F9L280000-134B
Gross Alpha	0.11	U	0.37	3.00	0.70		12/28/09	12/31/09	
Gross Beta	-0.52	U	0.82	4.00	1.5		12/28/09	12/31/09	
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	9362322	Yld %			F9L280000-322B
Cesium 137	-1.2	U	7.0	20.0	13		12/28/09	01/18/10	
Strontium-90 by GFPC DOE SR-03-RC MOD			pCi/L	Batch #	9363104	Yld %	80		F9L290000-104B
Strontium 90	0.02	U	0.17	3.00	0.30		12/29/09	01/06/10	

NOTE(S)

Data are incomplete without the case narrative.

)C is determined using instrument performance only
-old results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: C9L230458
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 s+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
GROSS A/B BY GFPC SW846 9310 MOD		pCi/L	9310 MOD				F0A120000-128C
Gross Beta	68.2	71.3	6.0	1.5		104	(58 - 133)
	Batch #:	0012128		Analysis Date:	01/13/10		
GROSS A/B BY GFPC SW846 9310 MOD		pCi/L	9310 MOD				F0A120000-128C
Gross Alpha	49.4	50.1	5.4	1		101	(62 - 134)
	Batch #:	0012128		Analysis Date:	01/13/10		
GROSS A/B BY GFPC SW846 9310 MOD		pCi/L	9310 MOD				F9L280000-134C
Gross Beta	68.3	72.4	6.1	1.5		106	(77 - 123)
	Batch #:	9362134		Analysis Date:	12/31/09		
GROSS A/B BY GFPC SW846 9310 MOD		pCi/L	9310 MOD				F9L280000-134C
Gross Alpha	49.4	49.9	5.4	1.0		101	(80 - 140)
	Batch #:	9362134		Analysis Date:	12/31/09		
Gamma Cs-137 & Hits by EPA 901.1 MOD		pCi/L	901.1 MOD				F9L280000-322C
ericium 241	141000	144000	11000	500		102	(90 - 110)
Cesium 137	53100	52600	3000	200		99	(90 - 110)
Cobalt 60	87900	85000	4800	200		97	(90 - 110)
	Batch #:	9362322		Analysis Date:	01/18/10		

NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: C9L230458
Matrix: WATER

Parameter		Spike Amount	Result		Total Uncert. (2 σ +/-)	% Yld	% Rec	QC Control Limits	Lab Sample ID Precision	
Strontium-90 by GFPC DOE SR-03-RC MOD				pCi/L	SR-03-RC MOD			F9L290000-104C		
Strontium 90		6.82	8.24		0.90	78	121	(90 - 143)		
	Spk 2	6.82	7.93		0.87	78	116	(90 - 143)	4	%RPD
		Batch #:	9363104			Analysis Date:		01/06/10		

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F9L220480
Matrix: WATER

Date Sampled: 12/18/09
Date Received: 12/22/09

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2σ +/-)	QC Sample ID %YLD	%REC	QC Control Limits
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L		9310 MOD			F9L220480-001	
Gross Beta	68.3	75.1	6.3		1.9	1.1		107	(71 - 146)
	Batch #:	9362134		Analysis Date:		12/31/09			
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L		9310 MOD			F9L220480-001	
Gross Alpha	49.4	53.2	5.7		0.58	0.65		106	(33 - 150)
	Batch #:	9362134		Analysis Date:		12/31/09			
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L		9310 MOD			C9L310489-001	
Gross Alpha	49.4	20.4	4.2		1.8	1.3		38	(35 - 150)
	Batch #:	0012128		Analysis Date:		01/13/10			
GROSS A/B BY GFPC SW846 9310 MOD			pCi/L		9310 MOD			C9L310489-001	
Gross Beta	68.2	69.4	5.9		1.72	0.85		99	(54 - 150)
	Batch #:	0012128		Analysis Date:		01/13/10			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: C9L230458 Date Sampled: 12/18/09
Matrix: WATER Date Received: 12/22/09

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
GROSS A/B BY GFPC SW846 9310 MOD				pCi/L	9310 MOD				F9L220480-001	
Gross Alpha	0.58	U	0.65		0.38	U	0.63		41	%RPD
Gross Beta	1.9	J	1.1		2.8	J	1.2		37	%RPD
	Batch #:		9362134	(Sample)	9362134		(Duplicate)			
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	901.1 MOD				C9L230458-002	
Cesium 137	-5	U	12		-0.9	U	8.3		140	%RPD
	Batch #:		9362322	(Sample)	9362322		(Duplicate)			
GROSS A/B BY GFPC SW846 9310 MOD				pCi/L	9310 MOD				C9L310489-001	
Gross Alpha	1.8	J	1.3		1.9	J	1.4		8	%RPD
Gross Beta	1.72	J	0.85		1.93	J	0.82		11	%RPD
	Batch #:		0012128	(Sample)	0012128		(Duplicate)			

NOTE(S)

"ata are incomplete without the case narrative.
lculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.
U Result is less than the sample detection limit.

LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPDATE	ANADATE	BATCH	METHODCODE	METHODNAME	PREPNAME	ANALYTE	CASNUMBER	SURROGATE	TIC	RESULT	DL	RL	UNITS	RPTtoMDL	BASIS	DILUTION	SOURCEID	SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	ANALYTEORDER
TestAmerica Nashville	9124869-BLK1	Blank	Water	12/29/2009 15:34:00	12/29/2006 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	ND	0.0300	0.0500	mg/L	FALSE	NA	1									DAB				
TestAmerica Nashville	9124869-BS1	LCS	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	0.726	0.0300	0.0500	mg/L	FALSE	NA	1			0.750	97		115	85		DAB				
TestAmerica Nashville	9124869-BSD1	LCS Dup	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	0.742	0.0300	0.0500	mg/L	FALSE	NA	1			0.750	99	2	115	85	20	DAB				
TestAmerica Nashville	9124869-DUP1	Duplicate	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	1.71	0.0300	0.0500	mg/L	FALSE	NA	1	NSL2726-02	1.71			0.07			20	DAB				
TestAmerica Nashville	9124869-DUP2	Duplicate	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	0.921	0.0300	0.0500	mg/L	FALSE	NA	1	NSL2749-01	0.950			3			20	DAB				
TestAmerica Nashville	9124869-MS1	Matrix Spike	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	0.730	0.0300	0.0500	mg/L	FALSE	NA	1	NSL2759-01	0.0509	0.750	91		115	85		DAB				
TestAmerica Nashville	9124869-MSD1	Matrix Spike Dup	Water	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol.wt 320)	61-73-4	FALSE	FALSE	0.734	0.0300	0.0500	mg/L	FALSE	NA	1	NSL2759-01	0.0509	0.750	91	0.5	115	85	20	DAB				
TestAmerica Nashville	9125286-BLK1	Blank	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	ND	0.0500	0.100	mg/L	FALSE	NA	1									SAB				1
TestAmerica Nashville	9125286-BS1	LCS	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	2.47	0.0500	0.100	mg/L	FALSE	NA	1			2.50	99		110	90		SAB				1
TestAmerica Nashville	9125286-DUP1	Duplicate	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	179	1.00	2.00	mg/L	FALSE	NA	20	NSL2726-07	195			9			45	SAB				1
TestAmerica Nashville	9125286-MS1	Matrix Spike	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	6.49	0.0500	0.100	mg/L	FALSE	NA	1	NSL2726-01	5.46	2.50	41		110	90		SAB			M8	1
TestAmerica Nashville	9125286-MSD1	Matrix Spike Dup	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	9.73	0.0500	0.100	mg/L	FALSE	NA	1	NSL2726-01	5.46	5.00	85	40	110	90	45	SAB			M8	1

CLIENT	PROJECT	PROJECTNUM	LABNAME	SAMPLENAME	LABSAMPID	MATRIX	RPTMATRIX	SAMPDATE	PREPDATE	ANADATE	BATCH	METHODCODE	METHODNAME	PREPNAME	ANALYTE	CASNUMBER	SURROGATE	TIC	Result	DL	RL	UNITS	RPTOMDL	BASIS	DILUTION	SPIKELEVEL	RECOVERY	UPPERCL	LOWERCL	ANALYST	PSOLIDS	LNOTE	ANOTE	LATITUDE	LONGITUDE	[illegible]	ANOTE1	ANOTE2	ANOTE3	ANOTE4	ANOTE5	ANOTE6	ANOTE7	ANOTE8	ANOTE9	ANOTE10	ANALYTEORDER
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-1	NSL2726-01	Water	Water	12/22/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	5.40	0.0500	0.100	mg/L	FALSE	NA	1					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-1	NSL2726-01	Water	Water	12/22/2009 10:00:00	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	0.426	0.0500	0.0500	mg/L	FALSE	NA	1					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-2	NSL2726-02	Water	Water	12/21/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	8.44	0.0500	0.100	mg/L	FALSE	NA	1					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-2	NSL2726-02	Water	Water	12/21/2009 10:00:00	12/29/2009 15:34:00	12/29/2009 15:34:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	1.71	0.0500	0.0500	mg/L	FALSE	NA	1					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-3	NSL2726-03	Water	Water	12/22/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	6.79	0.0500	0.100	mg/L	FALSE	NA	1					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-3	NSL2726-03	Water	Water	12/22/2009 10:00:00	12/29/2009 15:42:00	12/29/2009 15:42:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	5.48	0.300	0.500	mg/L	FALSE	NA	10					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-4	NSL2726-04	Water	Water	12/21/2009 10:30:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	3.85	0.0500	0.100	mg/L	FALSE	NA	1					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-4	NSL2726-04	Water	Water	12/21/2009 10:30:00	12/29/2009 15:42:00	12/29/2009 15:42:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	8.65	0.300	0.500	mg/L	FALSE	NA	10					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-6	NSL2726-05	Water	Water	12/22/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	4.05	0.0500	0.100	mg/L	FALSE	NA	1					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-6	NSL2726-05	Water	Water	12/22/2009 10:00:00	12/29/2009 15:42:00	12/29/2009 15:42:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	7.50	0.300	0.500	mg/L	FALSE	NA	10					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-7	NSL2726-06	Water	Water	12/22/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	258	5.00	10.0	mg/L	FALSE	NA	100					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-7	NSL2726-06	Water	Water	12/22/2009 10:00:00	12/29/2009 15:42:00	12/29/2009 15:42:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	0.873	0.0500	0.0500	mg/L	FALSE	NA	1					DAB			H3														
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-8	NSL2726-07	Water	Water	12/22/2009 10:00:00	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 351.2	EPA 351.2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	155	1.00	2.00	mg/L	FALSE	NA	20					SAB																	1
TestAmerica Pittsburgh	TA-Pennsylvania Sites	CBL230421	TestAmerica Nashville	CBL230421-8	NSL2726-07	Water	Water	12/22/2009 10:00:00	12/29/2009 15:42:00	12/29/2009 15:42:00	9124869	MBAS SM5540 C	SM5540 C	NO PREP	MBAS (mol wt 320)	61-73-4	FALSE	FALSE	0.261	0.0500	0.0500	mg/L	FALSE	NA	1					DAB			H3														

LNOTE

QUALIFIEI	DESCRIPTION
H3	Sample was received and analyzed past holding time.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPDATE	ANADATE	BATCH	METHODCODE	METHOD NAME	PREPNAME	ANALYTE	CASNUMBER	SURROGATE	TIC	RESULT	DL	RL	UNITS	RPToMDL	BASIS	DILUTION
TestAmerica Buffalo	9L29024-BLK1	Blank	Water	12/30/2009 06:00:00	12/30/2009 08:45:33	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	1.8	0.76	10	mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-BLK1	Blank	Water	12/30/2009 06:00:00	12/30/2009 08:45:33	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	109			mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-BS1	LCS	Water	12/30/2009 06:00:00	12/30/2009 09:25:08	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	23.4	0.76	10	mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-BS1	LCS	Water	12/30/2009 06:00:00	12/30/2009 09:25:08	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	108			mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-MS1	Matrix Spike	Water	12/30/2009 06:00:00	12/30/2009 15:19:08	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	14.7	0.76	10	mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-MS1	Matrix Spike	Water	12/30/2009 06:00:00	12/30/2009 15:19:08	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	70.6			mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-MSD1	Matrix Spike Dup	Water	12/30/2009 06:00:00	12/30/2009 15:34:25	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	9.68	0.76	10	mg/L	TRUE	NA	1
TestAmerica Buffalo	9L29024-MSD1	Matrix Spike Dup	Water	12/30/2009 06:00:00	12/30/2009 15:34:25	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	50.5			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	5.00			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	10.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	20.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	30.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	60.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	40.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	80.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:24:32	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	50.0			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	38.7			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	32.9			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	11.9			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	42.9			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	58.9			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	50.8			mg/L	TRUE	NA	1
TestAmerica Buffalo	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00	05/26/2009 14:39:51	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	20.8			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV1	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 08:30:27	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	20.8			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV2	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 10:12:52	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	18.8			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV3	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 11:55:16	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	20.1			mg/L	TRUE	NA	1

CLIENT	PROJECT	PROJECTNUM	LabName	SAMPLENAME	LABSAMPID	MATRIX	RPTMATRIX	SAMPDATE	PREPDATE	ANADATE	BATCH	METHODCODE	METHODNA	PREPNAME	ANALYTE	CASNUMBER	SURROGAT	TIC	Result	DL	RL	UNITS	RPTtoMDL	BASIS	DILUTION	SPIKELEVEL	RECOVERY	UPPERCL	LOWERCL	ANALYST	PSOLIDS	LNOTE	ANOTE	LATITUDE	LONGITUDE	sComment	SNOTE1	SNOTE2	SNOTE3	SNOTE4	SNOTE5	SNOTE6	SNOTE7	SNOTE8	SNOTE9	SNOTE10	ANALYTEORDER
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 09:10:02	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	ND	7.8	100	mg/L	TRUE	NA	10					GFD		D08, P9															3
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 09:10:02	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	0.00			mg/L	TRUE	NA	10	100		130	66	GFD		D08, P9	Z3														1
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	Water	12/21/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 09:40:18	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	1.3	0.78	10	mg/L	TRUE	NA	1					GFD		P9	J, B														3
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	Water	12/21/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 09:40:18	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	73.9			mg/L	TRUE	NA	1	100	78	130	66	GFD		P9															1
…ica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	FAYETTE COUNTY BRINE	RSL1004-03	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 10:28:03	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	8.9	0.78	10	mg/L	TRUE	NA	1					GFD		P9	J, B														3
… Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	FAYETTE COUNTY BRINE	RSL1004-03	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 10:28:03	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	86.0			mg/L	TRUE	NA	1	100	86	130	66	GFD		P9															1
… Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WESTMORELAND FLOW BACK	RSL1004-04	Water	Water	12/21/2009 10:30:00	12/30/2009 06:00:00	12/30/2009 10:58:30	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	6.7	0.78	10	mg/L	TRUE	NA	1					GFD		P9	J, B														3
… Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	WESTMORELAND FLOW BACK	RSL1004-04	Water	Water	12/21/2009 10:30:00	12/30/2009 06:00:00	12/30/2009 10:58:30	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	83.4			mg/L	TRUE	NA	1	100	83	130	66	GFD		P9															1
…ca Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	GREENE COUNTY FLOW BACK 1	RSL1004-05	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 15:03:52	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	9.6	3.6	50	mg/L	TRUE	NA	5					GFD		D08, P9, C7	J, B														3
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	GREENE COUNTY FLOW BACK 1	RSL1004-05	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 15:03:52	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	109			mg/L	TRUE	NA	5	100	109	130	66	GFD		D08, P9, C7															1
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 12:10:28	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	3.6	0.78	10	mg/L	TRUE	NA	1					GFD		P9, C7	J, B														3
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 12:10:28	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	85.4			mg/L	TRUE	NA	1	100	85	130	66	GFD		P9, C7	Z														1
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 12:40:57	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	2.7	0.78	10	mg/L	TRUE	NA	1					GFD		P9, C7	J, B														3
TestAmerica Pittsburgh	367970 CIA	CBL230421	TestAmerica Buffalo	GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	Water	12/22/2009 10:00:00	12/30/2009 06:00:00	12/30/2009 12:40:57	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	57.3			mg/L	TRUE	NA	1	100	57	130	66	GFD		P9, C7	Z														1

QCDATA

SOURCEID	SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	AI
								GFD			J	
		100	109		130	66		GFD				
		20.0	117		150	50	50	GFD			B	
		100	108		130	66		GFD				
RSL1004-02	1.34	20.0	67		150	50	50	GFD		P9, C7	B	
RSL1004-02		100	71		130	66		GFD		P9, C7		
RSL1004-02	1.34	20.0	42	41	150	50	50	GFD		P9, C7	M8, J, B	
RSL1004-02		100	51		130	66		GFD		P9, C7	Z6	
		5.00	100					tch				
		5.00	100					tch				
		5.00	100					tch				
		5.00	100					tch				
		5.00	100					tch				
		20.0	100					tch				
		5.00	100					tch				
		10.0	100					tch				
		10.0	100					tch				
		10.0	100					tch				
		10.0	100					tch				
		10.0	100					tch				
		30.0	100					tch				
		10.0	100					tch				
		20.0	100					tch				
		20.0	100					tch				
		20.0	100					tch				
		20.0	100					tch				
		20.0	100					tch				
		40.0	100					tch				
		20.0	100					tch				
		30.0	100					tch				
		30.0	100					tch				
		30.0	100					tch				
		30.0	100					tch				
		30.0	100					tch				
		30.0	100					tch				
		50.0	100					tch				
		30.0	100					tch				
		40.0	100					tch				
		40.0	100					tch				
		40.0	100					tch				
		40.0	100					tch				
		40.0	100					tch				
		60.0	100					tch				
		40.0	100					tch				
		50.0	100					tch				
		50.0	100					tch				
		50.0	100					tch				
		50.0	100					tch				
		50.0	100					tch				
		80.0	100					tch				
		50.0	100					tch				
		40.0	97		200	0		tch				
		30.0	110		200	0		tch				
		10.0	119		200	0		tch				
		40.0	107		200	0		tch				
		50.0	118		200	0		tch				
		50.0	102		200	0		tch				
		20.0	104		200	0		tch				
		20.0	104		115	85		GFD				
		20.0	94		115	85		GFD				
		20.0	100		115	85		tchro				

OURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	ANALYTEORDER
							GFD			J	3
	100	109		130	66		GFD				7
	20.0	117		150	50	50	GFD			B	3
	100	108		130	66		GFD				7
1.34	20.0	67		150	50	50	GFD		P9, C7	B	3
	100	71		130	66		GFD		P9, C7		7
1.34	20.0	42	41	150	50	50	GFD		P9, C7	M8, J, B	3
	100	51		130	66		GFD		P9, C7	Z6	7
	5.00	100					tch				1
	5.00	100					tch				2
	5.00	100					tch				3
	5.00	100					tch				4
	5.00	100					tch				5
	20.0	100					tch				7
	5.00	100					tch				7
	10.0	100					tch				1
	10.0	100					tch				2
	10.0	100					tch				3
	10.0	100					tch				4
	10.0	100					tch				5
	30.0	100					tch				7
	10.0	100					tch				7
	20.0	100					tch				1
	20.0	100					tch				2
	20.0	100					tch				3
	20.0	100					tch				4
	20.0	100					tch				5
	40.0	100					tch				7
	20.0	100					tch				7
	30.0	100					tch				1
	30.0	100					tch				2
	30.0	100					tch				3
	30.0	100					tch				4
	30.0	100					tch				5
	50.0	100					tch				7
	30.0	100					tch				7
	40.0	100					tch				1
	40.0	100					tch				2
	40.0	100					tch				3
	40.0	100					tch				4
	40.0	100					tch				5
	60.0	100					tch				7
	40.0	100					tch				7
	50.0	100					tch				1
	50.0	100					tch				2
	50.0	100					tch				3
	50.0	100					tch				4
	50.0	100					tch				5
	80.0	100					tch				7
	50.0	100					tch				7
	40.0	97		200	0		tch				1
	30.0	110		200	0		tch				2
	10.0	119		200	0		tch				3
	40.0	107		200	0		tch				4
	50.0	118		200	0		tch				5
	50.0	102		200	0		tch				7
	20.0	104		200	0		tch				7
	20.0	104		115	85		GFD				3
	20.0	94		115	85		GFD				3
	20.0	100		115	85		tchro				3

QCDATA

LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPDATE	ANADATE	BATCH	METHODCODE	METHOD NAME	PREPNAME	ANALYTE	CASNUMBER	SURROGATE	TIC	RESULT	DL	RL	UNITS	RPToMDL	BASIS	DILUTION
TestAmerica Buffalo	RL93102-CCV4	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 13:11:23	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	12.8			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV5	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 14:12:54	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	20.7			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV6	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 14:44:09	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	21.1			mg/L	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV7	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 15:49:40	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	FALSE	FALSE	13.7			mg/L	TRUE	NA	1

QCDATA

SOURCEID	SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	A
		20.0	64		115	85		tchro			C7	
		20.0	104		115	85		tchro				
		20.0	106		115	85		tchro				
		20.0	69		115	85		tchro			C4	

QCDATA

SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	ANALYTEORDER
	20.0	64		115	85		tchro			C7	3
	20.0	104		115	85		tchro				3
	20.0	106		115	85		tchro				3
	20.0	69		115	85		tchro			C4	3

LNOTE

QUALIFIER	DESCRIPTION
B	Analyte was detected in the associated Method Blank.
C4	Calibration Verification recovery was below the method control limit for this analyte.
C7	Calibration Verification recovery was below the method control limit due to matrix interference carried over from analytical samples. The matrix interference was confirmed by reanalysis with the same result.
D08	Dilution required due to high concentration of target analyte(s)
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
P9	This analyte has been shown to degrade upon preservation with HCl and cannot accurately be quantitated.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Z6	Surrogate recovery was below acceptance limits.

Atlas Exh 3A1 Total Fluid Production - redacted

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/201														To a (A)
XXX-REDACTED-XXX	23707	1	1	0	1	0.8	8	0.8	1	0	1	1	0.8	0.8	0.8	0	1	1	0	8	8	8	8	1	1	1	1	8	8	8	0	1	1	23.70	99
XXX-REDACTED-XXX	23649	6	6	6	5	6	6	6	4	6	8	11	4	4	4	5	6	5	7	5	5	5	5	6	6	5	6	6	6	5	6	6	177.00	434
XXX-REDACTED-XXX	23704	0	1	0	0	0.8	8	0.8	0	0	1	0	0.4	0.4	0.4	0	1	0	0	8	8	8	0	0	1	0	4	4	4	0	1	0	12.20	51
XXX-REDACTED-XXX	23938	26	29	26	26	27	7	27	26	29	23	0	29	29	29	28	26	26	7	8	8	8	5	6	4	5	9	9	9	6		8	810.00	02
XXX-REDACTED-XXX	25901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22971	9	11	2	1	11	1	11	12	11	11	10	11	11	11	11	11	11	1	0	0	0	10	0	3	7	8	8	8	12	12	2	307.00	12,894
XXX-REDACTED-XXX	23142	1.1	0	0	1.1	8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0.4	4	4	0	0	0	10.20	428
XXX-REDACTED-XXX	23363	0	0	0	1	3	3	3	7	5	2	2	7	7	7	2	1	3	1	2	2	2	2	1	2		0	0	0	1	0	0	91.00	3,822
XXX-REDACTED-XXX	22536	38	34	38	36	5	35	35	8	34	40	33	37	37	37	34	33	36	36	37	37	37	34	34	30	30	30	30	30	36	31	36	1,078.00	45,276
XXX-REDACTED-XXX	22666	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.00	126
XXX-REDACTED-XXX	24403	8	5	0	11	13	13	13	1	13	0	9	15	15	15	1	1	1	9	15	15	15	0	13	0	5	22	22	22	1	4	8	285.00	11,970
XXX-REDACTED-XXX	24405	24	20	22	24	23	23	23	25	22	25	19	24	24	24	2	22	23	24	23	23	23	21	24	17	17	23	23	23	23	23	25	701.00	29,442
XXX-REDACTED-XXX	22056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22058	0	1.2	0	1.2	1.1	1.1	1.1	0	0	0	1.1	0.4	0.4	0.4	1.1	1.1	1.1	0	1.1	1.1	1.1	1.1	0	0	2.3	1.1	0.9	0.9	0.9	1	1.1	1.1	23.90	1,004
XXX-REDACTED-XXX	22063	18.6	17.8	13.5	4.6	20.8	20.8	20.8	8	20.5	16	13.7	16.7	16.7	16.7	13	20.5	8	15.5	16.1	16.1	16.1	21.7	27.3	16	18.2	3.4	3.4	3.4	18.3	21.7	13.7	477.60	20,059
XXX-REDACTED-XXX	23361	0	1.1	0	1.1	0.4	0.4	0.4	1.1	0	1.1	0	0	0	0	0	1.1	1.1	0	0.4	0.4	0.4	0	1.1	0	1.1	1.1	1.1	1.1	0	1.1	1.1	16.70	701
XXX-REDACTED-XXX	23544	11.4	21.6	12.5	37.6	19	19	19	18.2	9.1	14.8	23.9	18.6	18.6	18.6	17.8	36.5	26	21.7	19.3	19.3	19.3	18.2	11.3	4.6	17.2	28.5	28.5	28.5	20.5	9.1	8	596.20	25,040
XXX-REDACTED-XXX	24048	21.6	18.2	33.1	28.5	0.8	0.8	0.8	33.1	28.5	13.8	1.1	23.2	23.2	23.2	1.1	6.8	2	0	1.2	1.2	1.2	18.2	17.1	10.3	17.9	32.9	32.9	32.9	6.8	0	0	432.40	18,161
XXX-REDACTED-XXX	25370	8	10	9	5	22	22	22	5	8	7	8	7	7	7	9	7	1.1	9	8	8	8	9	25	19	18	15	15	15	13	8	4.1	338.20	14,204
XXX-REDACTED-XXX	23694	12.5	19.4	11.4	11.4	8.7	8.7	8.7	16.4	11.4	17	13.7	11.4	11.4	11.4	12.5	12.5	9	14.2	11	11	11	13.7	16	13.7	14.8	14.8	14.8	14.8	8	17.1	9	391.40	16,439
XXX-REDACTED-XXX	23246	0	2	0	0	1.6	1.6	1.6	0	5	0	1	0	0	0	0	0	12.5	0	0	0	0	0	0	0	0	1	1	1	0	0	14.2	42.50	1,785
XXX-REDACTED-XXX	23387	1	0	1	0	0.3	0.3	0.3	0	0	0	0	1	1	1	0	0	1	0	1	1	1	0	0	0	0	1	1	1	1	0	0	13.90	584
XXX-REDACTED-XXX	23937	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24301	10	8	3	0	3	3	3	2	9	5	9	6	6	6	9	5	7	5	8	8	8	7	6	23	9	7	7	7	7	7	9	212.00	8,904
XXX-REDACTED-XXX	23676	22	24	8	19	22	22	22	17	22	22	47	22	22	22	132	200	22	33	36	36	36	38	30	9	25	32	32	32	21	11	14	1,052.00	44,184
XXX-REDACTED-XXX	23675	19	21	2	6	9	9	9	10	11	48	18	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198.00	8,316
XXX-REDACTED-XXX	22705	26	30	36	36	38	38	38	33	31	36	33	32	32	32	33	30	34	31	30	30	30	31	9	33	33	4.1	4.1	4.1	27	30	20	884.30	37,141
XXX-REDACTED-XXX	22777	1	0	0	0	0	0	0	8	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	16.00	672
XXX-REDACTED-XXX	22974	8	26	13	24	58	58	58	18	21	18	27	85	85	85	18	14	18	10	25.9	25.9	25.9	22	5	32	5	18	18	18	6	0	9	854.70	35,897
XXX-REDACTED-XXX	22785	17	17	17	17	43	43	43	54	17	17	18	33	33	33	22	17	8	18	15.2	15.2	15.2	17	18	9	17	17.3	17.3	17.3	0	24	10	659.50	27,699
XXX-REDACTED-XXX	25037	23	26	24	27	54	54	54	32	21	24	33	36	36	36	36	27	24	23	27	27	27	24	28	27	15	19	19	19	22	22	28	894.00	37,548
XXX-REDACTED-XXX	22701	27	21	24	35	28	28	28	26	24	31	33	27	27	27	26	24	22	31	25	25	25	26	0	34	25	30.3	30.3	30.3	29	26	25	819.90	34,436
XXX-REDACTED-XXX	21729	26	18	17	7	16	16	16	6	9	20	0	13	13	13	3	2	7	30	9	9	9	22	10	14	3	20	20	20	19	15	19	421.00	17,682
XXX-REDACTED-XXX	24075	1	0	1	0	0	0	0	2	0	1	0	1	1	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	12.00	504
XXX-REDACTED-XXX	24157	53	11	8	7	3	3	3	1	8	1	81	11	11	11	15	60	2	14	3.67	3.67	3.67	52	2	2	12	10	10	10	0	1	62	475.01	19,950
XXX-REDACTED-XXX	24302	18	18	14	16	17	17	17	16	22	14	16	42	42	42	22	17	15	17	17.34	17.34	17.34	14	17	17	14	18	18	18	16	14	17	597.02	25,075
XXX-REDACTED-XXX	25213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25583	28	15	12	16	20	20	20	16	29	24	7	24	24	24	24	27	35	41	23	23	23	21	25	11	11	12	12	12	13	13	16	621.00	26,082
XXX-REDACTED-XXX	25584	4	0	2	0	0	0	14	0	3	2	0	0	2	13	4	3	3	0	8	38	31	11	19	9	7	2	0	50	3	25	3	256.00	10,752
XXX-REDACTED-XXX	24079	7	10	10	10	28	28	28	10	7	10	10	29	29	29	1	7	10	10	28	28	28	7	10	10	6	9.6	9.6	9.6	7	10	2	437.80	18,388
XXX-REDACTED-XXX	23982	11	10	10	10	9	9	9	42	10	9	9	8	8	8	8	8	9	9	9	9	9	7	8	9	0	0	0	0	0	0	0	247.00	10,374
XXX-REDACTED-XXX	22831	20	15	15	11	14	14	14	15	16	13	13	14	14	14	16	7	5	13.9	14	14	14	11	15	15	9	14	14	14	14	18	10	420.90	17,678
XXX-REDACTED-XXX	21561	21	24	19	20	19	19	19	22	23	21	17	21	21	21	18	1	0	0	25	25	25	18	23	22	23	22	22	22	22	1	22	578.00	24,276
XXX-REDACTED-XXX	26018	31	31	27	26	29	29	29	23	29	22	26	26	26	26	26	26	28	25	31	31	31	22	30	31	33	33	33	33	29	21	24	867.00	36,414
XXX-REDACTED-XXX	24408	24	21	21	18	22	22	22	23	13	26	24	21	21	21	9	11	24	9	19	19	19	13	21	14	27	17	17	17	22	9	25	591.00	24,822
XXX-REDACTED-XXX	23432	17	14	10	13	18	18	18	21	18	17	18	17	17	17	16	30	16	16	16	16	16	21	11	6	21	15	15	15	11	13	17		21,168
XXX-REDACTED-XXX	23614	13	14	14	10	10	10	10	10	11	14	11	11	11	11	21	11	13	11	14	14	14	13	11	18	14	11	11	11	10	10	13	380.00	15,960
XXX-REDACTED-XXX	25857	22	19	24	28	26	26	26	24	24	21	0	0	0	0	32	33	34	29	32	32	32	24	29	30	19	25	25	25	27	22	23	713.00	29,946
XXX-REDACTED-XXX	24893	48	43	50	42	57	46	43	43	47	46	48	46	46	39	47	47	17	50	46	44	41	48	46	46	47	49	47	41	44	47	46	1,397.00	58,674
XXX-REDACTED-XXX	24894	0	0	310	142	96	96	96	105	99	91	91	80	80	80	63	80	78	10	0	0	0	0	0	0	0	0	0	0	0	0	0	1,597.00	67,074
XXX-REDACTED-XXX	24860	33	14	36	34	44	34	34	32	34	31	34	31	34	31	33	32	26	35	32	31	30	36	31	32	27	31	33	33	32	33	33	996.00	41,832
XXX-REDACTED-XXX	24861	48	51	49	42	0	0	0	0	0	0	0	0	0	0	52	7	55	42	30	30	30	30	32	30	29	24	24	24	27	29	29	714.00	29,988
XXX-REDACTED-XXX	24862	9	13	6	8	6	6	6	3	0	0	0	2	2	2	15	6	2	0	2	2	2	3	2	5	2	2	2	2	2	1	6	119.00	4,998
XXX-REDACTED-XXX	25005	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	29.00	1,218
XXX-REDACTED-XXX	24863	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23300	3	3	3	6	2	2	2	5	3	3	3	2	2	2	2	3	1	2	2	2	2	5	2	2	3	3	3	3	3	3	2	84.00	3,528
XXX-REDACTED-XXX	23371	5	7	7	5	5	5	5	3	5	3	3	3	3	3	3	5	1	3	1	1	1	6	3	2	2	6	6	6	3	3	5	119.00	4,998
XXX-REDACTED-XXX	23221	5	5	1	2	3	3	3	3	3	1	0	0	0	0	0	2	1	0	0	0	0	1	2	2	3	3	3	3	2	3	1	55.00	2,310
XXX-REDACTED-XXX	23223	21	15	15	14	22	14	11	10	14	9	9	10	17	14	13	14	14	15	18	16	10	14	13	13	15	14	19	10	10	13	15	431.00	18,102
XXX-REDACTED-XXX	23225	6	5	5	5	1	1	1	8	1	6	3	5	5	5	3	3	2	0	2	2	2	3	3	5	5	1	1	1	2	5	5	102.00	4,284
XXX-REDACTED-XXX	23226	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.00	210
XXX-REDACTED-XXX	23228	3	5	5	2	1	1	1	5	1	5	3	1	1	1	3	3	1	1	2	2	2	2	2	6	3	2	2	2	2	3	3	76.00	3,192
XXX-REDACTED-XXX	24857	49	35	49	48	54	47	42	46	46	43	47	45	47	38	46	47	31	44	48	46	41	49	49	30	30	47	47	42	50	49	48	1,380.00	57,960
XXX-REDACTED-XXX	25119	6	5	3	3	5	5	5	8	3	5	3	2	2	2	2	3	1	5	2	2	2	5	1	1	3	4	4	4	3	2	2	103.00	4,326
XXX-REDACTED-XXX	25166	5	1	1.1	2	1	1	1	2	2	2	3	2	2	2	2	1	3	1	1	1	1	1	1	2	2	1	1	1	2	3	3	54.10	2,272
XXX-REDACTED-XXX	24690	10	16	9	0.5	11	11	11	10	14	11	8	12	12	12	10	5	11	6	11	11	11	10	8	13	11	9	9	9	9	9	11	310.50	13,041
XXX-REDACTED-XXX	24691	26	25	23	27	23	23	23	20	24	23	22	20	20	20	23	16	18	21	16	16	16	11	23	17	17	18	18	18	18	18	20	623.00	26,166
XXX-REDACTED-XXX	23942	0	0	0	1	1	1	1	0	1	0	0	1	1	1	0	1	0	0	1	1	1	0	1	0	0	1	1	1	0	1	1	18.00	756
XXX-REDACTED-XXX	23943	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23944	11	16	14	14	1	1	1	13	1	9	5	13	13	13	18	18	16	16	15	15	15	14	15	14	14	13	13	13	14	13	14	375.00	15,750
XXX-REDACTED-XXX	25079	36	33	33	45	30	30	30	30	28	30	25	31	31	31	28	21	39	28	30	30	30	30	25	27	25	28	28	28	13	14	13		36,960
XXX-REDACTED-XXX	22905	0	0	1	0	0	0	0	0	0	0	2	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0.66	0.66	0.66	0	0	0	9.98	419
FAIRBANK ROD & GUN CLUB #3	23639	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.00	210
FAIRBAK ROD & GUN CLUN #6	23642	33	33	18	20	21	21	21	26	20	18	29	29	29	29	35	26	31	22	30	30	30	31	34	23	23	23	23	23	25	35	26	817.00	34,314
XXX-REDACTED-XXX	25267	33	33	27	21	33	33	33	27	24	24	25	33	33	33	22	24	23	15	25	25	25	21	23	24	22	22	22	22	22	22	22	793.00	33,306
XXX-REDACTED-XXX	26229	14	14	11	11	13	14	10	11	10	11	11	11	11	10	14	7	10	10	11	10	11	10	11	11	7	17	9	7	15	13	10	345.00	14,490
XXX-REDACTED-XXX	25870	19	18	16	16	17	17	17	16	16	15	15	15	15	15	16	14	15	15	16	16	16	15	16	2	21	19	19	19	0	16	16	478.00	20,076
XXX-REDACTED-XXX	21947	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	6.00	252
XXX-REDACTED-XXX	21956	6	16	11	9	1.5	1.5	1.5	5	8	15	0	10	10	10	9	1	0	0	11	11	11	10	11	5	1	0	0	0	0	14.7	5	194.20	8,156
GAMELANDS #2	25727	13	13	12	17	14	14	14	19	8	11	11	15	15	15	11	19	6	14	19	19	19	14	7	17	7	6	6	6	12	17	8	398.00	16,716
GAME LANDS UT #1	25726	0	16	17	13	16	16	16	14	10	9	12	9	9	9	12	11	5	10	12	12	12	14	11	10	12	7	7	7	11	12	8	339.00	14,238
XXX-REDACTED-XXX	24046	11.4	8	13.5	9.1	12.2	12.2	12.2	10.1	10.3	10.3	18.2	13.7	13.7	13.7	6.9	15.2	10.4	12.7	17.7	17.7	17.7	11.4	4.6	4.6	13	10.6	10.6	10.6	11.4	12.6	11.4	367.70	15,443
XXX-REDACTED-XXX	25145	7	3	6	8	15	15	15	1	14	5	15	2	2	2	5	15	17	15	14	14	14	5	13	11	14	13	13	13	11	14	14	325.00	13,650
XXX-REDACTED-XXX	22970	0	0	1	0	0	0	0	1	1	0	1	2	2	2	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	1	1	18.00	756
XXX-REDACTED-XXX	22812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24496	15	18	11	6	10	10	10	15	16	15	0	12	12	12	6	10	10	19	7	7	7	11	8	9	8	10	10	10	8	10	10	322.00	13,524

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011	5/10/2011	5/11/2011	5/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	30304	3.51	3.51	3.51	3.51	3.12	3.12	3.12	3.51	3.51	3.51	2.34	3.51	3.51	3.51	3.51	2.34	2	3.51	2.34	2.34	2.34	3.51	2.51	3.51	4.68	2.73	2.73	2.73	2.34	3.51	2.34	95.77	4,022
XXX-REDACTED-XXX	23362	1.1	0	0	0	1.1	1.1	1.1	1.1	0	1.1	0	1.1	1.1	1.1	0	1.1	0	0	1.1	1.1	1.1	0	0	0	1.1	2.3	2.3	2.3	1.1	0	0	23.40	983
XXX-REDACTED-XXX	23617	18.2	25	26.2	22.8	24.34	24.34	24.34	21.7	27.4	23.9	22.8	25.47	25.47	25.47	29.7	23.9	22.8	22.8	22.8	22.8	22.8	26.2	19.4	26.2	22.8	22.8	22.8	22.8	20.5	23.9	20.5	732.93	30,783
XXX-REDACTED-XXX	24078	16	15	15	13	14	14	14	6	13	10	11	10	10	10	11	3	9	9	0	0	0	0	2	0	0	0	0	0	0	2	0	207.00	8,694
XXX-REDACTED-XXX	25282	18	20	27	23	22	22	22	19	18	23	18	19	19	19	14	20	18	20	18	18	18	18	19	19	19	19	19	19	32	0	11	590.00	24,780
XXX-REDACTED-XXX	25528	27	27	16	30	26	26	26	27	26	20	20	26	26	26	22	20	25	24	24	24	24	23	22	24	23	22	22	22	16	0	0	686.00	28,812
XXX-REDACTED-XXX	23672	10.3	18.2	21.7	13.9	14.8	14.8	14.8	8.9	15.9	14.8	15.5	16	16	16	12.5	16	16.5	13.7	16.1	16.1	16.1	17.1	17.1	11.4	10.3	14.4	14.4	14.4	18.5	12.5	14.8	463.50	19,467
XXX-REDACTED-XXX	21969	4.6	3.8	4.2	5.1	2.7	2.7	2.7	1.1	0.1	2.3	1.1	3	3	3	5.1	2.2	3.4	3.4	5.5	5.5	5.5	6.8	1.1	5.7	3.47	3.4	3.4	3.4	8	4.6	9.1	118.97	4,997
XXX-REDACTED-XXX	25060	0	0	52	26	15	15	15	0	14	21	43	0	0	0	44	50	18	0	20	20	20	21	0	0	11	34	34	34	31	0	0	538.00	22,596
XXX-REDACTED-XXX	23938	15	5	11	9	15	15	15	13	5	5	11	12	12	12	16	9	3.4	8.9	10	10	10	14	10	26	0	12	12	12	8	0	7	323.30	13,579
XXX-REDACTED-XXX	23339	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	5	0	0	0	0	15	0	29.00	1,218
XXX-REDACTED-XXX	24492	7	7	7	7	9	9	9	2	1	1	1	9	9	9	5	9	11	10	8	8	8	3	1	3	9	0.38	0.38	0.38	0	2	0	165.14	6,936
XXX-REDACTED-XXX	24493	7	7	7	7	8	8	8	9	8	8	8	9	9	9	6	9	8	10	10	10	10	10	8	9	7	9	9	9	7	0	6	249.00	10,458
XXX-REDACTED-XXX	24494	36	27	15	8	3	3	3	2	2	3	2	11	11	11	38	26	21	13	11	11	11	10	10	11	0	5	5	5	7	7	24	352.00	14,784
XXX-REDACTED-XXX	24035	14	14	10	13	14	14	14	13	13	12	17	12	12	12	13	14	11	17	13	13	13	18	13	0	22	22	22	22	17	19	17	450.00	18,900
XXX-REDACTED-XXX	24695	19	20	14	18	17	17	17	20	17	17	21	17	17	17	14	18	17	15	21	21	21	17	21	16	0	0	0	0	18	18	18	483.00	20,286
XXX-REDACTED-XXX	22968	9	7	9	8	8	8	8	9	9	8	8	8	8	8	9	0	8	8	8	8	8	9	7	0	0	3	3	3	0	15	11	215.00	9,030
XXX-REDACTED-XXX	23647	5	7	7	6	6.3	6.3	6.3	7	5	5	6	6	6	6	7	10	2	7	6	6	6	2.6	9	8	7	6	6	6	5	11	2	191.50	8,043
XXX-REDACTED-XXX	30418	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22460	1	0	1	0	1	1	1	0	1	0	0	1	1	1	0	1	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	14.00	588
XXX-REDACTED-XXX	22462	1	0	0	1	0.33	0.33	0.33	0	0	1	0	0.33	0.33	0.33	0	0	1	0	0.34	0.34	0.34	0	1	0	0	1	1	1	0	1	1	13.00	546
XXX-REDACTED-XXX	24360	0	24	25	32	29	29	29	13	30	30	0	20	20	20	29	29	26	29	27	27	27	25	25	25	25	27	27	27	25	1	26	728.00	30,576
XXX-REDACTED-XXX	24310	3	0	9	3	5	3	3	4	6	3	4	3	1	3	5	4	3	5	2	2	4	4	3	4	2	3	1	2	2	25	5	126.00	5,292
XXX-REDACTED-XXX	24311	3	0	4	3	10	3	4	7	1	0	6	1	4	3	6	3	3	5	0	3	4	4	5	3	2	3	4	9	9	7	5	124.00	5,208
XXX-REDACTED-XXX	24312	56	64	52	57	54	54	54	47	66	55	25	48	48	48	50	48	48	48	20	20	20	52	48	41	43	34	34	34	34	3	39	1,344.00	56,448
XXX-REDACTED-XXX	24994	3	0	1	1	2	1	3	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	1	1	43	2	66.00	2,772
XXX-REDACTED-XXX	24308	30	38	21	14	35	35	35	30	35	30	27	27	27	27	30	25	27	25	23	23	23	25	21	29	24	24	24	24	24	0	25	807.00	33,894
XXX-REDACTED-XXX	23526	9.1	1.1	9.4	3.4	6.6	6.6	6.6	8	8.4	8	5.7	15.2	15.2	15.2	14.8	10.3	10.4	10	7.5	7.5	7.5	12.5	14.8	14.2	12.5	12	12	12	14.8	24	9.1	324.40	13,625
XXX-REDACTED-XXX	23240	16	6	15	15	18	18	18	16	14	11	18	14	14	14	14	5	8.3	16	8	8	8	14	11	16	11	10	10	10	15	11.4	10	392.70	16,493
XXX-REDACTED-XXX	23241	7	9	11	11	9	9	9	10	15	10	11	10	10	10	23	9	5.7	10.3	10	10	10	13	9	13	13	12	12	12	13	13	10	339.00	14,238
XXX-REDACTED-XXX	24972	13	11	11	13	12	12	12	16	11	11	10	12	12	12	10	14	4.6	15.2	14	14	14	13	13	17	27	13	13	13	10	10	18	400.80	16,834
XXX-REDACTED-XXX	24973	13	10	13	13	12	12	12	17	6	10	10	13	13	13	11	7	6.8	11.4	10	10	10	18	11	11	10	12	12	12	11	11	8	349.20	14,666
XXX-REDACTED-XXX	24974	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0	1	0.5	0	0.5	0.5	0.5	0	0	2	10.00	420
XXX-REDACTED-XXX	23078	7	8	15	11	9	9	9	18	21	7	11	9	9	9	12	9	9	12	10	10	10	11	10	10	8	10	10	10	9	12	160	474.00	19,908
XXX-REDACTED-XXX	25106	9	7	3	7	7	9	10	10	127	5	12	9	10	10	5	11	9	9	7	13	11	6	6	10	8	9	10	8	11	10	10	388.00	16,296
XXX-REDACTED-XXX	25107	2	0	1	0	1	1	1	1	1	1	0	1	1	1	0	2	1	0	2	2	2	1	2	0	0	1	1	1	1	0	1	29.00	1,218
XXX-REDACTED-XXX	23865	13	18	16	16	17	17	17	18	18	16	13	16	16	16	14	17	16	16	16	16	16	18	18	18	18	19	19	19	17	17	17	518.00	21,756
XXX-REDACTED-XXX	23925	11	14	8	13	17	17	17	13	11	11	13	12	12	12	9	8	11	6	11	11	11	10	16	9	9	11	11	11	9	10	11	355.00	14,910
XXX-REDACTED-XXX	25674	9	9	9	9	9	9	9	11	9	11	10	9	9	9	9	9	11	13	11	11	11	10	6	11	13	11	11	11	11	10	9	309.00	12,978
XXX-REDACTED-XXX	23106	8	9	7	8	9	9	9	9	8	2	0	8	8	8	8	9	7	8	8	8	8	8	0	0	0	13	13	13	8	0	0	213.00	8,946
XXX-REDACTED-XXX	24043	41	48	43	49	51	51	51	38	45	45	44	131	131	131	40	44	40	44	62	62	62	34	50	43	40	43.6	43.6	43.6	31	40	33	1,654.80	69,502
XXX-REDACTED-XXX	24254	5	18	14	11	13	13	13	14	10	14	14	10	10	10	11	24	14	11	12	12	12	12	18	3	3	11	11	11	16	18	16	384.00	16,128
XXX-REDACTED-XXX	25616	3	2	2	2	2	2	0	4	2	2	2	1	1	3	2	3	2	2	1	3	2	3	2	2	2	1	0	1	2	2.3	2	60.30	2,533
XXX-REDACTED-XXX	25605	28	26	28	29	18	18	18	24	30	29	31	29	29	29	1	16	30	29	32	32	32	23	23	25	29	31	31	31	28	22	22	803.00	33,726
XXX-REDACTED-XXX	24937	75	68	67	71	65	65	65	70	66	76	68	80	80	80	66	71	66	68	64	64	64	62	67	66	60	71	71	71	64	49	66	2,106.00	88,452
XXX-REDACTED-XXX	24077	16	14	13	11	13	13	13	11	19	13	15	13	13	13	11	11	13	15	13	13	13	8	14	15	16	14	14	14	13	9	15	411.00	17,262
XXX-REDACTED-XXX	23652	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23653	9	10	8	10	9	9	9	9	8	9	10	10	10	10	9	8	9	9	9	9	9	8	9	10	9	9	9	9	9	8	9	281.00	11,802
XXX-REDACTED-XXX	24224	0	1	0	0	1	1	1	0	0	0	0	2	2	2	1	0	1	0	1	1	1	0	0	1	0	0	0	0	0	0	2	18.00	756
XXX-REDACTED-XXX	24189	11	8	16	3	15	15	15	9	14	11	0	11	11	11	14	10	15	13	13	13	13	14	11	1	14	12	12	12	11	14	15	357.00	14,994
XXX-REDACTED-XXX	24838	11	19	11	16	13	13	13	0	19	7	9	11	11	11	8	3	11	13	8	8	8	8	11	11	7	11	11	11	14	9	13	329.00	13,818
XXX-REDACTED-XXX	20438	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	17.00	714
XXX-REDACTED-XXX	23391	0	0	1	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	1	1	1	1	1	0	1	13.00	546
XXX-REDACTED-XXX	25758	30	26	23	26	24	24	24	20	24	21	29	67	67	67	25	24	22	25	80	80	80	24	28	20	24	24	24	24	16	26	25	1,043.00	43,806
XXX-REDACTED-XXX	24155	1.1	0	0	1.1	0	0	0	0	0	0	0	0	0	0	1.1	0	0	1.1	0	0	0	0	0	1.1	0	0	0	0	0	1.1	0	6.60	277
XXX-REDACTED-XXX	22699	0	1	2	1	3	3	3	2	1	3	0	3	3	3	3	2	3	3	0	0	0	4	2	2	6	5	5	5	5	0	3	78.00	3,192
XXX-REDACTED-XXX	30092	6	0	0	0	3	3	3	0	4	0	3	0	0	0	3	0	2	0	0	0	0	0	4	0	3	0	0	0	4	0	2	40.00	1,680
XXX-REDACTED-XXX	23934	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23122	0	0	1	0	0	0	0	0	0	1	0	0.34	0.34	0.34	1	0	0	0	0.34	0.34	0.34	0	0	0	15	0	0	0	0	0	0	20.04	842
XXX-REDACTED-XXX	23273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1.00	42
XXX-REDACTED-XXX	23274	16	0	0	0	9.67	9.67	9.67	16	0	21	0	0	0	0	0	0	17.1	0	7	7	7	0	26	30	2	1	1	1	1	33	2	0	216.11	9,077
XXX-REDACTED-XXX	23275	11	6	11	15	13	13	13	0	3	2	18	11	11	11	5	0	0	12.7	9	9	9	14	8	10	11	11	11	11	11	9	1	19	287.70	12,083
XXX-REDACTED-XXX	23276	18	0	26	260	0	0	0	0	0	19	0	0	0	0	9	17	5.9	8.9	14	14	14	11	5	14	9	11	11	11	15	11	6	509.80	21,412
XXX-REDACTED-XXX	23306	0	1	0	0	0	0	0	3	0	2	1	0	0	0	1	0	0	0	2	2	2	0	1	0	0	0	0	0	0	0	1	16.00	672
XXX-REDACTED-XXX	23308	0	1	0	25	0	0	0	1	0	1	0	1	1	1	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	1	0	36.00	1,512
XXX-REDACTED-XXX	23309	21	23	0	0	25	25	25	4	0	21	24	0	0	0	0	0	10	0	0	0	0	0	25	31	0	24	24	24	31	0	25	362.00	15,204
XXX-REDACTED-XXX	23310	1	0	0	1	1	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	0	1	17.00	714
XXX-REDACTED-XXX	25650	5	4	4	1	5	5	5	18	4	4	5	26	26	26	5	7	5	4	6	6	6	6	0	5	4	6.5	6.5	6.5	6	3	5	225.50	9,471
XXX-REDACTED-XXX	25651	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	21795	20	21	21	22	21	21	21	18	19	21	21	22	22	22	20	20	21	21	20	20	20	20	23	22	23	20	20	20	20	18	21	641.00	26,922
XXX-REDACTED-XXX	30425	12	16	27	18	23	9	21	18	18	25	25	21	21	21	21	21	21	21	18	9	7	21	0	0	16	27	27	25	27	25	25	586.00	24,612
XXX-REDACTED-XXX	25769	41	42	40	38	40	40	40	40	41	40	41	42	42	42	80	44	42	37	38	38	38	39	41	38	39	39	39	39	38	39	35	1,272.00	53,424
XXX-REDACTED-XXX	21543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25853	12.5	14.8	14.5	16.4	15.1	15.1	15.1	13.9	16	13.7	16	15.6	15.6	15.6	16	16	13.6	13.7	15.6	15.6	15.6	8.9	12.5	13.7	13.7	14.8	14.8	14.8	17.1	14	12.5	452.80	19,018
XXX-REDACTED-XXX	24045	0	0	0	6	0	0	0	1	0	0	0	6	6	6	0	0	0	1	11	11	11	5	8	10	9	7	7	7	11	22	22	167.00	7,014
XXX-REDACTED-XXX	22816	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	2	1	15.00	630
XXX-REDACTED-XXX	24040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23979	16	20	12	21	17	17	17	19	18	21	24	19	19	19	20	19	11	21	17	17	17	19	18	26	15	15	15	15	16	2	17	539.00	22,638
XXX-REDACTED-XXX	24036	1	2	1	1	3	3	3	3	3	4	3	4	4	4	3	4	4	3	4	4	4	6	6	4	6	0	0	0	40	20	3	150.00	6,300
XXX-REDACTED-XXX	21230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	21231	2	47	1	1	0	0	0	2	16	1	45	32	32	32	13	12	7	47	7	7	7	26	45	72	48	10	10	10	0	0	1	533.00	22,386
XXX-REDACTED-XXX	23887	0	15	2	7	2	2	2	0	5	7	9	13	13	13	11	3	11	7	7	7	7	10	16	10	9	6	6	6	7	5	9	226.00	9,492
XXX-REDACTED-XXX	24173	0	1	0	0	1	1	1	0	0	0	0	0	0	0	3	0	0	0	2	2	2	0	0	0	0	0.66	0.66	0.66	0	1	0	15.98	671
XXX-REDACTED-XXX	22827	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9.00	378
XXX-REDACTED-XXX	23382	46	43.1	36	48	42	42	42	27	54	52	54	52	52	52	58	52	41	44	47	47	47	44	34	34	29	46	46	46	31	41	25	1,354.10	56,872
XXX-REDACTED-XXX	23383	34	34	31	34	34	34	34	32	35	38	40	40	40	40	30	32	33	31	32	32	32	34	33	32	34	34	34	34	29	32	32	1,050.00	44,100
XXX-REDACTED-XXX	23384	32	29	0	25	40	40	40	42	42	44	36	44	44	44	43	28	26	28	29	29	29	27	28	26	25	27	27	27	26	36	36	999.00	41,958

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011	5/10/2011	5/11/2011	5/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	24174	16	10	2	0	1.3	1.3	1.3	18	18	16	22	16.67	16.67	16.67	15	14	16	12	16	16	16	10	14	15	12	15	15	15	15	14	14	399.91	16,796
XXX-REDACTED-XXX	24175	20	17	18	0	9.8	9.8	9.8	6	8	9	18	48	48	48	11	8	16	11	14	14	14	17	15	25	19	25	25	25	6	6	12	532.40	22,361
XXX-REDACTED-XXX	24083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	30424	17	34	34	21	25	18	16	23	27	37	41	34	34	37	39	37	37	30	30	30	30	34	37	27	7	41	18	34	34	34	30	927.00	38,934
XXX-REDACTED-XXX	25742	21	30	29	25	30	14	0	0	0	0	0	0	0	0	0	0	57	37	30	43	37	34	37	27	9	0	0	0	57	41	30	588.00	24,696
XXX-REDACTED-XXX	22132	9	9	4	7	41	41	41	7	9	8	8	3.3	3.3	3.3	4.5	7	20.5	9	6.3	6.3	6.3	9	7	8	9	9.5	9.5	9.5	6.8	6.8	6.8	335.70	14,099
XXX-REDACTED-XXX	24824	3	9	58	6	22	22	22	6	6	5	6	6	6	6	6	3	5	5	5	5	5	6	6	7	6	6	6	6	5	5	6	276.00	11,592
XXX-REDACTED-XXX	25027	0	45	8	14	15	15	15	7	16	3	26	14	14	14	0	0	17	12	7	7	7	0	7	7	11	3	3	3	0	10	14	314.00	13,188
XXX-REDACTED-XXX	24823	9	10	10	64	6	6	6	2	0	4	1	10	10	10	0	0	2	2	2	2	2	7	1	6	8	5	5	5	23	0	8	226.00	9,492
XXX-REDACTED-XXX	25026	23	27	15	20	21	21	21	12	15	16	17	7	7	7	0	0	27	20	17	17	17	0	3	5	3	22	22	22	0	0	0	404.00	16,968
XXX-REDACTED-XXX	21626	0	0	0	0	1	1	1	20	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.00	1,176
XXX-REDACTED-XXX	23184	0	1	1	0	2	2	2	5	1	3	1	21	21	21	6	1	5	2	2	2	2	2	1	3	0	0	0	0	0	0	0	107.00	4,494
XXX-REDACTED-XXX	25235	11	10	10	9	10	10	10	96	9	11	11	10	10	10	10	29	11.4	0	12	12	12	7	9	12	8	0	0	0	11	2	0	362.40	15,221
XXX-REDACTED-XXX	24295	4.6	11.4	10.3	12.5	11	11	11	11.4	10.3	9.1	11.4	8.4	8.4	8.4	10.3	10.3	11.4	10.3	10.5	10.5	10.5	5.2	10.3	9.1	10.3	11	11	11	10.3	9.1	10.3	310.60	13,045
XXX-REDACTED-XXX	25304	32	32	31	31	31	31	31	30	28	30	32	29	29	29	29	29	29	28	29	29	29	29	28	29	29	26	26	26	26	29	26	902.00	37,884
XXX-REDACTED-XXX	23700	1	0	10	12	13	13	13	13	9	12	6	7.5	7.5	7.5	13	14	12	14	12	12	12	12	11	12	8	5	5	5	12	12	10	305.50	12,831
XXX-REDACTED-XXX	23741	25	23	20	25	23	23	23	22	21	21	22	24	24	24	24	22	19	22	20	20	20	21	21	23	12	22	22	22	15	10	11	646.00	27,132
XXX-REDACTED-XXX	24463	58	62	60	54	59	59	59	46	62	55	48	45	45	45	52	52	50	55	48	48	48	57	50	40	39	44	44	44	44	46	43	1,561.00	65,562
XXX-REDACTED-XXX	23650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	0	9.00	378
XXX-REDACTED-XXX	24756	3	4	3	3	3	3	3	4	3	3	3	3	3	3	4	2	4	3	3	3	3	3	3	4	3	3	3	3	3	2	3	96.00	4,032
XXX-REDACTED-XXX	24895	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.00	168
XXX-REDACTED-XXX	22850	1.1	1	0	0	1	1	1	0	0	0	2.3	0	0	0	0	0	2	0	1	1	1	0	1	0	0	0.66	0.66	0.66	0	1	0	16.38	688
XXX-REDACTED-XXX	23165	2	3	2	8	10	10	10	1	11	11	11	10	10	10	11	9	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	143.00	6,006
XXX-REDACTED-XXX	23166	19	21	20	16	20	20	20	18	18	18	16	3	3	3	7	0	7	21	11	11	11	4	4	10	22	22	22	22	0	7	18	414.00	17,388
XXX-REDACTED-XXX	22423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24557	13	9	8	9	10	10	10	7	11	11	0	16	16	16	4	7	10	10	12	12	12	10	10	11	9	13	13	13	11	10	10	323.00	13,566
XXX-REDACTED-XXX	24152	0	0	1	0	0	0	0	0	0	0	1.1	0	0	0	0	1.1	0	1.1	0.8	0.8	0.8	0	1.1	0	0	0.4	0.4	0.4	0	1.1	0	10.10	424
XXX-REDACTED-XXX	24153	0	1.1	0	1.1	0	0	0	1.1	0	0	0	0	0	0	0	1.1	1.2	0	0	0	0	1.1	0	1.1	2.3	1.1	1.1	1.1	1.1	2.2	1.1	17.80	748
XXX-REDACTED-XXX	24154	16	13.7	13.5	19	14.1	14.1	14.1	17.8	9.1	16	17.1	16	16	16	20.5	14.8	16.5	13.7	15.2	15.2	15.2	3.4	4.6	11.4	17.1	16	16	16	12.5	12.5	14.5	447.60	18,799
XXX-REDACTED-XXX	22847	10	8	11	9	10	10	10	9	9	10	9	9	9	9	9	10	9	9	9	9	9	9	1	5	2	6	6	6	8	0	0	239.00	10,038
XXX-REDACTED-XXX	25887	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	32	21	22	22	22	31	0	0	340.00	14,280
XXX-REDACTED-XXX	23981	30	32	31	26	30	30	30	29	31	35	33	32	32	32	26	21	38	26	26	26	26	29	27	27	30	26	26	26	17	25	24	879.00	36,918
XXX-REDACTED-XXX	24327	19	13	29	16	19	19	19	6	23	16	17	15	15	15	18	16	18	19	17	17	17	23	17	17	11	17	17	17	17	11	17	527.00	22,134
XXX-REDACTED-XXX	24430	30	31	27	32	33	33	33	32	34	32	36	34	34	34	32	41	41	39	42	42	42	37	45	39	38	42	42	42	40	39	36	1,134.00	47,628
XXX-REDACTED-XXX	20773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25389	17	18	19	18	18	18	18	17	19	16	15	16	16	16	18	14	15	17	17	17	17	15	18	17	16	14	14	14	14	15	15	508.00	21,336
XXX-REDACTED-XXX	24047	2.3	2.3	5.7	4.6	6.8	6.8	6.8	8	4.6	9	13.7	9.1	9.1	9.1	16	13.7	13.5	14.8	12.2	12.2	12.2	17.9	11.4	12.5	16.5	5.3	5.3	5.3	14.2	12.5	16	309.40	12,995
XXX-REDACTED-XXX	23618	0	0	0	1.1	1.1	1.1	1.1	0	1.1	0	1.1	0	0	0	0	1.1	0	0	0	0	0	1.1	0	1.1	0	0.3	0.3	0.3	0	0	1.1	11.90	500
XXX-REDACTED-XXX	23359	10.3	18.2	23.9	34.2	21.3	21.3	21.3	18.2	39.9	37.6	36.5	35.73	35.73	35.73	33	39.9	31.9	34.2	98	98	98	57	26.2	35.3	39.9	22	22	22	31.9	34.2	31.9	1,145.29	48,102
XXX-REDACTED-XXX	23528	5.7	11.4	9.1	11.4	28.5	28.5	28.5	29.6	21.7	23.9	34.2	21.67	21.67	21.67	22.8	19.4	19.4	10.3	30.8	30.8	30.8	8	3.4	3.4	2.3	14.8	14.8	14.8	4.6	16	2.3	546.21	22,941
XXX-REDACTED-XXX	23530	14	13	8	17	15	15	15	19	16	12	15	14	14	14	8	3	8	9	11	11	11	12	11	6	6	2	2	2	0	13	2	318.00	13,356
XXX-REDACTED-XXX	22270	12	12	11	16	13	13	13	15	4	2	3	10	10	10	9	4	18	15	16	16	16	16	14	14	12	10	10	10	9	5	4	342.00	14,364
XXX-REDACTED-XXX	23673	10.3	10.3	11.4	11.4	10.3	10.3	10.3	12.5	8	12.5	12.5	3.5	3.5	3.5	11.4	10.3	5.7	13.7	9.9	9.9	9.9	11.4	11.4	10.3	2.3	12.53	12.53	12.53	6.8	4.6	9.1	294.59	12,373
XXX-REDACTED-XXX	24739	14	14	10	13	11	11	11	12	9	10	12	11	11	11	12	10	13	14	1	1	1	0	13	10	11	14	14	14	13	11	11	323.00	13,566
XXX-REDACTED-XXX	24740	11	19	18	18	14	14	14	22	21	9	12	14	14	14	12	15	10	11	10	10	10	11	15	14	15	16	16	16	16	19	18	448.00	18,816
XXX-REDACTED-XXX	26048	3	5	3	4	2	2	6	4	8	6	1	6	3	6	8	4	8	6	6	7	6	10	7	6	6	5	7	5	5	5	8	168.00	7,056
XXX-REDACTED-XXX	24410	8	16	11	9	12.6	12.6	12.6	8	10	10	9	6.5	6.5	6.5	13	9	13	11	33	33	33	8	8	14	13	25	25	25	14	14	7	436.30	18,325
XXX-REDACTED-XXX	23267	16	17	15	17	17	17	17	17	17	16	17	16	16	16	18	18	15	16	17	17	17	17	17	16	17	16	16	16	16	17	15	512.00	21,504
XXX-REDACTED-XXX	25247	27	27	26	27	26	26	26	30	29	28	28	27	27	27	26	30	30	30	25	25	25	27	25	32	30	30	30	30	28	29	28	861.00	36,162
XXX-REDACTED-XXX	24177	6	6	6	0	6.3	6.3	6.3	5	6	6	7	24	24	24	6	5	5	5	6.5	6.5	6.5	6	3	4	3	10	10	10	1	1	8	229.40	9,635
XXX-REDACTED-XXX	24507	23	19	23	23	22	22	22	22	21	23	21	21.2	21.2	21.2	21	21	19	23	21	21	21	25	27	21	17	22.5	22.5	22.5	22.5	23	21	675.60	28,375
XXX-REDACTED-XXX	22153	16	14	15	14	15.3	15.3	15.3	15	15	15	15	16	16	16	13	15	15	15	14.8	14.8	14.8	15	15	15	13	14.3	14.3	14.3	16	15	14	461.20	19,370
																																	83,381.13	**3,502,007**

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011	5/10/2011	5/11/2011	5/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	28707	1	1	0	1	0.8	0.8	0.8	1	0	1	1	0.8	0.8	0.8	0	1	1	0	0.8	0.8	0.8	1.1	1	1	1	0.8	0.8	0.8	0	1	1	23.70	995
XXX-REDACTED-XXX	23649	6	6	6	5	6	6	6	4	6	8	11	4	4	4	5	6	5	7	5	5	5	5	6	6	5	6	6	6	5	6	6	177.00	7,434
XXX-REDACTED-XXX	23704	0	1	0	0	0.8	0.8	0.8	0	0	1	0	0.4	0.4	0.4	0	1	0	0	0.8	0.8	0.8	0	0	1	0	0.4	0.4	0.4	0	1	0	12.20	512
XXX-REDACTED-XXX	23938	26	29	26	26	27	27	27	26	29	23	0	29	29	29	28	26	26	27	28	28	28	25	26	24	25	29	29	29	26	25	28	810.00	34,020
XXX-REDACTED-XXX	25901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22971	9	11	2	1	11	11	11	12	11	11	10	11	11	11	11	11	11	11	10	10	10	10	10	13	7	8	8	8	12	12	12	307.00	12,894
XXX-REDACTED-XXX	23142	1.1	0	0	1.1	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	1.1	0	0	0	0	0	2.2	0	1.1	0.4	0.4	0.4	0	0	0	10.20	428
XXX-REDACTED-XXX	23363	0	0	0	1	3	3	3	7	5	2	2	7	7	7	2	1	3	1	2	2	2	2	1	2	25	0	0	0	1	0	0	91.00	3,822
XXX-REDACTED-XXX	22536	38	34	38	36	35	35	35	38	34	40	33	37	37	37	34	33	36	36	37	37	37	34	34	30	30	30	30	30	36	31	36	1,078.00	45,276
XXX-REDACTED-XXX	22686	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.00	126
XXX-REDACTED-XXX	24403	8	5	0	11	13	13	13	1	13	0	9	15	15	15	1	1	1	9	15	15	15	0	13	0	5	22	22	22	1	4	8	285.00	11,970
XXX-REDACTED-XXX	24405	24	20	22	24	23	23	23	25	22	25	19	24	24	24	22	22	23	24	23	23	23	21	24	17	17	23	23	23	23	23	25	701.00	29,442
XXX-REDACTED-XXX	22056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22058	0	1.2	0	1.2	1.1	1.1	1.1	0	0	0	1.1	0.4	0.4	0.4	1.1	1.1	0	1.1	1.1	1.1	1.1	0	0	2.3	1.1	0.9	0.9	0.9	1	1.1	1.1	23.90	1,004
XXX-REDACTED-XXX	22063	18.6	17.8	13.5	4.6	20.8	20.8	20.8	8	20.5	16	13.7	16.7	16.7	16.7	13	20.5	8	15.5	16.1	16.1	16.1	21.7	27.3	16	18.2	3.4	3.4	3.4	18.3	21.7	13.7	477.60	20,059
XXX-REDACTED-XXX	23361	0	1.1	0	1.1	0.4	0.4	0.4	1.1	0	1.1	0	0	0	0	0	1.1	1.1	0	0.4	0.4	0.4	0	1.1	0	1.1	1.1	1.1	1.1	0	1.1	1.1	16.70	701
XXX-REDACTED-XXX	23544	11.4	21.6	12.5	37.6	19	19	19	18.2	9.1	14.8	23.9	18.6	18.6	18.6	17.8	36.5	26	21.7	19.3	19.3	19.3	18.2	11.3	4.6	17.2	28.5	28.5	28.5	20.5	9.1	8	596.20	25,040
XXX-REDACTED-XXX	24048	21.6	18.2	33.1	28.5	0.8	0.8	0.8	33.1	28.5	13.8	1.1	23.2	23.2	23.2	1.1	6.8	2	0	1.2	1.2	1.2	18.2	17.1	10.3	17.9	32.9	32.9	32.9	6.8	0	0	432.40	18,161
XXX-REDACTED-XXX	25370	8	10	9	5	22	22	22	5	8	7	8	7	7	7	9	7	1.1	9	8	8	8	9	25	19	18	15	15	15	13	8	4.1	338.20	14,204
XXX-REDACTED-XXX	23694	12.5	19.4	11.4	11.4	8.7	8.7	8.7	16.4	11.4	17	13.7	11.4	11.4	11.4	12.5	12.5	9	14.2	11	11	11	13.7	16	13.7	14.8	14.8	14.8	14.8	8	17.1	9	391.40	16,439
XXX-REDACTED-XXX	23246	0	2	0	0	1.6	1.6	1.6	0	5	0	1	0	0	0	0	0	12.5	0	0	0	0	0	0	0	0	1	1	1	0	0	14.2	42.50	1,785
XXX-REDACTED-XXX	23387	1	0	1	0	0.3	0.3	0.3	0	0	0	0	1	1	1	0	0	1	0	1	1	1	0	0	0	0	1	1	1	1	0	0	13.90	584
XXX-REDACTED-XXX	23937	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24301	10	8	3	0	3	3	3	2	9	5	9	6	6	6	9	5	7	5	8	8	8	7	6	23	9	7	7	7	7	7	9	212.00	8,904
XXX-REDACTED-XXX	23676	22	24	8	19	22	22	22	17	22	22	47	22	22	22	132	200	22	33	36	36	36	38	30	9	25	32	32	32	21	11	14	1,052.00	44,184
XXX-REDACTED-XXX	23675	19	21	2	6	9	9	9	10	11	48	18	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198.00	8,316
XXX-REDACTED-XXX	22705	26	30	36	36	38	38	38	33	31	36	33	32	32	32	33	30	34	31	30	30	30	31	9	33	33	4.1	4.1	4.1	27	30	20	884.30	37,141
XXX-REDACTED-XXX	22777	1	0	0	0	0	0	0	8	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	16.00	672
XXX-REDACTED-XXX	22974	8	26	13	24	58	58	58	18	21	18	27	85	85	85	18	14	18	10	25.9	25.9	25.9	22	5	32	5	18	18	18	6	0	9	854.70	35,897
XXX-REDACTED-XXX	22785	17	17	17	17	43	43	43	54	17	17	18	33	33	33	22	17	8	18	15.2	15.2	15.2	17	18	9	17	17.3	17.3	17.3	0	24	10	659.50	27,699
XXX-REDACTED-XXX	25037	23	26	24	27	54	54	54	32	21	24	33	36	36	36	36	27	24	23	27	27	27	24	28	27	15	19	19	19	22	22	28	894.00	37,548
XXX-REDACTED-XXX	22701	27	21	24	35	28	28	28	26	24	31	33	27	27	27	26	24	22	31	25	25	25	26	0	34	25	30.3	30.3	30.3	29	26	25	819.90	34,436
XXX-REDACTED-XXX	21729	26	18	17	7	16	16	16	6	9	20	0	13	13	13	3	2	7	30	9	9	9	22	10	14	3	20	20	20	19	15	19	421.00	17,682
XXX-REDACTED-XXX	24075	1	0	1	0	0	0	0	2	0	1	0	1	1	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	12.00	504
XXX-REDACTED-XXX	24157	53	11	8	7	3	3	3	1	8	1	81	11	11	11	15	60	2	14	3.67	3.67	3.67	52	2	2	12	10	10	10	0	1	62	475.01	19,950
XXX-REDACTED-XXX	24302	18	18	14	16	17	17	17	16	22	14	16	42	42	42	22	17	15	17	17.34	17.34	17.34	14	17	17	14	18	18	18	16	14	17	597.02	25,075
XXX-REDACTED-XXX	25213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25583	28	15	12	16	20	20	20	16	29	24	7	24	24	24	24	27	35	41	23	23	23	21	25	11	11	12	12	12	13	13	16	621.00	26,082
XXX-REDACTED-XXX	25584	4	0	2	0	0	0	14	0	3	2	0	0	2	13	4	3	3	0	8	38	31	11	19	9	7	2	0	50	3	25	3	256.00	10,752
XXX-REDACTED-XXX	24079	7	10	10	10	28	28	28	10	7	10	10	29	29	29	1	7	10	10	28	28	28	7	10	10	6	9.6	9.6	9.6	7	10	2	437.80	18,388
XXX-REDACTED-XXX	23982	11	10	10	10	9	9	9	42	10	9	9	8	8	8	2	8	9	9	9	9	9	7	8	9	0	0	0	0	0	0	0	247.00	10,374
XXX-REDACTED-XXX	22831	20	15	15	11	14	14	14	15	16	13	13	14	14	14	16	7	6	13.9	14	14	14	11	15	15	9	14	14	14	14	18	10	420.90	17,678
XXX-REDACTED-XXX	21561	21	24	19	20	19	19	19	22	23	21	17	21	21	21	18	1	0	0	25	25	25	18	23	22	23	22	22	22	22	1	22	578.00	24,276
XXX-REDACTED-XXX	26018	31	31	27	26	29	29	29	23	29	22	26	26	26	26	26	26	28	25	31	31	31	22	30	31	33	33	33	33	29	21	24	867.00	36,414
XXX-REDACTED-XXX	24408	24	21	21	18	22	22	22	23	13	26	24	21	21	21	9	11	24	9	19	19	19	13	21	14	27	17	17	17	22	9	25	591.00	24,822
XXX-REDACTED-XXX	23432	17	14	10	13	18	18	18	21	18	17	18	17	17	17	16	30	16	16	16	16	16	21	11	6	21	15	15	15	11	13	17	504.00	21,168
XXX-REDACTED-XXX	23614	13	14	14	10	10	10	10	10	11	14	11	11	11	11	21	11	13	11	14	14	14	13	11	18	14	11	11	11	10	10	13	380.00	15,960
XXX-REDACTED-XXX	25857	22	19	24	28	26	26	26	24	24	21	0	0	0	0	32	33	34	29	32	32	32	24	29	30	19	25	25	25	27	22	23	713.00	29,946
XXX-REDACTED-XXX	24893	48	43	50	42	57	46	43	43	47	46	48	46	46	39	47	47	17	50	46	44	41	48	46	46	47	49	47	41	44	47	46	1,397.00	58,674
XXX-REDACTED-XXX	24894	0	0	310	142	96	96	96	105	99	91	91	80	80	80	63	80	78	10	0	0	0	0	0	0	0	0	0	0	0	0	0	1,597.00	67,074
XXX-REDACTED-XXX	24860	33	14	36	34	44	34	34	32	34	31	34	31	34	31	33	32	26	35	32	31	30	36	31	32	27	31	33	33	32	33	33	996.00	41,832
XXX-REDACTED-XXX	24861	48	51	49	42	0	0	0	0	0	0	0	0	0	0	52	7	55	42	30	30	30	30	32	30	29	24	24	24	27	29	29	714.00	29,988
XXX-REDACTED-XXX	24862	9	13	6	8	6	6	6	3	0	0	0	2	2	2	15	6	2	0	2	2	2	3	2	5	2	2	2	2	2	1	6	119.00	4,998
XXX-REDACTED-XXX	25005	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	29.00	1,218
XXX-REDACTED-XXX	24863	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23300	3	3	3	6	2	2	2	5	3	3	3	2	2	2	2	3	1	2	2	2	2	5	2	2	3	3	3	3	3	3	2	84.00	3,528
XXX-REDACTED-XXX	23371	5	7	7	5	5	5	5	3	5	3	3	3	3	3	3	5	1	3	1	1	1	6	3	2	2	6	6	6	3	3	5	119.00	4,998
XXX-REDACTED-XXX	23221	5	5	1	2	3	3	3	3	3	1	0	0	0	0	0	2	1	0	0	0	0	1	2	2	3	3	3	3	2	3	1	55.00	2,310
XXX-REDACTED-XXX	23223	21	15	15	14	22	14	11	10	14	9	9	10	17	14	13	14	14	15	18	16	10	14	13	13	15	14	19	10	10	13	15	431.00	18,102
XXX-REDACTED-XXX	23225	6	5	5	5	1	1	1	1	8	1	6	3	5	5	5	3	3	2	0	2	2	2	3	3	5	5	1	1	1	2	5	102.00	4,284
XXX-REDACTED-XXX	23226	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.00	210
XXX-REDACTED-XXX	23228	3	5	5	2	1	1	1	5	1	5	3	1	1	1	3	3	1	1	2	2	2	2	2	6	3	2	2	2	2	3	3	76.00	3,192
XXX-REDACTED-XXX	24857	49	35	49	48	54	47	42	46	46	43	47	45	47	38	46	47	31	44	48	46	41	49	49	30	30	47	47	42	50	49	48	1,380.00	57,960
XXX-REDACTED-XXX	25119	6	5	3	3	5	5	5	8	3	5	3	2	2	2	2	3	1	5	2	2	2	5	1	1	3	4	4	4	3	2	2	103.00	4,326
XXX-REDACTED-XXX	25166	5	1	1.1	2	1	1	1	2	2	2	3	2	2	2	2	1	3	1	1	1	1	1	1	2	2	1	1	1	2	3	3	54.10	2,272
XXX-REDACTED-XXX	24690	10	16	9	0.5	11	11	11	10	14	11	8	12	12	12	10	5	11	6	11	11	11	10	8	13	11	9	9	9	9	9	11	310.50	13,041
XXX-REDACTED-XXX	24691	26	25	23	27	23	23	23	20	24	23	22	20	20	20	23	16	18	21	16	16	16	11	23	17	17	18	18	18	18	18	20	623.00	26,166
XXX-REDACTED-XXX	23942	0	0	0	1	1	1	1	0	1	0	0	1	1	1	0	1	0	0	1	1	1	0	1	0	0	1	1	1	0	1	1	18.00	756
XXX-REDACTED-XXX	23943	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23944	11	16	14	14	1	1	1	13	1	9	5	13	13	13	18	18	16	16	15	15	15	14	15	14	14	13	13	13	14	13	14	375.00	15,750
XXX-REDACTED-XXX	25079	36	33	33	45	30	30	30	30	28	30	25	31	31	31	28	21	39	28	30	30	30	30	25	27	25	28	28	28	13	14	13	880.00	36,960
XXX-REDACTED-XXX	22905	0	0	1	0	0	0	0	0	0	0	2	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0.66	0.66	0.66	0	0	0	9.98	419
FAIRBANK ROD & GUN CLUB #3	23639	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.00	210
FAIRBAK ROD & GUN CLUN #6	23642	33	33	18	20	21	21	21	26	20	18	29	29	29	29	35	26	31	22	30	30	30	31	34	23	23	23	23	23	25	35	26	817.00	34,314
XXX-REDACTED-XXX	25267	33	33	27	21	33	33	33	27	24	24	25	33	33	33	22	24	23	15	25	25	25	21	23	24	22	22	22	22	22	22	22	793.00	33,306
XXX-REDACTED-XXX	26229	14	14	11	11	13	14	10	11	10	11	11	11	11	10	14	7	10	10	11	10	11	10	11	11	7	17	9	7	15	13	10	345.00	14,490
XXX-REDACTED-XXX	25870	19	18	16	16	17	17	17	16	16	15	15	15	15	15	16	14	15	15	16	16	16	15	16	2	21	19	19	19	0	16	16	478.00	20,076
XXX-REDACTED-XXX	21947	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	6.00	252
XXX-REDACTED-XXX	21956	6	16	11	9	1.5	1.5	1.5	5	8	15	0	10	10	10	9	1	0	0	11	11	11	10	11	5	1	0	0	0	0	14.7	5	194.20	8,156
GAMELANDS #2	25727	13	13	12	17	14	14	14	19	8	11	11	15	15	15	11	19	6	14	19	19	19	14	7	17	7	6	6	6	12	17	8	398.00	16,716
GAME LANDS UT #1	25726	0	16	17	13	16	16	16	14	10	9	12	9	9	9	12	11	5	10	12	12	12	14	11	10	12	7	7	7	11	12	8	339.00	14,238
XXX-REDACTED-XXX	24046	11.4	8	13.5	9.1	12.2	12.2	12.2	10.1	10.3	10.3	18.2	13.7	13.7	13.7	6.9	15.2	10.4	12.7	17.7	17.7	17.7	11.4	4.6	4.6	13	10.6	10.6	10.6	11.4	12.6	11.4	367.70	15,443
XXX-REDACTED-XXX	25145	7	3	6	8	15	15	15	1	14	5	15	2	2	2	5	15	17	15	14	14	14	5	13	11	14	13	13	13	11	14	14	325.00	13,650
XXX-REDACTED-XXX	22970	0	0	1	0	0	0	0	1	1	0	1	2	2	2	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	1	1	18.00	756
XXX-REDACTED-XXX	22812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24496	15	18	11	8	10	10	10	15	16	15	0	12	12	12	6	10	10	19	7	7	7	11	8	9	8	10	10	10	8	10	10	322.00	13,524

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011	5/10/2011	5/11/2011	5/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	30304	3.51	3.51	3.51	3.51	3.12	3.12	3.12	3.51	3.51	3.51	2.34	3.51	3.51	3.51	3.51	2.34	2	3.51	2.34	2.34	2.34	3.51	2.51	3.51	4.68	2.73	2.73	2.73	2.34	3.51	2.34	95.77	4,022
XXX-REDACTED-XXX	23362	1.1	0	0	0	1.1	1.1	1.1	1.1	0	1.1	0	1.1	1.1	1.1	0	1.1	0	0	1.1	1.1	1.1	0	0	0	1.1	2.3	2.3	2.3	1.1	0	0	23.40	983
XXX-REDACTED-XXX	23617	18.2	25	26.2	22.8	24.34	24.34	24.34	21.7	27.4	23.9	22.8	25.47	25.47	25.47	29.7	23.9	22.8	22.8	22.8	22.8	22.8	26.2	19.4	26.2	22.8	22.8	22.8	22.8	20.5	23.9	20.5	732.93	30,783
XXX-REDACTED-XXX	24078	16	15	15	13	14	14	14	6	13	10	11	10	10	10	11	3	9	9	0	0	0	0	2	0	0	0	0	0	0	2	0	207.00	8,694
XXX-REDACTED-XXX	25282	18	20	27	23	22	22	22	19	18	23	18	19	19	19	14	20	18	20	18	18	18	18	19	19	19	19	19	19	32	0	11	590.00	24,780
XXX-REDACTED-XXX	25528	27	27	16	30	26	26	26	27	26	20	20	26	26	26	22	20	25	24	24	24	24	23	22	24	23	22	22	22	16	0	0	686.00	28,812
XXX-REDACTED-XXX	23672	10.3	18.2	21.7	13.9	14.8	14.8	14.8	8.9	15.9	14.8	15.5	16	16	16	12.5	16	16.5	13.7	16.1	16.1	16.1	17.1	17.1	11.4	10.3	14.4	14.4	14.4	18.5	12.5	14.8	463.50	19,467
XXX-REDACTED-XXX	21969	4.6	3.8	4.2	5.1	2.7	2.7	2.7	1.1	0.1	2.3	1.1	3	3	3	5.1	2.2	3.4	3.4	5.5	5.5	5.5	6.8	1.1	5.7	3.47	3.4	3.4	3.4	8	4.6	9.1	118.97	4,997
XXX-REDACTED-XXX	25060	0	0	52	26	15	15	15	0	14	21	43	0	0	0	44	50	18	0	20	20	20	21	0	0	11	34	34	34	31	0	0	538.00	22,596
XXX-REDACTED-XXX	23338	15	5	11	9	15	15	15	13	5	5	11	12	12	12	16	9	3.4	8.9	10	10	10	14	10	26	0	12	12	12	8	0	7	323.30	13,579
XXX-REDACTED-XXX	23339	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	5	0	0	0	0	15	0	29.00	1,218
XXX-REDACTED-XXX	24492	7	7	7	7	9	9	9	2	1	1	1	9	9	9	5	9	11	10	8	8	8	3	1	3	9	0.38	0.38	0.38	0	2	0	165.14	6,936
XXX-REDACTED-XXX	24493	7	7	7	7	8	8	8	9	8	8	8	9	9	9	6	9	8	10	10	10	10	10	8	9	7	9	9	9	7	0	6	249.00	10,458
XXX-REDACTED-XXX	24494	36	27	15	8	3	3	3	2	2	3	2	11	11	11	38	26	21	13	11	11	11	10	10	11	0	5	5	5	7	7	24	352.00	14,784
XXX-REDACTED-XXX	24035	14	14	10	13	14	14	14	13	13	12	17	12	12	12	13	14	11	17	13	13	13	18	13	0	22	22	22	22	17	19	17	450.00	18,900
XXX-REDACTED-XXX	24695	19	20	14	18	17	17	17	20	17	17	21	17	17	17	14	18	17	15	21	21	21	17	21	16	0	0	0	0	18	18	18	483.00	20,286
XXX-REDACTED-XXX	22968	9	7	9	8	8	8	8	9	9	8	8	8	8	8	9	0	8	8	8	8	8	9	7	0	0	3	3	3	0	15	11	215.00	9,030
XXX-REDACTED-XXX	23647	5	7	7	6	6.3	6.3	6.3	7	5	5	6	6	6	6	7	10	2	7	6	6	6	2.6	9	8	7	6	6	6	5	11	2	191.50	8,043
XXX-REDACTED-XXX	30418	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	22460	1	0	1	0	1	1	1	0	1	0	0	1	1	1	0	1	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	14.00	588
XXX-REDACTED-XXX	22462	1	0	0	1	0.33	0.33	0.33	0	0	1	0	0.33	0.33	0.33	0	0	1	0	0.34	0.34	0.34	0	1	0	0	1	1	1	0	1	1	13.00	546
XXX-REDACTED-XXX	24360	0	24	25	32	29	29	29	13	30	30	0	20	20	20	29	29	26	29	27	27	27	25	25	25	25	27	27	27	25	1	26	728.00	30,576
XXX-REDACTED-XXX	24310	3	0	9	3	5	3	3	4	6	3	4	3	1	3	5	4	3	5	2	2	4	4	3	4	2	3	1	2	2	25	5	126.00	5,292
XXX-REDACTED-XXX	24311	3	0	4	3	10	3	4	7	1	0	6	1	4	3	6	3	3	5	0	3	4	4	5	3	2	3	4	9	9	7	5	124.00	5,208
XXX-REDACTED-XXX	24312	56	64	52	57	54	54	54	47	66	55	25	48	48	48	50	48	48	48	20	20	20	52	48	41	43	34	34	34	34	3	39	1,344.00	56,448
XXX-REDACTED-XXX	24994	3	0	1	1	2	1	3	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	1	1	43	2	66.00	2,772
XXX-REDACTED-XXX	24308	30	38	21	14	35	35	35	30	35	30	27	27	27	27	30	25	27	25	23	23	23	25	21	29	24	24	24	24	24	0	25	807.00	33,894
XXX-REDACTED-XXX	23526	9.1	1.1	9.4	3.4	6.6	6.6	6.6	8	8.4	8	5.7	15.2	15.2	15.2	14.8	10.3	10.4	10	7.5	7.5	7.5	12.5	14.8	14.2	12.5	12	12	12	14.8	24	9.1	324.40	13,625
XXX-REDACTED-XXX	23240	16	6	15	15	18	18	18	16	14	11	18	14	14	14	14	5	8.3	16	8	8	8	14	11	16	11	10	10	10	15	11.4	10	392.70	16,493
XXX-REDACTED-XXX	23241	7	9	11	11	9	9	9	10	15	10	11	10	10	10	23	9	5.7	10.3	10	10	10	13	9	13	13	12	12	12	13	13	10	339.00	14,238
XXX-REDACTED-XXX	24972	13	11	11	13	12	12	12	16	11	11	10	12	12	12	10	14	4.6	15.2	14	14	14	13	13	17	27	13	13	13	10	10	18	400.80	16,834
XXX-REDACTED-XXX	24973	13	10	13	13	12	12	12	17	6	10	10	13	13	13	11	7	6.8	11.4	10	10	10	18	11	11	10	12	12	12	11	11	8	349.20	14,666
XXX-REDACTED-XXX	24974	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0	1	0.5	0	0.5	0.5	0.5	0	0	2	10.00	420
XXX-REDACTED-XXX	23078	7	8	15	11	9	9	9	18	21	7	11	9	9	9	12	9	9	12	10	10	10	11	10	10	8	10	10	10	9	12	160	474.00	19,908
XXX-REDACTED-XXX	25106	9	7	3	7	7	9	10	10	127	5	12	9	10	10	5	11	9	9	7	13	11	6	6	10	8	9	10	8	11	10	10	388.00	16,296
XXX-REDACTED-XXX	25107	2	0	1	0	1	1	1	1	1	1	0	1	1	1	0	2	1	0	2	2	2	1	2	0	0	1	1	1	1	0	1	29.00	1,218
XXX-REDACTED-XXX	23865	13	18	16	16	17	17	17	18	18	16	13	16	16	16	14	17	16	16	16	16	16	18	18	18	18	19	19	19	17	17	17	518.00	21,756
XXX-REDACTED-XXX	23925	11	14	8	13	17	17	17	13	11	11	13	12	12	12	9	8	11	6	11	11	11	10	16	9	9	11	11	11	9	10	11	355.00	14,910
XXX-REDACTED-XXX	25674	9	9	9	9	9	9	9	11	9	11	10	9	9	9	9	9	11	13	11	11	11	10	6	11	13	11	11	11	11	10	9	309.00	12,978
XXX-REDACTED-XXX	23106	8	9	7	8	9	9	9	9	8	2	0	8	8	8	8	9	7	8	8	8	8	8	0	0	0	13	13	13	8	0	0	213.00	8,946
XXX-REDACTED-XXX	24043	41	48	43	49	51	51	51	38	45	45	44	131	131	131	40	44	40	44	62	62	62	34	50	43	40	43.6	43.6	43.6	31	40	33	1,654.80	69,502
XXX-REDACTED-XXX	24254	5	18	14	11	13	13	13	14	10	14	14	10	10	10	11	24	14	11	12	12	12	12	18	3	3	11	11	11	16	18	16	384.00	16,128
XXX-REDACTED-XXX	25616	3	2	2	2	2	2	0	4	2	2	2	1	1	3	2	3	2	2	1	3	2	3	2	2	2	1	0	1	2	2.3	2	60.30	2,533
XXX-REDACTED-XXX	25605	28	26	28	29	18	18	18	24	30	29	31	29	29	29	1	16	30	29	32	32	32	23	23	25	29	31	31	31	28	22	22	803.00	33,726
XXX-REDACTED-XXX	24937	75	68	67	71	65	65	65	70	66	76	68	80	80	80	66	71	66	68	64	64	64	62	67	66	60	71	71	71	64	49	66	2,106.00	88,452
XXX-REDACTED-XXX	24077	16	14	13	11	13	13	13	11	19	13	15	13	13	13	11	11	13	15	13	13	13	8	14	15	16	14	14	14	13	9	15	411.00	17,262
XXX-REDACTED-XXX	23652	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23653	9	10	8	10	9	9	9	9	8	9	10	10	10	10	9	8	9	9	9	9	9	8	9	10	9	9	9	9	9	8	9	281.00	11,802
XXX-REDACTED-XXX	24224	0	1	0	0	1	1	1	0	0	0	0	2	2	2	1	0	1	0	1	1	1	0	0	1	0	0	0	0	0	0	2	18.00	756
XXX-REDACTED-XXX	24189	11	8	16	3	15	15	15	9	14	11	0	11	11	11	14	10	15	13	13	13	13	14	11	1	14	12	12	12	11	14	15	357.00	14,994
XXX-REDACTED-XXX	24838	11	19	11	16	13	13	13	0	19	7	9	11	11	11	8	3	11	13	8	8	8	8	11	11	7	11	11	11	14	9	13	329.00	13,818
XXX-REDACTED-XXX	20438	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	17.00	714
XXX-REDACTED-XXX	23391	0	0	1	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	1	1	1	1	1	0	1	13.00	546
XXX-REDACTED-XXX	25758	30	26	23	26	24	24	24	20	24	21	29	67	67	67	25	24	22	25	80	80	80	24	28	20	24	24	24	24	16	26	25	1,043.00	43,806
XXX-REDACTED-XXX	24155	1.1	0	0	1.1	0	0	0	0	0	0	0	0	0	0	1.1	0	0	1.1	0	0	0	0	0	1.1	0	0	0	0	0	1.1	0	6.60	277
XXX-REDACTED-XXX	22699	0	1	2	1	3	3	3	2	1	3	0	3	3	3	3	2	3	3	0	0	0	4	2	2	6	5	5	5	5	0	3	76.00	3,192
XXX-REDACTED-XXX	30092	6	0	0	0	3	3	3	0	4	0	3	0	0	0	3	0	2	0	0	0	0	0	4	0	3	0	0	0	4	0	2	40.00	1,680
XXX-REDACTED-XXX	23934	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23172	0	0	1	0	0	0	0	0	0	1	0	0.34	0.34	0.34	1	0	0	0	0.34	0.34	0.34	0	0	0	15	0	0	0	0	0	0	20.04	842
XXX-REDACTED-XXX	23273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1.00	42
XXX-REDACTED-XXX	23274	16	0	0	0	9.67	9.67	9.67	16	0	21	0	0	0	0	0	0	17.1	0	7	7	7	0	26	30	2	1	1	1	33	2	0	216.11	9,077
XXX-REDACTED-XXX	23275	11	6	11	15	13	13	13	0	3	2	18	11	11	11	5	0	0	12.7	9	9	9	14	8	10	11	11	11	11	9	1	19	287.70	12,083
XXX-REDACTED-XXX	23276	18	0	26	260	0	0	0	0	0	19	0	0	0	0	9	17	5.9	8.9	14	14	14	11	5	14	9	11	11	11	15	11	6	509.80	21,412
XXX-REDACTED-XXX	23306	0	1	0	0	0	0	0	3	0	2	1	0	0	0	1	0	0	0	2	2	2	0	1	0	0	0	0	0	0	0	1	16.00	672
XXX-REDACTED-XXX	23308	0	1	0	25	0	0	0	1	0	1	0	1	1	1	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	1	0	36.00	1,512
XXX-REDACTED-XXX	23309	21	23	0	0	25	25	25	4	0	21	24	0	0	0	0	0	10	0	0	0	0	0	25	31	0	24	24	24	31	0	25	362.00	15,204
XXX-REDACTED-XXX	23310	1	0	0	1	1	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	0	1	17.00	714
XXX-REDACTED-XXX	25650	5	4	4	1	5	5	5	18	4	4	5	26	26	26	5	7	5	4	6	6	6	6	0	5	4	6.5	6.5	6.5	6	3	5	225.50	9,471
XXX-REDACTED-XXX	25651	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	21795	20	21	21	22	21	21	21	18	19	21	21	22	22	22	20	20	21	21	20	20	20	20	23	22	23	20	20	20	20	18	21	641.00	26,922
XXX-REDACTED-XXX	30425	12	16	27	18	23	9	21	18	18	25	25	21	21	21	21	21	21	21	21	18	9	7	21	0	0	16	27	27	25	27	25	586.00	24,612
XXX-REDACTED-XXX	25769	41	42	40	38	40	40	40	40	41	40	41	42	42	42	80	44	42	37	38	38	38	39	41	38	39	39	39	39	38	39	35	1,272.00	53,424
XXX-REDACTED-XXX	21543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25853	12.5	14.8	14.5	16.4	15.1	15.1	15.1	13.9	16	13.7	16	15.6	15.6	15.6	16	16	13.6	13.7	15.6	15.6	15.6	8.9	12.5	13.7	13.7	14.8	14.8	14.8	17.1	14	12.5	452.80	19,018
XXX-REDACTED-XXX	24045	0	0	0	6	0	0	0	1	0	0	0	6	6	6	0	0	0	1	11	11	11	5	8	10	9	7	7	7	11	22	22	167.00	7,014
XXX-REDACTED-XXX	22816	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	2	1	15.00	630
XXX-REDACTED-XXX	24040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23979	16	20	12	21	17	17	17	19	18	21	24	19	19	19	20	19	11	21	17	17	17	19	18	26	15	15	15	15	16	2	17	539.00	22,638
XXX-REDACTED-XXX	24036	1	2	1	1	3	3	3	3	3	4	3	4	4	4	3	4	4	3	4	4	4	5	6	4	6	0	0	0	40	20	3	150.00	6,300
XXX-REDACTED-XXX	21230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	21291	2	47	1	1	0	0	0	2	16	1	45	32	32	32	13	12	7	47	7	7	7	26	45	72	48	10	10	10	0	0	1	533.00	22,386
XXX-REDACTED-XXX	23887	0	15	2	7	2	2	2	0	5	7	9	13	13	13	11	3	11	7	7	7	7	10	16	10	9	6	6	6	7	5	8	226.00	9,492
XXX-REDACTED-XXX	24173	0	1	0	0	1	1	1	0	0	0	0	0	0	0	3	0	0	0	2	2	2	0	0	0	0	0.66	0.66	0.66	0	1	0	15.98	671
XXX-REDACTED-XXX	22827	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9.00	378
XXX-REDACTED-XXX	23882	46	43.1	36	48	42	42	42	27	54	52	54	52	52	52	58	52	41	44	47	47	47	44	34	34	29	46	46	46	31	41	25	1,354.10	56,872
XXX-REDACTED-XXX	23383	34	34	31	34	34	34	34	32	35	38	40	40	40	40	30	32	33	31	32	32	32	34	33	32	34	34	34	34	29	32	32	1,050.00	44,100
XXX-REDACTED-XXX	23384	32	29	0	25	40	40	40	42	42	44	36	44	44	44	43	28	26	28	29	29	29	27	28	26	25	27	27	27	26	36	36	999.00	41,958

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011	5/10/2011	5/11/2011	5/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	24174	16	10	2	0	1.3	1.3	1.3	18	18	16	22	16.67	16.67	16.67	15	14	16	12	16	16	16	10	14	15	12	15	15	15	15	14	14	399.91	16,796
XXX-REDACTED-XXX	24175	20	17	18	0	9.8	9.8	9.8	6	8	9	18	48	48	48	11	8	16	11	14	14	14	17	15	25	19	25	25	25	6	6	12	532.40	22,361
XXX-REDACTED-XXX	24083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	30424	17	34	34	21	25	18	16	23	27	37	41	34	34	37	39	37	37	30	30	30	30	34	37	27	7	41	18	34	34	34	30	927.00	38,934
XXX-REDACTED-XXX	25742	21	30	29	25	30	14	0	0	0	0	0	0	0	0	0	0	57	37	30	43	37	34	37	27	9	0	0	0	57	41	30	588.00	24,696
XXX-REDACTED-XXX	22132	9	9	4	7	41	41	41	7	9	8	8	3.3	3.3	3.3	4.5	7	20.5	9	6.3	6.3	6.3	9	7	8	9	9.5	9.5	9.5	6.8	6.8	6.8	335.70	14,099
XXX-REDACTED-XXX	24824	3	9	58	6	22	22	22	6	6	5	6	6	6	6	6	3	5	5	5	5	5	6	6	7	6	6	6	6	5	5	6	276.00	11,592
XXX-REDACTED-XXX	25027	0	45	8	14	15	15	15	7	16	3	26	14	14	14	0	0	17	12	7	7	7	0	7	7	11	3	3	3	0	10	14	314.00	13,188
XXX-REDACTED-XXX	24823	9	10	10	64	6	6	6	2	0	4	1	10	10	10	0	0	2	2	2	2	2	7	1	6	8	5	5	5	23	0	8	226.00	9,492
XXX-REDACTED-XXX	25026	23	27	15	20	21	21	21	12	15	16	17	7	7	7	0	0	27	20	17	17	17	0	3	5	3	22	22	22	0	0	0	404.00	16,968
XXX-REDACTED-XXX	21626	0	0	0	0	1	1	1	20	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.00	1,176
XXX-REDACTED-XXX	23184	0	1	1	0	2	2	2	5	1	3	1	21	21	21	6	1	5	2	2	2	2	2	1	3	0	0	0	0	0	0	0	107.00	4,494
XXX-REDACTED-XXX	25235	11	10	10	9	10	10	10	96	9	11	11	10	10	10	10	29	11.4	0	12	12	12	7	9	12	8	0	0	0	11	2	0	362.40	15,221
XXX-REDACTED-XXX	24295	4.6	11.4	10.3	12.5	11	11	11	11.4	10.3	9.1	11.4	8.4	8.4	8.4	10.3	10.3	11.4	10.3	10.5	10.5	10.5	5.2	10.3	9.1	10.3	11	11	11	10.3	9.1	10.3	310.60	13,045
XXX-REDACTED-XXX	25304	32	32	31	31	31	31	31	30	28	30	32	29	29	29	29	29	29	28	29	29	29	29	28	29	29	26	26	26	26	29	26	902.00	37,884
XXX-REDACTED-XXX	23700	1	0	10	12	13	13	13	13	9	12	6	7.5	7.5	7.5	13	14	12	14	12	12	12	12	11	12	8	5	5	5	12	12	10	305.50	12,831
XXX-REDACTED-XXX	23741	25	23	20	25	23	23	23	22	21	21	22	24	24	24	24	22	19	22	20	20	20	21	21	23	12	22	22	22	15	10	11	646.00	27,132
XXX-REDACTED-XXX	24463	58	62	60	54	59	59	59	46	62	55	48	45	45	45	52	52	50	55	48	48	48	57	50	40	39	44	44	44	44	46	43	1,561.00	65,562
XXX-REDACTED-XXX	23650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	0	9.00	378
XXX-REDACTED-XXX	24756	3	4	3	3	3	3	3	4	3	3	3	3	3	3	4	2	4	3	3	3	3	3	3	4	3	3	3	3	3	2	3	96.00	4,032
XXX-REDACTED-XXX	24895	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.00	168
XXX-REDACTED-XXX	22850	1.1	1	0	0	1	1	1	0	0	0	2.3	0	0	0	0	0	2	0	1	1	1	0	1	0	0	0.66	0.66	0.66	0	1	0	16.38	688
XXX-REDACTED-XXX	23165	2	3	2	8	10	10	10	1	11	11	11	10	10	10	11	9	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	143.00	6,006
XXX-REDACTED-XXX	23166	19	21	20	16	20	20	20	18	18	18	16	3	3	3	7	0	7	21	11	11	11	4	4	10	22	22	22	22	0	7	18	414.00	17,388
XXX-REDACTED-XXX	22423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	23852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	24557	13	9	8	9	10	10	10	7	11	11	0	16	16	16	4	7	10	10	12	12	12	10	10	11	9	13	13	13	11	10	10	323.00	13,566
XXX-REDACTED-XXX	24152	0	0	1	0	0	0	0	0	0	0	1.1	0	0	0	0	1.1	0	1.1	0.8	0.8	0.8	0	1.1	0	0	0.4	0.4	0.4	0	1.1	0	10.10	424
XXX-REDACTED-XXX	24153	0	1.1	0	1.1	0	0	0	1.1	0	0	0	0	0	0	0	1.1	1.2	0	0	0	0	1.1	0	1.1	2.3	1.1	1.1	1.1	1.1	2.2	1.1	17.80	748
XXX-REDACTED-XXX	24154	16	13.7	13.5	19	14.1	14.1	14.1	17.8	9.1	16	17.1	16	16	16	20.5	14.8	16.5	13.7	15.2	15.2	15.2	3.4	4.6	11.4	17.1	16	16	16	12.5	12.5	14.5	447.60	18,799
XXX-REDACTED-XXX	22847	10	8	11	9	10	10	10	9	9	10	9	9	9	9	9	10	9	9	9	9	9	9	1	5	2	6	6	6	8	0	0	239.00	10,038
XXX-REDACTED-XXX	25887	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	32	21	22	22	22	31	0	0	340.00	14,280
XXX-REDACTED-XXX	23981	30	32	31	26	30	30	30	29	31	35	33	32	32	32	26	21	38	26	26	26	26	29	27	27	30	26	26	26	17	25	24	879.00	36,918
XXX-REDACTED-XXX	24327	19	13	29	16	19	19	19	6	23	16	17	15	15	15	18	16	18	19	17	17	17	23	17	17	11	17	17	17	17	11	17	527.00	22,134
XXX-REDACTED-XXX	24430	30	31	27	32	33	33	33	32	34	32	36	34	34	34	32	41	41	39	42	42	42	37	45	39	38	42	42	42	40	39	36	1,134.00	47,628
XXX-REDACTED-XXX	20773	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
XXX-REDACTED-XXX	25389	17	18	19	18	18	18	18	17	19	16	15	16	16	16	18	14	15	17	17	17	17	15	18	17	16	14	14	14	14	15	15	508.00	21,336
XXX-REDACTED-XXX	24047	2.3	2.3	5.7	4.6	6.8	6.8	6.8	8	4.6	9	13.7	9.1	9.1	9.1	16	13.7	13.5	14.8	12.2	12.2	12.2	17.9	11.4	12.5	16.5	5.3	5.3	5.3	14.2	12.5	16	309.40	12,995
XXX-REDACTED-XXX	23618	0	0	0	1.1	1.1	1.1	1.1	0	1.1	0	1.1	0	0	0	0	1.1	0	0	0	0	0	1.1	0	1.1	0	0.3	0.3	0.3	0	0	1.1	11.90	500
XXX-REDACTED-XXX	23359	10.3	18.2	23.9	34.2	21.3	21.3	21.3	18.2	39.9	37.6	36.5	35.73	35.73	35.73	33	39.9	31.9	34.2	98	98	98	57	26.2	35.3	39.9	22	22	22	31.9	34.2	31.9	1,145.29	48,102
XXX-REDACTED-XXX	23528	5.7	11.4	9.1	11.4	28.5	28.5	28.5	29.6	21.7	23.9	34.2	21.67	21.67	21.67	22.8	19.4	19.4	10.3	30.8	30.8	30.8	8	3.4	3.4	2.3	14.8	14.8	14.8	4.6	16	2.3	546.21	22,941
XXX-REDACTED-XXX	23530	14	13	8	17	15	15	15	19	16	12	15	14	14	14	8	3	8	9	11	11	11	12	11	6	6	2	2	2	0	13	2	318.00	13,356
XXX-REDACTED-XXX	22270	12	12	11	16	13	13	13	15	4	2	3	10	10	10	9	4	18	15	16	16	16	16	14	14	12	10	10	10	9	5	4	342.00	14,364
XXX-REDACTED-XXX	23673	10.3	10.3	11.4	11.4	10.3	10.3	10.3	12.5	8	12.5	12.5	3.5	3.5	3.5	11.4	10.3	5.7	13.7	9.9	9.9	9.9	11.4	11.4	10.3	2.3	12.53	12.53	12.53	6.8	4.6	9.1	294.59	12,373
XXX-REDACTED-XXX	24739	14	14	10	13	11	11	11	12	9	10	12	11	11	11	12	10	13	14	1	1	1	0	13	10	11	14	14	14	13	11	11	323.00	13,566
XXX-REDACTED-XXX	24740	11	19	18	18	14	14	14	22	21	9	12	14	14	14	12	15	10	11	10	10	10	11	15	14	15	16	16	16	16	19	18	448.00	18,816
XXX-REDACTED-XXX	26048	3	5	3	4	2	2	6	4	8	6	1	6	3	6	8	4	8	6	6	7	6	10	7	6	6	5	7	5	5	5	8	168.00	7,056
XXX-REDACTED-XXX	24410	8	16	11	9	12.6	12.6	12.6	8	10	10	9	6.5	6.5	6.5	13	9	13	11	33	33	33	8	8	14	13	25	25	25	14	14	7	436.30	18,325
XXX-REDACTED-XXX	23267	16	17	15	17	17	17	17	17	17	16	17	16	16	16	18	18	15	16	17	17	17	17	17	16	17	16	16	16	16	17	15	512.00	21,504
XXX-REDACTED-XXX	25247	27	27	26	27	26	26	26	30	29	28	28	27	27	27	26	30	30	30	25	25	25	27	25	32	30	30	30	30	28	29	28	861.00	36,162
XXX-REDACTED-XXX	24177	6	6	6	0	6.3	6.3	6.3	5	6	6	7	24	24	24	6	5	5	5	6.5	6.5	6.5	6	3	4	3	10	10	10	1	1	8	229.40	9,635
XXX-REDACTED-XXX	24507	23	19	23	23	22	22	22	22	21	23	21	21.2	21.2	21.2	21	21	19	23	21	21	21	25	27	21	17	22.5	22.5	22.5	22.5	23	21	675.60	28,375
XXX-REDACTED-XXX	22153	16	14	15	14	15.3	15.3	15.3	15	15	15	15	16	16	16	13	15	15	15	14.8	14.8	14.8	15	15	15	13	14.3	14.3	14.3	16	15	14	461.20	19,370
																																	83,381.13	3,502,007

Exhibit 3B1

Section 3(b) EPA Response - April 19, 2011 to May 1, 2011 Summary
Treatment and Disposal Facilities Used for Core County Marcellus Shale Wells

Information provided is preliminary and subject to correction and/ or supplementation.

Facility 1			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
Advanced Waste Services 1001 Sampson Street New Castle, PA 16101	Waste Water Treatment Plant	22,234	933,828
(724) 657-8777			

Facility 2			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
Appalachian Water Services 195 Enterprise Lane Connellsville, PA 15425	Waste Water Recycle Treatment Plant	777	32,634
(724) 628-8408			

Facility 3			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
Hunter's Disposal P.O. Box 430 Remo, OH 45773-0430	Well Injection	19,412	815,304
(740) 783-2233			

Facility 4			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
PA Brine - Josephine Plant P.O. Box 296 Bells Mill Road Josephine, PA 15750	Waste Water Treatment Plant	10,237	429,954
(814) 437-3593			

Facility 5			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
PA Brine - Franklin Plant 5148 US 322 Franklin, PA 16323	Waste Water Treatment Plant	982	41,244
(814) 437-3593			

Facility 6			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
B & B Oilfield Services P.O. Box 367 Garrettsville, OH	Well Injection	510	21,420

(330) 221-6681			

Facility 7			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
North Star Disposal Services 2761 Salt Springs Road Youngstown, OH 44509	Well Injection	9,254	388,668
(330) 792-9524			

Facility 8			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
WVOG 157 Lower Eureka Road Saint Mary's, WV 26170	Well Injection	5,377	225,834
(304) 665-2461			

Facility 9			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
Tunnelton Liquids Company P.O. Box 667 Clarion, PA 16214	Waste Water Treatment Plant	6,392	268,464
(814) 226-5016			

Facility 10			
Address	**Facility Type**	**Fluid Total in Barrels**	**Fluid Total in Gallons**
McCutcheon Enterprises, Inc. 250 Park Road Apollo, PA 15613	Waste Water Treatment Plant	850	35,700
(724) 568-3623			

Total for Core County Wells	**76,025**	**3,193,050**

Section 3(c) EPA Response - April 19, 2011 to May 19, 2011 Summary
Recycled Water from Core County Marcellus Shale Wells

	Barrels	Gallons
Untreated Recycled Water	32,193	1,352,106
Recycled Water Treated at Appalachian Water Services	777	32,634

Information provided is preliminary and subject to correction and/ or supplementation.

Exhibit 3B3

Exhibit 3B3 – List of Transporters

Burkholtz Welding
195 Second Street Box 68
Heilwood, PA 15745

Devonian Services
297 Boy Scout Camp Road
Morgantown, WV 26508

Heckman Water Resources
Formerly Devonian
297 Boyscout Rd.
Morgantown, WV. 26508

Harmony Gas, Oil & Timber Co.
1448 Patchen Highway
Cherry Tree, PA 15724

Sanders Excavating Inc
PO Box 668
Ravenna, Ohio 44266
330-297-7980

Well Services, Inc.
1308 Morrell Ave.
Connellsville,Pa.
15425

Whipstock Natural Gas Services LLC
13646 Rte 403 Hwy N
Clymer, PA 15728
724-254-0500

Exhibit 3B4 – List of Treatment and Disposal Facilities

Advanced Waste Services
101 River Park Drive
New Castle, PA 16101

Appalachian Water Services, LLC
AKA Ronco Water Treatment Facility
River Avenue Extension
Masontown, PA 15461

B&B Oilfield Service – Clinton #2
PO Box 367
Garrettsville, Ohio 44231
330-527-5377

Hunter Disposal, LLC
38505 Marietta Rd
Dexter City, OH 45727
740-783-2233

McCutcheon Enterprises, Inc.
250 Park Road
Apollo, PA 15613
724-568-3623

North Star Oilfield Services
2761 Saltsprings Rd
Youngstown, Ohio 44509
330-292-2723

Pennsylvania Brine Treatment – Josephine Plant
931 Bells Mills Rd
Josephine, PA 15750
724-248-1000

Tunnellton Liquids Co.
671 Hogue Dr.
Saltsburg, PA 15681
724-459-6138

West Virginia Oil Gathering
U.S. Rt. 119
Spencer, WV 25276

Ergon, Inc. (purchases condensate)
P.O. Box 1639
Jackson, Miss. 39215-1639

Atlas

Exhibit 3G – redacted

Use of Pits

Well Pad Name	*County*	*Township*	*Latitude*	*Longitude*	*Pit Dimensions*	*Pit capacity*	*Contents*
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42.	80'x 120'		Was drill cuttings*
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42	150' X 250'	1.6 MG @2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42	150' x 275'	1.6 MG @ 2'freeboard	Was flowback/fresh*
Producing							
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	150' x 80'		Was drill cuttings*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
Shut-in due to lack of pipeline connection availability							
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	120' x 245'		Drll cuttings
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	145' x 200'	1.6 MG @ 2' freeboard	Flowback/fresh
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	145' x 200'	1.6 MG @ 2' freeboard	Flowback/fresh
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	120' x 245'	1.6 MG @ 2' freeboard	Fresh only
[redacted] sites still remain. Not fraced or produced							
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 200'		Drill cuttings
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 245'	1.6 MG @ 2' freeboard	Flowback/Fresh
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 245'	1.6 MG @ 2' freeboard	Flowback/Fresh
Currently Drilling							

* Pits may have been in use after 4/19/2011; currently pits are closed or in process of closure

Altus

Exhibit 6 – redacted

SUMMARY OF RELEASE INCIDENTS

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
2/6/09		X-REDACT-X	oil leak	unknown	Oil in pit with hole in it	ECS&R remediated	none
2/20/09	11:30 AM	X-REDACT-X	Drip gas	1 bbl	BOP around tubing failed and sprayed onto location	Cleaned up	DEP
3/16/09	2:00 PM	X-REDACT-X	Contractor fuel spill	4 gallons	Water truck ran over steel bar and punctured fuel tank, lost about 4 gallons on ground	Atlas and Shallenberger cleaned up spill and disposed of properly	none
4/12/09	12:00 PM	X-REDACT-X	Brine spill	30 bbl	Brine spill from frac tank; valve was opened up slightly	Cleaned up spill and disposed of properly	Notified Jack with DEP
5/7/09	6:05 AM	X-REDACT-X	Soap spill	unknown	Soap spill while drilling	Cleaned up	Rich Freese - DEP
5/8/09	8:57 AM	X-REDACT-X	fire	minimal	Oil line in Turbo let loose and oil sprayed on exhaust on blender	Fire put out immediately	none
5/8/09	2:43 PM	[redacted]#11	Diesel fuel spill	10 gallons	Pressure from pump blew hose fitting apart – 10 gallons of diesel fuel spilled	Immediately cleaned up with absorbents	none
6/2/09	1:00 PM	X-REDACT-X	Diesel spill	20 gallons	Fuel hose sprung leak while refueling trailer pumps on location	Superior cleaned up spill	none
6/17/2009	9:00 AM	X-REDACT-X	Drip gas leak	unknown	When digging new water pit, drip gas was in ground. Frac tank leaked out of bottom of tank.	Cleaned up drip and got rid of tank	none
6/9/2009	?	X-REDACT-X	Diesel spill	unknown	Found diesel on ground possibly from rig	Cleaned up site	none
6/28/2009	pm	X-REDACT-X	Brine spill	25 bbls	Brine spill on site – not sure if it was vandals	Cleaned up spill	State Police, DEP
7/10/2009	3:00 PM	X-REDACT-X	Brine release	unknown	Brine spilled from frac tanks killing vegetation	Cleaned up location	DEP
8/21/09	8:40 AM	X-REDACT-X	Diesel spill	1 gallon	Frac spilled approx. 1 gallon diesel on location	Leaking hose	none

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
8/21/09	11:00 AM	X-REDACT-X	H2S, CO release	NA	H2S and CO were released	consultant called in to oversee	none
8/15/09	11:45 AM	X-REDACT-X	Brine spill	unknown	Pit liner developed a hole and brine leached out onto site and into E&S ditch	Cleaned up site – looking to build pits on cut side	DEP notified
9/1/09	8:00 AM	X-REDACT-X	Acid spill	500 gallons	Valve on HCL truck was accidentally kicked loose and spilled approx. 500 gallons of acid on location	Cleaned up	DEP
9/11/09	8:00 AM	X-REDACT-X	Brine spill	small amount	Landowner mowing field got too close to dump line and hit line spilling a minor amount of brine on ground	Cleaned up soil and repaired dump line	none
9/15/09	9:00 AM	X-REDACT-X	Brine spill	unknown	Pit had holes in liner spilling brine on property and field	Cleaned up soil	DEP
10/30/09	?	X-REDACT-X	diesel spill	790 gallons	Union Drilling spillede diesel fuel on location	cleaned up	DEP
12/6/09	Unknown	X-REDACT-X	Water spill from pits	50,000 -90,000 gallons	Baker Pump failed spilling water off location	cleaned up	DEP – Vince Yantko
12/11/09	am	X-REDACT-X	Water spill	unknown	Baker overfilled frac tanks	cleaned up	none
12/7/09	3:30 PM	X-REDACT-X	Friction reducer/water spill	200 gallons	Leak in blender pump	cleaned up	DEP was called
12/9/09	8:00 AM	X-REDACT-X	Spill/fire	unknown	Transmission line on pump engine broke causing fluid to pour onto pump engine and catch fire	Extinguished quickly – very little fluid hit ground. Soaked up with pads	NA
12/19/09	8:00 AM	X-REDACT-X	Fire, transmission oil leak	minimal	Pump engine broke causing transmission fluid to spill on engine and catch fire	Put out fire and cleaned up spill	?
12/23/09	3:23 PM	X-REDACT-X	Frac water spill Material damage	unknown	Isolation valve cracked and released fluid on ground	Sucked up water	NA

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
12/29/09	8:00 AM	X-REDACT-X	Hydraulic leak	2 gallons	Hydraulic hose split and leaked approx. 2 gallons on ground	Cleaned up rig and ground with absorbent.	NA
1/1/10	7:00 AM	X-REDACT-X	Diesel fuel & oil spill	4 gallons	Oil hose on air pack broke, fuel from changing filters		none
1/2/10	12:00 PM	X-REDACT-X	Transmission leak	2 cups	Logging truck leaked out approx. 2 cups transmission fluid on location	cleaned up	none
1/18/10	7:20 AM	X-REDACT-X	Materials damage, gas release, spill	Misting toward and into pit.	Whipstock water truck backed into well head causing gas leak and water leak on location	fixed equipment. Shut in well	DEP
1/24/10	2:25 PM	X-REDACT-X	Contractor hydraulic leak	1 qt.	Hydraulic hose sprung a leak from surge of pressure and leaked on ground	Cleaned up spill	none
1/29/10		X-REDACT-X	Oil and soap leak	1 cup oil, 1 gallons soap	Oil dripped down frame from Air Pack	Cleaned up leak	none
2/12 – 2/15	?	X-REDACT-X	Brine spill	200 gal	Well overflowed through conduit to sensing line due to being shut in and pressure building up in the line. Outside of dike	Cleaned up site and will monitor wells more often that are shut in for short periods of time	None
2/23/10	4:00 PM	X-REDACT-X	Fuel spill	1 gal	Air compressor was being moved and diesel fuel leaked onto ground from skid	Cleaned up spill	None
2/23/10	4:00 PM	X-REDACT-X	Soap spill	.5 gallons	Soap Gaylord tipped over and small leak onto ground	Cleaned up spill and uprighted Gaylord	None
3/4-3/5	?	X-REDACT-X	Mud spill	100 gallons	Approx. 100 gallons of drill mud on location	cleaned up	None
3/16/10	8:30 AM	X-REDACT-X	Contractor Hydraulic spill/leak	2 gallons	Hydraulic hose burst while idling and oil spilled on ground	Cleaned up spill	None
3/11/10	4:00 AM	X-REDACT-X	Contractor Diesel spill	250 gallons	Approx. 250 gallons diesel leaked on ground from air compressor	Cleaned up spill	DEP

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
3/12/10	4:30 PM	X-REDACT-X	Contractor Hydraulic oil spill	1 gal	Hydraulic hose failed and leaked approx. 1 gallon on ground	Cleaned up spill and will inspect more frequently	None
3/10/10	3:30 PM	X-REDACT-X	Unknown diesel leak	5 gal	Found diesel spots on site. No one on location	Cleaned up with absorbents	None
3/11/10	4:00 AM	X-REDACT-X	Diesel spill	60 bbls	Air compressor leaked out approx. 60 bbl of diesel on ground	cleaned up	DEP
3/31/10	8:00 AM	X-REDACT-X	fire	NA	condensate pit AND TANK caught fire	cleaned up site	DEP
4/12/10	9:45 AM	X-REDACT-X	H2S release	NA	Monitors detected H2S on location	Evacuated site and called in Specialty Services	DEP
4/14/10	3:40 PM	X-REDACT-X	Brine leak	5 bbls	Tank gasket on clean out plate leaked (approx. 5 bbls)	Cleaned up contaminated soil, sealed pipe and gasket	DEP
4/25/10	2:00 AM	X-REDACT-X	Spill/leak	4 gallons	Kelly hose leaked approx. 4 gallons MOBM on ground	Cleaned up soil	None
4/29/10	4:30pm	X-REDACT-X	Pump oil Spill	1-2 gallons	Devonian leaked approx. 1-2 gallons pump oil on ground (did not notify Atlas)	Cleaned up sol	DEP – courtesy call
6/8/10	1:30 PM	X-REDACT-X	brine spill	2-3 bbls	annulus valve turned upside down and was cross threaded. While taking apart, nipple separated from annulus and well unloaded water.	cleaned up. new wells to be inspected more thoroughly for annulus placement. Crowne was contacted about incident since they installed it.	none
8/2/10	4:00 PM	[redacted]	brine spill	110 gallons	frac tank leaked onto containment pad. Had hole in the bottom of tank from rust	cleaned up	none
8/13/10	?	X-REDACT-X	spill	3 gallons	spill from super sucker on ground	cleaned up spill	NA

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
9/9/10	?	X-REDACT-X	brine spill	less than 5 gallons	some dried up brine on lease road - possibly leaked from water trucks	cleaned up area and discussed with water haulers	NA
9/17/10	11:48 AM	X-REDACT-X	spill, material damage	2 gallons brine	contractor dropped fence post onto site glass on tank and broke site glass causing minor brine spill on ground	cleaned up spill and fixed site glass	NA
9/24/10	9:05 AM	X-REDACT-X	brine spill	3 bbls	Baker pump employee forgot to replace poly line in tank and Atlas employee started up pump and spilled in between pits on ground	cleaned up	DEP
10/4/10	9:30 AM	X-REDACT-X	chemical foam	foam bubbles	Flomax flowed into pit and foam was blown across field	Cleaned up foam	DEP
10/12/10	12:00 AM	X-REDACT-X	brine leak	25 gallons	Auto dump failed causing relief valve to pop off and blow brine out onto ground	cleaned up	DEP
Sept	?	X-REDACT-X	brine spill	<5 gallons	leak from line on location onto ground	cleaned up and notified trucks	NA
10/14/10	9:00 AM	X-REDACT-X	H2S release	NA	H2S readings in tanks.	Evacuated site and developed plan to circulate water in pits	NA
10/27/10	12:00 PM	X-REDACT-X	hydraulic oil spill	2 gallons	mud pump not level, oil water mix from rod oiler dripped out and onto ground	cleaned up	nA
11/10/10	4:30 AM	X-REDACT-X	Unislik spill	60 gallons	forktruck poked hole in tote and spilled onto ground	cleaned up spill	DEP was called
12/2/10	11:30 AM	X-REDACT-X	diesel spill	less than 5 gallons	left pump unattended while filling heater with diesel	cleaned up. assure all employees know not to leave equipment unattended.	State Police

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
12/4/10	10:00 AM	X-REDACT-X	brine leak	2.5 gallons	suction on truck released and spilled some brine on lease road	cleaned up spill.	none
12/9/10	10:15 AM	X-REDACT-X	diesel fuel spill	5 gallons	Truck had loose fuel cap due to broken seal.	Clean up contaminated material. Replaced fuel cap	none
12/16/10	10:00 AM	X-REDACT-X	acid spill	<5 gallons	Universal back flushing into acid buggie overfilling the truck. Holes in containmnet allowed acid to seep into ground	cleaned up spill	none
2/8/11	11:00 AM	X-REDACT-X	drip gas leak	10 gallons	defective valves - o-rings cracked	replaced with I piece enclosed system	NA
2/28/11	11:31 AM	X-REDACT-X	diesel spill	approx. 1 gallon	tank too full and spill into catch tray and leaked onto ground outside of conatinment area	cleaned up spill	DEP