



From: [Larsen, Thurman](#)
To: [VanHorn, Kristen, NMENV](#)
Subject: RE: Benzene Data from Jan/Mar
Date: Tuesday, May 15, 2012 2:36:58 PM
Attachments: [Rpt_1202859_v2.pdf](#)

Kristen,

You will not have any analytical data for 1/30 and 1/31 because samples were not collected on these two dates. At the time, both strippers were down for maintenance of cleaning both strippers and replacement of packing material. Water was being routed to T-35 until the strippers were put back on line during the morning of 2/1.

The attachment above is the analytical for 2/21 – 2/26 that you had requested. Please let me know if you require any additional questions.

Regards,

From: VanHorn, Kristen, NMENV [mailto:Kristen.VanHorn@state.nm.us]
Sent: Tuesday, May 15, 2012 2:00 PM
To: Larsen, Thurman
Subject: Benzene Data from Jan/Mar

Hi Beck,

I'm catching up on some busy work and noticed I'm missing benzene results from 1/30 and 1/31 and then 2/21-2/26 ... do you have copies of those data that you can send me?

Thanks,
Kristen

Kristen Van Horn
*NMED Hazardous Waste Bureau
2905 Rodeo Park Drive East Building 1
Santa Fe, NM 87505
Phone: 505-476-6046*



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 01, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: BZ Strippers

OrderNo.: 1202859

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 6 sample(s) on 2/27/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued February 29, 2012

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1202859
Date: 3/1/2012

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers

Analytical notes regarding sample BZ 1-2out collected on 2/26/2012 8:00 AM, This sample was reanalyzed by method 8260B. The result for benzene is being reissued as <50ppb. The original result had an interfering peak.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/21/2012 8:00:00 AM

Lab ID: 1202859-001

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 3:39:48 PM
Benzene	480	50		µg/L	50	2/27/2012 3:39:48 PM
Toluene	840	50		µg/L	50	2/27/2012 3:39:48 PM
Ethylbenzene	81	50		µg/L	50	2/27/2012 3:39:48 PM
Xylenes, Total	560	100		µg/L	50	2/27/2012 3:39:48 PM
Surr: 4-Bromofluorobenzene	89.2	76.5-115		%REC	50	2/27/2012 3:39:48 PM

Qualifiers: */X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Analytical Report

Lab Order 1202859

Date Reported: 3/1/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/22/2012 4:50:00 PM

Lab ID: 1202859-002

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 5:40:42 PM
Benzene	760	50		µg/L	50	2/27/2012 5:40:42 PM
Toluene	1,700	50		µg/L	50	2/27/2012 5:40:42 PM
Ethylbenzene	280	50		µg/L	50	2/27/2012 5:40:42 PM
Xylenes, Total	1,900	100		µg/L	50	2/27/2012 5:40:42 PM
Surr: 4-Bromofluorobenzene	93.2	76.5-115		%REC	50	2/27/2012 5:40:42 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/23/2012 7:20:00 AM

Lab ID: 1202859-003

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 6:10:55 PM
Benzene	620	50		µg/L	50	2/27/2012 6:10:55 PM
Toluene	1,200	50		µg/L	50	2/27/2012 6:10:55 PM
Ethylbenzene	180	50		µg/L	50	2/27/2012 6:10:55 PM
Xylenes, Total	1,200	100		µg/L	50	2/27/2012 6:10:55 PM
Surr: 4-Bromofluorobenzene	108	76.5-115		%REC	50	2/27/2012 6:10:55 PM

Qualifiers: */X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Analytical Report

Lab Order 1202859

Date Reported: 3/1/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/24/2012 10:00:00 AM

Lab ID: 1202859-004

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 6:41:07 PM
Benzene	ND	50		µg/L	50	2/27/2012 6:41:07 PM
Toluene	ND	50		µg/L	50	2/27/2012 6:41:07 PM
Ethylbenzene	ND	50		µg/L	50	2/27/2012 6:41:07 PM
Xylenes, Total	ND	100		µg/L	50	2/27/2012 6:41:07 PM
Surr: 4-Bromofluorobenzene	86.2	76.5-115		%REC	50	2/27/2012 6:41:07 PM

Qualifiers: */X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/25/2012 7:20:00 AM

Lab ID: 1202859-005

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 7:11:25 PM
Benzene	150	50		µg/L	50	2/27/2012 7:11:25 PM
Toluene	180	50		µg/L	50	2/27/2012 7:11:25 PM
Ethylbenzene	ND	50		µg/L	50	2/27/2012 7:11:25 PM
Xylenes, Total	180	100		µg/L	50	2/27/2012 7:11:25 PM
Surr: 4-Bromofluorobenzene	105	76.5-115		%REC	50	2/27/2012 7:11:25 PM

Qualifiers:	* / X Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1202859

Date Reported: 3/1/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 2/26/2012 8:00:00 AM

Lab ID: 1202859-006

Matrix: AQUEOUS

Received Date: 2/27/2012 12:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	2/27/2012 7:41:41 PM
Benzene	ND	50		µg/L	50	2/27/2012 7:41:41 PM
Toluene	610	50		µg/L	50	2/27/2012 7:41:41 PM
Ethylbenzene	61	50		µg/L	50	2/27/2012 7:41:41 PM
Xylenes, Total	ND	100		µg/L	50	2/27/2012 7:41:41 PM
Surr: 4-Bromofluorobenzene	89.6	76.5-115		%REC	50	2/27/2012 7:41:41 PM

Qualifiers:

- * / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1202859

01-Mar-12

Client: Western Refining Southwest, Gallup

Project: BZ Strippers

Sample ID	5ML-RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R1160	RunNo:	1160					
Prep Date:		Analysis Date:	2/27/2012	SeqNo:	33154	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		98.9	76.5	115			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R1160	RunNo:	1160					
Prep Date:		Analysis Date:	2/28/2012	SeqNo:	33155	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	110	50.5	158			
Benzene	19	1.0	20.00	0	97.4	80	120			
Toluene	20	1.0	20.00	0	98.7	80	120			
Ethylbenzene	19	1.0	20.00	0	95.8	80	120			
Xylenes, Total	58	2.0	60.00	0	96.6	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		85.6	76.5	115			

Sample ID	1202859-001A MS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BZ 1-2 OUT	Batch ID:	R1160	RunNo:	1160					
Prep Date:		Analysis Date:	2/27/2012	SeqNo:	33156	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1,100	120	1,000	0	113	58	139			
Benzene	1,400	50	1,000	477.3	95.9	70.1	118			
Toluene	1,800	50	1,000	841.8	96.1	72.3	117			
Ethylbenzene	1,000	50	1,000	80.90	96.5	73.5	117			
Xylenes, Total	3,500	100	3,000	561.0	96.8	73.1	119			
Surr: 4-Bromofluorobenzene	930		1,000		93.3	76.5	115			

Sample ID	1202859-001A MSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BZ 1-2 OUT	Batch ID:	R1160	RunNo:	1160					
Prep Date:		Analysis Date:	2/27/2012	SeqNo:	33157	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1,200	120	1,000	0	115	58	139	1.72	15.2	
Benzene	1,400	50	1,000	477.3	93.8	70.1	118	1.49	16.4	
Toluene	1,800	50	1,000	841.8	95.3	72.3	117	0.423	13.9	
Ethylbenzene	1,000	50	1,000	80.90	94.9	73.5	117	1.46	13.5	
Xylenes, Total	3,400	100	3,000	561.0	94.6	73.1	119	1.99	12.9	
Surr: 4-Bromofluorobenzene	1,100		1,000		110	76.5	115	0	0	

Qualifiers:

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 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1202859

01-Mar-12

Client: Western Refining Southwest, Gallup

Project: BZ Strippers

Sample ID	5ML-RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R1177	RunNo:	1177					
Prep Date:		Analysis Date:	2/28/2012	SeqNo:	33485	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	17		20.00		86.5	76.5	115			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R1177	RunNo:	1177					
Prep Date:		Analysis Date:	2/28/2012	SeqNo:	33488	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		110	76.5	115			

Qualifiers:

- *X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1202859
 Received by/date: *km 2/27/12*
 Logged By: Ashley Gallegos 2/27/2012 12:30:00 PM *AG*
 Completed By: Ashley Gallegos 2/27/2012 12:35:22 PM *AG*
 Reviewed By: *[Signature]* 2/27/12

Chain of Custody

- 1. Were seals intact? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Client

Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes No NA
- 5. Was an attempt made to cool the samples? Yes No NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 7. Sample(s) in proper container(s)? Yes No
- 8. Sufficient sample volume for indicated test(s)? Yes No
- 9. Are samples (except VOA and ONG) properly preserved? Yes No
- 10. Was preservative added to bottles? Yes No NA
- 11. VOA vials have zero headspace? Yes No No VOA Vials
- 12. Were any sample containers received broken? Yes No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 14. Are matrices correctly identified on Chain of Custody? Yes No
- 15. Is it clear what analyses were requested? Yes No
- 16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

18. Additional remarks: *1202859-001A, -003A, -005A pH > 2 RA 2/28/12*

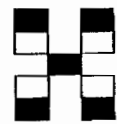
19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
 Mailing Address: Rt 3, Box 7
Gallup, NM 87301
 Phone #: 505-722-3833
 email or Fax#: 505-863-0930
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time:
 Standard Rush
 Project Name:
BZ Strippers
 Project #:
BZ API-OUT-1+2
 Project Manager:
Thurman Larsen
 Sampler: Nina, JKO, Romie
 Sample Temperature: _____



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	Lab No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 B BTEX-MTBE	Air Bubbles (Y or N)	
1-21-12	0800	H2O	BZ 1-2 OUT	40ML-3	HCL	1200.807													X	
1-22-12	1650	H2O	BZ 1-2 OUT	40ML-3	HCL														X	
1-23-12	7:20	H2O	BZ 1-2 OUT	40ML-3	HCL														X	
1-24-12	10:00	H2O	BZ 1-2 OUT	40ML-3	HCL														X	
1-25-12	7:20	H2O	BZ 1-2 OUT	40ML-3	HCL														X	
1-26-12	0800	H2O	BZ 1-2 OUT	40ML-2	HCL														X	

Date: 27-12-12 Time: 0930 Relinquished by: [Signature]
 Received by: [Signature] Date: 27-12-12 Time: 1330
 Date: 27-12-12 Time: 12:30 Relinquished by: [Signature]
 Received by: [Signature] Date: _____ Time: _____

Remarks:
CC: Kristen Vanhew
WWT: 4.2

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.