

JAN 2012

Gallup Refinery
discharge over benzene limit



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



January 30, 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.: 1201797

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/27/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1201797

Date Reported: 1/30/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 1/23/2012 8:00:00 PM

Lab ID: 1201797-001

Matrix: AQUEOUS

Received Date: 1/27/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	1/27/2012 2:38:19 PM
Benzene	1,100	50		µg/L	50	1/27/2012 2:38:19 PM
Toluene	2,300	50		µg/L	50	1/27/2012 2:38:19 PM
Ethylbenzene	350	50		µg/L	50	1/27/2012 2:38:19 PM
Xylenes, Total	2,400	100		µg/L	50	1/27/2012 2:38:19 PM
Surr: 4-Bromofluorobenzene	113	76.5-115		%REC	50	1/27/2012 2:38:19 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 1201797

Date Reported: 1/30/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 1/24/2012 8:00:00 AM

Lab ID: 1201797-002

Matrix: AQUEOUS

Received Date: 1/27/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	1/27/2012 4:39:22 PM
Benzene	110	50		µg/L	50	1/27/2012 4:39:22 PM
Toluene	250	50		µg/L	50	1/27/2012 4:39:22 PM
Ethylbenzene	51	50		µg/L	50	1/27/2012 4:39:22 PM
Xylenes, Total	350	100		µg/L	50	1/27/2012 4:39:22 PM
Surr: 4-Bromofluorobenzene	106	76.5-115		%REC	50	1/27/2012 4:39:22 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: 1/25/2012 8:00:00 AM

Lab ID: 1201797-003

Matrix: AQUEOUS

Received Date: 1/27/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	1/27/2012 5:09:33 PM
Benzene	140	50		µg/L	50	1/27/2012 5:09:33 PM
Toluene	360	50		µg/L	50	1/27/2012 5:09:33 PM
Ethylbenzene	69	50		µg/L	50	1/27/2012 5:09:33 PM
Xylenes, Total	500	100		µg/L	50	1/27/2012 5:09:33 PM
Surr: 4-Bromofluorobenzene	89.8	76.5-115		%REC	50	1/27/2012 5:09:33 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 1201797

Date Reported: 1/30/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BZ 1-2 OUT

Project: BZ Strippers

Collection Date: 1/26/2012 8:00:00 AM

Lab ID: 1201797-004

Matrix: AQUEOUS

Received Date: 1/27/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	1/27/2012 5:39:45 PM
Benzene	380	50		µg/L	50	1/27/2012 5:39:45 PM
Toluene	1,600	50		µg/L	50	1/27/2012 5:39:45 PM
Ethylbenzene	540	50		µg/L	50	1/27/2012 5:39:45 PM
Xylenes, Total	3,600	100		µg/L	50	1/27/2012 5:39:45 PM
Surr: 4-Bromofluorobenzene	120	76.5-115	S	%REC	50	1/27/2012 5:39:45 PM

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RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201797
30-Jan-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: R647	RunNo: 647
Prep Date:	Analysis Date: 1/27/2012	SeqNo: 18484 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		99.8	76.5	115			

Sample ID: 1201797-001A MS	SampType: MS	TestCode: EPA Method 8021B: Volatiles
Client ID: BZ 1-2 OUT	Batch ID: R647	RunNo: 647
Prep Date:	Analysis Date: 1/27/2012	SeqNo: 18488 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	51.10	110	74.6	120			
Benzene	2,100	50	1,000	1,109	97.9	76.6	119			
Toluene	3,300	50	1,000	2,310	96.6	77.3	118			
Ethylbenzene	1,400	50	1,000	351.4	102	76.6	114			
Xylenes, Total	5,500	100	3,000	2,410	104	82	113			
Surr: 4-Bromofluorobenzene	1,100		1,000		113	76.5	115			

Sample ID: 1201797-001A MSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles
Client ID: BZ 1-2 OUT	Batch ID: R647	RunNo: 647
Prep Date:	Analysis Date: 1/27/2012	SeqNo: 18489 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	51.10	110	74.6	120	0.209	15.2	
Benzene	2,100	50	1,000	1,109	95.8	76.6	119	1.02	16.4	
Toluene	3,300	50	1,000	2,310	96.8	77.3	118	0.0854	13.9	
Ethylbenzene	1,400	50	1,000	351.4	101	76.6	114	0.972	13.5	
Xylenes, Total	5,500	100	3,000	2,410	102	82	113	1.08	12.9	
Surr: 4-Bromofluorobenzene	1,200		1,000		117	76.5	115	0	0	S

Qualifiers:

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B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
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Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1201797**

Received by/date: *[Signature]*
 Logged By: **Lindsay Mangin** *1/27/12* **1/27/2012 8:00:00 AM** *[Signature]*
 Completed By: **Lindsay Mangin** **1/27/2012 8:20:15 AM** *[Signature]*
 Reviewed By: *[Signature]* *1/27/2012*

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? FedEx

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 # of preserved bottles checked for pH:
- 14. Are matrices correctly identified on Chain of Custody? Yes No (<2 or >12 unless noted)
- 15. Is it clear what analyses were requested? Yes No Adjusted?
- 16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No 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:

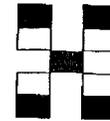
19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			

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#: 505 722 0210
 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: BONNIE JRO



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		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 BTEX-MTBE	Air Bubbles (Y or N)	
1-23-12	20:00	H2O	BZ 1-2 OUT	40ml-3	HCL	-1													X	
1-24-12	8:00	H2O	BZ 1-2 OUT	40ml-3	HCL	-2													X	
1-25-12	8:00	H2O	BZ 1-2 OUT	40ml-3	HCL	-3													X	
1-26-12	8:00	H2O	BZ 1-2 OUT	40ml-3	HCL	-4													X	

Date: 01-26-12 Time: 12:00 Relinquished by: [Signature]
 Received by: [Signature] Date: 1/26/12 Time: 0800
 Remarks: BZ 1-2 OUT WNT 5.5
ALSO CC KRISTEN VANHOIN

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.