Gallup ENTERED

Monzeglio, Hope, NMENV

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, June 30, 2009 6:39 PM
To: Monzeglio, Hope, NMENV; Jones, Brad A., EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Turri, Mark
Subject: Flow rate and benzene data for May, 2009
Attachments: May 1.pdf; May 7.pdf; May 14.pdf; May 18.pdf

Dear Hope:

It is a pleasure to send you our flow rate data and benzene strippers' analytical data for the month of May, 2009. Although we have four sets of data for May, we failed to collect any samples during the last week of May. Please accept my apologies for this oversight. This transpired as many staff persons were away on vacation and there was a lack of foresight in allocating responsibilities. We have taken steps to make sure this does not happen again – for example, this week we are short-staffed too and we have assigned alternate personnel to collect the benzene samples.

The analytical data are attached in the reports we have received from Hall Environmental Laboratory. You will note in the attached reports (as also for January, February, March and April 2009) that MTBE levels have consistently always been at non-detection levels. Our laboratory has informed us that because of the levels of BTEX present in the liquids it is difficult for them to improve the MTBE detection levels as you have requested. We will be working with them to try and improve the MTBE detection levels.

Through the benzene strippers 1 and 2 after the New API Separator (NAPIS), our average flow rate for the month of May 2009 in gallons per minutes was 199 GPM (with a maximum of approximately 260 GPM and a minimum of 160 GPM). We measure these flows by logging the depth in a 60 degrees trapezoidal flume approximately 6 times a day, and then averaging the depth readings, and using the flume's calibration curve to estimate the flow rate. We are working to get electronic flow meters in place that will log the flow data continuously to give us more accurate estimates.

For the benzene stripper 3 in our process area, in May only our Desalter effluent was routed to this stripper. Previously, we have sent you details of other units that can be routed at times. The Desalter effluents are approximately 4.5% of our crude charge rates, and for May this works out to approximately 17 GPM as the monthly average flow rate. As our crude charge rate varied through May, we estimate that the minimum and maximum average daily flow rates through the benzene stripper 3 varied between 16 GPM and 19 GPM for the month of May, 2009.

Best regards,

Raj

This inbound email has been scanned by the MessageLabs Email Security System.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, May 14, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: BZ Strippers

Order No.: 0905028

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/4/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

ACCREDITED IN ACCORDANCE WITH nelac

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *14-May-09*

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers
Lab Order: 0905028

Lab ID: 0905028-01
Client Sample ID: BZ Stripper 1&2 IN
Collection Date: 5/1/2009 11:35:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	1300		µg/L	500	5/12/2009 4:59:13 AM
Benzene	5900	500		µg/L	500	5/12/2009 4:59:13 AM
Toluene	18000	500		µg/L	500	5/12/2009 4:59:13 AM
Ethylbenzene	1600	500		µg/L	500	5/12/2009 4:59:13 AM
Xylenes, Total	12000	1000		µg/L	500	5/12/2009 4:59:13 AM
Surr: 4-Bromofluorobenzene	87.9	65.9-130		%REC	500	5/12/2009 4:59:13 AM

Lab ID: 0905028-02
Client Sample ID: BZ Stripper 1&2 OUT
Collection Date: 5/1/2009 11:50:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	630		µg/L	250	5/12/2009 5:29:55 AM
Benzene	790	250		µg/L	250	5/12/2009 5:29:55 AM
Toluene	3200	250		µg/L	250	5/12/2009 5:29:55 AM
Ethylbenzene	450	250		µg/L	250	5/12/2009 5:29:55 AM
Xylenes, Total	3300	500		µg/L	250	5/12/2009 5:29:55 AM
Surr: 4-Bromofluorobenzene	88.9	65.9-130		%REC	250	5/12/2009 5:29:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BZ Strippers **Work Order:** 0905028

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33615**	Analysis Date:	5/11/2009 9:37:07 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33615**	Analysis Date:	5/11/2009 7:18:02 PM	
Methyl tert-butyl ether (MTBE)	22.18	µg/L	2.5	111	51.2	138			
Benzene	19.72	µg/L	1.0	98.6	85.9	113			
Toluene	21.49	µg/L	1.0	107	86.4	113			
Ethylbenzene	21.00	µg/L	1.0	105	83.5	118			
Xylenes, Total	64.64	µg/L	2.0	108	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R33615**	Analysis Date:	5/11/2009 7:48:31 PM	
Methyl tert-butyl ether (MTBE)	22.21	µg/L	2.5	111	51.2	138	0.144	28	
Benzene	19.51	µg/L	1.0	97.6	85.9	113	1.08	27	
Toluene	20.61	µg/L	1.0	103	86.4	113	4.17	19	
Ethylbenzene	20.31	µg/L	1.0	102	83.5	118	3.33	10	
Xylenes, Total	62.03	µg/L	2.0	103	83.4	122	4.12	13	

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received: 5/4/2009

Work Order Number 0905028

Received by: AMF

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature _____ 5/4/09 Date

Matrix:

Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	6°	<6° C *Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN - REFINING
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: BZ STrippers

Project #:

Project Manager: GAURAV, RAJEN

Sampler: ALVIN DORSEY

On Ice: ☐ Yes ☐ No

Sample Temperature: 6

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	HEAL No. 0905083	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)	8021B BTEX - MTBE				Air Bubbles (Y or N)
~~05/01/09~~	~~1135~~		~~3rd B STRIPPER - IN~~																			
~~VOID~~			~~3rd B Destripper Out~~																			
05/01/09	1135	Air	Bz STripper 1&2 IN			1												X				
05/01/09	1150	↓	Bz STripper 1&2 out			2												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/01/09	1200	Alvin D	[signature]	5/1/09	430
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, May 19, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: BZ Strippers

Order No.: 0905150

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/7/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

ACCREDITED IN ACCORDANCE WITH nelac

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *19-May-09*

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers
Lab Order: 0905150

Lab ID: 0905150-01
Client Sample ID: 3rd BZ Stripper IN
Collection Date: 5/7/2009 8:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	2500		µg/L	1000	5/15/2009 8:26:11 PM
Benzene	37000	1000		µg/L	1000	5/15/2009 8:26:11 PM
Toluene	55000	1000		µg/L	1000	5/15/2009 8:26:11 PM
Ethylbenzene	3800	1000		µg/L	1000	5/15/2009 8:26:11 PM
Xylenes, Total	25000	2000		µg/L	1000	5/15/2009 8:26:11 PM
Surr: 4-Bromofluorobenzene	83.9	65.9-130		%REC	1000	5/15/2009 8:26:11 PM

Lab ID: 0905150-02
Client Sample ID: 3rd BZ Stripper OUT
Collection Date: 5/7/2009 8:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	5/15/2009 8:56:45 PM
Benzene	6400	200		µg/L	200	5/15/2009 8:56:45 PM
Toluene	7000	200		µg/L	200	5/15/2009 8:56:45 PM
Ethylbenzene	340	200		µg/L	200	5/15/2009 8:56:45 PM
Xylenes, Total	2400	400		µg/L	200	5/15/2009 8:56:45 PM
Surr: 4-Bromofluorobenzene	86.3	65.9-130		%REC	200	5/15/2009 8:56:45 PM

Lab ID: 0905150-03
Client Sample ID: BZ Stripper 1&2 IN
Collection Date: 5/7/2009 9:20:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	1300		µg/L	500	5/15/2009 9:27:14 PM
Benzene	10000	500		µg/L	500	5/15/2009 9:27:14 PM
Toluene	21000	500		µg/L	500	5/15/2009 9:27:14 PM
Ethylbenzene	1500	500		µg/L	500	5/15/2009 9:27:14 PM
Xylenes, Total	8900	1000		µg/L	500	5/15/2009 9:27:14 PM
Surr: 4-Bromofluorobenzene	85.6	65.9-130		%REC	500	5/15/2009 9:27:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *19-May-09*

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers
Lab Order: 0905150

Lab ID: 0905150-04
Collection Date: 5/7/2009 9:30:00 AM
Client Sample ID: BZ Stripper 1&2 OUT
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	5/15/2009 9:57:53 PM
Benzene	2200	200		µg/L	200	5/15/2009 9:57:53 PM
Toluene	5700	200		µg/L	200	5/15/2009 9:57:53 PM
Ethylbenzene	580	200		µg/L	200	5/15/2009 9:57:53 PM
Xylenes, Total	3800	400		µg/L	200	5/15/2009 9:57:53 PM
Surr: 4-Bromofluorobenzene	85.6	65.9-130		%REC	200	5/15/2009 9:57:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BZ Strippers **Work Order:** 0905150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33692**	Analysis Date:	5/15/2009 9:13:13 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33692**	Analysis Date:	5/15/2009 5:53:20 PM	
Methyl tert-butyl ether (MTBE)	20.44	µg/L	2.5	102	51.2	138			
Benzene	21.83	µg/L	1.0	109	85.9	113			
Toluene	22.65	µg/L	1.0	111	86.4	113			
Ethylbenzene	22.27	µg/L	1.0	111	83.5	118			
Xylenes, Total	63.24	µg/L	2.0	105	83.4	122			

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received: 5/7/2009

Work Order Number 0905150

Received by: AT

Sample ID labels checked by: AS
Initials

Checklist completed by: _____ 5/7/09
Signature Date

Matrix: Carrier name Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	1°	<6° C *Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN - REFINING
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: BZ STrippers

Project #:

Project Manager: GAURAV, RAJEN

Sampler: ALVIN DORSEY

On Ice: ☒ Yes ☐ No

Sample Temperature: 4

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	HEAL No. 0905150	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)	8021B BTEX-MTBE				Air Bubbles (Y or N)
05-07-09	0830	Air	3rd BzStripper-IN	3-40ml	HCL	-1												X				
05-07-09	0845		3rd BzStripper-OUT	3-40ml	HCL	-2												X				
05-07-09	0920		BzStripper #2 IN	3-40ml	HCL	-3												X				
05-07-09	0930		BzStripper #2 OUT	3-40ml	HCL	-4												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
05-07-09	1:09	[signature]	[signature]	5/7/09	1640
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, May 26, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0227
FAX (505) 722-0210

RE: BTEX 8260B

Order No.: 0905337

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/19/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

ACCREDITED IN ACCORDANCE WITH nelac

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905337
Project: BTEX 8260B
Lab ID: 0905337-01

Client Sample ID: 3RD Bz Stripper-IN
Collection Date: 5/14/2009 10:00:00 AM
Date Received: 5/19/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	35000	1000		µg/L	1000	5/20/2009 8:21:31 AM
Toluene	42000	1000		µg/L	1000	5/20/2009 8:21:31 AM
Ethylbenzene	3000	100		µg/L	100	5/20/2009 8:50:21 AM
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2,4-Trimethylbenzene	3100	100		µg/L	100	5/20/2009 8:50:21 AM
1,3,5-Trimethylbenzene	1200	100		µg/L	100	5/20/2009 8:50:21 AM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Naphthalene	340	200		µg/L	100	5/20/2009 8:50:21 AM
1-Methylnaphthalene	ND	400		µg/L	100	5/20/2009 8:50:21 AM
2-Methylnaphthalene	ND	400		µg/L	100	5/20/2009 8:50:21 AM
Acetone	32000	10000		µg/L	1000	5/20/2009 8:21:31 AM
Bromobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Bromodichloromethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Bromoform	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Bromomethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
2-Butanone	8700	1000		µg/L	100	5/20/2009 8:50:21 AM
Carbon disulfide	ND	1000		µg/L	100	5/20/2009 8:50:21 AM
Carbon Tetrachloride	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Chlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Chloroethane	ND	200		µg/L	100	5/20/2009 8:50:21 AM
Chloroform	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Chloromethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
2-Chlorotoluene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
4-Chlorotoluene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
cis-1,2-DCE	ND	100		µg/L	100	5/20/2009 8:50:21 AM
cis-1,3-Dichloropropene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	5/20/2009 8:50:21 AM
Dibromochloromethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Dibromomethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2-Dichlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,3-Dichlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,4-Dichlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Dichlorodifluoromethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1-Dichloroethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1-Dichloroethene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2-Dichloropropane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,3-Dichloropropane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
2,2-Dichloropropane	ND	200		µg/L	100	5/20/2009 8:50:21 AM
1,1-Dichloropropene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Hexachlorobutadiene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
2-Hexanone	ND	1000		µg/L	100	5/20/2009 8:50:21 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	3RD Bz Stripper-IN
Lab Order:	0905337	**Collection Date:**	5/14/2009 10:00:00 AM
Project:	BTEX 8260B	**Date Received:**	5/19/2009
Lab ID:	0905337-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	210	100		µg/L	100	5/20/2009 8:50:21 AM
4-Isopropyltoluene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
4-Methyl-2-pentanone	ND	1000		µg/L	100	5/20/2009 8:50:21 AM
Methylene Chloride	ND	300		µg/L	100	5/20/2009 8:50:21 AM
n-Butylbenzene	130	100		µg/L	100	5/20/2009 8:50:21 AM
n-Propylbenzene	390	100		µg/L	100	5/20/2009 8:50:21 AM
sec-Butylbenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Styrene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
tert-Butylbenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	5/20/2009 8:50:21 AM
Tetrachloroethene (PCE)	ND	100		µg/L	100	5/20/2009 8:50:21 AM
trans-1,2-DCE	ND	100		µg/L	100	5/20/2009 8:50:21 AM
trans-1,3-Dichloropropene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1,1-Trichloroethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,1,2-Trichloroethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Trichloroethene (TCE)	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Trichlorofluoromethane	ND	100		µg/L	100	5/20/2009 8:50:21 AM
1,2,3-Trichloropropane	ND	200		µg/L	100	5/20/2009 8:50:21 AM
Vinyl chloride	ND	100		µg/L	100	5/20/2009 8:50:21 AM
Xylenes, Total	21000	150		µg/L	100	5/20/2009 8:50:21 AM
Surr: 1,2-Dichloroethane-d4	105	68.1-123		%REC	100	5/20/2009 8:50:21 AM
Surr: 4-Bromofluorobenzene	96.4	53.2-145		%REC	100	5/20/2009 8:50:21 AM
Surr: Dibromofluoromethane	109	68.5-119		%REC	1000	5/20/2009 8:21:31 AM
Surr: Toluene-d8	110	64-131		%REC	100	5/20/2009 8:50:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905337
Project: BTEX 8260B
Lab ID: 0905337-02

Client Sample ID: 3RD Bz Stripper-OUT
Collection Date: 5/14/2009 10:15:00 AM
Date Received: 5/19/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	9300	100		µg/L	100	5/20/2009 9:20:33 AM
Toluene	9600	250		µg/L	250	5/20/2009 5:49:27 PM
Ethylbenzene	700	10		µg/L	10	5/20/2009 9:49:37 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2,4-Trimethylbenzene	1200	100		µg/L	100	5/20/2009 9:20:33 AM
1,3,5-Trimethylbenzene	330	10		µg/L	10	5/20/2009 9:49:37 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Naphthalene	260	20		µg/L	10	5/20/2009 9:49:37 AM
1-Methylnaphthalene	170	40		µg/L	10	5/20/2009 9:49:37 AM
2-Methylnaphthalene	190	40		µg/L	10	5/20/2009 9:49:37 AM
Acetone	28000	2500		µg/L	250	5/20/2009 5:49:27 PM
Bromobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Bromodichloromethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Bromoform	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Bromomethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
2-Butanone	5900	1000		µg/L	100	5/20/2009 9:20:33 AM
Carbon disulfide	ND	100		µg/L	10	5/20/2009 9:49:37 AM
Carbon Tetrachloride	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Chlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Chloroethane	ND	20		µg/L	10	5/20/2009 9:49:37 AM
Chloroform	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Chloromethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
2-Chlorotoluene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
4-Chlorotoluene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
cis-1,2-DCE	ND	10		µg/L	10	5/20/2009 9:49:37 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	5/20/2009 9:49:37 AM
Dibromochloromethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Dibromomethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Dichlorodifluoromethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1-Dichloroethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1-Dichloroethene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2-Dichloropropane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,3-Dichloropropane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
2,2-Dichloropropane	ND	20		µg/L	10	5/20/2009 9:49:37 AM
1,1-Dichloropropene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Hexachlorobutadiene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
2-Hexanone	ND	100		µg/L	10	5/20/2009 9:49:37 AM

Qualifiers:
- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	3RD Bz Stripper-OUT
Lab Order:	0905337	**Collection Date:**	5/14/2009 10:15:00 AM
Project:	BTEX 8260B	**Date Received:**	5/19/2009
Lab ID:	0905337-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	37	10		µg/L	10	5/20/2009 9:49:37 AM
4-Isopropyltoluene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	5/20/2009 9:49:37 AM
Methylene Chloride	ND	30		µg/L	10	5/20/2009 9:49:37 AM
n-Butylbenzene	35	10		µg/L	10	5/20/2009 9:49:37 AM
n-Propylbenzene	92	10		µg/L	10	5/20/2009 9:49:37 AM
sec-Butylbenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Styrene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
tert-Butylbenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	5/20/2009 9:49:37 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	5/20/2009 9:49:37 AM
trans-1,2-DCE	ND	10		µg/L	10	5/20/2009 9:49:37 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Trichloroethene (TCE)	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Trichlorofluoromethane	ND	10		µg/L	10	5/20/2009 9:49:37 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	5/20/2009 9:49:37 AM
Vinyl chloride	ND	10		µg/L	10	5/20/2009 9:49:37 AM
Xylenes, Total	5500	150		µg/L	100	5/20/2009 9:20:33 AM
Surr: 1,2-Dichloroethane-d4	100	68.1-123		%REC	10	5/20/2009 9:49:37 AM
Surr: 4-Bromofluorobenzene	93.9	53.2-145		%REC	10	5/20/2009 9:49:37 AM
Surr: Dibromofluoromethane	109	68.5-119		%REC	10	5/20/2009 9:49:37 AM
Surr: Toluene-d8	105	64-131		%REC	10	5/20/2009 9:49:37 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905337
Project: BTEX 8260B
Lab ID: 0905337-03

Client Sample ID: Bz Stripper 1&2-IN
Collection Date: 5/14/2009 2:00:00 PM
Date Received: 5/19/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	4600	50		µg/L	50	5/20/2009 10:48:38 AM
Toluene	15000	500		µg/L	500	5/20/2009 10:19:45 AM
Ethylbenzene	1300	50		µg/L	50	5/20/2009 10:48:38 AM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2,4-Trimethylbenzene	1300	50		µg/L	50	5/20/2009 10:48:38 AM
1,3,5-Trimethylbenzene	510	50		µg/L	50	5/20/2009 10:48:38 AM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Naphthalene	610	100		µg/L	50	5/20/2009 10:48:38 AM
1-Methylnaphthalene	280	200		µg/L	50	5/20/2009 10:48:38 AM
2-Methylnaphthalene	470	200		µg/L	50	5/20/2009 10:48:38 AM
Acetone	13000	5000		µg/L	500	5/20/2009 10:19:45 AM
Bromobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Bromodichloromethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Bromoform	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Bromomethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
2-Butanone	2300	500		µg/L	50	5/20/2009 10:48:38 AM
Carbon disulfide	ND	500		µg/L	50	5/20/2009 10:48:38 AM
Carbon Tetrachloride	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Chlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Chloroethane	ND	100		µg/L	50	5/20/2009 10:48:38 AM
Chloroform	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Chloromethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
2-Chlorotoluene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
4-Chlorotoluene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
cis-1,2-DCE	ND	50		µg/L	50	5/20/2009 10:48:38 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	5/20/2009 10:48:38 AM
Dibromochloromethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Dibromomethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Dichlorodifluoromethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1-Dichloroethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1-Dichloroethene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2-Dichloropropane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,3-Dichloropropane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
2,2-Dichloropropane	ND	100		µg/L	50	5/20/2009 10:48:38 AM
1,1-Dichloropropene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Hexachlorobutadiene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
2-Hexanone	ND	500		µg/L	50	5/20/2009 10:48:38 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Bz Stripper 1&2-IN
Lab Order:	0905337	**Collection Date:**	5/14/2009 2:00:00 PM
Project:	BTEX 8260B	**Date Received:**	5/19/2009
Lab ID:	0905337-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	97	50		µg/L	50	5/20/2009 10:48:38 AM
4-Isopropyltoluene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
4-Methyl-2-pentanone	ND	500		µg/L	50	5/20/2009 10:48:38 AM
Methylene Chloride	ND	150		µg/L	50	5/20/2009 10:48:38 AM
n-Butylbenzene	78	50		µg/L	50	5/20/2009 10:48:38 AM
n-Propylbenzene	180	50		µg/L	50	5/20/2009 10:48:38 AM
sec-Butylbenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Styrene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
tert-Butylbenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	5/20/2009 10:48:38 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	5/20/2009 10:48:38 AM
trans-1,2-DCE	ND	50		µg/L	50	5/20/2009 10:48:38 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Trichloroethene (TCE)	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Trichlorofluoromethane	ND	50		µg/L	50	5/20/2009 10:48:38 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	5/20/2009 10:48:38 AM
Vinyl chloride	ND	50		µg/L	50	5/20/2009 10:48:38 AM
Xylenes, Total	8800	75		µg/L	50	5/20/2009 10:48:38 AM
Surr: 1,2-Dichloroethane-d4	105	68.1-123		%REC	50	5/20/2009 10:48:38 AM
Surr: 4-Bromofluorobenzene	91.5	53.2-145		%REC	50	5/20/2009 10:48:38 AM
Surr: Dibromofluoromethane	109	68.5-119		%REC	50	5/20/2009 10:48:38 AM
Surr: Toluene-d8	107	64-131		%REC	50	5/20/2009 10:48:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905337
Project: BTEX 8260B
Lab ID: 0905337-04

Client Sample ID: Bz Stripper 1&2-OUT
Collection Date: 5/14/2009 2:25:00 PM
Date Received: 5/19/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	650	50		µg/L	50	5/20/2009 11:48:03 AM
Toluene	2000	50		µg/L	50	5/20/2009 11:48:03 AM
Ethylbenzene	250	50		µg/L	50	5/20/2009 11:48:03 AM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2,4-Trimethylbenzene	580	50		µg/L	50	5/20/2009 11:48:03 AM
1,3,5-Trimethylbenzene	200	50		µg/L	50	5/20/2009 11:48:03 AM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Naphthalene	350	100		µg/L	50	5/20/2009 11:48:03 AM
1-Methylnaphthalene	310	200		µg/L	50	5/20/2009 11:48:03 AM
2-Methylnaphthalene	460	200		µg/L	50	5/20/2009 11:48:03 AM
Acetone	9600	500		µg/L	50	5/20/2009 11:48:03 AM
Bromobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Bromodichloromethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Bromoform	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Bromomethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
2-Butanone	1500	500		µg/L	50	5/20/2009 11:48:03 AM
Carbon disulfide	ND	500		µg/L	50	5/20/2009 11:48:03 AM
Carbon Tetrachloride	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Chlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Chloroethane	ND	100		µg/L	50	5/20/2009 11:48:03 AM
Chloroform	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Chloromethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
2-Chlorotoluene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
4-Chlorotoluene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
cis-1,2-DCE	ND	50		µg/L	50	5/20/2009 11:48:03 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	5/20/2009 11:48:03 AM
Dibromochloromethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Dibromomethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Dichlorodifluoromethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1-Dichloroethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1-Dichloroethene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2-Dichloropropane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,3-Dichloropropane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
2,2-Dichloropropane	ND	100		µg/L	50	5/20/2009 11:48:03 AM
1,1-Dichloropropene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Hexachlorobutadiene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
2-Hexanone	ND	500		µg/L	50	5/20/2009 11:48:03 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Bz Stripper 1&2-OUT
Lab Order:	0905337	**Collection Date:**	5/14/2009 2:25:00 PM
Project:	BTEX 8260B	**Date Received:**	5/19/2009
Lab ID:	0905337-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
4-Isopropyltoluene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
4-Methyl-2-pentanone	ND	500		µg/L	50	5/20/2009 11:48:03 AM
Methylene Chloride	ND	150		µg/L	50	5/20/2009 11:48:03 AM
n-Butylbenzene	66	50		µg/L	50	5/20/2009 11:48:03 AM
n-Propylbenzene	75	50		µg/L	50	5/20/2009 11:48:03 AM
sec-Butylbenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Styrene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
tert-Butylbenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	5/20/2009 11:48:03 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	5/20/2009 11:48:03 AM
trans-1,2-DCE	ND	50		µg/L	50	5/20/2009 11:48:03 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Trichloroethene (TCE)	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Trichlorofluoromethane	ND	50		µg/L	50	5/20/2009 11:48:03 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	5/20/2009 11:48:03 AM
Vinyl chloride	ND	50		µg/L	50	5/20/2009 11:48:03 AM
Xylenes, Total	1800	75		µg/L	50	5/20/2009 11:48:03 AM
Surr: 1,2-Dichloroethane-d4	104	68.1-123		%REC	50	5/20/2009 11:48:03 AM
Surr: 4-Bromofluorobenzene	98.2	53.2-145		%REC	50	5/20/2009 11:48:03 AM
Surr: Dibromofluoromethane	111	68.5-119		%REC	50	5/20/2009 11:48:03 AM
Surr: Toluene-d8	102	64-131		%REC	50	5/20/2009 11:48:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BTEX 8260B

Work Order: 0905337

Method: EPA Method 8260B: VOLATILES
Sample ID: b2 *MBLK*

Batch ID: **R33747** Analysis Date: 5/19/2009 11:59:47 AM

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BTEX 8260B **Work Order:** 0905337

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b2		*MBLK*			Batch ID:	**R33747**	Analysis Date:	5/19/2009 11:59:47 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b4		*MBLK*			Batch ID:	**R33747**	Analysis Date:	5/20/2009 12:35:38 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BTEX 8260B
Work Order: 0905337

Method: EPA Method 8260B: VOLATILES
Sample ID: b4 — *MBLK* — Batch ID: **R33747** Analysis Date: 5/20/2009 12:35:38 AM

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						

Sample ID: 5ml rb — *MBLK* — Batch ID: **R33769** Analysis Date: 5/20/2009 1:13:20 PM

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BTEX 8260B **Work Order:** 0905337

Method: EPA Method 8260B: VOLATILES
Sample ID: 5ml rb *MBLK* Batch ID: R33769 Analysis Date: 5/20/2009 1:13:20 PM

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BTEX 8260B

Work Order: 0905337

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R33769**	Analysis Date:	5/20/2009 1:13:20 PM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33747**	Analysis Date:	5/19/2009 12:58:02 PM	
Benzene	21.02	µg/L	1.0	105	76.7	114			
Toluene	20.09	µg/L	1.0	100	78.4	117			
Chlorobenzene	19.07	µg/L	1.0	94.5	80.7	127			
1,1-Dichloroethene	22.98	µg/L	1.0	115	80.2	128			
Trichloroethene (TCE)	20.21	µg/L	1.0	101	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33747**	Analysis Date:	5/20/2009 1:33:25 AM	
Benzene	20.62	µg/L	1.0	103	76.7	114			
Toluene	19.47	µg/L	1.0	97.3	78.4	117			
Chlorobenzene	18.99	µg/L	1.0	94.9	80.7	127			
1,1-Dichloroethene	22.57	µg/L	1.0	113	80.2	128			
Trichloroethene (TCE)	19.56	µg/L	1.0	97.8	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33769**	Analysis Date:	5/20/2009 3:23:10 PM	
Benzene	21.27	µg/L	1.0	106	76.7	114			
Toluene	19.10	µg/L	1.0	94.7	78.4	117			
Chlorobenzene	18.57	µg/L	1.0	92.9	80.7	127			
1,1-Dichloroethene	23.54	µg/L	1.0	118	80.2	128			
Trichloroethene (TCE)	20.37	µg/L	1.0	102	77.4	115			

Qualifiers:

E	Estimated value	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	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received: 5/19/2009

Work Order Number 0905337

Received by: ARS

Sample ID labels checked by: TS
Initials

Checklist completed by: _____ Signature 5/19/09 Date

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	_____
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**13.2°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN - REFINING
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: BTEX 8260B

Project #:

Project Manager: GAURAV, RAJEN

Sampler: ALVIN DORSEY

On Ice: ☑ Yes ☐ No

Sample Temperature: 12.7

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 (AT 5/19/09)	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0905333	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) ALL VOC	8270 (Semi-VOA)					Air Bubbles (Y or N)
05-14-09	1000	Aq	3rd BzStripper-IN	3-VOA	HCl	1										X						
05-14-09	1015	↓	3rd BzStripper-OUT	3-VOA	HCl	2										X						
05-14-09	1400	↓	BzStripper 1&2 IN	3-VOA	HCl	3										X						
05-14-09	1425	↓	BzStripper 1&2 OUT	3-VOA	HCl	4										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
05-18-09	1000	[signature]	[signature]	5/19/09	9:00	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, June 02, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: BZ Strippers

Order No.: 0905335

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/19/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

ACCREDITED IN ACCORDANCE WITH nelac

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jun-09*

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers

Lab Order: 0905335

Lab ID: 0905335-01
Client Sample ID: 3rd BZ Stripper IN

Collection Date: 5/18/2009 7:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	1300		µg/L	500	5/30/2009 12:30:17 PM
Benzene	34000	500		µg/L	500	5/30/2009 12:30:17 PM
Toluene	33000	500		µg/L	500	5/30/2009 12:30:17 PM
Ethylbenzene	1600	500		µg/L	500	5/30/2009 12:30:17 PM
Xylenes, Total	11000	1000		µg/L	500	5/30/2009 12:30:17 PM
Surr: 4-Bromofluorobenzene	87.7	65.9-130		%REC	500	5/30/2009 12:30:17 PM

Lab ID: 0905335-02
Client Sample ID: 3rd BZ Stripper OUT

Collection Date: 5/18/2009 7:45:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	5/29/2009 2:10:25 PM
Benzene	6700	200		µg/L	200	5/29/2009 2:10:25 PM
Toluene	6100	200		µg/L	200	5/29/2009 2:10:25 PM
Ethylbenzene	240	200		µg/L	200	5/29/2009 2:10:25 PM
Xylenes, Total	1900	400		µg/L	200	5/29/2009 2:10:25 PM
Surr: 4-Bromofluorobenzene	81.8	65.9-130		%REC	200	5/29/2009 2:10:25 PM

Lab ID: 0905335-03
Client Sample ID: BZ Stripper 1&2 IN

Collection Date: 5/18/2009 8:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	1300		µg/L	500	5/29/2009 2:41:03 PM
Benzene	11000	500		µg/L	500	5/29/2009 2:41:03 PM
Toluene	27000	500		µg/L	500	5/29/2009 2:41:03 PM
Ethylbenzene	1600	500		µg/L	500	5/29/2009 2:41:03 PM
Xylenes, Total	10000	1000		µg/L	500	5/29/2009 2:41:03 PM
Surr: 4-Bromofluorobenzene	89.3	65.9-130		%REC	500	5/29/2009 2:41:03 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jun-09*

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strippers

Lab Order: 0905335

Lab ID: 0905335-04
Client Sample ID: BZ Stripper 1&2 OUT

Collection Date: 5/18/2009 8:15:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	5/29/2009 3:11:41 PM
Benzene	1600	200		µg/L	200	5/29/2009 3:11:41 PM
Toluene	5300	200		µg/L	200	5/29/2009 3:11:41 PM
Ethylbenzene	530	200		µg/L	200	5/29/2009 3:11:41 PM
Xylenes, Total	3600	400		µg/L	200	5/29/2009 3:11:41 PM
Surr: 4-Bromofluorobenzene	88.6	65.9-130		%REC	200	5/29/2009 3:11:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: BZ Strippers
Work Order: 0905335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33878**	Analysis Date:	5/29/2009 9:06:58 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33878**	Analysis Date:	5/30/2009 5:24:25 AM	
Methyl tert-butyl ether (MTBE)	20.20	µg/L	2.5	101	51.2	138			
Benzene	19.92	µg/L	1.0	99.6	85.9	113			
Toluene	19.82	µg/L	1.0	99.1	86.4	113			
Ethylbenzene	20.29	µg/L	1.0	101	83.5	118			
Xylenes, Total	60.55	µg/L	2.0	101	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R33878**	Analysis Date:	5/30/2009 5:54:51 AM	
Methyl tert-butyl ether (MTBE)	21.05	µg/L	2.5	105	51.2	138	4.12	28	
Benzene	20.56	µg/L	1.0	103	85.9	113	3.18	27	
Toluene	20.46	µg/L	1.0	102	86.4	113	3.14	19	
Ethylbenzene	20.86	µg/L	1.0	104	83.5	118	2.79	10	
Xylenes, Total	62.33	µg/L	2.0	104	83.4	122	2.90	13	

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received: 5/19/2009

Work Order Number 0905335

Received by: ARS

Sample ID labels checked by: TD
Initials

Checklist completed by: _____ 5/19/09
Signature Date

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**13.2°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN-Refining
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: B2 Strippers
Project #:
Project Manager: Gautau, Rajen
Sampler: ALVIN DORSEY
On Ice: ☑ Yes ☐ No
Sample Temperature: 15.2

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 (519169 AK)	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0905335	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)	8021B BTEX-MTBE				Air Bubbles (Y or N)
05-18-09	0730	Aq	3RD B2 Stripper IN	3-VOA	HCl	1												X				
05-18-09	0745		3RD B2 Stripper OUT	3 VOA	HCl	2												X				
05-18-09	0800		B2 Stripper 12-2 IN	3-VOA	HCl	3												X				
05-18-09	0815		B2 Stripper 12-2 OUT	3-VOA	HCl	4												X				

Date:	Time:	Relinquished by:	Received by:	Date Time	Remarks:
05-18-09	1000	[signature]	[signature]	9:00 5/19/09	
Date:	Time:	Relinquished by:	Received by:	Date Time	

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