Monzeglio, Hope, NMENV

ENTERED

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Monday, March 23, 2009 12:55 PM
To: Monzeglio, Hope, NMENV
Cc: Riege, Ed; Cobrain, Dave, NMENV; Turri, Mark; Jones, Brad A., EMNRD
Subject: Benzene results and flow rates for the month of February 2009
Attachments: January 29 and February 3.pdf; February 11.pdf; February 24.pdf; February 18.pdf

Dear Hope:

It is a pleasure to send you our flow rate data and benzene strippers' analytical data for the month of February, 2009.

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 2009) that MTBE levels have consistently always been at non-detection levels. Perhaps you may consider dropping the requirement of testing for MTBE. Our refinery does not use MTBE and so there is no likelihood of finding MTBE in our effluents.

Through the benzene strippers 1 and 2 after the New API Separator (NAPIS), our average flow rate for the month in gallons per minutes was 228 GPM (with a maximum of approximately 350 GPM and a minimum of 130 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.

For the benzene stripper 3 in our process area, in February 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 February this works out to approximately 17 GPM as the monthly average flow rate. As our crude charge rate was fairly constant in February, slowly starting to ramp up, 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 February, 2009.

You will be pleased to note that we have made some piping and other process modifications (more are ongoing) in our benzene strippers 1 and 2 and the NAPIS that we are confident will begin to show considerable improvement in our benzene strippers' performance and reductions in the levels of benzene in the effluent. These should be reflected in our March results.

Best regards,

Raj

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, February 13, 2009

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

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

RE: Benzene Strippers

Order No.: 0902030

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 2/4/2009 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:** *13-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 0902030

CASE NARRATIVE

The pH was greater than 2.0 for samples: 3rd Bz Stripper In and 3rd Bz stripper out collected 2/3/2009

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 0902030

Lab ID: 0902030-01
Collection Date: 1/29/2009 2:20:00 PM
Client Sample ID: 3RD BZ Stripper-IN
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	2/5/2009 10:12:59 PM
Benzene	27000	1000		µg/L	1000	2/5/2009 10:12:59 PM
Toluene	80000	1000		µg/L	1000	2/5/2009 10:12:59 PM
Ethylbenzene	22000	1000		µg/L	1000	2/5/2009 10:12:59 PM
Xylenes, Total	140000	2000		µg/L	1000	2/5/2009 10:12:59 PM
Surr: 4-Bromofluorobenzene	106	65.9-130		%REC	1000	2/5/2009 10:12:59 PM

Lab ID: 0902030-02
Collection Date: 1/29/2009 2:50:00 PM
Client Sample ID: 3RD BZ Stripper-OUT
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	2/6/2009 12:23:26 PM
Benzene	7400	500		µg/L	500	2/6/2009 12:23:26 PM
Toluene	37000	500		µg/L	500	2/6/2009 12:23:26 PM
Ethylbenzene	15000	500		µg/L	500	2/6/2009 12:23:26 PM
Xylenes, Total	92000	1000		µg/L	500	2/6/2009 12:23:26 PM
Surr: 4-Bromofluorobenzene	89.7	65.9-130		%REC	500	2/6/2009 12:23:26 PM

Lab ID: 0902030-03
Collection Date: 1/29/2009 8:45:00 AM
Client Sample ID: BZ Stripper 1&2 IN
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	2/6/2009 12:53:59 PM
Benzene	7600	200		µg/L	200	2/6/2009 12:53:59 PM
Toluene	11000	200		µg/L	200	2/6/2009 12:53:59 PM
Ethylbenzene	770	200		µg/L	200	2/6/2009 12:53:59 PM
Xylenes, Total	4800	400		µg/L	200	2/6/2009 12:53:59 PM
Surr: 4-Bromofluorobenzene	92.8	65.9-130		%REC	200	2/6/2009 12:53:59 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: *13-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers

Lab Order: 0902030

Lab ID: 0902030-04
Client Sample ID: BZ Stripper 1&2 OUT

Collection Date: 1/29/2009 9:20:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/5/2009 11:44:26 PM
Benzene	980	50		µg/L	50	2/5/2009 11:44:26 PM
Toluene	1700	50		µg/L	50	2/5/2009 11:44:26 PM
Ethylbenzene	180	50		µg/L	50	2/5/2009 11:44:26 PM
Xylenes, Total	1200	100		µg/L	50	2/5/2009 11:44:26 PM
Surr: 4-Bromofluorobenzene	89.4	65.9-130		%REC	50	2/5/2009 11:44:26 PM

Lab ID: 0902030-05
Client Sample ID: 3RD BZ Stripper-IN

Collection Date: 2/3/2009 7:50:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	2500		µg/L	1000	2/6/2009 12:15:02 AM
Benzene	33000	1000		µg/L	1000	2/6/2009 12:15:02 AM
Toluene	45000	1000		µg/L	1000	2/6/2009 12:15:02 AM
Ethylbenzene	6200	1000		µg/L	1000	2/6/2009 12:15:02 AM
Xylenes, Total	41000	2000		µg/L	1000	2/6/2009 12:15:02 AM
Surr: 4-Bromofluorobenzene	88.8	65.9-130		%REC	1000	2/6/2009 12:15:02 AM

Lab ID: 0902030-06
Client Sample ID: 3RD BZ Stripper-OUT

Collection Date: 2/3/2009 8:20:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	2/6/2009 12:45:35 AM
Benzene	7300	100		µg/L	100	2/6/2009 12:45:35 AM
Toluene	9700	100		µg/L	100	2/6/2009 12:45:35 AM
Ethylbenzene	1500	100		µg/L	100	2/6/2009 12:45:35 AM
Xylenes, Total	9500	200		µg/L	100	2/6/2009 12:45:35 AM
Surr: 4-Bromofluorobenzene	98.7	65.9-130		%REC	100	2/6/2009 12:45:35 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: *13-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 0902030

Lab ID: 0902030-07
Client Sample ID: BZ Stripper 1&2 IN
Collection Date: 2/3/2009 9:30:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	2/6/2009 1:16:01 AM
Benzene	9000	200		µg/L	200	2/6/2009 1:16:01 AM
Toluene	13000	200		µg/L	200	2/6/2009 1:16:01 AM
Ethylbenzene	1100	200		µg/L	200	2/6/2009 1:16:01 AM
Xylenes, Total	6700	400		µg/L	200	2/6/2009 1:16:01 AM
Surr: 4-Bromofluorobenzene	95.0	65.9-130		%REC	200	2/6/2009 1:16:01 AM

Lab ID: 0902030-08
Client Sample ID: BZ Stripper 1&2 OUT
Collection Date: 2/3/2009 10:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/6/2009 1:46:24 AM
Benzene	1000	50		µg/L	50	2/6/2009 1:46:24 AM
Toluene	2000	50		µg/L	50	2/6/2009 1:46:24 AM
Ethylbenzene	260	50		µg/L	50	2/6/2009 1:46:24 AM
Xylenes, Total	1800	100		µg/L	50	2/6/2009 1:46:24 AM
Surr: 4-Bromofluorobenzene	98.8	65.9-130		%REC	50	2/6/2009 1:46:24 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: Benzene Strippers
Work Order: 0902030

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R32305**	Analysis Date:	2/5/2009 10:32:55 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:	**R32305**	Analysis Date:	2/6/2009 3:17:51 AM	
Methyl tert-butyl ether (MTBE)	19.52	µg/L	2.5	97.6	51.2	138			
Benzene	19.93	µg/L	1.0	99.6	85.9	113			
Toluene	20.79	µg/L	1.0	101	86.4	113			
Ethylbenzene	21.32	µg/L	1.0	107	83.5	118			
Xylenes, Total	66.40	µg/L	2.0	111	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R32305**	Analysis Date:	2/6/2009 3:48:14 AM	
Methyl tert-butyl ether (MTBE)	20.17	µg/L	2.5	101	51.2	138	3.24	28	
Benzene	19.76	µg/L	1.0	98.8	85.9	113	0.836	27	
Toluene	20.73	µg/L	1.0	101	86.4	113	0.289	19	
Ethylbenzene	21.07	µg/L	1.0	105	83.5	118	1.17	10	
Xylenes, Total	65.45	µg/L	2.0	109	83.4	122	1.44	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: 2/4/2009

Work Order Number 0902030

Received by: TLS

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature _____ 2/4/09 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 ☐		
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?	4°	*<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 #:
email or Fax#:
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. D9 0303	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 BETEX -MTBE				Air Bubbles (Y/N)
1-29-09	2:20	Air	3rd Bz Stripper IN	3-40ml	HCl	1												X				
1-29-09	2:50		3rd Bz Stripper-OUT	3-40ml	HCl	2												X				
1-29-09	0845		Bz Stripper 1&2 IN	3-40ml	HCl	3												X				
1-29-09	0920		Bz Stripper 1&2 OUT	3-40ml	HCl	4												X				
020309	0750		3rd Bz Stripper IN	3-40ml	HCl	5												X				
020309	0820		3rd Bz Stripper OUT	3-40ml	HCl	6												X				
020309	0930		Bz Stripper 1&2 IN	3-40ml	HCl	7												X				
020309	1000		Bz Stripper 1&2 OUT	3-40ml	HCl	8												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
020309	12:00	[signature]	[signature]	2/4/09	900
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

Thursday, February 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.: 0902136

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 2/13/2009 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-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Bz Strippers

Lab Order: 0902136

Lab ID: 0902136-01
Client Sample ID: 3RD BZ Stripper-IN

Collection Date: 2/11/2009 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/17/2009 3:57:40 PM
Benzene	1800	50		µg/L	50	2/17/2009 3:57:40 PM
Toluene	1900	50		µg/L	50	2/17/2009 3:57:40 PM
Ethylbenzene	130	50		µg/L	50	2/17/2009 3:57:40 PM
Xylenes, Total	950	100		µg/L	50	2/17/2009 3:57:40 PM
Surr: 4-Bromofluorobenzene	86.9	65.9-130		%REC	50	2/17/2009 3:57:40 PM

Lab ID: 0902136-02
Client Sample ID: 3RD BZ Stripper-OUT

Collection Date: 2/11/2009 12:00:00 PM
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	2/14/2009 7:28:17 AM
Benzene	39000	500		µg/L	500	2/14/2009 7:28:17 AM
Toluene	36000	500		µg/L	500	2/14/2009 7:28:17 AM
Ethylbenzene	2100	500		µg/L	500	2/14/2009 7:28:17 AM
Xylenes, Total	14000	1000		µg/L	500	2/14/2009 7:28:17 AM
Surr: 4-Bromofluorobenzene	92.3	65.9-130		%REC	500	2/14/2009 7:28:17 AM

Lab ID: 0902136-03
Client Sample ID: BZ Stripper 1&2 IN

Collection Date: 2/11/2009 12:30:00 PM
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	2/14/2009 7:58:36 AM
Benzene	12000	200		µg/L	200	2/14/2009 7:58:36 AM
Toluene	17000	200		µg/L	200	2/14/2009 7:58:36 AM
Ethylbenzene	1500	200		µg/L	200	2/14/2009 7:58:36 AM
Xylenes, Total	9400	400		µg/L	200	2/14/2009 7:58:36 AM
Surr: 4-Bromofluorobenzene	103	65.9-130		%REC	200	2/14/2009 7:58:36 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

1

Hall Environmental Analysis Laboratory, Inc.

Date: *19-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Project: Bz Strippers

Lab Order: 0902136

Lab ID: 0902136-04
Client Sample ID: BZ Stripper 1&2 OUT

Collection Date: 2/11/2009 12:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/14/2009 8:28:59 AM
Benzene	1800	50		µg/L	50	2/14/2009 8:28:59 AM
Toluene	3200	50		µg/L	50	2/14/2009 8:28:59 AM
Ethylbenzene	550	50		µg/L	50	2/14/2009 8:28:59 AM
Xylenes, Total	3400	100		µg/L	50	2/14/2009 8:28:59 AM
Surr: 4-Bromofluorobenzene	99.3	65.9-130		%REC	50	2/14/2009 8:28:59 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.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest Gallup
Project: Bz Strippers
Work Order: 0902136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R32412**	Analysis Date:	2/13/2009 10:02:46 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:	**R32412**	Analysis Date:	2/14/2009 3:52:52 AM	
Methyl tert-butyl ether (MTBE)	21.56	µg/L	2.5	108	51.2	138			
Benzene	19.28	µg/L	1.0	96.4	85.9	113			
Toluene	20.43	µg/L	1.0	101	86.4	113			
Ethylbenzene	21.19	µg/L	1.0	106	83.5	118			
Xylenes, Total	64.55	µg/L	2.0	108	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R32412**	Analysis Date:	2/14/2009 4:23:20 AM	
Methyl tert-butyl ether (MTBE)	21.24	µg/L	2.5	106	51.2	138	1.48	28	
Benzene	19.00	µg/L	1.0	95.0	85.9	113	1.44	27	
Toluene	19.72	µg/L	1.0	97.2	86.4	113	3.52	19	
Ethylbenzene	20.69	µg/L	1.0	103	83.5	118	2.37	10	
Xylenes, Total	63.27	µg/L	2.0	105	83.4	122	2.00	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: 2/13/2009

Work Order Number 0902136

Received by: ARS

Sample ID labels checked by: TS
Initials

Checklist completed by: _____ 2/13/09
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 ☐		
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?	**11°**	*<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 3227
email or Fax#: 505 722 3833

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: 11

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. 0902136	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)
02-11-09	1140		3rd Bz Stripper IN	3-40ml	HCL	1												X				
02-11-09	1200		3rd Bz Stripper OUT	3-40ml	HCL	2												X				
02-11-09	1230		Bz Stripper 12-2 IN	3-40ml	HCL	3												X				
02-11-09	1245		Bz Stripper 12-2 OUT	3-40ml	HCl	4												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
02-12-09	12:00	Alvin R	[signature]	2/13/09	9:35
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, February 24, 2009

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

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

RE: Quarterly Method 8260B Air Quality Permit 0633-M7

Order No.: 0902215

Dear Gaurav Raien:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 2/20/2009 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: *24-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0902215
Project: Quarterly Method 8260B Air Quality Permit 063
Lab ID: 0902215-01

Client Sample ID: 3rd BZ Stripper-IN
Collection Date: 2/18/2009 8:00:00 AM
Date Received: 2/20/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	40000	1000		µg/L	1000	2/23/2009 11:47:16 AM
Toluene	30000	1000		µg/L	1000	2/23/2009 11:47:16 AM
Ethylbenzene	1200	200		µg/L	200	2/23/2009 12:16:15 PM
Methyl tert-butyl ether (MTBE)	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2,4-Trimethylbenzene	820	200		µg/L	200	2/23/2009 12:16:15 PM
1,3,5-Trimethylbenzene	320	200		µg/L	200	2/23/2009 12:16:15 PM
1,2-Dichloroethane (EDC)	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2-Dibromoethane (EDB)	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Naphthalene	ND	400		µg/L	200	2/23/2009 12:16:15 PM
1-Methylnaphthalene	ND	800		µg/L	200	2/23/2009 12:16:15 PM
2-Methylnaphthalene	ND	800		µg/L	200	2/23/2009 12:16:15 PM
Acetone	2700	2000		µg/L	200	2/23/2009 12:16:15 PM
Bromobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Bromodichloromethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Bromoform	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Bromomethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
2-Butanone	ND	2000		µg/L	200	2/23/2009 12:16:15 PM
Carbon disulfide	ND	2000		µg/L	200	2/23/2009 12:16:15 PM
Carbon Tetrachloride	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Chlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Chloroethane	ND	400		µg/L	200	2/23/2009 12:16:15 PM
Chloroform	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Chloromethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
2-Chlorotoluene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
4-Chlorotoluene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
cis-1,2-DCE	ND	200		µg/L	200	2/23/2009 12:16:15 PM
cis-1,3-Dichloropropene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2-Dibromo-3-chloropropane	ND	400		µg/L	200	2/23/2009 12:16:15 PM
Dibromochloromethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Dibromomethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,3-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,4-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Dichlorodifluoromethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1-Dichloroethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1-Dichloroethene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2-Dichloropropane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,3-Dichloropropane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
2,2-Dichloropropane	ND	400		µg/L	200	2/23/2009 12:16:15 PM
1,1-Dichloropropene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Hexachlorobutadiene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
2-Hexanone	ND	2000		µg/L	200	2/23/2009 12:16:15 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: *24-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	3rd BZ Stripper-IN
Lab Order:	0902215	**Collection Date:**	2/18/2009 8:00:00 AM
Project:	Quarterly Method 8260B Air Quality Permit 063	**Date Received:**	2/20/2009
Lab ID:	0902215-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
4-Isopropyltoluene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
4-Methyl-2-pentanone	ND	2000		µg/L	200	2/23/2009 12:16:15 PM
Methylene Chloride	ND	600		µg/L	200	2/23/2009 12:16:15 PM
n-Butylbenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
n-Propylbenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
sec-Butylbenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Styrene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
tert-Butylbenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1,1,2-Tetrachloroethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1,2,2-Tetrachloroethane	ND	400		µg/L	200	2/23/2009 12:16:15 PM
Tetrachloroethene (PCE)	ND	200		µg/L	200	2/23/2009 12:16:15 PM
trans-1,2-DCE	ND	200		µg/L	200	2/23/2009 12:16:15 PM
trans-1,3-Dichloropropene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2,3-Trichlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2,4-Trichlorobenzene	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1,1-Trichloroethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,1,2-Trichloroethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Trichloroethene (TCE)	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Trichlorofluoromethane	ND	200		µg/L	200	2/23/2009 12:16:15 PM
1,2,3-Trichloropropane	ND	400		µg/L	200	2/23/2009 12:16:15 PM
Vinyl chloride	ND	200		µg/L	200	2/23/2009 12:16:15 PM
Xylenes, Total	8100	300		µg/L	200	2/23/2009 12:16:15 PM
Surr: 1,2-Dichloroethane-d4	106	68.1-123		%REC	200	2/23/2009 12:16:15 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	200	2/23/2009 12:16:15 PM
Surr: Dibromofluoromethane	114	68.5-119		%REC	200	2/23/2009 12:16:15 PM
Surr: Toluene-d8	97.6	64-131		%REC	200	2/23/2009 12:16:15 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: *24-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0902215
Project: Quarterly Method 8260B Air Quality Permit 063
Lab ID: 0902215-02

Client Sample ID: 3rd BZ Stripper-OUT
Collection Date: 2/18/2009 8:20:00 AM
Date Received: 2/20/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	640	20		µg/L	20	2/23/2009 12:45:09 PM
Toluene	1400	20		µg/L	20	2/23/2009 12:45:09 PM
Ethylbenzene	310	20		µg/L	20	2/23/2009 12:45:09 PM
Methyl tert-butyl ether (MTBE)	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2,4-Trimethylbenzene	960	20		µg/L	20	2/23/2009 12:45:09 PM
1,3,5-Trimethylbenzene	320	20		µg/L	20	2/23/2009 12:45:09 PM
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Naphthalene	81	40		µg/L	20	2/23/2009 12:45:09 PM
1-Methylnaphthalene	93	80		µg/L	20	2/23/2009 12:45:09 PM
2-Methylnaphthalene	120	80		µg/L	20	2/23/2009 12:45:09 PM
Acetone	540	200		µg/L	20	2/23/2009 12:45:09 PM
Bromobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Bromodichloromethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Bromoform	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Bromomethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
2-Butanone	ND	200		µg/L	20	2/23/2009 12:45:09 PM
Carbon disulfide	ND	200		µg/L	20	2/23/2009 12:45:09 PM
Carbon Tetrachloride	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Chlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Chloroethane	ND	40		µg/L	20	2/23/2009 12:45:09 PM
Chloroform	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Chloromethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
2-Chlorotoluene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
4-Chlorotoluene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
cis-1,2-DCE	ND	20		µg/L	20	2/23/2009 12:45:09 PM
cis-1,3-Dichloropropene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	2/23/2009 12:45:09 PM
Dibromochloromethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Dibromomethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2-Dichlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,3-Dichlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,4-Dichlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Dichlorodifluoromethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1-Dichloroethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1-Dichloroethene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2-Dichloropropane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,3-Dichloropropane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
2,2-Dichloropropane	ND	40		µg/L	20	2/23/2009 12:45:09 PM
1,1-Dichloropropene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Hexachlorobutadiene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
2-Hexanone	ND	200		µg/L	20	2/23/2009 12:45:09 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: *24-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	3rd BZ Stripper-OUT
Lab Order:	0902215	**Collection Date:**	2/18/2009 8:20:00 AM
Project:	Quarterly Method 8260B Air Quality Permit 063	**Date Received:**	2/20/2009
Lab ID:	0902215-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	29	20		µg/L	20	2/23/2009 12:45:09 PM
4-Isopropyltoluene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
4-Methyl-2-pentanone	ND	200		µg/L	20	2/23/2009 12:45:09 PM
Methylene Chloride	ND	60		µg/L	20	2/23/2009 12:45:09 PM
n-Butylbenzene	100	20		µg/L	20	2/23/2009 12:45:09 PM
n-Propylbenzene	95	20		µg/L	20	2/23/2009 12:45:09 PM
sec-Butylbenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Styrene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
tert-Butylbenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	2/23/2009 12:45:09 PM
Tetrachloroethene (PCE)	ND	20		µg/L	20	2/23/2009 12:45:09 PM
trans-1,2-DCE	ND	20		µg/L	20	2/23/2009 12:45:09 PM
trans-1,3-Dichloropropene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2,3-Trichlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2,4-Trichlorobenzene	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1,1-Trichloroethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,1,2-Trichloroethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Trichloroethene (TCE)	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Trichlorofluoromethane	ND	20		µg/L	20	2/23/2009 12:45:09 PM
1,2,3-Trichloropropane	ND	40		µg/L	20	2/23/2009 12:45:09 PM
Vinyl chloride	ND	20		µg/L	20	2/23/2009 12:45:09 PM
Xylenes, Total	2200	30		µg/L	20	2/23/2009 12:45:09 PM
Surr: 1,2-Dichloroethane-d4	107	68.1-123		%REC	20	2/23/2009 12:45:09 PM
Surr: 4-Bromofluorobenzene	84.1	53.2-145		%REC	20	2/23/2009 12:45:09 PM
Surr: Dibromofluoromethane	122	68.5-119	S	%REC	20	2/23/2009 12:45:09 PM
Surr: Toluene-d8	88.2	64-131		%REC	20	2/23/2009 12:45:09 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: *24-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0902215
Project: Quarterly Method 8260B Air Quality Permit 063
Lab ID: 0902215-03

Client Sample ID: BZ Stripper 1 & 2 OUT
Collection Date: 2/18/2009 10:30:00 AM
Date Received: 2/20/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	940	50		µg/L	50	2/23/2009 1:14:09 PM
Toluene	2300	50		µg/L	50	2/23/2009 1:14:09 PM
Ethylbenzene	330	50		µg/L	50	2/23/2009 1:14:09 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2,4-Trimethylbenzene	650	50		µg/L	50	2/23/2009 1:14:09 PM
1,3,5-Trimethylbenzene	210	50		µg/L	50	2/23/2009 1:14:09 PM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Naphthalene	220	100		µg/L	50	2/23/2009 1:14:09 PM
1-Methylnaphthalene	ND	200		µg/L	50	2/23/2009 1:14:09 PM
2-Methylnaphthalene	260	200		µg/L	50	2/23/2009 1:14:09 PM
Acetone	3700	500		µg/L	50	2/23/2009 1:14:09 PM
Bromobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Bromodichloromethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Bromoform	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Bromomethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
2-Butanone	ND	500		µg/L	50	2/23/2009 1:14:09 PM
Carbon disulfide	ND	500		µg/L	50	2/23/2009 1:14:09 PM
Carbon Tetrachloride	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Chlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Chloroethane	ND	100		µg/L	50	2/23/2009 1:14:09 PM
Chloroform	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Chloromethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
2-Chlorotoluene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
4-Chlorotoluene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
cis-1,2-DCE	ND	50		µg/L	50	2/23/2009 1:14:09 PM
cis-1,3-Dichloropropene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	2/23/2009 1:14:09 PM
Dibromochloromethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Dibromomethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2-Dichlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,3-Dichlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,4-Dichlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Dichlorodifluoromethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1-Dichloroethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1-Dichloroethene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2-Dichloropropane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,3-Dichloropropane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
2,2-Dichloropropane	ND	100		µg/L	50	2/23/2009 1:14:09 PM
1,1-Dichloropropene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Hexachlorobutadiene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
2-Hexanone	ND	500		µg/L	50	2/23/2009 1:14:09 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: *24-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BZ Stripper 1 & 2 OUT
Lab Order:	0902215	**Collection Date:**	2/18/2009 10:30:00 AM
Project:	Quarterly Method 8260B Air Quality Permit 063	**Date Received:**	2/20/2009
Lab ID:	0902215-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
4-Isopropyltoluene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	2/23/2009 1:14:09 PM
Methylene Chloride	ND	150		µg/L	50	2/23/2009 1:14:09 PM
n-Butylbenzene	51	50		µg/L	50	2/23/2009 1:14:09 PM
n-Propylbenzene	76	50		µg/L	50	2/23/2009 1:14:09 PM
sec-Butylbenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Styrene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
tert-Butylbenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	2/23/2009 1:14:09 PM
Tetrachloroethene (PCE)	ND	50		µg/L	50	2/23/2009 1:14:09 PM
trans-1,2-DCE	ND	50		µg/L	50	2/23/2009 1:14:09 PM
trans-1,3-Dichloropropene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1,1-Trichloroethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,1,2-Trichloroethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Trichloroethene (TCE)	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Trichlorofluoromethane	ND	50		µg/L	50	2/23/2009 1:14:09 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	2/23/2009 1:14:09 PM
Vinyl chloride	ND	50		µg/L	50	2/23/2009 1:14:09 PM
Xylenes, Total	2100	75		µg/L	50	2/23/2009 1:14:09 PM
Surr: 1,2-Dichloroethane-d4	104	68.1-123		%REC	50	2/23/2009 1:14:09 PM
Surr: 4-Bromofluorobenzene	95.4	53.2-145		%REC	50	2/23/2009 1:14:09 PM
Surr: Dibromofluoromethane	111	68.5-119		%REC	50	2/23/2009 1:14:09 PM
Surr: Toluene-d8	95.2	64-131		%REC	50	2/23/2009 1:14:09 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: *24-Feb-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0902215
Project: Quarterly Method 8260B Air Quality Permit 063
Lab ID: 0902215-04

Client Sample ID: BZ Stripper 1 & 2 IN
Collection Date: 2/18/2009 10:00:00 AM
Date Received: 2/20/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: HL
EPA METHOD 8260B: VOLATILES						
Benzene	5200	200		µg/L	200	2/23/2009 1:43:23 PM
Toluene	8300	200		µg/L	200	2/23/2009 1:43:23 PM
Ethylbenzene	790	200		µg/L	200	2/23/2009 1:43:23 PM
Methyl tert-butyl ether (MTBE)	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2,4-Trimethylbenzene	980	200		µg/L	200	2/23/2009 1:43:23 PM
1,3,5-Trimethylbenzene	320	200		µg/L	200	2/23/2009 1:43:23 PM
1,2-Dichloroethane (EDC)	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2-Dibromoethane (EDB)	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Naphthalene	ND	400		µg/L	200	2/23/2009 1:43:23 PM
1-Methylnaphthalene	ND	800		µg/L	200	2/23/2009 1:43:23 PM
2-Methylnaphthalene	ND	800		µg/L	200	2/23/2009 1:43:23 PM
Acetone	3900	2000		µg/L	200	2/23/2009 1:43:23 PM
Bromobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Bromodichloromethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Bromoform	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Bromomethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
2-Butanone	ND	2000		µg/L	200	2/23/2009 1:43:23 PM
Carbon disulfide	ND	2000		µg/L	200	2/23/2009 1:43:23 PM
Carbon Tetrachloride	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Chlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Chloroethane	ND	400		µg/L	200	2/23/2009 1:43:23 PM
Chloroform	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Chloromethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
2-Chlorotoluene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
4-Chlorotoluene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
cis-1,2-DCE	ND	200		µg/L	200	2/23/2009 1:43:23 PM
cis-1,3-Dichloropropene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2-Dibromo-3-chloropropane	ND	400		µg/L	200	2/23/2009 1:43:23 PM
Dibromochloromethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Dibromomethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,3-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,4-Dichlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Dichlorodifluoromethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1-Dichloroethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1-Dichloroethene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2-Dichloropropane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,3-Dichloropropane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
2,2-Dichloropropane	ND	400		µg/L	200	2/23/2009 1:43:23 PM
1,1-Dichloropropene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Hexachlorobutadiene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
2-Hexanone	ND	2000		µg/L	200	2/23/2009 1:43:23 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: *24-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BZ Stripper 1 & 2 IN
Lab Order:	0902215	**Collection Date:**	2/18/2009 10:00:00 AM
Project:	Quarterly Method 8260B Air Quality Permit 063	**Date Received:**	2/20/2009
Lab ID:	0902215-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
4-Isopropyltoluene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
4-Methyl-2-pentanone	ND	2000		µg/L	200	2/23/2009 1:43:23 PM
Methylene Chloride	ND	600		µg/L	200	2/23/2009 1:43:23 PM
n-Butylbenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
n-Propylbenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
sec-Butylbenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Styrene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
tert-Butylbenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1,1,2-Tetrachloroethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1,2,2-Tetrachloroethane	ND	400		µg/L	200	2/23/2009 1:43:23 PM
Tetrachloroethene (PCE)	ND	200		µg/L	200	2/23/2009 1:43:23 PM
trans-1,2-DCE	ND	200		µg/L	200	2/23/2009 1:43:23 PM
trans-1,3-Dichloropropene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2,3-Trichlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2,4-Trichlorobenzene	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1,1-Trichloroethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,1,2-Trichloroethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Trichloroethene (TCE)	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Trichlorofluoromethane	ND	200		µg/L	200	2/23/2009 1:43:23 PM
1,2,3-Trichloropropane	ND	400		µg/L	200	2/23/2009 1:43:23 PM
Vinyl chloride	ND	200		µg/L	200	2/23/2009 1:43:23 PM
Xylenes, Total	4700	300		µg/L	200	2/23/2009 1:43:23 PM
Surr: 1,2-Dichloroethane-d4	102	68.1-123		%REC	200	2/23/2009 1:43:23 PM
Surr: 4-Bromofluorobenzene	92.0	53.2-145		%REC	200	2/23/2009 1:43:23 PM
Surr: Dibromofluoromethane	115	68.5-119		%REC	200	2/23/2009 1:43:23 PM
Surr: Toluene-d8	93.8	64-131		%REC	200	2/23/2009 1:43:23 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: Quarterly Method 8260B Air Quality Permit 063
Work Order: 0902215

Method: EPA Method 8260B: VOLATILES
Sample ID: 5ml rb — *MBLK* — Batch ID: **R32521** — Analysis Date: 2/23/2009 8:51:10 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: Quarterly Method 8260B Air Quality Permit 065 **Work Order:** 0902215

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R32521**	Analysis Date:	2/23/2009 8:51:10 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: b7		*MBLK*			Batch ID:	**R32521**	Analysis Date:	2/23/2009 11:04:02 PM	
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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Method 8260B Air Quality Permit 063

Work Order: 0902215

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b7		*MBLK*							
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: 100ng lcs		*LCS*							

Batch ID: **R32521** Analysis Date: 2/23/2009 11:04:02 PM

Batch ID: **R32521** Analysis Date: 2/23/2009 9:49:30 AM

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Method 8260B Air Quality Permit 063 **Work Order:** 0902215

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R32521**	Analysis Date:		2/23/2009 9:49:30 AM
Benzene	20.63	µg/L	1.0	103	88	116			
Toluene	18.58	µg/L	1.0	92.9	82.9	112			
Chlorobenzene	16.94	µg/L	1.0	84.7	71.4	133			
1,1-Dichloroethene	23.29	µg/L	1.0	116	97.9	140			
Trichloroethene (TCE)	22.30	µg/L	1.0	111	90.5	112			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R32521**	Analysis Date:		2/23/2009 10:34:57 PM
Benzene	22.19	µg/L	1.0	111	88	116			
Toluene	19.07	µg/L	1.0	95.3	82.9	112			
Chlorobenzene	17.29	µg/L	1.0	86.5	71.4	133			
1,1-Dichloroethene	24.63	µg/L	1.0	123	97.9	140			
Trichloroethene (TCE)	23.38	µg/L	1.0	117	90.5	112			S

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: 2/20/2009

Work Order Number 0902215

Received by: TLS

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature 2/20/09 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 ☐		
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?	3°	*<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: Quarterly Method 8260 B Air Quality Permit 0633-M7
Project #:
Project Manager: GAUTAM, RAJEN
Sampler: ALVIN DORSEY
On Ice: ☑ Yes ☐ No
Sample Temperature: 13

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. 0902318	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)	MTBE				Air Bubbles (Y or N)
02-18-09	0800	Ag	3rd Bz Stripper - IN			-1										X		X				
02-18-09	0820		3rd Bz Stripper - OUT			-2										X		X				
02-18-09	1030		Bz Stripper 1&2 OUT			3										X		X				
02-18-09	1000		Bz Stripper 1&2 IN			4										X		X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
02-19-09		Alvin D		2/20/09	911
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, March 03, 2009

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

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

RE: Benzene Strippers

Order No.: 0902307

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 2/27/2009 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: *03-Mar-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers
Lab Order: 0902307

Lab ID: 0902307-01
Client Sample ID: 3RD BZ Stripper-IN
Collection Date: 2/24/2009 2:30:00 PM
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	2/28/2009 9:22:47 AM
Benzene	33000	500		µg/L	500	2/28/2009 9:22:47 AM
Toluene	23000	500		µg/L	500	2/28/2009 9:22:47 AM
Ethylbenzene	680	500		µg/L	500	2/28/2009 9:22:47 AM
Xylenes, Total	4300	1000		µg/L	500	2/28/2009 9:22:47 AM
Surr: 4-Bromofluorobenzene	96.5	65.9-130		%REC	500	2/28/2009 9:22:47 AM

Lab ID: 0902307-02
Client Sample ID: 3RD BZ Stripper-OUT
Collection Date: 2/24/2009 2:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/28/2009 9:53:06 AM
Benzene	1700	50		µg/L	50	2/28/2009 9:53:06 AM
Toluene	1300	50		µg/L	50	2/28/2009 9:53:06 AM
Ethylbenzene	79	50		µg/L	50	2/28/2009 9:53:06 AM
Xylenes, Total	560	100		µg/L	50	2/28/2009 9:53:06 AM
Surr: 4-Bromofluorobenzene	94.8	65.9-130		%REC	50	2/28/2009 9:53:06 AM

Lab ID: 0902307-03
Client Sample ID: BZ Stripper 1&2 IN
Collection Date: 2/24/2009 3:30:00 PM
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	2/28/2009 10:23:23 AM
Benzene	3400	200		µg/L	200	2/28/2009 10:23:23 AM
Toluene	5400	200		µg/L	200	2/28/2009 10:23:23 AM
Ethylbenzene	460	200		µg/L	200	2/28/2009 10:23:23 AM
Xylenes, Total	2900	400		µg/L	200	2/28/2009 10:23:23 AM
Surr: 4-Bromofluorobenzene	93.9	65.9-130		%REC	200	2/28/2009 10:23:23 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: *03-Mar-09*

CLIENT: Western Refining Southwest, Gallup
Project: Benzene Strippers

Lab Order: 0902307

Lab ID: 0902307-04
Client Sample ID: BZ Stripper 1&2 OUT

Collection Date: 2/24/2009 3:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	2/28/2009 10:53:43 AM
Benzene	910	50		µg/L	50	2/28/2009 10:53:43 AM
Toluene	1700	50		µg/L	50	2/28/2009 10:53:43 AM
Ethylbenzene	200	50		µg/L	50	2/28/2009 10:53:43 AM
Xylenes, Total	1400	100		µg/L	50	2/28/2009 10:53:43 AM
Surr: 4-Bromofluorobenzene	104	65.9-130		%REC	50	2/28/2009 10:53:43 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: Benzene Strippers **Work Order:** 0902307

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R32612**	Analysis Date:	2/27/2009 9:29:45 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:	**R32612**	Analysis Date:	3/2/2009 12:18:16 PM	
Methyl tert-butyl ether (MTBE)	20.61	µg/L	2.5	103	51.2	138			
Benzene	18.34	µg/L	1.0	91.7	85.9	113			
Toluene	18.55	µg/L	1.0	92.8	86.4	113			
Ethylbenzene	19.05	µg/L	1.0	95.3	83.5	118			
Xylenes, Total	58.64	µg/L	2.0	97.7	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: 2/27/2009

Work Order Number 0902307

Received by: TLS

Sample ID labels checked by: TS
Initials

Checklist completed by: _____ 2/27/09
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 ☑		
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 3227

email or Fax#: 505 722 3833

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: 16

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 0902301	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)
02-24-09	1430	Aq	3rd BzStripper-IN	3-40ML	HCl	1												X				
02-24-09	1445		3rd BzStripper-OUT	3-40ML	HCl	2												X				
02-24-09	1530		Bz Stripper 1&2 IN	3-40ML	HCl	3												X				
02-24-09	1545		Bz Stripper 1&2 OUT	3-40ML	HCl	4												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
02-26-09	12:00	[signature]	[signature]	2/26/09	1000
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.