# GW - 001

C-141s
(5 of 7)



BILL RICHARDSON Governor

DIANE DENISH Lieutenant Governor

#### NEW MEXICO ENVIRONMENT DEPARTMENT

#### Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1 Santa Fe, New Mexico 87505-6303 Phone (505) 476-6000 Fax (505) 476-6030

www.nmenv.state.nm.us



RON CURRY Secretary SARAH COTTRELL Deputy Secretary

#### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 30, 2010

Mr. Randy Schmaltz Environmental Manager Western Refining, Southwest, Inc. Bloomfield Refinery P.O. Box 159 Bloomfield, New Mexico 87413

RE: NEWLY SURFACED GROUNDWATER DATA SUMMARY LETTER WESTERN REFINING SOUTHWEST INC., BLOOMFIELD REFINERY EPA ID# NMD089416416 HWB-WRB-MISC

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has received Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Newly Surfaced Groundwater Data Summary* letter dated July 22, 2010. The letter summarizes the discovery of surface water containing residual levels of benzene north of the Raw Water Ponds.

In response to the "Proposed Actions" described on page two, Western may cease pumping at the east Fork area. In place of the "Proposed Actions," Western must collect one surface water sample the week before the irrigation ditch company turns off the water to the Hammond Ditch; as well as collect one surface water sample at two, six, and ten weeks after the irrigation ditch company discontinues releasing water to the Hammond Ditch. The surface water samples must be analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-Butyl Ether (MTBE) using EPA Method 8021B or 8260 and General Chemistry (major cations/anions, nitrates/nitrites, carbonate). If a surface water sample can be collected at the six week interval, the sample must also be analyzed for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) using EPA Method 8015. In addition, Western must also collect groundwater elevation measurements from monitoring wells MW-1, MW-50,

Randy Schmaltz July 30, 2010 Page 2 of 2

and MW-51 at the intervals specified above.

Western must submit a letter (similar to the July 22, 2010 letter) to NMED and the Oil Conservation Division (OCD) on or before February 15, 2011 that summarizes Western's findings. The letter must include the analytical laboratory reports, and all groundwater elevation measurements obtained in 2010, and any proposed future activities for this area.

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,

John Kieling

Program Manager

Permits Management Program

Hazardous Waste Bureau

cc:

D. Cobrain, NMED HWB

H. Monzeglio, NMED HWB

C. Chavez, OCD

A. Hains, Western

File: HWB-WRB-MISC and Reading File 2010



July 22, 2010

Ms. Hope Monzeglio New Mexico Environmental Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, Building 1 Santa Fe, New Mexico 87505-6303

Mr. Carl Chavez
State of New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: Western Refining Southwest, Inc. – Bloomfield Refinery Newly Surfaced Groundwater Data Summary

Dear Ms. Monzeglio and Mr. Chavez:

Western Refining Southwest, Inc. – Bloomfield Refinery (Bloomfield) is providing New Mexico Environmental Department (NMED) and Oil Conservation Division (OCD) a summary of the activities performed and data collected to date that pertains to the newly surfaced groundwater location identified in May 2010.

#### Discovery Summary

On Wednesday, May 19<sup>th</sup> 2010 during the bi-monthly visual inspections of the area north of the Refinery, Bloomfield identified a new area where groundwater had surfaced. This new area is located north of the raw water ponds within an arroyo along the north side of the Hammond Ditch. Bloomfield has identified this area as the "East Fork" area based on its location within the arroyo. **Figure 1** includes an aerial photo identifying the approximate location of the East Fork area.

A sample of the surface water was collected on the day of discovery and analyzed for BTEX and MTBE by EPA method 8260. The results were received on May 26, 2010 and indicated a detected benzene concentration of 110 ug/L. All other analytes were non-detect. Bloomfield collected confirmation split samples on May 26, 2010 which were sent to Envirotech Analytical Laboratory (Envirotech) and Hall Environmental Analysis Laboratory (HEAL) for BTEX analysis. The split samples from Envirotech and HEAL detected benzene concentrations of 167 ug/L and 120 ug/L, respectively. All other analytes for the two split samples were non-detect.

On Tuesday, June 1, 2010 following receipt of the confirmation sample results, Bloomfield notified New Mexico Environment Department (NMED) Hazardous Waste Bureau and New Mexico Oil Conservation Division (NMOCD) via e-mail of the recent

developments regarding discovery of the new surface water in the East Fork area and immediate actions taken upon discovery.

#### Response Action Taken

Immediately following confirmation of the benzene results, Bloomfield installed a catchment system to catch the surfacing groundwater at the East Fork area. The system consists of a trough and pump, which transports the captured groundwater to the Refinery's waste water treatment system. The catchment system has remained operational since it was installed the first week of June 2010.

In addition, samples have been collected of the surfaced groundwater at the East Fork area on a weekly basis since May 26, 2010. The samples were analyzed for BTEX and MTBE by EPA Method 8260. At NMED's request as stated in an e-mail from Hope Monzeglio dated June 3, 2010, samples collected on June 3, 2010 were also analyzed for TPH-DRO, TPH-GRO, and TPH-MRO. Table 1 attached provides a summary of the BTEX analytical results collected to-date. A copy of the respective analytical reports is provided in Attachment A. The chromatograms for the TPH and benzene results are provided in Attachment B.

The source of the newly surfaced groundwater at the East Fork area is not explicitly known. During visual inspection of the possible sources in the area, visually evident cracks were noticed in the concrete lining of the Hammond ditch. It is possible that the evident cracks in the Hammond ditch liner may be a significant hydraulic contributor to groundwater in this area. As requested by NMED in an e-mail dated June 3<sup>rd</sup>, 2010, groundwater elevations were collected from monitoring wells nearest the area of the East Fork area (MW-1, MW-50, and MW-51). Groundwater elevations measurements were collected in 2010 prior to the Hammond Ditch coming on-line (prior to April 15<sup>th</sup>, 2010), and after the Hammond Ditch was put into service (after April 15<sup>th</sup>, 2010). The average groundwater elevation increased after the Hammond Ditch was placed into service by approximately 0.18 ft. A summary of the groundwater elevations measurements collected are attached (Table 2).

#### Proposed Actions

The benzene concentrations at the newly identified groundwater surface location (East Fork area) have progressively decreased since May 26, 2010. Detected benzene concentrations have been below the WQCC screening level of 10 ug/L since June 3<sup>rd</sup>, 2010, and below the EPA Maximum Contaminant Level (MCL) of 5 ug/L since June 16<sup>th</sup>, 2010 (Refer to **Table 1** for the analytical summary trend).

Bloomfield proposes that the pumping cease at the East Fork area, thus allowing the surfaced groundwater to continue to promote vegetative growth in this area. Bloomfield also proposes to continue sampling the newly surfaced groundwater weekly through August 2010 and monthly thereafter through October 2010, at which time the flow in the Hammond ditch will have ceased due to the end of the irrigation season. Bloomfield will then re-evaluate the conditions of this area.

If you have any questions or would like to further discuss this topic, please contact me at (505) 632-4171.

Sincerely,

Ames R. Schmaltz

Environmental Manager

Western Refining Southwest, Inc.

Bloomfield Refinery

cc:

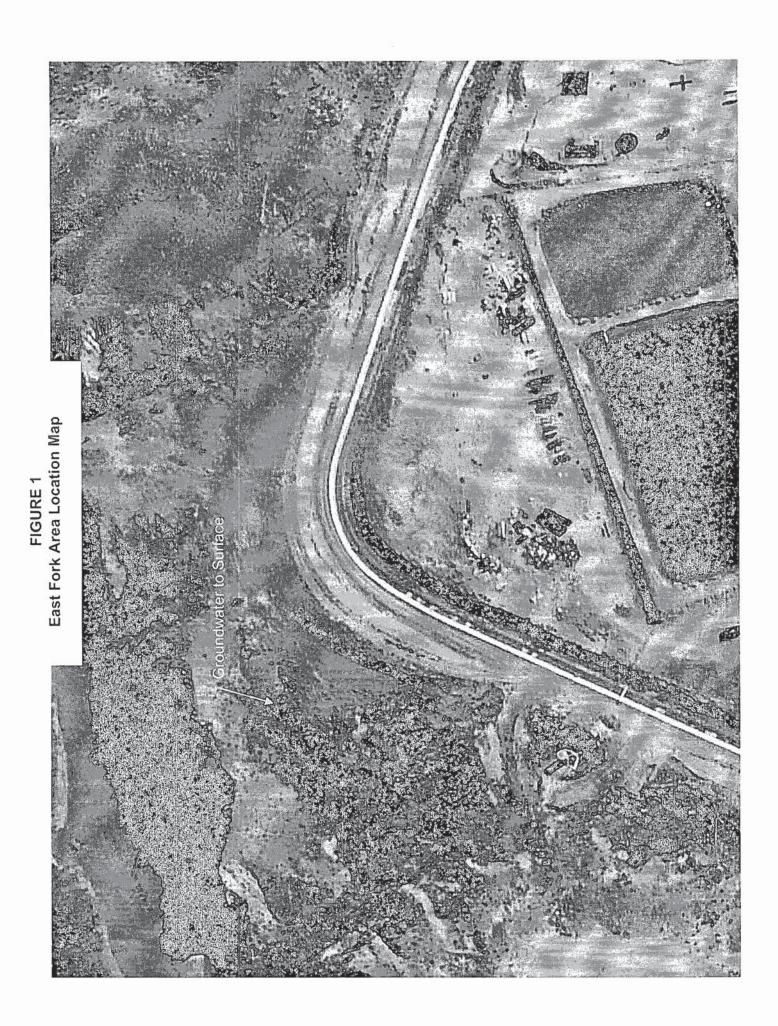
Hope Monzeglio – NMED HWB

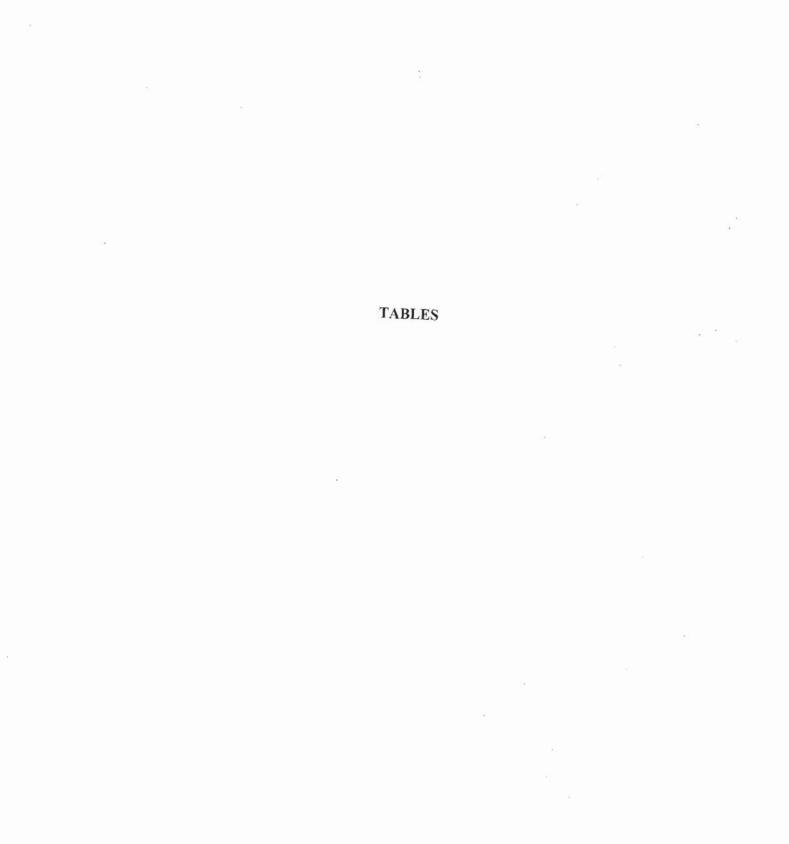
Dave Cobrain - NMED HWB

Carl Chavez - NMOCD (w/attachment)

Allen Hains - Western Refining El Paso

FIGURE





Analytical Results for Newly Surfaced Groundwater Location (Sample ID = East Fork) TABLE 1

			Г				Date of Sa	Date of Sample Collection	ection			
		Screening	9						7			
0.00	Units	/eve/		5/19/2010	5/26/2010	5/26/2010 (5)	6/3/2010	6/8/2010	6/16/2010	6/29/2010	7/1/20010	7/8/2010
Benzene	ng/L	5	(2)	110	120	167	9.6	5.2	3.4	1.6	2.3	2.0
Toluene	ng/L	750	(3)	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ng/L	200	(2)	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	ng/L	12	(1)	<1.0	<1.0	na	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	T/Bn	620	(3)	<2.0	<2.0	<0.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
TPH-DRO	mg/L	1.34	(4)	ns	ns	Su	<0.20	ns	ns	ns	ns	ns
TPH-MRO	mg/L			ns	ns	SU	<2.5	ns	ns	ns	ns	ns
TPH-GRO	mg/L	1.34	(4)	ns	ns	ns	<0.05	ns	ns	ns	ns	ns

# Notes:

- EPA Regional Screening Level (April 2009) EPA Regional Screening Level Tap Water
   EPA Regional Screening Level (April 2009) MCL
   NMED WQCC Standards Title 20 Chapter 6 Part 2 20.6.2.3101 Standards for Groundwater of 10,000 mg/L TDS Concentration or Less.
   NMED TPH Screening Guidelines October 2006 #3 and #6 fuel oil.
   Split sample analyzed by Envirotech Analytical Labororatory.

TABLE 2
Groundwater Elevation Measurement Summary - Near East Fork Area

The state of the s	MW-1	MW-50	MW-51		
TOC Elevation (ft amsl) ->	5519.21	5518.794	5515.583	_	
2/23/2010	5501.92	-	5500.79		
3/10/2010	5501.90	5501.76	5500.75	}	Hammond Ditch Off-Line
4/6/2010	5501.95	5501.88	5500.81	J	
5/10/2010	5502.10	-	5500.94	ĺĺ	Hammond Ditch On-Line
6/7/2010	5502.12	5501.99	5500.97	}	Hammond Ditch On-Line

2010	MW-1	MW-50	MW-51
Avg Groundwater Elevation -> (with Hammond Ditch Off-Line)	5501.92	5501.82	5500.79
Avg Groundwater Elevation -> (with Hammond Ditch On-Line)	5502.11	5501.99	5500.96
Average Elevation Difference	: 0.19	0.17	0.17

Historic Data	MW-50	MW-51
10/28/2008	5502.14	5501.00
1/8/2009	5501.62	5500.65

ATTACHMENT A Analytical Reports



#### COVER LETTER

Tuesday, May 25, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: 5-19-10 Drainage North of TK#38

Dear Cindy Hurtado:

Order No.: 1005560

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/20/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 25-May-10

	Western Refining So 5-19-10 Drainage N					Lab Orde	r: 1005560
Lab ID:	1005560-01				Collection D	Pate: 5/19/2	010 2:15:00 PM
Client Sample ID:	West Fork				Ma	trix: AQUE	ous
Analyses	MA STATE OF THE ST	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 826	0: VOLATILES SHO	ORT LIST		aggerida Bartastokida		Page 1 Comment of the	Analyst: HL
Benzene		ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Toluene		ND	1.0		µg/L	1	5/20/2010 5:23:50 PM
Ethylbenzene		ND	1.0		μg/L	1	5/20/2010 5:23:50 PM
Methyl tert-butyl ethe	er (MTBE)	ND	1.0		μg/L	1	5/20/2010 5:23:50 PM
Xylenes, Total	tig.	ND	2.0		µg/L	1	5/20/2010 5:23:50 PM
Lab ID:	1005560-02				Collection D	ate: 5/19/20	010 2:25:00 PM
Client Sample ID:	East Fork				Ma	trix: AQUE	OUS
Analyses		Resutt	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 826	: VOLATILES SHO	ORT LIST					Analyst: HL
Benzene		110	5.0		μg/L	5	5/21/2010 6:03:59 PM
Toluene		ND	1.0		μg/L	1	5/20/2010 6:52:11 PM
Ethylbenzene		ND	1.0		μg/L	1	5/20/2010 6:52:11 PM
Methyl tert-butyl ethe	er (MTBE)	ND	1.0		µg/L	1	5/20/2010 6:52:11 PM
Xvlenes, Total		ND	20		un/L	1	5/20/2010 6:52:11 PM

Quantiers:	- 7	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
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits Page 1 of 1

Date: 25-May-10

# QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: 5-19-10 Drainage North of TK#38

Work Order:

1005560

Analyte	Result	Units	PQL	SPK Va S	PK ref	%Rec L	owLimit Hiç	ghLimit %RI	PD RPDLimit Qual
Method: EPA Method 8260: V	olatiles Shor	t List						<u> </u>	
Sample ID: 1005560-01a msd		MSD				Batch ID:	R38830	Analysis Date	5/20/2010 6:22:54 Pt
Benzene	20.31	µg/L	1.0	20	0	102	72.4	126 0.1	38 20
Toluene	21.54	µg/L	1.0	20	0	108	79.2	115 1.3	72 20
Sample ID: 5ml rb		MBLK				Batch ID:	R38830	Analysis Date	5/20/2010 8:45:56 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0			7			
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Xylenes, Total	ND	ug/L	2.0					18	
Sample ID: 5ml rb		MBLK				Batch ID:	R38844	Analysis Date	e: 5/21/2010 8:57:02 At
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						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ml rb		MBLK				Batch ID:	R38830	Analysis Date	5/20/2010 8:45:56 AM
Benzene	ND	µg/L	1.0					10 1	
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Xylenes, Total	ND .	µg/L	2.0						
Sample ID: 100ng Ics		LCS				Batch ID:	R38830	Analysis Date	e: 5/20/2010 10:54:22 AM
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116	
Toluene	22.33	µg/L	1.0	20	0.	112	89.5	123	
Sample ID: 100ng Ics		LCS				Batch ID:	R38844	Analysis Date	: 5/21/2010 10:19:50 Af
Benzene	18.82	µg/L	1.0	20	0	94.1	82.4	116	
Toluene	21.74	µg/L	1.0	20	0	109	89,5	123	
Sample ID: 100ng lcs		LCS				Batch ID:	R38830	Analysis Date	e: 5/20/2010 10:54:22 Af
Benzene	20.06	µg/L	1.0	20	0	100	82.4	116	
Toluene	22.33	μg/L	1.0	20	0	112	89.5	123	
Sample ID: 1005560-01a ms		MS	11.00			Batch ID:	R38830	Analysis Date	5/20/2010 5:53:38 PM
Benzene	20.28	µg/L	1.0	20	0	101	72.4	126	
Toluene	21.91	µg/L	1.0	20	0	110	79.2	115	

****		_	_	100	_
0	u	a	li	fie	rs

E Estimated value

<sup>3</sup> Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

#### Sample Receipt Checklist

Client Name WESTERN REFINING SOUT				Date Received	d:		5/20/2010	
Work Order Number 1005560	1/ /-			Received by	: TLS		20	
Checklist completed by:	X -	5	20 Date	Sample ID le	bels checked	by:	Initials	
Matrix:	Carrier name:	UPS	ì					
Shipping container/cooler in good condition?		Yes	$\checkmark$	No 🗆	Not Present			
Custody seals intact on shipping container/cool	er?	Yes	$\checkmark$	No 🗆	Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗆	N/A	V		
Chain of custody present?		Yes	$\mathbf{V}$	No 🗌			.2	×
Chain of custody signed when relinquished and	received?	Yes	$\checkmark$	No 🗆			201	
Chain of custody agrees with sample labels?		Yes	$\checkmark$	No 🗆	19			
Samples in proper container/bottle?		Yes	$\checkmark$	No 🗆				
Sample containers intact?		Yes	V	No 🗌				
Sufficient sample volume for indicated test?		Yes	V	No 🗆				
All samples received within holding time?		Yes	$\checkmark$	No 🗆				f preserved
Water - VOA vials have zero headspace?	No VOA vials subn	nitted		Yes 🗹	No 🗆		bottles ch pH:	ecked for
Water - Preservation labels on bottle and cap m	atch?	Yes		No 🗌	N/A 🗹		141	
Water - pH acceptable upon receipt?		Yes		No 🗌	N/A 🗹		<2 >12 uni	ess noted
Container/Temp Blank temperature?		4.	.0°	<6° C Acceptab	le		below.	
COMMENTS:				If given sufficient	time to cool.			
			-==		====		====	No. 100 100 100 100 100 100 100 100 100 10
Client contacted	Date contacted:		=	Pers	on contacted			
Contacted by:	Regarding:		•					
Comments:		-			· · · · · · · · · · · · · · · · · · ·			
	1				III 27835			
Corrective Action								
								**************************************

	ANALYSIS LABORATORY		4901 Hawk		新たった。 Analysis Request でき	(les	syDie	D) H97 (1. (1. (1. (1. (1. (1. (1. (1. (1. (1.	+ 814 814 600 814 814 80 818 (A((A((A((A(((A((((((((((((((((((((	4 86 50 50 50 50 50 50 50 50 50 50 50 50 50	BTEX + MT BTEX + MT TPH Method TPH (Method B310 (PNA B RCRA 8 Me RCRA 8 Me RCRA 8 Me ROR1 Pestic 8260B (VOA 8260B (VOA 8260B (VOA		×							ne Kemarks:		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.
Turn-Around Time:	✓ Standard □ Rush	Project Name: 5-19-10	DRAINAGE NOTIL OF TX# 38			Project Manager:	*	Sampler: Onthe & Bab	On loe ระการธุรกิษัตราการราชการ	Sample Temperatúre	Container Preservative HEALN Type Type	3-VOA HC1	3-VOA HCI 2	t					Doroived hr	1 5/20 0 1013 me	Received by	ntracted to other accredited laboratories. This serves as not
Chain-of-Custody Record	Client: Western Refining	,	Mailing Address: 井50 CR 4990	M	Phone #: 505-632-4/6/	email or Fax#: 505-632-39//	QAQC Package:	T CALLS		□ EDD (Type)	Date Time Matrix Sample Request ID	5-19-10 2:15 420 WEST FORK	5-12-10 2:35 H20 EAST FORK						Date: Time: Retimulished by:	5:0 Cofest Kalon	Date: Reinquished by:	If necessary, samples submitted to Hall Environmental may be subcor



#### COVER LETTER

Wednesday, June 02, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK#38 5-26-10

Dear Cindy Hurtado:

Order No.: 1005835

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/27/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely.

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 02-Jun-10

CLIENT: Project:		Western Refining S Drainage North of					La	b Order	r: 1005835
Lab ID:		1005835-01			,	Collecti	ion Date:	5/26/20	010 1:05:00 PM
Client Samp	le ID:	West Fork					Matrix:	AQUE	OUS
Analyses			Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHO	D 828	0: VOLATILES SH	ORT LIST		n other party production	-			Analyst: DAN
Benzene			ND	1.0		µg/L		1	5/28/2010 10:37:23 AM
Toluene		0[3	. ND	1.0		µg/L		1	5/28/2010 10:37:23 AM
Ethylbenzen	e ·	9 #	ND	1.0		µg/L		1	5/28/2010 10:37:23 AM
Methyl tert-b	utyl eth	ner (MTBE)	· ND	1,0		µg/L		1	5/28/2010 10:37:23 AM
Xylenes, Tot	al		ND	2.0		µg/L		1	5/28/2010 10:37:23 AM
Lab ID:		1005835-02			. (	Collecti	ion Date:	5/26/20	010 12:50:00 PM
Client Samp	le ID:	East Fork					Matrix:	AQUE	ous
Analyses			Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHO	D 826	0: VOLATILES SH	ORT LIST						Analyst: DAN
Benzene			120	10		µg/L		10	5/28/2010 11:05:28 AM
Toluene			ND	1.0		µg/L		1	5/28/2010 11:33:35 AM
Ethylbenzen	e		NĎ	1.0		µg/L		1	5/28/2010 11:33:35 AM
Methyl tert-b		ner (MTBE)	ND	1.0		hg/r		1	5/28/2010 11:33:35 AM
Xylenes, Tot	al		ND	2.0		µg/L		1	5/28/2010 11:33:35 AM
Lab ID:		1005835-03	na tabula tabujum dalam tabupan m <sup>aga</sup> uju day		(	Collecti	ion Date:	5/26/20	010 12:30:00 PM
Client Samp	le ID:	Outfall #2					Matrix:	AQUE	OUS
Analyses			Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHO	D 826	0: VOLATILES SH	ORT LIST					Maria 11	Analyst: DAN
Benzene			ND	1.0		µg/L		1	5/28/2010 12:30:03 PM
Toluene			ND	1.0		hg/r		1	5/28/2010 12:30:03 PM
Ethylbenzen			ND	1.0		µg/L		1	5/28/2010 12:30:03 PM
Methyl tert-b		ner (MTBE)	ND	1.0		µg/L		1	5/28/2010 12:30:03 PM
Xylenes, Tol	lal		ND	2.0		µg/L		1	5/28/2010 12:30:03 PM
Lab ID:	Practice and	1005835-04		***************************************	(	Collecti	ion Date:	5/26/20	010 12:15:00 PM
Client Samp	le ID:	MW-51					Matrix:	AQUE	ous ·
Analyses			Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHO	DD 826	0: VOLATILES SH	ORT LIST						Analyst: DAN
Benzene			6400	100		hg/F		100	5/28/2010 9:24:16 PM
Toluene			220	100		μg/L		100	5/28/2010 9:24:16 PM
Ethylbenzen			250	100		hg/r		100	5/28/2010 9:24:16 PM
Methyl tert-b		ner (MTBE)	ND	1.0		µg/L		1	5/28/2010 12:57:13 PM
Xylenes, Tot	tai	(*	1800	200		µg/L		100	5/28/2010 9:24:16 PM
Ovalification		Value exceeds Maximu	m Contaminant Laure		MARKET CONTRACT	B Ana	lute detecte	d in the co	sociated Method Blank
Qualifiers:	E	Estimated value	in Contaminant react				25 Maria (2002)		tion or analysis exceeded
40	J	Analyte detected below	quantitation limits				ximum Cont		
	NC	Non-Chlorinated				JD Not	Detected at	the Repor	ting Limit
	NC					12		rrober	cepted recovery limits Page 1

Date: 02-Jun-10

# QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Drainage North of TK#38 5-26-10

Work Order:

1005835

Analyte	Result	Units	PQL.	SPK Va SP	Kref	%Rec Le	owLimit Hig	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8260: V	olatiles Shor	t List							
Sample ID: 5ml rb		MBLK		85		Batch ID:	R38998	Analysis Date:	5/28/2010 8:44:54 AM
Benzena	ND	μg/L	1.0						
Toluene	ND	µg/L	1.0	194					
Elhylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100ng lcs		LCS				Batch ID:	R38998	Analysis Date:	5/28/2010 9:41:09 AN
Benzene	21.46	μg/L	1.0	20	0	107	82.4	116	
Toluene	23.42	µg/L	1.0	20	0	117	89.5	123	ŝ <del>il</del>

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

## Sample Receipt Checklist

Client Name WESTERN REFINING SOUT	$\overline{}$		Date Received	d;	5/27/2010	
Work Order Number 1005835  Checklist completed by:		5/2=	Received by:	: ARS	Initials	
Signature V Matrix:	Carrier name:	UPS UPS			¥	
Shipping container/cooler in good condition?	95.0	Yes 🗹	No 🗆	Not Present		
Custody seals intact on shipping container/coo	oler?	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	d received?	Yes 🗹	No 🗆	¥7.		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗆			
Samples in proper container/bottle?		Yes 🗹	No 🗆			
Sample containers intact?	8	Yes 🗹	No 🗆			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗀	ě.		
All samples received within holding time?		Yes 🗹	No 🗌		Number of p	
Water - VOA vials have zero headspace?	No VOA vials subm	itted $\square$	Yes 🗹	No 🗆	bottles check pH:	Ked for
Water - Preservation labels on bottle and cap	match?	Yes 🗌	No 🗆	N/A 🔽	P-00-00	
Water - pH acceptable upon receipt?		Yes 🗆	No 🗌	N/A 🔽	<2 >12 unies: below.	s noted
Container/Temp Blank temperature?		6.7°	<6° C Acceptable		bolow,	
COMMENTS:	¥4		If given sufficient	time to cool.		
*			<b>P</b>			74
	W				*	
Client contacted	Date contacted:		Pers	on contacted		
Contacted by:	Regarding:				Commission design and the state of the state	
0					***************************************	
Comments:						
	The state of the s					
AND THE RESERVE OF THE PARTY OF						
Corrective Action						

## ## ## ## ## ## ## ## ## ## ## ## ##	HALL ENVIKONMENIAL ANALYSIS LABORATORY					100 mm			1)	110	) (A)	Air Bubbles											h cal report.
5 5 6		www.hallenvironmental.com	- Albuquerque, NM 87109	505-345-4107	Analysis Request	yik	2 <u>7</u> 2	WIE	 √X <i>₹</i>			40V) 80328 -ime2) 0728	1	×	×	叉		+			-		Ce Results to Kelly Robinson
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9 11		ronm	ndnei	Fax 5	sis F	(1)	05'	<b>70</b> d	10 <sup>5</sup>	'EC	N'	(F,Cl					+		+	+	-	1	ole arty
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1000		Youked	4901 Hawkins NE	505-345-3975	13.	(10	2010	Van				onteM) H9T					-	_	-		-	-	3 8
		. N	1901	Tel.	Harr							BTEX + MTI						+	-	_	+	-	marks: Please bility. Any suf
		1	4.		7							BTEX + MTI					+	-	-		-	+-	Remarks: Pleas
	,			Ī						av.		Constitution					+	+	+		-	-	R S S S S S S S S S S S S S S S S S S S
	h	5-26-10	of TK#38							G-No.	+,	HEALNO FORFISS	-	2	. 3	7							Date Time Remarks:  5/27/10 1045 Please C. Results to Kelly Robinson  Date Time possibility. Any sub-contracted data will be clearly notated on the analytical report
Time:	□ Rush	'n	North			iger:	,		Beb	<b>¥</b> Yes:	perature 🚶	Preservative Type	HCI	HC/	HCİ	HC							Schediled laborator
Tum-Around Time:	X Standard	Project Name:	DRAINAge	Project #:		Project Manager:	,		γ <u>.</u>	On Ice	Sample Temperature	Container Type and #	3-VOA	3-VOA	3-VOA	3-VOA							Received by: Received by:
Chain-of-Custody Record	Client: Western Refining	,	CR 4990	NM. 874/3	11	١		□ Level 4 (Full Validation)	,			Sample Request ID	WEST FORK	EAST FORK	out fall # 2	MW-51	ALLEY CO. CALLE THE PROPERTY OF THE PROPERTY O						Time: Relinquished by:  Time: Relinquished by: Receive  Time: Relinquished by: Receive  Tracessary, samples submitted to Hall Environmental may be subcontracted
of-Cu	Ern B		1 1		2	111			(	Other		Matrix	Had										Relinquished by Relinquished by
hain-	West		Mailing Address: #50	Bloomfiel	# 535	email or Fax#: 505	QA/QC Package:	dard	tation	1	(Type)_	Time	1:05	12:50	12:30	12:15							Time:
S	Client:		Mailing	18/	Phone #:	email of	QA/QC F	Standard Standard	Accreditation		O EDD (Type)	Date	5-26-10										Date: Date:



#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project#:	96012-0009
Sample ID:	West Fork	Date Reported:	05-31-10
Chain of Custody:	9482	Date Sampled:	05-26-10
Laboratory Number:	54454	Date Received:	05-26-10
Sample Matrix:	Aqueous	Date Analyzed:	05-27-10
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.9	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX 1.9

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	107 %
	1,4-difluorobenzene	98.3 %
	4-bromochlorobenzene	97.7 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

Drainage North of TK #38

Analyst

Review



#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

		2	
Client:	Western Refining	Project #:	96012-0009
Sample ID:	East Fork	Date Reported:	05-31-10
Chain of Custody:	9482	Date Sampled:	05-26-10
Laboratory Number:	54455	Date Received:	05-26-10
Sample Matrix:	Aqueous	Date Analyzed:	05-27-10
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	167	1	0.2
Toluene	ND .	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

#### Total BTEX 167

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	113 %
	1,4-difluorobenzene	101 %
	4-bromochlorobenzene	122 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

Drainage North of TK #38

Analyst

Review



#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A-	Project #:	N/A
Sample ID:	0528BBLK QA/QC	Date Reported:	05-20-10
Laboratory Number:	54454	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-27-10
Condition:	N/A	Analysis:	BTEX

Calibration and	EEGATRE	C+Cal RF	- %DM	Blank 1	Detect
Detection Limits (ug/2)		Accept Ran	ge 0 = 115%	- Gono	Limit
Benzene	1.2445E+006	1.2483E+006	0.30%	ND	0.2
Toluene	8.0034E+005	8.0275E+005	0.30%	ND	0.2
Ethylbenzene	6.5663E+005	6.5860E+005	0.30%	ND	0.2
p,m-Xylene	1.8965E+006	1.9022E+006	0.30%	ND	0.2
o-Xylene	6.2516E+005	6.2705E+005	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample:	Duplicate :-	%Diff	Accept Limit
Benzene	1.9	1.8	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked Spik	ed Sample al	% Recovery	Accept Limits
Benzene	1.9	50.0	55.7	107%	39 - 150
Toluene	ND	50.0	56.2	112%	46 - 148
Ethylbenzene	ND	50.0	52.4	105%	32 - 160
p,m-Xylene	ND	100	118	118%	46 - 14B
o-Xylene	ND	50.0	53.8	108%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 54454 and 54455.

Analyst

Review

# CHAIN OF CUSTODY RECORD

	)	B 118 411 1			1													
Western RefiniNg	Drainage North	North	" 4下井38	# 38						AN	ANALYSIS / PARAMETERS	/ PAR	AMET	ERS				
Client Address:	Sampler Name:	a:				(3108	(1208 t	(0978										
Client Phone No.:	Client No.:	113	- CORD			portial	odieM)	Nethod	8 Meta	noinA \	H HIM		(1.814	BOIR			looD e	e Intact
Sample No./ Sample San Identification Date Til	Sample Lab No.		Sample Matrix	No./Volume Preserv	No. Nolume Preservative of Mgd, 80		X3T8	I). DOV	-	BCI		HAG	.) НЯТ	СНГО			Sampl	Sampl
Wast Fork 5-26-10 1105	564484	Soli	Sludge		4		×		-								$\times$	2
EAST FOrlY 5-26-70 12:50	5 54455	Solid	Sludge	3-WA	*		*										$\times$	X
		Solld	Sludge															
		Solid	Sludge Aqueous															
		Soil	Sludge															
		Solid	Sludge Aqueous															
		Solid																
		Soil	Sludge Aqueous															
		Solid	Sludge Aqueous									-						
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	5796	US High	5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab @ envirotech-inc.com	gton, NM 8	7401 - 505	-632-06	15 • lat	@ envi	otech-i	nc.com					ACCENT	ACCENT Printing • Form 28-0807	• Form 2	8-0807

#### COVER LETTER

Friday, June 11, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: Drainage North of TK#38 6/3/10

Dear Cindy Hurtado:

Order No.: 1006193

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/4/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab# NM9425 NM0901 ·

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 11-Jun-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1006193

Drainage North of TK#38 6/3/10

Project: Lab ID:

1006193-01

Client Sample ID: East Fork

Collection Date: 6/3/2010 1:20:00 PM

Date Received: 6/4/2010

Matrix: AQUEOUS

Analyses	Result	PQL	Qual L	Inits	DF	Date Analyzed
EPA METHOD 8015B; DIESEL RANG	SE .	10)				Analyst: JB
Diesel Range Organics (DRO)	ND	0.20	m	ng/L	1	6/10/2010 12:59:10 PM
Motor Oil Range Organics (MRO)	ND	2.5	n	ng/L	1	6/10/2010 12:59:10 PM
Surr: DNOP	137	82-162	9/	6REC	1	6/10/2010 12:59:10 PM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050	n	ng/L	1	6/10/2010 1:27:25 PM
Surr: BFB	93.0	55.2-107	%	6REC	1	6/10/2010 1:27:25 PM
EPA METHOD 8260: VOLATILES SH	ORT LIST					Analyst: HL
Benzene	9.6	1.0	μ	ıg/L	1	6/8/2010 2:57:30 PM
Toluene	ND	1.0	μ	g/L	1	6/8/2010 2:57:30 PM
Ethylbenzene	ND	1.0	μ	g/L	1	6/8/2010 2:57:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.0	μ	g/L	-1	6/8/2010 2:57:30 PM
Xylenes, Total	ND	2.0	μ	g/L	1	6/8/2010 2:57:30 PM
Surr: 1,2-Dichloroethane-d4	85.0	54.6-141	%	6REC	1	6/8/2010 2:57:30 PM
Surr: 4-Bromofluorobenzene	99.3	60.1-133	%	6REC	1	6/8/2010 2:57:30 PM
Surr: Dibromofluoromethane	91.3	78.5-130	9/6	&REC	1	6/8/2010 2:57:30 PM
Surr: Toluene-d8	102	79.5-126	%	&REC	1	6/8/2010 2:57:30 PM

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
  - ND Not Detected at the Reporting Limit
  - S Spike recovery outside accepted recovery limits

Date: 11-Jun-10

# QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: Drainage North of TK#38 6/3/10 Work Order: 1006193

Analyte	Result	Units	PQL	SPK Ve	SPK ref	%Rec L	owLimit Hig	ghLimit %F	RPD RPDLimit Qu	ial
Method: EPA Method 8015B: D	lesel Range					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
Sample ID: MB-22560		MBLK				Batch ID:	22560	Analysis Da	te: 6/10/2010 9:35:	54 AN
Diesel Range Organics (DRO)	ND	mg/L	0.20							
Motor Oil Range Organics (MRO)	ND	mg/L	2.5	**				- 20 - 242		
Sample ID: LCS-22560		LCS				Batch ID:	22560	Analysis Da	ite: 6/10/2010 10:09:	45 Añ
Diesel Range Organics (DRO)	3.750	mg/L	0.20	2.5	0.1779	143	74	157		
Sample ID: LCSD-22560		LCSD				Batch ID:	22560	Analysis Da	ite: 6/10/2010 10:43:	:52 Añ
Diesel Range Organics (DRO)	3.569	mg/L	0.20	2.5	0.1779	136	74	157 4	.96 23	
Method: EPA Method 8015B; G	asoline Rar	nae								
Sample ID: 5ML RB		MBLK				Batch ID:	R39200	Analysis Da	te: 6/10/2010 9:35:	51 AN
Gasoline Range Organics (GRO)	ND	mg/L	0.050							
Sample ID: 2.5UG GRO LCS		LCS				Batch ID:	R39200	Analysis Da	te: 6/10/2010 6:45:	23 PA
Gasoline Range Organics (GRO)	0.4882	mg/L	0.050	0.5	0	97.6	77.8	124		
Method: EPA Method 8260: Vo	tatiles Short	List								
Sample ID: 6ml rb		MBLK		ŧ		Batch ID:	R39141	Analysis Da	te: 6/8/2010 8:42:	.02 AN
Benzene	ND	µg/L	1.0							
Toluene	ND	μg/L	1.0							
Ethylbenzene	ND	µg/L	1.0				¥8			
Wethyl tert-bulyl ether (MTBE)	ND	µg/L	1.0							
Xylenes, Total	ND	µg/L	2.0							
Sample ID: 100ng lcs		LCS				Batch ID:	R39141	Analysis Da	ite: 6/8/2010 9:53:	19 AN
Benzene	18.99	µg/L	1.0	20	0	94.9	82.4	116		
Toluene	21.58	µg/L	1.0	20	0	108	89.5	123		

Qualifiers:

Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Holding times for preparation or analysis exceeded

NC Non-Chlorinated

RPD outside accepted recovery limits

Page 1

#### Sample Receipt Checklist

Client Name WESTERN REFINING SOUT	1.50	Date Received	d:	6/4/2010	
Work Order Number 1008193		Received by	: TLS	AT	
Checklist completed by:	O Date	Sample ID to	bels checked by:	Initials	
Malrix: Carrier na	me: <u>UPS</u>				
Shipping container/cooler in good condition?	Yes 🔽	No 🗆	Not Present		54
Custody seals intact on shipping container/cooter?	Yes 🗹	No 🗆	Not Present	Not Shipped	П
Custody seals Intact on sample bottles?	Yes ☑	No 🗆	N/A	Not Ompped	
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 🗆	m17		
Sample containers Intact?	Yes 🗹	No [			
Sufficient sample volume for indicated test?	Yes 🗹	No 🗆			
All samples received within holding time?	Yes 🗹	No 🗆		Number o	fpreserved
Water - VOA vials have zero headspace? No VOA vials		Yes. 🗹	No []	bottles che	
Water - Preservation labels on bottle and cap match?	Yes 🗆	No 🗆	N/A 🗹	pri.	
Water - pH acceptable upon receipt?	Yes 🗌	No 🗆	N/A 🗹	<2 >12 uni	ess noted
Container/Temp Blank temperature?	9.5°	<6° C Acceptabl	'e	below.	
COMMENTS:		If given sufficient			
					*(
v.			Ē		
			*		
Client contacted Date contacted:		Perso	on contacted		THE STATE OF THE S
Contacted by: Regarding:				- O LANG	
Comments:	- William				
			****		
Corrective Action					

	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	🎌 💝 Analysis Request 🛴 🛴 💘 🐾 🗀		s'8C	)d 3	(F.40) (HA) SOU, <sub>E</sub> C SB08 \ ; X\ST(E	d 5d by your design of the control o	onteM) H9T onteM) GE8 o AN9 0168 O AN9 Me D,A) oncinA OV) 80818 SOVO (Semi-	×								b-contracted data will be clearly notated on the analytical report.
			4901 F	Tel. 5(		(Ņu	10 St	8Đ)	H9T +	36	JTM + XJTB		×						Remarks:	ibliffy. Any su
Turn-Around Time:	Standard 🗆 Rush	Project Name: 6-3-70	DRAINAGE NOTE OF TEXTS			Project Manager:	1208	8) s,	Sampler: Rols Onlos X Jess En No. Same +	Temperature Q.5	Container Preservative HEAL Not Type and # Type LOCENCES	3-10A HC/	1-250 Amber 221						Received by:  Received by:  Date Time Received by:	If necessary, samples submitted to Hall Environmental may be subconfracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
Chain-of-Custody Record	Client: Western Refining		Mailing Address: 井5つ グR サデジン	Blockfield NM 87413	Phone #: 505 - 6.32 - 4/6/	email or Fax#: 505-632-39//	OA/QC Package:	Standard 🗆 Level 4 (Full Validation)	Accreditation 🗆 Other	□ EDD (Type)	Date Time Matrix Sample Request ID	6-3-10 1:20 HaD EAST FORK	6-3-10 11.20 Had EAST Fork						bate: Time: Relinquished by:  6-3-16 3: 8   Cefey Halber  Date: Time: Relinquished by:	If necessary, samples submitted to Hall Environmental may be subco



#### COVER LETTER

Wednesday, June 16, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK#38 6-8-10

Dear Cindy Hurtado:

Order No.: 1006309

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 6/9/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab# NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX

helac

Date: 16-Jun-10

	Western Refining So Drainage North of T				1000	La	b Order	: 1006309
Lab ID:	1006309-01	<del></del>		(	Collecti	on Date:	6/8/2010	0 2:25:00 PM
Client Sample ID:	MW-I			*		Matrix:	AQUEC	DUS
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHOD 826	0: VOLATILES SHO	RT LIST						Analyst: BDH
Benzene		ND	1.0		μg/L		1	6/10/2010 7:47:50 PM
Toluene		ND	1.0		µg/L	17	1	6/10/2010 7:47:50 PM
Ethylbenzene		ND	1.0		µg/L		1	6/10/2010 7:47:50 PM
Methyl tert-butyl eth	ner (MTBE)	ND	1.0		μg/L		1	6/10/2010 7:47:50 PM
Xylenes, Total		ND	2.0		µg/L		1	6/10/2010 7:47:50 PM
Lab ID:	1006309-02				Collecti	on Date:	6/8/201	0 2:40:00 PM
Client Sample ID:	Fresh Water Pond					Matrix:	AQUEC	DUS
Analyses		Result	PQL	Qual	Units	E	DF	Date Analyzed
EPA METHOD 826	0: VOLATILES SHO	RT LIST						Analyst: BDH
Benzene		ND	1.0		μg/L		1	6/10/2010 8:16:06 PM
Toluene		ND	1.0		µg/L		1	6/10/2010 8:16:06 PM
Ethylbenzene		ND	1.0		µg/L		1	6/10/2010 8:16:06 PM
Methyl tert-butyl eth	ner (MTBE)	ND	1.0		µg/L		1	6/10/2010 8:16:06 PM
Xylenes, Total		ND	2.0		µg/L		1	6/10/2010 8:16:06 PM
Lab ID:	1006309-03	-W-Olmann Turning			Collecti	on Date:	6/8/201	0 2:50:00 PM
Client Sample ID:	East Fork					Matrix:	AQUEC	ous
Analyses	E#	Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHOD 826	60: VOLATILES SHO	ORT LIST						Analyst: MMS
Benzene		5.2	1.0		µg/L		1	6/11/2010 2:29:29 PM
Toluene		ND	1.0		µg/L		1	6/11/2010 2:29:29 PM
Ethylbenzene		ND	1.0		µg/L		1	6/11/2010 2:29:29 PM
Methyl tert-butyl eth	ner (MTBE)	ND	1.0		µg/L		1	6/11/2010 2:29:29 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
	Ε	Estimated value	Ĥ	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	POI	Practical Quantitation Limit	.0	Snike recovery outside accepted recovery limits age 1 of 1

Date: 16-Jun-10

# QA/QC SUMMARY REPORT

...ent:

Western Refining Southwest, Inc.

Project:

Drainage North of TK#38 6-8-10

Work Order:

1006309

			1	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
latiles Short	List						
	MBLK			Batch ID:	R39204	Analysis Date:	6/10/2010 11:34:40 AM
ND	µg/L	1.0		*			
ND	µg/L	1.0					
ND	μg/L	1.0			20		
ND	µg/L	1.0			2		
ND	µg/L	2.0					
	LCS			Batch ID:	R39204	Analysis Date:	6/10/2010 11:06:25 AM
19.88	µg/L	1.0	20 D	99.4	82.4	116	
19.09	µg/L	1.0	20 0	95.5	89.5	123	
	ND ND ND ND ND	MBLK  ND µg/L  ND µg/L  ND µg/L  ND µg/L  ND µg/L  LCS  19.88 µg/L	MBLK  ND μg/L 1.0  ND μg/L 1.0  ND μg/L 1.0  ND μg/L 1.0  ND μg/L 2.0  LCS  19.88 μg/L 1.0	MBLK  ND µg/L 1.0  ND µg/L 2.0  LCS  19.88 µg/L 1.0 20 0	MBLK Batch ID:  ND µg/L 1.0  ND µg/L 2.0  LCS Batch ID:  19.88 µg/L 1.0 20 0 99.4	MBLK       Batch ID:       R39204         ND       μg/L       1.0         ND       μg/L       1.0         ND       μg/L       1.0         ND       μg/L       2.0         LCS       Batch ID:       R39204         19.88       μg/L       1.0       20       0       99.4       82.4	MBLK     Batch ID:     R39204     Analysis Date:       ND     μg/L     1.0       ND     μg/L     1.0       ND     μg/L     1.0       ND     μg/L     1.0       ND     μg/L     2.0       LCS     Batch ID:     R39204     Analysis Date:       19.88     μg/L     1.0     20     0     99.4     82.4     116

¿ualifiers:

E Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Page 1

# Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Data Receive	d:	6/9/2010	
Work Order Number 1006309	40		Received by	: ARS	$\wedge$	
Checklist completed by:	9	LO Q Date	Sample ID is	abels checked by:	Initials	
Matrix:	Carrier name:	UPS		¥.		
Shipping container/cooler in good condition?		Yes 🗹	No 🗆	Not Present		
Custody seals intact on shipping container/cool	er?	Yès 🗹	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 🗆		3.	
Chain of custody agrees with sample labels?		Yes 🗹	No 🗀		1921	
Samples in proper container/bottle?		Yes 🗹	No 🗆			
Sample containers intact?		Yes 🗹	No 🗀			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗀			Ω
All samples received within holding time?	*	Yes 🔽	No 🗆		Number of	
Water - VOA vials have zero headspace?	No VOA vials subn	nitted	Yes 🔽	No 🗌	bottles che pH:	ecked for
Water - Preservation labels on bottle and cap m	atch?	Yes 🗌	No 🖂	N/A		
Water - pH acceptable upon receipt?		Yes 🗌	No 🗌	N/A	<2 >12 unle	ess noted
Container/Temp Blank temperature?		8.3°"	<6° C Acceptat		Delow.	
COMMENTS:			If given sufficien	time to cool.		
*						
Client contacted	Date contacted:		Pers	son contacted		
Contacted by:	Regarding:					
Comments:						
		1070				
Corrective Action						
						50
	The state of the s		***************************************			

Chai	n-of-Cu	Chain-of-Custody Record	Turn-Around Time:	Ime:			.4	. •		1	í	Í	. (	8	4			
Client: WESTERN REPINIUS	Stern R	efinius	区 Standard	□ Rush		JL		dia 4	MALL ENVIRONMENTAL.	4 5			5 5				-	
	-	1.	Project Name:		0/-8-9			4	www.hallenvironmenfal.com	raller	viron	Tienfa		5	5	5	eri eri	
Mailing Addre	05#:sse	Mailing Address: #50 CR 4990	DRAIDA92	ge North	gtk#38	7	1901	lawk	4901 Hawkins NE - Albuquerque, NM 87109	Α.	nbnq	erdne	Z	8710	60			
Bloomfi	eld, W	Bloomfield, NM 87413	Project #:				Tel. 5	05-37	Tel. 505-345-3975	.2	Fax	Fax 505-345-4107	45-4	107				
Phone #: 5	05-63	Phone #: 505-631- 4/6		Š.	8			-oi:	*	Aha	lysis	Analysis Request	est				ŝ	
email or Fax	#: 505-	email or Fax#: 505-632-3911	Project Manager:	jer:							(*C		,	_				
OAVOC Package: V Standard	ge:	Jacin A Jenil Validation	Jacque (G.)								05'20	cB,a	TBE		*			
Accreditation DI NELAP	Other	ar Level 4 (1 all Validation)	Sampler: E	qz.						(H)	4'2ON'	8082 F		(				(N)
C EDD (Type)			Sample Temperature	erature	\$ \frac{1}{2}							səp		AOV				in i
Date Time	ne Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTE	BTEX + MTE	ortieM) HqT	EDB (Metho	8310 (PNA d RCRA 8 Met	IO, 4) enoinA	ioitee9 1808	AOV) 80828	-imə2) 0728				Air Bubbles (
-8-10 3225	25 HaD	MW-1	3-10A	Ha	_	-	1	-			-							,
8:40		Fresh water POND	3-10A	Hc1	6				-	-	_		4	-	_			T
2:50	50 H20	EAST FORK	3-VOA	HCI	8								7		_			T
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Date: Time: -8-70 3'.00	Reling	uished by: Stat Kolean	Feceived by:		Date   Time	Remarks:	rks:											
Date: Time:	Relinquished by:	ed by:	Received/by:	7	Date Time													
If necess	ary, samples sub	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.	onfracted to other acc	redited laboratoric	es. This serves as notice of this	possibilit	y. Any	nco-du	racted o	ata will	be clear	by notate	ed on t	he ana	yfical re	Bort		7



#### COVER LETTER

Friday, June 25, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK#38 6/16/10

Dear Cindy Hurtado:

Order No.: 1006609

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/17/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 25-Jun-10

CLIENT: . .

Western Refining Southwest, Inc.

Lab Order:

1006609

Client Sample ID: East Fork

Project:

Drainage North of TK#38 6/16/10

Collection Date: 6/16/2010 3:10:00 PM

Date Received: 6/17/2010

Lab ID:

1006609-01

Matrix: AQUEOUS

Analyses	Result	PQL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES S	HORT LIST.		<del></del>		Analyst: HL
Benzene	3.4	1.0	μg/L	1 -	6/23/2010 8:53:52 PM
Toluene	ND	1.0	µg/L	1	6/23/2010 8:53:52 PM
Ethylbenzene	ND	1.0	μg/L	1	6/23/2010 B:53:52 PM
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	6/23/2010 8:53:52 PM
Xylenes, Total	ND	2.0	µg/L	1	6/23/2010 8:53:52 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- I-I Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Date: 25-Jun-10

# QA/QC SUMMARY REPORT

.ient: Project: Western Refining Southwest, Inc.

Drainage North of TK#38 6/16/10

Work Order:

1006609

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	ghLimit %F	RPD	RPDLimit	Qual
Method: EPA Method 8260: V	piatiles Shor	t List			:						MATHERE WESTERN
Sample ID: 1006609-01a msd		MSD				Batch ID:	R39454	Analysis Da	te:	6/23/2010	9:49:10 PN
Benzene	23.61	µg/L	1.0	20	3.38	101	72.4	126 3	.44	20	
Toluene	21.40	µg/L	1.0	20	0	107	79.2	115 0.	200	20	
Sample ID: b6		MBLK				Batch ID:	R39454	Analysis Da	te;	6/23/2010 1	0:44:23 PN
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0							18.0	
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0					**			
Xylenes, Total	ND	µg/L	2.0	5							
Sample ID: 5ml rb		MBLK				Batch ID:	R39454	Analysis Da	te:	6/23/2010	9:38:36 AN
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng Ics_b		LCS				Batch ID:	R39454	Analysis Da	te:	6/23/2010 1	1:39:28 PN
Benzene	18.87	µg/L	1.0	20	0	94.4	82.4	116		*1	
Toluene	20.66	µg/L	1.0	20	0	103	89.5	123 '			
Sample ID: 100ng Ics		LCS				Batch ID:	R39454	Analysis Da	te:	6/23/2010 1	1:07:02 AN
enzene	19,41	µg/L	1.0	20	0	97.0	82.4	116			
Toluene	20.35	µg/L	1.0	20	0	102	89.5	123			
Sample ID: 1006609-01a ms		MS				Batch ID:	R39454	Analysis Da	te:	6/23/2010	9:21:36 PN
Benzene	22,81	· µg/L	1.0	20	3.38	97.2	72.4	126			
Toluene	21.36	µg/L	1.0	20	0	107	79.2	115			

-		_
Ou	diff	ers

E Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

## Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Received	d:	6/17/2010	
Work Order Number 1006609			Received by	TLS	ah	
Checklist completed by:		CO 17	Sample ID la	bels checked by:	Initials	
Matrix:	Carrier name:	UPS				
Shipping container/cooler in good condition?		Yes 🗹	No 🗆	Not Present		2
Custody seals intact on shipping container/coole	r?	Yes 🗹	No 🗀	Not Present	Not Shipped	
Custody seals intact on sample bottles?		Yes 🗹	No 🗀 .	N/A		
Chain of custody present?	a l	Yes 🗹	No 🗆			
Chain of custody signed when relinquished and r	eceived?	Yes 🗹	No 🗆			
Chain of custody agrees with sample labels?		Yes 🗹	No 🗀			
Samples in proper container/bottle?		Yes 🔽	No 🗆			ř:
Sample containers intact?		Yes 🗹	No 🗀			
Sufficient sample volume for indicated test?	387	Yes 🗹	No 🗆			
All samples received within holding time?		Yes 🗹	No 🗆		Number of	
Water - VOA vials have zero headspace?	No VOA vials submi	itted 🗌	Yes 🗹	No 🗌	bottles che pH:	cked for
Water - Preservation labels on bottle and cap ma	itch?	Yes 🗌	No 🗌	N/A 🗹		
Water - pH acceptable upon receipt?		Yes 🗌	No 🗌	N/A 🗹	<2 >12 unie below.	ss noted
Container/Temp Blank temperature?		5.3°	<6° C Acceptable		DCION.	
COMMENTS:			If given sufficient	time to cool.		
29						
				2.8.5	60 67	**
		====				
*						
				¥0		
Client contacted	Date contacted:		Person	on contacted		
Contacted by:	Regarding:					
Comments:			4			
		******************		***************************************	i	
						***************************************
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		*1101	TO THE PARTY OF TH			
Corrective Action		+		Table 17		
The state of the s					Annua	
			The state of the s			
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Chai	n-of-Cu	Chain-of-Custody Record	Turn-Around Time:	Time:		a con		100	6	į	# # W	È	2	. 2	B. B. and	£	
Client Western Refilling	Karel &	e Civing	(X-Standard	□ Rush					ANAI YSTS	u ×					anal yeis I aroratory	1 2	
			Project Name:		6-16-10			1 >	www.hallenvironmental.com	allenv	ronm		moo.		R P	d d	
Mailing Addre	19#:ss	Mailing Address: #50 02 4590	TRAINAG	Abell	必形分が	4	901 H	awkir	4901 Hawkins NE	- Alb	ndne	que,	Z	Albuquerque, NM 87109			
BloomA	eld. NI		Project #: /			,	Tel. 5(	5-34	505-345-3975		Fax 505-345-4107	05-34	15-41	10			
Phone #: 505-632-4/6	05-63	2-4/61								Anal	lysis Request	eque	)st	***			DOT H
email or Fax#: 505	: 505-	632-3911	Project Manager:	ger:							(‡C		~ >				
QAQC Package: K Slandard	je:	☐ Level 4 (Full Validation)									S'*Oc		78IN				
Accreditation D NELAP	C Other		Sampler: Bo	26 Verges seet				(1.81			3'0N' <sup>E</sup>		-	1			(N 7
☐ EDD (Type)	(6		Sample Tem	erature a	8			.tp			ו'ווכ	-		10/			111
Date Time	e Matrix	Sample Request ID	Container Type and #	Preservative Type		TM + X3T8	TPH Methoo	ortieM) HqT	EDB (Metho	eM 8 AЯЭЯ	O,7) enoinĄ	8081 Pestic	4OV) 80828	-imə2) 0728			selddug 11A
16-10 3:D	Off O	EAST FORK	3-1/cA	#c/	1							_	1				1
														_			
													-				
									1		1	+	+	_			
						-	1		1			+	$\dashv$	_		1	- 1
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							1	7	+		$\top$	+	+		1		
						1		7	+		$\dashv$	+	+	1			- 1
							1	$\forall$	+		$\forall$	+	+	4		1	- 1
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0		Eret Troller	Received by:	99	Date Time	Remarks	ćs:										
Date: Time:	Reinquished by:	led by:	Received by:	<u>.</u> 2	/ Date Time			127		e 6	5. 19		7.				
If necessa	dy, samples sub	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.	ontracted to other ac	aredited laboratorie	es. This serves as notice of this	possibility.	Amy su	b-contra	cted da	a Will be	clearly	notated	on the	anelytic	al report.		- 1



#### COVER LETTER

Thursday, July 08, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK #38 6/24/10

Dear Cindy Hurtado:

Order No.: 1006905

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/25/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 08-Jul-10

CLIENT: Lab Order: Western Refining Southwest, Inc.

1006905

Client Sample ID: East Fork

Collection Date: 6/29/2010 2:45:00 PM

Project:

Drainage North of TK #38 6/24/10

Date Received: 6/25/2010

Lab ID:

1006905-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SH	ORT LIST					Analyst: HL
Benzene	1.6	1.0		µg/L	1	7/7/2010 7:27:01 AM
Toluene	ND	1.0		μg/L	1	7/7/2010 7:27:01 AM
Ethylbenzene	ND	1.0		μg/L	1	7/7/2010 7:27:01 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/7/2010 7:27:01 AM
Xylenes, Total	ND	2.0		μg/L	. 1	7/7/2010 7:27:01 AM
Surr: 1,2-Dichtoroethane-d4	95.6	73.1-133		%REC	1	7/7/2010 7:27:01 AM
Surr: 4-Bromofluorobenzene	110	82.9-140		%REC	1	7/7/2010 7:27:01 AM
Surr: Dibromofluoromethane	99.2	79.2-119		%REC	1	7/7/2010 7:27:01 AM
Surr: Toluene-d8	101	84.4-118		%REC	1	7/7/2010 7:27:01 AM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Date: 08-Jul-10

# QA/QC SUMMARY REPORT

lient:

Western Refining Southwest, Inc.

Project:

Drainage North of TK #38 6/24/10

Work Order:

1006905

Analyte -	Result	Units	PQL	SPK Va	SPK_ref	%Rec L	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Vo	olatiles Shor	t List									
Sample ID: 1006905-01a msd		MSD				Batch ID:	R39668	Analysi	s Date:	7/7/2010	8:22:12 AN
Benzene	21.60	µg/L	1.0	20	1.63	99.8	71.2	127	7.27	20	
Toluene	20.59	µg/L	1.0	20	0	103	90.2	127	1.67	20	5
Sample ID: b6		MBLK				Batch ID:	R39668	Analysi	s Date:	7/6/2010 1	0:43:45 PM
Benzene	ND	µg/L	1.0								+ 5
Toluene	ND	µg/L	1.0				6				
Ethylbenzene	ND	μg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Xylenes, Total	ND	μg/L	2.0								
Sample ID: 100ng lcs_b		LCS				Batch ID:	R39668	Analysi	s Date:	7/6/2010 1	1:38:43 PM
Benzene	19.14	μg/L	1.0	20	0	95.7	82.4	116			
Toluene	20.73	μg/L	1.0	20	0	104	89.5	123			
Sample ID: 1006905-01a ms		MS				Batch ID:	R39668	Analysi	s Date:	7/7/2010	7:54:38 AM
Benzene	20.08	µg/L	1.0	20	1.63	92.3	71.2	127			
Toluene	20.25	µg/L	1.0	20	0	101	90.2	127			

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

## Sample Receipt Checklist

Client Name WESTERN REFINING SOUT		Date Received	:	6/25/2010
Work Order Number 1006905		Received by:	TLS	1)
Checklist completed by:	Q 25	Sample ID ta	bels checked by:	Initials
Matrix: Carrier name	<u>UPS</u>			
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 🗌	2	
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
Water - VOA vials have zero headspace? No VOA vials sub-	nitted	Yes 🗹	No 🗔	bottles checked for pH:
Water - Preservation labels on bottle and cap match?	Yes 🗌	No 🗆	N/A	s aspector access of an ex-
Water - pH acceptable upon receipt?	Yes 🗌	No 🗌	N/A	<2 >12 unless noted below.
Container/Temp Blank temperature?	9.6°	<6° C Acceptabl		odiow.
COMMENTS:		If given sufficient	time to cool.	¥i
				·
				tronsight (Minister) and PDE (Minister) philipse (Anniber) ingented (Anniber) and
Client contacted Date contacted:	to continue to the	Pers	on contacted	
Contacted by: Regarding:				***************************************
Comments:				, and the same of
		eff marker (a 11 h. Markov (a)		
and the state parameters of the state of the			<b></b>	The contract and their analysis are
Corrective Action	and the second of			

								(N)	· ( )	Air Bubbles									Anna a si sa
	HALL ENVIRONMENTAL ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Fax 505-345-4107				2808 / 1/X3T	sep (	Aniona (F,Cl 8081 Pestici 8260B (VOA 8260B (Semi-	X								-40 -3 -40 -20
	ANALYS	www.hallenvi	Hawkins NE - Albu	Tel. 505-345-3975 F	An			(1.8 (1.4) (H.4	14 b 19 70 19 16	TPH (Metho EDB (Metho ANG) (PNA o ACRA 8 Me									ä
			4901	Tel. 5		(λίη	385 OF	) нат	3E +	BTEX + MTE								Remarks:	
	Rush	9-24-10	OP LY# 300		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				5	Ve LIETANO	<i></i>		=					35 0 103 Jee	Date Time
Turn-Around Time:	K Standard DRu	Project Name:	DRAINS WITH C	i		Project Manager:		Sampler: Rob	Sample Temperature	Container Preservative Type and # Type	3-16A   HCI			Annual contraction of the contra				Received by	Received by:
Record					34-4161	//	☐ Level 4 (Full Validation)			Sample Request ID	EAST FORK							Kraken	
Chain-of-C	Client WESTERN REFINING		Mailing Address: 4450 CR 48990	Bloomfield, NM 87413	Phone #: 505-631-416	email or Fax#: 505-632-39,	QA/QC Package: Vf Standard	Accreditation  NELAP  Other	☐ EDD (Type)	Date Time Matrix	6-29-10 21-45 1430							Time:	Date: Time: Relinquished by:



#### COVER LETTER

Tuesday, July 13, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK#38 7-1-10

Dear Cindy Hurtado:

Order No.: 1007081

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/2/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 13-Jul-10

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: East Fork

Lab Order:

1007081

Collection Date: 7/1/2010 2:30:00 PM

Project:

Drainage North of TK#38 7-1-10

Date Received: 7/2/2010

Lab ID:

1007081-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD 8260: VOLATILES SH	HORT LIST			*****************		Analyst: HL	-
Benzene ·	2,3	1.0		μg/L	1	7/8/2010 11:54:58 PM	
Toluene	ND	1.0		µg/L	1	7/8/2010 11:54:58 PM	
Ethylbenzene	ND	1.0		µg/L	1	7/8/2010 11:54:58 PM	
Methyl tert-butyl ether (MTBE)	. ND	1.0		µg/L	. 1	7/8/2010 11:54:58 PM	
Xylenes, Total	ND	2.0		µg/L	1	7/8/2010 11:54:58 PM	
Surr: 1,2-Dichloroethane-d4	99.7	54.6-141		%REC	1	7/8/2010 11:54:58 PM	
Surr: 4-Bromofluorobenzene	116	60.1-133		%REC	1	7/8/2010 11:54:58 PM	
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	7/8/2010 11:54:58 PM	
Surr: Toluene-d8	111	79.5-126		%REC	1	7/8/2010 11:54:58 PM	

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
  - S Spike recovery outside accepted recovery limits

# QA/QC SUMMARY REPORT

.ient:

Western Refining Southwest, Inc.

Project: Drainage North of TK#38 7-1-10

Work Order:

Date: 13-Jul-10

1007081

Analyte	Result	Units	PQL	SPK Va SPK	ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: V	olatiles Shor	t List									
Sample ID: 5ml rb		MBLK				Batch ID:	R39704	Analysis	s Date:	7/8/2010	8:57:37 AN
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: b5		MBLK			E	Batch ID:	R39704	Analysis	s Date:	7/8/2010	9:09:52 PN
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								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		LCS			8	Batch ID:	R39704	Analysis	s Date:	7/8/2010 1	0:20:21 AN
Benzene	21.06	μg/L	1.0	20	0 -	105	82.4	116			
Toluene	21.60	μg/L	1.0	20	0	108	89.5	123			
Sample ID: 100ng lcs_b		LCS			E	Batch ID:	R39704	Analysis	s Date:	7/8/2010 1	0:04:52 PN
Benzene	20.44	μg/L	1.0	20	0	102	82.4	116			
Toluene	21.56	µg/L	1.0	20	0	108	89.5	123			

ualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Page 1

## Sample Receipt Checklist

Client Name WESTERN REFINING SOUT	,	Date Received:	7/2/2010
Work Order Number 1007084		Received by:	DAM / 10
Checklist completed by:	) >/2/	Sample ID labels of	shecked by: Olivials
Matrix: Ca	rrier name: <u>UPS</u>		
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 🗆	3
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
Water - VOA vials have zero headspace? No VO	A vials submitted	Yes 🗹	No D bottles checked for pH:
Water - Preservation labels on bottle and cap match?	Yes 🗹	No 🗆 1	N/A 🗌
Water - pH acceptable upon receipt?	Yes 🗹	No 🗆 1	N/A = <2 >12 unless noted
Container/Temp Blank temperature?		<6° C Acceptable	below.
COMMENTS:	1	f given sufficient time	to cool.
			jul 1
Client contacted Date con	tacted:	Person cor	ntacted
Contacted by: Regarding	g:		
Comments:			*
Comments.		XXXXIII X	
			And the second s
		The state of the s	The state of the s
•		<del>*************************************</del>	ratio
Corrective Action			
	The second state seasons the resource second		1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		······································	

E 44.8		:						· (N )	0人)	səlddu8 riA			1											-
0 0			BTEX + MTBE + TMB's (8021)  BTEX + MTBE + TPH (Gas only)  TPH Method 8015B (Gas/Diesel)  TPH (Method 504.1)  B310 (PNA or PAH)  RCRA 8 Metals  RCRA 8 Metals  ROB1 Pesticides / 8082 PCB's  8081 Pesticides / 8082 PCB's			×.										Remarks:								
Tum-Around Time:	X Standard	Project Name:	Deainage North of TK#38 7-1-12			Project Manager:		Sampler: By B	2	ative HEAE No	3-10A ACI 10070B1				-			-				17 7 7 10 14:30	Received by: V Date Time	
Chan-of-Custody Record	Client: Western Refining	,	Mailing Address: 井ら CR 4990	Bloomfield, NM 87413	Phone #: 505-632-4161	email or Fax#: 525-633-391/	QA/QC Package:   A Standard	Other	□ EDD (Type)	Date Time Matrix Sample Request ID	7-1-10 2130 HaO EAST FOOK						The second secon					Time:	Date: Time: Relinquished by:	



#### **COVER LETTER**

Thursday, July 15, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Drainage North of TK#38 7-8-10

Dear Cindy Hurtado:

Order No.: 1007281

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/9/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 15-Jul-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1007281

Client Sample ID: East Fork

Chefft Sample 113;

Collection Date: 7/8/2010 2:15:00 PM

Project: Lab ID: Drainage North of TK#38 7-8-10

Date Received: 7/9/2010

1007281-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES S	HORT LIST	***				Analyst: MMS
Benzene	2.0	1.0		µg/L	1	7/13/2010 5:51:44 PM
Toluene	ND	1.0		µg/L	1	7/13/2010 5:51:44 PM
Ethylbenzene	ND	1.0		μg/L	1	7/13/2010 5:51:44 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		μg/L	1	7/13/2010 5:51:44 PM
Xylenes, Total	ND	2.0		µg/L	1	7/13/2010 5:51:44 PM
Surr: 1,2-Dichloroethane-d4	88.4	54.6-141		%REC	1	7/13/2010 5:51:44 PM
Surr: 4-Bromofluorobenzene	91.1	60.1-133		%REC	1	7/13/2010 5:51:44 PM
Surr: Dibromofluoromethane	140	78.5-130	S	%REC	1	7/13/2010 5:51:44 PM
Surr: Toluene-d8	97.7	79.5-126		%REC	1	7/13/2010 5:51:44 PM
Surr: Toluene-d8	97.7	79.5-126		%REC	1	7/13/2010 5:51

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Date: 15-Jul-10

# QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Drainage North of TK#38 7-8-10

Work Order:

1007281

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8280: \	olatiles Sho	rt List									
Sample ID: 1007281-01a msd		MSD				Batch ID:	R39786	Analys	is Date:	7/13/2010	6:48:17 PN
Benzene	° 14.46	μg/L	1.0	20	2.025	62.2	72.4	126	12.3	20	s
Toluene	14.76	µg/L	1.0	20	0	73.8	79.2	115	10.9	20	S
Sample ID: 1007281-01a ms		MS			•	Batch ID:	R39786	Analys	is Date:	7/13/2010	6:20:03 PM
Benzene	16.35	µg/L	1.0	20	2.025	71.5	72.4	126			S
Toluene	16.46	µg/L	1.0	20	0	82.3	79.2	115			

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

### Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Received	d:	7/9/2010
Work Order Number 1007281	11€		Received by	TLS	
Checklist completed by:		Date	Sample ID la	bels checked by:	Initials
Matrix:	Carrier name:	Greyhound			
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?	ST.	Yes 🗹	No 🗆		
Chain of custody signed when relinquished and rece	eived?	Yes 🗹	No 🗆		
Chain of custody agrees with sample labels?	6	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?	47	Yes 🗹	No 🗆		Number of preserved
Water - VOA viałs have zero headspace?	lo VOA vials subm	itted $\square$	Yes 🗹	No 🗌	bottles checked for pH:
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?		11.9°	<6° C Acceptab		balow.
COMMENTS:	2		If given sufficient	t time to cool.	*
			į.		
Client contacted Da	te contacted:		Pers	son contacted	
			T GIS		-
Contacted by:	garding:				
Comments:					
				-	
No.	TALL COMPANY	: See A CONTRACTOR OF THE SECOND			
Corrective Action					
and the second s					

Chain-of-Custody Record	Turn-Around Time:	
Client: WESTERN REFINING	Standard 🗆 Rush	ANALYSIS JARORATORY
	Project Name: 7-8-70	www.hallenvironmental.com
Mailing Address: 4-50 CR 4890	Drainage North of TIK# 38	4901 Hawkins NE - Albuquerque, NM 87109
Sloomfield, NM 87413		Tel. 505-345-3975 Fax 505-345-4107
32-416		🐔 🐉 🔻 Analysis
email or Fax#: 505~6 32-37//	Project Manager.	(†( (A)L
ige:		Seld/
Standard 🗆 Level 4 (Full Validation)	The state of the s	(G98
Accreditation  Dother	Sampler: Cindy On Ice	15B ((8.1) (4.1) (4.1) (4.1) (4.1) (5.10 (6.1) (7.1) (7.1)
□ EDD (Type)	Sample Temperature	4 100 NOV NO
Date Time Matrix Sample Request ID	Container Preservative Type Type	TEX + MTE  TEX + MTE  TPH (Method  TPH (Meth
8-10 215 Has EAST FORK	3-10A HC/	33 5× 33 5×
1		
10 230f	Received by: O Time	Remarks:
hate: Time: Relinquished by:	Received by: Y Date Time	
If necessary, samples submitted to Hall Environmental may be sub;	contracted to other accredited laboratories. This serves as notice of this	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.

ATTACHMENT B Chromatograms

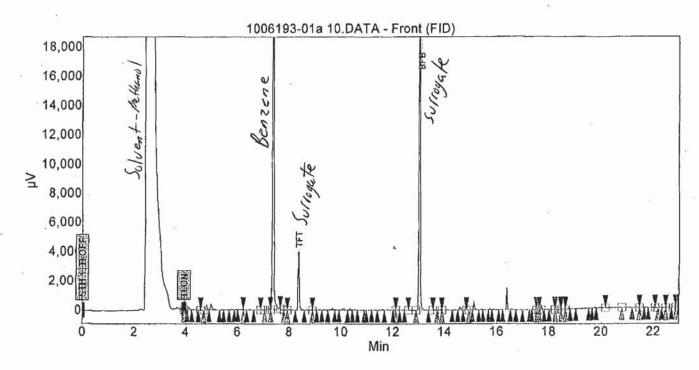
# Chromatogram: 1006193-01a 10\_channel1

System : Apollo Method : Test Mth User : Nick Bliss Description :x1 5ml g

G-RO

Acquired: 6/10/2010 1:27:25 PM Processed: 6/11/2010 8:01:51 AM Printed: 6/11/2010 8:01:53 AM

Calibration : Apollo Headspace\Cal Curve\052310 Apollo GRO



### Peak Results:

Index	Name	Time (Min)	Quantity (49)	Regression model
19	TFT	8.37	0.000	
39	BFB	13.04	93.004	Linear
Total			93,122	411

### **Group Results:**

Index	Name	Area [µV.Min]	Quantily
1	gro c6-c14	2182.543	0.117
2	<c6< td=""><td>85.431</td><td>0.005</td></c6<>	85.431	0.005
3	c6-¢7	1791.986	0.096
4	c7-c8	255.641	0.002
5	c8-c9	52.615	0.003
6	c9-c10	1418.846	93.005
7	c10-c11	65,968	0.004
8	c11-c12	71.232	0.004
9	c12-c14	34.881	0.002
10	c14 &<	25.381	0.001
Total		5984.524	93,239



# 8260B Report

Sample Name:

1006193-01a

Operator Name:

Hongxuan Lu

Instrument ID:

Neptune\_1

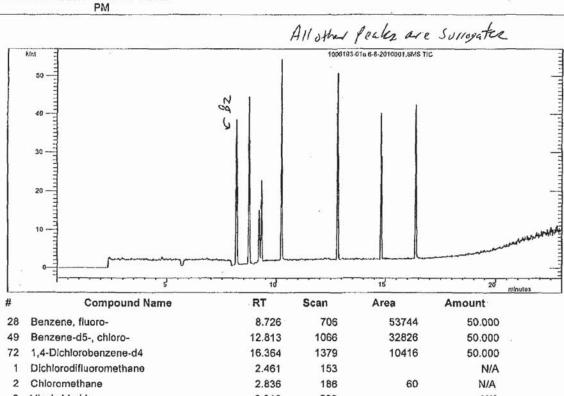
Inst. Method:

C:\VarianWS\meth Inj. Notes: ods\8260

r1 5ml East Fork

Acquisition Date: 6/8/2010 2:57:30

042810n.mth Calculation Date: 6/8/2010 3:20:29



**	Compound Name	- 17.1	Scan	Alea	Amount	
28	Benzene, fluoro-	8.726	706	53744	50.000	
49	Benzene-d5-, chloro-	12.813	1066	32826	50.000	
72	1,4-Dichlorobenzene-d4	16.364	1379	10416	50.000	
1	Dichlorodifluoromethane	2.461	153		N/A	
2	Chloromethane	2.836	186	60	N/A	
3	Vinyl chloride	3.010	202		N/A	
4	Vinyl Acetate	3.468	242	1420	6.200	
5	Chloroethane	3.570	251		N/A	
6	Bromomethane	3.661	259	220	N/A	
7	Trichlorofluoromethane	3.801	271		N/A	
8	1,1-Dichloroethene	4.648	346		N/A	
9	Carbon disulfide	4.849	364	79	N/A	
10	Methyl tert-butyl ether (MTBE)	5.004	377		N/A	
11	Acetone	5.136	389	4270	7.530	
12	Iodomethane	5.275	401		N/A	
13	Isopropyl ether	5.373	410		N/A	
14	ETBE	5.769	445		N/A	
15	trans-1,2-DCE	6.205	483		· N/A	
16	t-butanol	6.311	493		N/A	
17	1,1-Dichloroethane	6.607	519		N/A	
18	2,2-Dichloropropane	6.619	520		N/A	
19	Methylene Chloride	6.822	538	5575	N/A	

#	Compound Name	RT	Scan	Area	Amount	
20	2-Butanone	6.912	546	1867	2.506	
21	TAME	7.089	562		N/A	
22	1,1-Dichloropropene	7.343	584		N/A	
23	1,1,1-Trichloroethane	7.340	583		N/A	
24	Carbon Tetrachloride	7.551	602		N/A	
25	cls-1,2-DCE	8.147	655		/ N/A	7.6
26	Benzene	8.149	655	39629	48.208	1.0
27	Chloroform	8.601	695		N/A	
29	Bromochloromethane	8.972	728		N/A	
30	Trichloroethene (TCE)	9.005	731		N/A	
31	Dibromofluoromethane	9.201	748	42807	45.629	
32	1,2-Dichloroethane-d4	9.303	757	80603	42.492	
33	1,2-Dichtoroethane (EDC)	9.402	765		N/A	
34	4-Methyl-2-pentanone	9.538	777		N/A	
35	isobutyl alcohol	9.550	778	**	N/A	
36	1,2-Dichtoropropane	9.563	780		N/A	
37	Toluene-d8	10.228	838	46494	50.907	
38	Toluene	10.300	844	427	N/A	
39	Tetrachloroethene (PCE)	10.664	877		N/A	
40	2-Hexanone	10.723	882		N/A	
41	cis-1,3-dichloropropene	10.846	893		N/A	
42	Bromodichloromethane	10.953	902		N/A	
43	Dibromomethane	11.083	914		N/A	
44	1,3-Dichloropropane	11.863	982		N/A	
45	trans-1,3-dichloropropene	11.911	987		N/A	
46	Ethylbenzene	12.054	999	149	N/A	
47	mp-Xylenes	12.277	1019	620	0.288	
48	1,1,2-Trichloroethane	12.638	1051		N/A	
50	Chlorobenzene	12.849	1069		N/A	
51	1,2-Dibromoethane (EDB)	12.990	1082		N/A	
52	o-Xylene	13.007	1083		N/A	
53	Isopropylbenzene	13.135	1094		N/A	
54	1,1,1,2-Tetrachloroethane	13.210	1101		N/A	
55	Dibromochloromethane	13.319	1111		N/A	
56	Styrene	13.624	1138		N/A	
57	n-Propyibenzene	13.753	1149		N/A	
58	1,3,5-Trimethylbenzene	14.242	1192		N/A	
59	tert-Butylbenzene	14.402	1207		N/A	
60	sec-Butylbenzene	14.669	1230		N/A	
61	2-Chlorotoluene	14.666	1230	48000	N/A	
62	4-Bromofluorobenzene	14.801	1242	43696	49.646	
63	4-Chlorotoluene	14.829	1244		N/A	
64	1,2,4-Trimethylbenzene	14.841	1245		N/A N/A	
65	Bromobenzene	14.928	1253	1.47	N/A	
66	Toluene, p-isopropyl	14.943	1254	147	N/A N/A	
67	Bromoform	15.560	1309		N/A	
68	n-Butylbenzene	15.580	1310 1320		N/A	
69	1,2,3-Trichloropropane	15.695 16.114			N/A N/A	
70	1,3-Dichlorobenzene	16.114 16.111	1357 1357		N/A N/A	
71	1,1,2,2-Tetrachloroethane	16,400	1382		N/A	
73	1,4-Dichlorobenzene	10,400	1302		NA	

Compound Name	RT	Scan	Area	Amount
1,2-Dichlorobenzene	17.029	1438		N/A
Hexachlorobutadiene	18.426	1561		N/A
1,2-Dibromo-3-chloropropane	19.005	1612		N/A
1,2,4-Trichlorobenzene	19.306	1638		N/A
1,2,3-Trichlorobenzene	20.261	1722	¥	N/A
Naphthalene	20.306	1726		N/A
2-Methylnaphthalene	21.823	. 1858		N/A
1-Methylnaphthalene	22.255	1895	3.43	N/A
	1,2-Dichlorobenzene Hexachlorobutadiene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene 1,2,3-Trichlorobenzene Naphthalene 2-Methylnaphthalene	1,2-Dichlorobenzene       17.029         Hexachlorobutadiene       18.426         1,2-Dibromo-3-chloropropane       19.005         1,2,4-Trichlorobenzene       19.306         1,2,3-Trichlorobenzene       20.261         Naphthalene       20.306         2-Methylnaphthalene       21.823	1,2-Dichlorobenzene       17.029       1438         Hexachlorobutadiene       18.426       1561         1,2-Dibromo-3-chloropropane       19.005       1612         1,2,4-Trichlorobenzene       19.306       1638         1,2,3-Trichlorobenzene       20.261       1722         Naphthalene       20.306       1726         2-Methylnaphthalene       21.823       1858	1,2-Dichlorobenzene       17.029       1438         Hexachlorobutadiene       18.426       1561         1,2-Dibromo-3-chloropropane       19.005       1612         1,2,4-Trichlorobenzene       19.306       1638         1,2,3-Trichlorobenzene       20.261       1722         Naphthalene       20.306       1726         2-Methylnaphthalene       21.823       1858

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Revision Log

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6/8/2010 3:20 PM: Processed as Analysis sample using method: 'C:\VarianWS\methods\8260 042810n.mth'

### Chavez, Carl J, EMNRD

From:

Schmaltz, Randy [Randy.Schmaltz@wnr.com]

Sent:

Wednesday, June 09, 2010 10:15 AM

To:

Monzeglio, Hope, NMENV

Cc:

Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly

Subject:

RE: Newly surfaced groundwater

Hope,

My answers are below.

Thanks

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]

Sent: Thursday, June 03, 2010 1:46 PM

To: Schmaltz, Randy

Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly

Subject: Newly surfaced groundwater

Randy

A few questions concerning the new area where groundwater has surfaced:

- 1) Just to confirm, the Hammond Ditch is filled with water on April 15 of each year? That is correct April 15 of each year.
- 2) When does the water in the Hammond Ditch stop running? It is late October of each year I don't have an exact date.
- 3) Is the French drain located at the east end of the Hammond Ditch or is there some other system that could contribute to groundwater flow in that area? The French Drain that was installed by Giant stops just west of the pipeline right-of-way. The Hammond Ditch design did include a relief system to prevent the build up of water on any one side, or under the ditch that would exert additional pressure on the concrete causing damage. This relief system is basically a perforated pipe in a gravel bed that prevents the build up of water on any one side, or under of the concrete ditch.
- 4) When you sample next (next week) in addition to BTEX, also analyze for GRO and DRO and obtain the chromatograms (do you have chromatograms for the most recent analytical data?). We will analyze for BTEX, GRO, and DRO. We do not have chromatograms yet, but we have asked the lab to provide with the next samples.
- 5) Collect depth to water measurements from monitoring wells MW-50, MW-51, and MW-1. Compare MW-1 water levels to past sampling events and compare the MW-50 and MW-51 water level measurements to the data collected when these wells were installed. This may show an increase in water elevation in this area which may be linked to a leaking Hammond Ditch? We will collect the depth to water measurements requested.
- 6) Approximately how far is this location from East Outfall #1? This location is approximately 300 feet east of East Outfall #1.

I realize you are out of town until Monday and we may not hear from you until next week. Let me know if you have any questions.

Thanks Hope

Hope Monzeglio

Environmental Specialist New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505

Phone: (505) 476-6045; Main No.: (505)-476-6000

Fax: (505)-476-6060

hope.monzeglio@state.nm.us

Websites:

New Mexico Environment Department Hazardous Waste Bureau

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V

#### Chavez, Carl J, EMNRD

From:

Monzeglio, Hope, NMENV

Sent:

Thursday, June 03, 2010 1:46 PM

To:

Schmaltz, Randy

Cc:

Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Robinson, Kelly

Subject:

Newly surfaced groundwater

#### Randy

A few questions concerning the new area where groundwater has surfaced:

- 1) Just to confirm, the Hammond Ditch is filled with water on April 15 of each year?
- 2) When does the water in the Hammond Ditch stop running?
- 3) Is the French drain located at the east end of the Hammond Ditch or is there some other system that could contribute to groundwater flow in that area?
- 4) When you sample next (next week) in addition to BTEX, also analyze for GRO and DRO and obtain the chromatograms (do you have chromatograms for the most recent analytical data?).
- 5) Collect depth to water measurements from monitoring wells MW-50, MW-51, and MW-1. Compare MW-1 water levels to past sampling events and compare the MW-50 and MW-51 water level measurements to the data collected when these wells were installed. This may show an increase in water elevation in this area which may be linked to a leaking Hammond Ditch?
- 6) Approximately how far is this location from East Outfall #1?

I realize you are out of town until Monday and we may not hear from you until next week. Let me know if you have any questions.

Thanks Hope

Hope Monzeglio
Environmental Specialist
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Hazardous Waste Bureau
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hope.monzeglio@state.nm.us

Websites:

**New Mexico Environment Department** 

Hazardous Waste Bureau

#### Chavez, Carl J, EMNRD

From:

Schmaltz, Randy [Randy.Schmaltz@wnr.com]

Sent:

Wednesday, June 02, 2010 9:53 AM

To:

Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV

Cc: Subject: Robinson, Kelly; Hurtado, Cindy

Subject: Attachments: RE: Groundwater Discovery Pond Location Map.pdf

Carl,

The ponds you are thinking about and describing are either the "evaporation ponds" located south of the refinery or the "aeration Lagoons" which are located just west of the tank farm. The raw water ponds only store river water prior to filtering and plant use. I have enclosed a map showing the three different pond locations.

Thanks

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

**Sent:** Wednesday, June 02, 2010 8:35 AM **To:** Schmaltz, Randy; Monzeglio, Hope, NMENV

Cc: Robinson, Kelly; Hurtado, Cindy Subject: RE: Groundwater Discovery

Randy:

As I recall, they also store UIC non-hazardous non-exempt oilfield waste fluids before disposal when the refinery was in operation and the disposal well was used, but I think you're saying that the fluids are currently not what they used to be when the refinery was in full operation. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: <a href="http://www.emnrd.state.nm.us/ocd/">http://www.emnrd.state.nm.us/ocd/</a> index.htm (Pollution Prevention Guidance is under "Publications")

From: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]

Sent: Wednesday, June 02, 2010 8:30 AM

To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV

**Cc:** Robinson, Kelly; Hurtado, Cindy **Subject:** RE: Groundwater Discovery

Carl,

The raw water ponds are the earthen ponds located on the north east portion of the refinery. These earthen pond receive the river water, their basic use is for storage and allow for settling to take place prior to filtering. I'm not sure what could be done on the Hammond Ditch irrigation canal.

Thanks Randy From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

**Sent:** Wednesday, June 02, 2010 5:55 AM **To:** Schmaltz, Randy; Monzeglio, Hope, NMENV

Cc: Robinson, Kelly; Hurtado, Cindy Subject: RE: Groundwater Discovery

#### Randy:

Seems like there were some secondary containment issues with the raw water ponds during OCD's last inspection. I'll review the OCD's last inspection of the ponds and LDSs. You indicated there may be recharge occurring from a damaged portion of the Hammond Drain? Is this repairable? Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

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Website: <a href="http://www.emnrd.state.nm.us/ocd/index.htm">http://www.emnrd.state.nm.us/ocd/index.htm</a> (Pollution Prevention Guidance is under "Publications")

From: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]

Sent: Tuesday, June 01, 2010 5:28 PM

To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV

**Cc:** Robinson, Kelly; Hurtado, Cindy **Subject:** RE: Groundwater Discovery

Carl,

The area is a new location. I don't know why it is occurring but it only recently appeared. The catchment system will include a receiving vessel (tank, liner, etc) that will collect all the groundwater. This collected groundwater will be pumped back into the refinery's wastewater system (API separator) for treatment.

Western has sampled this groundwater downstream of the current location and it is "non-detect". The groundwater does not reach the water. Western will monitor this to insure it is contained.

I will keep you posted on Western's progress.

Thanks Randy

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Tuesday, June 01, 2010 2:48 PM

To: Schmaltz, Randy; Monzeglio, Hope, NMENV

Cc: Robinson, Kelly; Hurtado, Cindy Subject: RE: Groundwater Discovery

Randy:

Good afternoon. Some questions based on the discovery.

Is this a former or a new seep area or location? If so, do you know why it occurred or is occurring now? A description of system to "catch" the groundwater would be appreciated? Also, how will the waste water system treat the contaminated ground water?

Has Western evaluated the potential discharge location(s) along the river and conducted any analytical surface water sampling along the river to assess any discharge of ground water or via overland flow into the river?

Please clarify the above and/or any followup plans based on the above to assess impacts to the river. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

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From: Schmaltz, Randy [mailto:Randy.Schmaltz@wnr.com]

Sent: Tuesday, June 01, 2010 2:33 PM

To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD

**Cc:** Robinson, Kelly; Hurtado, Cindy **Subject:** Groundwater Discovery

Hope & Carl,

On Wednesday, May 19, 2010 during the bi-monthly visual inspections of area north of the refinery, Bloomfield found a new area where groundwater had surfaced. This new area is located north of the raw water ponds and is shown on the attached property map. A sample was collected on that day and analyzed for BTEX and MTBE using method 8260. Results were received on May 26, 2010 showing benzene at 110 ug/l. Bloomfield collected confirmation split samples on May 26, 2010, and received results from Envirotech Analytical Laboratory on June 1, 2010 showing benzene at 167 ug/l. Results from Hall Environmental Analysis Laboratory are still pending.

Bloomfield is currently installing a system to catch this groundwater, which will be transported to the refinery's wastewater system. Bloomfield will collect weekly samples of this captured water and will analyze for BTEX and MTBE. Bloomfield will provide a monthly summary on sample results and progress.

Randy Schmaltz<sup>\*</sup> Environmental Manager

Western Refining Southwest, Inc. Bloomfield Refinery #50 County Road 4990 Bloomfield, New Mexico 87413 (505) 632-4171 (505) 320-6989

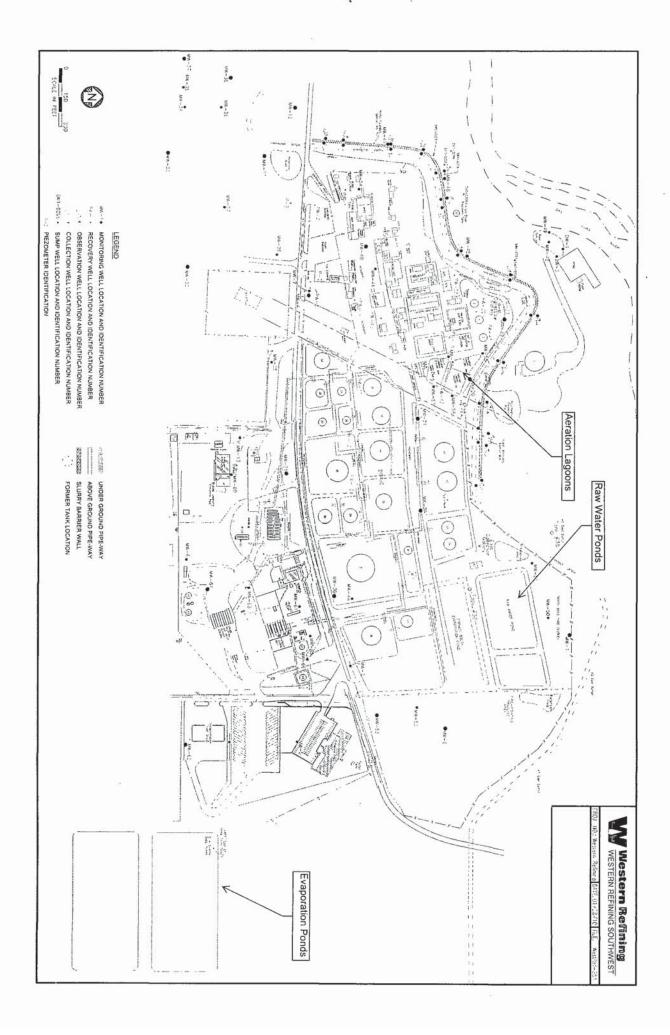
email: randy.schmaltz@wnr.com

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Sent:

Tuesday, June 01, 2010 5:28 PM

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Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV

Cc:

Robinson, Kelly; Hurtado, Cindy

Subject:

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Randy Schmaltz Environmental Manager

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