GW - 001

C-141s (4 of 7)

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QA/QC SUMMARY REPORT .ient: Western Refining Southwest, Inc. Project: Drainage North of TK#38 6/16/10 Work Order: 1006609

7	Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit %RPE	RPDLimit Qual
	Method: EPA Method 8260: V	olatiles Shor	t List							
•	Sample ID: 1008609-01a msd		MSD				Batch ID:	R39454	Analysis Date:	6/23/2010 9:49:10 PN
1	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
3	Sample ID: b6		MBLK				Batch ID:	R39454	Analysis Date:	6/23/2010 10:44:23 PM
	Benzene	ND	μg/L	1.0						
1	Toluene	ND	µg/L	1.0						
5	Ethylbenzene	ND	µg/L	1.0					,	
	Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1	Xylenes, Total	ND	µg/L	2.0						
	Sample ID: 5ml rb		MBLK				Batch ID:	R39454	Analysis Date:	6/23/2010 9:38:36 AM
•	Benzene	ND	µg/L	1.0						
7	Toluene	ND	μg/L	1.0						
The statement of the st	Ethylbenzene	ND	µg/L	1.0						
1	Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
	Xylenes, Total	ND	µg/L	2.0						
No. of Lot of Lo	Sample ID: 100ng Ics_b		LCS				Batch ID:	R39454	Analysis Date:	6/23/2010 11:39:28 PM
	Benzene	18.87	µg/L	1.0	20	0	94.4	82.4	116	
	Toluene	20.66	µg/∟	1.0	20	0	103	89.5	123	
	Sample ID: 100ng Ics		LCS				Batch ID:	R39454	Analysis Date:	6/23/2010 11:07:02 AM
The second s	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	
1	Sample ID: 1006609-01a ms		MS				Batch ID:	R39454	Analysis Date:	6/23/2010 9:21:36 PM
A REAL PROPERTY OF	Benzene	22.81	µg/L	1.0	20	3.38	97.2	72.4	126	
u	Toluene	21.36	µg/L	1.0	20	0	107	79.2	115	

Qualifiers:

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ND

- E Estimated value
- J Analyte detected below quantitation limits
 - 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

Hall Environmental Analysis Laboratory, Ir	Inc.	1,	Laboratory	lysis	Ana	Environmenta	Hall
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	Sample Receipt	Checklist	
Client Name WESTERN REFINING SOUT	:	Date Received:	6/17/2010
Work Order Number 1006609		Received by: TLS	Ab
Ø.	. 1.	Sample ID labels checked by:	
Checklist completed by:		10	Initiats
<i>V</i>		r	
Matrix:	Carrier name: UPS		
- Shipping container/cooler in good condition?	Yes 🗹	No D 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 rea	celved? Yes 🗹	No 🗔	
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌	
Samples in proper container/bottle?	Yes 🗹	No 🗌	
Sample containers intact?	Yes 🗹	No 🗌	
Sufficient sample volume for indicated test?	· · · Yes 🗹	No 🗔	
All samples received within holding time?	Yes 🗹	No 🗌	Number of preserved
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes 🗹 No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap mate	h? Yes	No 🗌 N/A 🗹	
Water - pH acceptable upon receipt?	Yes 🗌	No 🗌 N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?	5.3°	<6° C Acceptable	Delow.
COMMENTS:		If given sufficient time to cool.	
Client contacted Da	te contacted:	Person contacted	
Contacted by: Re	garding:		
Comments:			
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Corrective Action			999 - Carlon Marine, and a star a
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and the second	ប	Client: Western Refuiling		Mailing Address: 井 50 C. R. 4590	Ricomfield.	Phone #: 605-	email or Fax#: 505	QA/QC Package:	Accreditation	C EDD (Type)	Date-	6-16-10							Date: $\frac{1}{2} - \frac{1}{2} - \frac{1}{2} - \frac{1}{2}$	

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COVER LETTER

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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,

Col Andy Freeman, Laboratory Manager

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



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

CLIENT:Western Refining Southwest, Inc.Lab Order:1006905Project:Drainage North of TK #38 6/24/10Lab ID:1006905-01

Date: 08-Jul-10

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

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Client Sample ID: East Fork

Date Received: 6/25/2010

Lab ID:	1006905-01				Matri	x: AQUEOU	JS
Analyses		Result	PQL	Quai	Units	DF	Date Analyzed
EPA METHOD	8260: VOLATILES SH	IORT 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-but	yl 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
	chloroethane-d4	95.6	73.1-133		%REC	1	7/7/2010 7:27:01 AM
Surr: 4-Bron	nofluorobenzene	110	82.9-140		%REC	1	7/7/2010 7:27:01 AM
Surr: Dibron	nofluoromethane	99.2	79.2-119		%REC	1	7/7/2010 7:27:01 AM
Surr: Toluen	e-d8	101	84.4-118		%REC	1	7/7/2010 7:27:01 AM

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

Page 1 of 1

QA/QC SUMMARY REPORT

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Western Refining Southwest, Inc.

Project: Drainage N	orth of TK #	\$38 6/24/10	I						Work	Order:	1006905
Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimi	t Qual
Method: EPA Method 8260: V	olatiles Shor	t List									
Sample ID: 1006905-01a msd		MSD				Batch ID:	R39668	Analys	is 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	
Sample ID: b6		MBLK				Batch ID:	R39668	Analys	is Date:	7/6/2010	10:43:45 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								
Kylenes, Total	ND	μg/L	2.0								
Sample ID: 100ng lcs_b		LCS				Batch ID:	R39668	Analys	is Date:	7/6/2010	11:38:43 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	Analys	is 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			

Qualifiers:

E Estimated value J Analyte detected

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

Hall Environmental Analysis Laboratory, I	Inc			<u>.</u>
	-	okliet		• •
Client Name WESTERN REFINING SOUT	mple Receipt Che	Date Receive	d:	6/25/2010
Work Order Number 1006905		Received by		J 1
A f			abels checked by:	1)
Checklist completed by:	e 25	10		Inilials
Signature V	¹ Date	•		
Matrix: Carrier n	name <u>UPS</u>			
Shipping container/cooler in good condition?	Yes 🗹	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗹		Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes 🗹		N/A	Not Shipped
	Yes 🗹			
Chain of custody present? Chain of custody signed when relinquished and received?	Yes 🗹			
	Yes 🗹			
Chain of custody agrees with sample labels?	Yes 🗹			
Samples in proper container/bottle?	—			
Sample containers intact?	Yes 🗹			
Sufficient sample volume for Indicated test?				
All samples received within holding time?	Yes 🗹	No □ Yes 🗹		Number of preserved bottles checked for
Water - VOA vials have zero headspace? No VOA vials	Yes	ves ₪ No □	No 🗌 N/A 🗹	pH:
Water - Preservation labels on bottle and cap match?	Yes			
Water - pH acceptable upon receipt?				<2 >12 unless noted below.
Container/Temp Blank temperature?		6° C Acceptabl		
COMMENTS:		•		
Client contacted Date contacted	1:	Pers	on contacted	
Contacted by: Regarding:				n a canadara da a fi con a canada conservativado em a plates dos seus e
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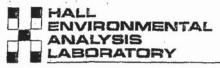
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Client: Client: Date Date Date	Chain-of-Custody Record	ant WESTERN RECINING		ling Address: 450 CR 4990	Blookfield, NM 87413	님	505-63	QA/QC.Package: X Standard D Level 4 (Full Validation)	_	D EDD (Type)	Matrix	EAST												Time:	ime:



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



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

Date: 13-Jul-10

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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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SI	HORT LIST				Analyst: HL
Benzene	2.3	1.0	µg/L	1	7/8/2010 11:54:58 PM
Toluene	ND	1.0	hð\r	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

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

Page 1 of 1

1007081

Work Order:

QA/QC SUMMARY REPORT

Western Refining Southwest, Inc. .ient: Project:

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Drainage North of TK#38 7-1-10

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	Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
and the same	Method: EPA Method 8260: V	otatiles Short	t List	1					
	Sample ID: 5ml rb		MBLK			Batch ID:	R39704	Analysis Date:	7/8/2010 8:57:37 Al
0.040	Benzene	ND	µg/L	1.0					
	Toluene	ND	µg/L	1.0					
	Ethylbenzene	ND	µg/L	1.0					
i	Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0					
	Xylenes, Total	ND	µg/L	2.0					
	Sample ID: b5		MBLK			Batch ID:	R39704	Analysis Date:	7/8/2010 9:09:52 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					
	Xylenes, Total	ND	µg/L	2.0					
	Sample ID: 100ng lcs		LCS			Batch ID:	R39704	Analysis Date:	7/8/2010 10:20:21 AM
	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			Batch ID:	R39704	· Analysis Date:	7/8/2010 10:04:52 PM
	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:

Ε Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

н Holding times for preparation or analysis exceeded NC

Non-Chlorinated

R RPD outside accepted recovery limits

	Sample	Receipt Ch	necklist		27
Client Name WESTERN REFINING SOUT		1.1	Date Received	d:	7/2/2010
Work Order Number 100708	NA		Received by	DAM	lanc
Checklist completed by:	10		Sample ID la	bels checked by: (
Matrix:	Carrier name:	UPS			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/cool	er?	Yes 🗹	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?	б.	Yes 🗆	No 🗌	N/A	6
Chain of custody present?	*	Yes 🗹	No 🗌		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗔		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗋		
All samples received within holding time?		Yes 🗹	No 🗌		Number of preserved bottles checked for
Water - VOA vials have zero headspace?	No VOA vials subn	nitted 🗌	Yes 🗹	No 🗌	pH:
Water - Preservation labels on bottle and cap m	atch?	Yes 🗹	No 🗌	N/A	
Water - pH acceptable upon receipt?		Yes 🗹	No 🗌	N/A	<2 >12 unless noted below.
Container/Temp Blank temperature?		2.1°	<6° C Acceptabl		
COMMENTS:			If given sufficient	time to cool.	
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	Date contacted:		Dares	on contacted	¥1
Client contacted	Date contacted:		Perso	on contacted	
Contacted by:	Regarding:				
Comments:					
Corrective Action					
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COVER LETTER

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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



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

Date: 15-Jul-10

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CLIENT:	Western Refining Southwest, Inc.
Lab Order:	1007281
Project:	Drainage North of TK#38 7-8-10
Lab ID:	1007281-01

Client Sample ID: East Fork Collection Date: 7/8/2010 2:15:00 PM Date Received: 7/9/2010 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SI	HORT LIST					Analyst: MMS
Benzene	2.0	1.0		µg/L	1	7/13/2010 5:51:44 PM
Toluene	ND	1.0		µg/Ł	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

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

Page 1 of 1

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	Client: Project:	Western Refi Drainage Nor	÷	-							Work	Order:	1007281
	Analyte		Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimi	t Qual
and the	Method: EPA Sample ID: 100	Method 8260: Vola 7281-01a msd	atiles Shor	t List MSD				Batch (D:	R39786	Analys	is Date:	7/13/2010	6:48:17 PM
120	Benzene	0	14.46	µg/L	1.D	20	2.025	62.2	72.4	126	12.3	20	S
1	Toluene		14.76	µg/L	1.0	20	0	73.8	79.2	115	10.9	20	S
	Sample ID: 100	7281-01a 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	71.6	72.4	126			S
1	Toluene		16.46	µg/L	1.0	20	. 0	82.3	79.2	115	-		

OA/OC SUMMARY REPORT

Qualifiers:

E Estimated value

Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

Н Holding times for preparation or analysis exceeded NC Non-Chlorinated

R RPD outside accepted recovery limits Page 1

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	Sample	Receipt Ch	tecklist		
Client Name WESTERN REFINING SOUT			Date Received	1:	7/9/2010
Work Order Number 1007281			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/cool	er?	Yes 🗹	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🖌	No 🗔	N/A	
Chain of custody present?		Yes 🗹	No 🗌		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗔		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗔		
All samples received within holding time?		Yes 🗹	No 🗌		Number of preserved
Water - VOA vials have zero headspace?	No VOA vials sub	mitted	Yes 🗹	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch?	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 Acceptabl		DBIOW.
COMMENTS:			If given sufficient	time to cool.	•
,	•				
Client contacted	Date contacted:		Pers	on contacted	
Contacted by:	Regarding:				
Comments:		2			
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Corrective Action	1				
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1000	Turn-Around	Standard	Project Name:	DrainAge	Project #		Proje		Sampler: C	Sample Tem	Cor	m										Received by:	Received by
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Strate State	Chain-of-Custody Record	Ves		Addi	oomfie		r Fax	Pack	AP	E C	1	215										Time: 3309	Time: Relinquished by:
	0	Client: Western		Mailing Address; H	À	Phone #:	email or Fax#: 505-6 33-	QA/QC Package:	Accreditation	EDD (Type)	Date	78-10 215										Date:	
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COVER LETTER

Wednesday, October 27, 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

Dear Cindy Hurtado:

Order No.: 1010563

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/6/2010 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,

1000

Andy Freeman, Laboratory Manager

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



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

Date: 28-Oct-10

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CLIENT: Project: Lab Order:	Western Refining So Drainage North of T 1010563		Work Order	Sample Summary
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1010563-01A	East Fork	R41532	EPA Method 8260: Volatiles Short List	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41620	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41594	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41585	SM 2320B: Alkalinity	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41535	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01B	East Fork	R41535	EPA Method 300.0: Anions	10/6/2010 8:45:00 AM
1010563-01C	East Fork	24117	EPA 6010B: Total Recoverable Metals	10/6/2010 8:45:00 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT.	Western Renning, Sour	introst, mo.		Che	it sample in.	Lastion	
Lab Order:	1010563			Co	llection Date:	10/6/2010) 8:45:00 AM
Project:	Drainage North of TK	#38		D	ate Received:	10/6/2010)
Lab ID:	1010563-01				Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	300.0: ANIONS	ļ					Analyst: SRM
Fluoride		0.47	0.10		mg/L	1	10/13/2010 4:56:42 PM
Chloride		13	0.50		mg/L	1	10/13/2010 4:56:42 PM
Bromide		0.11	0.10		mg/L	1	10/16/2010 8:58:39 PM
Nitrate (As N)+	Nitrite (As N)	ND	1.0		mg/L	5	10/18/2010 4:33:35 PM
Phosphorus, O	rthophosphate (As P)	ND	0.50	н	mg/L	1	10/13/2010 4:56:42 PM
Sulfate		110	10		mg/L	20	10/13/2010 5:14:07 PM
EPA 6010B: TO		TALS					Analyst: SNV
Calcium		73	1.0		mg/L	1	10/17/2010 4:59:03 PM
Magnesium		19	1.0		mg/L	1	10/17/2010 4:59:03 PM
Potasslum		1.9	1.0		mg/L	1	10/17/2010 4:59:03 PM
Sodium		57	1.0		mg/L	1	10/17/2010 4:59:03 PM
EPA METHOD	8260: VOLATILES SHOR	TLIST					Analyst: MMS
Benzene		ND	1.0		μg/L	1	10/13/2010 10:05:24 Pt
Toluene		ND	1.0		µg/L	1	10/13/2010 10:05:24 PI
Ethylbenzene		ND	1.0		µg/L	1	10/13/2010 10:05:24 PM
Methyl tert-buty	l ether (MTBE)	ND	1.0		µg/L	1	10/13/2010 10:05:24 Pł
Xylenes, Total		ND	2.0		µg/L	1	10/13/2010 10:05:24 PM
Surr: 1,2-Dicl	hloroethane-d4	91.9 [.]	54.6-141		%REC	1	10/13/2010 10:05:24 PM
Surr: 4-Brom	ofluorobenzene	89.4	60.1-133		%REC	1	10/13/2010 10:05:24 PM
Surr: Dibrom	ofluoromethane	105	78.5-130		%REC	1	10/13/2010 10:05:24 PM
Surr: Toluene	8b-:	99.5	79.5-126		%REC	1	10/13/2010 10:05:24 PM
SM 2320B: AL	KALINITY						Analyst: IC
Alkalinity, Total	(As CaCO3)	250	20		mg/L CaCO3	1	10/14/2010 5:09:00 PM
Carbonate		ND	2.0		mg/L CaCO3	1	10/14/2010 5:09:00 PM
Bicarbonate		250	20		mg/L CaCO3	1	10/14/2010 5:09:00 PM

Western Refining Southwest, Inc.

Sec. and

CLIENT:

Date: 28-Oct-10

Client Sample ID: East Fork

Qualifiers:

1917 - 19

* 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

28-Oct-10

Lab Order:	1010563			1				
Client:	Western Refining Southwest, Inc.	outhwest, Inc.				DATE	DATES REPORT	DRT
Project:	Drainage North of TK #38	CK #38						
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	fustrument Run ID QC Batch ID Prep Date	QC Batch ID		Analysis Date
1010563-01A	East Fork	10/6/2010 8:45:00 AM	Aqueous	EPA Method 8260: Volatiles Short List	VAL_101013A	R41532		10/13/2010
1010563-01B				EPA Method 300.0: Anions	ORION_101018A	R41620		10/18/2010
				EPA Method 300.0: Anions	ORION_101015B	R41594		10/16/2010
				EPA Method 300.0: Anions	TRITON_101013A	R41535		10/13/2010
				EPA Method 300.0: Anions	TRITON_101013A	R41535		10/13/2010
				SM 2320B: Alkalinity	OSEIDON_101014.	R41585		10/14/2010
1010563-01C				EPA 6010B: Total Recoverable Metals	ISIS_101017A	24117	10/14/2010	10/17/2010

Page 1 of 1

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AND COLOR			QA/Q	C SU	MMARY	REPO	DRT				
	Client: Western Refin Project: Drainage Nor	+							Work	Order:	1010563
51-20 Mar	Analyte	Result	Units	PQL		%Rec L	owLimit Hi	ghLimit	%RPD		
STRING SUCH	Method: EPA Method 300.0: And Sample ID: MB	lons	MBLK			Batch ID:	R41535	Analysis	s Date:	10/13/2010 1	1:08:35 AM
क्रम	Fluoride	ND	mg/L	0.10							
Left of the	Chloride	ND	mg/L	0.50							
NH N	Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20							
	Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50							
4	Sulfate	ND	mg/L	0.50							
10.0	Sample ID: MB		MBLK			Batch ID:	R41535	Analysi	s Date:	10/14/2010	2:48:39 AM
	Fluoride	ND	mg/L	0,10							
	Chloride	ND	mg/L	0.50							
C. LEW CO.	Bromide	ND	mg/L	0,10							
<u>. 2</u> 8:	Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20							
_	Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50							
0.00560	Sulfate	ND	mg/L	0.50							
8	Sample ID: MB		MBLK			Batch ID:	R41594	Analysis	s Date:	10/16/2010 1	1:52:46 PM
	Fluoride	ND	mg/L	0.10				-			
ii da	Chloride	ND	mg/L	0.50							
	Bromide	ND	-	0.10							
1.21			mg/L								
	Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20							
	Phosphorus, Orthophosphate (As P)		mg/L	0.50							
-	Sulfate	ND	mg/L	0.50		Datab ID.	-	A	0-1	104000404	
	Sample ID: MB		MBLK			Batch ID:	R41620	Analysis	s Date:	10/18/2010 1	1:20:10 AM
131	Fluoride	ND	mg/L	0.10							
200	Chloride	ND	mg/L	0.50							
9 <u>1</u>	Bromide	ND	mg/L	0.10							
	Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20							
1	Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50							
1	Sulfate	ND	mg/L	0.50							
	Sample ID: LCS		LCS			Batch ID:	R41535	Analysis	s Date:	10/13/2010 1	1:25:59 AM
. 64	Fluoride	0.5051	mg/L	0.10	0.5 0	101	90	110			
	Chloride	4.977	mg/L	0.50	5 0	99.5	90	110			
19	Bromide	2.501	mg/L	0.10	2.5 0	100	90	110			
	Nitrate (As N)+Nitrite (As N)	3.517	mg/L	0.20	3.5 0	100	90	110			
a grant	Phosphorus, Orthophosphate (As P)		mg/L	0.50	5 0	102	90	110			
4	Sulfate	10.07	mg/L	0.50	10 0	101	90	110			
-	Sample ID: LCS		LCS	1		Batch ID:	R41535	Analysis	s Date:	10/14/2010	3-06-04 AM
ાત	-	0 6470		d 40	0.E 0				+- (-2)		
国際の	Fluoride	0.5473	mg/L	0.10	0.5 0	109	90	110			
NII.	Chloride	5.219	mg/L	0.50	5 0	104	90	110			
170	Bromide	2.654	mg/L	0.10	2.5 0	106	90	110			
1.20	Nitrate (As N)+Nitrite (As N)	3.737	mg/L	0.20	3.5 0	107	90	110			
	Phosphorus, Orthophosphate (As P)		mg/L	0.50	5 0	105	90	110			
	Sulfate	10.53	mg/L	0.50	10 0	105	90	110			
2	Sample ID: LCS		LCS	1		Batch ID:	R41594	Analysis	s Date:	10/17/2010 1	2:10:11 AM
100	Fluoride	0.5353	mg/L	0.10	0.5 0	107	90	110			
	Chloride	4.902	mg/L	0.50	50	98.0	90	110			
1. N. S. W.	Qualifiers: E Estimated value				H Holding times	for preparatio	on or analysi	s exceeded		<u>_</u>	

Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

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NC Non-Chlorinated

RPD outside accepted recovery limits R

Date: 28-Oct-10

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ALC: N

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	stern Refin inage Nort	_	-							Work	Order:	1010563
Analyte		Result	Units	PQL	SPK Va	SPK ref	%Rec L	.owLimit. Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method	300.0: Anic	ons										
Sample ID: LCS			LCS				Batch ID:	R41594	•	s Date:	10/17/2010 1	2:10:11 AN
Iromide		2.505	mg/L	0.10	2.5	0	100	90	110			
litrate (As N)+Nitrite (As		3.601	mg/L	0.20	3.5	0	103	90	110			
hosphorus, Orthophosp	hate (As P)	5.012	mg/L	0.50	5 10	0 0	100 103	90 90	110 110			
ulfate		10.31	mg/L LCS	0.50	10	0	Batch ID:	R41620	Analysia	Date [.]	10/18/2010 1	1:37:35 AM
ample ID: LCS		0 5050		0 40		0	107	90	110	, Galo,	10/10/2010 1	1.07.00 / 1
luoride		0.5359 4.960	mg/L	0.10 0.50	0.5 5	0	99.2	90	110			
chloride Iromide		4.960 2.561	mg/L mg/L	0.10	2.5	0	102	90	110			
litrate (As N)+Nitrite (As	N)	3.637	mg/L	0.20	3.5	0	104	90	110			
hosphorus, Orthophosp		5.148	mg/L	0.50	5	õ	103	90	110			
sulfate		10.44	mg/L	0.50	10	0	104	90	110			
	Ikalinih											
/lethod: SM 2320B: A sample ID: MB-1	anannity		MBLK				Batch ID:	R41585	Analysia	B Date:	10/14/2010	4:10:00 PM
Alkalinity, Total (As CaCC	131	ND	mg/L Ca	20								
arbonate	,,,	ND	mg/L Ca	2.0								
icarbonate		ND	mg/L Ca	20								
ample ID: MB-2		112	MBLK	_•			Batch ID:	R41685	Analysis	Date:	10/14/2010 11	1:08:00 PN
Ikalinity, Total (As CaCC)3)	ND	mg/L Ca	20								
arbonate	,0,	ND	mg/L Ca	2.0						.'		
licarbonate		ND	mg/L Ca	20								
ample ID: LCS-1			LCS				Batch ID:	R41585	Analysis	Date:	10/14/2010	4:16:00 PN
Ikalinity, Total (As CaCC)3)	79.36	mg/L Ca	20	80	0	99.2	96.5	104			
ample 1D: LCS-2	,		LCS				Batch ID:	R41585	Analysis	Date:	10/14/2010 1	1:15:00 PN
Alkalinity, Total (As CaCC)3)	80.00	mg/L Ca	20	80	0	100	96.5	104			
fethod: EPA Method		iles Short					anantaliin an all _{anan} a i					
ample ID: 1010563-01		mes anon	MSD				Batch ID:	R41532	Analysis	Date:	10/13/2010 11	:01:46 PN
enzene		16.70	µg/L	1.0	20	0	83.5	72.4	126	3.39	20	
oluene		19.28	µg/L	1.0	20	o	96,4	79.2	115	6.66	20	
ample ID: b2			MBLK	ļ			Batch ID:	R41532	Analysis		10/13/2010 1	:37:25 PN
enzene		ND	µg/L	1.0								
oluene		ND	µg/L	1.0								
thylbenzene		ND	µg/L	1.0								
lethyl tert-butyl ether (M	TBE)	ND	μg/L	1.0								
ylenes, Total		ND	µg/L	2.0								
ample ID: 100ng lcs			LCS				Batch ID:	R41532	Analysis	Date:	10/13/2010 12	2:41:50 PN
enzene		19.37	µg/L	1.0	20	0	96.8	82.4	116			
oluene		19.26	µg/L	1.0	20	0	96.3	89.5	123			
ample ID: 1010563-01	a ms		MS	;			Batch ID:	R41532	Analysis	Date:	10/13/2010 10	:33:39 PM
enzene		17.27	µg/L	1.0	20	0	86.4	72.4	126			
oluene		20.61	µg/L	1.0	20	0	103	79.2	115			
Qualifiers:					ผมเ	ding times	for preveration	an or enalusi	- horses			
E Estimated value	on another	on limit-				-	for preparation	on or analysis	sexceeded			
J Analyte detected be	ow quantitati	on limits nit		. : 1		-Chlorinate	ea ccepted recov					Page 2

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ND

52.61

53.22

55.24

56.26

52.48

53.25

55.39

56.28

mg/L

LCS

mg/L

mg/L

mg/L

mg/L

LCS

mg/L

mg/L

mg/L

mg/L

S. 84.10

Sodium

Calcium

Magnesium

Potassium

Sodium

Calcium

Magnesium

Potassium

Sodium

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Sample ID: LCS-24117

Sample ID: LCS-24117

1010563

10/17/2010 4:37:55 PM

10/17/2010 4:41:05 PM

QA/QC SUMMARY REPORT a num Western Refining Southwest, Inc. Client: **Project:** Drainage North of TK #38 Work Order: 100 A. 100 Units PQL SPK Va SPK ref %Rec LowLimit HighLimit Analyte Result %RPD **RPDLimit Qual** EPA 6010B: Total Recoverable Metals Mark Method: Sample ID: MB-24117 MBLK Batch ID: Analysis Date: 24117 10/17/2010 4:34:57 PM mg/L Calcium ND 1.0 Magnesium ND mg/L 1.0 1.1961 Potassium ND mg/L 1.0

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Qual	ifier	rs:	
_			

Ε Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit Н Holding times for preparation or analysis exceeded

Batch ID:

105

106

110

112

105

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Batch ID:

24117

24117

80

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Analysis Date:

Analysis Date:

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NC Non-Chlorinated

R RPD outside accepted recovery limits Page 3

Hall Environmental Analysis Labora	tory, Inc.					
	Sample	Rec	eipt Ch	ecklist		
Client Name WESTERN REFINING SOUT	1			Date Receive	ed:	10/6/2010
Work Order Number 1010563	\bigcirc			Received b	y: MLW	A -
Checklist completed by:	hu		101 Date	Sample ID	labels checked by:	AA Initials
Matrix:	Carrier hame	<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/Á 🖌	
Chain of custody present?		Yes	✓	No		
Chain of custody signed when relinquished and receive	ed?	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	 Image: A second s	No		Number of preserved
Water - VOA vials have zero headspace? No V	/OA vials subm	nitted		Yes 🖌	No .	bottles checked for pH:
Water - Preservation labels on bottle and cap match?		Yes	×.	No	N/A	02
Water - pH acceptable upon receipt?		Yes	✓.	No	N/A	<2) >12 unless noted
Container/Temp Blank temperature? COMMENTS:		2.		<6° C Acceptat		·

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Unpreserved Sample poured off & preserved w14W03 for cations/15 10/12/10

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Corrective Action

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	- 2	24	ntal.c	ue, N	-345	dues		28J		-	AOV) 80828	\times														Parie	tated o
	Ę		Dmer	nerqı	505	s Re					8081 Pesticio														10		any no
a lost		AALL ENVIKUNMEN I ANALYSIS LABORATC	www.hallenvironmental.com	Albuquerque, NM 87109	Fax	alyši	(*(05''06	ON		RCRA 8 Met ID, F) snoinA						_							Lev	CIN LIN	plie	Any sub-contracted data will be clearly notated on the
	-		halle	1		-An			(H)		o ANY) 0168							-					<u> </u>	8.		Registed	ata will
States.			ww.	is NE	5-3975						EDB (Method		_											vral 2) in	т. Г. Т.	acted d
	2			awkir	5-345-				(1.8	141	TPH (Method												-	21	4	. 4	Contra
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X 458 20				of TK#38																				Date	FOI	L'a	This se
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79. TY	Tum-Around Tir	ard	Project Name:	Dainage	~		Project Manage	ł	R	Scinitized in the second	er d#	4								-	-			2	Molinal	Ŀ.	ter acc
翩	Arot	X Standard	й С	210	Project #:	I	Sct M		Sampler.		-Container Type and #	101	1-500ml	1-250										Received by:	17g	veo oy	d to ott
The sea	Tum	×	Proje	Æ	Proje		Proje		Sample		Typ	3-V0A	-1	1										Recei	B	Keuer	ritracte
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ALC: LAN	pro				Λ.			Level 4 (Full Validation)			Sample Request ID														2		may be
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で、間の間に	Chain-of-Custody Record	Client: WESTERN REGINING		Mailing Address:#50	P	19	1-6		D Other		Matrix	H2O												Relinguished by	(Bley	Kelinquisnea oy.	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility.
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1.15	ain	S		idres	E	505	ax#;	*kage rd	noi	ype)	Time	8:45		-										Time:	3,00	a	essary,
	S	K		g Ac	Bloomfiel	e#	email or Fax# 50	QA/QC Package:	Accreditation	C EDD (Type)		22		_	_									Ē	031	<u> </u>	M nec
Yank.		Clien		Mailir	2	Phone #:	emai	ovvo □ St			Date	0-9-01	-											Date:	0-9-0	Jale.	
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COVER LETTER

Wednesday, November 17, 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

Order No.: 1011023

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 10/28/2010 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



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

Date: 17-Nov-10

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Hall Environmental Analysis Laboratory, Inc.

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CLIENT: Project: Lab Order:	Western Refining So Drainage North of T 1011023		Work Order S	Sample Summary
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1011023-01A	East Fork	R41901	EPA Method 8260B: VOLATILES	10/27/2010 1:50:00 AM
1011023-02A	East Fork	R42078	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42058	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42058	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R42014	SM 2320B: Alkalinity	11/1/2010 1:15:00 PM
1011023-02A	East Fork	24359	SM2540C MOD: Total Dissolved Solids	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R41917	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02A	East Fork	R41917	EPA Method 300.0: Anions	11/1/2010 1:15:00 PM
1011023-02B	East Fork	24431	EPA 6010B: Total Recoverable Metals	11/1/2010 1:15:00 PM

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Date: 17-Nov-10

CLIENT:	Western Refining Southwest, Inc.
Lab Order:	1011023
Project:	Drainage North of TK#38
Lab ID:	1011023-01

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Client Sample ID: East Fork Collection Date: 10/27/2010 1:50:00 AM Date Received: 10/28/2010 Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: MM
Benzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Toluene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Ethylbenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0	hð/r	1	11/2/2010 5:41:36 AM
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	11/2/2010 5:41:38 AM
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Naphthalene	ND	2.0	µg/L	1	11/2/2010 5:41:36 AM
1-Methylnaphthalene	ND	4.0	µg/L	1	11/2/2010 5:41:36 AM
2-Methylnaphthalene	ND	4.0	µg/L	1	11/2/2010 5:41:36 AM
Acetone	ND	10	µg/L	1	11/2/2010 5:41:36 AM
Bromobenzene	ND	1.0	μg/L	1	11/2/2010 5:41:36 AM
Bromodichloromethane	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Bromoform	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Bromomethane	ND	3.0	µg/L	1	11/2/2010 5:41:36 AM
2-Butanone	ND	10	µg/L	1	11/2/2010 5:41:36 AM
Carbon disulfide	ND	10	µg/L	- 1	11/2/2010 5:41:36 AM
Carbon Tetrachloride	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Chlorobenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Chloroethane	ND	2.0	µg/L	1	11/2/2010 5:41:36 AM
Chloroform	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Chloromethane	ND	3.0	µg/L	1	11/2/2010 5:41:36 AM
2-Chiorotoluene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
4-Chlorotoluene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
cis-1,2-DCE	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
cls-1,3-Dichloropropene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	11/2/2010 5:41:36 AM
Dibromochloromethane	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Dibromomethane	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichlorobenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,3-Dichlorobenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,4-Dichlorobenzene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Dichlorodifluoromethane	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloroethane	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloroethene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
1,2-Dichloropropane	ND	1.0	HB/L	1	11/2/2010 5:41:36 AM
1,3-Dichloropropane	NĎ	1.0	µg/L	1	11/2/2010 5:41:36 AM
2,2-Dichloropropane	ND	2.0	µg/L	1	11/2/2010 5:41:36 AM
1,1-Dichloropropene	ND	1.0	µg/L	1	11/2/2010 5:41:36 AM
Hexachlorobutadiene	ND	1.0	µg/L	1 .	11/2/2010 5:41:36 AM

Qualifiers:

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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

Page 1 of 3

Date: 17-Nov-10

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CLIENT:	Western Refining Southw	est, Inc.			Sample ID:		1.15 1999 , 1997 - 199
Lab Order:	1011023			Colle	ction Date:	10/27/2010	1:50:00 AM
Project:	Drainage North of TK#38			Date	e Received:	10/28/2010	
Lab ID:	1011023-01	1			Matrix:	AQUEOUS	
Analyses		Result	PQL	Qual U	Inits	DF	Date Analyzed
EPA METHOD 82	260B: VOLATILES						Analyst: MMS
2-Hexanone		ND	10	μ	g/L	1	11/2/2010 5:41:36 AM
Isopropylbenzene	•	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
4-Isopropyltoluen	Ð	ND	1.0	μ	g/L.	1	11/2/2010 5:41:36 AM
4-Methyl-2-pentar	none	ND	10	μ	g/L	1	11/2/2010 5:41:36 AM
Methylene Chlorid	le	ND	3.0	μ	g/L	1	11/2/2010 5:41:36 AM
n-Butylbenzene		ND	1.0	μį	g/L	1	11/2/2010 5:41:36 AM
n-Propylbenzene		ND .	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
sec-Butylbenzene	,	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
Styrene		ND	1.0	рц	g/L.	1	11/2/2010 5:41:36 AM
tert-Butylbenzene		ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
1,1,1,2-Tetrachlor	oethane	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
1,1,2,2-Tetrachlor	oethane	ND	2.0	μ	g/L	1	11/2/2010 5:41:38 AM
Tetrachloroethene	(PCE)	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
trans-1,2-DCE		ND	1.0)ų	g/L	1	11/2/2010 5:41:36 AM
trans-1,3-Dichloro	propene	ND	1.0	μ	3/L	1	11/2/2010 5:41:36 AM
1,2,3-Trichloroben	izene	ND	1.0	μ	3/L	1	11/2/2010 5:41:36 AM
1,2,4-Trichloroben	zene	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
1,1,1-Trichloroetha	ane	ND	1.0	μ	g/L	1	11/2/2010 5:41:36 AM
1,1,2-Trichloroetha	ane	ND	1.0	μg	g/L	1	11/2/2010 5:41:36 AM
Trichloroethene (T	CE)	ND	1.0		3/L	1	11/2/2010 5:41:36 AM
Trichlorofluoromet	hane	ND	1.0	អ្	3/L	1	11/2/2010 5:41:36 AM
1,2,3-Trichloroprop	pane	ND	2.0	μg	g/L	1	11/2/2010 5:41:36 AM
Vinyl chloride		ND	1.0	μg	j/L	1	11/2/2010 5:41:36 AM
Xylenes, Total		ND	1.5		J/L	1	11/2/2010 5:41:36 AM
Surr: 1,2-Dichlo	roethane-d4	98.5	77.7-113	%	REC	1	11/2/2010 5:41:36 AM
Surr: 4-Bromofil	uorobenzene	105	76.4-106	%	REC	1	11/2/2010 5:41:36 AM
Surr: Dibromofile	uoromethane	103	91.6-125	%	REC	1	11/2/2010 5:41:36 AM
Surr: Toluene-d	8	91.9	92.3-107	S %	REC	1	11/2/2010 5:41:36 AM

Qualifiers: Value exceeds Maximum Contaminant Level

Ē Estimated value

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- Analyte detected below quantitation limits J
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

Analyte detected in the associated Method Blank в

Holding times for preparation or analysis exceeded Н

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

s Spike recovery outside accepted recovery limits Page 2 of 3

CLIENT:	Western Refining Sc	outhwest, Inc.			nt Sample ID:		
Lab Order:	1011023			Co	llection Date:	11/1/2010) 1:15:00 PM
Project:	Drainage North of T	K#38		D	ate Received:	10/28/20	10
Lab ID:	1011023-02	1			Matrix:	AQUEOU	JS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	300.0: ANIONS		التصابية بالمستينة فتشري				Analyst: SRM
Fluoride		0.45	0.10		mg/L	1	11/10/2010 2:53:41 AM
Chloride		12	0.50		mg/L	1	11/10/2010 2:53:41 AM
Nitrate (As N)+N	Nitrite (As N)	ND	1.0		mg/L	5	11/11/2010 8:21:24 AM
Phosphorus, Or	thophosphate (As P)	ND	0.50	н	mg/L	1	11/10/2010 2:53:41 AM
Sulfate		90	10		mg/L	20	11/10/2010 3:11:06 AM
EPA 6010B: TO	TAL RECOVERABLE	METALS					Analyst: RAGS
Calcium		69	1.0		mg/L	1	11/9/2010 11:25:39 AM
Magnesium		18	1.0		mg/L	1	11/9/2010 11:25:39 AM
Potassium		1.9	1.0		mg/L	· 1	11/9/2010 11:25:39 AM
Sodium		55	1.0		mg/L	1	11/9/2010 11:25:39 AM
SM 2320B: ALK	ALINITY						Analyst: IC
Alkalinity, Total	(As CaCO3)	250	20		mg/L CaCO3	1	11/5/2010 6:45:00 PM
Carbonate	- '	ND	2.0		mg/L CaCO3	1	11/5/2010 6:45:00 PM
Bicarbonate		250	20		mg/L CaCO3	1	11/5/2010 6:45:00 PM

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Date: 17-Nov-10

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

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Page 3 of 3

17-Nov-10

Lab Order:	1011023							I
Client:	Western Refining Southwest, Inc.	outhwest, Inc.				DAT	DATES REPORT	RT
Project:	Drainage North of TK#38	CK#38					1	
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Iustrument Run ID QC Batch ID Prep Date 👔 A	QC Batch ID	Prep Date	nalysis Date
1011023-01A	East Fork	10/27/2010 1:50:00 AM	Aqueous	EPA Method 8260B: VOLATILES	HEPTUNE_101101/	R41901	A. 199	11/2/2010
1011023-02A		11/1/2010 1:15:00 PM		EPA Method 300.0: Anions	ORION_101110A	R42078		11/11/2010
				EPA Method 300.0: Anions	TRITON_101109B	R42058		11/10/2010
				EPA Method 300.0: Anions	TRUTON_101109B	R42058		11/10/2010
				SM 2320B: Alkalinity	OSEIDON_101105.	R42014		11/5/2010

1011023-02B

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11/9/2010

11/8/2010

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EPA 6010B: Total Recoverable Metals

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Page I of 1

Hall Environmental Analysis Laboratory, Inc.

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Service states			QA/Q	C SU	MMA	ARY	REPO	ORT			
Para St	Client: Western Refi Project: Drainage Nor									Work	Order: 1011023
	Analyle	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit H	ighLimit	%RPD	RPDLimit Qual
「「	Method: EPA Method 300.0: Ani Sample ID: MB	ons	MBLK				Batch ID:	R42058	Analysia	s Date:	11/9/2010 9:05:29 PM
and the	Fluoride Chloride	ND ND	mg/L mg/L	0.10 0.50 0.20							
	Nitrate (As N)+Nitrite (As N) Phosphorus, Orthophosphate (As P) Sulfate		mg/L mg/L mg/L	0.50 0.50							
	Fluoride	ND	MBLK mg/L	0.10			Batch ID:	R42078	Analysis	a Date:	11/10/2010 1:46:57 PM
-100 CT-	Phosphorus, Orthophosphate (As P)		mg/L mg/L mg/L	0.50 0.20 0.50							
1. S. S.	Sulfate Sample ID: MB Fluoride		mg/L MBLK mg/L	0.50 0.10			Batch ID:	R42078	Analysis	Date:	11/11/2010 5:27:15 AM
Sec. 2 Martin	Chloride Nitrate (As N)+Nitrite (As N) Phosphorus, Orthophosphate (As P)	ND ND ND	mg/L mg/L mg/L	0.50 0.20 0.50							
1000 1000	Sulfate Sample ID: LCS Fluoride	ND 0.5225	mg/L LCS mg/L	0.50	0.5	0	Batch ID: 105	R42058 90	Analysis 110	Date:	11/9/2010 9:22:53 PM
The second s	Chloride Nitrate (As N)+Nitrite (As N) Phosphorus, Orthophosphate (As P)	4.863 3.472 4.956	mg/L. mg/L mg/L	0.50 0.20 0.50	5 3.5 5	0 0 0	97.3 99.2 99.1	90 90 90	110 110 110		
	Sulfate Sample ID: LCS	9.815	mg/L LCS	0.50	10	0	98.2 Batch ID:	90 R42078	110 Analysis	Date:	11/10/2010 2:04:21 PM
A COMPANY	Fluoride Chloride Nitrate (As N)+Nitrite (As N)	0.5167 4.999 3.606	mg/L mg/L mg/L	0.10 0.50 0.20	0.5 5 3.5	0 0 0	103 100 103	90 90 90	110 110 1 10		
R. J. W. C.	Phosphorus, Orthophosphate (As P) Sulfate Sample ID: LCS	5.056 10.06	mg/L mg/L LCS	0.50 0.50	5 10	0 0	101 101 Batch ID:	90 90 R42078	110 110 Analysis	Date:	11/11/2010 5:44:40 AM
10 8.10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fluoride Chloride	0.4941 4.921	mg/L mg/L	0.10 0.50	0.5 5	0 D	98.8 98.4	90 90	110 110	pulo.	10102010 0.44.40 AM
To a sub-	Nitrate (As N)+Nitrite (As N) Phosphorus, Orthophosphate (As P) Sulfate	3.550 5.045 10.25	mg/L mg/L mg/L	0.20 0.50 0.50	3.5 5 10	0 0 0	101 101 103	90 90 90	110 110 110		
Strates.	Method: SM 2320B: Alkalinity Sample ID: MB		MBLK				Batch ID:	R42014	Analysis	Date:	11/5/2010 4:50:00 PM
	Alkalinity, Total (As CaCO3) Carbonate Bicarbonate	ND ND ND	mg/L Ca mg/L Ca mg/L Ca	20 2.0 20							
1.120	Sample ID: LCS Alkalinity, Total (As CaCO3)	79.48	LCS mg/L Ca	20	80	0	Batch ID: 99.4	R42014 96.5	Analysis 104	Date:	11/5/2010 4:56:00 PM
AND DESCRIPTION OF	Qualifiers: E Estimated value			. F	I Holdin	ng times f	or preparatio	n or analysis	sexceeded		

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Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Non-Chlorinated NC

R RPD outside accepted recovery limits

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	efining South lorth of TK#		i L				Work	Order:	1011023
Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec Lo	owLimit Hig	nLimit ··· %RPD	RPDLimit	Qual
Method: EPA Method 8260B:	VOLATILES		ļ						
Sample ID: b6		MBLK	1		Batch ID:	R41901	Analysis Date:	11/1/2010	4:25:32 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						
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	3.0						
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	3.0						
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						
Hexachlorobutadlene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
sopropylbenzene	ND	μg/L	1.0						
4-Isopropyltoluene	ND	μg/L	1.0						

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Qualifiers:

Ε Estimated value

J Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND

Holding times for preparation or analysis exceeded Н

NC Non-Chlorinated

RPD outside accepted recovery limits R

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Section.			QA/Q	C SU	MMARY	REPO	ORT			t.	
		efining South North of TK#3		1	9 Å		w. jane		Work	Order:	1011023
4	Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec1	LowLimit H	ighLimit	%RPD	RPDLimit	Qual
A.Chine	Method: EPA Method 8260B: Sample ID: b6	VOLATILES	MBLK	2) 21		Batch ID:	R41901	Analysis	Date:	11/1/2010	4:25:32 PM
	4-Methyl-2-pentanone	ND	µg/L	10							
1	Methylene Chloride	ND	µg/L	3.0						÷	
1	n-Butylbenzene	ND	.µg/L	1.0			500 E				
	n-Propylbenzene	ND	µg/L	1.0							
1	sec-Butylbenzene	ND	µg/L	1.0					5		
- Ales	Styrene	ND	µg/L	1.0							
	tert-Butylbenzene	ND	µg/L	1.0							
1.00	1,1,1,2-Tetrachlorosthane	ND	µg/L	1.0							
**	1,1,2,2-Tetrachloroethane	ND	µg/L	2.0							
刘	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							
10.000	1,2,3-Trichlorobenzene	ND	µg/L	1.0							
	1,2,4-Trichlorobenzene	ND	µg/L	1.0							2
	1,1,1-Trichloroethane	ND	µg/L	1.0							
	1,1,2-Trichloroethane	ND	µg/L	1.0							
Suchar Suchar	Trichloroethene (TCE)	ND	µg/L	1.0							
	Trichlorofluoromethane	ND	µg/L	1.0							
1	1,2,3-Trichloropropane	ND	µg/L	2.0							
and some	Vinyl chloride	ND	µg/L	1.0							
_	Xylenes, Total	ND	µg/L	1.5		¥1		*			
	Surr: 1,2-Dichloroethane-d4	9.787	µg/L	0	10 0	97.9	77.7	113			
are solo	Surr: 4-Bromofluorobenzene	10.94	µg/L	ō	10 0	109	76.4	106			s
à.	Surr: Dibromofiuoromethane	10.07	µg/L	ō	10 0	101	91.6	125			5
	Surr: Toluene-d8	9.991	µg/L	o	10 0	99.9	92.3	107			
1	Sample ID: 100ng ics	0.001	LCS	v	10 0	Batch ID:		Analysis	Date:	11/1/2010 :	3:58:01 PM
4	Benzene	18.85	µg/L	1.0	20 0	94.2	84.6	109			
	Toluene	21.15	µg/L	1.0	20 0	106	81	114			
	Chlorobenzene	20.01	µg/L	1.0	20 0	100	85.2	113			
3.6	1,1-Dichloroethene	21.46	µg/L	1.0	20 0	107	79.6	124			
	Trichloroethene (TCE)	16.38	µg/L	1.0	20 0	81.9	78.3	102			
静	Surr: 1,2-Dichloroethane-d4	9.645	µg/L	0	10 0	96.5	77.7	113			
25.21	Surr: 4-Bromofluorobenzene	11.27	µg/L	0	10 0	113	76.4	106			s
	Surr: Dibromofluoromethane	10.05	µg/L	0	10 0	101	91.6	125		25	57 57
-	Surr: Toluene-d8	9.349	µg/L	o	10 0	93.5	92.3	107			1
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Qualifiers:

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- Е Estimated value
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit

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Holding times for preparation or analysis exceeded NC Non-Chlorinated

R RPD outside accepted recovery limits Page 3

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Date: 17-Nov-10

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Client: Project:	Western Refin Drainage North			1		•	×.			Work	Order:	1011023
Analyte		Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	wLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA	6010B: Total Recov	erable M	etals	I.			2011				÷	
Sample ID: MB	24431		MBLK				Batch ID:	24431	Analys	is Date:	11/9/2010 1	1:16:06 AN
Calcium		ND	mg/L	1.0								
Magnesium		ND	mg/L	1.0								
Potassium		ND	mg/L	1.0								
Sodium		ND	mg/L	1.0					±3			
Sample ID: LCS	-24431		LCS				Batch ID:	24431	Analys	is Date:	11/9/2010 1	1:19:20 AN
Calcium		51.48	mg/L	1.0	50	0	103	80	120			
Magnesium		52.09	mg/L	1.0	50	D	104	80	120			
Potassium		54.75	mg/L	1.0	50	0	110	80	120			
Sodium		54.83	mg/L	1.0	50	0.0359	110	80	120			

QA/QC SUMMARY REPORT

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

Page 4

A POINT	Hall Environmental Analysis Laboratory,	nc.						
4	Sa	mple Rec	eipt C	checklist				
1	Client Name WESTERN REFINING SOUT			Date Receive	ed:	10/2	8/2010	
A STREET STREET	Work Order Number 1011023			Received b	y: LNM			
_	1/ NRA	'. 		Sample ID	abels checked	by: MG	1	
19 4. A.	Checklist completed by:		Date	14/1/10	•	hillels	/	
. 119		1				· .		
	Matrix: Carrier	ame: <u>UPS</u>	8					
3	Shipping container/cooler in good condition?	Yes		No 🗆	Not Present			
1	•	Yes			Not Present	-	t Shipped	
يتشكرهم والمحافظ	Custody seals intact on shipping container/cooler?	1			N/A			
	Custody seals intact on sample bottles?	Yes Yes			N/A			
1	Chain of custody present?							
<u>\$</u>	Chain of custody signed when relinquished and received?	Yes	_	No 🗌				
	Chain of custody agrees with sample labels?	Yes		No 🗍				
ALC: 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 preserve bottles checked for	d
a straight	Water - VOA vials have zero headspace? No VOA vials			Yes 🗹	No 🗔		pH:	
	Water - Preservation labels on bottle and cap match?	Yes		No 🗔	N/A 🗌	ćČ	N	
1	Water - pH acceptable upon receipt?	Yes	\checkmark	No 🗌	N/A 🗌	< <	2 >12 unless noted	
-	Container/Temp Blank temperature?	5.	.7°	<6° C Acceptat		C	,	
. 58	COMMENTS:			If given sufficien	t time to cool.			
10.00 C		l						
	· · · ·							
12.00								_
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2		•						
2.02.44								
	Client contacted Date contacted	:		Pers	on contacted			
2.000	Contacted by: Regarding:							
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S	Client: Western		Mailing Address:#56	Sloc	Phone #:	email or Fax#.	QA/QC Package:	Standard	Accreditation	DEDD (Type)		Date		_											2		
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A CARA	Tum-Around Tirr	X Standard	Project Name:	DRAINASe	Project #:		Project Manager		Sampler:	Onloe	Sample Temper	Container Type and #	1-50m)	H 500 m										Received by:	Received by:	intracted to othe
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大阪の行	O	Client:		Mailing	R	Phone #:	email or Fax#:	QA/QC Packs	Accreditation		C EDD (Type)	Date	01-1-11	01-1-11	-								Т	0	Date:	H



COVER LETTER,

Monday, January 03, 2011

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

Order No.: 1011933

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 11/23/2010 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



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

Date: 03-Jan-11

CLIENT: Project: Lab Order:	Western Refining So Drainage North of T 1011933		Work Order S	Sample Summary
Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
1011933-01A	East Fork	R42411	EPA Method 8015B: Gasoline Range	11/22/2010 1:30:00 PM
1011933-01A	East Fork	R42386	EPA Method 8260: Volatiles Short List	11/22/2010 1:30:00 PM
1011933-01B	East Fork	24676	EPA Method 8015B: Diesel Range	11/22/2010 1:30:00 PM
1011933-01C	East Fork	24685	EPA 6010B: Total Recoverable Metals	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42368	SM 2320B: Alkalinity	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42328	EPA Method 300.0: Anions	11/22/2010 1:30:00 PM
1011933-01D	East Fork	R42328	EPA Method 300.0: Anions	11/22/2010 1:30:00 PM

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Lab ID: Analyses EPA METHOD 80 Diesel Range Orga Motor Oil Range Or Surr: DNOP EPA METHOD 80 Gasoline Range Or Surr: BFB EPA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Ni	rganics (MRO) 15B: GASOLINE RANG rganics (GRO)	Result ND ND 128	PQL Q 0.20 2.5 82-162 0.050	Collection Date: Date Received: Matrix: Qual Units mg/L %REC		0 JS Date Analyzed Analyst: JB 11/30/2010 6:33:22 PM
Lab ID: Analyses EPA METHOD 80 Diesel Range Orga Motor Oil Range Or Surr: DNOP EPA METHOD 80 Gasoline Range Or Surr: BFB EPA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Ni	1011933-01 15B: DIESEL RANGE anics (DRO) brganics (MRO) 15B: GASOLINE RANG rganics (GRO)	Result ND ND 128 E ND	0.20 2.5 82-162	Matrix: Qual Units mg/L mg/L	AQUEOU DF 1	Date Analyzed Analyst: JB 11/30/2010 6:33:22 PM
Lab ID: Analyses EPA METHOD 80 Diesel Range Orga Motor Oil Range Or Surr: DNOP EPA METHOD 80 Gasoline Range Or Surr: BFB EPA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide	15B: DIESEL RANGE anics (DRO) Irganics (MRO) 15B: GASOLINE RANG Iganics (GRO)	ND ND 128 E ND	0.20 2.5 82-162	Qual Units mg/L mg/L	DF 1	Date Analyzed Analyst: JB 11/30/2010 6:33:22 PM
 EPA METHOD 80^o Diesel Range Orga Motor Oil Range O Surr: DNOP EPA METHOD 80^o Gasoline Range Or Surr: BFB EPA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Nitrogen, Nitri	anics (DRO) Irganics (MRO) 15B: GASOLINE RANG Iganics (GRO)	ND ND 128 E ND	0.20 2.5 82-162	mg/L mg/L	1 1	Analyst: JB 11/30/2010 6:33:22 PM
Diesel Range Orga Motor Oil Range O Surr: DNOP EPA METHOD 801 Gasoline Range Or Surr: BFB EPA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Orthop Sulfate	anics (DRO) Irganics (MRO) 15B: GASOLINE RANG Iganics (GRO)	ND 128 E ND	2.5 82-162	mg/L	1	11/30/2010 6:33:22 PM
Motor Oil Range O Surr: DNOP PA METHOD 804 Gasoline Range Or Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (As Bromide Suffate	rganics (MRO) 15B: GASOLINE RANG rganics (GRO)	ND 128 E ND	2.5 82-162	mg/L	1	
Motor Oil Range O Surr: DNOP PA METHOD 804 Gasoline Range Or Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (As Bromide Suffate	rganics (MRO) 15B: GASOLINE RANG rganics (GRO)	128 E ND	82-162			14 4 Im a lot + a' a
Surr: DNOP PA METHOD 801 Gasoline Range Or Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (As Bromide Sulfate	15B: GASOLINE RANG rganics (GRO)	E ND		%REC	4	11/30/2010 6:33:22 PM
Gasoline Range Or Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (A Phosphorus, Ortho Sulfate	rganics (GRO)	ND	0.050			11/30/2010 6:33:22 PM
Gasoline Range Or Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrite (A Phosphorus, Ortho Sulfate	rganics (GRO)	ND	0.050			Analyst: NSE
Surr: BFB PA METHOD 300 Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Orthop Sulfate PA 6010B: TOTA			0.000	mg/L	1	11/30/2010 1:17:37 PM
Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate	0.0: ANIONS		84.5-118	%REC	1	11/30/2010 1:17:37 PM
Fluoride Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate	U.U: ANIONS					Applyst: 1 IE
Chloride Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate			0.40	mall		Analyst: LJE
Nitrogen, Nitrite (As Bromide Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate	78	0.44	0.10	mg/L	1	11/23/2010 9:03:27 PN
Bromide Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate PA 6010B: TOTA		12	0.50	mg/L	1	11/23/2010 9:03:27 PM
Nitrogen, Nitrate (A Phosphorus, Ortho Sulfate PA 6010B: TOTA	s N)	ND	0.10	mg/L	1	11/23/2010 9:03:27 PM
Phosphorus, Ortho Sulfate PA 6010B: TOTA		0.14	0.10	mg/L	1	11/23/2010 9:03:27 PN
Sulfate PA 6010B: TOTA		0.14	0.10	mg/L	1	11/23/2010 9:03:27 PN
PA 6010B: TOTA	phosphate (As P)	ND	0.50	mg/L	1	11/23/2010 9:03:27 PN
		75	10	mg/L	20	11/23/2010 9:20:52 PM
	L RECOVERABLE ME	TALS				Analyst: RAC
Calcium		65	1.0	mg/L	1	12/7/2010 5:51:24 PM
Magnesium		17	1.0	mg/L	1	12/7/2010 5:51:24 PM
Potassium		1.4	1.0	mg/L	1	12/7/2010 5:51:24 PM
Sodium		53	1.0	mg/L	1	12/7/2010 5:51:24 PM
PA METHOD 826	0: VOLATILES SHORT	LIST	1.62			Analyst: RAA
Benzene		ND	1.0	µg/L	1	11/29/2010 5:55:56 PM
Toluene		ND	1.0	μg/L	1	11/29/2010 5:55:56 PM
Ethylbenzene		ND	1.0	µg/L	1	11/29/2010 5:55:56 PM
Methyl tert-butyl eth	ner (MTBE)	ND	1.0	µg/L	1	11/29/2010 5:55:56 PN
Xylenes, Total		ND	2.0	µg/L	1	11/29/2010 5:55:56 PM
Surr: 1,2-Dichloro	oethane-d4	101	77.7-113	%REC	1	11/29/2010 5:55:56 PM
Surr: 4-Bromofiue		94.1	76.4-106	%REC	1	11/29/2010 5:55:56 PM
Surr: Dibromofluo		99.0	91.6-125	%REC	1	11/29/2010 5:55:56 PN
Surr: Toluene-d8		96.6	92.3-107	%REC	1	11/29/2010 5:55:56 PM
M 2320B: ALKAL	INITY	Y.				Analyst: IC
Alkalinity, Total (As		250	20	mg/L CaCO3	. 1	11/24/2010 9:33:00 PM
Carbonate		ND	2.0	mg/L CaCO3		11/24/2010 9:33:00 PM
Bicarbonate		250	20	mg/L CaCO3	1	11/24/2010 9:33:00 PM
		4.				
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Qualifiers:			_			
	Maximum Contaminant Level		1992 - 1993 (C. 1997)	lyte detected in the assoc		
E Estimated value				ling times for preparation	n or analysis c	1 1
J Analyte detected			MCL Maxi	imum Contaminant Leve	all a min renaria sugara se se	exceeded

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PQL Practical Quantitation Limit

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Spike recovery outside accepted recovery limits

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03-Jan-11

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Lab Order:	1011933				a .			
Client:	Western Refining Southwest, Inc.	outhwest, Inc.				DATI	DATES REPORT	ORT
Project:	Drainage North of TK #38	IK #38				-		
Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID QC Batch ID Prep Date	QC Batch ID	Prep Date	Analysis Date
1011933-01A	East Fork	M4 00:00:1 0102/22/11	Aqueous	EPA Method 8015B: Gasoline Range	APOLLO_101130A	R42411		11/30/2010
				EPA Method 8260: Volatiles Short List	THOR_101129A	R42386		0102/62/11
1011933-01B				EPA Method 8015B: Diesel Range	TD(17A) 2_101130	24676	11/29/2010	11/30/2010
1011933-01C				EPA 6010B: Total Recoverable Metals	ISIS_101207B	24685	0102/62/11	12/7/2010
1011933-01D				EPA Method 300.0: Anions	ORION_101123A	R42328		11/23/2010
				EPA Method 300.0: Anions	ORION_101123A	R42328	•	11/23/2010
				SM 2320B: Alkalinity	OSEIDON 101124.	R42368		11/24/2010

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OA/OC SUMMARY REPORT Western Refining Southwest, Inc. Client: Project: Drainage North of TK #38 Work Order: 1011933 PQL Units SPK Va SPK ref %Rec LowLimit HighLimit Result %RPD RPDLimit Qual Analyte Method: EPA Method 300.0: Anions Sample ID: MB MBLK Batch ID: R42328 Analysis Date: 11/23/2010 1:42:56 PM Fluoride ND mg/L 0.10 Chloride ND mg/L 0.50 ND 0.10 Nitrogen, Nitrite (As N) mg/L 0.10 ND mg/L Bromide ND 0.10 mg/L Nitrogen, Nitrate (As N) ND 0.50 Phosphorus, Orthophosphate (As P) mg/L Sulfate 0.50 ND mg/L Sample ID: LCS LCS Batch ID: R42328 Analysis Date: 11/23/2010 2:00:21 PM 0.10 105 110 0.5250 mg/L 0.5 0 90 Fluoride Chloride 4.906 mg/L 0.50 5 0 98.1 90 110 1.000 mg/L 0.10 1 0 100 90 110 Nitrogen, Nitrite (As N) 0.10 Bromide 2.452 mg/L 2.5 0 98.1 90 110 Nitrogen, Nitrate (As N) 2.528 mg/L 0.10 2.5 0.0167 100 90 110 0.50 Phosphorus, Orthophosphate (As P) 4.861 mg/L 5 0 97.2 90 110 10.02 0.50 10 0 100 90 110 Sulfate mg/L Method: SM 2320B: Alkalinity MBLK R42368 Sample ID: MB-1 Batch ID: Analysis Date: 11/24/2010 3:14:00 PM mg/L Ca 20 Alkalinity, Total (As CaCO3) ND mg/L Ca 2.0 ND Carbonate mg/L Ca 20 Bicarbonate ND Sample ID: MB-2 MBLK Batch ID: R42368 Analysis Date: 11/24/2010 7:30:00 PM N. mg/L Ca 20 Alkalinity, Total (As CaCO3) ND ND mg/L Ca 2.0 Carbonate Bicarbonate ND mg/L Ca 20 Sample ID: LCS-1 Batch ID: LCS R42368 Analysis Date: 11/24/2010 3:20:00 PM mg/L Ca Alkalinity, Total (As CaCO3) 80.04 20 80 0 100 96.5 104 Sample ID: LCS-2 LCS Batch ID: R42368 Analysis Date: 11/24/2010 7:36:00 PM Alkalinity, Total (As CaCO3) 80.56 mg/L Ca 20 80 0 101 96.5 104 EPA Method 8015B: Diesel Range Method: Sample ID: 1011933-01BMSD MSD Batch ID: 24676 Analysis Date: 11/30/2010 7:40:33 PM Diesel Range Organics (DRO) 2.452 mg/L 0.20 2.5 0.107 93.8 71 161 15.5 23 Sample ID: MB-24676 MBLK Batch ID: 24676 Analysis Date: 11/30/2010 4:51:29 PM ND 0.20 Diesel Range Organics (DRO) mg/L Motor Oil Range Organics (MRO) ND mg/L 2.5 Sample ID: LCS-24676 LCS Batch ID: 24676 Analysis Date: 11/30/2010 5:25:35 PM Diesel Range Organics (DRO) 2.822 mg/L 0.20 2.5 0.1265 108 74 157 24676 Sample ID: LCSD-24676 LCSD Batch ID: Analysis Date: 11/30/2010 5:59:30 PM mg/L 2.5 0.1265 108 74 Diesel Range Organics (DRO) 2.833 0.20 157 0.386 23 Sample ID: 1011933-01BMS MS Batch ID: 24676 Analysis Date: 11/30/2010 7:06:57 PM Diesel Range Organics (DRO) 2.865 mg/L 0.20 2.5 0.107 110 71 161 Qualifiers: E Н Holding times for preparation or analysis exceeded Estimated value Analyte detected below quantitation limits NC I Non-Chlorinated Page 1 ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits

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QA/QC SUMMARY REPORT

Project: Drainage North of TK #38 Work Order: 1011933 Analyte Result Units PQL SPK Va		fining South								
Method: EPA Method 8016B: Gesoline Range Sample ID: MBLK Batch ID: F42411 Analysis Date: 11/30/2010 8.39:20 AM Gasoline Range Organics (GRO) ND mg/L 0.050 0.5 0 116 83.7 124 Analysis Date: 11/30/2010 5.39:20 AM Gasoline Range Organics (GRO) 0.578 <i>LCS</i> Batch ID: R42411 Analysis Date: 11/30/2010 5.37:42 PM Gasoline Range Organics (GRO) 0.5141 mg/L 0.050 0.5 0 106 83.7 124 Gasoline Range Organics (GRO) 0.5141 mg/L 0.050 0.5 0 108 63.7 124 6.68 12 Gasoline Range Organics (GRO) 0.5141 mg/L 1.0 R42386 Analysis Date: 11/29/2010 8.17.42 AM Benzene ND µg/L 1.0 R42386 Analysis Date: 11/29/2010 7.41.01 PM Benzene ND µg/L 1.0 R42386 Analysis Date: 11/28/2010 7.41.01 PM Sample ID: MBLK Benzen ID: ND µg/	Project: Drainage No		38						•••	ork Order: 1011933
Sample iD: SML RB MBLK Batch ID: R42411 Analysis Date: 11/30/2010 8/39/20 AM Gasoline Range Organics (GRO) 0.5788 mg/L 0.050 Sample ID: 2.500 GRO LCSD LCSD Batch ID: R42411 Analysis Date: 11/30/2010 6/39/20 AM Gasoline Range Organics (GRO) 0.5788 mg/L 0.050 0.5 0 116 83,7 124 Sample ID: Sample ID: Sample ID: Sample ID: R42411 Analysis Date: 11/30/2010 6/37/42 PM Gasoline Range Organics (GRO) 0.5414 mg/L 0.050 0.5 0 84.7 124 Sample ID: MBLK R42395 Analysis Date: 11/29/2010 8.17.42 AM Benzene ND µg/L 1.0 Katti AD Katti AD Analysis Date: 11/29/2010 8.17.42 AM Sample ID: MD µg/L 1.0 Katti AD Katti AD Analysis Date: 11/29/2010 8.17.42 AM Sample ID: M	Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec L	.owLimit H	ighLimit %F	RPD RPDLimit Qual
Gasoline Range Organics (GRO) ND mg/L 0.050 LCS Batch ID: R42411 Analysis Date: 11/30/2010 6:35:40 FM Gasoline Range Organics (GRO) 0.5788 mg/L 0.050 0.5 0 16 83.7 124 Analysis Date: 11/30/2010 6:37:42 FM Gasoline Range Organics (GRO) 0.5414 mg/L 0.050 0.5 0 108 83.7 124 6.88 12 Gasoline Range Organics (GRO) 0.5414 mg/L 0.050 0.5 0 108 83.7 124 6.88 12 Method: FPA Method 8280: Volatiles ShortList Sample ID: MBLK Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FM2456 Analysis Date: 11/29/2010 8:17:42 AM Sample ID: ND µg/L 1.0 FM2456 Analysis Date: 11/29/2010 7:41:01 PM Benzene ND µg/L 1.0 FM2456 Analysis Date: 11/29/2010 7:41:01 PM <td< td=""><td>Method: EPA Method 8015B: 0</td><td>Gasoline Ran</td><td>ge</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Method: EPA Method 8015B: 0	Gasoline Ran	ge							
Sample ID: 2.8UG GRO LCS LCS Batch ID: R42411 Analysis Date: 11/30/2010 6:06:50 PM Gasoline Range Organics (GRO) 0.5788 mg/L 0.050 0.5 0 116 83.7 124 124 124 11/30/2010 6:07:37:42 PM Gasoline Range Organics (GRO) 0.5414 mg/L 0.050 0.5 0 108 53.7 124 6.88 12 Method: EPA Method 8280: Volatilles Short List Sample ID: Mg/L 1.0 11/29/2010 6:17:42 AM 11/29/2010 6:17:42 AM Benzene ND µg/L 1.0 1.0 11/29/2010 6:17:42 AM 11/29/2010 6:17:42 AM Sygnes, Total ND µg/L 1.0 1.0 11/29/2010 6:17:42 AM 11/29/2010 6:17:42 AM Sample ID: ND µg/L 1.0 1.0 11/29/2010 6:17:42 AM Sygnes, Total ND µg/L 1.0 1.0 11/29/2010 7:41:01 PM Benzene ND µg/L 1.0 1.0 11/29/2010 7:41:01 PM Sygnes, Total	Sample ID: 5ML RB		MBLK				Batch ID:	R42411	Analysis Da	te: 11/30/2010 8:39:20 AM
Sample D: 2.6UG GRO LCS LCS Batch ID: R42411 Analysis Date: 11/30/2010 8:08:09 M Gasoline Range Organics (GRO) 0.5783 mg/L 0.050 0.5 0 118 83.7 124 FR42411 Analysis Date: 11/30/2010 8:07:42 PM Gasoline Range Organics (GRO) 0.5414 mg/L 0.050 0.5 0 108 83.7 124 6.88 12 Method: EPA Method 8280: Volatilles Short: List Sample D: Malysis Date: 11/30/2010 8:07:42 PM Benzene ND µg/L 1.0 FR42385 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FR42385 Analysis Date: 11/29/2010 8:17:42 AM Symple D: MD µg/L 1.0 FR42385 Analysis Date: 11/29/2010 8:17:42 PM Symple D: MD µg/L 1.0 FR42385 Analysis Date: 11/29/2010 8:17:42 PM Symple D: MD µg/L 1.0 FR42385 Analysis Date: 11/29/2010 7:41:01 PM	Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.500 GRO LCSD LCSD Batch ID: R42411 Analysis Date: 11/30/2010 5/37:42 PM Gasoline Range Organica (GRO) 0.5414 mg/L 0.050 0.5 0 108 63.7 124 6.88 12 Method: EPA Method 8280: Volatiles Short List Sample ID: 6m Lrb MBLK Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 8:17:42 AM Sample ID: bis MBLK Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 7:41:01 PM Benzene ND µg/L 1.0 FA FA Analysis Date: 11/29/2010 9:10:07 AM Benzene ND µg/L 1.0 20 90.6 64.6 109 11/29/2010 9:10:07 AM Ben			-				Batch ID:	R42411	Analysis Da	te: 11/30/2010 5:08:50 PM
Sample ID: 2.500 GRO LCSD LCSD Batch ID: R42411 Analysis Date: 11/30/2010 5/37:42 PM Gasoline Range Organica (GRO) 0.5414 mg/L 0.050 0.5 0 108 63.7 124 6.88 12 Method: EPA Method 8280: Volatiles Short List Sample ID: 6m Lrb MBLK Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 8:17:42 AM Sample ID: bis MBLK Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 FA Analysis Date: 11/29/2010 7:41:01 PM Benzene ND µg/L 1.0 FA FA Analysis Date: 11/29/2010 9:10:07 AM Benzene ND µg/L 1.0 20 90.6 64.6 109 11/29/2010 9:10:07 AM Ben	Gasoline Range Organics (GRO)	0.5788	ma/L	0.050	0.5	5 0	116	83.7	124	
Method: EPA Method 8280: Volatiles Short List Batch ID: R42386 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0							Batch ID:	R42411	Analysis Da	te: 11/30/2010 5:37:42 PM
Sample ID: 6mL rb MBLK Batch ID: R42366 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 I		0.5414		0.050	0.5	; O	108	83.7	•	
Sample ID: 6mL rb MBLK Batch ID: R42366 Analysis Date: 11/29/2010 8:17:42 AM Benzene ND µg/L 1.0 I	Method: EPA Method 8260: Vo	latiles Short	List							
Toluene ND μg/L 1.0 Ethylbenzene ND μg/L 1.0 Methyl tert-butyl ether (MTBE) ND μg/L 2.0 Sample ID: b5 MBLK Betch ID: R42386 Analysis Date: 11/29/2010 7:41:01 PM Benzene ND μg/L 1.0 Fragmetic ID: Fragmetic ID: ND μg/L 1.0 Ethylbenzene ND μg/L 1.0 Fragmetic ID: Fragmet				:			Batch ID:	R42386	Analysis Da	te: 11/29/2010 8:17:42 AM
Toluene ND μg/L 1.0 Ethylbenzene ND μg/L 1.0 Methyl tert-butyl ether (MTBE) ND μg/L 2.0 Sample ID: b5 MBLK Betch ID: R42386 Analysis Date: 11/29/2010 7:41:01 PM Benzene ND μg/L 1.0 Fragmetic ID: Fragmetic ID: ND μg/L 1.0 Ethylbenzene ND μg/L 1.0 Fragmetic ID: Fragmet	Benzene	ND	ua/L	1.0						
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Methyl tert-butyl ether (MTBE) ND μg/L 1.0 Xylenes, Total ND μg/L 2.0 R42366 Analysis Date: 11/29/2010 7:41:01 PM Sampte ID: b5 MBLK Batch ID: R42366 Analysis Date: 11/29/2010 7:41:01 PM Benzene ND μg/L 1.0 Freidensee ND μg/L 1.0 Toluene ND μg/L 1.0 Freidensee ND μg/L 1.0 Sylenes, Total ND μg/L 1.0 Freidensee 11/29/2010 9:10:07 AM Sylenes, Total ND μg/L 1.0 Ersteine State 11/29/2010 9:10:07 AM Sylenes, Total ND μg/L 1.0 20 0 96.6 81.0 114 Sample ID: 100ng Ics LCS Eatch ID: R42366 Analysis Date: 11/29/2010 8:3:3:29 PM Benzene 19.11 μg/L 1.0 20 0 95.6 84.6 109 10/20/20/20/20/20/20/20/20/20/20/20/20/20	Ethylbenzene	ND								
Sample ID: b5 MBLK Batch ID: R42366 Analysis Date: 11/29/2010 7:41:01 PM Benzene ND µg/L 1.0 IV I	Methyl tert-butyl ether (MTBE)	ND		1.0						
Benzene ND µg/L 1.0 Toluene ND µg/L 1.0 Ethylbenzene ND µg/L 1.0 Methyl tent-buly ether (MTBE) ND µg/L 1.0 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 9:10:07 AM Benzene 16.11 µg/L 1.0 20 0 96.6 81.6 109 Toluene 19.31 µg/L 1.0 20 0 96.6 81.6 109 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.31 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 95.6 84.6 109 Toluene MBLK K Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 K <td< td=""><td>Xylenes, Total</td><td>ND</td><td>µg/L</td><td>2.0</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Xylenes, Total	ND	µg/L	2.0						
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 1.0 Sample ID: 100ng Ics LCS Batch ID: R42366 Analysis Date: 11/29/2010 9:10:07 AM Benzene 18.11 μg/L 1.0 20 0 96.6 81.0 114 Sample ID: 100ng Ics LCS Batch ID: R42366 Analysis Date: 11/29/2010 9:33:29 PM Benzene 19.11 μg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 μg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Sample ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: MB-24685 MBLK	Sample ID: b5		MBLK				Batch ID:	R42386	Analysis Dat	te: 11/29/2010 7:41:01 PM
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: R42386 Analysis Date: 11/29/2010 9:10:07 AM Benzene 18.11 µg/L 1.0 20 0 90.6 84.6 109 Toluene 19.31 µg/L 1.0 20 0 90.6 84.6 109 Benzene 19.11 µg/L 1.0 20 0 96.6 81 114 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 86.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 86.7 84.6 109 Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM	Benzene	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: R42386 Analysis Date: 11/29/2010 9:10:07 AM Benzene 18.11 µg/L 1,0 20 0 90.6 84.6 109 Toluane 19.31 µg/L 1,0 20 0 96.6 81 114 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1/0 20 0 86.6 109	Toluene	ND		1.0						
Xylenes, Total ND µg/L 2.0 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 9:10:07 AM Benzene 16.11 µg/L 1.0 20 0 90.6 84.6 109 Toluene 19.31 µg/L 1.0 20 0 96.6 81.6 114 Sample ID: 100ng Ics LCS R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 19.11 µg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metal MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calclum ND mg/L 1.0 Sample ID: 24685 Analysis Date: <td>Ethylbenzene</td> <td>ND</td> <td>μg/L</td> <td>1.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td>	Ethylbenzene	ND	μg/L	1.0						,
Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 9:10:07 AM Benzene 18.11 µg/L 1.0 20 0 90.6 84.6 109 Toluene 19.31 µg/L 1.0 20 0 96.6 81 114 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluens 17.63 µg/L 1.0 20 0 95.6 84.6 109 Toluens 17.63 µg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metals Sample ID: MB-24685 MBLK Batch ID: 24695 Analysis Date: 12/7/2010 11:19:43 AM Calclum ND mg/L 1.0 Sample ID: 24695 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND	Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Benzene 16.11 µg/L 1.0 20 0 90.6 84.6 109 Toluene 19.31 µg/L 1.0 20 0 96.6 81 114 Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metast Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calclum ND mg/L 1.0 Sample ID: MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM	Xylenes, Total	ND	µg/L	2.0						
Toluene 19.31 µg/L 1.0 20 0 96.6 81 114 Sample ID: 100ng Ics LCS Batch ID: R42366 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metals Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calclum ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calclum ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1.0 50 0.0708 107 80	Sample ID: 100ng Ics		LCS				Batch ID:	R42386	Analysis Dat	te: 11/29/2010 9:10:07 AM
Sample ID: 100ng Ics LCS Batch ID: R42386 Analysis Date: 11/29/2010 8:33:29 PM Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metals Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metals Sample ID: MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Sample ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1.0 Sample ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date:	Benzene	18.11	µg/L	1.0	20	0	90.6	84.6	109	
Benzene 19.11 µg/L 1.0 20 0 95.6 84.6 109 Toluene 17.63 µg/L 1.0 20 0 88.1 81 114 Method: EPA 60108: Total Recoverable Metals standard Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Potassium ND mg/L 1.0 Sample ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium ND mg/L 1.0 50 0.0 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24686 Analysis Date: 12/7/2010 5:08:45	Toluene	19.31	µg/L	1.0	20	0	96.6	81	114	
Toluene 17.63 μg/L 1.0 20 0 88.1 81 114 Method: EPA 6010B: Total Recoverable Metals Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Potassium ND mg/L 1.0 So 0.0708 Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium S3.44 mg/L 1.0 50 0.0708 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Galcium 53.73 mg/L 1.0 50 0.01838 107 80 120 Sample ID: L	Sample ID: 100ng Ics		LCS				Batch ID:	R42386	Analysis Dat	e: 11/29/2010 8:33:29 PM
Method: EPA 6010B: Total Recoverable Metals Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 10 Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 10 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Potassium ND mg/L 10 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Calcium ND mg/L 10 50 0.0708 107 80 120 Galcium 53.44 mg/L 10 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Otassium 53.11 mg/L 10 50 0	Benzene	19.11	µg/L	1.0	20	0	95.6	84.6	109	*
Sample iD: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 mg/L 1.0 mg/L 1.0 Sample ID: MB-24685 MD mg/L 1.0 mg/L 1.0 Analysis Date: 12/7/2010 5:05:43 PM Potasslum ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: LCS-24685 ND mg/L 1.0 50 0.0708 107 80 120 Calcium 53.73 mg/L 1.0 50 0.1838 107 80 120 Magnesium 53.73 mg/L 1.0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Toluene	17.63	µg/L	1.0	20	0	88.1	81	114	
Sample iD: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 11:19:43 AM Calcium ND mg/L 1.0 mg/L 1.0 mg/L 1.0 Sample ID: MB-24685 MD mg/L 1.0 mg/L 1.0 Analysis Date: 12/7/2010 5:05:43 PM Potasslum ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1.0 Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Sample ID: LCS-24685 ND mg/L 1.0 50 0.0708 107 80 120 Calcium 53.73 mg/L 1.0 50 0.1838 107 80 120 Magnesium 53.73 mg/L 1.0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Method: EPA 6010B: Total Rec	overable Met	als							
Magnesium ND mg/L 1 Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Potasslum ND mg/L 1 0 Sample ID: LCS-24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1 0 Sample ID: LCS-24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium 53.44 mg/L 1 0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1 0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS ECS Batch ID: 24885 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1 0 50 0 106 80 120 Potassium 53.11 mg/L 1 0 50 0 106 80 120	Sample ID: MB-24685		MBLK				Batch ID:	24685	Analysis Dat	e: 12/7/2010 11:19:43 AM
Magnesium ND mg/L 1 Sample ID: MB-24685 MBLK Batch ID: 24685 Analysis Date: 12/7/2010 5:05:43 PM Potasslum ND mg/L 1 0 Sample ID: LCS-24685 Analysis Date: 12/7/2010 5:05:43 PM Sodium ND mg/L 1 0 Sample ID: LCS-24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium 53.44 mg/L 1 0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1 0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS ECS Batch ID: 24885 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1 0 50 0 106 80 120 Potassium 53.11 mg/L 1 0 50 0 106 80 120	Calcium	ND	mg/L	1.0						
Potassium ND mg/L 1 0 Sodium ND mg/L 1 0 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium 53.44 mg/L 1 0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1 0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Magnesium	ND		1.0						
Sodium ND mg/L 1<0 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium 53.44 mg/L 1<0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1<0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Sample ID: MB-24685		MBLK				Batch ID:	24685	Analysis Dat	e: 12/7/2010 5:05:43 PM
Sodium ND mg/L 1<0 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 11:22:50 AM Calcium 53.44 mg/L 1<0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1<0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Potassium	ND	mg/L	1.0						
Calcium 53.44 mg/L 1.0 50 0.0708 107 80 120 Magnesium 53.73 mg/L 1.0 50 0.1838 107 80 120 Sample ID: LCS-24685 LCS Batch ID: 24885 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Sodium	ND		1.0						
Magnesium 53.73 mg/L 1.0 50.0.1838 107 80 120 Sample ID: LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Sample ID: LCS-24685		LCS				Batch ID:	24685	Analysis Date	e: 12/7/2010 11:22:50 AM
Magnesium 53.73 mg/L 1.0 50 0.1838 107 80 120 Sample ID: LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Calcium	53.44	mg/L	1.0	50	0.0708	107	80	120	
Sample ID: LCS Batch ID: 24685 Analysis Date: 12/7/2010 5:08:45 PM Potassium 53.11 mg/L 1.0 50 0 106 80 120	Magnesium	53.73	mg/L	1.0	50	0.1838	107	80	120	
· ·			LCS				Batch ID:	24685	Analysis Date	e: 12/7/2010 5:08:45 PM
· ·	Potassium	53.11	mg/L	1.0	50	0	106	80	120	
	Sodium	49.28	+		50	0.6185	97.3	80	120	

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

Page 2

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Sec. 200	Hall Environmental Analysis Laboratory, In			-		· · · ·
<u>.</u>		nple Rec	eipt	Checklist		
and Maria	Client Name WESTERN REFINING SOUT			Date Rece		11/23/2010
and to	Work Order Number 1011933			Received	by: AMG	1-2
Land Land	Checklist completed by: Muhlb Cfai		11	23/10	D labels checked	by: Initiate
1.16	Matrix: Carrier na	me: UPS	5			
A. 6. 0.1						
-	Shipping container/cooler in good condition?	Yes		No 🗔	Not Present	
41.400	Custody seals intact on shipping container/cooler?	Yes		No 🗔	Not Present	Not Shipped
1	Custody seals intact on sample bottles?	Yes		No 🗆	N/A	
섾	Chain of custody present?	Yes		No 🗔		
and the	Chain of custody signed when relinquished and received?	Yes		No 🗀		
	Chain of custody agrees with sample labels?	Yes		No 🗆		
1	Samples in proper container/bottle?	Yes		No 🗋		
	Sample containers intact?					
	Sufficient sample volume for indicated test?	Yes				
10000						Number of pressured
28	All samples received within holding time? Water - VOA vials have zero headspace? No VOA vials s			Yes	No 🗔	Number of preserved bottles checked for
A 25.4	Water - VOA vials have zero headspace? No VOA vials s Water - Preservation labels on bottle and cap match?	Yes		No 🗌		рН:
	Water - pH acceptable upon receipt?	Yes	Г П		N/A 🗹	An and and and and
100						below.
and a	Container/Temp Blank temperature?	4.	7°	<6° C Accepta If given sufficie	able ant time to cool.	
Starting and	COMMENTS:					
C. 44						
1.11				·		
121	Client contacted Date contacted:			Pe	rson contacted	
18.00	Contacted by: Regarding:	 				
String.	Comments:					······································
57						
and Sec.		.				ar a sa bhaile agus daobhliachdalan bhaile annan an a bagairt i bhliair d bhaile bhaile bhaile bhaile bhaile b
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	HALL ENVIRONMENTAL ANALYSIS LABORATORY		0						1	-		85108	'		X	×			_		+	-	-	_			This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
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Tum-Around Tim	X Standard	Project Name:	DRAINAGE	Project #:		Project Manager.			Sampler:	Sample Frank	14-14-14-14-14-14-14-14-14-14-14-14-14-1	Container Type and #	S-VOA	1-500ml	- 250m	15	'S							ŀ		Xeive	acted to o
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Chain-of-Custody Record	er.		.M	Jel Le	505	50			IJ		-			Ŧ	H	H	Ŧ		+					0		Kei	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.
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5 S	Client: WESTERN REFINING		Mailing Address:	R/oomfield	le #:	email or Fax#: 505	QA/QC Package;	Candard Standard	Accreditation	DEDD (Type)	\vdash	1		_		-	_		-	+	+	+	+	+	= [Ē	If ner
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COVER LETTER

M-FE

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Thursday, January 06, 2011

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

Order No.: 1012812

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 12/21/2010 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



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

					······································		
CLIENT:	Western Refining S	outhwest, Inc.			nt Sample ID:		
Lab Order:	1012812			Co	llection Date:	12/20/2010	9:20:00 AM
Project:	Drainage North of I	FK #38		D	ate Received:	12/21/2010	
Lab ID:	1012812-01				Matrix:	AQUEOUS	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 3	00.0: ANIONS						Analyst: SRM
Fluoride		0.41	0.10		mg/L	1	12/23/2010 2:55:02 PM
Chloride		12	0.50		mg/L	1	12/23/2010 3:37:03 AM
Nitrate (As N)+Ni	itrite (As N)	ND	1.0		mg/L	5	12/27/2010 7:34:15 PM
• •	hophosphate (As P)	ND	0.50	н	mg/L	1	12/23/2010 3:37:03 AM
Sulfate	• •	74	10		mg/L	20	12/23/2010 3:54:28 AM
EPA 6010B: TO	TAL RECOVERABLE	METALS					Analyst: SNV
Calcium	1	63	1.0		mg/L	1	1/4/2011 2:52:56 PM
Magnesium		17	1.0		mg/L	1	1/4/2011 2:52:56 PM
Potassium		1.8	1.0		mg/L	1	1/4/2011 2:52:56 PM
Sodium		53	1.0		mg/L	1	1/4/2011 2:52:56 PM
EPA METHOD 8	260: VOLATILES SHO	ORT LIST					Analyst: RAA
Benzene		ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Toluene		ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Ethylbenzene		ND	1.0		µg/L	1.	12/23/2010 8:18:20 PM
Methyl tert-butyl e	ether (MTBE)	ND	1.0		µg/L	1	12/23/2010 8:18:20 PM
Xylenes, Total		ND	2.0		µg/L	1	12/23/2010 8:18:20 PM
Surr: 1,2-Dichi	oroethane-d4	91.6	77.7-113		%REC	1	12/23/2010 8:18:20 PM
Surr: 4-Bromof	fluorobenzene	113	76.4-106	S	%REC	1	12/23/2010 8:18:20 PM
Surr: Dibromof	luoromethane	88.8	91.6-125	S	%REC	1	12/23/2010 8:18:20 PM
Surr: Toluene-	d8	101	92.3-107		%REC	1	12/23/2010 8:18:20 PM
SM 2320B: ALK/	ALINITY						Analyst: IC
Alkalinity, Total (A		250	20		mg/L CaCO3	1	12/27/2010 9:11:00 PM
Carbonate		ND	2.0		mg/L CaCO3	1	12/27/2010 9:11:00 PM
Bicarbonate		250	20		mg/L CaCO3	1	12/27/2010 9:11:00 PM

Date: 06-Jan-11

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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 NC Non-Chlorinated ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

S Spike recovery outside accepted recovery limits

ANT WALK

AN WAY		QA/Q	C SU	IMMA	RY	REPC	RT				
Client: Western Ref Project: Drainage No						Work Order: 1012					
Analyte	Result	Units	PQL	SPK Val SF	PK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Ar Sample ID: MB	nions	MBLK				Batch ID:	R42828	Analys	is Date:	12/22/2010 1	10:12:30 AN
Fluoride	ND	mg/L	0.10								
Chloride Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.50								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P) ND	mg/L	0.60								
Sulfate	ND	mg/L	0.50								
Sulfate Sample ID: MB		MBLK				Batch ID:	R42828	Analys	is Date:	12/22/2010 1	0:41:06 PN
Fluoride	ND	mg/L	0.10								
m Chloride	ND	mg/L	0.50								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P) ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		MBLK				Batch ID:	R42855	Analysi	s Date:	12/23/2010	1:27:59 PN
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Nitrate (As N)+Nitrite (As N) Phosphorus, Orthophosphate (As P	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P) ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: ,MB		MBLK				Batch ID:	R42882	Analysi	s Date:	12/27/2010	2:38:14 PM
Sample ID: ,MB Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P) ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		LCS				Batch ID:	R42828	Analysi	s Date:	12/22/2010 1	0:29:55 AN
Fluoride	0.5095	mg/L	0.10	0.5	0	102	90	110			
Chloride	5.054	mg/L	0.50	5	0	101	90	110			
Nitrate (As N)+Nitrite (As N)	3.622	mg/L	0.20	3.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)		mg/L	0.50	5	0	104	90	110			
Sulfate	10.25	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		LCS				Batch ID:	R42828	Analysi	s Date:	12/22/2010 1	0:58:31 PN
Chloride	5.161	mg/L	0.50	5	Ó	103	90	110			
Chloride Nitrate (As N)+Nitrite (As N)	3.675	mg/L	0.20	3.5	0	105	90	110			
Phosphorus, Orthophosphate (As P)		mg/L	0.50	5	0	103	90	110			
Sulfate	10.68	mg/L	0.50	10	0	107	90	110			
Sample ID: LCS		LCS				Batch ID:	R42855	Analysi	s Date:	12/23/2010	1:45:23 PN
Fluoride	0.5432	mg/L	0.10	0.5	0	109	90	110			
Chloride	5.134	mg/L	0.50	5	0	103	90	110			
Nitrate (As N)+Nitrite (As N)	3.727	mg/L	0.20	3.5	0	106	90	110			
Phosphorus, Orthophosphate (As P)		mg/L	0.50	5	0	107	90	110			
Sulfate	10.80	mg/L	0.50	10	0	108 Rotob ID:	90	110 Anabust	Datas	10/07/0010	0.00.00 01
Sample ID: LCS		LÇS				Batch ID:	R42882	Analysi	s Date:	12/27/2010	2:55:39 PM
Fluoride	0.5040	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.908	mg/L	0.50	5	0	98.2	90	110			

Qualiflers:

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Ε Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit

ND

Н Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 06-Jan-11

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ALC: NO

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Client: Western Refi Project: Drainage Not	-	-							Worl	(Order:	1012010
											1012812
Analyte	Result	Units	PQL	SPK Val S	SPR rer	WREC L	owLimit Hi	gnLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: An	ions		j								
Sample ID: LCS		LCS				Batch ID:	R42882	Analysis	Date:	12/27/2010	2:55:39 PN
Nitrate (As N)+Nitrite (As N)	3,546	mg/L	0.20	3.5	0	101	90	110			
Phosphorus, Orthophosphate (As P)		mg/L	0.50	5	0	96.4	90	110			
Sulfate	9,990	mg/L	0.50	10	0	99.9	90	110			
lethod: SM 2320B: Alkalinity											
Sample ID: MB-1		MBLK	2	·.		Batch ID:	R42931	Analysis	Date:	12/27/2010	7:08:00 PN
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		MBLK				Batch ID:	R42931	Analysis	Date:	12/28/2010	3:23:00 AN
kalinity, Total (As CaCO3)	ND	mg/L Ca	20								
arbonate	ND	mg/L Ca	2.0								
carbonate	ND	mg/L Ca	20								
enple ID: LCS-1		LCS				Batch ID:	R42931	Analysis	Date:	12/27/2010 7	7:14:00 PM
Alk Jinity, Total (As CaCO3)	80.47	mg/L Ca	20	80	0	101	96.5	104			
Saniple ID: LCS-2		LCS				Batch ID:	R42931	Analysis	Date:	12/28/2010 3	3:29:00 AN
Alkalinity, Total (As CaCO3)	80.12	mg/L Ca	20	80	0	100	96.5	104			
Nethod: EPA Method 8260: Vola	tiles Short	List									
ample ID: 1012812-01a msd		MSD				Batch ID:	R42858	Analysis	Date:	12/23/2010 9	:13:22 PN
enzene	17.40	μg/L	1.0	20	0	87.0	73.1	117	1.04	11.3	
oluene	19.70	µg/L	1.0	20	0	98.5	82.9	109	5.03	11.6	
ample ID: b2		MBLK				Batch ID:	R42858	Analysis	Date:	12/23/2010 10	:09:21 AN
lenzene	ND	µg/L	1.0								
oluene	ND	µg/L	1.0								
thylbenzene	ND	µg/L	1.0								
lethyl tert-butyl ether (MTBE)	ND	μg/L	1.0								
ylenes, Total	ND	µg/L	2.0								
		LCS]			Batch ID:	R42858	Analysis	Date:	12/23/2010 11	:25:51 AN
ample ID: 100ng Ics						93.4	84.6	109			
	18.68	µg/L	1.0	20	0	83.4	04.0	105			
enzene	18.68 21.98	μg/L μg/L	1.0 1.0	20 20	0	93.4 110	81	114			
enzene oluene		µg/L µg/L MS			-				Date:	12/23/2010 8	:45:51 PN
ample ID: 100ng Ics lenzene coluene ample ID: 1012812-01a ms enzene		µg/L			-	110	81	114	Date:	12/23/2010 8	:45:51 PN

QA/QC SUMMARY REPORT

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

Page 2

Hall Environmental Analysis Laboratory, Inc.

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	QA	/QC St	JMMA	RY	REPO	RT				
1997	ern Refining Southwest, age North of TK #38	Inc.						Work	Order:	1012812
Analyte	Result Un	its PQL	SPK Val S	SPK ref	%Rec Lo	wLimit Hi	ghLimit	%RPD	RPDLImit	Qual
Method: EPA 6010B: To	otal Recoverable Metals									
Sample ID: MB-25069	M	BLK			Batch ID:	25069	Analysis	Date:	1/4/2011	2:12:47 PM
Calcium	ND mg	ı/L 1.0								
Magnesium	ND mg	∦L 1.0								
Potassium	ND mg	/L 1.0								
Sodium	ND mg	/L 1.0								
Sample ID: LCS-25089	LC	S			Batch ID:	25069	Analysis	Date:	1/4/2011	2:16:09 PM
Calcium	51.00 mg	/L 1.0	50	0	102	80	120			
Magnesium	53.49 mg	/L 1.0	50	0	107	80	120			
Potassium	54.76 mg	/L 1.0	50	0	110	80	120			
Sodium	51.56 mg	/L 1.0	50	0	103	80	120			
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Е Estimated value

Analyte detected below quantitation limits ND

Not Detected at the Reporting Limit

- Holding times for preparation or analysis exceeded Н
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

Page 3

40	Sar	nple Rec	eipt Cł	necklist			
Client Name WESTERN REFINING SOUT				Date Receive	d:	12/21/2010	
Work Order Number 1012812	1 1 1	2		Received by	MMG		
Checklist completed by Signature	7	12/2	21 Date	Sample ID la	ibels checked by:		-
Matrix:	Carrier n	ame: <u>UPS</u>	È				
Shipping container/cooler in good condition?		Yes		No 🗆	Not Present	35	
Custody seals intact on shipping container/cooler?		Yes		No 🗀	Not Present	Not Shipped	
Custody seals intact on sample bottles?	1	Yes		No 🗌	N/A		
Chain of custody present?	. '	Yes		No 🗆			
Chain of custody signed when relinquished and rea	ceived?	Yes	V	No 🗆			
Chain of custody agrees with sample labels?		Yes		No 🗆			
Samples in proper container/bottle?		Yes		No \Box			
Sample containers intact?	.5	Yes		No 🗌			
Sufficient sample volume for indicated test?)	Yes		No 🗌			
All samples received within holding time?		Yes		No 🗔		Number of bottles che	preserved
Water - VOA vials have zero headspace?	No VOA vials	submitted		Yes 🗹	No 🗆	pH:	
Water - Preservation labels on bottle and cap mate	h?	Yes		No \Box	N/A 🗌	nºr -	
Water - pH acceptable upon receipt?	i,	Yes		No 🗔	N/A 🗆	<2) >12 unle	ass noted
Container/Temp Blank temperature?		2	.5°	<6° C Acceptab		0	
COMMENTS:				If given sufficient	time to cool.		
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Client contacted Da	ate contacted:			Pers	on contacted	······	
Contacted by: Re	egarding:						
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SUSANA MARTINEZ Governor

JOHN A. SANCHEZ 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



DAVE MARTIN Secretary

RAJ SOLOMON, P.E. Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 2, 2011

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

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

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Newly Surfaced Groundwater Data Summary* letter dated February 11, 2011. The letter summarizes the discovery of surface water containing concentrations of benzene at a location designated East Fork, north of the Raw Water Ponds, and the results of water sampling required by NMED's July 30, 2010 letter.

As water is still present in the East Fork, Western proposes to "collect one surface water sample from the East Fork and flow measurements from Outfall#3 and the East Fork one week before water is let into Hammond Ditch and a follow up sample and flow measurements six weeks after ditch operations commence. Samples will be analyzed for [benzene, toluene, ethylbenzene, xylenes] BTEX and [methyl tert-Butyl Ether] MTBE using EPA Method 8260 and for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) using EPA Method 8015." Randy Schmaltz March 2, 2011 Page 2 of 2

Within 30 days after collection of the six-week sampling event Western must submit the analytical results, present any additional findings, and propose future monitoring activities for the East Fork. The findings and proposed monitoring activities must also be submitted to the Oil Conservation Division (OCD).

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

Sincerely,

John E. Kieling Program Manager Permits Management Program Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
H. Petrie, NMED HWB
C. Chavez, OCD
A. Hains, Western
File: HWB-WRB-MISC and Reading File 2011



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

November 8, 2010

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

RE: NOTICE OF DISAPPROVAL INVESTIFATION WORK PLAN GROUP 6 (AOC NO. 19 SEEP NORTH

OF MW-45, AOC NO. 20 SEEP NORTH OF MW-46, AND AOC NO. 21 SEEP NORTH OF MW-47) WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY EPA ID # NMD089416416 WRB-10-002

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Investigation Work Plan Group 6 (AOC No. 19 Seep North* of MW-45, AOC No. 20 Seep North of MW-46, and AOC No. 21 Seep North of MW-47) (Work Plan) dated December, 2009. NMED hereby issues this Notice of Disapproval. Western must address the following comments before NMED can take final action on the Work Plan.

Comment 1

Western discusses the facility's surface and subsurface conditions in Sections 3.1 (Surface Conditions) and Section 3.2 (Subsurface Conditions). However, these Sections do not address the conditions for subject AOCs. Western must revise these Sections to address the surface and subsurface conditions for AOCs 19, 20, and 21.

Randy Schmaltz November 8, 2010 Page 2 of 3

Comment 2

In Sections 4.1 (Anticipated Activities) and 5.2 (Soil Sampling), Western proposes to advance hand augured soil borings to a depth of two feet or more based on field screening at the seeps and drainage pathways leading toward the San Juan River. Western proposes to submit soil samples collected from each boring at depths of 0-0.5 feet and 1.5 to 2 feet below ground surface (bgs), and from the intervals where field screening evidence of contamination is observed for laboratory analysis. In order to determine the vertical extent of contamination, the soil sample collected from the bottom of all samples locations must be submitted for laboratory analysis. Western must revise the Work Plan accordingly.

Comment 3

In Section 4.2 (Background Information Research), page 9, Western states "[d]ocuments containing the results of previous investigations and subsequent routine groundwater monitoring data from monitoring wells and the seeps were reviewed to facilitate development of this work plan. The previously collected data provide detailed information on the overall subsurface conditions, including hydrogeology and contaminant distribution within groundwater on a site-wide basis. The data collected under this scope of services will supplement the existing soil and groundwater information and provide specific information regarding contaminant occurrence and distribution within soils near the seeps." It is unclear where the previously collected data is located within this document. Western must identify where within the Work Plan the data are located, or revise the Work Plan to include the data.

Comment 4

In Section 5.2 (Soil Sampling), page 11, Western states "[s]urface soil samples (0-6") collected from the sides of the steep slopes along the drainage pathways and at the edge of catchment liners will be used to define the horizontal extent of any impacts identified in the seep faces and bottom of the drainage pathways." Western must also determine the vertical extent of contamination. Western must revise the Work Plan to include the details for determining the vertical extent of contamination. See also Comment 2.

Comment 6

In Section 6 (Monitoring and Sampling Program), page 20, Western states "[g]roundwater is removed from any seep where analytical results exceed any of the standards set by the Water Quality Control Commission (WQCC), the EPA Maximum Contaminant Level (MCL), or the EPA Region VI Human Health Medium Specific Screening Levels (Tap Water) in the absence of a WQCC standard or MCL (NMED, 2008)." The Tap Water Screening Levels have been replaced with the EPA Regional Screening Levels (as updated). Western must revise the Work Plan to reference the EPA Regional Screening Levels (as updated) instead of the Tap Water Screening Levels.

Comment 6

In Appendix A (Photographs), the first photograph from Google maps does not contain any cardinal directions on it. Western must revise the Work Plan to include a reference compass direction for this photograph.

Randy Schmaltz November 8, 2010 Page 3 of 3

Western must address all comments contained in this NOD and submit a revised Work Plan to NMED on or before February 8, 2011. The revised Work Plan must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised work plan must be submitted that identifies where all changes have been made in redline strikeout format.

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

Sincerely,

James P. Bearzi Chief Hazardous Waste Bureau

JPB:hm

cc: J. Kieling, NMED HWB D. Cobrain, NMED HWB C. Chavez, OCD A. Hains, Western File: WRB-10-002 and Reading 2010