

June 20, 2011

Mr. Mike Bratcher
NMOCD District 2

1301 West Grand Avenue Artesia, NM 88210

**Subject:** Remediation and Closure Report

Legacy Reserves Operating, LP South Red Lake Unit No. 1 Release API # 30-015-00653 -- 2RP-604

JUN 21 2011
NMOCD ARTESIA

ARTESIA

**AMARILLO** 

921 North Bivins Amarillo. Texas 79107

Phone 806.467.0607 Fax 806.467.0622

408 West Texas Ave. Artesia, New Mexico 88210 Phone 575.746.8768 Fax 575.746.8905

AUSTIN

9li West Anderson Lane Suite 202 Austin, Texas 78757 Phone 5l2.989.3428 Fax 5l2.989.3487

HOBBS

318 East Taylor Street Hobbs, New Mexico 88240 Phone 575.393.426i Fax 575.393.4658

MIDLAND

2901 State Hwy 349 Midland, Texas 79706 Phone 432.522.2133 Fax 432.522.2180

SAN ANTONIO

II Commercial Place Schertz, Texas 78154 Phone 210.265.8025 Fax 210.568.2191

TULSA

525 South Main Street Suite 535 Tulsa, Oklahoma 74103 Phone 918.742.0871 Fax 918.382.0232 Dear Mr. Bratcher,

Legacy Reserves Operating, LP has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced South Red Lake Unit No. 1 location. The incident description, soil assessment, remediation activities and closure request are submitted herein.

#### **Incident Date**

February 8, 2011

#### **Background Information**

The South Red Lake Unit No. 1 is located approximately eleven (11) miles southeast of Artesia, New Mexico. The legal location for the site is Section 36, Township 17 South and Range 27 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.796005 North and -104.23543 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology includes silty soils under lain by sand stone and caliche layers. The New Mexico State Engineer's web site indicates the nearest ground water data to be in S10-T18S-R27E. The ground water in Section 10 is reported at a depth of 50-feet below ground surface (bgs).

The ranking for this site is 10 based on the as following:

ENVIRONMENTAL CONSULTING

ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Depth to ground water 50'-100'
Wellhead Protection Area >1000'
Distance to surface water body >1000'

Toll Free: 866.742.0742 www.talonlpe.com

#### **Incident Description**

On February 8, 2011 the flow line located west of the South Red Lake Unit No. 1 location ruptured. The flow line was subsequently taken out of service and repaired. Twenty-five (25) barrels of produced water and hydrocarbons were released. Two (2) barrels of mixed fluids were recovered. The impacted area is located on a hillside approximately two hundred seventy feet (270') due north of the South Red Lake Unit No. 1 location. The flow path on the hillside is estimated to be five hundred feet (500') long by six to ten feet (6-10') wide. The release terminated on the No Bluff 36 State Com. No. 9, a producing well location which is operated by Lime Rock Resources, LLC. The pooling area on the location was estimated to be approximately forty feet (40') long by forty feet (40') wide.

#### **Actions Taken**

On February 9, 2011 Talon personnel mobilized to the site to begin soil sampling and site assessment activities. Grab soil samples were collected utilizing a hand auger. The soil samples labeled S-1 were collected from a worst-case location within the flow path. The soil samples labeled S-2 were collected from the pooling area on the No Bluff 36 State Com. No. 9 location.

On February 14, 2011 Talon personnel returned to the site with a breaker bar and post hole tool to collect additional soil samples from sample location S-1. Additionally, composite soil sample (S-3) was collected upgradient from the release to determine current background conditions. An abandoned tank battery and a closed production pit were observed directly up gradient of the release, as well as areas of chloride stained soils at land surface.

Soils samples were collected by Talon personnel wearing clean nitrile gloves. The samples were placed in laboratory provided glassware, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for volatile organics pursuant to EPA Method 8021B; Total Petroleum Hydrocarbons (TPH) per EPA Method 8015M; and Total Chlorides via Method SM4500Cl-B

#### **Analytical Results**

Analytical results detailed on the attached laboratory reports dated February 11, 2011 and February 18, 2011 are summarized below.

February 11, 2011

Sample	Depth (ft)	<u>Total BTEX</u>	TPH	Chlorides
S-1	0-ft	3.038	5,679	10,800 mg/kg
S-1	0.5'	ND*	74.4	4,400
S-2	0'	58.47	36,010	5,360
S-2	0.25'**	0.562	217.2	544

<sup>\*</sup>ND Not Detected within laboratory method detection limits

February 18, 2011

Sample	Depth (ft)	Total BTEX	<u>TPH</u>	Chlorides
S-1	1,	ND	284	1,170 mg/kg
S-1	1.25'*	ND	309	896
Upgradient	0,	ND	471	5,600

<sup>\*</sup>Refusal encountered

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 1,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

#### **Remedial Actions**

On February 9, 2011 Talon personnel mobilized to the site to begin excavation of the impacted area. The affected soil within the flow path of the release was removed to an average depth of 1.5-feet deep based upon visual observation. A total of 537.12 cubic yards of impacted soil was excavated and transported to an NMOCD approved solid waste disposal facility for disposal. The impacted soil on the adjacent well location was scraped to a depth of 0.25-feet and the location repaired. The excavated area was left open until an approval for backfilling of site was obtained from NMOCD.

<sup>\*\*</sup> Refusal encountered with hand auger

On April 8, 2011 Talon personnel met on site with NMOCD Environmental Specialist, Mike Bratcher, to review the excavated area at release site. Mr. Bratcher gave Talon approval to backfill the excavated area with no final soil samples being required due to the elevated background testing results. On April 11, 2011 Mr. Bratcher sent talon a confirmation email approving backfilling of excavated site.

On April 21, 2011 Talon personnel returned to the site to begin backfilling excavated area. The excavated area was backfilled back to grade using 558.33 cubic yards of new material transported from a local borrow pit. The backfill material was contoured to match the surrounding terrain and the area will be seeded with an approved seed mixture.

#### **Conclusions and Recommendations**

- Ground water in the project vicinity is approximately 50-feet below land surface per the New Mexico State Engineer Database.
- Upgradient sampling and testing have indicated that background levels of petroleum hydrocarbons and chlorides are historically present in the area.
- Based on the depth to groundwater, the shallow confining layer encountered and the contamination levels detected in the soil; it is unlikely that the impacts identified from this release will pose a threat to groundwater.
- Based upon the results of the sampling and analytical program, all chemical
  parameters tested for below the final depth of excavation were determined to
  be below their respective Recommended Remedial Action Levels (RRALs).
- Therefore, on behalf of Legacy Reserves Operating, LP, we respectfully request that no further actions be required with respect to this release and that site closure be granted.

Should you have any questions or if further information is required, please do not hesitate to contact us at 575.746.8768.

Respectfully submitted,

TALON/LPE

Mike Stubblefield Project Manager David J. Adkins District Manager

### **GROUNDWATER DATA**



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

		(quarte	rs a	re 1:	-NW	2=NE 3	=SW 4	4=SE)				
planagio (n. 1. v. continuo 1. v. gruppiago (n. contra de 10. c. delaborato majorcono (no mandenantono de	not requested a resource of the sec	(quarte	rs a	re sr	nalle	st to larg	jest)	(NAD83 UTM	1 in meters	)	(In fe	et)
	Sub pasin Use	County		Q (		c Tws	Rng	<u>X</u>	Y	-		Water Column
L 01370 REPAR-1	DOM	LE		2 -	4 1	5 18\$	27E	569328	3623355*	96	58	38
RA 03714	PRO	СН	4	4	2 0	8 18S	27E	566212	3625253*	381		
RA 03917	PRO	LE	4	1	2 1	0 18S	27E	569019	3625660*	130	50	80 ←
RA 04048	OBS	LE	1	4	4 1	4 18S	27E	570841	3623030*	2096		
RA 04211	PRO	СН		3	1 2	8 18S	27E	566512	3620562*	120	100	20
RA 04298	OBS	ED		1	2 1	9 18S	27E	564082	3622523*	92		
RA 05524	STK	ED		2	4 3	3 18S	27E	567721	3618532*	90	49	41
RA 05660	PRO	ED		3	4 3	1 18S	27E	564094	3618090*	305	65	240
RA 05664	EXP	ED		4	1 3	3 18S	27E	566914	3618936*		145	
RA 05664	OBS	ED		4	1 3	3 18S	27E	566914	3618936*		145	
RA 06091	PRO	ED	1	2	3 2	9 18S	27E		3620222*		17	73
								Avera	o Water: 78 feet		feet	
									Minimur	n Depth:	17	feet

**Record Count: 11** 

PLSS Search:

Township: 18S Range: 27E

Maximum Depth: 145 feet

# LABORATORY REPORTS



February 11, 2011

**DAVID ATKINS** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LEGACY S. RED LAKE UNIT #1

Enclosed are the results of analyses for samples received by the laboratory on 02/10/11 10:40.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021

Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method SW-846 8260

Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method TX 1005

Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Celey D. Keine



TALON LPE **DAVID ATKINS** 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905 Fax To:

Received:

02/10/2011

Sampling Date:

02/09/2011

Reported:

02/11/2011

Sampling Type:

Project Name:

**LEGACY S. RED LAKE UNIT #1** 

Sampling Condition:

Soil Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY COUNTY, NM

Sample ID: S-1 @ 0.25' (H100267-01)

BTEX 8021B	mg,	/kg	Analyzı	ed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.067	0.050	02/10/2011	ND	2.22	111	2.00	21.6	
Toluene*	0.264	0.050	02/10/2011	ND	2.22	111	2.00	22.9	•
Ethylbenzene*	0.757	0.050	02/10/2011	ND	2.27	114	2.00	23.4	
Total Xylenes*	1.95	0.150	02/10/2011	ND	6.68	111	6.00	23.0	
Surrogate: 4-Bromofluorobenzene (PIL	94.4	% 70-130						······································	
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10800	16.0	02/10/2011	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	279	100	02/11/2011	ND	201	101	200	1.33	
DRO >C10-C28	5400	100	02/11/2011	ND	199	99.7	200	2.54	
Surrogate: 1-Chlorooctone	97.1	% 70-130							
Surrogate: 1-Chlorooctadecane	107 9	% 70-130							

#### Cardinal Laboratories

\*=Accredited Analyte

paid by clima for enables. All claims, including those for negligence and completion of the applicable service. In no event stati Cardinal be kable for incidental or consequential distrages, sors arising out of or related to the performance of the services hereunder by Cardinal, regardices of whether such



**TALON LPE** DAVID ATKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received: Reported: 02/10/2011

02/11/2011

**LEGACY S. RED LAKE UNIT #1** 

Project Name: Project Number:

NONE GIVEN

Project Location:

EDDY COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

02/09/2011 Soll

Cool & Intact

Jodi Henson

#### Sample ID: S-1 @ 0.5' (H100267-02)

BTEX 80218	mg/	kg	Analyze	d Byt CMS					
Anatyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/10/2011	ND	2.22	111	2.00	21.6	
Toluene*	<0.050	0.050	02/10/2011	ND	2.22	111	2.00	22.9	
Ethylbenzene*	<0.050	0.050	02/10/2011	ND	2.27	114	2.00	23.4	
Total Xylenes*	<0.150	0.150	02/10/2011	ND	6.68	111	6.00	23.0	
Surrogate: 4-Bromofluorobenzene (PIL	90.6	% 70-130		197 a 7 a Darl Bell a et a et a et a a da a et a et a et a	·				
Chloride, SM4500CI-B	mg/kg		Analyze	d By: HM					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4400	16.0	02/10/2011	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Anatyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/11/2011	ND	201	101	200	1.33	
DRO >C10-C28	74.4	10.0	02/11/2011	ND	199	99.7	200	2.54	
Surrogate: 1-Chlorooctone	95.5 9	% 70-130		• • • • • • • • • • • • • • • • • • • •			pa, pag pho thropic t debotished to all allies to the		
Surrogate: 1-Chlorvoctadecane	88.4 9	6 70-130							

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TALON LPE **DAVID ATKINS** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

02/10/2011

Reported: Project Name: 02/11/2011

Project Number:

LEGACY S. RED LAKE UNIT #1

Project Location:

NONE GIVEN **EDDY COUNTY, NM**  Sampling Date:

02/09/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-2 @ 0' (H100267-03)

BTEX 80218	mg/	kg	Analyze	d By: CMS		************			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/10/2011	ND	2.22	111	2.00	21,6	
Toluene*	3.47	3.47 0.050		ND	2.22	111	2.00	22.9	
Ethylbenzene*	17.9	<b>17.9</b> 0.050		ND	2.27	114	2.00	23.4	
Total Xylenes*	37.1	0.150	02/10/2011	ND	6.68	111	6.00	23.0	
Surrogate: 4-Bromofluorobenzene (PIL	1189	6 70-130		رون ودر ودر ودر ودر الله الله الله الله الله الله الله الل					
Chloride, SM4500Cl-B	mg/kg		Analyze	d By; HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	5360	16.0	02/10/2011	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: AB					
Analyte	Result	Reporting Umit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3210	100	02/11/2011	ND	201	101	200	1.33	
DRO >C10-C28	32800	100	02/11/2011	ND	199	99.7	200	2.54	
Surrogate: 1-Chlorooctane	96.3 9	6 70-130	*******************						
Surrogate: 1-Chlorooctadecane	90.2 %	6 70-130							

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TALON LPE DAVID ATKINS 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

02/10/2011

Sampling Date:

02/09/2011

Reported:

02/11/2011

Sampling Type:

Soil

Project Name:

LEGACY S. RED LAKE UNIT #1

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

EDDY COUNTY, NM

Sample Received By:

Jodi Henson

#### Sample ID: S-2 @ 0.25' (H100267-04)

BYEX 8021B	mg	/kg	Analyzi	ed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/10/2011	ND	2.22	111	2.00	21.6	
Toluene*	<0.050	0.050	02/10/2011	ND	2.22	111	2.00	22.9	
Ethylbenzene*	0.153	0.050	02/10/2011	ND	2.27	114	2.00	23.4	
Total Xylenes*	0.409	0.150	02/10/2011	ND	6.68	111	6.00	23.0	
Surrogate: 4-Bromofluorobenzene (PIL	99.1	% 70-130	<del></del>		*************				
Chloride, SM4500CI-B	mg,	mg/kg		d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	02/10/2011	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Anatyze	d By: AB					<del> </del>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	25.2	10.0	02/11/2011	ND	201	101	200	1.33	
DRO >C10-C28	192	10.0	02/11/2011	ND	199	99.7	200	2.54	
Surrogate: 1-Chlorooctane	89.8 9	% 70-130			· · · · · · · · · · · · · · · · · · ·	-A			
Surrogate: 1-Chlorooctadecane	84.5	% 70-130	•						

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PLEASE HOTE: Ubbilly and Danages. Confine's labelity and don'th confusion entering in the property for any claim entering, whether based in contract or text, shall be limited to the amount point by clerit for analysis. All claims, including those for nepigeoric and any other cause whitstoners that the determined which this in the completion of the expectable service. In no event shall Central to lightly to indicated or consequential demograph. Confined which this indicated installed installe



#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C
 Samples reported on an as received basis (wet) unless otherwise noted on report

**Cardinal Laboratories** 

\*=Accredited Analyte

PLEASE INDITE: Liability and Commandar. Confinal's liability and client's custosive remedy for any claim arising, whether based in contract or tort, shall be funded to the amount paid by client for analyses. All claims, including throw the negligence and any other cause whistowers shall be decreased making and received by Cariforni which this time. (20) days after conceptions of the applications control to the control shall be decreased in untiling and received by Cariforni which this time. (In this this control this control this time, bushess intermylations, loss of one, or loss of one or to see or formal control control this control to the performance of the services horizontal to the parties. Performance of the services horizontal this control to the control to t

Celey D. Keine

# ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tolors / 676								BILL TO ANALYSIS REQUEST																	
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† Cordinal cannot accept verbal changes. Please fax written changes to 505-393-2476

420



February 18, 2011

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SOUTH RED LAKE UNIT #1

Enclosed are the results of analyses for samples received by the laboratory on 02/16/11 9:05.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021

Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method SW-846 8260

Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method TX 1005

Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Celey D. Keine



TALON LPE **DAVID ADKINS** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

02/16/2011

Sampling Date:

02/14/2011

Reported:

02/18/2011

Sampling Type:

Soil

Project Name:

**SOUTH RED LAKE UNIT #1** 

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Project Location:

EDDY COUNTY SEC, 36-T17S.R27E

Jodi Henson

Sample ID: S-1 1' (H100309-01)

BTEX 8021B	mg,	kg	Analyze	d By: CMS				***	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2011	ND	1.99	99.4	2.00	9.57	
Toluene*	<0.050	0.050	02/16/2011	ND	2.06	103	2.00	9.30	
Ethylbenzene*	<0.050	0.050	02/16/2011	ND	2.12	106	2.00	9.86	
Total Xylenes*	<0.150	0.150	02/16/2011	ND	6.30	105	6.00	10.1	
Surrogate: 4-Bromofluorobenzene (PIL	96.1	% 70-130							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: LR					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	02/16/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: AB				···	• • • • • • • • • • • • • • • • • • • •
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	02/16/2011	ND	214	107	200	3.06	
DRO >C10-C28	284	50.0	02/16/2011	ND	224	112	200	3.74	
Surrogate: 1-Chlorooctane	115 9	6 70-130					Management of the Control of the Con	. 4 6,000 4 9 8,000 5 2 4 7,00 2 7	ang di tampa (mang mang mang mang mang mang mang mang
Surrogate: 1-Chlorooctadecane	1129	6 70-130							

#### **Cardinal Laboratories**

\*=Accredited Analyte

any other class whatevers shall be decared when unless made in walking and moveled by Cardinal within thirty (EV) days after conclusion of the applicable service. In on event shall Candinal be table for incidental or comparable demander, without limitation, business intermptions, but of use, or loss of profits broaded by Cardinal, its subsidialies, efficient or successions entire out of or nebted to the performance of the services benevoice by Cardinal, regardless of whether such claim is based upon any of the above stated examples obtained above. This report shall not be reproduced except in (ut) with with white approval of Cardinal Laboratories.



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

02/16/2011

Reported: Project Name: 02/18/2011

**SOUTH RED LAKE UNIT #1** 

Project Number:

NONE GIVEN

**Project Location:** 

EDDY COUNTY SEC. 36-T17S.R27E

Sampling Date:

02/14/2011

Sampling Type:

Soit

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S-1 1.25' (H100309-02)

BTEX 8021B	8021B mg/kg		Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2011	ND	1.99	99.4	2.00	9.57	
Toluene* .	<0.050	0.050	02/16/2011	ND	2.06	103	2.00	9.30	
Ethylbenzene*	<0.050	0.050	02/16/2011	ND	2.12	106	2.00	9.86	
Total Xylenes*	<0.150	0.150	02/16/2011	ND	6.30	105	6.00	10.1	
Surrogate: 4-Bromofluorobenzene (PIL	98.3	% 70-130							
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: LR					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	02/16/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	88	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	02/16/2011	ND	214	107	200	3.06	
DRO >C10-C28	309	50.0	02/16/2011	ND	224	112	200	3.74	
Surrogate: 1-Chlorooctane	1159	6 70-130	***************************************		**********	<del>, , , , , , , , , , , , , , , , , , , </del>			
Surrogate: 1-Chlorooctadecane	115%	6 70-130							

**Cardinal Laboratories** 

\*=Accredited Analyte



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

02/16/2011

Sampling Date:

02/14/2011

Reported:

02/18/2011

Sampling Type:

Soll

Project Name:

**SOUTH RED LAKE UNIT #1** 

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY COUNTY SEC. 36-T17S.R27E

#### Sample ID: UP GRADE (H100309-03)

BTEX 8021B	mg,	/kg	Analyza	ed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2011	ND	1.99	99.4	2.00	9.57	
Toluene*	<0.050	0.050	02/16/2011	ND	2.06	103	2.00	9.30	
Ethylbenzene*	<0.050	0.050	02/16/2011	ND	2.12	106	2.00	9.86	
Total Xylenes*	<0.150	0.150	02/16/2011	ND	6.30	105	6.00	10.1	
Surrogate: 4-Bromofluorobenzene (PIL	94.5	% 70-130	) .	***************************************					
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: LR					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Chloride	5600	16.0	02/16/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	02/16/2011	ND	214	107	200	3.06	
DRO >C10-C28	471	50.0	02/16/2011	ND	224	112	200	3.74	
Surrogate: 1-Chlorooctane	103 9	% 70-130						······································	
Surrogate: 1-Chlorooctadecane	99.3	% . 70-130	•						

Cardinal Laboratories

\*=Accredited Analyte



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride try SM4500CI-8 does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

**Cardinal Laboratories** 

\*=Accredited Analyte

RESCE BOTTE: Libbility and Danagers. Continuity Sability and cloth's exclusive remedy for any cloim artispy, whether board in contract or text, stand to time amount paid by others for analysis. All claims, including those for neglegative and only others cause whateveror shall be deemed without critical made in writing and recorded by Candinal elitin living (33) Gays after consistation of the applicable service. In no event shall Cardinal be label for indicated of measurement demands, indicating, without Satisfacion, bushness information, bust of use, or loss of profits incurred by Cardinal elitin, the authorities or accounts activing out of or related to the performance of the services between the colored and relative such claim's between your of the above stated reasons or otherwise. Results retain only to the samples identified above. This report stand as the reportance of cardinal laboratories.

Celey D. Kune

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

605) 393-2326 FAX (505) 393-2476 101 East Marland, Hobbs, NM 88240

									Received By:					( )	) DAN	Relinquished By: V :Yabir											
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								l		1		51	PRESERV SAMPLIN				XISTAM				1.			FOR LAB USE ONLY			
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			•										:0[2	State: Zip:				דבלשנא עופני					Th Red Lake Unit #1	Project #:			
													<del></del>	Address:				5066-946-365 :# xe3 8918-946-565 :# ac									
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ANALYSIS REQUEST										017	IIU	<b>E</b> 1, 100	SE 190							201/	: بد	Сотрапу Мате					

(alal)ini),

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Sampler - UPS - Bus - Other:

Delivered By: (Circle One)

Cool Intact

The United No

Sample Condition

2.2

# FORM C-141 FINAL

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

# Release Notification and Corrective Action

		_				<b>OPERA</b>	TOR	Initial Re	eport	X	Final F	Report			
	<u> </u>	egacy Reser				Contact									
		348, Midland		02-7848		Telephone No.									
Facility Na	me – Soutl	Red Lake U	Jnit 1			Facility Type									
Surface Ow	ner			Mineral C	wner	<del>.</del>	5-00653	3							
				LOCA	ATIO	N OF REI	LEASE								
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/West Li	t/West Line   County						
C	36	17S	27E	660'	North	ı	1650'	West	Edd	y .					
					<u> </u>										
	Latitude 32.796005 N Longitude -104.23543 W														
	NATURE OF RELEASE														
Type of Rele		Fluids ured flow line					Release 25 bbls  lour of Occurrence		Recovered 2 bbls Hour of Discovery						
Source of Re	elease Kupt	urea now nne				2/8/11 am	iour of Occurrenc	2/8/11		of Disco	overy				
Was Immedi	ate Notice (					If YES, To									
		XX	Yes [	No Not R	equired	Mike Brate	cher, NMOCD								
		efield, Talon/	LPE		,		lour 2/9/11 @15:								
Was a Water	course Read		Yes X	No		If YES, Vo	olume Impacting t	he Watercours	<b>).</b>						
					_										
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	<b>T</b>											
Describe Car	use of Probl	em and Reme	dial Actio	n Taken.*											
Frozen poly	flow line ru	ptured. Line	epaired th	ie same day.											
Describe Are	ea Affected	and Cleanup A	Action Tal	cen.*				. <u> </u>							
The affected	d area was d	lownhill four h	undred se	eventy feet (470') Insported to and N	long by	y six feet (6') v	wide. Talon/LPE	excavated the s	aturated s	soil from	the i	impacted	d aait		
to match the	surroundin	g terrain and the	ne area se	eded with an appr	oved se	ed mixture.	nd waste disposa	i facility. Taioi	/LPE bac	kiiiled t	.ne ar	ea with s	SOII		
	·			•••											
I hereby cert	ify that the	information g	ven above	e is true and comp	lete to	the best of my	knowledge and u	nderstand that	oursuant t	to NMO	CD r	ules and			
				nd/or file certain r											
				ce of a C-141 report investigate and r											
				otance of a C-141									11111		
federal, state	, or local la	ws and/or regi	ılations.												
		-	_			OIL CONSERVATION DIVISION									
Signature:		X													
	- · · · · ·					Approved by	District Supervis								
Printed Nam	e: David J.	Adkins													
Title: Distri	ct Manager	Talon/LPE, A	gent for L	egacy Reserves		Approval Da	te:	Expirat	Expiration Date:						
F-mail Addr	ess: dadkir	is@talonlpe.co	nm			Conditions o	f Annroval				_				
D man radi	255. dadien	- Janonipe.o.			-	Jonations 0	· 1 ppro tui.		Attached						
	5/23/11			575-746-8768											
* Attach Add	itional She	ets If Necess	ary												