



# CMU #035

# **CLOSURE REQUEST**

API No. 30-025-00665

Release Date: October 14, 2015

Unit Letter B, Section 24, Township 17 South, Range 32 East

NMOCD Case #: 1R-3932

June 7, 2017

# Prepared by:

Michael Burton
Environmental Department
Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
Phone: (575)964-8394

Fax: (575)393-8396

LINN ENERGY 06/07/2017

Olivia Yu Environmental Specialist NM Oil Conservation District – Division 1 1625 N French Drive Hobbs, NM 88240

RE: Linn Energy CMU B #035 Truck Spill

**Closure Request** 

UL/B, Section 24, T17S, R32E

API No. 30-025-00665

NMOCD Case #: 1R-3932

NMOCD Score: 0

Ms. Yu,

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located south of Maljamar, NM, in Lea County. On October 14, 2015, the spill resulted from an illegal unloading of produced water on the ground. An initial C-141 was submitted to the NMOCD on October 20, 2015, and approved on October 21, 2015 (Appendix I).

## **Site Activities**

On October 19, 2015, DFSI personnel were on site to obtain samples within the leak area. Four samples were obtained and field sampled for chloride levels, as well as BTEX (Appendix II). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, resulting in chloride and TPH concentrations that decreased to below regulatory limits at 1' bgs. BTEX concentrations were below regulatory guidelines throughout (Appendix III).

As this location site was no longer in active production, DFSI personnel completed reclamation activities by removing the caliche pad and underlying topsoil (Appendix IV). After the excavation was completed, the excavation was backfilled with the removed caliche. The remainder of the excavation was backfilled with the excavated topsoil to ground surface and contoured to the surrounding area. As per SLO requirements, the site was seeded with a blend of native vegetation, of which did not include lovegrass within the LPC seed mix (Appendix V).

LINN ENERGY 06/07/2017

## Conclusion

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer and Chevron Trend Map, the average depth to groundwater is approximately 125 ft bgs. Therefore, no eminent danger of groundwater impact or threat to life is anticipated (Appendix VI). Based on the report and work completed, DFSI, on behalf of Linn, submits the final C-141 (Appendix VII) and respectfully requests the closure of this regulatory file.

Please feel free to contact me with any questions concerning this closure request.

Sincerely,

Michael Burton

Environmental Operations Director | Diversified Field Service, Inc.

206 West Snyder | Hobbs, NM 88240

Office: (575)964-8394 | Mobile: (575)390-5454

Fax: (575)964-8396 | Email: mburton@diversifiedfsi.com

cc Amber Groves, SLO

Michael Burton

Appendices: Initial C-141

Soil Data

**Laboratory Analysis** 

Site Photos

Seeding Documentation

**Groundwater Study** 

Final C-141

# Appendix I

INITIAL C-141

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141

Revised August 8, 2011

1220 South St. Francis Dr. Santa Fe, NM 87505

Oil Conservation Division

			Relea	ase Notifica	tion	and Cor	rective Ac	tion				
					(	<b>OPERAT</b>			✓ Initial	Report		Final Report
		Linn Operati		M 99240			E.L. Gonzales	720				
		nder Blvd E B #35 Truck		VI 88240		Facility Typ	No. 575-738-17 e Injection	/39				
Surface Own			~p	Mineral Ov		i welling Typ	• injeevion		A DI No	. 30-025-0	00665	
Surface Ow	ilei redei	aı		<u>'</u>					AFINO	. 30-023-	00003	
Unit Letter	Section	Township	Range	Feet from the		OF REL	EASE Feet from the	Fact/V	Vest Line	County		1
В	24	17S	32E	660		North	1980		East	County	Lea	
				Latitude 32.825	54471]	Longitude	-103.7177887					
				NATU	RE C	F RELE						
Type of Relea	ase Produc	ed Water / BS				Volume of 10bbls	Release 50 bbls	/	Volume R	Recovered	0/0	
Source of Rel	ease Vac	Fruck unloade	d on to gr	ound			lour of Occurrenc	e		Hour of Di 5 1:00pm		y
Was Immedia	te Notice (		Yes [	] No ☐ Not Rec	quired	If YES, To	Whom?			•		
By Whom?						Date and H						
Was a Watero	course Reac	ched?	Yes 🗵	No		If YES, Vo	lume Impacting t	he Wate	ercourse.			
If a Watercou	rse was Im	pacted, Descr	ibe Fully.	*								
							RECEIVE	D				
							By JKeyes	s at i	7:37 ar	n, Oct	21,	2015
	nway. I ther	n pulled up to		n Taken.* At appro ound where the spil								
Describe Are Sheriffs were		and Cleanup A	Action Tal	ken.* The spill ran	south o	f the CMU 3	5 approximately 3	800 Ft. a	about 50-80	barrels of	fluid w	vas spilt.
regulations al public health should their co or the environ	I operators or the envir perations h nment. In a	are required to ronment. The lave failed to a	o report an acceptand adequately OCD accep	e is true and comple nd/or file certain re- ce of a C-141 repor v investigate and re- otance of a C-141 re-	lease no t by the mediate	otifications as e NMOCD m e contaminati	nd perform correct arked as "Final Ro on that pose a thro	tive act eport" d eat to gi	ions for rele loes not reli ound water	eases which eve the ope , surface w	h may e erator c vater, h	endanger of liability uman health
	8	h) /	,				OIL CONS	SERV	ATION	DIVISI	<u>ON</u>	
Signature:	4	ngoles	/						Jamit	bH		
Printed Name	E.L. Go	nzales			1	Approved by	Environmental S <sub>I</sub>	pecialis	t: //ama	- ruge		
Title: Produ	ction Super	visor			1	Approval Dat	10/21/2015 ee:		Expiration 1	Date: 12/2	1/2015	
E-mail Addre	ss: elgonza	ales@linnener	gy.com			Conditions of				Attache	d□	
Date: 10/20	0/2015		Phone	: 505-504-8002			amples required. NMOCD guideling		te and	1RP 393	_	
		s If Necessa		. 202 201 0002			otos of remediation		red	1		

# Appendix II

SOIL DATA

					_				
Depth	CI-	PID	Lab Cl-	GRO	DRO	В	Т	E	X
SS	554	2.9							
1'	47	0.3	<16	<10	<10	<0.05	<0.05	<0.05	<0.15
2'	87	2.6	32	<10	<10	<0.05	<0.05	<0.05	<0.15
				SI	P2				
Depth	CI-	PID	Lab Cl-	GRO	DRO	В	т	E	х
SS	543	23.6	560	<10	42.4	<0.05	<0.05	<0.05	<0.15
1'	56	0.5	80	<10	<10	<0.05	<0.05	<0.05	<0.15
				CI	23				
Donth	CI	DID	Lah Cl		DRO	D	_	_	v
Depth	CI-	PID	Lab Cl-	GRO	DKO	В	Т	E	Х
SS	570	8.4							
1'	60	1.7	32	<10	<10	<0.05	<0.05	<0.05	<0.15
2'	86	0.9	80	<10	12.5	<0.05	<0.05	<0.05	<0.15
				SI	<b>9</b> 4				
Depth	CI-	PID	Lab Cl-	GRO	DRO	В	Т	E	Х
SS	1,606	28.2							
1'	138	1.5	48	<10	<10	<0.05	<0.05	<0.05	<0.15
2'	527	0.9	464	<10	<10	<0.05	<0.05	<0.05	<0.15

# Appendix III

# **LABORATORY ANALYSIS**



October 22, 2015

BOB AKIN LINN OPERATING-HOBBS 2130 W. BENDER HOBBS, NM 88240

RE: CMU #35

Enclosed are the results of analyses for samples received by the laboratory on 10/19/15 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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



LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015

Reported: 10/22/2015 Project Name: CMU #35

Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

## Sample ID: SAMPLE POINT 1 @ 1' (H502716-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	85.6-13	7						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	<10.0	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	103 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	109 9	52.1-17	6						

Cardinal Laboratories \*=Accredited Analyte

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LINN OPERATING-HOBBS **BOB AKIN** 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015 Reported:

10/22/2015

Project Name: CMU #35 Project Number: NONE GIVEN Project Location: **NOT GIVEN** 

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

## Sample ID: SAMPLE POINT 1 @ 2' (H502716-02)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 85.6-13	7						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	<10.0	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	89.3	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	95.5	% 52.1-17	6						

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LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015 Reported: 10/22/2015

Reported: 10/22/2015
Project Name: CMU #35
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

# Sample ID: SAMPLE POINT 2 @ SURFACE (H502716-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	< 0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	< 0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 85.6-13	7						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
				ND	215	107	200	1.74	

Surrogate: 1-Chlorooctadecane 88.4 % 52.1-176

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LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015

Reported: 10/22/2015
Project Name: CMU #35
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

# Sample ID: SAMPLE POINT 2 @ 1' (H502716-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	85.6-13	7						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	<10.0	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	84.0	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	88.9	% 52.1-17	6						

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LINN OPERATING-HOBBS **BOB AKIN** 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015 Reported:

10/22/2015

Project Name: CMU #35 Project Number: NONE GIVEN Project Location: **NOT GIVEN** 

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

## Sample ID: SAMPLE POINT 3 @ 1' (H502716-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 85.6-13	7						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	<10.0	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	79.0	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	85.5	% 52.1-17	6						

#### Cardinal Laboratories \*=Accredited Analyte

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LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015

Reported: 10/22/2015 Project Name: CMU #35

NONE GIVEN

Project Location: NOT GIVEN

Project Number:

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

## Sample ID: SAMPLE POINT 3 @ 2' (H502716-06)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 85.6-13	7						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	12.5	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	79.5	% 47.2-15	7						
G 1 CH 1	05.1	0/ 53.1.17							

Surrogate: 1-Chlorooctadecane 85.1 % 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015

Reported: 10/22/2015
Project Name: CMU #35
Project Number: NONE GIVEN

Sampling Date:

10/16/2015

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Project Location: NOT GIVEN

## Sample ID: SAMPLE POINT 4 @ 1' (H502716-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 85.6-13	7						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/20/2015	ND	201	100	200	2.40	
DRO >C10-C28	<10.0	10.0	10/20/2015	ND	215	107	200	1.74	
Surrogate: 1-Chlorooctane	82.9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	87.5	% 52.1-17	6						

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LINN OPERATING-HOBBS BOB AKIN 2130 W. BENDER HOBBS NM, 88240

Fax To: (575) 738-1740

Received: 10/19/2015 Reported: 10/22/2015

10/22/2015 CMU #35

Project Number: NONE GIVEN Project Location: NOT GIVEN

Project Name:

Sampling Date: 10/16/2015

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Jodi Henson

## Sample ID: SAMPLE POINT 4 @ 2' (H502716-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2015	ND	2.17	108	2.00	0.0254	
Toluene*	<0.050	0.050	10/21/2015	ND	1.97	98.7	2.00	0.668	
Ethylbenzene*	<0.050	0.050	10/21/2015	ND	1.94	97.2	2.00	1.19	
Total Xylenes*	<0.150	0.150	10/21/2015	ND	6.37	106	6.00	1.45	
Total BTEX	<0.300	0.300	10/21/2015	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 85.6-13	7						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	10/20/2015	ND	352	88.0	400	12.8	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/21/2015	ND	207	104	200	4.56	
DRO >C10-C28	<10.0	10.0	10/21/2015	ND	210	105	200	6.00	
Surrogate: 1-Chlorooctane	81.5	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	87.0	% 52.1-17	6						

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## **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

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Celeg D. Freene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

	Colon Inch	
Project Manager:	P.O. #:	
Address:	Company: Lian Operation	
City: State:	Zip: Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	er: City:	
Project Name: Linn	State: Zip:	
Project Location of MAN 3.5	Phone #:	
4.7	Fax#:	
- 1	PRESERV. SAMPLING	
Lab I.D. Sample I.D.	UDGE HER: ID/BASE: E/COOL HER:	Chlond BTEX TPH
1 Sample Printile 1	## 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	X X X
1	G 1 V V 41000	×
3 < 00 Point 2 0 Surface	6	* X X X
4 200 Point 20 1	6-	×
1	() 1 ()	×
10 Company 30 2	1 1 1 ) JEROM	3
7 Sand 10 7	M65012 / / / / / / / /	* × × ×
8 Sample Mist 1/0 2.		**************************************

Sample Condition
Cool Intact
Pyes Pyes
No No

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Relinquished By

Relinquished By:

Time:

Received By:

Phone Result: Fax Result: REMARKS:

☐ Yes

□ No Add'l Phone #:

Icrenshaw diversified is i com

malves (a)

onputherson @

@mail

# Appendix IV

**SITE PHOTOS** 

# CMU #035

Photo Page





Blending soil on pad for reclaim



Location reclaimed before seeding



Location with evidence of tank spill



Flipping and tilling location



Seeding pasture area where tank spilled- after blending



Area seeded, reclaimed



Seeding reclaimed area on old pad



Area seeded, reclaimed



Area seeded, reclaimed

# Appendix V

# **SEEDING DOCUMENTATION**

Curtis and Curtis, Inc. 4500 North Prince Clovis, NM 88130 Phone: (575) 762-4759 www.curtisseed.com

Diversified Construction 1/2 Acre LPC Mix 1-1/2 Acre Bag @ 18.61 Bulk Pounds Job: CMU #35

# Lot#; M-13361-2

Item Plains Bristlegrass VNS		Origin	Purity	Germ	Dormant	Tota, Germination	Test Date	Total PLS Pounds 2.50	
		Oklahoma	13.99%	15.00%	81.50%	96.00%	03/15		
Sideoats Grama El Reno	ı	Texas	4.57%	98.00%	0.00%	98.00%	09/15	2.50	
Little Bluestem Aldous		Missouri	8.48%	91.00%	4.00%	95.00%	09/15	1.50	
Big Bluestem Kaw		Missouri	17.34%	86.00%	7.00%	93.00%	06/15	3.00	
Coreopsis Plains		Colorado	1.99%	847.00%	6.00%	90.00%	09/15	1.00	
Sand Dropseed VNS		New Mexico	2.80%	34.00%	62.00%	96.00%	06/15	0.50	
Four Wing Saltb VNS	ush	New Mexico	7.35%	22.00%	39.00%		04/15	2.50	
Other Crop: Weed Seed: Inert Matter:	0.06 0.02 15.60	% This	Bag Weigh	gs For This	k Prunde	Total Bulk Por	ınds:	19	

# Appendix VI

**GROUNDWATER STUDY** 



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is

Code

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) closed)

(In feet)

POD Sub-

Q Q Qbasin County 64 16 4 Sec Tws Rng

X

(NAD83 UTM in meters)

Water DepthWellDepthWater Column

1 3 1 24 17S 32E 619192 3632296

Average Depth to Water:

Minimum Depth: Maximum Depth:

Record Count: 1

POD Number

RA 11911 POD1

PLSS Search:

Section(s): 13, 14, 23, 24, Township: 17S 25, 26

Range: 32E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

6/6/17 2:52 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a	(R=POD replaced, O=orphai C=the file		ıarte	ers a	are !	1=NV	/ 2=NI	E 3=SW	4=SE)					
water right file.)	closed)	(quarters are smallest to largest)						rgest)	(NAD8	3 UTM in meters	s) (I:	(In feet)		
		POD		_	_	_								
POD Number	Code	Sub-	County			Q 4		Twe	Rng	X	Y	DepthWellDeptl		ater
L 02770	Couc	L	LE	04	10		18		33E	621836	3634093*	216	179	37
<u>L 02770 S2</u>		L	LE	2	2	3	18	17S	33E	621338	3633583*	214	184	30
<u>L 02770 S3</u>		L	LE	2	2	3	18	17S	33E	621338	3633583*	220	202	18
<u>L 03726</u>		L	LE	1	2	2	18	17S	33E	621930	3634400*	208	188	20
L 12974 POD1		L	LE	3	4	3	18	17S	33E	621233	3632940	140	130	10
RA 11936 POD1			LE	1	4	1	19	17S	33E	621246	3632321	92		
RA 11937 POD1			LE	1	4	1	19	17S	33E	621244	3632281	95		
RA 11957 POD1			LE	3	4	1	19	17S	33E	621177	3632200	55		
										I	Average Depth to	176 feet	t	
										Minimum Depth:			130 feet	
											202 feet	t		
Record Count: 8														
PLSS Search:														

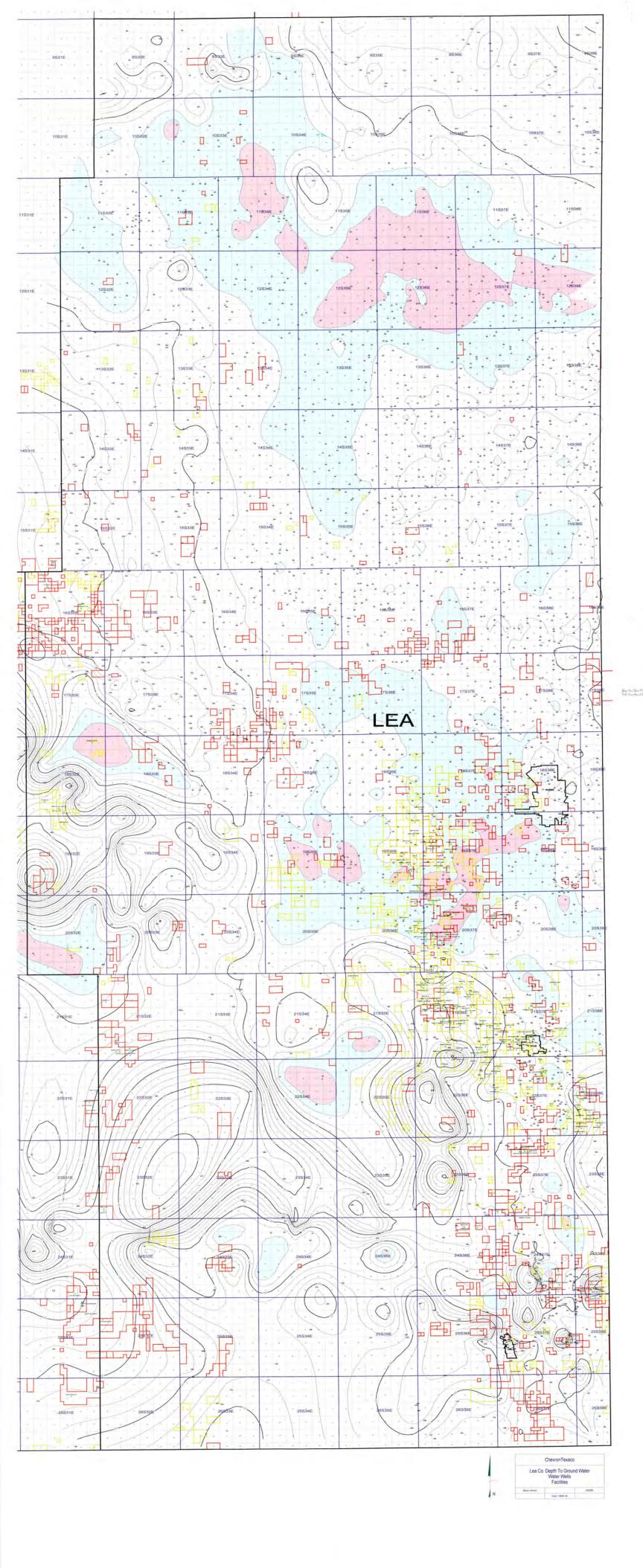
Section(s): 18, 19, 30 Township: 17S Range: 33E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/6/17 2:52 PM

WATER COLUMN/ AVERAGE DEPTH TO



# Appendix VII

FINAL C-141

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 5. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV

# State of New Mexico **Energy Minerals and Natural Resources**

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr.

Submit 1 Copy to appropriate District Office in accordance with 19.15,29 NMAC.

1220 S. St. Fran	icis Dr., Santa	1 Fe, NM 8/30:	<u>,                                      </u>	Sa	anta F	e, NM 875	05						
			Rele	ease Notific	catio	n and Co	rrective A	ction					
						OPERA'	ΓOR	∏ In	itial Report	$\boxtimes$	Final Repor		
Name of Co	ompany: I	Linn Energy				Contact: Aaron Hickert							
		der, Hobbs,		10		Telephone No. 432-363-9496							
Facility Na	me: CMU I	B #035 Truc	k Spill			Facility Typ	e: Injection						
Surface Ow	ner: State			Mineral C	)wner:	65		API	No. 30-025-0	00665			
							EACE	1_:					
Unit Letter	Section	Township	Range	Feet from the		DN OF RELEASE th/South Line   Feet from   East/West Line   County							
B 24 17S 32E 660					1	North	1980	East	Lea	1 -			
				Latitude: 32.8	325447	71 Longitude	:: -103.7177887						
						OF REL							
Type of Rele	ase: Produce	ed Water / BS		IVAI	UICE	Volume of Release: 50 bbls / Volume Recovered: 0 bbls /							
1							10 bbls			0 bbls			
Source of Re			nloaded			10/14/2015	Date and Hour of Occurrence Date and Hour of Discovery 10/14/2015 1:00 PM						
Was Immedia	ate Notice G		Yes [	No Not Ro	equired	If YES, To Whom?							
By Whom?						Date and Hour:							
Was a Water	course Read	hed?	Yes 🛚	No		If YES, Volume Impacting the Watercourse.							
If a Watercou	iree was Imr	nacted Descri	ibe Fully *	*									
Describe Cau	se of Proble	m and Remed	dial Action	n Taken.*									
Noticed prod	uced water r	unning off to	the highw	vay. The spill was	s cause	d by a vacuum	truck that had ill	egally unloaded	a load on the	ground.			
Describe Are													
				ite to obtain samp									
				ere performed using confirmation, res									
bgs. BTEX c	oncentration	ns were below	v regulator	ry guidelines thro	ughout.	As this locati	on site was no lor	ger in active pro	duction, DFS	I persor	nnel		
bgs. BTEX concentrations were below regulatory guidelines throughout. As this location site was no longer in active production, DFSI personnel completed reclamation activities by removing the caliche pad and underlying topsoil. After the excavation was completed, the excavation was backfilled										s backfilled			
with the removed caliche. The remainder of the excavation was backfilled with the excavated topsoil to ground surface and contoured to the surrounding area. As per SLO requirements, the site was seeded with a blend of native vegetation, of which did not include lovegrass within the LPC seed mix.													
area. As per	SLO require	mems, me su	.c was seei	acu wiiii a bichu (	ot matry	e vegetation, t	n which did not h	iciude tovegrass	within the Li	'C seeu	mix.		
				is true and comp									
				id/or file certain re									
public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health													
or the enviror	iment. In ad	ldition, NMO	CD accept	tance of a C-141 i									
federal, state,	or logal law	s and/or legy	lations.	1									
	$\langle \langle \langle \langle \rangle \rangle \rangle$			4			OIL CONS	SERVATIO:	<u>N DIVISIO</u>	<u>NC</u>			
Signature:			W	5	- 1								
Printed Name	: Aaron Hic	kert		<del></del>		Approved by Environmental Specialist:			at:				
Title: Sr EH&	S Represen	tative				Approval Dat	Approval Date: Expiration			Date:			
12 21 + 12									De sa trai				
E-mail Addre	ss: anickert(	@unnenergy.	zom		-	Conditions of	Approval:		Attached				

Date:

<sup>05/31/2017</sup> Phone: 432-363-9496 \* Attach Additional Sheets If Necessary