LINN Energy

Linn Energy Turner B #7

CLOSURE REPORT

API No. 30-015-05185

BLM Event #NMLC089395B

2RP-2176

Release Date: 08/1/11-01/27/14

Unit Letter D, Section 05, Township 17 South, Range 31 East

May 28, 2014

Prepared by:

Environmental Department
Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

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Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Turner B #7

1 BACKGROUND AND PREVIOUS WORK

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

The site is located southwest of Maljamar NM, Unit letter 'O', sec. 17, T17S R31E, in Eddy County. On August 01, 2011 The BLM filed an "Undesirable Event Form" number **11NU10TG** (Appendix1) with the assigned case number of NMLC029395B. This event was as a result of the construction crew, building a well pad for the Lee Federal #42 for Apache striking a buried fiberglass flowline for the Turner B #7 well. (Figure). This caused a produced water spill in the amount of 10bbls. There was approximately 2 bbls recovered. The line was repaired however, the excavated topsoil was inadvertently placed on a reserve of topsoil, thereby contaminating it. DFSI was retained to address the remediation of this site.

During the remediation of the aforementioned spill and excavation of the impacted stockpile, there was a subsequent 2" fiberglass line strike that induced an 18 bbls produced water spill. A vacuum truck was utilized to recover most of the fluids lost (15bbls). Most of the fluids were contained in the previously excavated area. However, there was nominal amount of impact to pasture area. A form C-141 was submitted to the NMOCD on January 28, 2014 (**RP-2176**). (Appendix I)

DFSI personnel conducted a groundwater research utilizing U.S. Geological Survey records and NM Office of the State Engineer. It was determined that there are no records of groundwater in the immediate township-range. The average depth to groundwater for surrounding areas is ~236 ft. (Appendix III).

2 CORRECTIVE ACTION PLAN

On October 31, 2013 DFSI personnel were on site to assess the leak area. The area had been previously excavated by a former contractor to prevent further impact and repair the flowline. However, the impacted soil that was excavated was placed on a reserve stockpile of topsoil as can be seen in photos. DFSI personnel established 2 sample points at surface. Representative samples were sent to a commercial laboratory for analyses. SP1 returned chloride results of 6480 m/kg, BTEX <.300 mg/kg, GRO <10.0 and **DRO** of >25.2 mg/kg.
On November 06, 2013 DFSI personnel revisited the site, and delineated the site using a hand auger and Mini RAE Photoionization Detector (PID). The site was delineated at 1ft. bgs. intervals until Chloride analyses returned acceptable levels. Representative samples were retrieved at SP1, 11ft. bgs and at SP2, 3ft. bgs., and sent to a commercial laboratory for analyses. For SP1

the chloride levels returned acceptable levels at 432 mg/kg, likewise for SP2 the chloride level results were 416 mg/kg. The **BTEX**, **GRO** and **DRO** were non- detect. (Appendix IV).
Photographs of site activities can be viewed in Appendix II.

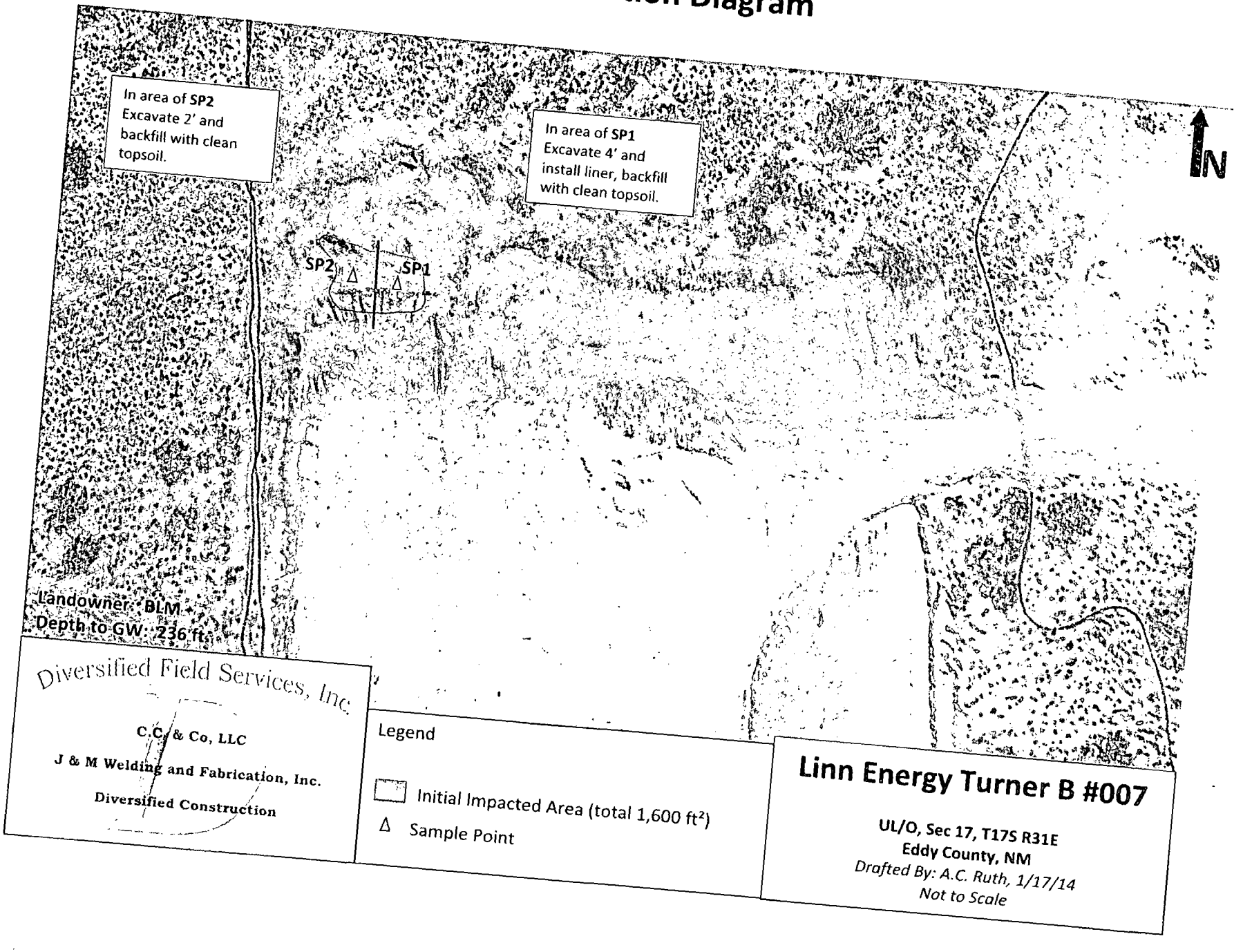
On December 20, 2013 DFSI submitted a written request to NMOCD and NM BLM to excavate the area of SP1 to 4ft. bgs., install a 20 mil. liner, and to excavate the area of SP2 to 2 ft. bgs., and backfill .
On January 27, 2014 DFSI personnel revisited the site to delineate the site for the second incident. Field analyses for four sample points returned acceptable levels of chloride for all sample points with one exception; SP2 chloride results were 4248 mg/kg (Appendix IV).
From January 27th thru February 05, 2014 there was an additional 120 tons of impacted soils removed to an NMOCD approved facility from the second incident as evidenced by the additional excavation activity.

3 CONCLUSION

On February 03, 2014 SP2 was also excavated to 4ft. bgs., and included in the lined area to prevent further penetration of chloride. The entire excavation was backfilled with clean topsoil and contoured to the surrounding landscape. On February 05, 2014, DFSI personnel tilled and seeded with 50 lbs. of native vegetation, in order to establish a vegetation barrier. Thereby reducing the amount of water traveling through the vadose zone to groundwater, and restoring the area to its natural state per BLM requirements.

According to the U.S. Geological Survey and the NM Office of the State Engineer, there were no records of groundwater in the immediate vicinity, however depth to groundwater in the area averages greater than ~236 ft. bgs (Appendix III). Based on the removal of soils containing elevated chloride and visual staining at the site, DFSI, on behalf of Linn, submits the final form C-141 (Appendix V), and respectfully requests the closure of the regulatory file for the site.

Excavation Diagram



Appendix I

UNDESIRSBLE EVENT FORM-INITIAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
UNDESIRABLE EVENT INSPECTION FORM

Unique Event Number:	Date of Event:	Date Reported:
11NU108TG	08/01/2011	08/01/2011

State:	Office Code:	County:
NM	CB	EDDY

1/4 1/4:	Section:	Township:	Range:
SWSE	17	17S	31E

Reference Point (Remarks):

Case Number:	
NMLC029395B	

Operator Name:	SME:
LINN OPERATING INCORPORATED	BUREAU OF LAND MANAGEMENT

Type of Event:
SALTWATER SPILL

Volumes -	Discharged Oil:	Gas:	Water:	Other:
			10	
	Recovered Oil:	Gas:	Water:	Other:
		N/A	2	

INSPECTION OPEN DATE:	INSPECTION CLOSE DATE:
08/01/2011	08/11/2011

INSPECTOR:	COMPANY REPRESENTATIVE:
GREGSTON	DENNIS POTTER

TIMES - OFFICE:	TRAVEL:	INSPECTION:
2.00	1.00	0.50

EVENT CLASSIFICATION:
MINOR

Well or Facility ID:	Name:	Number:
300150518500S1	TURNER B	7

CAUSE OF EVENT (REMARKS):
08/01/11--during construction of the Apache, Lee Federal 42 well pad, the construction crew hit a buried fiberglass flowline for the Turner B #7 well. Construction crew had conducted a required 811 call; Linn Operating had cleared all their lines in the area but had failed to flag the active flowline from the Turner B 7. As a result, Linn Operating is taking responsibility for the spill and spill cleanup. TG.

ACTION TO CONTROL (REMARKS):
08/01/11--well shut in.

GENERAL (REMARKS):

ACTION TAKEN TO PREVENT (REMARKS):

DAMAGE DESCRIPTION (REMARKS):
08/01/11--.03 acres of stockpiled topsoil contaminated.

EXTENT OF PERSONAL INJURY (REMARKS):

INSPECTION REMARKS:
08/01/11--received notification of spill on this location from Dennis Potter, Linn Energy. During construction of Apache drilling pad for the Lee Federal 42, the construction crew dug into a Linn Operating buried fiberglass flowline off the northwest corner of the well pad. Line was in the west portion of the topsoil stock pile. An appropriate 811 call had been placed prior to building the pad (Hungry Horse contractor) and Linn had cleared all lines within the staked pad area, but had not cleared lines outside of that area. Line hit is just outside of staked well pad area. As a result, Linn Operating is taking the responsibility for the spill cleanup of this spill. No archeology issues due to clearance required for new pad. 08/03/11--onsite to assess spill. Pad is built. Spill is in the middle of the topsoil stockpile on western side. Whoever excavated the line, picked up the spill slop and dumped up on the topsoil stockpile above the spill, thereby contaminating a great deal of viable topsoil. Line has been repaired. GPS'd spill perimeter; perimeter includes contaminated portion of topsoil stockpile. Need to speak to Potter about more careful placement of contaminated materials. TG. 08/11/11--well currently in drilling status. Linn will probably delay spill remediation until drilling rig moved off location. Called Potter to see which Linn Operating well he wanted to tie this spill to; he said the Turner B #7. Undesirable Event number 11NU108TG. TG.

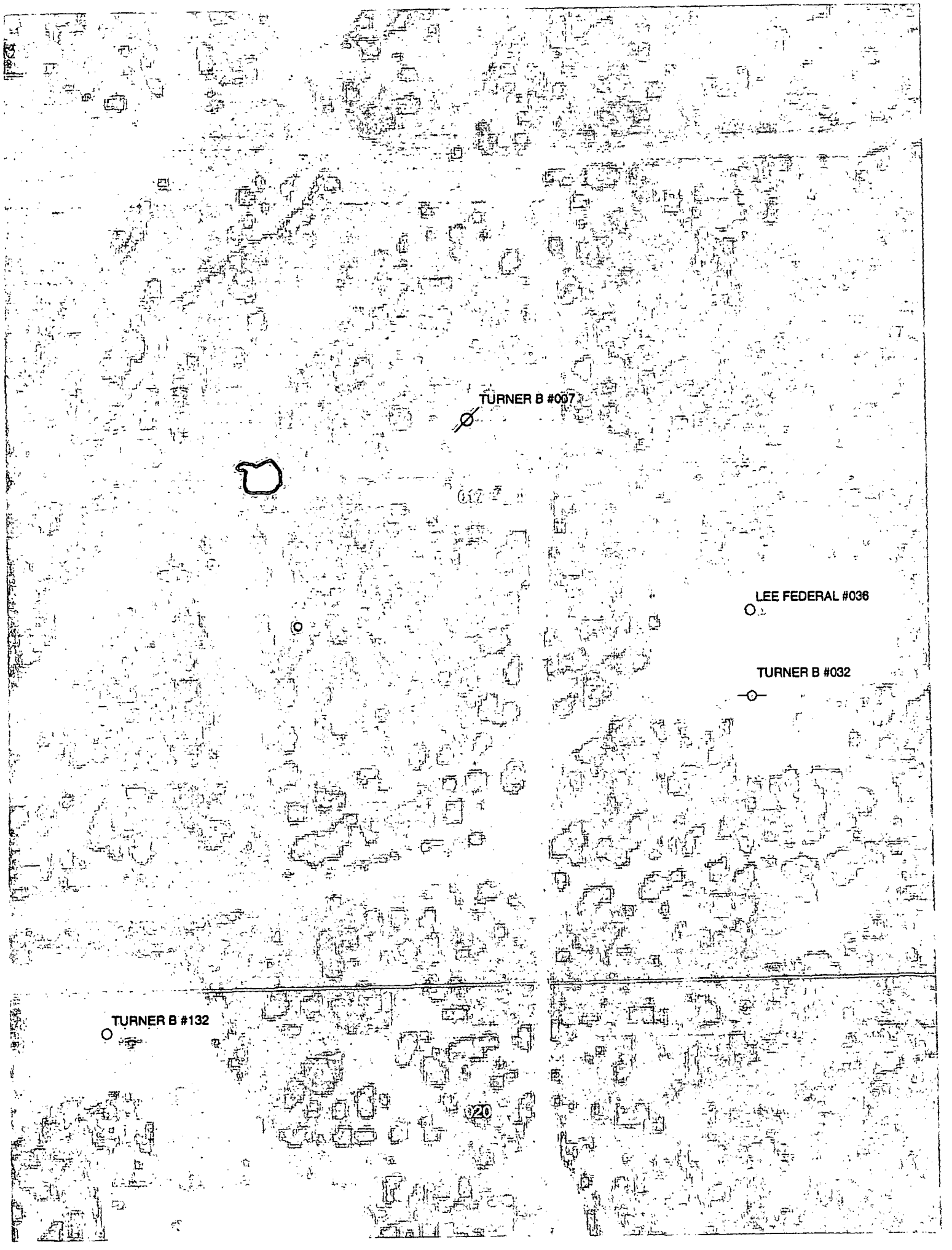
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management

UNDESIRABLE EVENT INSPECTION FORM

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION:

FOLLOW-UP REQUIREMENTS: (Circle any that apply)

NONE VERBAL LETTER INC NOTIFY P.E.T. OTHER:


TURNER B #007
LEE FEDERAL #036
TURNER B #032
TURNER B #132
20

Updated 2/25/99

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SURFACE INSPECTION FORM

Well Name:	Well #:	API #:	Well Status:
TURNER B	7	300150518500S1	WIW

Footage:	Alliquot:	Lot/Tract:	Section:	Twnship/Lat:	Rng/Long:	County:	State:
660FSL 1980FEL	SWSE		17	17S	31E	EDDY	NM

Case:	Facility ID:	Associated Rights of Way:
NMLC029395B		

Lease:	H2S Date:	H2S Gas Stream:	H2S Vapors:	H2S Radius:
NMLC029395B				

Hazard: Yes: HIGH H2S, 13945 PPM

SME:	Operator Name:
BUREAU OF LAND MANAGEMENT	LINN OPERATING INCORPORATED

Please be sure to complete for inspection

Inspector:	Company/SME Rep:	Phone #:

Date:	Type:	Activity:	Office:	Travel:	Insp:

General Remarks:

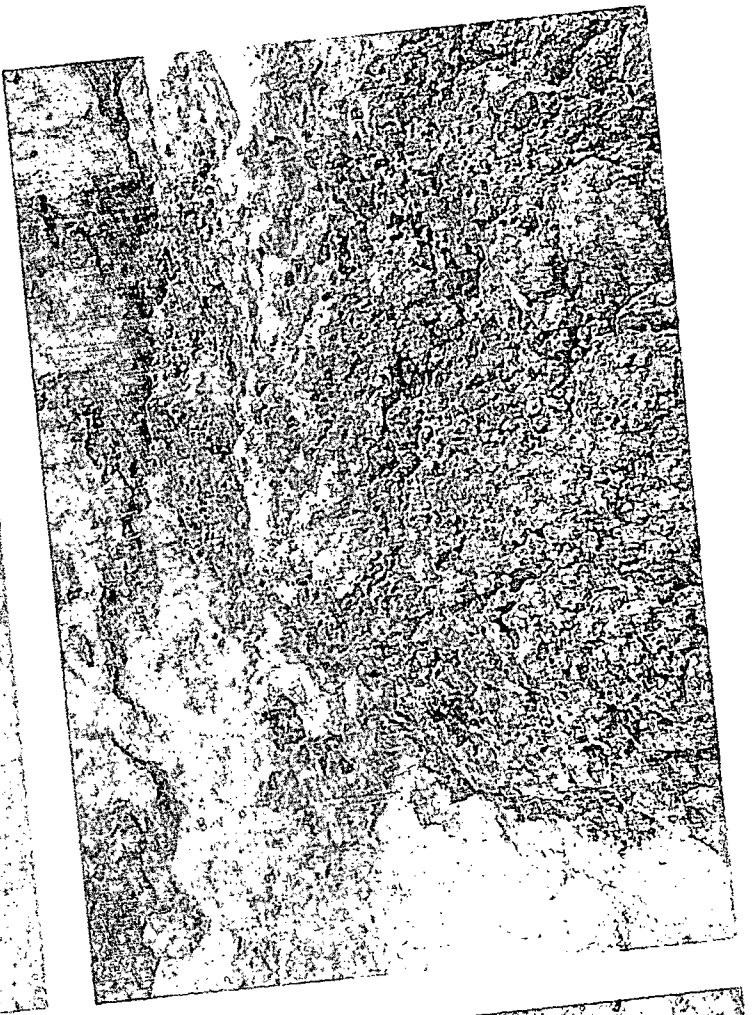
08/01/11--received notification of spill on this location from Dennis Potter, Linn Energy. During construction of Apache drilling pad for the Lee Federal 42, the construction crew dug into a Linn Operating buried fiberglass flowline off the northwest corner of the well pad. Line was in the west portion of the topsoil stock pile. An appropriate 811 call had been placed prior to building the pad (Hungry Horse contractor) and Linn had cleared all lines within the staked pad area, but had not cleared lines outside of that area. Line hit is just outside of staked well pad area. As a result, Linn Operating is taking the responsibility for the spill cleanup of this spill. No archeology issues due to clearance required for new pad. 08/03/11--onsite to assess spill. Pad is built. Spill is in the middle of the topsoil stockpile on western side. Whoever excavated the line, picked up the spill slop and dumped up on the topsoil stockpile above the spill, thereby contaminating a great deal of viable topsoil. Line has been repaired. GPS'd spill perimeter; perimeter includes contaminated portion of topsoil stockpile. Need to speak to Potter about more careful placement of contaminated materials. TG. 08/11/11--well currently in drilling status. Linn will probably delay spill remediation until drilling rig moved off location. Called Potter to see which Linn Operating well he wanted to tie this spill to; he said the Turner B #7. Undesirable Event number 11NU108TG. TG.

Author: TERRY GREGSTON Date: 08/11/2011

Follow-up Requirements: (circle any that apply) NONE VERBAL LETTER INC NOTIFY PET

Follow-up Remarks:

CORRECT PROBLEM BY:	NEXT INSPECTION:



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

RECEIVED
JAN 28 2014
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

nMLB1403652094

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating 269324	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B #7	Facility Type: Injection

Surface Owner: Federal	Mineral Owner:	API No.: 3001505185

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	17	17S	31E	660	South	1980	East	Eddy

Latitude: 32.8291123655792 **Longitude:** -103.889826027795

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 18 bbls	Volume Recovered: 15 bbls
Source of Release: 2" Fiberglass line	Date and Hour of Occurrence: 01/27/2014	Date and Hour of Discovery: 01/27/2014
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Burton-BLM Mike Bratcher- NM OCD	
By Whom? Brian Wall	Date and Hour 01/28/2014 0730	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*:

Describe Cause of Problem and Remedial Action Taken.*: On Monday 1/27/14 Isidro Montez was making his morning rounds and I got a call that Diversified had hit a 2" Fiberglass injection line. Then I closed lateral valve that feeds that line to stop line from leaking. The line had been marked with yellow pin flags. It is the opinion of the operator that he didn't see the line. All liquid and contamined soil was contained within the area were the clean up was taking place. A vacuum truck sucked up all residual liquid which were hauld off apprx 15bbls.

Describe Area Affected and Cleanup Action Taken.* : Affected area is apprx 20'X20'. The spill was a fault of the contactor digging nearby. One call was turned in and Linn clearly marked site. Contractor is responsible for cleanup and cost.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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 environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:

Printed Name: Brian Wall

Title: Construction Foreman II

E-mail Address: bwall@linnenergy.com

Date: 01/28/2013 Phone: 806-367-0645

* Attach Additional Sheets If Necessary

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date: 2-5-14 Expiration Date:

Conditions of Approval: Attached ☐

Remediation per OCD Rule & Guidelines. **SUBMIT REMEDIATION PROPOSAL NO LATER THAN:** 3-5-14

2RP-2176

Bratcher, Mike, EMNRD

From: McCracken, Theresa <TMcCracken@linnenergy.com>
Sent: Tuesday, January 28, 2014 8:43 AM
To: mburton@blm.gov; Bratcher, Mike, EMNRD
Cc: Callahan, Terry; Moreno, Laura; Butters, Thomas; Gonzales, EL; Wall, Fred; Hickert, Aaron; smcghee@diversifiedfsi.com; aruth@diversifiedfsi.com; mpatterson@diversifiedfsi.com
Subject: Linn-Turner B #7 1-27-14
Attachments: Turner 8 #7 Inj 1-27-14.pdf

Please find attached the initial C-141 for the above referenced location.

Thank you,

Theresa McCracken
Field Administrator
LINN Energy, LLC
2130 W Bender
Hobbs, NM 88240
T: 575-738-1739 / F: 575-738-1740
tmccracken@linnenergy.com

Appendix II

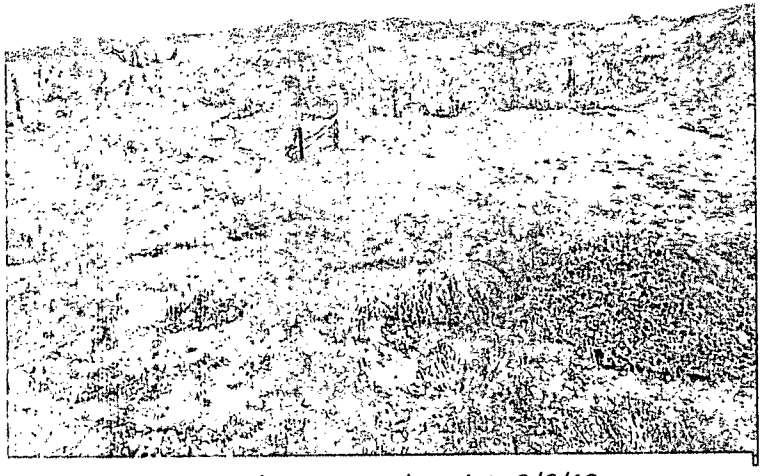
SITE PHOTOGRAPHS

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

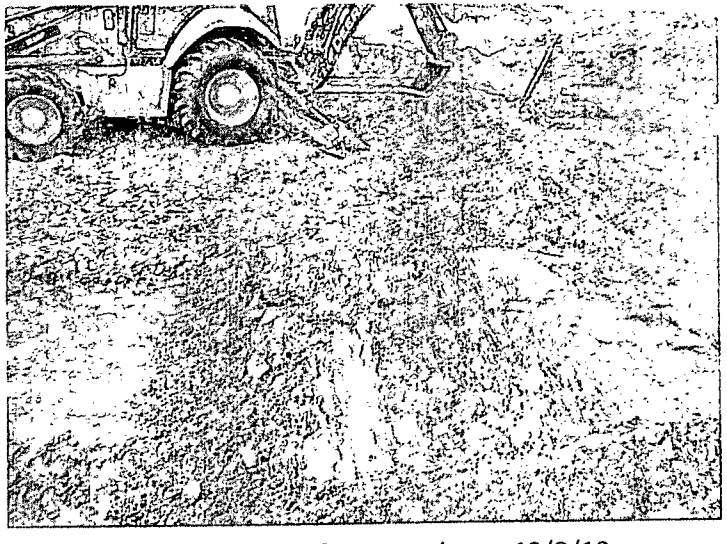
Linn Energy Turner B #7

Unit Letter O, Section 17, T17S R31E

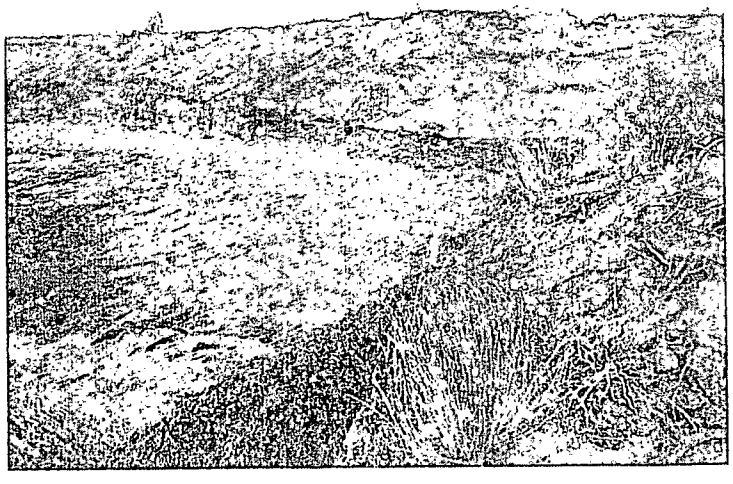
Sign marking location 8/02/13



Impacted Area-sample points 9/6/12



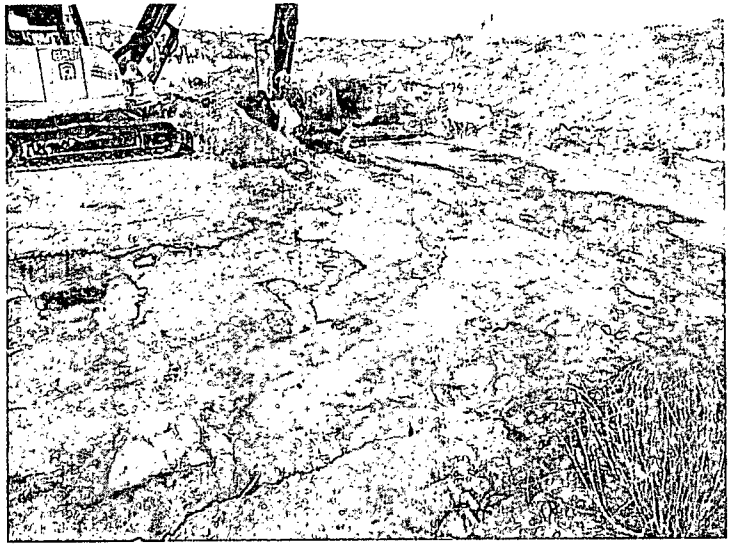
Excavation of impacted area 12/9/13



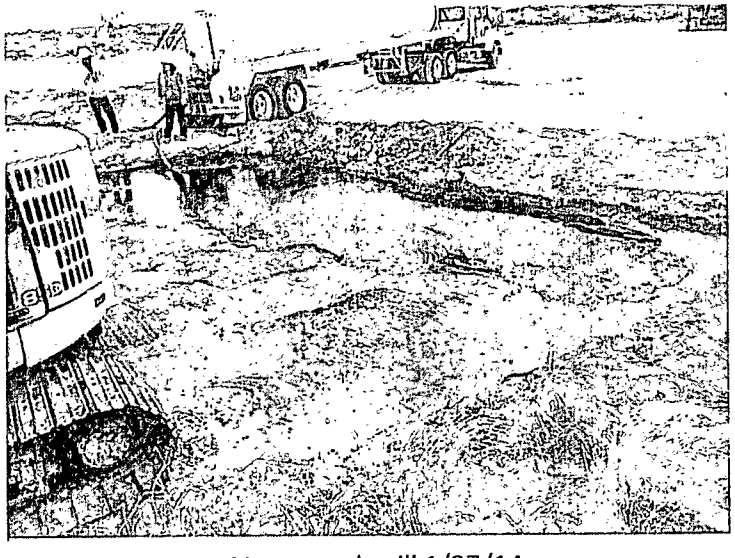
Excavated area 12/9/13

Linn Energy Turner B #7

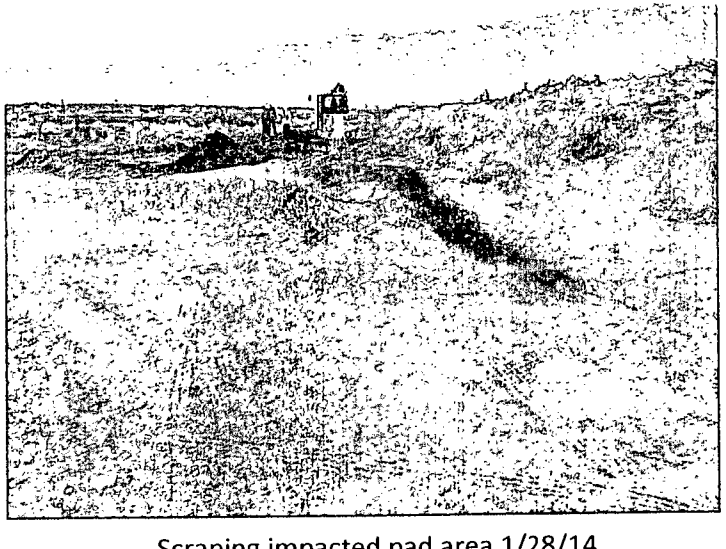
Unit Letter O, Section 17, T17S R31E



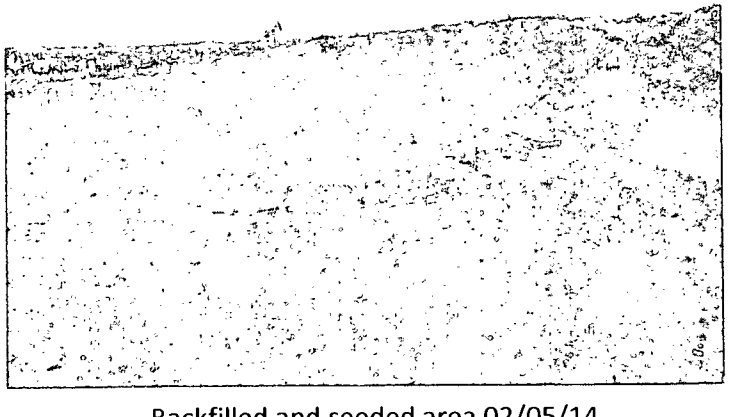
Subsequent line strike 1/27/14



Vacuumed spill 1/27/14



Scraping impacted pad area 1/28/14



Backfilled and seeded area 02/05/14

Appendix III

GROUNDWATER DATA

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

GROUND WATER SEARCH

Linn Energy Turner B #7

UL: O **Sec:** 17 **T:** 17S **R:** 31E

Groundwater Depth: 236 ft. averaged

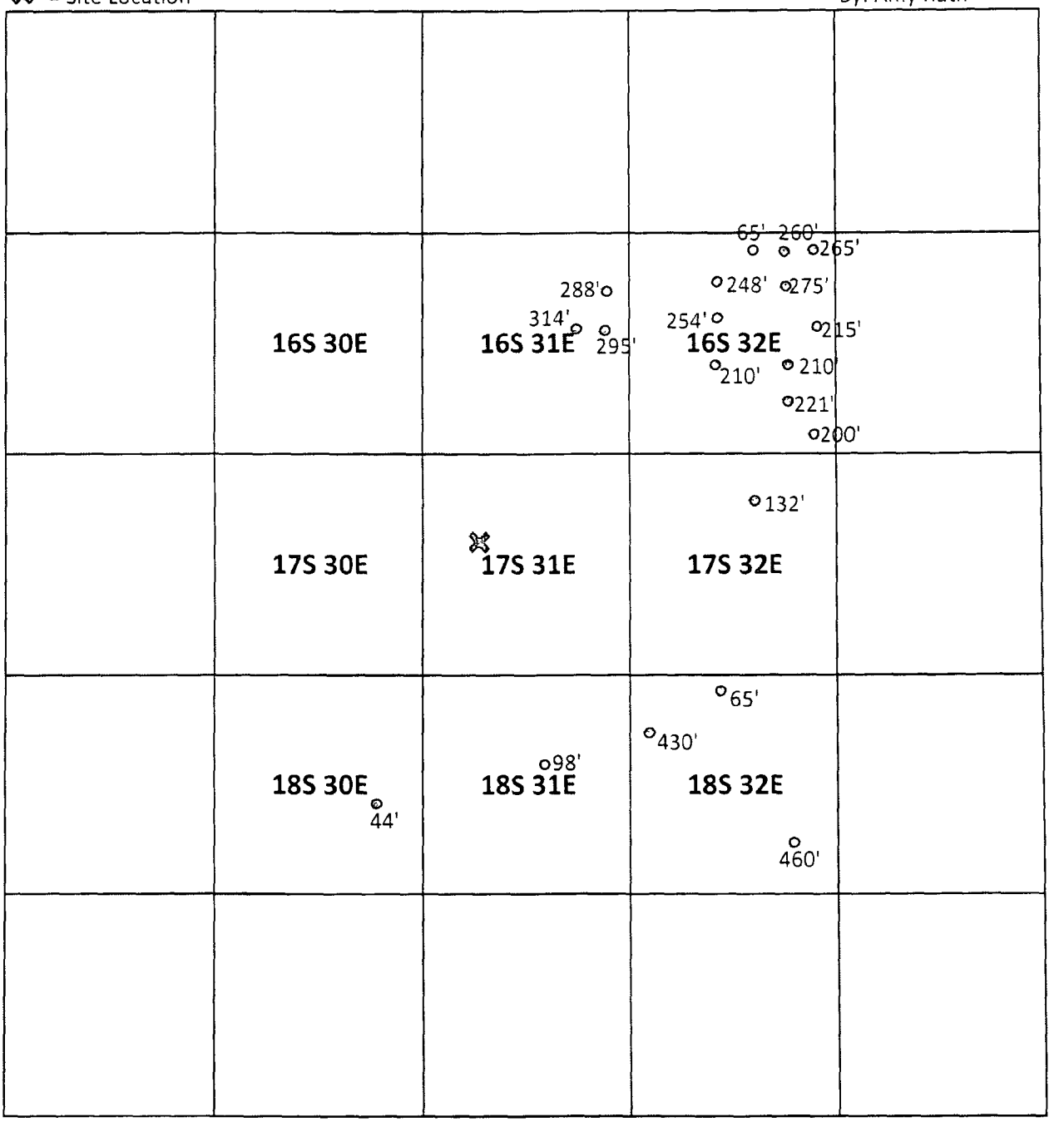
o = NM Office of the State Engineer

⊙ = U.S. Geological Survey (unknown well)

⊠ = Site Location

Date: 12/18/13

By: Amy Ruth



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

No records found.

PLSS Search:

Township 18S Range 30E

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 03435		L	LE		1	1	05	16S	31E	602954	3646955*			
L 03852	R	L	LE	2	2	2	14	16S	31E	609126	3643913*	370	314	56
L 03852 POD4		L	LE	3	4	3	13	16S	31E	609744	3642516*	333	299	34
L 03852 POD5		L	LE		3	2	13	16S	31E	610233	3643427*	328	295	33
L 03852 X	R	L	LE	4	4	4	13	16S	31E	610749	3642526*	333	299	34
L 03852 X2		L	LE	3	2	2	13	16S	31E	610536	3643733*	330	287	43
L 04671		L	LE	1	1	2	12	16S	31E	610114	3645538*	340	288	52
L 10203		L	LE	4	4	3	14	16S	31E	608334	3642495*	310		
L 10206		L	LE		2	2	23	16S	31E	609045	3642204*	280		

Average Depth to Water: 297 feet

Minimum Depth: 287 feet

Maximum Depth: 314 feet

Record Count: 9

PLSS Search:

Township 16S **Range** 31E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Tws	Rng	X	Y
L 03435	L	PRO	0	LOWE DRILLING COMPANY	LE	L 03435			Shallow	1 1	05	16S	31E	602954	3646955*

Record Count: 1

POD Search:

POD Number: L 03435

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 03852	L	MUN	375	CITY OF CARLSBAD	LE	L 03852		R	Shallow	2 2 2	14	16S	31E	609126	3643913*
					LE	L 03852 POD4			Shallow	3 4 3	13	16S	31E	609744	3642516*
					LE	L 03852 POD5		R	Shallow	3 2	13	16S	31E	610238	3643427*
					LE	L 03852 POD6				3 2	13	16S	31E	610390	3643476
					LE	L 03852 X		R	Shallow	4 4 4	13	16S	31E	610749	3642526*
					LE	L 03852 X2			Shallow	3 2 2	13	16S	31E	610535	3643733*

Record Count: 6

POD Search:

POD Number: L 03852

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 04671	L	PRO	0	JOHN H. TRIGG	LE	L 04671			Shallow	1 1 2	12	16S	31E	610114	3645538*

Record Count: 1

POD Search:

POD Number: L 04671

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 02381	L	LE		3	1	13	16S	32E	619086	3643515*	308	215	93
L 02434	L	LE				01	16S	32E	619661	3646531*	307		
L 02449	L	LE				01	16S	32E	619661	3646531*	330	265	65
L 02617	L	LE		4	4	02	16S	32E	618656	3645924*	322	270	52
L 02752	L	LE		1	3	26	16S	32E	617621	3639880*	324	280	44
L 02846	L	LE	4	2	1	11	16S	32E	617956	3648410*	328	275	53
L 02954	L	LE		2	4	03	16S	32E	617043	3646310*	120	65	55
L 02993	L	LE	3	3	2	15	16S	32E	616372	3643091*	100		
L 03631	L	LE		1	2	02	16S	32E	618240	3647126*	315	250	65
L 04930	L	LE			1	23	16S	32E	617898	3642092*	307	210	97
L 05434	L	LE				36	16S	32E	619758	3638489*	303	200	103
L 06557	L	LE		1	4	21	16S	32E	615089	3641466*	295	210	85
L 06807	L	LE	1	4	4	09	16S	32E	615358	3644383*	290	248	42
L 07823	L	LE	2	2	2	16	16S	32E	615581	3643981*	269	247	22
L 08084	L	LE	1	1	1	16	16S	32E	614157	3643970*	317	260	57
L 08084 POD4	L	LE			2	26	16S	32E	618522	3640492*	303	233	70
L 08084 POD5	L	LE	4	1	4	26	16S	32E	618425	3639788*	296	165	131
L 08084 S3	L	LE			2	26	16S	32E	618522	3640492*	305	205	100
L 08241	L	LE		4	4	02	16S	32E	618656	3645924*	316		
L 10204	L	LE	4	2	2	04	16S	32E	615524	3646993*	319		
L 10205	L	LE		4	1	08	16S	32E	613038	3645066*	330		
L 11189	L	LE	1	1	4	04	16S	32E	614932	3646391*	350		

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 02381	L	PRO	0	GULF REFINING COMPANY	LE	L 02381			Shallow	3 1	13	16S	32E	619086	3643515*

Record Count: 1

POD Search:

POD Number: L 02381

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 02449	L	PRO	0	PLYMOUTH OIL COMPANY	LE	L 02449			Shallow		01	16S	32E	619661	3646531*

Record Count: 1

POD Search:

POD Number: L 02449

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
L 02617	L	PRO	0	GULF OIL CORPORATION	LE	L 02617			Shallow	4	4	02	16S	32E	618656	3645924*

Record Count: 1

POD Search:

POD Number: L 02617

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)

(acre ft per annum) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Tws	Rng	X	Y
L 02752	L	DOL	3	W W WILLIAMS	LE	L 02752			Shallow	1 3	26	16S	32E	617521	3639880*

Record Count: 1

POD Search:

POD Number: L 02752

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
L 02846	L	PRO	0	CONTINENTAL OIL COMPANY	LE	L 02846			Shallow	4	2	1	11	16S	32E	617956	3645413*

Record Count: 1

POD Search:

POD Number: L 02846

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
L 02954	L	PRO	0	SCHOENFELD-HUNTER-KITCH DRG CO	LE	L 02954			Shallow	2	4	03	16S	32E	617043	3646310*

Record Count: 1

POD Search:

POD Number: L 02954

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Twn	Rng	X	Y
L 03631	L	PRO	0	MAGNOLIA PETROLEUM COMPANY	LE	L 03631			Shallow	1 2	02	16S	32E	618240	3647126*

Record Count: 1

POD Search:

POD Number: L 03631

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)

(acre ft per annum) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 04930	L	STK	3	JULIA WILLIAMS	LE	L 04930			Shallow	1	23	16S	32E	617698	3642092*

Record Count: 1

POD Search:

POD Number: L 04930

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)

(acre ft per annum) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 05494	L	COM	165	CITY OF CARLSBAD	LE	L 05494			Shallow		36	16S	32E	619758	3638489*

Record Count: 1

POD Search:

POD Number: L 05494

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Tws	Rng	X	Y
L 06557	L	STK	3	TAYLOR CATTLE COMPANY	LE	L 06557			Shallow	1 4	21	16S	32E	615089	3641466*

Record Count: 1

POD Search:

POD Number: L 06557

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
L 06807	L	PRO	0	SHARP DRILLING COMPANY	LE	L 06807			Shallow	1	4 4	09	16S	32E	615356	3644383*

Record Count: 1

POD Search:

POD Number: L 06807

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 07823	L	PRO	0	E R WEST ENGINEERING	LE	L 07823			Shallow	2 2 2	16	16S	32E	615561	3643981*

Record Count: 1

POD Search:

POD Number: L 07823

Sorted by: File Number

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file. C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
L 08084	L	COM	750	MOR-WEST CORPORATION	LE	L 08084			Shallow	1 1 1	16	16S	32E	614157	3643970*
					LE	L 08084 POD4			Shallow	2	26	16S	32E	618522	3640492*
					LE	L 08084 POD5			Shallow	4 1 4	26	16S	32E	618425	3639788*
					LE	L 08084 S		R	Shallow	2 1 1	36	16S	32E	619239	3639192*
					LE	L 08084 S2		R	Shallow	3 1 1	36	16S	32E	619039	3638992*
					LE	L 08084 S3			Shallow	2	26	16S	32E	618522	3640492*

Record Count: 6

POD Search:

POD Number: L 08084

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
L 08084	L	COM	750	MOR-WEST CORPORATION	LE	L 08084 S3			Shallow		2	26	16S	32E	618522	3640492*

Record Count: 1

POD Search:

POD Number: L 08084 S3

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

Record Count: 22

PLSS Search:

Township 16S Range 32E

Average Depth to Water: 224 feet

Minimum Depth: 65 feet

Maximum Depth: 280 feet

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

No records found.

PLSS Search:

Township 17S **Range** 30E

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet:

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11590 POD1		ED	2	1	3	32	17S	31E	603315	3628545	158		
RA 11590 POD3		ED	3	1	2	32	17S	31E	603932	3629260	60		
RA 11590 POD4		ED	4	1	1	32	17S	31E	603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Township: 17S Range: 31E

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twns	Rng	X	Y	Depth Well	Depth Water	Water Column
L 04019		L	LE	4	3	4	02	17S	32E	618468	3636166*	182		
L 04020		L	LE	3	3	4	02	17S	32E	618258	3636166*	200		
L 04021	R	L	LE	3	4	4	02	17S	32E	618670	3636170*	190		
L 04021 POD3		L	LE		3	4	03	17S	32E	618761	3636252*	247		
L 04021 S		L	LE	2	4	4	03	17S	32E	617262	3636354*	260		
L 13047 POD1		L	LE				11	17S	32E	618187	3635254*	140		
L 13050 POD1		L	LE	2	2	1	10	17S	32E	616463	3635945*	156	132	24
RA 08855			LE	4	1	1	10	17S	32E	616061	3635742*	153		
RA 09505			LE	2	2	1	10	17S	32E	616462	3635944	147		
RA 09505 S			LE	2	2	1	10	17S	32E	616463	3635945*	144		
RA 10175			LE		2	1	23	17S	32E	614814	3631005*	158		
RA 11684 POD1			LE	1	1	4	11	17S	32E	618216	3636124	275		
RA 11684 POD2			LE	1	1	4	11	17S	32E	618313	3636248	275		
RA 11684 POD3			LE	3	3	1	11	17S	32E	618262	3635371	275		
RA 11684 POD4			LE	1	3	2	11	17S	32E	618334	3635521	275		
RA 11684 POD5			LE	3	1	4	11	17S	32E	618353	3636047	275		
RA 11734 POD1			LE	2	2	1	10	17S	32E	616556	3635929	155		

Average Depth to Water: 132 feet

Minimum Depth: 132 feet

Maximum Depth: 132 feet

Record Count: 17

PLSS Search:

Township: 17S **Range:** 32E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

POD Search:

POD Number: L 13050 1

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y		Depth Well	Depth Water	Water Column
CP 00818			LE	1	4	26	18S	30E		599289	3620364*		240		
CP 00819			LE	2	4	32	18S	30E		594878	3618720*		150		
L 01378		L	LE	1	3	23	18S	30E		598469	3621964*		65	44	21

Average Depth to Water: 44 feet

Minimum Depth: 44 feet

Maximum Depth: 44 feet

Record Count: 3

PLSS Search:

Township: 18S Range: 30E

*UTM location was derived from PLSS - see Help

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 closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 11092		L	LE	2	3	15	18S	31E		606849	3623669*	160	98	62

Average Depth to Water: 98 feet

Minimum Depth: 98 feet

Maximum Depth: 98 feet

Record Count: 1

PLSS Search:

Township: 18S Range: 31E

*UTM location was derived from PLSS - see Help

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 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00566		LE	4	4	1	04	18S	32E	614960	3627290*	133	65	68
CP 00672		LE		4	4	07	18S	32E	612475	3624947*	524	430	94
CP 00672 CLW475398	O	LE		4	4	07	18S	32E	612475	3624947*	540	460	80
CP 00677		LE		1	1	26	18S	32E	617750	3621373*	700		

Average Depth to Water: 313 feet

Minimum Depth: 65 feet

Maximum Depth: 460 feet

Record Count: 4

PLSS Search:

Township 18S Range 32E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

POD Search:

POD Number: CP 00672 CLW475398

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
CP 00677		PRO	0	T X O PROD.	LE	CP 00677				1 1	26	18S	32E	617750	3621373*

Record Count: 1

POD Search:

POD Number: CP 00677

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

Appendix IV

LABORATORY ANALYSES

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 06, 2013

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #7

Enclosed are the results of analyses for samples received by the laboratory on 10/31/13 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 www.tceq.texas.gov/field/qa/lab_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.

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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

LINN OPERATING-HOBBS
BRIAN WALL
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	10/31/2013	Sampling Date:	10/31/2013
Reported:	11/06/2013	Sampling Type:	Soil
Project Name:	TURNER B #7	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 SURFACE (H302656-01)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2013	ND	1.90	94.9	2.00	2.12	
Toluene*	<0.050	0.050	11/05/2013	ND	1.89	94.7	2.00	2.22	
Ethylbenzene*	<0.050	0.050	11/05/2013	ND	1.90	95.2	2.00	2.41	
Total Xylenes*	<0.150	0.150	11/05/2013	ND	5.57	92.9	6.00	2.39	
Total BTEX	<0.300	0.300	11/05/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *105 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6480**	16.0	11/01/2013	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/01/2013	ND	175	87.6	200	8.35	
DRO >C10-C28	**25.2**	10.0	11/01/2013	ND	165	82.6	200	10.0	

Surrogate: 1-Chlorooctane *74.5 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *78.4 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

LINN OPERATING-HOBBS
BRIAN WALL
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	10/31/2013	Sampling Date:	10/31/2013
Reported:	11/06/2013	Sampling Type:	Soil
Project Name:	TURNER B #7	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 SURFACE (H302656-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2013	ND	1.90	94.9	2.00	2.12	
Toluene*	<0.050	0.050	11/05/2013	ND	1.89	94.7	2.00	2.22	
Ethylbenzene*	<0.050	0.050	11/05/2013	ND	1.90	95.2	2.00	2.41	
Total Xylenes*	<0.150	0.150	11/05/2013	ND	5.57	92.9	6.00	2.39	
Total BTEX	<0.300	0.300	11/05/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *106 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	11/01/2013	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/01/2013	ND	175	87.6	200	8.35	
DRO >C10-C28	<10.0	10.0	11/01/2013	ND	165	82.6	200	10.0	

Surrogate: 1-Chlorooctane *89.2 %* *63.2-140*

Surrogate: 1-Chlorooctadecane *98.2 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Linn Energy	BILL TO	
Project Manager:	Baxter Wall	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	Turner B #7	State: Zip:	
Project Location:	Eddy County	Phone #:	
Sampler Name:	Luis Gonzalez	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH	B-TEX									
†1302656																										
1	SP1 Surface	G	1			✓					✓		10/3/13		✓	✓	✓									
2	SP2 Surface	G	1			✓					✓		10/3/13		✓	✓	✓									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10/21/13	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Luis Gonzalez	Time: 1:50	Jodi Henson	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other: 9.8°C	Cool: ☐ Yes ☐ No / Intact: ✓ Yes ☐ No	(Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

#54

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 14, 2013

BRIAN WALL

LINN ENERGY

RR1, BOX 24 B

KINGFISHER, OK 73750

RE: TURNER B #7

Enclosed are the results of analyses for samples received by the laboratory on 11/08/13 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 www.tceq.texas.gov/field/qa/lab_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.

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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	11/08/2013	Sampling Date:	11/06/2013
Reported:	11/14/2013	Sampling Type:	Soil
Project Name:	TURNER B #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 11 (H302739-01)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2013	ND	1.66	83.0	2.00	12.6	
Toluene*	<0.050	0.050	11/13/2013	ND	1.68	84.2	2.00	11.8	
Ethylbenzene*	<0.050	0.050	11/13/2013	ND	1.69	84.7	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/13/2013	ND	5.13	85.4	6.00	10.6	
Total BTEX	<0.300	0.300	11/13/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *105 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	11/13/2013	ND	400	100	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/12/2013	ND	199	99.4	200	7.54	
DRO >C10-C28	<10.0	10.0	11/12/2013	ND	186	92.9	200	7.14	

Surrogate: 1-Chlorooctane *94.9 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *109 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	11/08/2013	Sampling Date:	11/07/2013
Reported:	11/14/2013	Sampling Type:	Soil
Project Name:	TURNER B #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 3 (H302739-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2013	ND	1.66	83.0	2.00	12.6	
Toluene*	<0.050	0.050	11/13/2013	ND	1.68	84.2	2.00	11.8	
Ethylbenzene*	<0.050	0.050	11/13/2013	ND	1.69	84.7	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/13/2013	ND	5.13	85.4	6.00	10.6	
Total BTEX	<0.300	0.300	11/13/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	11/13/2013	ND	400	100	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/12/2013	ND	199	99.4	200	7.54	
DRO >C10-C28	<10.0	10.0	11/12/2013	ND	186	92.9	200	7.14	

Surrogate: 1-Chlorooctane *103 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *110 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Linn energy	BILL TO	
Project Manager:	Brian Wall	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	same
Project #:	Project Owner:	City:	
Project Name:	Turner B #2	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	Miguel Gomez	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX
H3002739																	
1	SR1@11	G	1			X					X		11-6-13	2:59	X	X	X
2	SR2@3	G	1			X					X		11-7-13	7:15	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Miguel Gomez	Date: 11/8/13 Time: 4:00	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 2.4°C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: Bwall@Linnenergy.com ATruth@diversifiedfsi.com

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

#54

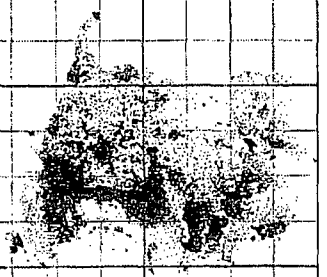
Appendix V

CORRESPONDENCE

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Turner B7 — Lawn — 1-27-14

Sample ID	g soil	g water	mL/sample	Mg/m³	CL	DO	Time
SP1 @ [illegible] 1'	16	40	10	0.9	224	0.5	11:50
SP2 @ [illegible] 1'	16	40	10	1.7	4248	0.6	10:55
SP3 @ [illegible] 6"	16	40	10	0.9	224	2.4	
SP4 @ [illegible] 6"	16	40	10	.08	199	44.5	12:00
SP1 @ 1'	16	40	10	.09	224	1.8	12:30



Appendix VI

FINAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Linn Operating, Inc.	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Turner B #7	Facility Type: Injection

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-05185

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from	East/West Line	County Eddy
O	17	17S	31E	660	South	1980	East	

Latitude 32.8291123655792 Longitude -103.889826027795

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release 18 bbls	Volume Recovered 15 bbls
Source of Release: 1" fiberglass line	Date and Hour of Occurrence 01/27/2014	Date and Hour of Discovery 01/27/2014 unknown
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher NMOCD - Mike Burton BLM	
By Whom? Brian Wall	Date and Hour: 01/28/2014 0730	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
DFSI struck a 2" fiberglass injection line. The construction foreman closed the lateral valve to prevent further leakage. The spill was contained within the previously excavated area. A vacuum truck was utilized to remove all residual fluids. There was 15 bbls of fluids removed.

Describe Area Affected and Cleanup Action Taken.*
Residual fluids remained in the previously excavated area. DFSI scraped, lined and backfilled the area, contouring to the landscape and seeding restoring the site to its natural and reclaimed state per BLM guidelines. The impacted soils were removed to an NMOCD approved facility.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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 environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Fred B Wall	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by Environmental Specialist:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linnenergy.com	Conditions of Approval:	Attached ☐
Date: 05/23/2014 Phone: 806-367-0645		

* Attach Additional Sheets If Necessary

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 04 2014
RECEIVED