



# Linn Energy JL Keel B #52

## CLOSURE REPORT

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API No. 30-015-28098

Release Date: Feb. 2011 and 09-16-2012

Unit Letter P, Section 06, Township 17 South, Range 31 East

RP# 2RP-711

2RP-1311

BLM Event# NU12206TG

August 11, 2014

Prepared by:

Environmental Department  
Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
Phone: (575)964-8394  
Fax: (575)964-8396

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# JL Keel B #52

## Introduction

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

The site is located west of Maljamar NM, Unit letter 'P', sec. 06, T17S R31E, in Eddy County. The incident at this site location was as the result of a compromised nipple located on the wellhead. This was a result of corrosion and deterioration. There was a cumulative loss of 8 bbls. of fluid leakage, of which none were recoverable. The spill was not contained to the pad area, as a result there was a significant impact to pasture area. There was approximately 11,454 sq. ft. of impact to the site area. (Figure).

On March 30, 2011 a form C-141 was submitted to the NMOCD for an unknown release around the wellhead and was assigned **2RP-711**. A form C-141 was submitted to the NMOCD on September 19, 2012, whereby the following report number was assigned **2RP-1311**. An undesirable event form was also filed with the BLM on September 16, 2012, regarding this incident, and was assigned the following event number **NU12206TG** (Appendix I). Both of the aforementioned leaks were remediated and the recap of events is as follows:

## 1 SITE ACTIVITIES

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On February 14, 2014 DFSI field personnel paid an initial visit to the site location. DFSI personnel assessed the impacted area by mapping and ascertaining sample point positions. There were Eleven (11) sample points placed in all. Surface samples were analyzed on this date confirming the extent of impact. Therefore, at the request of the BLM an Arch clearance was requested in order to remediate this site.

DFSI retained the services of Boone Arch Services of NM, LLC to perform a NMCRIS investigation. On March 26, 2014 a class III Archeological survey was conducted and returned a negative results, providing DFSI the necessary clearance to remediate the site.

On May 02, 2014 field personnel revisited the site and delineated the spill site by field testing at 1ft. bgs. intervals for Hydrocarbons and Chlorides until acceptable levels could be ascertained. SP6 and SP7 were delineated to a depth of 5 and 6ft. bgs. respectively. A representative sample was then retrieved and submitted to a commercial laboratory for confirmation. The following is a recap of the analyses:

SP1 @ 4ft. bgs. returned chloride levels of 304 mg/kg and TPH of <10 mg/kg  
SP2 @ 4ft. bgs. returned chloride levels of 176 mg/kg and TPH of <10 mg/kg  
SP3 @ 4ft. bgs. returned chloride levels of 336 mg/kg and TPH of <10 mg/kg  
SP4 @ 2ft. bgs. returned chloride levels of 80 mg/kg and TPH of <10 mg/kg  
SP5 @ 2ft. bgs. returned chloride levels of 96 mg/kg and TPH of <10 mg/kg  
SP6 @ 5ft. bgs. Auger Refusal  
SP7 @ 6ft. bgs. Auger Refusal  
SP8 @ 2ft. bgs. returned chloride levels of 80 mg/kg and TPH of <10 mg/kg  
SP9 @ 2ft. bgs. returned chloride levels of <16 mg/kg and TPH of <10 mg/kg  
SP10 @ 2ft. bgs. returned chloride levels of <16 mg/kg and TPH of <10 mg/kg  
SP11 @ 2ft. bgs. returned chloride levels of <16 mg/kg and TPH of <10 mg/kg

On June 10, 2014 DFSI personnel revisited the site in order to further delineate SP6 and SP7. Representative samples were retrieved from SP6 at 14ft. bgs. and from SP7 at 11ft. bgs. These were sent to a commercial laboratory for confirmation. The following is a recap of the analyses:

SP6 @ 14ft. bgs. returned chloride levels of 112 mg/kg and TPH of <10 mg/kg  
SP7 @ 11ft. bgs. returned chloride levels of 576 mg/kg and TPH of <10 mg/kg

On June 11, 2014 DFSI received permission from the BLM to continue with full remediation efforts. Whereby, the following site activities were performed:

The areas of SP1 thru SP5 were excavated to a depth of 2ft. bgs., and backfilled with fresh caliche. This was compacted and contoured to the surrounding pad area. The remaining areas of SP6 and SP7 were excavated to a depth of 4ft. bgs. On July 21, 2014 representative sidewall samples were taken and sent to a commercial laboratory for confirmation of the vertical delineation. The following is a recap of the analyses:

SW1 on the North side returned chloride levels of 32 mg/kg and TPH of <10 mg/kg  
SW2 on the East side returned chloride levels of <16 mg/kg and TPH of <16 mg/kg  
SW3 on the West side returned chloride levels of <16 mg/kg and TPH of <11.2 mg/kg  
SW 4 auger refusal was encountered due to the number of lines in this area.  
Having confirmed the vertical delineation this area was lined with a 20 mil. liner and backfilled with fresh topsoil. Once this was completed, together with the area of SP8 thru SP11 all were tilled and reseeded respectively. All contaminated soils were removed to an NMOCD approved facility.

Photographs of site activities can be viewed in Appendix II.

## **2 CONCLUSION**

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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 220 ft. bgs indicating no potential threat to groundwater or life forms (Appendix III). On July 14, 2014 the pasture area was reseeded with 25lbs. of native seed mixture according to BLM guidelines, thereby restoring the site. 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 files for the site.

# Site Diagram

**Linn, JL Keel B 52**

**UL/P, Sec. 6 T17S R31E**

**Eddy, NM**

*Drafted By: Lance Crenshaw*



**Spill Area:  
11,454 sq. ft.**

## Legend

- ▲ Sample Points
- ★ Source
- Above Ground Line
- - - Buried Line
- Spill

Landowner: BLM

Depth to Groundwater: 236 ft.



**Lance Crenshaw**  
GIS Technician

Soil Remediation and Ground Water Remediation  
Environmental Assessments  
Regulatory Compliance

**Environmental DFSI Services**

Office: 575-964-8394

Fax: 575-964-8396

Cell: 575-441-2359

Email: [lcrenshaw@diversifiedfsi.com](mailto:lcrenshaw@diversifiedfsi.com)



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

# Appendix I

INITIAL FORM C-141

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

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

MAR 31 2011

Form C-141  
Revised October 10, 2003

NMOCD ARTESIA

Submits copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Release Notification and Corrective Action

*n kmw 1109555366*

OPERATOR

X Initial Report ☐ Final Report

|   |                            |
|---|----------------------------|
| Name of Company Linn Energy             | Contact Dennis Potter      |
| Address PO Box 69, Loco Hills, NM 88255 | Telephone No. 575 677 2327 |
| Facility Name J L Keel B #52            | Facility Type Oil Well     |

|                   |                   |   |
|-------------------|-------------------|---|
| Surface Owner BLM | Mineral Owner BLM | Lease No. NMLC029435B<br>API 30-015-28098 |
|-------------------|-------------------|---|

LOCATION OF RELEASE

|             |         |          |       |               |                  |               |                |        |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
| P           | 6       | 17S      | 31E   |               |                  |               |                | Eddy   |

Latitude N32.8595 Longitude W103.9006 (Release Site)

NATURE OF RELEASE

|  |  |                                  |
|--|--|----------------------------------|
| Type of Release Produced Water/Hydrocarbons  | Volume of Release Unknown                        | Volume Recovered Unknown         |
| Source of Release Flow Line  | Date and Hour of Occurrence Unknown              | Date and Hour of Discovery Feb11 |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes X No <input type="checkbox"/> Not Required | If YES, To Whom?<br>N/A                          |                                  |
| By Whom? N/A   | Date and Hour N/A                                |                                  |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes X No  | If YES, Volume Impacting the Watercourse.<br>N/A |                                  |
| If a Watercourse was Impacted, Describe Fully.*<br>N/A   |  |                                  |

Describe Cause of Problem and Remedial Action Taken.\*

The release appears to be from the well head/stuffing box failure. The released fluid exited the location and entered the pasture on the south side of the location running between two sand dunes for approx 150'. The affected area has visible hydrocarbons staining and is approximately 3' x 150'. The affected area will be delineated and a work plan submitted to NM OCD and BLM for review and approval.

Describe Area Affected and Cleanup Action Taken.\*

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:

*Dennis J Potter*

Printed Name: Dennis Potter

Title: Assistant Production Foreman

E-mail Address: dpotter@linenergy.com

Date: 30Mar11

Phone: 505 206 7673

OIL CONSERVATION DIVISION

Approved by District Supervisor

*Mike Brannan*

Approval Date: 4/5/11

Expiration Date:

Conditions of Approval:

Remediation per OCD Rules &  
Guidelines. **SUBMIT REMEDIATION**

**PROPOSAL NOT LATER THAN:**

*5/5/11*

Attached ☐

*2 RP-711*

\* Attach Additional Sheets If Necessary

# OPERATOR'S COPY

Form 3160-9  
(December 1989)

Number 11TG013

Page 1 of 2

☒ Certified Mail - Return Receipt Requested  
70101370000352261375

☐ Hand Delivered Received by

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Identification

ID

Lease NMLC029435B

CA

Unit

PA

### NOTICE OF INCIDENTS OF NONCOMPLIANCE

|   |                        |                           |                 |   |                 |                |             |
|---|------------------------|---------------------------|-----------------|---|-----------------|----------------|-------------|
| Bureau of Land Management Office<br>CARLSBAD FIELD OFFICE |                        |                           |                 | Operator<br>LINN OPERATING INC.                             |                 |                |             |
| Address<br>620 E GREENE STREET<br>CARLSBAD NM 88220       |                        |                           |                 | Address<br>600 TRAVIS STREET SUITE 5100<br>HOUSTON TX 77002 |                 |                |             |
| Telephone<br>575-234-5958                                 |                        |                           |                 | Attention   |                 |                |             |
| Inspector<br>GREGSTON                                     |                        |                           |                 | Attn Addr   |                 |                |             |
| Site Name<br>J L KEEL B                                   | Well or Facility<br>52 | 1/4 1/4 Section<br>SESE 6 | Township<br>17S | Range<br>31E  | Meridian<br>NMP | County<br>EDDY | State<br>NM |
| Site Name   | Well or Facility       | 1/4 1/4 Section           | Township        | Range   | Meridian        | County         | State       |

THE FOLLOWING VIOLATION WAS FOUND BY BUREAU OF LAND MANAGEMENT INSPECTORS ON THE DATE AND AT THE SITE LISTED ABOVE

| Date                                 | Time (24 - hour clock) | Violation                    | Gravity of Violation |
|--------------------------------------|------------------------|------------------------------|----------------------|
| 03/17/2011                           | 18:00                  | NTL-3A, 43 CFR 3163.1(a)     | MINOR                |
| Corrective Action To Be Completed By | Date Corrected         | Assessment for Noncompliance | Assessment Reference |
| 04/01/2011                           |                        |                              | 43 CFR 3163.1(i)     |

#### Remarks

Operator failed to provide a written report on an undesirable event on this location within 15 days as required under NTL-3A and failed to comply with subsequent verbal requests by the Authorized Officer to provide a spill report. The following actions must be completed by 04/01/11.  
CORRECTIVE ACTION: Provide a spill report for the spill that occurred on this location. Failure (Remarks continued on following page(s).)

When violation is corrected, sign this notice and return to above address.

Company Representative Title Asst. Prod. Foreman Signature [Signature] Date 3-30-11

Company Comments

phone: 505-206-7673

### WARNING

Incidents of Noncompliance correction and reporting timeframes begin upon receipt of this Notice or 7 business days after the date it is mailed, whichever is earlier. Each violation must be corrected within the prescribed time from receipt of this Notice and reported to the Bureau of Land Management office at the address shown above. Please note that you already may have been assessed for noncompliance (see amount under "Assessment for Noncompliance"). If you do not comply as noted above under "Corrective Action To Be Completed By" you may incur an additional assessment under (43 CFR 3163.1) and may also incur Civil Penalties (43 CFR 3163.2). All self-certified corrections must be postmarked no later than the next business day after the prescribed time for correction.

Section 109(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3163.2(i)(1), provides that any person who "knowingly or willfully" prepares, maintains, or submits, false, inaccurate, or misleading reports, notices, affidavits, record, data, or other written information required by this part shall be liable for a civil penalty of up to \$25,000 per violation for each day such violation continues, not to exceed a maximum of 20 days.

### REVIEW AND APPEAL RIGHTS

A person contesting a violation shall request a State Director review of the Incidents of Noncompliance. This request must be filed within 20 working days of receipt of the Incidents of Noncompliance with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

|   |      |            |         |                  |               |
|---|------|------------|---------|------------------|---------------|
| Signature of Bureau of Land Management Authorized Officer<br><u>[Signature]</u> |      |            |         | Date<br>03/17/11 | Time<br>18:15 |
| FOR OFFICE USE ONLY   |      |            |         |                  |               |
| Number<br>51  | Date | Assessment | Penalty | Termination      |               |
| Type of Inspection<br>SV  |      |            |         |                  |               |

**Bratcher, Mike, EMNRD**

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**From:** Vernon Black [vernon@hungry-horse.com]  
**Sent:** Thursday, March 31, 2011 3:53 PM  
**To:** Bratcher, Mike, EMNRD; Terry\_gregston@nm.blm.gov; avalero@linnenergy.com; dpotter@linnenergy.com  
**Subject:** Emailing: Initial C 141 J L Keel B #52  
**Attachments:** Initial C 141 J L Keel B #52.pdf

Your message is ready to be sent with the following file or link attachments:

Initial C 141 J L Keel B #52

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
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District III  
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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 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         | Contact: Joe Hernandez      |                     |
| Address: 2130 W. Bender Hobbs, NM 88240 | Telephone No.: 575-738-1739 |                     |
| Facility Name: J.L. Keel B # 52         | Facility Type: Oil Producer |                     |
| Surface Owner: Federal                  | Mineral Owner: Federal      | API No.: 3001528098 |

#### LOCATION OF RELEASE

|                  |               |                 |              |                       |                           |                     |                        |                |
|------------------|---------------|-----------------|--------------|-----------------------|---------------------------|---------------------|------------------------|----------------|
| Unit Letter<br>P | Section<br>06 | Township<br>17S | Range<br>31E | Feet from the<br>1310 | North/South Line<br>South | Feet from the<br>60 | East/West Line<br>East | County<br>Eddy |
|------------------|---------------|-----------------|--------------|-----------------------|---------------------------|---------------------|------------------------|----------------|

Latitude: 32.85983 Longitude: -103.8998

#### NATURE OF RELEASE

|  |  |   |
|--|--|---|
| Type of Release: Oil / Produced Water  | Volume of Release: 2bbls / 6bbls                           | Volume Recovered: 0 / 0                           |
| Source of Release: Nipple on wellhead  | Date and Hour of Occurrence:<br>09/16/2012 10am            | Date and Hour of Discovery:<br>09/16/2012 10:30am |
| Was Immediate Notice Given?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required   | If YES, To Whom?<br>M. Bratcher- NM OCD Terry Gregston-BLM |   |
| By Whom? Gary Wink   | Date and Hour 09/17/2012 6:15am                            |   |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.                  |   |
| If a Watercourse was Impacted, Describe Fully.*:   |  |   |
| Describe Cause of Problem and Remedial Action Taken.*: Nipple at wellhead developed small hole due to corrosion and deterioration.   |  |   |
| Describe Area Affected and Cleanup Action Taken.*: Spill area is from wellhead west and was not contained to the pad. About 20' by 1' contaminated in pasture, in sandy area. Two main puddles on pad that are approximately 10' by 15' with a 1' by 15' path connecting the two. Further remedial action pending. |  |   |

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:  | <u>OIL CONSERVATION DIVISION</u> |                                   |
| Printed Name: Joe Hernandez  | Approved by District Supervisor: |                                   |
| Title: Production Foreman  | Approval Date:                   | Expiration Date:                  |
| E-mail Address: jhernandez@linenergy.com   | Conditions of Approval:          | Attached <input type="checkbox"/> |
| Date: 09/19/2012   | Phone: 575-942-9492              |                                   |

\* Attach Additional Sheets If Necessary

# Appendix II

## SITE PHOTOGRAPHS

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

# Linn Energy J.L. Keel B #52

Unit Letter P, Section 6, T17S R 31E



Sign marking location 2/13/14



Position of sample points 2/13/14



Position of sample points 2/13/14



Position of sample points in pasture area 2/13/14

# **Linn Energy J.L. Keel B #52**

Unit Letter P, Section 6, T17S R 31E



Installation of liner 07/09/14



Site at Completion 07/22/2014

# Appendix III

## GROUNDWATER DATA

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

# GROUND WATER SEARCH

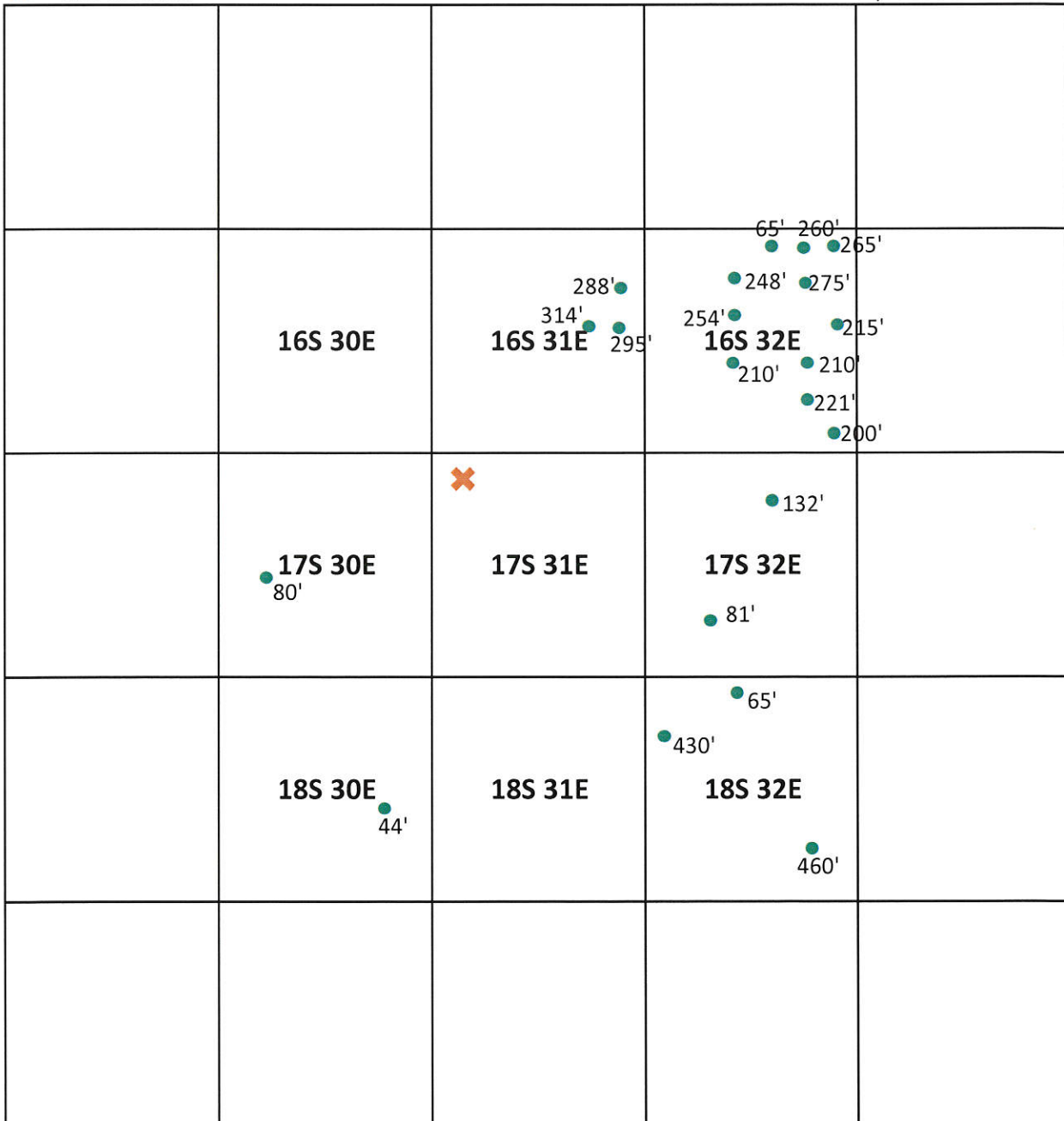
Linn Energy JL Keel B #52

UL:   P        Sec:   6        T:  17S       R:  31E 

Groundwater Depth:                     220~                     ft.

- = NM Office of the State Engineer
- = U.S. Geological Survey (unknown well)
- ✗ = Site Location

Date: 06/04/14  
By: Rebecca Pons



# Appendix IV

ARCH SURVEY

---

Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

NMCRIS No.: 130136

## NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

|  |   |                               |                                   |
|--|---|-------------------------------|-----------------------------------|
| <b>1. NMCRIS Activity No.:</b><br><br>130136 | <b>2a. Lead Agency:</b><br>US Bureau of Land<br>Management Carlsbad Field<br>Office | <b>2b. Other Agency(ies):</b> | <b>3. Lead Agency Report No.:</b> |
|--|---|-------------------------------|-----------------------------------|

|  |   |
|--|---|
| <b>4. Title of Report:</b><br>A Class III Archaeological Survey for Diversified Field Services, Inc. Proposed J.L. Keel B #52 Spill Clean-Up<br><br><b>Author(s)</b><br>Hill, Rebecca L. and Joshua W. Broxson | <b>5. Type of Report</b><br><input checked="" type="checkbox"/> Negative<br><input type="checkbox"/> Positive |
|--|---|

### 6. Investigation Type

- ☐ Research Design   ☒ Archaeological Survey/Inventory   ☐ Architectural Survey/Inventory   ☐ Test Excavation   ☐ Excavation  
☐ Collections/Non-Field Study   ☐ Compliance Decision Based on Previous Inventory   ☐ Overview/Lit Review   ☐ Monitoring  
☐ Ethnographic Study   ☐ Site/Property Specific Visit   ☐ Historic Structures Report   ☐ Other

### 7. Description of Undertaking (what does the project entail?):

A pedestrian cultural resources survey was conducted on 26 March 2014 for Diversified Field Services, Inc. proposed J.L. Keel B #52 Spill Clean-Up. The spill lies in Eddy County, NM, on federal lands managed by the Bureau of Land Management/Carlsbad Field Office (BLM/CFO) in Sections 5 (SW¼SW¼) and 6 (SE¼SE¼) (NE¼SE¼) of T17S R31E. The spill area measures 9,146.34 sq. ft. or 0.21 acres and lies adjacent to the J.L. Keel B #52 well pad. The survey was conducted using 15 m (50 ft.) parallel transects across the spill area and 100 ft. beyond creating a 100 ft. cultural buffer around and including the spill area. The survey excludes the J.L. Keel B #52 well pad. The survey area measures 101,916.37 sq. ft. or 2.34 acres. No cultural resources were recorded or updated during the survey.

[   ] Continuation

|   |                                    |
|---|------------------------------------|
| <b>8. Dates of Investigation:</b> from: 26-Mar-2014   to: 26-Mar-2014 | <b>9. Report Date:</b> 27-Mar-2014 |
|---|------------------------------------|

### 10. Performing Agency/Consultant: Boone Arch Services of NM, LLC

**Principal Investigator:** Rebecca L. Hill

**Field Supervisor:** Rebecca L. Hill

**Field Personnel Names:** Rebecca L. Hill

**Historian / Other:**

|   |
|---|
| <b>11. Performing Agency/Consultant Report No.:</b><br>BASNM 03-14-56 |
|---|

|  |
|--|
| <b>12. Applicable Cultural Resource Permit No(s):</b><br>BLM Permit No.: 190-2920-12-S |
|--|

NMCRIS No.: 130136

**13. Client/Customer (project proponent):**

Diversified Field Services, Inc.

**Contact:** Natalie Gladden

**Address:** 3412 N. Dal Paso, Hobbs, NM 88240

**Phone:** 575-602-1786

**14. Client/Customer Project No.:**

**15. Land Ownership Status (must be indicated on project map):**

**Land Owner (By Agency)**

**Acres Surveyed    Acres in APE**

|  |      |      |
|--|------|------|
| US Bureau of Land Management Carlsbad Field Office | 2.34 | 0.21 |
| <b>TOTALS</b>                                      | 2.34 | 0.21 |

**16. Records Search(es):**

|  |                               |                 |
|--|-------------------------------|-----------------|
| Date(s) of HPD/ARMS File Review: 21 Mar 2014     | Name of Reviewer(s): M. Jones |                 |
| Date(s) of Other Agency File Review: 21 Mar 2014 | Name of Reviewer(s): M. Jones | Agency: BLM/CFO |

**17. Survey Data:**

**a. Source Graphics**    ☐ NAD 27    ☒ NAD 83    **Note:** NAD 83 is the NMCRIS standard.

☒ USGS 7.5' (1:24,000) topo map    ☐ Other topo map, Scale:

☒ GPS Unit    Accuracy ☒ <1.0m    ☐ 1-10m    ☐ 10-100m    ☐ >100m

☐ Aerial Photo(s)

Other Source Graphic(s):

**b. USGS 7.5' Topographic Map Name**

**USGS Quad Code**

|                |          |
|----------------|----------|
| Loco Hills, NM | 32103-G8 |
|----------------|----------|

**c. County(ies):** EDDY

**d. Nearest City or Town:** Loco Hills, NM

**e. Legal Description:**

**Township (N/S)**

**Range (E/W)**

**Section**

|     |     |   |
|-----|-----|---|
| 17S | 31E | 5 |
| 17S | 31E | 6 |

**Projected legal description?**    ☐ Yes    ☒ No    ☐ Unplatted

**f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):**

[    ] Continuation

**18. Survey Field Methods:**

NMCRIS No.: 130136

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☒ block survey units ☐ linear survey units (l x w):

☐ other survey units (specify):

Scope: ☒ non-selective (all sites/properties recorded) ☐ selective/thematic (selected sites/properties recorded)

Coverage Method: ☒ systematic pedestrian coverage

☐ other method (describe):

Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: from: 19-Mar-2014 to: 26-Mar-2014

Survey Person Hours: 0.50 Recording Person Hours: 0.00 Total Hours: 0.50

**Additional Narrative:**

The spill area lies within ¼ mile of three previously recorded archaeological sites: LAs 67572, 101474, and 178471. The spill is at a distance sufficient to avoid impacting these sites. For detailed descriptions of these sites, see Table 1 on page 5.

[ ] Continuation

**19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):**

According to the Natural Resources Conservation Service' online database, the spill area soils consist of Berino-dune land complex, 0 to 3 percent slopes. Berino soils are designated as "loamy" and typically support black and blue grama and tobosa grasslands with an even yet sparse distribution of shrubs such as yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of fourwing saltbush, mesquite and desert grasses. The spill flows down a small drainage west from the J.L. Keel B #56 well pad and is situated approximately 5.25 miles southwest of Mescalero Ridge and 4.1 miles northwest of Taylor Draw. The Pecos River lies approximately 24.5 miles to the west. The elevation ranges from 3,740 ft. to 3,750 ft. above mean sea level.

[ ] Continuation

**20.a. Percent Ground Visibility: 75% b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

The survey area is situated west and south of an existing well pad and lease road.

[ ] Continuation

**21. CULTURAL RESOURCE FINDINGS**

☐ Yes, see next report section

☒ No, discuss why:

No cultural resources were recorded or updated during the survey. It is uncertain why aboriginal peoples did not inhabit the area.

[ ] Continuation

**22. Attachments (check all appropriate boxes):**

[ x ] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

[ x ] Copy of NMCRIS Map Check (required)

[ ] LA Site Forms - new sites (with sketch map & topographic map) if applicable

[ ] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[ ] Historic Cultural Property Inventory Forms, if applicable

[ ] List and Description of Isolates, if applicable

[ ] List and Description of Collections, if applicable

**23. Other Attachments:**

[ ] Photographs and Log

[ x ] Other Attachments  
(Describe): BLM Map

NMCRIS No.: 130136

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: Printed Name: Rebecca L. Hill

Signature: Rebecca Hill Date: 28 Mar 2014 Title: Principal Investigator

25. Reviewing Agency

Reviewer's Name/Date:

Accepted [ ]

Rejected [ ]

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

### CULTURAL RESOURCE FINDINGS

*[fill in appropriate section(s)]*

#### SURVEY RESULTS:

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 0

☒ Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

#### MANAGEMENT SUMMARY:

No cultural resources were recorded or updated during the survey. The spill clean-up is recommended for approval. If cultural materials are encountered during the clean-up process, work should be halted and archaeologists with BLM/CFO should be notified immediately.

[ ] Continuation

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

#### SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

NMCRIS No.: 130136

Previously recorded revisited sites/HCPI properties:

LA/HCPI No.      Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

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**MONITORING LA NUMBER LOG (site form required)**

Sites Discovered (site form required):

Previously recorded sites (site update form required):

LA No.      Field/Agency No.

LA No.      Field/Agency No.

Areas outside known nearby site boundaries monitored?      [      ] Yes

[      ] No, Explain why:

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**TESTING & EXCAVATION LA NUMBER LOG (site form required)**

Tested LA number(s)

Excavated LA number(s)

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**Table 1. Previously Recorded Archaeological Sites within ¼ Mile.**

| LA No. | Cultural/Temporal Affiliation                                    | Eligibility  |
|--------|--|--------------|
| 67572  | Unknown Aboriginal (9500 BC – 1880 AD)                           | Not Eligible |
| 101474 | Jornada Mogollon/Early Pueblo to Late Pueblo (1100 AD – 1400 AD) | Eligible, D  |
| 178471 | Jornada Mogollon/Unspecified (200 AD – 1400 AD)                  | Eligible, D  |