New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE*** *– Other instructions on page 2.*

5. Lease Serial No.
NMLC-062178

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
Milnesand Unit

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
#525

2. Name of Operator
EOR Operating Company

9. API Well No.
30-041-20650

3a. Address
200 N. Loraine, STE 1440
Midland, TX 79701

3b. Phone No. *(include area code)*
432-687-0303

10. Field and Pool or Exploratory Area
Milnesand-San Andres

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
1260 FNL & 1330 FEL
Sec. 12, T. 08S, R. 34E

11. County or Parish, State
Roosevelt

3

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☑ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Subsequent Report | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☑ Other Extension Request |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Final Abandonment Notice | ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

EOR Operating Company requests a 90 day extension (12/31/2013) to the attached approved NOI, expiring 10/5/2013.

EOR currently has plans to begin procedures on this well in the 4th quarter or end of the 3rd quarter and anticipates that a the 3 well package will run longer than the original approved date.

A representative of EOR Operating will contact BLM 24 hours prior to the beginning of procedures as well as any BOPE tests.

APPROVED FOR 3 MONTH PERIOD
ENDING JAN 05 2014

HOBBS OCD
AUG 16 2013
RECEIVED

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Jana True

Title Production/Regulatory Manager

Signature Jana True

Date 08/06/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

KG

Approved by /S/ DAVID R. GLASS

Title PETROLEUM ENGINEER

Date AUG 12 2013

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office ROSWELL FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

AUG 20 2013

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
OCT 16 2012
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE*** – *Other instructions on page 2.*

| | |
|---|---|
| 1 Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other | 5 Lease Serial No: LC-062178 |
| | 6 If Indian, Allottee or Tribe Name: |
| | 7 If Unit of CA/Agreement, Name and/or No: Milnesand Unit |
| | 8 Well Name and No: #525 |
| 2 Name of Operator: EOR Operating Company | 9 API Well No: 30-041-20650 |
| 3a Address: 200 N Loraine STE 1440, Midland, TX 79701 | 3b Phone No. (include area code): 432-687-0303 |
| | 10 Field and Pool or Exploratory Area: Milnesand-San Andres |
| 4 Location of Well (Footage, Sec., T.,R.,M., or Survey Description): 1260 FNL & 1300 FEL, Sec. 12 T-08S, R-34E | 11 County or Parish, State: Roosevelt |

12 CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☑ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Subsequent Report | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☑ Other Recomplete horizontally |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Final Abandonment Notice | ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation. Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection )

The MSU #525 is currently producing from the San Andres perforations located @ 4530'-4622'. Current PBTD is 4750'.
EOR Operating proposed the attached plans to recomplete this well horizontally in the San Andres formation.

A representative of EOR Operating will contact BLM 24 hours prior to the beginning of procedures as well as any BOPE tests.

This lateral will be drilled with a closed loop mud system. After milling out the casing window with clear water, the directional interval will be drilled with a polymer based fresh water system.

APPROVED FOR 12 MONTH PERIOD
ENDING OCT 05 2013

HOBBS OCD
AUG 16 2013
RECEIVED

| | |
|---|---|
| 14 I hereby certify that the foregoing is true and correct Name (Printed/Typed): Jana True | Title: Mgr-Production/Regulatory |
| Signature: | Date: 09/21/2012 |

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

| | | |
|---|---|---|
| Approved by: /S/ DAVID R. GLASS | Title: PETROLEUM ENGINEER | Date: OCT 05 2012 |
| Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CC 10-25-2012 | Office: ROSWELL FIELD OFFICE | |

Title 18 U S C. Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

OCT 25 2012

Weatherford



## Drilling Services

# Proposal

# EOR OPERATING

MILNESAND UNIT 525

ROOSEVELT CO, NM

WELL FILE: **PLAN 1 DRAFT**

SEPTEMBER 12, 2012

**Weatherford International, Ltd.**
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www weatherford.com

**EOR Operating**

**Milnesand Unit 525**
**Roosevelt Co, NM**

**SECTION DETAILS**

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 4387.50 | 0.00 | 0.00 | 4387.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 4402.50 | 2.00 | 270.00 | 4402.50 | 0.00 | -0.26 | 13.33 | 270.00 | 0.26 | |
| 4 | 4407.50 | 2.00 | 270.00 | 4407.49 | 0.00 | -0.44 | 0.00 | 0.00 | 0.44 | |
| 5 | 4762.51 | 90.75 | 270.00 | 4628.66 | 0.00 | -232.48 | 25.00 | 0.00 | 232.48 | |
| 6 | 9010.39 | 90.75 | 270.00 | 4573.00 | 0.00 | -4480.00 | 0.00 | 0.00 | 4480.00 | PBHL |

**FIELD DETAILS**

Roosevelt Co, NM (Nad 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: True North

Weatherford

T
M

Azimuths to True North
Magnetic North: 7.40°

Magnetic Field
Strength: 49327nT
Dip Angle: 61.45°
Date: 3/1/2013
Model: IGRF2010

Total Correction to True North: 7.40°

**WELL DETAILS**

| Name | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---|---|---|---|---|---|---|---|
| MSU 525 | 0.00 | 0.00 | 956135.66 | 821439.07 | 33°37'29.496N | 103°24'47.412W | N/A |

**SITE DETAILS**

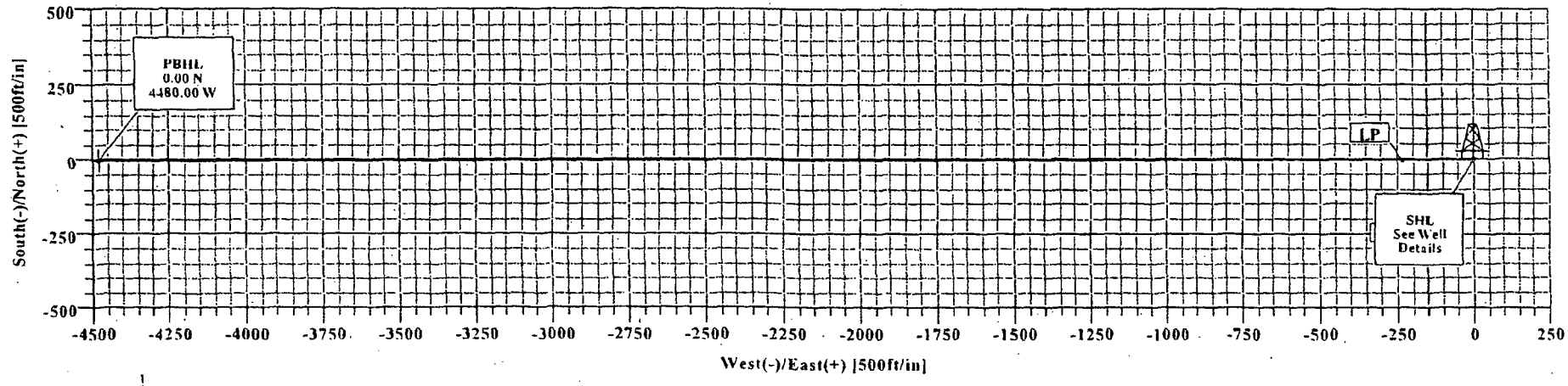
Milnesand Unit 525

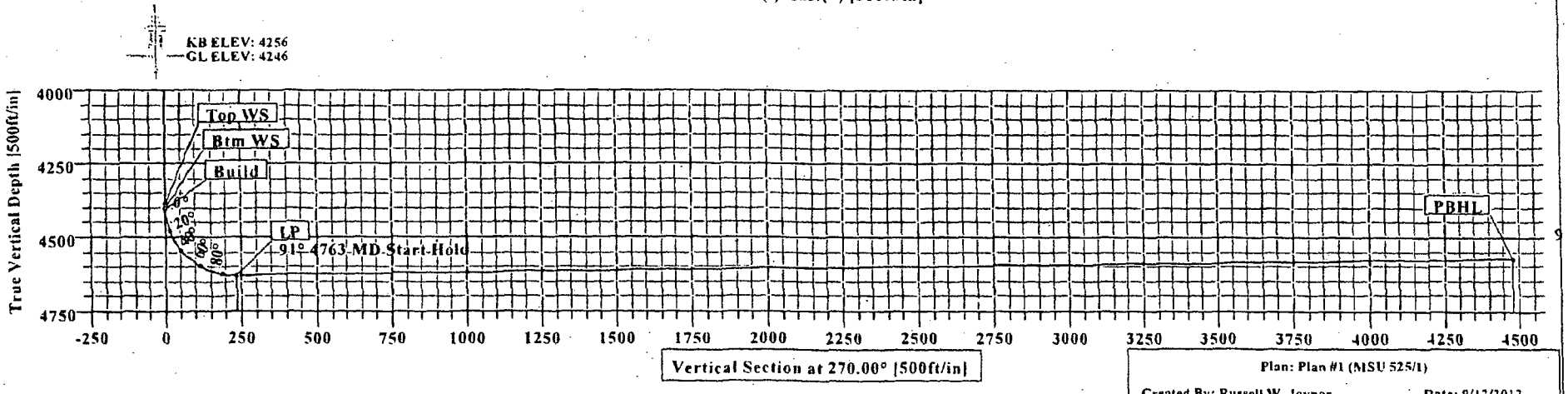
Site Centre Latitude: 33°37'29.496N
Longitude: 103°24'47.412W

Ground Level: 4246.00
Positional Uncertainty: 0.00
Convergence: 0.51

**TARGET DETAILS**

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Shape |
|---|---|---|---|---|---|---|
| PBHL | 4573.00 | 0.00 | -4480.00 | 956095.81 | 816959.25 | Point |




Plan: Plan #1 (MSU 525/1)

Created By: Russell W. Joyner Date: 9/12/2012

# Weatherford

## WFT Plan Report Lat, Long

Weatherford

| | | | |
|---|---|---|---|
| Company: EORI Operating | Date: 9/12/2012 | Time: 11:20:09 | Page: 1 |
| Field: Roosevelt Co, NM (Nad 83) | Co-ordinate (NE) Reference: | Well: MSU 525, True North | |
| Site: Milnesand Unit 525 | Vertical (TVD) Reference: | SITE 4256.0 | |
| Well: MSU 525 | Section (VS) Reference: | Well (0.00N,0.00E,270.00Azi) | |
| Wellpath: 1 | Survey Calculation Method: | Minimum Curvature | Db: Sybase |

| | | | |
|---|---|---|---|
| **Plan:** | Plan #1 | **Date Composed:** | 9/12/2012 |
| | | **Version:** | 1 |
| **Principal:** | Yes | **Tied-to:** | From Surface |

| | | | |
|---|---|---|---|
| **Field:** | Roosevelt Co, NM (Nad 83) | | |
| **Map System:** | US State Plane Coordinate System 1983 | **Map Zone:** | New Mexico, Eastern Zone |
| **Geo Datum:** | GRS 1980 | **Coordinate System:** | Well Centre |
| **Sys Datum:** | Mean Sea Level | **Geomagnetic Model:** | IGRF2010 |

| | | | | | |
|---|---|---|---|---|---|
| **Site:** | Milnesand Unit 525 | | | | |
| **Site Position:** | | **Northing:** | 956135.66 ft | **Latitude:** | 33 37 29.496 N |
| **From:** | Geographic | **Easting:** | 821439.07 ft | **Longitude:** | 103 24 47.412 W |
| **Position Uncertainty:** | 0.00 ft | | | **North Reference:** | True |
| **Ground Level:** | 4246.00 ft | | | **Grid Convergence:** | 0.51 deg |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well:** | MSU 525 | | | | **Slot Name:** | |
| **Well Position:** | +N/-S | 0.00 ft | **Northing:** | 956135.66 ft | **Latitude:** | 33 37 29.496 N |
| | +E/-W | 0.00 ft | **Easting:** | 821439.07 ft | **Longitude:** | 103 24 47.412 W |
| **Position Uncertainty:** | | 0.00 ft | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Wellpath:** 1 | | | **Drilled From:** | Surface | |
| | | | **Tie-on Depth:** | 0.00 ft | |
| **Current Datum:** | SITE | **Height** 4256.00 ft | **Above System Datum:** | Mean Sea Level | |
| **Magnetic Data:** | 3/1/2013 | | **Declination:** | 7.40 deg | |
| **Field Strength:** | 49327 nT | | **Mag Dip Angle:** | 61.45 deg | |

| Vertical Section: Depth From (TVD) ft | +N/-S ft | +E/-W ft | Direction deg |
|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 270.00 |

**Plan Section Information**

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4387.50 | 0.00 | 0.00 | 4387.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4402.50 | 2.00 | 270.00 | 4402.50 | 0.00 | -0.26 | 13.33 | 13.33 | 0.00 | 270.00 | |
| 4407.50 | 2.00 | 270.00 | 4407.49 | 0.00 | -0.44 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4762.51 | 90.75 | 270.00 | 4628.66 | 0.00 | -232.48 | 25.00 | 25.00 | 0.00 | 0.00 | |
| 9010.39 | 90.75 | 270.00 | 4573.00 | 0.00 | -4480.00 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL |

**Survey**

| MD ft | Incl deg | Azim deg | TVD ft | N/S ft | E/W ft | VS ft | DLS deg/100ft | Lat | Min | Sec | Long | Min | Sec | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4300.00 | 0.00 | 0.00 | 4300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 47.412 | |
| 4387.50 | 0.00 | 0.00 | 4387.50 | 0.00 | 0.00 | 0.00 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 47.412 | Top WS |
| 4400.00 | 1.67 | 270.00 | 4400.00 | 0.00 | -0.18 | 0.18 | 13.33 | 33 | 37 | 29.496 | 103 | 24 | 47.414 | |
| 4402.50 | 2.00 | 270.00 | 4402.50 | 0.00 | -0.26 | 0.26 | 13.33 | 33 | 37 | 29.496 | 103 | 24 | 47.415 | Btm WS |
| 4407.50 | 2.00 | 270.00 | 4407.49 | 0.00 | -0.44 | 0.44 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 47.417 | Build |
| 4420.00 | 5.12 | 270.00 | 4419.97 | 0.00 | -1.21 | 1.21 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.426 | |
| 4440.00 | 10.12 | 270.00 | 4439.79 | 0.00 | -3.87 | 3.87 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.458 | |
| 4460.00 | 15.12 | 270.00 | 4459.30 | 0.00 | -8.24 | 8.24 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.509 | |
| 4480.00 | 20.12 | 270.00 | 4478.35 | 0.00 | -14.29 | 14.29 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.581 | |
| 4500.00 | 25.12 | 270.00 | 4496.81 | 0.00 | -21.98 | 21.98 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.672 | |
| 4520.00 | 30.12 | 270.00 | 4514.52 | 0.00 | -31.25 | 31.25 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.782 | |
| 4540.00 | 35.12 | 270.00 | 4531.36 | 0.00 | -42.03 | 42.03 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 47.909 | |
| 4560.00 | 40.12 | 270.00 | 4547.19 | 0.00 | -54.24 | 54.24 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.053 | |
| 4580.00 | 45.12 | 270.00 | 4561.91 | 0.00 | -67.78 | 67.78 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.213 | |
| 4600.00 | 50.12 | 270.00 | 4575.38 | 0.00 | -82.55 | 82.55 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.388 | |

# Weatherford

## WFT Plan Report Lat, Long

Weatherford

| | | | | | |
|---|---|---|---|---|---|
| Company: | EOR Operating | Date: | 9/12/2012 | Time: | 11:20:09 |
| Field: | Roosevelt Co. NM (Nad 83) | Co-ordinate(NE) Reference: | Well: MSU 525, True North | | |
| Site: | Milnesand Unit 525 | Vertical (TVD) Reference: | SITE 4256.0 | | |
| Well: | MSU 525 | Section (VS) Reference: | Well (0.00N,0.00E,270.00Azi) | | |
| Wellpath: | 1 | Survey Calculation Method: | Minimum Curvature | Db: | Sybase |

Page 2

Survey

| MD ft | Incl deg | Azim deg | TVD ft | N/S ft | E/W ft | VS ft | DLS deg/100ft | Lat | Min | Sec | Long | Min | Sec | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4620.00 | 55 12 | 270 00 | 4587 52 | 0.00 | -98.43 | 98.43 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.576 | |
| 4640.00 | 60 12 | 270 00 | 4598.22 | 0.00 | -115.32 | 115 32 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.776 | |
| 4660.00 | 65.12 | 270.00 | 4607.42 | 0.00 | -133.07 | 133.07 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 48.986 | |
| 4680.00 | 70.12 | 270.00 | 4615.03 | 0 00 | -151 56 | 151 56 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 49 204 | |
| 4700.00 | 75 12 | 270.00 | 4621 00 | 0 00 | -170.64 | 170.64 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 49.430 | |
| 4720 00 | 80.12 | 270.00 | 4625.28 | 0.00 | -190.17 | 190.17 | 25.00 | 33 | 37 | 29 496 | 103 | 24 | 49.661 | |
| 4740.00 | 85.12 | 270.00 | 4627 85 | 0.00 | -210 00 | 210 00 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 49.895 | |
| 4760.00 | 90.12 | 270.00 | 4628.68 | 0.00 | -229.98 | 229.98 | 25 00 | 33 | 37 | 29.496 | 103 | 24 | 50.132 | |
| 4762.51 | 90.75 | 270.00 | 4628.66 | 0.00 | -232.48 | 232.48 | 25.00 | 33 | 37 | 29.496 | 103 | 24 | 50.161 | LP |
| 4800 00 | 90.75 | 270.00 | 4628.17 | 0.00 | -269.97 | 269.97 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 50.605 | |
| 4900.00 | 90.75 | 270.00 | 4626.86 | 0.00 | -369.97 | 369.97 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 51.787 | |
| 5000.00 | 90.75 | 270.00 | 4625.55 | 0.00 | -469.96 | 469 96 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 52.970 | |
| 5100.00 | 90.75 | 270.00 | 4624.24 | 0.00 | -569.95 | 569.95 | 0.00 | 33 | 37 | 29 496 | 103 | 24 | 54.152 | |
| 5200.00 | 90.75 | 270 00 | 4622.93 | 0.00 | -669.94 | 669.94 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 55.334 | |
| 5300.00 | 90.75 | 270.00 | 4621.62 | 0.00 | -769.93 | 769.93 | 0 00 | 33 | 37 | 29.496 | 103 | 24 | 56.517 | |
| 5400.00 | 90.75 | 270.00 | 4620.31 | 0.00 | -869.92 | 869.92 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 57.699 | |
| 5500.00 | 90.75 | 270.00 | 4619.00 | 0.00 | -969.91 | 969.91 | 0.00 | 33 | 37 | 29.496 | 103 | 24 | 58.882 | |
| 5600.00 | 90 75 | 270.00 | 4617.69 | 0.00 | -1069.91 | 1069.91 | 0 00 | 33 | 37 | 29.496 | 103 | 25 | 0.064 | |
| 5700.00 | 90.75 | 270 00 | 4616 38 | 0.00 | -1169 90 | 1169.90 | 0.00 | 33 | 37 | 29.496 | 103 | 25 | 1.247 | |
| 5800.00 | 90.75 | 270.00 | 4615.07 | 0 00 | -1269.89 | 1269.89 | 0.00 | 33 | 37 | 29.496 | 103 | 25 | 2 429 | |
| 5900.00 | 90 75 | 270.00 | 4613.76 | 0.00 | -1369 88 | 1369 88 | 0.00 | 33 | 37 | 29.496 | 103 | 25 | 3 612 | |
| 6000 00 | 90.75 | 270 00 | 4612 45 | 0.00 | -1469 87 | 1469.87 | 0.00 | 33 | 37 | 29 496 | 103 | 25 | 4.794 | |
| 6100.00 | 90 75 | 270 00 | 4611.14 | 0.00 | -1569.86 | 1569.86 | 0 00 | 33 | 37 | 29.496 | 103 | 25 | 5.977 | |
| 6200 00 | 90 75 | 270 00 | 4609.83 | 0.00 | -1669.85 | 1669.85 | 0 00 | 33 | 37 | 29.496 | 103 | 25 | 7.159 | |
| 6300.00 | 90 75 | 270.00 | 4608.51 | 0 00 | -1769.85 | 1769.85 | 0 00 | 33 | 37 | 29.495 | 103 | 25 | 8.341 | |
| 6400 00 | 90 75 | 270.00 | 4607.20 | 0 00 | -1869 84 | 1869 84 | 0.00 | 33 | 37 | 29 495 | 103 | 25 | 9.524 | |
| 6500 00 | 90 75 | 270.00 | 4605.89 | 0.00 | -1969.83 | 1969.83 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 10 706 | |
| 6600.00 | 90.75 | 270 00 | 4604.58 | 0.00 | -2069.82 | 2069.82 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 11.889 | |
| 6700.00 | 90 75 | 270.00 | 4603 27 | 0.00 | -2169.81 | 2169 81 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 13.071 | |
| 6800.00 | 90.75 | 270 00 | 4601 96 | 0.00 | -2269.80 | 2269.80 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 14.254 | |
| 6900.00 | 90.75 | 270.00 | 4600.65 | 0 00 | -2369.79 | 2369 79 | 0.00 | 33 | 37 | 29 495 | 103 | 25 | 15.436 | |
| 7000.00 | 90 75 | 270.00 | 4599 34 | 0.00 | -2469.79 | 2469.79 | 0 00 | 33 | 37 | 29.495 | 103 | 25 | 16 619 | |
| 7100.00 | 90.75 | 270 00 | 4598 03 | 0.00 | -2569.78 | 2569.78 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 17.801 | |
| 7200 00 | 90.75 | 270.00 | 4596.72 | 0.00 | -2669 77 | 2669.77 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 18.984 | |
| 7300.00 | 90.75 | 270 00 | 4595 41 | 0 00 | -2769.76 | 2769 76 | 0.00 | 33 | 37 | 29 495 | 103 | 25 | 20.166 | |
| 7400.00 | 90 75 | 270 00 | 4594.10 | 0.00 | -2869 75 | 2869 75 | 0.00 | 33 | 37 | 29.495 | 103 | 25 | 21.348 | |
| 7500.00 | 90 75 | 270.00 | 4592.79 | 0.00 | -2969.74 | 2969 74 | 0.00 | 33 | 37 | 29 495 | 103 | 25 | 22.531 | |
| 7600.00 | 90 75 | 270.00 | 4591.48 | 0.00 | -3069.73 | 3069 73 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 23 713 | |
| 7700 00 | 90 75 | 270.00 | 4590.17 | 0.00 | -3169 73 | 3169.73 | 0.00 | 33 | 37 | 29 494 | 103 | 25 | 24 896 | |
| 7800 00 | 90.75 | 270.00 | 4588.86 | 0 00 | -3269 72 | 3269 72 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 26 078 | |
| 7900.00 | 90.75 | 270.00 | 4587 55 | 0 00 | -3369 71 | 3369.71 | 0 00 | 33 | 37 | 29 494 | 103 | 25 | 27.261 | |
| 8000 00 | 90 75 | 270.00 | 4586.24 | 0.00 | -3469.70 | 3469.70 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 28.443 | |
| 8100.00 | 90 75 | 270.00 | 4584.93 | 0.00 | -3569.69 | 3569.69 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 29.626 | |
| 8200.00 | 90.75 | 270.00 | 4583.62 | 0.00 | -3669.68 | 3669.68 | 0.00 | 33 | 37 | 29 494 | 103 | 25 | 30.808 | |
| 8300.00 | 90 75 | 270.00 | 4582.31 | 0.00 | -3769.67 | 3769.67 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 31.991 | |
| 8400.00 | 90.75 | 270.00 | 4581.00 | 0.00 | -3869.67 | 3869.67 | 0.00 | 33 | 37 | 29.494 | 103 | 25 | 33 173 | |
| 8500.00 | 90 75 | 270.00 | 4579.69 | 0.00 | -3969.66 | 3969.66 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 34.355 | |
| 8600.00 | 90.75 | 270 00 | 4578.38 | 0.00 | -4069.65 | 4069 65 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 35.538 | |
| 8700.00 | 90.75 | 270 00 | 4577.07 | 0.00 | -4169.64 | 4169 64 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 36.720 | |
| 8800.00 | 90 75 | 270.00 | 4575.76 | 0.00 | -4269.63 | 4269.63 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 37.903 | |
| 8900.00 | 90 75 | 270.00 | 4574.45 | 0.00 | -4369.62 | 4369.62 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 39.085 | |
| 9000.00 | 90.75 | 270.00 | 4573.14 | 0 00 | -4469.61 | 4469.61 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 40.268 | |
| 9010.39 | 90.75 | 270.00 | 4573.00 | 0.00 | -4480.00 | 4480.00 | 0.00 | 33 | 37 | 29.493 | 103 | 25 | 40.391 | PBHL |

# Weatherford

## WFT Plan Report Lat, Long

| | | | |
|---|---|---|---|
| Company: EOR Operating | Date: 9/12/2012 | Time: 11:20:09 | Page: #3 |
| Field: Roosevelt Co. NM (Nad 83) | Co-ordinate(NE) Reference: Well: MSU 525, True North | | |
| Site: Milnesand Unit 525 | Vertical (TVD) Reference: SITE 4256.0 | | |
| Well: MSU 525 | Section (VS) Reference: Well (0.00N,0.00E,270.00Azi) | | |
| Wellpath: 1 | Survey Calculation Method: Minimum Curvature | Db: Sybase | |

**Survey**

| MD ft | Incl deg | Azim deg | TVD ft | N/S ft | E/W ft | VS ft | DLS deg/100ft | Lat | Min | Sec | Long | Min | Sec | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Targets**

| Name | Description Dip | Dir | TVD ft | +N/-S ft | +E/-W ft | Map Northing ft | Map Easting ft | Latitude Deg | Min | Sec | | Longitude Deg | Min | Sec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBHL | | | 4573.00 | 0.00 | -4480.00 | 956095.81 | 816959.25 | 33 | 37 | 29.493 | N | 103 | 25 | 40.391 | W |

**Casing Points**

| MD | TVD | Diameter | Hole Size | Name |
|---|---|---|---|---|

**Formations**

| MD | TVD | Formations | Lithology | Dip Angle | Dip Direction |
|---|---|---|---|---|---|

**Annotation**

| MD ft | TVD ft | |
|---|---|---|
| 4387.50 | 4387.50 | Top WS |
| 4402.50 | 4402.50 | Btm WS |
| 4407.50 | 4407.49 | Build |
| 4762.51 | 4628.66 | LP |
| 9010.38 | 4573.00 | PBHL |

# Weatherford Drilling Services

GeoDec v5.03

| | |
|---|---|
| Report Date: | September 12, 2012 |
| Job Number: | |
| Customer: | EOR Operating |
| Well Name: | MSU 525 |
| API Number: | |
| Rig Name: | |
| Location: | Roosevelt Co, NM |
| Block: | |
| Engineer: | RWJ |

| | |
|---|---|
| Geodetic Latitude / Longitude | Geodetic Latitude / Longitude |
| System: Latitude / Longitude | System: Latitude / Longitude |
| Projection: Geodetic Latitude and Longitude | Projection: Geodetic Latitude and Longitude |
| Datum: North American Datum 1983 | Datum: North American Datum 1983 |
| Ellipsoid: GRS 1980 | Ellipsoid: GRS 1980 |
| Latitude 33.6248600 DEG | Latitude 33 37 29.4960000 DMS |
| Longitude -103.4131700 DEG | Longitude -103 24 47.4120000 DMS |

| | | |
|---|---|---|
| Geodetic Location WGS84 | Elevation = | 0.0 Meters |
| Latitude = | 33.62486° N | 33° 37 min 29.496 sec |
| Longitude = | 103.41317° W | 103° 24 min 47.412 sec |

| | | | |
|---|---|---|---|
| Magnetic Declination = | 7.40° | [True North Offset] | |
| Local Gravity = | .9989 g | CheckSum = | 6576 |
| Local Field Strength = | 49323 nT | Magnetic Vector X = | 23375 nT |
| Magnetic Dip = | 61.45° | Magnetic Vector Y = | 3037 nT |
| Magnetic Model = | IGRF-2010g11 | Magnetic Vector Z = | 43326 nT |
| Spud Date = | Mar 01, 2013 | Magnetic Vector H = | 23571 nT |

Signed:_____ Date:_____

**PECOS DISTRICT - RFO**
**CONDITIONS OF APPROVAL**

OPERATORS NAME: **EOR Operating Co.**
LEASE NO.: **LC-062178**
WELL NAME & NO: **Milnesand Unit Well No. 525**
SURFACE HOLE FOOTAGE: **1260' FNL & 1300' FEL Section 12, T. 8 S., R. 34 E., NMPM**
BOTTOM HOLE FOOTAGE: **1260' FNL & 500' FEL Section 11, T. 8 S., R. 34 E., NMPM**
COUNTY: **Roosevelt County, New Mexico**

## PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified. This stipulation does not apply to the operation and maintenance of production facilities.

On the land described below:

For the purpose of: Protecting Lesser Prairie-Chickens

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 1 through June 15, each year. During that period, between 3:00 a.m. and 9:00 a.m., other activities that produce noise and involve human activity, such as geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will not be allowed. Noise producing activities which do not require a human presence, such as venting, flaring, or pumping, are exempt from the 3:00 a.m. and 9:00 a.m. restriction. Regardless of the time of the year, exhaust noise from pump jack engine must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

## A. DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 420-2832. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.

2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

   a. Entering The Wellbore With The Drill Bit.
   b. Setting And/Or Cementing Any Casing String That May Be Run
   c. BOPE Tests

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

OPERATORS NAME: **EOR Operating Co.**
LEASE NO.: **LC-062178**
WELL NAME & NO: **Milnesand Unit Well No. 525**
SURFACE HOLE FOOTAGE: **1260' FNL & 1300' FEL Section 12, T. 8 S., R. 34 E., NMPM**
BOTTOM HOLE FOOTAGE: **1260' FNL & 500' FEL Section 11, T. 8 S., R. 34 E., NMPM**
COUNTY: **Roosevelt County, New Mexico**

4. This lateral will be drilled with a closed loop mud system. After milling out the **5-1/2** inch production casing window with clear fresh water, the directional interval will be drilled with a **4-3/4** inch bit using a polymer based fresh water system.

## B. CASING

1. There is no required fill of cement behind the **3-1/2** inch production liner since packers with frac ports will be used for lateral and will not require cementing.

2. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

3. Any casing set shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

## C. PRESSURE CONTROL:

1. Before milling out the **5-1/2** inch production casing window, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.

2. Before milling out the **5-1/2** inch production casing window, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi.

3. The BOPE shall be installed before milling out the **5-1/2** inch production casing window and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The BLM Roswell Field office shall be notified a minimum of 24 hours in advance for a representative to witness the tests.

b. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

OPERATORS NAME: **EOR Operating Co.**
LEASE NO.: **LC-062178**
WELL NAME & NO: **Milnesand Unit Well No. 525**
SURFACE HOLE FOOTAGE: **1260' FNL & 1300' FEL Section 12, T. 8 S., R. 34 E., NMPM**
BOTTOM HOLE FOOTAGE: **1260' FNL & 500' FEL Section 11, T. 8 S., R. 34 E., NMPM**
COUNTY: **Roosevelt County, New Mexico**

d. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

e. Testing must be done in a safe workman like manner. Hard line connections shall be required.

## D. MUD PROGRAM REQUIREMENTS:

The drilling operations of this well will be conducted in accordance with the Onshore Oil and Gas Order No. 2 as provided in 43 CFR 3164.1. This includes well control equipment and its testing, mud system and associated equipment, and the casing and cementing.

a. Sufficient quantities of mud materials shall be maintained at the well site, at all times, for the purpose of assuring well control.

b. A mud test shall be performed at least every 24 hours after mudding up to determine, as applicable density, viscosity, gel strength, filtration, and PH.

c. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

## E. SPECIAL STIPULATION:

If frac ponds are necessary submit for approval a right-of-way application or sundry notice (Form 3160-5) to the BLM, Roswell Field Office 2909 West Second, Roswell, NM 88201. If frac pond is located on private/State surface and support the enhanced production of federal minerals BLM approval is necessary.

The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer. If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly. Mineral materials extracted during construction of the frac pond will be stored on-location and/or used for constructing the frac pond.

Full implementation and enforcement of these procedures begins November 15, 2010.

1. For On-Lease Proposals: Submit Form 3160-5 describing any surface disturbance associated with the project. The length and width of the pond floor, expected depth, and the exterior dimensions of the finished pond (with completed berms) must be stated. If a new road is required to access the pond, this will be described in total length and desired width.

   For Off-Lease or Third Party Proposals (ROW): Submit SF-299 "Application for Transportation and Utility Systems." All other procedures described herein will be applicable to freshwater ponds applied for under rights-of-way.

2. List all wells to be serviced by the pond. Tell us the route of your pipeline from the pond to the target well(s).

3. Tell us how the freshwater is to be transported to the pond (trucked, pipeline). A route description is sufficient for lines following existing roads.

4. Attach a survey plat of the proposed pond location. The plat shall depict the exterior dimensions of the pond, the center of the topsoil stockpile as well as the legal land description. When the pond is co-located with an existing or approved well location, show the location of that well as a point of reference on the survey plat.

5. Location stakes at each corner will indicate the inside perimeter of the pond (4-stakes), the maximum width of disturbance including berm walls (4-stakes), and 1 stake to show the center of the topsoil stockpile.

6. Attach a diagram of the project (sample attached as enclosure 2). The diagram will depict the pond dimensions with berms, the location of the stockpiled topsoil, and a North arrow. If a road is requested, depict how the road enters the project area.

An on-site inspection of your proposed project is required. One of our Natural Resource Specialists will contact you to schedule a site visit.