HOBBS OCD

NOV 02 2012

Form 3160-5
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

RECEIVED

FORM APPROVED
OMB No 1004-0135
Expires January 31, 2004

## 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 reverse side.***

5 Lease Serial No
**LC062170-A BHL: LC069048**

6. If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No

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

8 Well Name and No.
**Parcell Federal #7**

2 Name of Operator
**SandRidge Expl. & Prod., LLC**

9 API Well No
**30-02540775**

3a Address
**123 Robert S Kerr Ave., OKC, OK 73102**

3b Phone No *(include area code)*
**405-429-6518**

10 Field and Pool, or Exploratory Area
**Wantz; Abo**

4 Location of Well *(Footage, Sec, T, R, M, or Survey Description)*
**SHL: 1405' FSL & 1265' FEL of Sec 8 - 21S - 38E**
**BHL: 330' FSL & 330' FEL**

11 County or Parish, State
**Lea, NM**

12. CHECK 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 |
| ☐ Subsequent Report | ☑ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Final Abandonment Notice | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☑ Other **Change the BHL** |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| | ☐ 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 shall 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 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection )

**SandRidge Expl. & Prod., LLC respectfully requests the right to move the bottom hole location (BHL) from the approved BHL (900' FSL & 765' FEL) on the APD signed 9/9/12 to a new location to be at 330' FSL & 330' FEL. An updated C102, Drilling Program & Directional Plan have been attached.**

**Thank you for your time.**

APPROVED
OCT 31 2012
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

orgional OCD still stands

14 I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
**Spence Laird** Title **Regulatory Analyst**

Signature Spence Laird Date **10/16/2012**

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

| Approved by | Title | Date |
|---|---|---|
| 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 | |

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)*

NOV 05 2012

DRILLING PROGRAM

SandRidge Exploration and Production, LLC
**Parcell Federal #7**
Surface Location: 1405' FSL, 1265' FEL, Unit I, Sec 8, T21S R38E, Lea County, New Mexico
Bottom Hole Location: 330' FSL, 330' FEL, Unit P, Sec 8, T21S R38E, Lea County, New Mexico

1. **Geologic Name of Surface Formation:**
   Quaternary

2. **Estimated KB Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

| | | | |
|---|---|---|---|
| a. | Ogallala | 100' | Water |
| b. | Rustler | 1613' | Barren |
| c. | Top of Salt | 1678' | Barren |
| d. | Base of Salt | 2812' | Barren |
| e. | Tansil | 2813' | Barren |
| f. | Yates | 2936' | Oil/Gas |
| g. | Seven Rivers | 3168' | Barren |
| h. | Queen | 3533' | Barren |
| i. | Grayburg | 4135' | Oil |
| j. | San Andres | 4304' | Oil |
| k. | Glorieta | 5635' | Oil |
| l. | Paddock | 5675' | Barren |
| m. | Blinebry | 6103' | Oil |
| n. | Tubb | 6613' | Oil |
| o. | Drinkard | 6823' | Oil |
| p. | Abo | 7263' | Oil |
| q. | Total Depth | 7650' TVD<br>7825' MD | |

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8-5/8" casing @ 1648' and circulating cement back to the surface. The Abo intervals will be isolated by setting 5-1/2" casing to total depth and circulating cement to the surface.

3. **Casing Program:**

| Hole Size | Hole Interval | OD Csg | Casing Interval | Weight | Collar | Grade | N/U |
|---|---|---|---|---|---|---|---|
| 17 | 0-80' | 14 | 0-80' | 50# | | | |
| 12 -1/4" | 80-1648' | 8-5/8" | 0-1648' | 24# | STC | J-55 | New |
| 7-7/8" | 1648-7825' | 5-1/2" | 0-7825' | 17# | LTC | L-80 | New |

**Design Parameter Factors:**

| Casing Size | Collapse Design Factor | Burst Design Factor | Tension Design Factor |
|---|---|---|---|
| 8-5/8" | 1.78 | 3.82 | 6.17 |
| 5-1/2" | 1.58 | 1.95 | 2.60 |

Casing load assumptions for new 8-5/8" J-55 24# casing:
Collapse: Fluid inside casing is evacuated. A full column of 9 ppg fluid is present in the annulus.
Burst: Fluid in the annulus is evacuated and a full column of 9 ppg fluid is present in the casing.
Tension: All fluid inside wellbore is evacuated

Casing load assumptions for new 5 ½" L-80 17# casing:
Collapse: Fluid inside casing is evacuated. A full column of 10 ppg fluid is present in the annulus.
Burst: Surface treating pressures will not exceed 4200 psi exposure to the casing.
Tension: All fluid inside wellbore is evacuated

4. **Cement Program:**

*a. 14" Conductor*

Ready-mix concrete

*b. 8 -5/8" Surface*

Lead: 535 sacks (100% excess) Class C (65:35) Poz Cement ECONOCEM ™ System +3% lbm/sk Poly-E-Flake, 12.8 ppg, Yield: 1.86 ft^3/sk , Mixing Fluid: 9.94 gal/sk.

Tail: 270 sacks (100% excess) Class C Cement Halcem ™ System+ 2% Calcium Chloride+ 0.125 lbm/sk Poly-E-Flake, 14.8 ppg, Yield:1.35 ft^3/sk, Mixing Fluid 6.37 gal/sk. **TOC @ surface.**

*c. 5 ½" Production*

Lead: 400 sacks (25% excess) Class H (50:50) Poz EXTENDACEM ™ System + 5 #/sk Gilsonite, 12.2 ppg, Yield 2.26 ft^3/sk, Mixing fluid:12.07 gal/sk.

Tail: 700 sacks (25% excess) Class H (50:50) Poz Versacem ™ System + 0.3% Halad ®-9 + 3% Salt + 5 lbm/sk Gilsonite, 14.4 ppg, Yield: 1.25 ft^3/sk, Mixing fluid: 5.06 gal/sk. **TOC @ surface.**

Final volumes will be determined using caliper log and 25% excess.

5. **Pressure Control Equipment:**

BOP DESIGN: The BOP system used to drill the production hole will consist of an 11" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.
The pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These tests will be logged into the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram

BOP. In addition to the rams and annular preventer, additional BOP accessories include a Kelly cock, floor safety valve, choke lines, and choke manifold rated at 3000 psi WP.

**6. MUD PROGRAM SUMMARY:**

| DEPTH (TVD) | HOLE SIZE | CASING SIZE | MUD WT. (ppg) | VISCOSITY (cp) | FLUID LOSS (cc) |
|---|---|---|---|---|---|
| 0 – 1,648' | 12-1/4" | 8-5/8" | 8.6 – 9.4 FW | 31 – 33 | NC |
| 1,64~~7~~8 – 4,100' | 7-7/8" | 5-1/2" | 10.0 Brine | 28 – 29 | NC |
| 4,100" – 6,300 | 7-7/8" | 5-1/2" | 10.0 Brine | 30 – 31 | 15 – 10 |
| 6,300' – 7,650' | 7- 7/8" | 5-1/2" | 10.0 Brine | 32 – 38 | 10 – 6 |

**7. Auxiliary Well Control and Monitoring Equipment:**

a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
c. Hydrogen Sulfide detection equipment will be in operation prior to spud and throughout the entire drilling process until total depth is reached. Breathing equipment will be on location prior to spud and until total depth is reached.

**8. Logging, Coring, and Testing Program:**

Gamma Ray / Neutron – Surface to TD (7825' MD)
Spectral Gamma Ray, Density / Resistivity – Surface casing to TD (7825' MD)

SEE COA

**9. Potential Hazards:**

No abnormal pressures or temperatures are expected. If H2S is encountered, the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4212 psi and estimated BHT 181 degrees. H2S monitoring equipment will be on location 24/7 during drilling operations.

**10. Anticipated Starting Date and Duration of Operations:**

a. Location construction will begin after the BLM and NMOCD have approved the APD. Anticipated spud date will be as soon after approval as rig is available. Move in operations and drilling is expected to take 15 days.
b. If production casing is run, an additional 30 days will be required to complete well and construct surface facilities and/or lay flow lines in order to place the well on production.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S St Francis Dr, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

HOBBS OCD
NOV 02 2012
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Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☒ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-40775 | 62700 | Wantz; Abo |

| Property Code | Property Name | Well Number |
|---|---|---|
| | PARCELL FEDERAL | 7 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 270265 | SANDRIDGE E & P, LLC | 3563' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| I | 8 | 21-S | 38-E | | 1405 | SOUTH | 1265 | EAST | LEA |

Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| P | 8 | 21-S | 38-E | | 330 | SOUTH | 330 | EAST | LEA |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

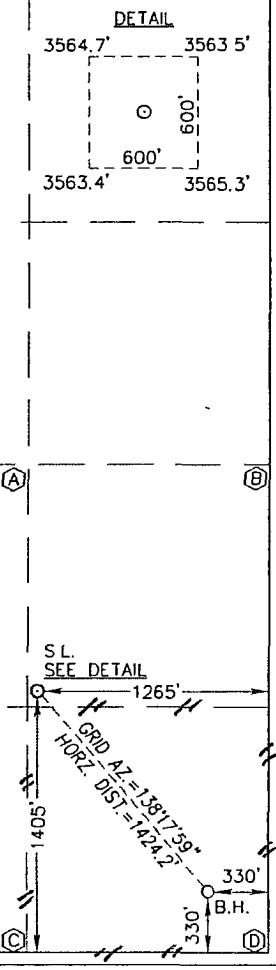
CORNER COORDINATES TABLE

(A) - Y=545498.5 N, X=887172.8 E
(B) - Y=545514.1 N, X=888493.2 E
(C) - Y=542858.0 N, X=887203.2 E
(D) - Y=542874.5 N, X=888523.8 E

GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION
Y=544263.5 N
X=887242.7 E
LAT.=32.490024° N
LONG.=103.077459° W

BOTTOM HOLE LOCATION
Y=543200.3 N
X=888190.0 E




## OPERATOR CERTIFICATION

*I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Signature 10/16/12 Date

Spence Laird
Printed Name

slaird@sandridgeenergy.com
E-mail Address

## SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

MAY 31, 2011
Date of Survey
Signature & Seal of Professional Surveyor.

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 09/27/2012

Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

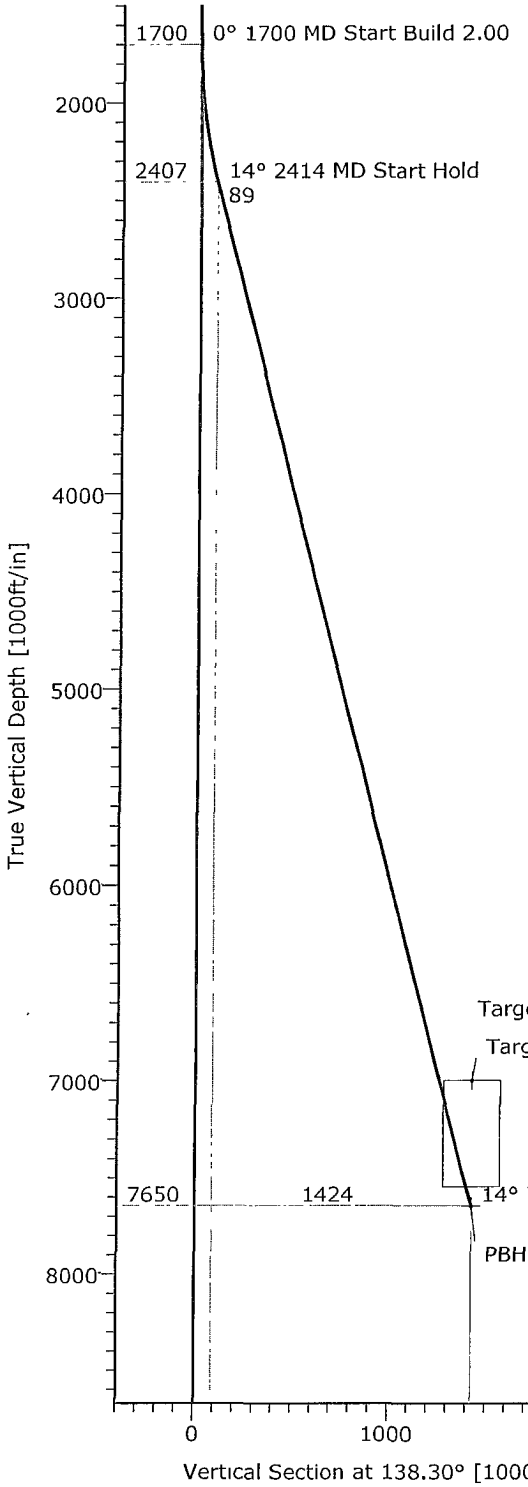
ACR Rel: 12.13.1653 JWSC W O : 12.13.1653

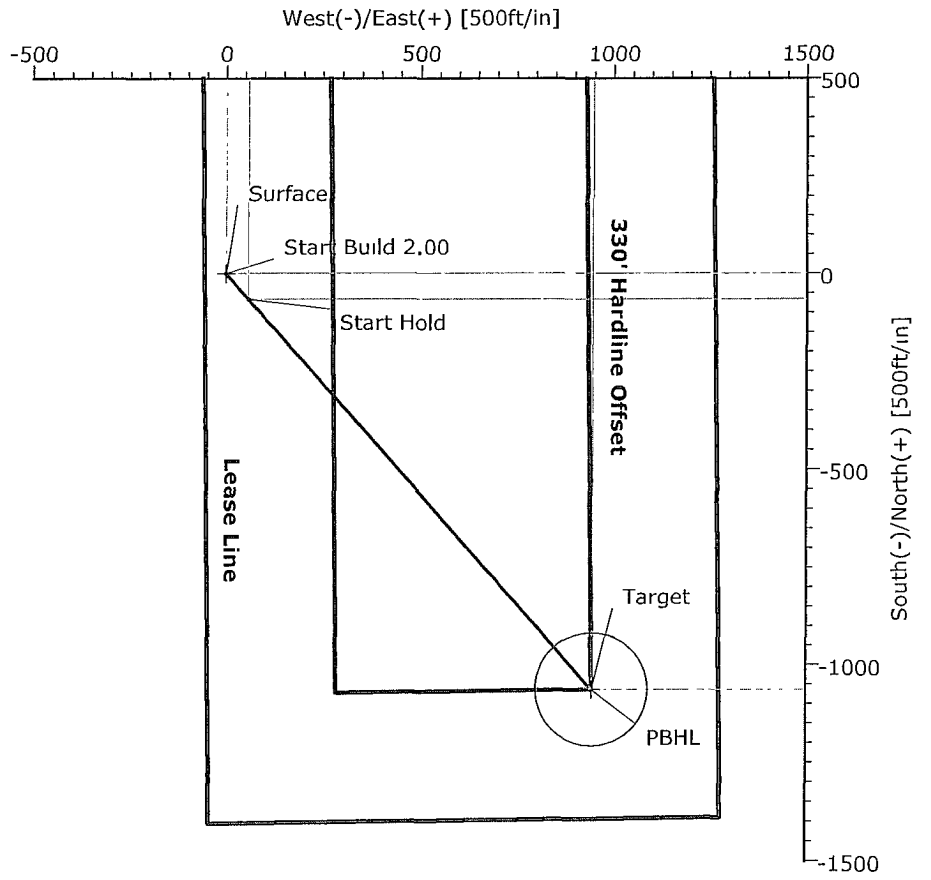
SANDRIDGE
THE POWER OF US

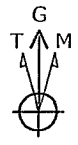
# SANDRIDGE ENERGY

**Field:** Lea County NME'27
**Site:** Parcell Federal #7
**Well:** #7
**Wellpath:** Original Hole
**Plan:** Plan #4

Precision Directional Services




Azimuths to Grid North
True North: -0.67°
Magnetic North: 6.53°

Magnetic Field
Strength: 48721nT
Dip Angle: 60.48°
Date: 10/17/2012
Model: IGRF2010

TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|---|---|---|---|---|---|---|---|---|
| Surface | 0.00 | 0.00 | 0.00 | 544263.50 | 887242.70 | 32°29'24.086N | 103°04'38.855W | Point |
| Target | 7000.00 | -1063.20 | 947.30 | 543200.30 | 888190.00 | 32°29'13.457N | 103°04'27.944W | Circle (Radius: 145) |
| PBHL | 7650.00 | -1062.93 | 947.06 | 543200.57 | 888189.76 | 32°29'13.459N | 103°04'27.947W | Point |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.00 | 138.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 1700.00 | 0.00 | 138.30 | 1700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 2414.28 | 14.29 | 138.30 | 2406.91 | -66.14 | 58.93 | 2.00 | 138.30 | 88.59 | |
| 4 | 7824.68 | 14.29 | 138.30 | 7650.00 | -1062.93 | 947.06 | 0.00 | 0.00 | 1423.64 | PBHL |

# Precision Directional Services, Inc
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | SANDRIDGE ENERGY | **Date:** 10/17/2012 | **Time:** 15:30:38 | **Page:** | 1 |
| **Field:** | Lea County NME'27 | **Co-ordinate(NE) Reference:** | Well: #7, Grid North | | |
| **Site:** | Parcell Federal #7 | **Vertical (TVD) Reference:** | 3563' GL + 13' KB 3576.0 | | |
| **Well:** | #7 | **Section (VS) Reference:** | Well (0.00N,0.00E,138.30Azi) | | |
| **Wellpath:** | Original Hole | **Plan:** | Plan #4 | | |

**Field:** Lea County NME'27
Lea County, New Mexico

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane Coordinate System 1927 | **Map Zone:** | New Mexico, Eastern Zone |
| **Geo Datum:** | NAD27 (Clarke 1866) | **Coordinate System:** | Well Centre |
| **Sys Datum:** | Mean Sea Level | **Geomagnetic Model:** | IGRF2010 |

**Site:** Parcell Federal #7
Section 8, Township 21-S, Range 38-E
Lea County, New Mexico

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 544263.50 ft | **Latitude:** | 32 29 | 24.086 | N |
| **From:** | Map | **Easting:** | 887242.70 ft | **Longitude:** | 103 4 | 38.855 | W |
| **Position Uncertainty:** | 0.00 ft | | | **North Reference:** | | Grid | |
| **Ground Level:** | 3563.00 ft | | | **Grid Convergence:** | | 0.67 | deg |

**Well:** #7 **Slot Name:**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Well Position:** | **+N/-S** | 0.00 ft | **Northing:** | 544263.50 ft | **Latitude:** | 32 | 29 | 24.086 N |
| | **+E/-W** | 0.00 ft | **Easting :** | 887242.70 ft | **Longitude:** | 103 | 4 | 38.855 W |
| **Position Uncertainty:** | | 0.00 ft | | | | | | |

**Wellpath:** Original Hole **Drilled From:** Surface
**Tie-on Depth:** 0.00 ft

| | | | |
|---|---|---|---|
| **Current Datum:** | 3563' GL + 13' KB **Height** 3576.00 ft | **Above System Datum:** | Mean Sea Level |
| **Magnetic Data:** | 10/17/2012 | **Declination:** | 7.21 deg |
| **Field Strength:** | 48721 nT | **Mag Dip Angle:** | 60.48 deg |

| **Vertical Section:** | **Depth From (TVD)** ft | **+N/-S** ft | **+E/-W** ft | **Direction** deg |
|---|---|---|---|---|
| | 0 00 | 0.00 | 0.00 | 138.30 |

**Plan:** Plan #4 **Date Composed:** 10/17/2012
**Version:** 1
**Principal:** No **Tied-to:** From Surface

**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 | 138 30 | 0.00 | 0 00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1700 00 | 0.00 | 138.30 | 1700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2414.28 | 14.29 | 138.30 | 2406.91 | -66.14 | 58.93 | 2.00 | 2.00 | 0.00 | 138 30 | |
| 7824.68 | 14.29 | 138.30 | 7650.00 | -1062.93 | 947.06 | 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 | Build deg/100ft | Turn deg/100ft | Tool/Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| 1700.00 | 0.00 | 138.30 | 1700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1800.00 | 2.00 | 138.30 | 1799.98 | -1.30 | 1.16 | 1.75 | 2.00 | 2.00 | 0.00 | |
| 1900.00 | 4.00 | 138.30 | 1899.84 | -5.21 | 4.64 | 6.98 | 2.00 | 2 00 | 0.00 | |
| 2000.00 | 6.00 | 138.30 | 1999.45 | -11.72 | 10.44 | 15.69 | 2 00 | 2.00 | 0.00 | |
| 2100.00 | 8 00 | 138.30 | 2098.70 | -20.82 | 18.55 | 27 88 | 2.00 | 2.00 | 0.00 | |
| 2200.00 | 10.00 | 138.30 | 2197.47 | -32.50 | 28.95 | 43.52 | 2.00 | 2.00 | 0.00 | |
| 2300.00 | 12 00 | 138 30 | 2295.62 | -46 74 | 41.65 | 62.60 | 2.00 | 2.00 | 0.00 | |
| 2400.00 | 14 00 | 138.30 | 2393.06 | -63.54 | 56.61 | 85.10 | 2.00 | 2.00 | 0 00 | |
| 2414.28 | 14.29 | 138.30 | 2406.91 | -66.14 | 58.93 | 88.59 | 2.00 | 2.00 | 0.00 | |
| 2500.00 | 14.29 | 138.30 | 2489.97 | -81.93 | 73.00 | 109.74 | 0.00 | 0.00 | 0.00 | |
| 2600.00 | 14.29 | 138.30 | 2586.88 | -100.36 | 89.42 | 134.41 | 0.00 | 0.00 | 0.00 | |
| 2700.00 | 14.29 | 138.30 | 2683.79 | -118.78 | 105.83 | 159.09 | 0.00 | 0.00 | 0.00 | |
| 2800.00 | 14 29 | 138.30 | 2780.69 | -137.20 | 122.25 | 183.76 | 0.00 | 0.00 | 0.00 | |
| 2900.00 | 14.29 | 138.30 | 2877.60 | -155.63 | 138.66 | 208.44 | 0.00 | 0.00 | 0.00 | |
| 3000.00 | 14.29 | 138.30 | 2974.51 | -174.05 | 155.08 | 233.12 | 0.00 | 0 00 | 0.00 | |
| 3100.00 | 14.29 | 138.30 | 3071.42 | -192.47 | 171.49 | 257.79 | 0.00 | 0.00 | 0 00 | |
| 3200.00 | 14.29 | 138.30 | 3168.33 | -210.90 | 187.91 | 282.47 | 0.00 | 0.00 | 0.00 | |

# Precision Directional Services, Inc
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | SANDRIDGE ENERGY | **Date:** 10/17/2012 | **Time:** 15:30:38 | **Page:** | 2 |
| **Field:** | Lea County NME'27 | **Co-ordinate(NE) Reference:** | Well: #7, Grid North | | |
| **Site:** | Parcell Federal #7 | **Vertical (TVD) Reference:** | 3563' GL + 13' KB 3576.0 | | |
| **Well:** | #7 | **Section (VS) Reference:** | Well (0.00N,0.00E,138.30Azi) | | |
| **Wellpath:** | Original Hole | **Plan:** | Plan #4 | | |

**Survey**

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | Tool/Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| 3300.00 | 14.29 | 138 30 | 3265.23 | -229.32 | 204.32 | 307.14 | 0.00 | 0.00 | 0.00 | |
| 3400.00 | 14.29 | 138 30 | 3362.14 | -247.75 | 220.74 | 331.82 | 0.00 | 0.00 | 0.00 | |
| 3500.00 | 14.29 | 138.30 | 3459.05 | -266.17 | 237.15 | 356.49 | 0.00 | 0.00 | 0.00 | |
| 3600.00 | 14.29 | 138.30 | 3555.96 | -284.59 | 253.57 | 381.17 | 0.00 | 0.00 | 0.00 | |
| 3700.00 | 14 29 | 138.30 | 3652.86 | -303.02 | 269.98 | 405.85 | 0.00 | 0.00 | 0.00 | |
| 3800.00 | 14.29 | 138.30 | 3749.77 | -321.44 | 286.40 | 430.52 | 0.00 | 0.00 | 0.00 | |
| 3900.00 | 14.29 | 138.30 | 3846.68 | -339.86 | 302.81 | 455.20 | 0.00 | 0.00 | 0.00 | |
| 4000.00 | 14.29 | 138.30 | 3943.59 | -358.29 | 319.23 | 479.87 | 0.00 | 0.00 | 0.00 | |
| 4100.00 | 14.29 | 138.30 | 4040.50 | -376.71 | 335.65 | 504.55 | 0.00 | 0.00 | 0.00 | |
| 4200.00 | 14.29 | 138 30 | 4137.40 | -395.13 | 352.06 | 529.22 | 0.00 | 0.00 | 0.00 | |
| 4300.00 | 14.29 | 138.30 | 4234.31 | -413.56 | 368.48 | 553.90 | 0.00 | 0.00 | 0.00 | |
| 4400 00 | 14.29 | 138 30 | 4331.22 | -431.98 | 384.89 | 578.57 | 0.00 | 0.00 | 0.00 | |
| 4500 00 | 14.29 | 138 30 | 4428.13 | -450.40 | 401.31 | 603.25 | 0 00 | 0.00 | 0.00 | |
| 4600.00 | 14.29 | 138.30 | 4525.03 | -468.83 | 417.72 | 627.93 | 0.00 | 0.00 | 0.00 | |
| 4700.00 | 14.29 | 138.30 | 4621.94 | -487.25 | 434.14 | 652.60 | 0.00 | 0.00 | 0.00 | |
| 4800.00 | 14.29 | 138.30 | 4718.85 | -505.68 | 450.55 | 677 28 | 0.00 | 0 00 | 0.00 | |
| 4900.00 | 14.29 | 138.30 | 4815.76 | -524.10 | 466.97 | 701.95 | 0.00 | 0.00 | 0.00 | |
| 5000.00 | 14.29 | 138.30 | 4912 67 | -542 52 | 483.38 | 726.63 | 0.00 | 0.00 | 0.00 | |
| 5100.00 | 14.29 | 138.30 | 5009.57 | -560.95 | 499.80 | 751.30 | 0.00 | 0.00 | 0.00 | |
| 5200.00 | 14.29 | 138.30 | 5106.48 | -579 37 | 516.21 | 775.98 | 0.00 | 0 00 | 0.00 | |
| 5300.00 | 14.29 | 138.30 | 5203.39 | -597.79 | 532.63 | 800.66 | 0.00 | 0.00 | 0.00 | |
| 5400.00 | 14.29 | 138.30 | 5300.30 | -616.22 | 549.04 | 825.33 | 0.00 | 0.00 | 0.00 | |
| 5500.00 | 14.29 | 138.30 | 5397.20 | -634.64 | 565.46 | 850.01 | 0.00 | 0.00 | 0.00 | |
| 5600.00 | 14.29 | 138.30 | 5494.11 | -653.06 | 581.87 | 874.68 | 0.00 | 0.00 | 0.00 | |
| 5700.00 | 14.29 | 138.30 | 5591.02 | -671.49 | 598.29 | 899.36 | 0.00 | 0.00 | 0.00 | |
| 5800 00 | 14.29 | 138.30 | 5687.93 | -689 91 | 614.70 | 924 03 | 0.00 | 0 00 | 0.00 | |
| 5900.00 | 14 29 | 138.30 | 5784.84 | -708 33 | 631.12 | 948.71 | 0.00 | 0.00 | 0.00 | |
| 6000.00 | 14.29 | 138 30 | 5881.74 | -726.76 | 647.53 | 973 39 | 0.00 | 0.00 | 0.00 | |
| 6100.00 | 14.29 | 138.30 | 5978.65 | -745.18 | 663.95 | 998.06 | 0.00 | 0 00 | 0.00 | |
| 6200.00 | 14.29 | 138.30 | 6075.56 | -763.61 | 680.37 | 1022.74 | 0.00 | 0.00 | 0.00 | |
| 6300.00 | 14.29 | 138.30 | 6172 47 | -782.03 | 696.78 | 1047.41 | 0.00 | 0.00 | 0.00 | |
| 6400 00 | 14.29 | 138.30 | 6269.37 | -800.45 | 713.20 | 1072.09 | 0.00 | 0.00 | 0.00 | |
| 6500.00 | 14.29 | 138.30 | 6366.28 | -818.88 | 729.61 | 1096.76 | 0.00 | 0.00 | 0.00 | |
| 6600.00 | 14.29 | 138.30 | 6463 19 | -837 30 | 746 03 | 1121 44 | 0.00 | 0.00 | 0.00 | |
| 6700.00 | 14.29 | 138.30 | 6560.10 | -855 72 | 762.44 | 1146.11 | 0.00 | 0.00 | 0.00 | |
| 6800.00 | 14.29 | 138 30 | 6657.00 | -874.15 | 778.86 | 1170.79 | 0.00 | 0.00 | 0.00 | |
| 6900.00 | 14.29 | 138.30 | 6753.91 | -892.57 | 795.27 | 1195.47 | 0.00 | 0.00 | 0.00 | |
| 7000.00 | 14.29 | 138.30 | 6850.82 | -910.99 | 811.69 | 1220.14 | 0.00 | 0.00 | 0.00 | |
| 7100 00 | 14.29 | 138.30 | 6947.73 | -929.42 | 828.10 | 1244.82 | 0.00 | 0 00 | 0.00 | |
| 7153.94 | 14.29 | 138.30 | 7000.00 | -939.36 | 836.96 | 1258.13 | 0.00 | 0.00 | 0.00 | Target |
| 7200.00 | 14 29 | 138.30 | 7044.64 | -947.84 | 844.52 | 1269.49 | 0.00 | 0.00 | 0.00 | |
| 7300.00 | 14.29 | 138 30 | 7141.54 | -966.27 | 860.93 | 1294.17 | 0.00 | 0.00 | 0.00 | |
| 7400.00 | 14.29 | 138.30 | 7238.45 | -984.69 | 877.35 | 1318.84 | 0.00 | 0.00 | 0.00 | |
| 7500.00 | 14.29 | 138.30 | 7335.36 | -1003.11 | 893.76 | 1343.52 | 0.00 | 0.00 | 0.00 | |
| 7600 00 | 14 29 | 138.30 | 7432.27 | -1021.54 | 910.18 | 1368.20 | 0.00 | 0.00 | 0.00 | |
| 7700.00 | 14.29 | 138.30 | 7529.17 | -1039.96 | 926.59 | 1392.87 | 0.00 | 0.00 | 0.00 | |
| 7800.00 | 14.29 | 138.30 | 7626.08 | -1058.38 | 943.01 | 1417.55 | 0.00 | 0.00 | 0.00 | |
| 7824.68 | 14.29 | 138.30 | 7650.00 | -1062.93 | 947.06 | 1423.64 | 0.00 | 0.00 | 0.00 | PBHL |

# Precision Directional Services, Inc
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | SANDRIDGE ENERGY | **Date:** 10/17/2012 | **Time:** 15:30:38 | **Page:** | 3 |
| **Field:** | Lea County NME'27 | **Co-ordinate(NE) Reference:** | Well: #7, Grid North | | |
| **Site:** | Parcell Federal #7 | **Vertical (TVD) Reference:** | 3563' GL + 13' KB 3576 0 | | |
| **Well:** | #7 | **Section (VS) Reference:** | Well (0.00N,0 00E,138.30Azi) | | |
| **Wellpath:** | Original Hole | **Plan:** | Plan #4 | | |

**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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | | | 0.00 | 0.00 | 0.00 | 544263.50 | 887242.70 | 32 | 29 | 24.086 | N | 103 | 4 | 38.855 | W |
| Target | | | 7000.00 | -1063.20 | 947.30 | 543200.30 | 888190.00 | 32 | 29 | 13.457 | N | 103 | 4 | 27.944 | W |
| -Circle (Radius: 145) | | | | | | | | | | | | | | | |
| -Plan out by 165.87 at | | | 7000.00 | -939.36 | 836.96 | 543324.14 | 888079.66 | 32 | 29 | 14.695 | N | 103 | 4 | 29.215 | W |
| PBHL | | | 7650.00 | -1062.93 | 947.06 | 543200.57 | 888189.76 | 32 | 29 | 13.459 | N | 103 | 4 | 27.947 | W |
| -Plan hit target | | | | | | | | | | | | | | | |

# PECOS DISTRICT
# CONDITIONS OF APPROVAL

| | |
|---|---|
| OPERATOR'S NAME: | Sandridge Explo & Prod |
| LEASE NO.: | LC069048 |
| WELL NAME & NO.: | 7 Parcell Federal |
| SURFACE HOLE FOOTAGE: | 1405' FSL & 1265' FEL |
| BOTTOM HOLE FOOTAGE | 330' FSL & 330' FEL |
| LOCATION: | Section 8, T.21 S., R.38 E., NMPM |
| COUNTY: | Lea County, New Mexico |

## I. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Blinebry** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. **The record of the drilling rate along with the GR/N well log run from TD to surface shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

## B. CASING

**Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible lost circulation in the San Andres and Glorietta formations.**

1. The **8-5/8** inch surface casing shall be **set at approximately 1648 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    **b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement may be required – excess calculates to 23%.**

3. 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.

## C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   c. The results of the test shall be reported to the appropriate BLM office.

   d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

   e. 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

## D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

## E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**JAM 103112**