

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0700  
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

**HOBBS OGD**

**JAN 15 2014**

**RECEIVED**

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                                |                                                                            |                                                                     |
|------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|
| <sup>1</sup> API Number<br><b>30-025-41599</b> | <sup>2</sup> Pool Code<br><b>59900</b>                                     | <sup>3</sup> Pool Name<br><b>TRIPLEX JOHNSON RANCH; BONE SPRING</b> |
| <sup>4</sup> Property Code<br><b>40329</b>     | <sup>5</sup> Property Name<br><b>SEA SNAKE 35 STATE</b>                    |                                                                     |
| <sup>6</sup> Well Number<br><b>2H</b>          | <sup>7</sup> Elevation<br><b>3659.0</b>                                    |                                                                     |
| <sup>8</sup> OGRID No.<br><b>6137</b>          | <sup>9</sup> Operator Name<br><b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b> |                                                                     |

<sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| N             | 26      | 23 S     | 33 E  |         | 315           | SOUTH            | 1350          | WEST           | LEA    |

<sup>11</sup> 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| N             | 35      | 23 S     | 33 E  |         | 330           | SOUTH            | 1980          | WEST           | LEA    |

|                                             |                               |                                  |                         |
|---------------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br><b>160</b> | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> 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.

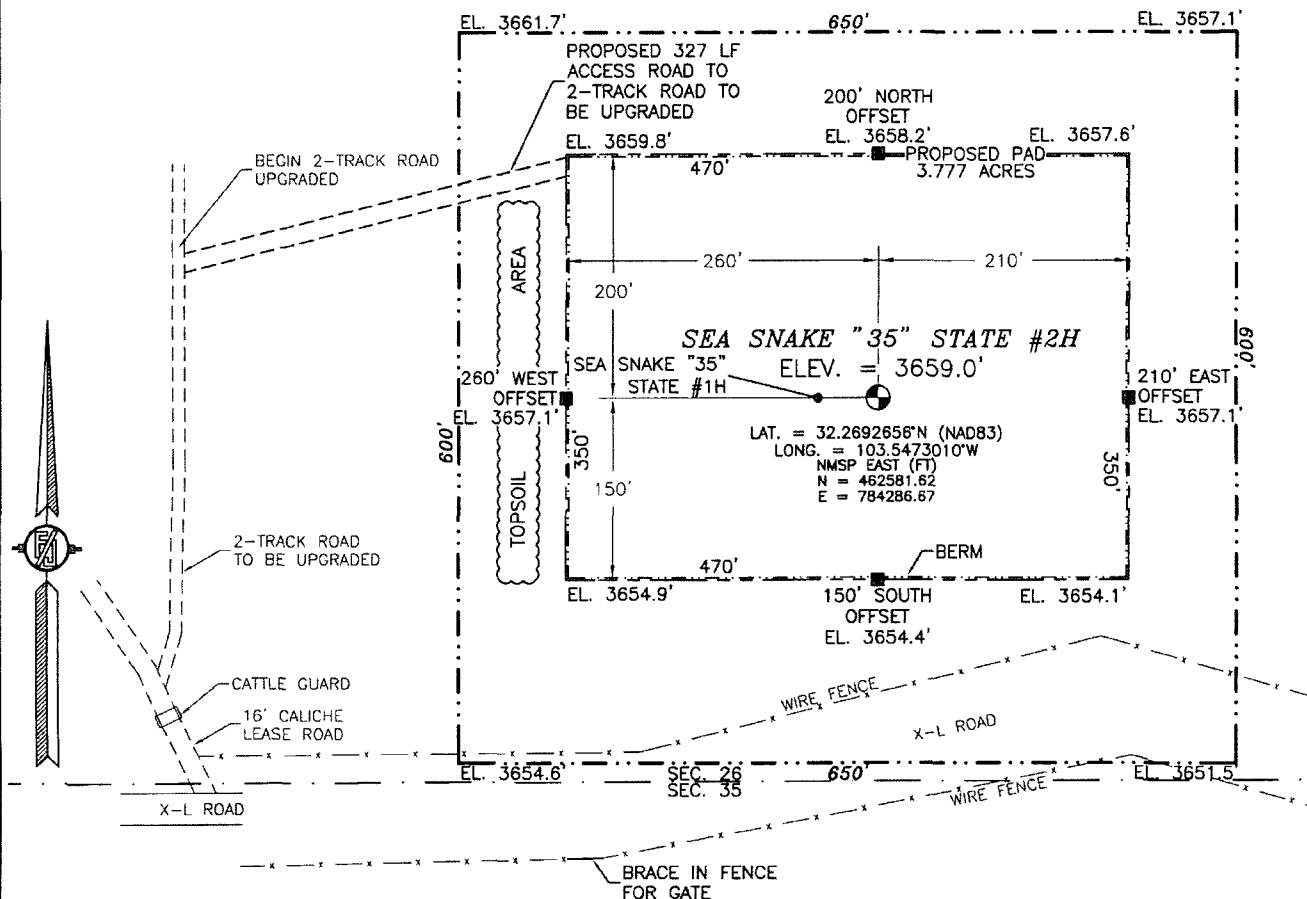
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>SEA SNAKE 35 STATE #2H</b><br/>ELEV. = 3659.0'<br/>LAT. = 32.2692656°N (NAD83)<br/>LONG. = 103.5473010°W<br/>NMSP EAST (FT)<br/>N = 462581.62<br/>E = 784286.67</p> <p><b>SURFACE LOCATION</b><br/>LAT. = 32.2684152°N<br/>LONG. = 103.5516694°W<br/>NMSP EAST (FT)<br/>N = 462262.38<br/>E = 782939.28</p> <p><b>BOTTOM OF HOLE</b><br/>LAT. = 32.2547721°N<br/>LONG. = 103.5452607°W<br/>NMSP EAST (FT)<br/>N = 457313.52<br/>E = 784956.02</p> <p><b>NOTE:</b><br/>LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES WOODFORD TO THE SURFACE.</p> | <p><b>17 OPERATOR CERTIFICATION</b><br/>I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>D. C.</i> <b>1/14/2014</b><br/>Signature Date<br/><b>David Cook</b> Regulatory Specialist<br/>Printed Name<br/><b>david.cook@dvn.com</b><br/>E-mail Address</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p><b>18 SURVEYOR CERTIFICATION</b><br/>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.</p> <p><b>OCTOBER 30, 2013</b><br/>Date of Survey<br/><i>[Signature]</i><br/>Signature and Seal of Professional Surveyor<br/>Certificate Number: <b>PL 11001 FARRAMILL CO. PLS 12797</b><br/>SURVEY NO. 2296A</p>                                                                                                                                                                                                                                                    |

PP: 200 FNL & 1350 FWL 35-23S-33E

**FEB 20 2014**

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
**SITE MAP**

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



0 15 75 150 300

SCALE 1" = 150'

**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF STATE HIGHWAY 128 (JAL HIGHWAY) AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 3.98 MILES TO X-L ROAD ON LEFT, GO WEST ON X-L ROAD 2.25 MILES TO TURNOUT ON RIGHT TO CIMAREX "WEST BELL LAKE BATTERY", GO NORTH JUST PAST FIRST CATTLE GUARD ON RIGHT, TURN TO 2-TRACK ROAD, GO NORTH 355'± ON RIGHT FOLLOW FLAGS 327' TO NORTHWEST CORNER OF PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

**SEA SNAKE "35" STATE #2H**

LOCATED 315 FT. FROM THE SOUTH LINE  
AND 1350 FT. FROM THE WEST LINE OF

SECTION 26, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

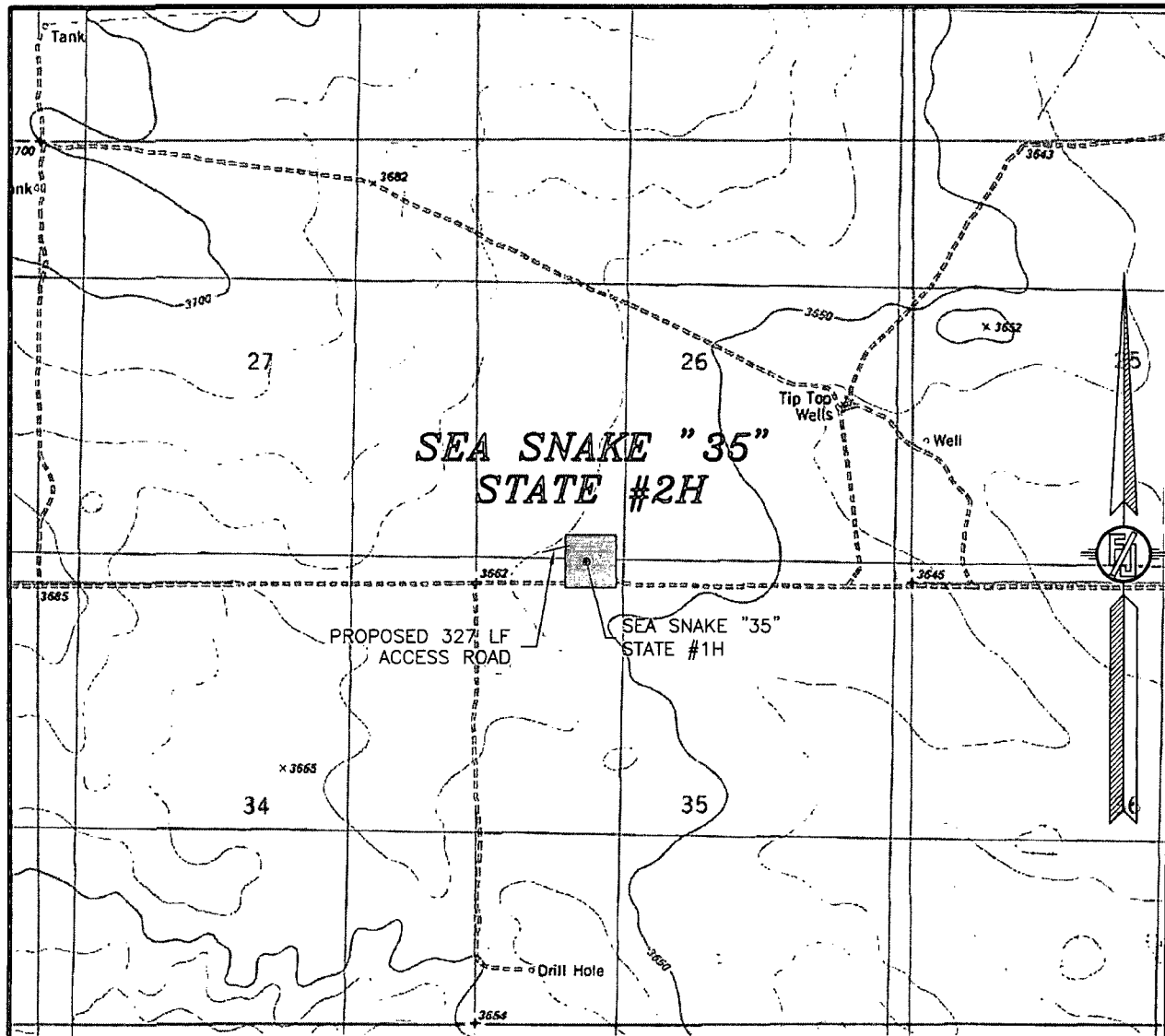
OCTOBER 30, 2013

SURVEY NO. 2296A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
TIP TOP WELLS

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

**SEA SNAKE "35" STATE #2H**

LOCATED 315 FT. FROM THE SOUTH LINE  
AND 1350 FT. FROM THE WEST LINE OF  
SECTION 26, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

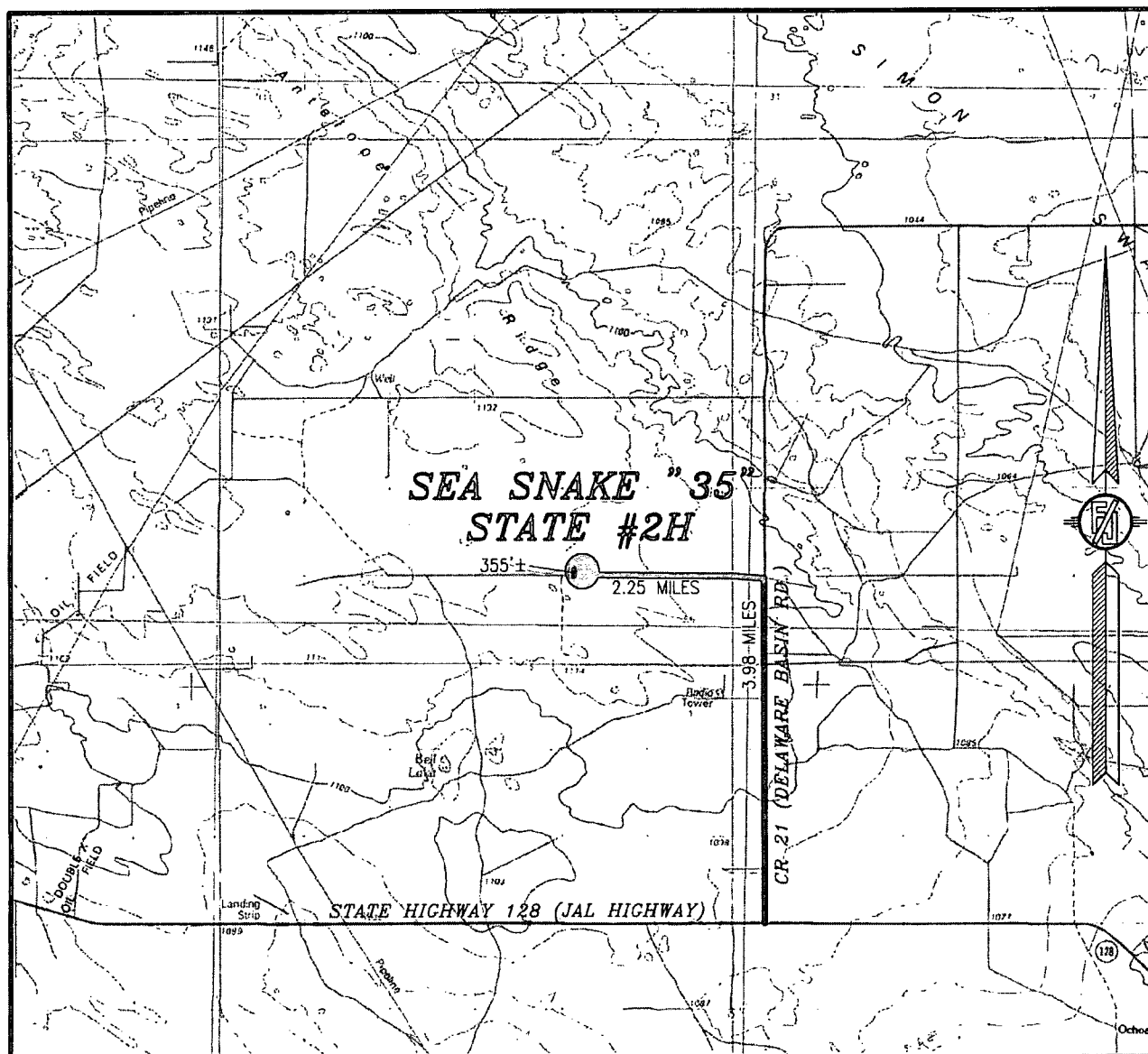
OCTOBER 30, 2013

SURVEY NO. 2296A

MADRON SURVEYING, INC. 301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

**SEA SNAKE "35" STATE #2H**  
LOCATED 315 FT. FROM THE SOUTH LINE  
AND 1350 FT. FROM THE WEST LINE OF  
SECTION 26, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

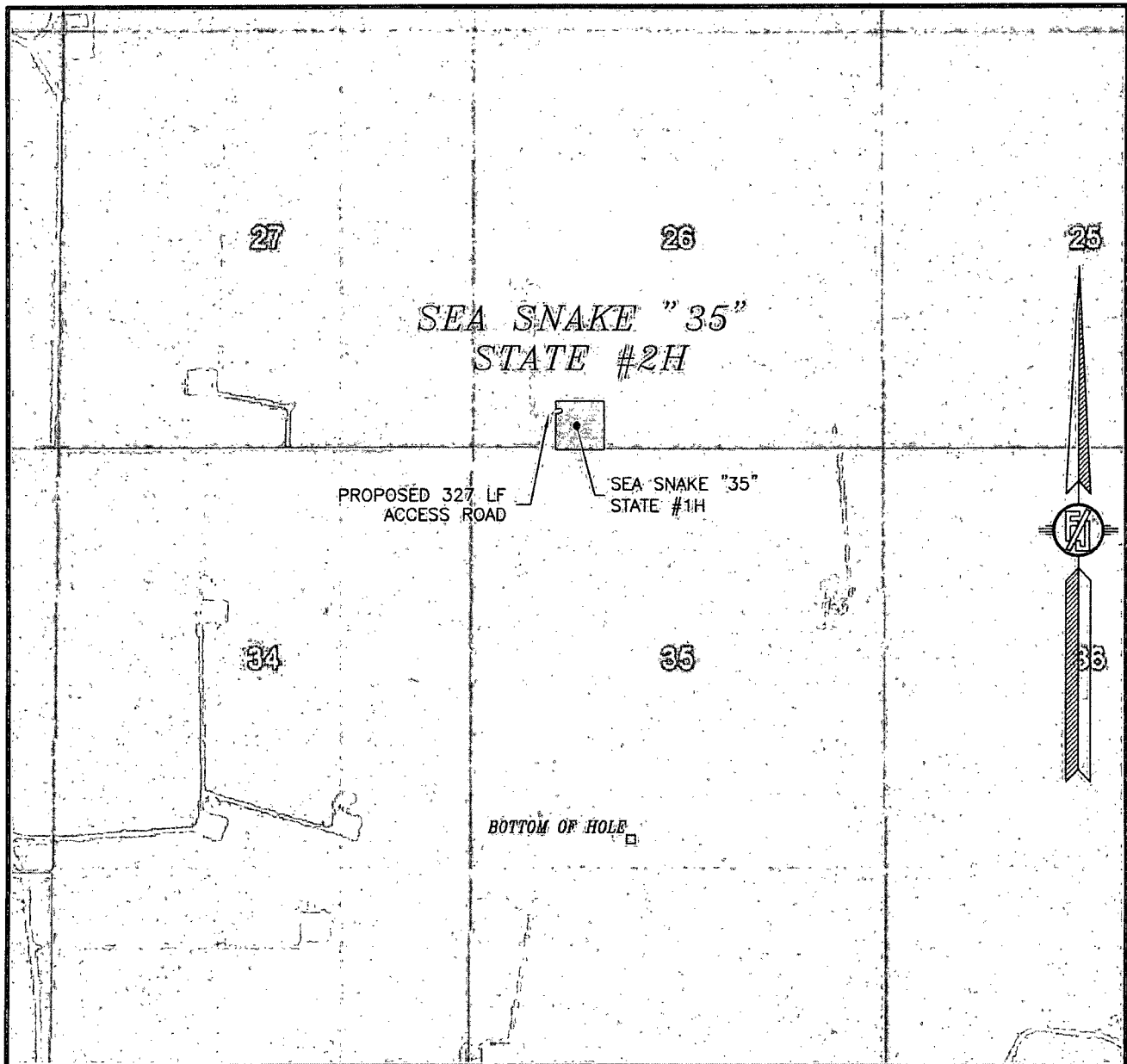
OCTOBER 30, 2013

**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF STATE HIGHWAY 128 (JAL HIGHWAY) AND  
CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 3.98 MILES  
TO X-L ROAD ON LEFT, GO WEST ON X-L ROAD 2.25 MILES TO  
TURNOUT ON RIGHT TO CIMAREX "WEST BELL LAKE BATTERY", GO  
NORTH JUST PAST FIRST CATTLE GUARD ON RIGHT, TURN TO  
2-TRACK ROAD, GO NORTH 355'± ON RIGHT FOLLOW FLAGS 327' TO  
NORTHWEST CORNER OF PAD.

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO SURVEY NO. 2296A

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
MARCH 2012

DEVON ENERGY PRODUCTION COMPANY, L.P.

**SEA SNAKE "35" STATE #2H**

LOCATED 315 FT. FROM THE SOUTH LINE  
AND 1350 FT. FROM THE WEST LINE OF  
SECTION 26, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 30, 2013

SURVEY NO. 2296A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

5D Plan Report

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5D Plan Report

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**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NM***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 2H***Plan:** *P1:V1*

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10 December 2013

**Weatherford®**



Sea Snake 35 State 2H  
Lea Co, NM



Weatherford

#### Plan Data for Sea Snake 35 State 2H

##### Plan Point Information:

| DogLeg Severity Unit: °/100.00ft |       |        |          | Position offsets from Slot centre |        |           |           |         |        |
|----------------------------------|-------|--------|----------|-----------------------------------|--------|-----------|-----------|---------|--------|
| MD                               | Inc   | Az     | TVD      | +N/-S                             | +E/-W  | Northing  | Easting   | VSec    | DLS    |
| (USft)                           | (°)   | (°)    | (USft)   | (USft)                            | (USft) | (USft)    | (USft)    | (USft)  | (DLSU) |
| 0.00                             | 0.00  | 0.00   | 0.00     | 0.00                              | 0.00   | 462581.62 | 784286.67 | 0.00    | 0.00   |
| 10746.84                         | 0.00  | 0.00   | 10746.84 | 0.00                              | 0.00   | 462581.62 | 784286.67 | 0.00    | 0.00   |
| 11490.63                         | 89.25 | 118.00 | 11224.27 | -221.27                           | 416.08 | 462360.35 | 784702.75 | 221.27  | 12.00  |
| 12007.29                         | 90.00 | 180.00 | 11228.00 | -642.84                           | 669.35 | 461938.78 | 784956.02 | 642.84  | 12.00  |
| 16632.55                         | 90.00 | 180.00 | 11228.00 | -5268.10                          | 669.35 | 457313.52 | 784956.02 | 5268.10 | 0.00   |

#### Plan Data for Sea Snake 35 State 2H

##### Target Set Information:

Name: Sea Snake 35 State 2H

Position offsets from Slot centre

| Name    | TVD      | +N/-S    | +E/-W  | Northing  | Easting   | Shape  | Comment |
|---------|----------|----------|--------|-----------|-----------|--------|---------|
| (USft)  | (USft)   | (USft)   | (USft) | (USft)    | (USft)    |        |         |
| Lp Tgt  | 11228.00 | -642.84  | 669.35 | 461938.78 | 784956.02 | Cuboid |         |
| PBHL 2H | 11228.00 | -5268.10 | 669.35 | 457313.52 | 784956.02 | Cuboid |         |

#### Plan Data for Sea Snake 35 State 2H

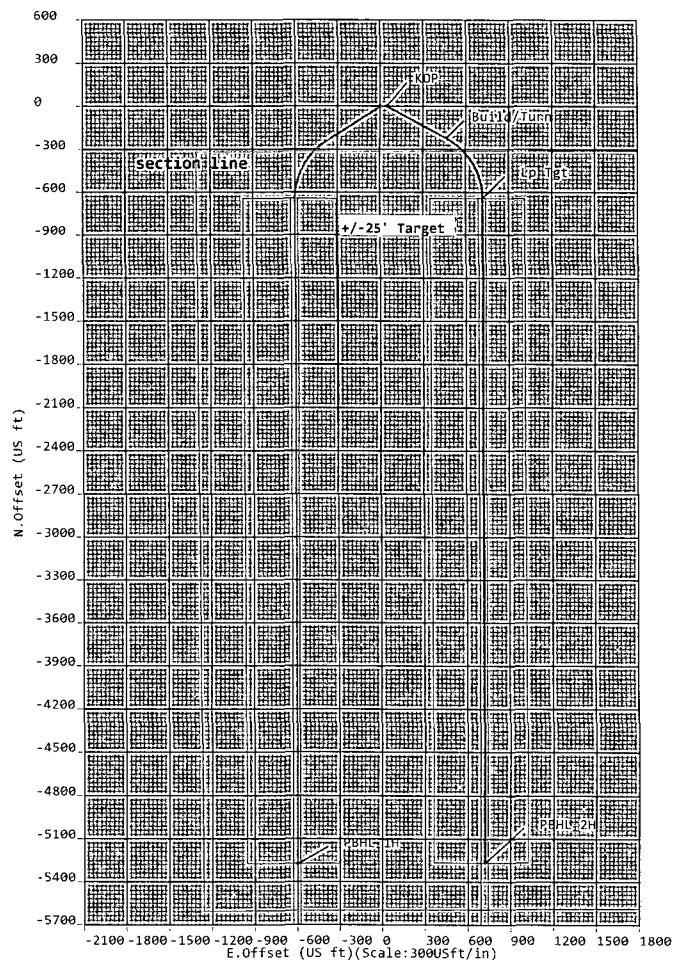
##### Slot: Sea Snake 35 State 2H

Position:

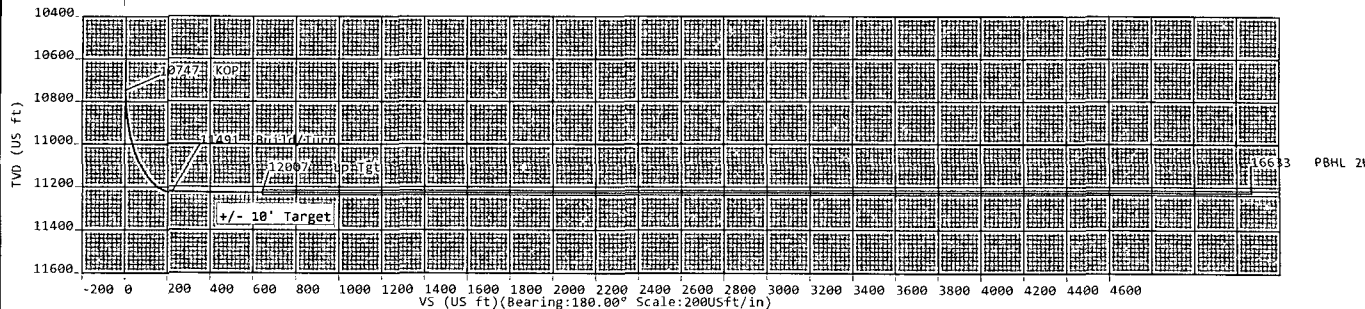
Offset is from Site centre

+N/-S: 0.18USft Northing: 462581.62USft Latitude: 32°16'9.4"  
+E/-W: 49.99USft Easting: 784286.67USft Longitude: -103°32'50.3"  
Elevation Above VRD: 3659.00USft

Sea Snake 35 State 1H  
Sea Snake 35 State 2H



KB-3684  
GL-3659



Sign Off: Patrick Rudolph



# Weatherford

## Sea Snake 35 State 2H

|                                                                     |                                                                |                                   |                                     |                                               |
|---------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------------------|
| <b>Field Name</b><br>Lea Co, NM Nad<br>83 NM                        | <b>Map Units</b> : US ft                                       |                                   | <b>Company Name</b> : Devon Energy  |                                               |
|                                                                     | <b>Vertical Reference Datum (VRD)</b> : Mean Sea Level         |                                   |                                     |                                               |
| <b>Projected Coordinate System</b> : NAD83 / New Mexico East (ftUS) |                                                                |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                                |                                   |                                     |                                               |
| <b>Site Name</b><br>Sea Snake 35<br>State 1, 2H Pad                 | <b>Units</b> : US ft                                           | <b>North Reference</b> : Grid     | <b>Convergence Angle</b> : 0.42     |                                               |
|                                                                     | <b>Position</b>                                                | <b>Northing</b> : 462581.44 US ft | <b>Latitude</b> : 32° 16' 9.36"     |                                               |
|                                                                     |                                                                | <b>Easting</b> : 784236.68 US ft  | <b>Longitude</b> : -103° 32' 50.87" |                                               |
| <b>Elevation above Mean Sea Level</b> : 3659.00 US ft               |                                                                |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                                |                                   |                                     |                                               |
| <b>Slot Name</b><br>Sea Snake 35<br>State 2H                        | <b>Position (Offsets relative to Site Centre)</b>              |                                   |                                     |                                               |
|                                                                     | <b>+N / -S</b> : 0.18 US ft                                    |                                   | <b>Northing</b> : 462581.62 US ft   | <b>Latitude</b> : 32° 16' 9.36"               |
|                                                                     | <b>+E / -W</b> : 49.99 US ft                                   |                                   | <b>Easting</b> : 784286.67 US ft    | <b>Longitude</b> : -103° 32' 50.28"           |
|                                                                     | <b>Slot TVD Reference</b> : Ground Elevation                   |                                   |                                     |                                               |
| <b>Elevation above Mean Sea Level</b> : 3659.00 US ft               |                                                                |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                                |                                   |                                     |                                               |
| <b>Well Name</b><br>Sea Snake 35<br>State 2H                        | <b>Type</b> : Main well                                        |                                   | <b>UWI</b> :                        | <b>Plan</b> : P1:V1                           |
|                                                                     | <b>Rig Height</b> : 25.00 US ft                                |                                   | <b>Comment</b> :                    |                                               |
|                                                                     | <b>Relative to Mean Sea Level</b> : 3684.00 US ft              |                                   |                                     |                                               |
|                                                                     | <b>Closure Distance</b> : 5310.45 US ft                        |                                   | <b>Closure Azimuth</b> : 172.759°   |                                               |
|                                                                     | <b>Vertical Section (Position of Origin Relative to Slot )</b> |                                   |                                     |                                               |
|                                                                     | <b>+N / -S</b> : 0.00 US ft                                    |                                   | <b>+E / -W</b> : 0.00 US ft         | <b>Az</b> : 180.00°                           |
|                                                                     | <b>Magnetic Parameters</b>                                     |                                   |                                     |                                               |
|                                                                     | <b>Model</b> : BGGM                                            | <b>Field Strength</b> : 48372.5nT | <b>Dec</b> : 7.35°                  | <b>Dip</b> : 60.15° <b>Date</b> : 01/Apr/2014 |

### Target Set

**Name** : Sea Snake 35 State **Number of Targets** : 2

2H

**Comment** :

|                                                 |                                           |                                   |                                     |
|-------------------------------------------------|-------------------------------------------|-----------------------------------|-------------------------------------|
| <b>Target Name</b><br>Lp Tgt<br>Shape<br>Cuboid | <b>Position (Relative to Slot centre)</b> |                                   |                                     |
|                                                 | <b>+N / -S</b> : -642.84 US ft            | <b>Northing</b> : 461938.78 US ft | <b>Latitude</b> : 32° 16' 2.95"     |
|                                                 | <b>+E / -W</b> : 669.35 US ft             | <b>Easting</b> : 784956.02 US ft  | <b>Longitude</b> : -103° 32' 42.54" |
|                                                 | <b>TVD (Drill Floor)</b> : 11228.00 US ft |                                   |                                     |
| <b>Orientation Azimuth</b> : 0.00°              |                                           | <b>Inclination</b> : 0.00°        |                                     |
| <b>Dimensions Length</b> : 0.00 US ft           | <b>Breadth</b> : 0.00 US ft               | <b>Height</b> : 0.00 US ft        |                                     |



## 5D Plan Report

|                     |                                           |                                   |                                   |
|---------------------|-------------------------------------------|-----------------------------------|-----------------------------------|
| <b>Target Name:</b> | <b>Position (Relative to Slot centre)</b> |                                   |                                   |
| <b>PBHL 2H</b>      | <b>+N / -S :</b> -5268.10US ft            | <b>Northing :</b> 457313.52 US ft | <b>Latitude :</b> 32°15'17.18"    |
| <b>Shape:</b>       | <b>+E / -W :</b> 669.35 US ft             | <b>Easting :</b> 784956.02US ft   | <b>Longitude :</b> -103°32'42.94" |
| <b>Cuboid</b>       | <b>TVD (Drill Floor) :</b> 11228.00 US ft |                                   |                                   |
|                     | <b>Orientation Azimuth :</b> 0.00°        | <b>Inclination :</b> 0.00°        |                                   |
|                     | <b>Dimensions Length :</b> 9250.00 US ft  | <b>Breadth :</b> 50.00 US ft      | <b>Height :</b> 20.00 US ft       |

## Well path created using minimum curvature

| Salient Points (Relative to Slot centre, TVD relative to Drill Floor) |            |           |                |                      |                      |               |                      |                     |                    |            |
|-----------------------------------------------------------------------|------------|-----------|----------------|----------------------|----------------------|---------------|----------------------|---------------------|--------------------|------------|
| MD<br>(US ft)                                                         | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N. Offset<br>(US ft) | E. Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(°/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment    |
| 0.00                                                                  | 0.00       | 0.00      | 0.00           | 0.00                 | 0.00                 | -0.00         | 0.00                 | 462581.62           | 784286.67          |            |
| 10746.84                                                              | 0.00       | 0.00      | 10746.84       | 0.00                 | 0.00                 | -0.00         | 0.00                 | 462581.62           | 784286.67          | KOP        |
| 11490.63                                                              | 89.25      | 118.00    | 11224.27       | -221.27              | 416.08               | 221.27        | 12.00                | 462360.35           | 784702.75          | Build/Turn |
| 12007.29                                                              | 90.00      | 180.00    | 11228.00       | -642.84              | 669.35               | 642.84        | 12.00                | 461938.78           | 784956.02          | Lp Tgt     |
| 16632.55                                                              | 90.00      | 180.00    | 11228.00       | -5268.10             | 669.35               | 5268.10       | 0.00                 | 457313.52           | 784956.02          | PBHL 2H    |

| Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor) |            |           |                |                      |                      |               |                      |                     |                    |            |
|----------------------------------------------------------------------------|------------|-----------|----------------|----------------------|----------------------|---------------|----------------------|---------------------|--------------------|------------|
| MD<br>(US ft)                                                              | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N. Offset<br>(US ft) | E. Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(°/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment    |
| 10700.00                                                                   | 0.00       | 0.00      | 10700.00       | 0.00                 | 0.00                 | -0.00         | 0.00                 | 462581.62           | 784286.67          |            |
| 10746.84                                                                   | 0.00       | 0.00      | 10746.84       | 0.00                 | 0.00                 | -0.00         | 0.00                 | 462581.62           | 784286.67          | KOP        |
| 10800.00                                                                   | 6.38       | 118.00    | 10799.89       | -1.39                | 2.61                 | 1.39          | 12.00                | 462580.23           | 784289.28          |            |
| 10900.00                                                                   | 18.38      | 118.00    | 10897.39       | -11.43               | 21.50                | 11.43         | 12.00                | 462570.19           | 784308.17          |            |
| 11000.00                                                                   | 30.38      | 118.00    | 10988.30       | -30.78               | 57.88                | 30.78         | 12.00                | 462550.84           | 784344.55          |            |
| 11100.00                                                                   | 42.38      | 118.00    | 11068.67       | -58.58               | 110.15               | 58.58         | 12.00                | 462523.04           | 784396.82          |            |
| 11200.00                                                                   | 54.38      | 118.00    | 11134.97       | -93.61               | 176.03               | 93.61         | 12.00                | 462488.01           | 784462.70          |            |
| 11300.00                                                                   | 66.38      | 118.00    | 11184.30       | -134.36              | 252.65               | 134.36        | 12.00                | 462447.26           | 784539.32          |            |
| 11400.00                                                                   | 78.38      | 118.00    | 11214.52       | -179.02              | 336.64               | 179.02        | 12.00                | 462402.60           | 784623.31          |            |
| 11490.63                                                                   | 89.25      | 118.00    | 11224.27       | -221.27              | 416.08               | 221.27        | 12.00                | 462360.35           | 784702.75          | Build/Turn |
| 11500.00                                                                   | 89.26      | 119.13    | 11224.39       | -225.75              | 424.30               | 225.75        | 12.00                | 462355.87           | 784710.97          |            |
| 11600.00                                                                   | 89.36      | 131.13    | 11225.59       | -283.18              | 505.93               | 283.18        | 12.00                | 462298.44           | 784792.60          |            |
| 11700.00                                                                   | 89.49      | 143.13    | 11226.59       | -356.33              | 573.84               | 356.33        | 12.00                | 462225.29           | 784860.51          |            |
| 11800.00                                                                   | 89.64      | 155.13    | 11227.35       | -442.00              | 625.06               | 442.00        | 12.00                | 462139.62           | 784911.73          |            |
| 11900.00                                                                   | 89.81      | 167.13    | 11227.82       | -536.45              | 657.35               | 536.45        | 12.00                | 462045.17           | 784944.02          |            |
| 12000.00                                                                   | 89.99      | 179.13    | 11228.00       | -635.55              | 669.29               | 635.55        | 12.00                | 461946.07           | 784955.96          |            |
| 12007.29                                                                   | 90.00      | 180.00    | 11228.00       | -642.84              | 669.35               | 642.84        | 12.00                | 461938.78           | 784956.02          | Lp Tgt     |
| 12100.00                                                                   | 90.00      | 180.00    | 11228.00       | -735.55              | 669.35               | 735.55        | 0.00                 | 461846.07           | 784956.02          |            |
| 12200.00                                                                   | 90.00      | 180.00    | 11228.00       | -835.55              | 669.35               | 835.55        | 0.00                 | 461746.07           | 784956.02          |            |
| 12300.00                                                                   | 90.00      | 180.00    | 11228.00       | -935.55              | 669.35               | 935.55        | 0.00                 | 461646.07           | 784956.02          |            |
| 12400.00                                                                   | 90.00      | 180.00    | 11228.00       | -1035.55             | 669.35               | 1035.55       | 0.00                 | 461546.07           | 784956.02          |            |
| 12500.00                                                                   | 90.00      | 180.00    | 11228.00       | -1135.55             | 669.35               | 1135.55       | 0.00                 | 461446.07           | 784956.02          |            |
| 12600.00                                                                   | 90.00      | 180.00    | 11228.00       | -1235.55             | 669.35               | 1235.55       | 0.00                 | 461346.07           | 784956.02          |            |
| 12700.00                                                                   | 90.00      | 180.00    | 11228.00       | -1335.55             | 669.35               | 1335.55       | 0.00                 | 461246.07           | 784956.02          |            |
| 12800.00                                                                   | 90.00      | 180.00    | 11228.00       | -1435.55             | 669.35               | 1435.55       | 0.00                 | 461146.07           | 784956.02          |            |
| 12900.00                                                                   | 90.00      | 180.00    | 11228.00       | -1535.55             | 669.35               | 1535.55       | 0.00                 | 461046.07           | 784956.02          |            |
| 13000.00                                                                   | 90.00      | 180.00    | 11228.00       | -1635.55             | 669.35               | 1635.55       | 0.00                 | 460946.07           | 784956.02          |            |
| 13100.00                                                                   | 90.00      | 180.00    | 11228.00       | -1735.55             | 669.35               | 1735.55       | 0.00                 | 460846.07           | 784956.02          |            |
| 13200.00                                                                   | 90.00      | 180.00    | 11228.00       | -1835.55             | 669.35               | 1835.55       | 0.00                 | 460746.07           | 784956.02          |            |
| 13299.99                                                                   | 90.00      | 180.00    | 11228.00       | -1935.55             | 669.35               | 1935.55       | 0.00                 | 460646.07           | 784956.02          |            |
| 13399.99                                                                   | 90.00      | 180.00    | 11228.00       | -2035.54             | 669.35               | 2035.54       | 0.00                 | 460546.08           | 784956.02          |            |
| 13499.99                                                                   | 90.00      | 180.00    | 11228.00       | -2135.54             | 669.35               | 2135.54       | 0.00                 | 460446.08           | 784956.02          |            |
| 13599.99                                                                   | 90.00      | 180.00    | 11228.00       | -2235.54             | 669.35               | 2235.54       | 0.00                 | 460346.08           | 784956.02          |            |
| 13699.99                                                                   | 90.00      | 180.00    | 11228.00       | -2335.54             | 669.35               | 2335.54       | 0.00                 | 460246.08           | 784956.02          |            |
| 13799.99                                                                   | 90.00      | 180.00    | 11228.00       | -2435.54             | 669.35               | 2435.54       | 0.00                 | 460146.08           | 784956.02          |            |

## 5D Plan Report

| Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor) |            |           |                |                     |                     |               |                      |                     |                    |         |
|----------------------------------------------------------------------------|------------|-----------|----------------|---------------------|---------------------|---------------|----------------------|---------------------|--------------------|---------|
| MD<br>(US ft)                                                              | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N Offset<br>(US ft) | E Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(%/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment |
| 13899.99                                                                   | 90.00      | 180.00    | 11228.00       | -2535.54            | 669.35              | 2535.54       | 0.00                 | 460046.08           | 784956.02          |         |
| 13999.99                                                                   | 90.00      | 180.00    | 11228.00       | -2635.54            | 669.35              | 2635.54       | 0.00                 | 459946.08           | 784956.02          |         |
| 14099.99                                                                   | 90.00      | 180.00    | 11228.00       | -2735.54            | 669.35              | 2735.54       | 0.00                 | 459846.08           | 784956.02          |         |
| 14199.99                                                                   | 90.00      | 180.00    | 11228.00       | -2835.54            | 669.35              | 2835.54       | 0.00                 | 459746.08           | 784956.02          |         |
| 14299.99                                                                   | 90.00      | 180.00    | 11228.00       | -2935.54            | 669.35              | 2935.54       | 0.00                 | 459646.08           | 784956.02          |         |
| 14399.99                                                                   | 90.00      | 180.00    | 11228.00       | -3035.54            | 669.35              | 3035.54       | 0.00                 | 459546.08           | 784956.02          |         |
| 14499.99                                                                   | 90.00      | 180.00    | 11228.00       | -3135.54            | 669.35              | 3135.54       | 0.00                 | 459446.08           | 784956.02          |         |
| 14599.99                                                                   | 90.00      | 180.00    | 11228.00       | -3235.54            | 669.35              | 3235.54       | 0.00                 | 459346.08           | 784956.02          |         |
| 14699.99                                                                   | 90.00      | 180.00    | 11228.00       | -3335.54            | 669.35              | 3335.54       | 0.00                 | 459246.08           | 784956.02          |         |
| 14799.99                                                                   | 90.00      | 180.00    | 11228.00       | -3435.54            | 669.35              | 3435.54       | 0.00                 | 459146.08           | 784956.02          |         |
| 14899.99                                                                   | 90.00      | 180.00    | 11228.00       | -3535.54            | 669.35              | 3535.54       | 0.00                 | 459046.08           | 784956.02          |         |
| 14999.99                                                                   | 90.00      | 180.00    | 11228.00       | -3635.54            | 669.35              | 3635.54       | 0.00                 | 458946.08           | 784956.02          |         |
| 15099.99                                                                   | 90.00      | 180.00    | 11228.00       | -3735.54            | 669.35              | 3735.54       | 0.00                 | 458846.08           | 784956.02          |         |
| 15199.99                                                                   | 90.00      | 180.00    | 11228.00       | -3835.54            | 669.35              | 3835.54       | 0.00                 | 458746.08           | 784956.02          |         |
| 15299.99                                                                   | 90.00      | 180.00    | 11228.00       | -3935.54            | 669.35              | 3935.54       | 0.00                 | 458646.08           | 784956.02          |         |
| 15399.99                                                                   | 90.00      | 180.00    | 11228.00       | -4035.54            | 669.35              | 4035.54       | 0.00                 | 458546.08           | 784956.02          |         |
| 15499.99                                                                   | 90.00      | 180.00    | 11228.00       | -4135.54            | 669.35              | 4135.54       | 0.00                 | 458446.08           | 784956.02          |         |
| 15599.99                                                                   | 90.00      | 180.00    | 11228.00       | -4235.54            | 669.35              | 4235.54       | 0.00                 | 458346.08           | 784956.02          |         |
| 15699.99                                                                   | 90.00      | 180.00    | 11228.00       | -4335.54            | 669.35              | 4335.54       | 0.00                 | 458246.08           | 784956.02          |         |
| 15799.99                                                                   | 90.00      | 180.00    | 11228.00       | -4435.54            | 669.35              | 4435.54       | 0.00                 | 458146.08           | 784956.02          |         |
| 15899.99                                                                   | 90.00      | 180.00    | 11228.00       | -4535.54            | 669.35              | 4535.54       | 0.00                 | 458046.08           | 784956.02          |         |
| 15999.99                                                                   | 90.00      | 180.00    | 11228.00       | -4635.54            | 669.35              | 4635.54       | 0.00                 | 457946.08           | 784956.02          |         |
| 16099.99                                                                   | 90.00      | 180.00    | 11228.00       | -4735.54            | 669.35              | 4735.54       | 0.00                 | 457846.08           | 784956.02          |         |
| 16199.99                                                                   | 90.00      | 180.00    | 11228.00       | -4835.54            | 669.35              | 4835.54       | 0.00                 | 457746.08           | 784956.02          |         |
| 16299.99                                                                   | 90.00      | 180.00    | 11228.00       | -4935.54            | 669.35              | 4935.54       | 0.00                 | 457646.08           | 784956.02          |         |
| 16399.99                                                                   | 90.00      | 180.00    | 11228.00       | -5035.54            | 669.35              | 5035.54       | 0.00                 | 457546.08           | 784956.02          |         |
| 16499.99                                                                   | 90.00      | 180.00    | 11228.00       | -5135.54            | 669.35              | 5135.54       | 0.00                 | 457446.08           | 784956.02          |         |
| 16599.99                                                                   | 90.00      | 180.00    | 11228.00       | -5235.54            | 669.35              | 5235.54       | 0.00                 | 457346.08           | 784956.02          |         |
| 16632.55                                                                   | 90.00      | 180.00    | 11228.00       | -5268.10            | 669.35              | 5268.10       | 0.00                 | 457313.52           | 784956.02          | PBHL 2H |

5D Anti-Collision Report

HOBBS OCD

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**5D Anti-Collision Report**

**Devon Energy**

**Field Name:** *Lea Co, NM Nad 83 NM*

**Site Name:** *Sea Snake 35 State 1,2H Pad*

**Well Name:** *Sea Snake 35 State 2H*

10 December 2013



**Weatherford®**



# Weatherford

## Sea Snake 35 State 2H

|                                                                     |                                                               |                                   |                                     |                                               |
|---------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------------------|
| <b>Field Name</b><br>Lea Co, NM Nad<br>88 NM                        | <b>Map Units</b> : US ft                                      |                                   | <b>Company Name</b> : Devon Energy  |                                               |
|                                                                     | <b>Vertical Reference Datum (VRD)</b> : Mean Sea Level        |                                   |                                     |                                               |
| <b>Projected Coordinate System</b> : NAD83 / New Mexico East (ftUS) |                                                               |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                               |                                   |                                     |                                               |
| <b>Site Name</b><br>Sea Snake 35<br>State 1, 2H Pad                 | <b>Units</b> : US ft                                          | <b>North Reference</b> : Grid     | <b>Convergence Angle</b> : 0.42     |                                               |
|                                                                     | <b>Position</b>                                               | <b>Northing</b> : 462581.44 US ft | <b>Latitude</b> : 32° 16' 9.36"     |                                               |
|                                                                     |                                                               | <b>Easting</b> : 784236.68 US ft  | <b>Longitude</b> : -103° 32' 50.87" |                                               |
|                                                                     | <b>Elevation above Mean Sea Level</b> : 3659.00 US ft         |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                               |                                   |                                     |                                               |
| <b>Slot Name</b><br>Sea Snake 35<br>State 2H                        | <b>Position (Offsets relative to Site Centre)</b>             |                                   |                                     |                                               |
|                                                                     | <b>+N / -S</b> : 0.18 US ft                                   | <b>Northing</b> : 462581.62 US ft | <b>Latitude</b> : 32° 16' 9.36"     |                                               |
|                                                                     | <b>+E / -W</b> : 49.99 US ft                                  | <b>Easting</b> : 784286.67 US ft  | <b>Longitude</b> : -103° 32' 50.28" |                                               |
|                                                                     | <b>Slot TVD Reference</b> : Ground Elevation                  |                                   |                                     |                                               |
| <b>Elevation above Mean Sea Level</b> : 3659.00 US ft               |                                                               |                                   |                                     |                                               |
| <b>Comment</b> :                                                    |                                                               |                                   |                                     |                                               |
| <b>Well Name</b><br>Sea Snake 35<br>State 2H                        | <b>Type</b> : Main well                                       |                                   | <b>UWI</b> :                        | <b>Plan</b> : Working Plan                    |
|                                                                     | <b>Rig Height</b> : 25.00 US ft                               |                                   | <b>Comment</b> :                    |                                               |
|                                                                     | <b>Relative to Mean Sea Level</b> : 3684.00 US ft             |                                   |                                     |                                               |
|                                                                     | <b>Closure Distance</b> : 5310.45 US ft                       |                                   | <b>Closure Azimuth</b> : 172.759°   |                                               |
|                                                                     | <b>Vertical Section (Position of Origin Relative to Slot)</b> |                                   |                                     |                                               |
|                                                                     | <b>+N / -S</b> : 0.00 US ft                                   |                                   | <b>+E / -W</b> : 0.00 US ft         | <b>Az</b> : 180.00°                           |
|                                                                     | <b>Magnetic Parameters</b>                                    |                                   |                                     |                                               |
|                                                                     | <b>Model</b> : BGGM                                           | <b>Field Strength</b> : 48372.5nT | <b>Dec</b> : 7.35°                  | <b>Dip</b> : 60.15° <b>Date</b> : 01/Apr/2014 |

| Collision / Uncertainty Analysis |                  |                |                         |                                            |
|----------------------------------|------------------|----------------|-------------------------|--------------------------------------------|
| Primary Well                     | Start MD (US ft) | End MD (US ft) | Collision Risk Interval | No. of Std Deviations in Error Computation |
| Sea Snake 35 State 2H (p)        | 0.00             | 16632.55       | 100.00                  | 2                                          |

| Secondary Well Names      |
|---------------------------|
| Sea Snake 35 State 1H (p) |

| Anti-Collision Report Terminology                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S.Minor, S.Major</b> : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.                             |
| <b>PHI</b> : Angle between high-side vector and semi-minor axis                                                                                        |
| <b>TVD Spread</b> : Total TVD range of the ellipsoid of uncertainty at the current location                                                            |
| <b>ES</b> : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr                                |
| <b>T.Face to Sec</b> : Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells |

Separation factors calculated using Pedal Curve (Independent Uncertainty) Well path created using minimum curvature.

## 5D Anti-Collision Report

**Anti-Collision Proximity Summary (TVD relative to)**

| Secondary Well Name       | Pri MD (US ft) | Sec MD (US ft) | TVD (US ft) | CC (US ft) | ES (US ft) | SF   | Risk     |
|---------------------------|----------------|----------------|-------------|------------|------------|------|----------|
| Sea Snake 35 State 1H (p) | 10737.50       | 10737.50       | 10737.50    | 49.99      | 1.21       | 1.02 | SF (Med) |

| Secondary Well : Sea Snake 35 State 1H (p) (TVD Relative to Drill Floor (Primary) ; All Azimuth Relative to GRID NORTH) |                |             |                 |                 |                    |            |       |            |                   |             |      |
|-------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-----------------|-----------------|--------------------|------------|-------|------------|-------------------|-------------|------|
| Pri MD (US ft)                                                                                                          | Sec MD (US ft) | TVD (US ft) | S.Major (US ft) | S.Minor (US ft) | TVD Spread (US ft) | CC (US ft) | SF    | ES (US ft) | T.Face to Sec (°) | Survey Tool | Risk |
| 0.00                                                                                                                    | 0.00           | 0.00        | 0.00            | 0.00            | 0.00               | 49.99      | 68.17 | 49.26      | 269.79            | MWD         |      |
| 100.00                                                                                                                  | 100.00         | 100.00      | 0.12            | 0.12            | 4.60               | 49.99      | 51.85 | 49.03      | 269.79            | MWD         |      |
| 200.00                                                                                                                  | 200.00         | 200.00      | 0.34            | 0.34            | 4.62               | 49.99      | 35.42 | 48.58      | 269.79            | MWD         |      |
| 300.00                                                                                                                  | 300.00         | 300.00      | 0.57            | 0.57            | 4.65               | 49.99      | 26.87 | 48.13      | 269.79            | MWD         |      |
| 400.00                                                                                                                  | 400.00         | 400.00      | 0.79            | 0.79            | 4.70               | 49.99      | 21.64 | 47.68      | 269.79            | MWD         |      |
| 500.00                                                                                                                  | 500.00         | 500.00      | 1.02            | 1.02            | 4.75               | 49.99      | 18.12 | 47.23      | 269.79            | MWD         |      |
| 600.00                                                                                                                  | 600.00         | 600.00      | 1.24            | 1.24            | 4.82               | 49.99      | 15.58 | 46.78      | 269.79            | MWD         |      |
| 700.00                                                                                                                  | 700.00         | 700.00      | 1.46            | 1.46            | 4.90               | 49.99      | 13.67 | 46.33      | 269.79            | MWD         |      |
| 800.00                                                                                                                  | 800.00         | 800.00      | 1.69            | 1.69            | 4.98               | 49.99      | 12.17 | 45.88      | 269.79            | MWD         |      |
| 900.00                                                                                                                  | 900.00         | 900.00      | 1.91            | 1.91            | 5.07               | 49.99      | 10.97 | 45.43      | 269.79            | MWD         |      |
| 1000.00                                                                                                                 | 1000.00        | 1000.00     | 2.14            | 2.14            | 5.18               | 49.99      | 9.98  | 44.98      | 269.79            | MWD         |      |
| 1100.00                                                                                                                 | 1100.00        | 1100.00     | 2.36            | 2.36            | 5.28               | 49.99      | 9.16  | 44.53      | 269.79            | MWD         |      |
| 1200.00                                                                                                                 | 1200.00        | 1200.00     | 2.59            | 2.59            | 5.40               | 49.99      | 8.46  | 44.08      | 269.79            | MWD         |      |
| 1300.00                                                                                                                 | 1300.00        | 1300.00     | 2.81            | 2.81            | 5.52               | 49.99      | 7.87  | 43.64      | 269.79            | MWD         |      |
| 1400.00                                                                                                                 | 1400.00        | 1400.00     | 3.04            | 3.04            | 5.65               | 49.99      | 7.35  | 43.19      | 269.79            | MWD         |      |
| 1500.00                                                                                                                 | 1500.00        | 1500.00     | 3.26            | 3.26            | 5.78               | 49.99      | 6.89  | 42.74      | 269.79            | MWD         |      |
| 1600.00                                                                                                                 | 1600.00        | 1600.00     | 3.49            | 3.49            | 5.91               | 49.99      | 6.49  | 42.29      | 269.79            | MWD         |      |
| 1700.00                                                                                                                 | 1700.00        | 1700.00     | 3.71            | 3.71            | 6.06               | 49.99      | 6.13  | 41.84      | 269.79            | MWD         |      |
| 1800.00                                                                                                                 | 1800.00        | 1800.00     | 3.94            | 3.94            | 6.20               | 49.99      | 5.81  | 41.39      | 269.79            | MWD         |      |
| 1900.00                                                                                                                 | 1900.00        | 1900.00     | 4.16            | 4.16            | 6.35               | 49.99      | 5.52  | 40.94      | 269.79            | MWD         |      |
| 2000.00                                                                                                                 | 2000.00        | 2000.00     | 4.39            | 4.39            | 6.50               | 49.99      | 5.26  | 40.49      | 269.79            | MWD         |      |
| 2100.00                                                                                                                 | 2100.00        | 2100.00     | 4.61            | 4.61            | 6.65               | 49.99      | 5.02  | 40.04      | 269.79            | MWD         |      |
| 2200.00                                                                                                                 | 2200.00        | 2200.00     | 4.84            | 4.84            | 6.81               | 49.99      | 4.81  | 39.59      | 269.79            | MWD         |      |
| 2300.00                                                                                                                 | 2300.00        | 2300.00     | 5.06            | 5.06            | 6.97               | 49.99      | 4.61  | 39.14      | 269.79            | MWD         |      |
| 2400.00                                                                                                                 | 2400.00        | 2400.00     | 5.29            | 5.29            | 7.13               | 49.99      | 4.42  | 38.69      | 269.79            | MWD         |      |
| 2500.00                                                                                                                 | 2500.00        | 2500.00     | 5.51            | 5.51            | 7.30               | 49.99      | 4.25  | 38.24      | 269.79            | MWD         |      |
| 2600.00                                                                                                                 | 2600.00        | 2600.00     | 5.73            | 5.73            | 7.47               | 49.99      | 4.10  | 37.79      | 269.79            | MWD         |      |
| 2700.00                                                                                                                 | 2700.00        | 2700.00     | 5.96            | 5.96            | 7.64               | 49.99      | 3.95  | 37.34      | 269.79            | MWD         |      |
| 2800.00                                                                                                                 | 2800.00        | 2800.00     | 6.18            | 6.18            | 7.81               | 49.99      | 3.82  | 36.89      | 269.79            | MWD         |      |
| 2900.00                                                                                                                 | 2900.00        | 2900.00     | 6.41            | 6.41            | 7.99               | 49.99      | 3.69  | 36.44      | 269.79            | MWD         |      |
| 3000.00                                                                                                                 | 3000.00        | 3000.00     | 6.63            | 6.63            | 8.16               | 49.99      | 3.57  | 35.99      | 269.79            | MWD         |      |
| 3100.00                                                                                                                 | 3100.00        | 3100.00     | 6.86            | 6.86            | 8.34               | 49.99      | 3.46  | 35.54      | 269.79            | MWD         |      |
| 3200.00                                                                                                                 | 3200.00        | 3200.00     | 7.08            | 7.08            | 8.53               | 49.99      | 3.36  | 35.09      | 269.79            | MWD         |      |
| 3300.00                                                                                                                 | 3300.00        | 3300.00     | 7.31            | 7.31            | 8.71               | 49.99      | 3.26  | 34.64      | 269.79            | MWD         |      |
| 3400.00                                                                                                                 | 3400.00        | 3400.00     | 7.53            | 7.53            | 8.90               | 49.99      | 3.16  | 34.20      | 269.79            | MWD         |      |
| 3500.00                                                                                                                 | 3500.00        | 3500.00     | 7.76            | 7.76            | 9.09               | 49.99      | 3.08  | 33.75      | 269.79            | MWD         |      |
| 3600.00                                                                                                                 | 3600.00        | 3600.00     | 7.98            | 7.98            | 9.28               | 49.99      | 2.99  | 33.30      | 269.79            | MWD         |      |
| 3700.00                                                                                                                 | 3700.00        | 3700.00     | 8.21            | 8.21            | 9.48               | 49.99      | 2.92  | 32.85      | 269.79            | MWD         |      |
| 3800.00                                                                                                                 | 3800.00        | 3800.00     | 8.43            | 8.43            | 9.67               | 49.99      | 2.84  | 32.40      | 269.79            | MWD         |      |
| 3900.00                                                                                                                 | 3900.00        | 3900.00     | 8.66            | 8.66            | 9.87               | 49.99      | 2.77  | 31.95      | 269.79            | MWD         |      |
| 4000.00                                                                                                                 | 4000.00        | 4000.00     | 8.88            | 8.88            | 10.08              | 49.99      | 2.70  | 31.50      | 269.79            | MWD         |      |
| 4100.00                                                                                                                 | 4100.00        | 4100.00     | 9.11            | 9.11            | 10.28              | 49.99      | 2.64  | 31.05      | 269.79            | MWD         |      |
| 4200.00                                                                                                                 | 4200.00        | 4200.00     | 9.33            | 9.33            | 10.49              | 49.99      | 2.58  | 30.60      | 269.79            | MWD         |      |
| 4300.00                                                                                                                 | 4300.00        | 4300.00     | 9.56            | 9.56            | 10.70              | 49.99      | 2.52  | 30.15      | 269.79            | MWD         |      |
| 4400.00                                                                                                                 | 4400.00        | 4400.00     | 9.78            | 9.78            | 10.92              | 49.99      | 2.46  | 29.70      | 269.79            | MWD         |      |
| 4500.00                                                                                                                 | 4500.00        | 4500.00     | 10.01           | 10.01           | 11.13              | 49.99      | 2.41  | 29.25      | 269.79            | MWD         |      |
| 4600.00                                                                                                                 | 4600.00        | 4600.00     | 10.23           | 10.23           | 11.35              | 49.99      | 2.36  | 28.80      | 269.79            | MWD         |      |
| 4700.00                                                                                                                 | 4700.00        | 4700.00     | 10.45           | 10.45           | 11.58              | 49.99      | 2.31  | 28.35      | 269.79            | MWD         |      |
| 4800.00                                                                                                                 | 4800.00        | 4800.00     | 10.68           | 10.68           | 11.81              | 49.99      | 2.26  | 27.90      | 269.79            | MWD         |      |
| 4900.00                                                                                                                 | 4900.00        | 4900.00     | 10.90           | 10.90           | 12.04              | 49.99      | 2.22  | 27.45      | 269.79            | MWD         |      |
| 5000.00                                                                                                                 | 5000.00        | 5000.00     | 11.13           | 11.13           | 12.27              | 49.99      | 2.17  | 27.00      | 269.79            | MWD         |      |
| 5100.00                                                                                                                 | 5100.00        | 5100.00     | 11.35           | 11.35           | 12.51              | 49.99      | 2.13  | 26.55      | 269.79            | MWD         |      |

## SD Anti-Collision Report

| Secondary Well B - Sea Snake SS State 1H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH |                   |                |                    |                    |                       |               |      |               |                       |             |          |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------|--------------------|-----------------------|---------------|------|---------------|-----------------------|-------------|----------|
| Prim MD<br>(US ft)                                                                                                        | Sec MD<br>(US ft) | TVD<br>(US ft) | S Major<br>(US ft) | S Minor<br>(US ft) | TVD Spread<br>(US ft) | CC<br>(US ft) | SF   | ES<br>(US ft) | Face to<br>Sec<br>(°) | Survey Tool | Risk     |
| 5200.00                                                                                                                   | 5200.00           | 5200.00        | 11.58              | 11.58              | 12.75                 | 49.99         | 2.09 | 26.10         | 269.79                | MWD         |          |
| 5300.00                                                                                                                   | 5300.00           | 5300.00        | 11.80              | 11.80              | 13.00                 | 49.99         | 2.05 | 25.65         | 269.79                | MWD         |          |
| 5400.00                                                                                                                   | 5400.00           | 5400.00        | 12.03              | 12.03              | 13.24                 | 49.99         | 2.02 | 25.21         | 269.79                | MWD         |          |
| 5500.00                                                                                                                   | 5500.00           | 5500.00        | 12.25              | 12.25              | 13.50                 | 49.99         | 1.98 | 24.76         | 269.79                | MWD         | SF (Lo)  |
| 5600.00                                                                                                                   | 5600.00           | 5600.00        | 12.48              | 12.48              | 13.75                 | 49.99         | 1.95 | 24.31         | 269.79                | MWD         | SF (Lo)  |
| 5700.00                                                                                                                   | 5700.00           | 5700.00        | 12.70              | 12.70              | 14.01                 | 49.99         | 1.91 | 23.86         | 269.79                | MWD         | SF (Lo)  |
| 5800.00                                                                                                                   | 5800.00           | 5800.00        | 12.93              | 12.93              | 14.28                 | 49.99         | 1.88 | 23.41         | 269.79                | MWD         | SF (Lo)  |
| 5900.00                                                                                                                   | 5900.00           | 5900.00        | 13.15              | 13.15              | 14.55                 | 49.99         | 1.85 | 22.96         | 269.79                | MWD         | SF (Lo)  |
| 6000.00                                                                                                                   | 6000.00           | 6000.00        | 13.38              | 13.38              | 14.82                 | 49.99         | 1.82 | 22.51         | 269.79                | MWD         | SF (Lo)  |
| 6100.00                                                                                                                   | 6100.00           | 6100.00        | 13.60              | 13.60              | 15.10                 | 49.99         | 1.79 | 22.06         | 269.79                | MWD         | SF (Lo)  |
| 6200.00                                                                                                                   | 6200.00           | 6200.00        | 13.83              | 13.83              | 15.38                 | 49.99         | 1.76 | 21.61         | 269.79                | MWD         | SF (Lo)  |
| 6300.00                                                                                                                   | 6300.00           | 6300.00        | 14.05              | 14.05              | 15.67                 | 49.99         | 1.73 | 21.16         | 269.79                | MWD         | SF (Lo)  |
| 6400.00                                                                                                                   | 6400.00           | 6400.00        | 14.28              | 14.28              | 15.96                 | 49.99         | 1.71 | 20.71         | 269.79                | MWD         | SF (Lo)  |
| 6500.00                                                                                                                   | 6500.00           | 6500.00        | 14.50              | 14.50              | 16.25                 | 49.99         | 1.68 | 20.26         | 269.79                | MWD         | SF (Lo)  |
| 6600.00                                                                                                                   | 6600.00           | 6600.00        | 14.73              | 14.73              | 16.56                 | 49.99         | 1.66 | 19.81         | 269.79                | MWD         | SF (Lo)  |
| 6700.00                                                                                                                   | 6700.00           | 6700.00        | 14.95              | 14.95              | 16.86                 | 49.99         | 1.63 | 19.36         | 269.79                | MWD         | SF (Lo)  |
| 6800.00                                                                                                                   | 6800.00           | 6800.00        | 15.17              | 15.17              | 17.17                 | 49.99         | 1.61 | 18.91         | 269.79                | MWD         | SF (Lo)  |
| 6900.00                                                                                                                   | 6900.00           | 6900.00        | 15.40              | 15.40              | 17.49                 | 49.99         | 1.59 | 18.46         | 269.79                | MWD         | SF (Lo)  |
| 7000.00                                                                                                                   | 7000.00           | 7000.00        | 15.62              | 15.62              | 17.81                 | 49.99         | 1.56 | 18.01         | 269.79                | MWD         | SF (Lo)  |
| 7100.00                                                                                                                   | 7100.00           | 7100.00        | 15.85              | 15.85              | 18.13                 | 49.99         | 1.54 | 17.56         | 269.79                | MWD         | SF (Lo)  |
| 7200.00                                                                                                                   | 7200.00           | 7200.00        | 16.07              | 16.07              | 18.46                 | 49.99         | 1.52 | 17.11         | 269.79                | MWD         | SF (Lo)  |
| 7300.00                                                                                                                   | 7300.00           | 7300.00        | 16.30              | 16.30              | 18.79                 | 49.99         | 1.50 | 16.66         | 269.79                | MWD         | SF (Med) |
| 7400.00                                                                                                                   | 7400.00           | 7400.00        | 16.52              | 16.52              | 19.13                 | 49.99         | 1.48 | 16.21         | 269.79                | MWD         | SF (Med) |
| 7500.00                                                                                                                   | 7500.00           | 7500.00        | 16.75              | 16.75              | 19.48                 | 49.99         | 1.46 | 15.76         | 269.79                | MWD         | SF (Med) |
| 7600.00                                                                                                                   | 7600.00           | 7600.00        | 16.97              | 16.97              | 19.83                 | 49.99         | 1.44 | 15.31         | 269.79                | MWD         | SF (Med) |
| 7700.00                                                                                                                   | 7700.00           | 7700.00        | 17.20              | 17.20              | 20.19                 | 49.99         | 1.42 | 14.87         | 269.79                | MWD         | SF (Med) |
| 7800.00                                                                                                                   | 7800.00           | 7800.00        | 17.42              | 17.42              | 20.55                 | 49.99         | 1.41 | 14.42         | 269.79                | MWD         | SF (Med) |
| 7900.00                                                                                                                   | 7900.00           | 7900.00        | 17.65              | 17.65              | 20.91                 | 49.99         | 1.39 | 13.97         | 269.79                | MWD         | SF (Med) |
| 8000.00                                                                                                                   | 8000.00           | 8000.00        | 17.87              | 17.87              | 21.28                 | 49.99         | 1.37 | 13.52         | 269.79                | MWD         | SF (Med) |
| 8100.00                                                                                                                   | 8100.00           | 8100.00        | 18.10              | 18.10              | 21.66                 | 49.99         | 1.35 | 13.07         | 269.79                | MWD         | SF (Med) |
| 8200.00                                                                                                                   | 8200.00           | 8200.00        | 18.32              | 18.32              | 22.04                 | 49.99         | 1.34 | 12.62         | 269.79                | MWD         | SF (Med) |
| 8300.00                                                                                                                   | 8300.00           | 8300.00        | 18.55              | 18.55              | 22.43                 | 49.99         | 1.32 | 12.17         | 269.79                | MWD         | SF (Med) |
| 8400.00                                                                                                                   | 8400.00           | 8400.00        | 18.77              | 18.77              | 22.83                 | 49.99         | 1.31 | 11.72         | 269.79                | MWD         | SF (Med) |
| 8500.00                                                                                                                   | 8500.00           | 8500.00        | 19.00              | 19.00              | 23.22                 | 49.99         | 1.29 | 11.27         | 269.79                | MWD         | SF (Med) |
| 8600.00                                                                                                                   | 8600.00           | 8600.00        | 19.22              | 19.22              | 23.63                 | 49.99         | 1.28 | 10.82         | 269.79                | MWD         | SF (Med) |
| 8700.00                                                                                                                   | 8700.00           | 8700.00        | 19.45              | 19.45              | 24.04                 | 49.99         | 1.26 | 10.37         | 269.79                | MWD         | SF (Med) |
| 8800.00                                                                                                                   | 8800.00           | 8800.00        | 19.67              | 19.67              | 24.45                 | 49.99         | 1.25 | 9.92          | 269.79                | MWD         | SF (Med) |
| 8900.00                                                                                                                   | 8900.00           | 8900.00        | 19.90              | 19.90              | 24.88                 | 49.99         | 1.23 | 9.47          | 269.79                | MWD         | SF (Med) |
| 9000.00                                                                                                                   | 9000.00           | 9000.00        | 20.12              | 20.12              | 25.30                 | 49.99         | 1.22 | 9.02          | 269.79                | MWD         | SF (Med) |
| 9100.00                                                                                                                   | 9100.00           | 9100.00        | 20.35              | 20.35              | 25.74                 | 49.99         | 1.21 | 8.57          | 269.79                | MWD         | SF (Med) |
| 9200.00                                                                                                                   | 9200.00           | 9200.00        | 20.57              | 20.57              | 26.17                 | 49.99         | 1.19 | 8.12          | 269.79                | MWD         | SF (Med) |
| 9300.00                                                                                                                   | 9300.00           | 9300.00        | 20.79              | 20.79              | 26.62                 | 49.99         | 1.18 | 7.67          | 269.79                | MWD         | SF (Med) |
| 9400.00                                                                                                                   | 9400.00           | 9400.00        | 21.02              | 21.02              | 27.07                 | 49.99         | 1.17 | 7.22          | 269.79                | MWD         | SF (Med) |
| 9500.00                                                                                                                   | 9500.00           | 9500.00        | 21.24              | 21.24              | 27.53                 | 49.99         | 1.16 | 6.77          | 269.79                | MWD         | SF (Med) |
| 9600.00                                                                                                                   | 9600.00           | 9600.00        | 21.47              | 21.47              | 27.99                 | 49.99         | 1.14 | 6.32          | 269.79                | MWD         | SF (Med) |
| 9700.00                                                                                                                   | 9700.00           | 9700.00        | 21.69              | 21.69              | 28.45                 | 49.99         | 1.13 | 5.87          | 269.79                | MWD         | SF (Med) |
| 9800.00                                                                                                                   | 9800.00           | 9800.00        | 21.92              | 21.92              | 28.93                 | 49.99         | 1.12 | 5.42          | 269.79                | MWD         | SF (Med) |
| 9900.00                                                                                                                   | 9900.00           | 9900.00        | 22.14              | 22.14              | 29.41                 | 49.99         | 1.11 | 4.97          | 269.79                | MWD         | SF (Med) |
| 10000.00                                                                                                                  | 10000.00          | 10000.00       | 22.37              | 22.37              | 29.89                 | 49.99         | 1.10 | 4.52          | 269.79                | MWD         | SF (Med) |
| 10100.00                                                                                                                  | 10100.00          | 10100.00       | 22.59              | 22.59              | 30.38                 | 49.99         | 1.09 | 4.08          | 269.79                | MWD         | SF (Med) |
| 10200.00                                                                                                                  | 10200.00          | 10200.00       | 22.82              | 22.82              | 30.88                 | 49.99         | 1.08 | 3.63          | 269.79                | MWD         | SF (Med) |
| 10300.00                                                                                                                  | 10300.00          | 10300.00       | 23.04              | 23.04              | 31.38                 | 49.99         | 1.07 | 3.18          | 269.79                | MWD         | SF (Med) |
| 10400.00                                                                                                                  | 10400.00          | 10400.00       | 23.27              | 23.27              | 31.89                 | 49.99         | 1.06 | 2.73          | 269.79                | MWD         | SF (Med) |
| 10500.00                                                                                                                  | 10500.00          | 10500.00       | 23.49              | 23.49              | 32.41                 | 49.99         | 1.05 | 2.28          | 269.79                | MWD         | SF (Med) |
| 10600.00                                                                                                                  | 10600.00          | 10600.00       | 23.72              | 23.72              | 32.93                 | 49.99         | 1.04 | 1.83          | 269.79                | MWD         | SF (Med) |
| 10700.00                                                                                                                  | 10700.00          | 10700.00       | 23.94              | 23.94              | 33.45                 | 49.99         | 1.03 | 1.38          | 269.79                | MWD         | SF (Med) |
| 10800.00                                                                                                                  | 10794.43          | 10794.30       | 24.14              | 23.97              | 33.95                 | 55.70         | 1.14 | 7.00          | 150.91                | MWD         | SF (Med) |
| 10900.00                                                                                                                  | 10877.08          | 10875.11       | 24.30              | 23.76              | 34.36                 | 91.21         | 1.88 | 42.67         | 148.50                | MWD         | SF (Lo)  |

## SD Anti-Collision Report

| Secondary Well: Sea Snake 35 State 1H (P) (TVD Relative to Drill Floor (Primary)) / All Azimuth Relative to GRID NORTH |                   |                |                    |                    |                       |               |       |               |                         |             |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------|--------------------|-----------------------|---------------|-------|---------------|-------------------------|-------------|
| Rt MD<br>(US ft)                                                                                                       | Sec MD<br>(US ft) | TVD<br>(US ft) | S-Major<br>(US ft) | S-Minor<br>(US ft) | TVD Spread<br>(US ft) | CG<br>(US ft) | SF    | ES<br>(US ft) | T Face to<br>Sec<br>(°) | Survey Tool |
| 11000.00                                                                                                               | 10941.33          | 10935.23       | 24.42              | 23.31              | 34.66                 | 153.46        | 3.20  | 105.46        | 144.62                  | MWD         |
| 11100.00                                                                                                               | 10985.12          | 10974.22       | 24.51              | 22.89              | 34.84                 | 234.13        | 4.90  | 186.35        | 136.92                  | MWD         |
| 11200.00                                                                                                               | 11010.86          | 10996.23       | 24.57              | 22.55              | 34.95                 | 325.65        | 6.82  | 277.89        | 119.40                  | MWD         |
| 11300.00                                                                                                               | 11021.97          | 11005.50       | 24.59              | 22.46              | 35.00                 | 422.12        | 8.81  | 374.20        | 80.79                   | MWD         |
| 11400.00                                                                                                               | 11021.37          | 11005.00       | 24.59              | 22.47              | 34.99                 | 519.06        | 10.76 | 470.84        | 40.41                   | MWD         |
| 11500.00                                                                                                               | 11011.29          | 10996.59       | 24.57              | 22.55              | 34.95                 | 612.99        | 12.65 | 564.52        | 24.60                   | MWD         |
| 11600.00                                                                                                               | 11001.34          | 10988.17       | 24.55              | 22.69              | 34.91                 | 703.67        | 14.44 | 654.94        | 43.74                   | MWD         |
| 11700.00                                                                                                               | 10997.11          | 10984.56       | 24.54              | 22.74              | 34.89                 | 790.54        | 16.10 | 741.45        | 56.28                   | MWD         |
| 11800.00                                                                                                               | 10998.28          | 10985.56       | 24.54              | 22.73              | 34.90                 | 871.65        | 17.64 | 822.24        | 64.37                   | MWD         |
| 11900.00                                                                                                               | 11004.89          | 10991.19       | 24.55              | 22.64              | 34.93                 | 945.31        | 19.08 | 895.77        | 69.83                   | MWD         |
| 12000.00                                                                                                               | 11017.40          | 11001.70       | 24.58              | 22.50              | 34.98                 | 1010.07       | 20.28 | 960.26        | 73.77                   | MWD         |
| 12100.00                                                                                                               | 11034.31          | 11015.63       | 24.61              | 22.35              | 35.04                 | 1071.59       | 21.46 | 1021.65       | 75.03                   | MWD         |
| 12200.00                                                                                                               | 11053.10          | 11030.69       | 24.64              | 22.16              | 35.10                 | 1138.05       | 22.70 | 1087.91       | 76.21                   | MWD         |
| 12300.00                                                                                                               | 11074.01          | 11046.92       | 24.71              | 21.88              | 35.17                 | 1208.59       | 24.03 | 1158.30       | 77.47                   | MWD         |
| 12400.00                                                                                                               | 11097.32          | 11064.31       | 24.78              | 21.52              | 35.25                 | 1282.45       | 25.38 | 1231.91       | 78.82                   | MWD         |
| 12500.00                                                                                                               | 12429.85          | 11228.00       | 31.73              | 20.28              | 40.56                 | 1319.97       | 20.17 | 1254.53       | 90.00                   | MWD         |
| 12600.00                                                                                                               | 12529.85          | 11228.00       | 32.85              | 20.66              | 41.31                 | 1319.97       | 19.50 | 1252.29       | 90.00                   | MWD         |
| 12700.00                                                                                                               | 12629.85          | 11228.00       | 34.02              | 21.05              | 42.10                 | 1319.97       | 18.83 | 1249.86       | 90.00                   | MWD         |
| 12800.00                                                                                                               | 12729.85          | 11228.00       | 35.20              | 21.47              | 42.92                 | 1319.97       | 18.19 | 1247.42       | 90.00                   | MWD         |
| 12900.00                                                                                                               | 12829.85          | 11228.00       | 36.39              | 21.90              | 43.78                 | 1319.97       | 17.60 | 1244.95       | 90.00                   | MWD         |
| 13000.00                                                                                                               | 12929.85          | 11228.00       | 37.60              | 22.34              | 44.65                 | 1319.97       | 17.03 | 1242.46       | 90.00                   | MWD         |
| 13100.00                                                                                                               | 13029.85          | 11228.00       | 38.96              | 22.76              | 45.52                 | 1319.97       | 16.47 | 1239.81       | 90.00                   | MWD         |
| 13200.00                                                                                                               | 13129.85          | 11228.00       | 40.37              | 23.18              | 46.36                 | 1319.97       | 15.90 | 1236.96       | 90.00                   | MWD         |
| 13300.00                                                                                                               | 13229.85          | 11228.00       | 41.80              | 23.66              | 47.31                 | 1319.97       | 15.36 | 1234.06       | 90.00                   | MWD         |
| 13400.00                                                                                                               | 13329.85          | 11228.00       | 43.23              | 24.20              | 48.36                 | 1319.97       | 14.86 | 1231.15       | 90.00                   | MWD         |
| 13500.00                                                                                                               | 13429.85          | 11228.00       | 44.68              | 24.65              | 49.22                 | 1319.97       | 14.39 | 1228.24       | 90.00                   | MWD         |
| 13600.00                                                                                                               | 13529.85          | 11228.00       | 46.13              | 25.25              | 50.37                 | 1319.97       | 13.95 | 1225.34       | 90.00                   | MWD         |
| 13700.00                                                                                                               | 13629.85          | 11228.00       | 47.59              | 25.78              | 51.38                 | 1319.97       | 13.52 | 1222.36       | 90.00                   | MWD         |
| 13800.00                                                                                                               | 13729.85          | 11228.00       | 49.04              | 26.30              | 52.36                 | 1319.97       | 13.13 | 1219.41       | 90.00                   | MWD         |
| 13900.00                                                                                                               | 13829.85          | 11228.00       | 50.59              | 26.80              | 53.42                 | 1319.97       | 12.75 | 1216.42       | 90.00                   | MWD         |
| 14000.00                                                                                                               | 13929.85          | 11228.00       | 52.19              | 27.35              | 54.66                 | 1319.97       | 12.36 | 1213.15       | 90.00                   | MWD         |
| 14100.00                                                                                                               | 14029.85          | 11228.00       | 53.79              | 27.85              | 55.65                 | 1319.97       | 11.99 | 1209.90       | 90.00                   | MWD         |
| 14200.00                                                                                                               | 14129.85          | 11228.00       | 55.38              | 28.46              | 56.91                 | 1319.97       | 11.65 | 1206.66       | 90.00                   | MWD         |
| 14300.00                                                                                                               | 14229.85          | 11228.00       | 56.98              | 28.99              | 57.98                 | 1319.97       | 11.33 | 1203.43       | 90.00                   | MWD         |
| 14400.00                                                                                                               | 14329.85          | 11228.00       | 58.59              | 29.52              | 59.02                 | 1319.97       | 11.02 | 1200.16       | 90.00                   | MWD         |
| 14500.00                                                                                                               | 14429.85          | 11228.00       | 60.25              | 30.17              | 60.31                 | 1319.97       | 10.72 | 1196.87       | 90.00                   | MWD         |
| 14600.00                                                                                                               | 14529.85          | 11228.00       | 61.92              | 30.79              | 61.56                 | 1319.97       | 10.44 | 1193.56       | 90.00                   | MWD         |
| 14700.00                                                                                                               | 14629.85          | 11228.00       | 63.59              | 31.40              | 62.78                 | 1319.97       | 10.17 | 1190.21       | 90.00                   | MWD         |
| 14800.00                                                                                                               | 14729.85          | 11228.00       | 65.28              | 32.00              | 63.99                 | 1319.97       | 9.91  | 1186.82       | 90.00                   | MWD         |
| 14900.00                                                                                                               | 14829.85          | 11228.00       | 66.96              | 32.61              | 65.20                 | 1319.97       | 9.67  | 1183.43       | 90.00                   | MWD         |
| 15000.00                                                                                                               | 14929.85          | 11228.00       | 68.66              | 33.21              | 66.41                 | 1319.97       | 9.43  | 1180.03       | 90.00                   | MWD         |
| 15100.00                                                                                                               | 15029.85          | 11228.00       | 70.36              | 33.81              | 67.62                 | 1319.97       | 9.21  | 1176.61       | 90.00                   | MWD         |
| 15200.00                                                                                                               | 15129.85          | 11228.00       | 72.07              | 34.42              | 68.84                 | 1319.97       | 8.99  | 1173.19       | 90.00                   | MWD         |
| 15300.00                                                                                                               | 15229.85          | 11228.00       | 73.78              | 35.03              | 70.06                 | 1319.97       | 8.79  | 1169.75       | 90.00                   | MWD         |
| 15400.00                                                                                                               | 15329.85          | 11228.00       | 75.50              | 35.65              | 71.29                 | 1319.97       | 8.59  | 1166.31       | 90.00                   | MWD         |
| 15500.00                                                                                                               | 15429.85          | 11228.00       | 77.22              | 36.27              | 72.53                 | 1319.97       | 8.40  | 1162.86       | 90.00                   | MWD         |
| 15600.00                                                                                                               | 15529.85          | 11228.00       | 78.95              | 36.89              | 73.77                 | 1319.97       | 8.22  | 1159.40       | 90.00                   | MWD         |
| 15700.00                                                                                                               | 15629.85          | 11228.00       | 80.68              | 37.51              | 75.02                 | 1319.97       | 8.05  | 1155.93       | 90.00                   | MWD         |
| 15800.00                                                                                                               | 15729.85          | 11228.00       | 82.41              | 38.17              | 76.33                 | 1319.97       | 7.88  | 1152.45       | 90.00                   | MWD         |
| 15900.00                                                                                                               | 15829.85          | 11228.00       | 84.15              | 38.83              | 77.65                 | 1319.97       | 7.72  | 1148.97       | 90.00                   | MWD         |
| 16000.00                                                                                                               | 15929.85          | 11228.00       | 85.89              | 39.50              | 78.98                 | 1319.97       | 7.56  | 1145.48       | 90.00                   | MWD         |
| 16100.00                                                                                                               | 16029.85          | 11228.00       | 87.63              | 40.16              | 80.31                 | 1319.97       | 7.42  | 1141.99       | 90.00                   | MWD         |
| 16200.00                                                                                                               | 16129.85          | 11228.00       | 89.38              | 40.83              | 81.64                 | 1319.97       | 7.27  | 1138.49       | 90.00                   | MWD         |
| 16300.00                                                                                                               | 16229.85          | 11228.00       | 91.13              | 41.49              | 82.97                 | 1319.97       | 7.14  | 1134.98       | 90.00                   | MWD         |
| 16400.00                                                                                                               | 16329.85          | 11228.00       | 92.88              | 42.16              | 84.31                 | 1319.97       | 7.00  | 1131.47       | 90.00                   | MWD         |
| 16500.00                                                                                                               | 16429.85          | 11228.00       | 94.64              | 42.83              | 85.65                 | 1319.97       | 6.87  | 1127.96       | 90.00                   | MWD         |
| 16600.00                                                                                                               | 16529.85          | 11228.00       | 96.40              | 43.50              | 87.00                 | 1319.97       | 6.75  | 1124.44       | 90.00                   | MWD         |
| 16632.55                                                                                                               | 16562.40          | 11228.00       | 96.97              | 43.72              | 87.44                 | 1319.97       | 6.71  | 1123.29       | 90.00                   | MWD         |





**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

HOBBS OCD

JAN 15 2014

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Report Date: December 10, 2013  
Job Number: \_\_\_\_\_  
Customer: Devon Energy  
Well Name: Sea Snake 35 State 2H  
API Number: \_\_\_\_\_  
Rig Name: \_\_\_\_\_  
Location: Lea County, NM  
Block: \_\_\_\_\_  
Engineer: RWJ

|                                              |                                             |
|----------------------------------------------|---------------------------------------------|
| US State Plane 1983                          | Geodetic Latitude / Longitude               |
| System: New Mexico Eastern Zone              | System: Latitude / Longitude                |
| Projection: Transverse Mercator/Gauss Kruger | Projection: Geodetic Latitude and Longitude |
| Datum: North American Datum 1983             | Datum: North American Datum 1983            |
| Ellipsoid: GRS 1980                          | Ellipsoid: GRS 1980                         |
| North/South 462581.620 USFT                  | Latitude 32.2692656 DEG                     |
| East/West 784286.670 USFT                    | Longitude -103.5473010 DEG                  |
| Grid Convergence: .42°                       |                                             |
| Total Correction: +6.93°                     |                                             |

|                         |              |                        |
|-------------------------|--------------|------------------------|
| Geodetic Location WGS84 | Elevation =  | 0.0 Meters             |
| Latitude =              | 32.26927° N  | 32° 16 min 9.356 sec   |
| Longitude =             | 103.54730° W | 103° 32 min 50.284 sec |

|                        |              |                     |          |
|------------------------|--------------|---------------------|----------|
| Magnetic Declination = | 7.35°        | [True North Offset] |          |
| Local Gravity =        | .9988 g      | Checksum =          | 6604     |
| Local Field Strength = | 48373 nT     | Magnetic Vector X = | 23880 nT |
| Magnetic Dip =         | 60.15°       | Magnetic Vector Y = | 3079 nT  |
| Magnetic Model =       | bggm2013     | Magnetic Vector Z = | 41955 nT |
| Spud Date =            | Apr 01, 2014 | Magnetic Vector H = | 24077 nT |

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

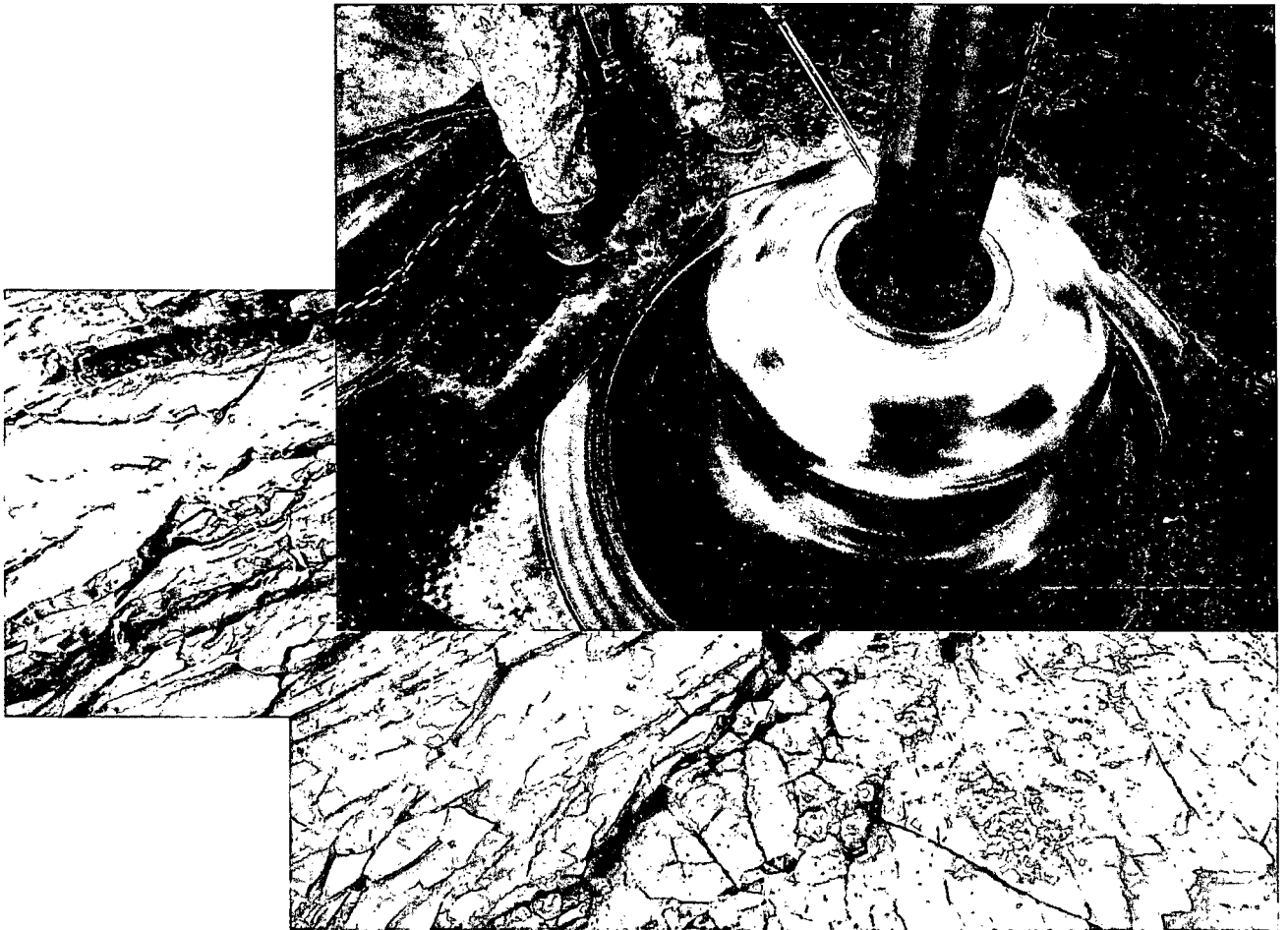


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Commitment Runs Deep



Design Plan  
Operation and Maintenance Plan  
Closure Plan

SENM - Closed Loop Systems  
November 2013

## **I. Design Plan**

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

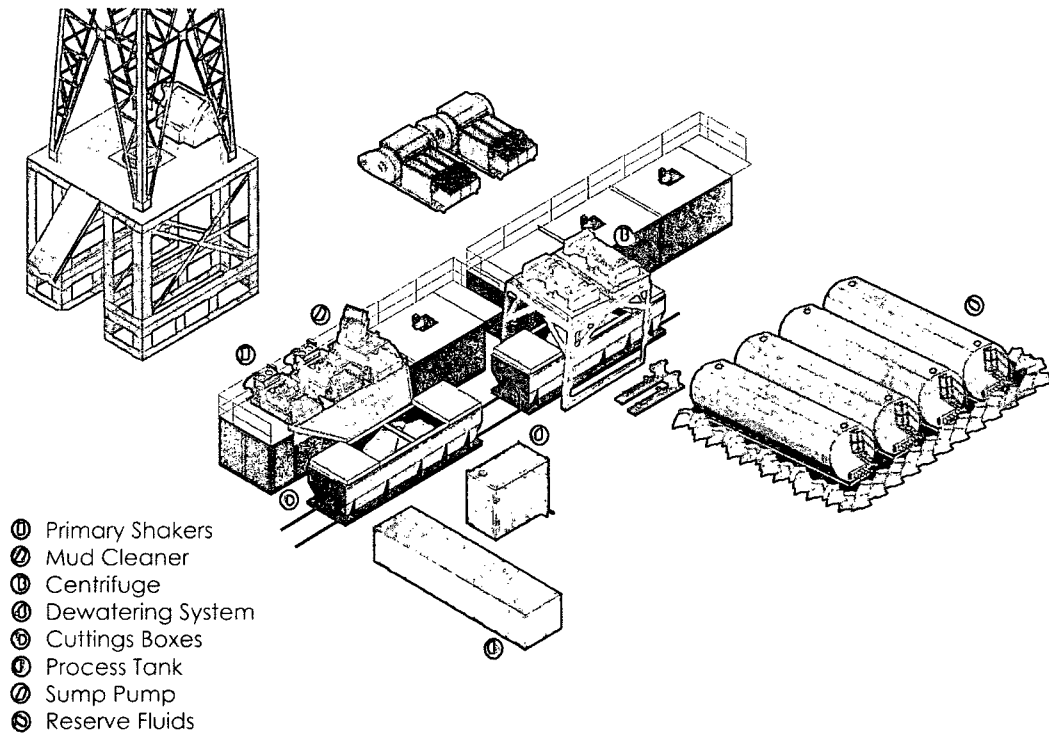
## **II. Operations and Maintenance Plan**

*Primary Shakers:* The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

**Mud Cleaner:** The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



## Closed Loop Schematic



**Centrifuges:** The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

**Dewatering System:** The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

*Cuttings Boxes:* Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

*Process Tank:* (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

*Sump and Sump Pump:* The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

*Reserve Fluids (Tank Farm):* A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

### **III. Closure Plan**

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.