

## Results of Directional Survey

|             |              |                                         |
|-------------|--------------|-----------------------------------------|
| API number: | 30-025-40849 | DD                                      |
| OGRID:      |              | Operator: APACHE CORP                   |
|             |              | Property: NORTHEAST DRINKARD UNIT # 263 |

|         |        |   |    |          |          |
|---------|--------|---|----|----------|----------|
| surface | ULSTR: | K | 03 | T 21S    | R 37E    |
|         |        |   |    | 3345 FNL | 1620 FWL |

|         |        |        |     |          |          |
|---------|--------|--------|-----|----------|----------|
| BH Loc  | ULSTR: | K      | 03  | T 21S    | R 37E    |
| 7005 MD |        | 6996.9 | TVD | 3175 FNL | 1387 FWL |

|             |        |        |     |          |          |
|-------------|--------|--------|-----|----------|----------|
| Top Perf/OH | ULSTR: | K      | 03  | T 21S    | R 37E    |
| 6621 MD     |        | 6613.3 | TVD | 3187 FNL | 1401 FWL |

|             |        |        |     |          |          |
|-------------|--------|--------|-----|----------|----------|
| Bot Perf/OH | ULSTR: | K      | 03  | T 21S    | R 37E    |
| 6727 MD     |        | 6719.2 | TVD | 3184 FNL | 1397 FWL |

|              |      |        |         |         |
|--------------|------|--------|---------|---------|
|              | MD   | N/S    | E/W     | VD      |
|              | 6597 | 157.26 | -218.40 | 6589.34 |
| TOP PERFS/OH | 6621 | 158.01 | -219.28 | 6613.31 |
|              | 6725 | 161.24 | -223.08 | 6717.19 |
|              | 6725 | 161.24 | -223.08 | 6717.19 |
| BOT PERFS/OH | 6727 | 161.30 | -223.15 | 6719.19 |
|              | 6853 | 165.27 | -227.57 | 6845.05 |

|              |      |        |         |         |
|--------------|------|--------|---------|---------|
| NEXT TO LAST | 6950 | 168.21 | -230.84 | 6941.95 |
| LAST READING | 7005 | 169.81 | -232.63 | 6996.89 |
| TD           | 7005 | 169.81 | -232.63 | 6996.89 |

|                  |         |         |
|------------------|---------|---------|
| Surface Location | 3345 FN | 1620 FW |
| Projected BHL    | 3175 FN | 1387 FW |
| Location of      |         |         |
| Top Perfs/OH     | 3187 FN | 1401 FW |
| Bottom Perfs/OH  | 3184 FN | 1397 FW |

### SUMMARY of Subsurface Locations

|                  |              |         |         |             |
|------------------|--------------|---------|---------|-------------|
| Surface Location | K-03-21S-37E | 3345 FN | 1620 FW | Vert. Depth |
| Top Perfs/OH     | K-03-21S-37E | 3187 FN | 1401 FW | 6613.31     |
| Bottom Perfs/OH  | K-03-21S-37E | 3184 FN | 1397 FW | 6719.19     |
| Projected TD     | K-03-21S-37E | 3175 FN | 1387 FW | 6996.89     |

NOV 25 2013

Apache Corporation (873)  
303 Veterans Airpark Lane, #3000  
Midland, TX 79705

Northeast Drinkard Unit #263  
Lea County, New Mexico

30-025-40849

C/LOT 11 3-21S-37E  
(SL) 3345' FWL + 1620' FWL (BHL) 3175' FWL + 1387' FWL

|      |      |      |      |      |       |
|------|------|------|------|------|-------|
| 250  | 2.50 | 0.50 | 0.88 | 2.19 | 2.19  |
| 500  | 2.50 | 0.50 | 0.88 | 2.19 | 4.38  |
| 750  | 2.50 | 0.10 | 0.18 | 0.44 | 4.81  |
| 1000 | 2.50 | 0.70 | 1.23 | 3.06 | 7.88  |
| 1250 | 2.50 | 0.90 | 1.58 | 3.94 | 11.81 |
| 1330 | 0.80 | 0.90 | 1.58 | 1.26 | 13.07 |

HOBBS OCD

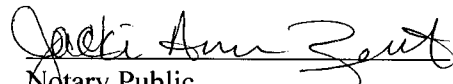
NOV 05 2013

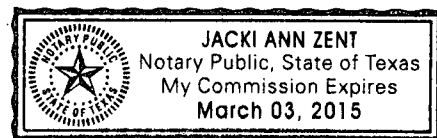
RECEIVED



Archie Brown - General Manager

The attached instrument was acknowledged before me on the 2nd day of October, 2013 by  
Archie Brown - General Manager, CapStar Drilling, Inc.

  
Notary Public





**PHOENIX**  
**TECHNOLOGY SERVICES**

October 10, 2013

Apache Corporation  
Attention: Drilling Department  
303 Veterans Airpark Lane, Ste 3000  
Midland, TX 79705

HOBBS OCD

NOV 05 2013

Re: Apache Corporation

NEDU #263W

Lea County, NM

API #30-025-41168

Job No. 1310559

C/Lot 11 3-21S-37E

(SL) 3345' FWL + 1620' FWL

(BHL) 3175' FWL + 1387' FWL

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Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the Survey Data Certification, Surveys, and Lease Plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 1 via certified mail. A copy of the filing is attached for your records.

| Name of Surveyor | Drainhole Number | Surveyed Depths |       | Dates Performed |          | Type of Survey |
|------------------|------------------|-----------------|-------|-----------------|----------|----------------|
|                  |                  | From            | To    | Start           | End      |                |
| Samuel D. Wilson | 263              | 1,349           | 6,950 | 09/21/13        | 09/26/13 | MWD            |

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

*Sonya Thomas*

Sonya Thomas  
Operations Administrator

# PHOENIX TECHNOLOGY SERVICES SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1311243

OPERATOR Apache Corporation

WELL NAME NEDU #263W

COUNTY & STATE

Lea County, NM

|                 |              |
|-----------------|--------------|
| API WELL NUMBER | 30-025-40849 |
|-----------------|--------------|

|                    |        |
|--------------------|--------|
| PROPOSED DIRECTION | 269.96 |
|--------------------|--------|

| TIE-IN DATA |             |        |         |       |       |                            |
|-------------|-------------|--------|---------|-------|-------|----------------------------|
| MEASURED    | VERTICAL    |        |         | N-S   | E-W   | DATA                       |
| DEPTH       | DEPTH       | INCLIN | AZIMUTH | COORD | COORD | SOURCE                     |
| 1,250 ft    | 1,249.97 ft | 0.64   | 200.1   | 2.85  | 1     | Gyro (Scientific Drilling) |

| FIRST<br>SURVEY<br>DATE | FIRST<br>SURVEY<br>DEPTH | INCLIN | AZIMUTH |
|-------------------------|--------------------------|--------|---------|
| 21-Sep-13               | 1,349 ft                 | 0.6    | 138.9   |

| SURVEY INSTRUMENT<br>TYPE |
|---------------------------|
| Phoenix MWD               |

| LAST<br>SURVEY<br>DATE | LAST<br>SURVEY<br>DEPTH | INCLIN | AZIMUTH |
|------------------------|-------------------------|--------|---------|
| 26-Sep-13              | 6,950 ft                | 2.5    | 311.9   |

TO THE BEST OF MY KNOWLEDGE I  
CERTIFY THIS SURVEY DATA TO BE  
TRUE AND CORRECT.

| PROJECTED<br>TD SURVEY<br>DATE | PROJECTED<br>TD SURVEY<br>DEPTH | INCLIN | AZIMUTH |
|--------------------------------|---------------------------------|--------|---------|
| 26-Sep-13                      | 7,005 ft                        | 2.5    | 311.9   |

Samuel D. Wilson

PRINT YOUR NAME ABOVE

Samuel D. Wilson

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

|                       |      |
|-----------------------|------|
| TOTAL CORRECTION USED | 6.49 |
| DECLINATION OR GRID   | Grid |

TODAY'S DATE

MWD SUPERVISOR 1 Samuel D. Wilson

DIRECTIONAL DRILLER 1

Travis Gibson

MWD SUPERVISOR 2 Brock Childress

DIRECTIONAL DRILLER 2

Cody Ebarb

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

CORPORATION

## Apache Corporation

Lea County, NM (NAD83 NME)

NEDU 30-025-40849

#263W

WB1/Job #1311243

C/Lot 11 3-21S-37E

(SL) 3345' FWL + 1620' FWL

(BHL) 3175' FWL + 1387' FWL

Survey: Phoenix MWD Survey

## Apache Corporation

29 September, 2013

HOBBS OCD

NOV 05 2013

RECEIVED

# Apache Corporation

CORPORATION

|                  |                            |                                     |                                |
|------------------|----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Apache Corporation         | <b>Local Co-ordinate Reference:</b> | Well #263W                     |
| <b>Project:</b>  | Lea County, NM (NAD83 NME) | <b>TVD Reference:</b>               | KB @ 3484.00usft (Capstar 120) |
| <b>Site:</b>     | NEDU                       | <b>MD Reference:</b>                | KB @ 3484.00usft (Capstar 120) |
| <b>Well:</b>     | #263W                      | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | WB1/Job #1311243           | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Surveys (Capstar 120)      | <b>Database:</b>                    | Compass 5000 GCR DB            |

|                    |                            |                      |                |
|--------------------|----------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM (NAD83 NME) |                      |                |
| <b>Map System:</b> | US State Plane 1983        | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983  |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone    |                      |                |

|                              |           |                          |                    |
|------------------------------|-----------|--------------------------|--------------------|
| <b>Site</b>                  | NEDU      |                          |                    |
| <b>Site Position:</b>        |           | <b>Northing:</b>         | 549,246.17 usft    |
| <b>From:</b>                 | Map       | <b>Easting:</b>          | 907,874.81 usft    |
| <b>Position Uncertainty:</b> | 0.00 usft | <b>Slot Radius:</b>      | 13-3/16 "          |
|                              |           | <b>Latitude:</b>         | 32° 30' 15.55234 N |
|                              |           | <b>Longitude:</b>        | 103° 8' 39.81023 W |
|                              |           | <b>Grid Convergence:</b> | 0.64 °             |

|                             |           |                            |                                  |
|-----------------------------|-----------|----------------------------|----------------------------------|
| <b>Well</b>                 | #263W     |                            |                                  |
| <b>Well Position</b>        | +N/-S     | 0.00 usft                  | <b>Northing:</b> 552,399.85 usft |
|                             | +E/-W     | 0.00 usft                  | <b>Easting:</b> 904,805.32 usft  |
| <b>Position Uncertainty</b> | 0.00 usft | <b>Wellhead Elevation:</b> | usft                             |
|                             |           | <b>Latitude:</b>           | 32° 30' 47.09058 N               |
|                             |           | <b>Longitude:</b>          | 103° 9' 15.23990 W               |
|                             |           | <b>Ground Level:</b>       | 3,473.00 usft                    |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | WB1/Job #1311243  |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  | IGRF2010_14       | 09/17/13           | (°) 7.13           | (°) 60.47        | (nT) 48,608           |

|                          |                         |               |              |                      |      |
|--------------------------|-------------------------|---------------|--------------|----------------------|------|
| <b>Design</b>            | Surveys (Capstar 120)   |               |              |                      |      |
| <b>Audit Notes:</b>      |                         |               |              |                      |      |
| <b>Version:</b>          | 1.0                     | <b>Phase:</b> | ACTUAL       | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>  | <b>+E/-W</b> | <b>Direction</b>     |      |
|                          | (usft)                  | (usft)        | (usft)       | (°)                  |      |
|                          | 0.00                    | 0.00          | 0.00         | 269.96               |      |

|                       |                      |                                     |                  |                    |  |
|-----------------------|----------------------|-------------------------------------|------------------|--------------------|--|
| <b>Survey Program</b> | <b>Date</b> 09/29/13 |                                     |                  |                    |  |
| <b>From</b>           | <b>To</b>            | <b>Survey (Wellbore)</b>            | <b>Tool Name</b> | <b>Description</b> |  |
| (usft)                | (usft)               |                                     |                  |                    |  |
| 1,349.00              | 7,005.00             | Phoenix MWD Survey (WB1/Job #131124 | MWD              | MWD - Standard     |  |

# Apache Corporation

CORPORATION

Company: Apache Corporation  
 Project: Lea County, NM (NAD83 NME)  
 Site: NEDU  
 Well: #263W  
 Wellbore: WB1/Job #1311243  
 Design: Surveys (Capstar 120)

Local Co-ordinate Reference: Well #263W  
 TVD Reference: KB @ 3484.00usft (Capstar 120)  
 MD Reference: KB @ 3484.00usft (Capstar 120)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Compass 5000 GCR DB

| Survey                   |            |                      |                 |               |               |               |                  |                     |                    |                   |            |
|--------------------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|------------|
| MD<br>(usft)             | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |            |
| 1,250.00                 | 0.64       | 200.00               | -2,234.03       | 1,249.97      | 2.85          |               | 1.00             | -1.00               | 0.00               | 552,402.70        | 904,806.3. |
| Tie-on                   |            |                      |                 |               |               |               |                  |                     |                    |                   |            |
| 1,349.00                 | 0.60       | 138.90               | -2,135.03       | 1,348.97      | 1.94          |               | 1.15             | -1.15               | 0.64               | 552,401.79        | 904,806.47 |
| First Phoenix MWD Survey |            |                      |                 |               |               |               |                  |                     |                    |                   |            |
| 1,477.00                 | 0.50       | 274.00               | -2,007.04       | 1,476.96      | 1.47          |               | 1.04             | -1.04               | 0.79               | 552,401.32        | 904,806.36 |
| 1,605.00                 | 1.80       | 289.10               | -1,879.07       | 1,604.93      | 2.17          |               | -1.42            | 1.42                | 1.03               | 552,402.02        | 904,803.90 |
| 1,733.00                 | 4.10       | 297.00               | -1,751.24       | 1,732.76      | 4.91          |               | -7.40            | 7.40                | 1.82               | 552,404.76        | 904,797.92 |
| 1,861.00                 | 4.20       | 299.50               | -1,623.58       | 1,860.42      | 9.29          | -15.56        |                  | 15.55               | 0.16               | 552,409.14        | 904,789.77 |
| 1,989.00                 | 4.20       | 303.30               | -1,495.92       | 1,988.08      | 14.17         | -23.55        |                  | 23.54               | 0.22               | 552,414.02        | 904,781.77 |
| 2,117.00                 | 4.30       | 308.70               | -1,368.27       | 2,115.73      | 19.75         | -31.22        |                  | 31.20               | 0.32               | 552,419.60        | 904,774.11 |
| 2,245.00                 | 4.40       | 310.40               | -1,240.64       | 2,243.36      | 25.93         | -38.70        |                  | 38.68               | 0.13               | 552,425.78        | 904,766.62 |
| 2,373.00                 | 4.50       | 316.00               | -1,113.03       | 2,370.97      | 32.72         | -45.93        |                  | 45.91               | 0.35               | 552,432.57        | 904,759.40 |
| 2,501.00                 | 4.40       | 318.40               | -985.41         | 2,498.59      | 40.01         | -52.68        |                  | 52.65               | 0.17               | 552,439.86        | 904,752.65 |
| 2,629.00                 | 3.30       | 315.30               | -857.70         | 2,626.30      | 46.30         | -58.53        |                  | 58.50               | 0.87               | 552,446.15        | 904,746.80 |
| 2,757.00                 | 3.20       | 302.20               | -729.91         | 2,754.09      | 50.82         | -64.14        |                  | 64.11               | 0.58               | 552,450.67        | 904,741.18 |
| 2,885.00                 | 3.00       | 299.90               | -602.10         | 2,881.90      | 54.39         | -70.07        |                  | 70.03               | 0.18               | 552,454.24        | 904,735.25 |
| 3,013.00                 | 2.60       | 297.80               | -474.25         | 3,009.75      | 57.42         | -75.54        |                  | 75.50               | 0.32               | 552,457.27        | 904,729.78 |
| 3,141.00                 | 2.20       | 292.90               | -346.36         | 3,137.64      | 59.73         | -80.37        |                  | 80.33               | 0.35               | 552,459.58        | 904,724.95 |
| 3,269.00                 | 2.00       | 292.50               | -218.45         | 3,265.55      | 61.54         | -84.70        |                  | 84.66               | 0.16               | 552,461.39        | 904,720.62 |
| 3,397.00                 | 1.70       | 289.90               | -90.51          | 3,393.49      | 63.04         | -88.55        |                  | 88.51               | 0.24               | 552,462.89        | 904,716.78 |
| 3,525.00                 | 2.10       | 306.80               | 37.42           | 3,521.42      | 65.09         | -92.21        |                  | 92.17               | 0.53               | 552,464.94        | 904,713.11 |
| 3,653.00                 | 1.80       | 301.90               | 165.34          | 3,649.34      | 67.56         | -95.79        |                  | 95.75               | 0.27               | 552,467.41        | 904,709.53 |
| 3,781.00                 | 2.20       | 295.20               | 293.26          | 3,777.26      | 69.67         | -99.72        |                  | 99.68               | 0.36               | 552,469.52        | 904,705.60 |
| 3,909.00                 | 2.10       | 297.20               | 421.17          | 3,905.17      | 71.78         | -104.03       |                  | 103.99              | 0.10               | 552,471.63        | 904,701.29 |
| 4,036.00                 | 2.70       | 302.90               | 548.06          | 4,032.06      | 74.47         | -108.61       |                  | 108.57              | 0.51               | 552,474.32        | 904,696.71 |
| 4,164.00                 | 3.20       | 308.10               | 675.89          | 4,159.89      | 78.31         | -113.96       |                  | 113.91              | 0.44               | 552,478.16        | 904,691.37 |
| 4,292.00                 | 3.20       | 307.50               | 803.69          | 4,287.69      | 82.69         | -119.60       |                  | 119.55              | 0.03               | 552,482.54        | 904,685.72 |

# Apache Corporation

CORPORATION

Company: Apache Corporation  
Project: Lea County, NM (NAD83 NME)  
Site: NEDU  
Well: #263W  
Wellbore: WB1/Job #1311243  
Design: Surveys (Capstar 120)

Local Co-ordinate Reference: Well #263W  
TVD Reference: KB @ 3484.00usft (Capstar 120)  
MD Reference: KB @ 3484.00usft (Capstar 120)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass 5000 GCR DB

| Survey                  |            |                      |                 |               |               |               |                  |                     |                    |                   |  |
|-------------------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft)            | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 4,420.00                | 3.30       | 307.80               | 931.49          | 4,415.49      | 87.13         | -125.35       | 125.29           | 0.08                | 552,486.98         | 904,679.9         |  |
| 4,549.00                | 3.40       | 308.00               | 1,060.27        | 4,544.27      | 91.76         | -131.30       | 131.24           | 0.08                | 552,491.61         | 904,674.03        |  |
| 4,677.00                | 3.30       | 308.70               | 1,188.05        | 4,672.05      | 96.40         | -137.16       | 137.10           | 0.08                | 552,496.25         | 904,668.16        |  |
| 4,804.00                | 3.40       | 311.12               | 1,314.83        | 4,798.83      | 101.16        | -142.85       | 142.79           | 0.14                | 552,501.01         | 904,662.47        |  |
| 4,932.00                | 3.50       | 312.00               | 1,442.60        | 4,926.60      | 106.27        | -148.62       | 148.55           | 0.09                | 552,506.12         | 904,656.71        |  |
| 5,060.00                | 3.30       | 306.50               | 1,570.37        | 5,054.37      | 111.08        | -154.48       | 154.41           | 0.30                | 552,510.93         | 904,650.84        |  |
| 5,188.00                | 3.30       | 305.50               | 1,698.16        | 5,182.16      | 115.41        | -160.44       | 160.37           | 0.04                | 552,515.26         | 904,644.88        |  |
| 5,316.00                | 3.10       | 310.70               | 1,825.96        | 5,309.96      | 119.80        | -166.06       | 165.99           | 0.28                | 552,519.65         | 904,639.26        |  |
| 5,444.00                | 3.10       | 308.70               | 1,953.77        | 5,437.77      | 124.22        | -171.39       | 171.31           | 0.08                | 552,524.07         | 904,633.93        |  |
| 5,572.00                | 2.90       | 308.80               | 2,081.60        | 5,565.60      | 128.42        | -176.61       | 176.53           | 0.16                | 552,528.27         | 904,628.71        |  |
| 5,702.00                | 2.80       | 304.60               | 2,211.44        | 5,695.44      | 132.28        | -181.79       | 181.71           | 0.18                | 552,532.13         | 904,623.53        |  |
| 5,830.00                | 2.80       | 303.10               | 2,339.29        | 5,823.29      | 135.76        | -186.98       | 186.90           | 0.06                | 552,535.61         | 904,618.34        |  |
| 5,958.00                | 3.00       | 302.00               | 2,467.12        | 5,951.12      | 139.25        | -192.44       | 192.35           | 0.16                | 552,539.10         | 904,612.88        |  |
| 6,087.00                | 2.90       | 301.70               | 2,595.95        | 6,079.95      | 142.75        | -198.08       | 197.99           | 0.08                | 552,542.60         | 904,607.24        |  |
| 6,214.00                | 2.90       | 301.10               | 2,722.79        | 6,206.79      | 146.10        | -203.57       | 203.47           | 0.02                | 552,545.95         | 904,601.76        |  |
| 6,342.00                | 2.60       | 305.80               | 2,850.64        | 6,334.64      | 149.47        | -208.69       | 208.60           | 0.29                | 552,549.32         | 904,596.63        |  |
| 6,469.00                | 2.90       | 310.00               | 2,977.49        | 6,461.49      | 153.22        | -213.49       | 213.39           | 0.28                | 552,553.07         | 904,591.83        |  |
| 6,597.00                | 2.80       | 308.90               | 3,105.34        | 6,589.34      | 157.26        | -218.40       | 218.30           | 0.09                | 552,557.11         | 904,586.92        |  |
| 6,725.00                | 2.70       | 312.00               | 3,233.19        | 6,717.19      | 161.24        | -223.08       | 222.97           | 0.14                | 552,561.09         | 904,582.25        |  |
| 6,853.00                | 2.70       | 311.80               | 3,361.05        | 6,845.05      | 165.27        | -227.57       | 227.46           | 0.01                | 552,565.12         | 904,577.76        |  |
| 6,950.00                | 2.50       | 311.90               | 3,457.95        | 6,941.95      | 168.21        | -230.84       | 230.74           | 0.21                | 552,568.06         | 904,574.48        |  |
| Last Phoenix MWD Survey |            |                      |                 |               |               |               |                  |                     |                    |                   |  |
| 7,005.00                | 2.50       | 311.90               | 3,512.89        | 6,996.89      | 169.81        | -232.63       | 232.52           | 0.00                | 552,569.66         | 904,572.69        |  |
| Projection to TD        |            |                      |                 |               |               |               |                  |                     |                    |                   |  |



Apache Corporation

|           |                            |                              |                                |
|-----------|----------------------------|------------------------------|--------------------------------|
| Company:  | Apache Corporation         | Local Co-ordinate Reference: | Well #263W                     |
| Project:  | Lea County, NM (NAD83 NME) | TVD Reference:               | KB @ 3484.00usft (Capstar 120) |
| Site:     | NEDU                       | MD Reference:                | KB @ 3484.00usft (Capstar 120) |
| Well:     | #263W                      | North Reference:             | Grid                           |
| Wellbore: | WB1/Job #1311243           | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | Surveys (Capstar 120)      | Database:                    | Compass 5000 GCR DB            |

| Survey Annotations          |                             |                   |                 |                          |  |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                  |  |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                          |  |
| 1,250.00                    | 1,249.97                    | 2.85              | 1.00            | Tie-on                   |  |
| 1,349.00                    | 1,348.97                    | 1.94              | 1.15            | First Phoenix MWD Survey |  |
| 6,950.00                    | 6,941.95                    | 168.21            | -230.84         | Last Phoenix MWD Survey  |  |
| 7,005.00                    | 6,996.89                    | 169.81            | -232.63         | Projection to TD         |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|

Phoenix Technology Services

Apache Corporation

#263W - Phoenix MWD Survey

Lea County, NM (NAD83 NME)

NEDU

Your Ref:

| Measured<br>Depth<br>(ft) | Sub-Sea<br>Incl.<br>(ft) | Vertical<br>Azim.<br>(ft) | Local<br>Depth<br>(ft) | Coordinate UTM<br>Depth<br>(ft) | Northings<br>(ft) | Eastings<br>(ft) | Coordinate Vertical<br>Northings<br>(ft) |
|---------------------------|--------------------------|---------------------------|------------------------|---------------------------------|-------------------|------------------|------------------------------------------|
| 1250                      | 0.64                     | 200                       | -2234.03               | 1249.97                         | 2.85 N            |                  | 1                                        |
| 1349                      | 0.6                      | 138.9                     | -2135.03               | 1348.97                         | 1.94 N            |                  | 1.15                                     |
| 1477                      | 0.5                      | 274                       | -2007.04               | 1476.96                         | 1.47 N            |                  | 1.04                                     |
| 1605                      | 1.8                      | 289.1                     | -1879.07               | 1604.93                         | 2.17 N            |                  | 1.42                                     |
| 1733                      | 4.1                      | 297                       | -1751.24               | 1732.76                         | 4.91 N            |                  | 7.4                                      |
| 1861                      | 4.2                      | 299.5                     | -1623.58               | 1860.42                         | 9.29 N            |                  | 15.56                                    |
| 1989                      | 4.2                      | 303.3                     | -1495.92               | 1988.08                         | 14.17 N           |                  | 23.55                                    |
| 2117                      | 4.3                      | 308.7                     | -1368.27               | 2115.73                         | 19.75 N           |                  | 31.22                                    |
| 2245                      | 4.4                      | 310.4                     | -1240.64               | 2243.36                         | 25.93 N           |                  | 38.7                                     |
| 2373                      | 4.5                      | 316                       | -1113.03               | 2370.97                         | 32.72 N           |                  | 45.93                                    |
| 2501                      | 4.4                      | 318.4                     | -985.41                | 2498.59                         | 40.01 N           |                  | 52.68                                    |
| 2629                      | 3.3                      | 315.3                     | -857.7                 | 2626.3                          | 46.3 N            |                  | 58.53                                    |
| 2757                      | 3.2                      | 302.2                     | -729.91                | 2754.09                         | 50.82 N           |                  | 64.14                                    |
| 2885                      | 3                        | 299.9                     | -602.1                 | 2881.9                          | 54.39 N           |                  | 70.07                                    |
| 3013                      | 2.6                      | 297.8                     | -474.25                | 3009.75                         | 57.42 N           |                  | 75.54                                    |
| 3141                      | 2.2                      | 292.9                     | -346.36                | 3137.64                         | 59.73 N           |                  | 80.37                                    |
| 3269                      | 2                        | 292.5                     | -218.45                | 3265.55                         | 61.54 N           |                  | 84.7                                     |
| 3397                      | 1.7                      | 289.9                     | -90.51                 | 3393.49                         | 63.04 N           |                  | 88.55                                    |
| 3525                      | 2.1                      | 306.8                     | 37.42                  | 3521.42                         | 65.09 N           |                  | 92.21                                    |
| 3653                      | 1.8                      | 301.9                     | 165.34                 | 3649.34                         | 67.56 N           |                  | 95.79                                    |
| 3781                      | 2.2                      | 295.2                     | 293.26                 | 3777.26                         | 69.67 N           |                  | 99.72                                    |
| 3909                      | 2.1                      | 297.2                     | 421.17                 | 3905.17                         | 71.78 N           |                  | 104.03                                   |
| 4036                      | 2.7                      | 302.9                     | 548.06                 | 4032.06                         | 74.47 N           |                  | 108.61                                   |
| 4164                      | 3.2                      | 308.1                     | 675.89                 | 4159.89                         | 78.31 N           |                  | 113.96                                   |
| 4292                      | 3.2                      | 307.5                     | 803.69                 | 4287.69                         | 82.69 N           |                  | 119.6                                    |
| 4420                      | 3.3                      | 307.8                     | 931.49                 | 4415.49                         | 87.13 N           |                  | 125.35                                   |
| 4549                      | 3.4                      | 308                       | 1060.27                | 4544.27                         | 91.76 N           |                  | 131.3                                    |
| 4677                      | 3.3                      | 308.7                     | 1188.05                | 4672.05                         | 96.4 N            |                  | 137.16                                   |
| 4804                      | 3.4                      | 311.12                    | 1314.83                | 4798.83                         | 101.16 N          |                  | 142.85                                   |
| 4932                      | 3.5                      | 312                       | 1442.6                 | 4926.6                          | 106.27 N          |                  | 148.62                                   |
| 5060                      | 3.3                      | 306.5                     | 1570.37                | 5054.37                         | 111.08 N          |                  | 154.48                                   |
| 5188                      | 3.3                      | 305.5                     | 1698.16                | 5182.16                         | 115.41 N          |                  | 160.44                                   |
| 5316                      | 3.1                      | 310.7                     | 1825.96                | 5309.96                         | 119.8 N           |                  | 166.06                                   |
| 5444                      | 3.1                      | 308.7                     | 1953.77                | 5437.77                         | 124.22 N          |                  | 171.39                                   |

|      |     |       |         |         |          |        |
|------|-----|-------|---------|---------|----------|--------|
| 5572 | 2.9 | 308.8 | 2081.6  | 5565.6  | 128.42 N | 176.61 |
| 5702 | 2.8 | 304.6 | 2211.44 | 5695.44 | 132.28 N | 181.79 |
| 5830 | 2.8 | 303.1 | 2339.29 | 5823.29 | 135.76 N | 186.98 |
| 5958 | 3   | 302   | 2467.12 | 5951.12 | 139.25 N | 192.44 |
| 6087 | 2.9 | 301.7 | 2595.95 | 6079.95 | 142.75 N | 198.08 |
| 6214 | 2.9 | 301.1 | 2722.79 | 6206.79 | 146.1 N  | 203.57 |
| 6342 | 2.6 | 305.8 | 2850.64 | 6334.64 | 149.47 N | 208.69 |
| 6469 | 2.9 | 310   | 2977.49 | 6461.49 | 153.22 N | 213.49 |
| 6597 | 2.8 | 308.9 | 3105.34 | 6589.34 | 157.26 N | 218.4  |
| 6725 | 2.7 | 312   | 3233.19 | 6717.19 | 161.24 N | 223.08 |
| 6853 | 2.7 | 311.8 | 3361.05 | 6845.05 | 165.27 N | 227.57 |
| 6950 | 2.5 | 311.9 | 3457.95 | 6941.95 | 168.21 N | 230.84 |
| 7005 | 2.5 | 311.9 | 3512.89 | 6996.89 | 169.81 N | 232.63 |

All data are in feet unless otherwise stated. Directions  
Vertical depths are relative to KB. Northings and Eastings

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Slot and calculated along an

Coordinate System is North American Datum 1983 US State  
Grid Convergent at Surface is 0.634-

Based upon Minimum Curvature type calculation at a Measured  
the Bottom Hole Displacement is 288.01ft., in the Direction

| Dogleg<br>Eastings<br>(-/100ft) | Section    | Rate       |        |            |         |
|---------------------------------|------------|------------|--------|------------|---------|
| E                               | 552402.7 N | 904806.3 E | -1     | 0 Tie-on   |         |
| E                               | 552401.8 N | 904806.5 E | -1.15  | 0.64 First | Phoenix |
| E                               | 552401.3 N | 904806.4 E | -1.04  | 0.79       |         |
| W                               | 552402 N   | 904803.9 E | 1.42   | 1.03       |         |
| W                               | 552404.8 N | 904797.9 E | 7.4    | 1.82       |         |
| W                               | 552409.1 N | 904789.8 E | 15.55  | 0.16       |         |
| W                               | 552414 N   | 904781.8 E | 23.54  | 0.22       |         |
| W                               | 552419.6 N | 904774.1 E | 31.2   | 0.32       |         |
| W                               | 552425.8 N | 904766.6 E | 38.68  | 0.13       |         |
| W                               | 552432.6 N | 904759.4 E | 45.91  | 0.35       |         |
| W                               | 552439.9 N | 904752.6 E | 52.65  | 0.17       |         |
| W                               | 552446.1 N | 904746.8 E | 58.5   | 0.87       |         |
| W                               | 552450.7 N | 904741.2 E | 64.11  | 0.58       |         |
| W                               | 552454.2 N | 904735.3 E | 70.03  | 0.18       |         |
| W                               | 552457.3 N | 904729.8 E | 75.5   | 0.32       |         |
| W                               | 552459.6 N | 904725 E   | 80.33  | 0.35       |         |
| W                               | 552461.4 N | 904720.6 E | 84.66  | 0.16       |         |
| W                               | 552462.9 N | 904716.8 E | 88.51  | 0.24       |         |
| W                               | 552464.9 N | 904713.1 E | 92.17  | 0.53       |         |
| W                               | 552467.4 N | 904709.5 E | 95.75  | 0.27       |         |
| W                               | 552469.5 N | 904705.6 E | 99.68  | 0.36       |         |
| W                               | 552471.6 N | 904701.3 E | 103.99 | 0.1        |         |
| W                               | 552474.3 N | 904696.7 E | 108.57 | 0.51       |         |
| W                               | 552478.2 N | 904691.4 E | 113.91 | 0.44       |         |
| W                               | 552482.5 N | 904685.7 E | 119.55 | 0.03       |         |
| W                               | 552487 N   | 904680 E   | 125.29 | 0.08       |         |
| W                               | 552491.6 N | 904674 E   | 131.24 | 0.08       |         |
| W                               | 552496.2 N | 904668.2 E | 137.1  | 0.08       |         |
| W                               | 552501 N   | 904662.5 E | 142.79 | 0.14       |         |
| W                               | 552506.1 N | 904656.7 E | 148.55 | 0.09       |         |
| W                               | 552510.9 N | 904650.8 E | 154.41 | 0.3        |         |
| W                               | 552515.3 N | 904644.9 E | 160.37 | 0.04       |         |
| W                               | 552519.7 N | 904639.3 E | 165.99 | 0.28       |         |
| W                               | 552524.1 N | 904633.9 E | 171.31 | 0.08       |         |

|   |            |            |        |      |               |
|---|------------|------------|--------|------|---------------|
| W | 552528.3 N | 904628.7 E | 176.53 | 0.16 |               |
| W | 552532.1 N | 904623.5 E | 181.71 | 0.18 |               |
| W | 552535.6 N | 904618.3 E | 186.9  | 0.06 |               |
| W | 552539.1 N | 904612.9 E | 192.35 | 0.16 |               |
| W | 552542.6 N | 904607.2 E | 197.99 | 0.08 |               |
| W | 552545.9 N | 904601.8 E | 203.47 | 0.02 |               |
| W | 552549.3 N | 904596.6 E | 208.6  | 0.29 |               |
| W | 552553.1 N | 904591.8 E | 213.39 | 0.28 |               |
| W | 552557.1 N | 904586.9 E | 218.3  | 0.09 |               |
| W | 552561.1 N | 904582.2 E | 222.97 | 0.14 |               |
| W | 552565.1 N | 904577.8 E | 227.46 | 0.01 |               |
| W | 552568.1 N | 904574.5 E | 230.74 | 0.21 | Last Phoenix  |
| W | 552569.7 N | 904572.7 E | 232.52 | 0    | Projection to |

and coordinate are relative to Grid North.  
are relative to Well.

Azimuth of 269.963- (Grid).

Plane 1983, New Mexico Eastern Zone.

Depth of 7005.00ft.,  
of 269.963- (Grid).

HOBBS OCD

NOV 05 2013

RECEIVED

## APACHE CORP

Eunice Blinebry

Lea County, NM

Northeast Drinkard Unit #263W 30-025-40849

VH - Job #320913-KW-992 Lot 11 C-3-215-37E

(SL) 3345' FWL + 1620' FWL

(BHL) 3175' FWL + 1387' FWL

Survey: Gyro

## SDI Survey Report

This survey is correct to the best of my knowledge and is supported by actual field data.

*Richard*

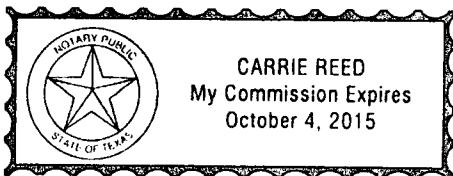
Notarized this date 1st of October, 2013.

*Carrie Reed*

Notary Signature

County of Midland

State of Texas



**SDI**  
SDI Survey Report

|                  |                               |                                     |                                     |
|------------------|-------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | APACHE CORP                   | <b>Local Co-ordinate Reference:</b> | Well Northeast Drinkard Unit #263W  |
| <b>Project:</b>  | Eunice Blinebry               | <b>TVD Reference:</b>               | WELL @ 0.0usft (Original Well Elev) |
| <b>Site:</b>     | Lea County, NM                | <b>MD Reference:</b>                | WELL @ 0.0usft (Original Well Elev) |
| <b>Well:</b>     | Northeast Drinkard Unit #263W | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | VH - Job #320913-KW-992       | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | VH - Job #320913-KW-992       | <b>Database:</b>                    | EDM-Regulatory                      |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eunice Blinebry                      |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                |                          |                  |
|------------------------------|----------------|--------------------------|------------------|
| <b>Site</b>                  | Lea County, NM |                          |                  |
| <b>Site Position:</b>        |                | <b>Northing:</b>         | 552,381.68 usft  |
| <b>From:</b>                 | Lat/Long       | <b>Easting:</b>          | 863,475.68 usft  |
| <b>Position Uncertainty:</b> | 0.0 usft       | <b>Slot Radius:</b>      | 0"               |
|                              |                | <b>Latitude:</b>         | 32° 30' 47.090 N |
|                              |                | <b>Longitude:</b>        | 103° 9' 15.240 W |
|                              |                | <b>Grid Convergence:</b> | 0.63 °           |

|                             |                                            |                            |                                  |
|-----------------------------|--------------------------------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Northeast Drinkard Unit #263W, Directional |                            |                                  |
| <b>Well Position</b>        | +N/-S                                      | 0.0 usft                   | <b>Northing:</b> 552,381.68 usft |
|                             | +E/-W                                      | 0.0 usft                   | <b>Easting:</b> 863,475.68 usft  |
| <b>Position Uncertainty</b> | 0.0 usft                                   | <b>Wellhead Elevation:</b> | usft                             |
|                             |                                            | <b>Latitude:</b>           | 32° 30' 47.090 N                 |
|                             |                                            | <b>Longitude:</b>          | 103° 9' 15.240 W                 |
|                             |                                            | <b>Ground Level:</b>       | 0.0 usft                         |

|                  |                         |                    |                        |                      |                            |
|------------------|-------------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | VH - Job #320913-KW-992 |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b>       | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010                | 9/25/2013          | 7.13                   | 60.47                | 48,632                     |

|                          |                         |               |              |                          |
|--------------------------|-------------------------|---------------|--------------|--------------------------|
| <b>Design</b>            | VH - Job #320913-KW-992 |               |              |                          |
| <b>Audit Notes:</b>      |                         |               |              |                          |
| <b>Version:</b>          | 1.0                     | <b>Phase:</b> | ACTUAL       | <b>Tie On Depth:</b> 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>  | <b>+E/-W</b> | <b>Direction</b>         |
|                          | (usft)                  | (usft)        | (usft)       | (°)                      |
|                          | 0.0                     | 0.0           | 0.0          | 269.96                   |

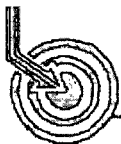
|                       |                  |                                |                  |                    |
|-----------------------|------------------|--------------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b>      | 9/30/2013                      |                  |                    |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>       | <b>Tool Name</b> | <b>Description</b> |
| 100.0                 | 1,250.0          | Gyro (VH - Job #320913-KW-992) | Keeper           | Keeper Gyro        |

|                  |                |                          |                   |                   |                   |                            |                                |  |
|------------------|----------------|--------------------------|-------------------|-------------------|-------------------|----------------------------|--------------------------------|--|
| <b>Survey</b>    |                |                          |                   |                   |                   |                            |                                |  |
| <b>MD (usft)</b> | <b>Inc (°)</b> | <b>Azi (azimuth) (°)</b> | <b>TVD (usft)</b> | <b>N/S (usft)</b> | <b>E/W (usft)</b> | <b>Closure Azimuth (°)</b> | <b>Closure Distance (usft)</b> |  |
| 0.0              | 0.00           | 0.00                     | 0.0               | 0.0               | 0.0               | 0.00                       | 0.0                            |  |
| 100.0            | 0.47           | 301.42                   | 100.0             | 0.2               | -0.4              | 301.42                     | 0.4                            |  |
| 200.0            | 0.53           | 302.84                   | 200.0             | 0.7               | -1.1              | 301.93                     | 1.3                            |  |
| 300.0            | 0.47           | 315.49                   | 300.0             | 1.2               | -1.8              | 304.70                     | 2.1                            |  |
| 400.0            | 0.40           | 325.02                   | 400.0             | 1.8               | -2.3              | 308.63                     | 2.9                            |  |
| 500.0            | 0.37           | 12.26                    | 500.0             | 2.4               | -2.4              | 315.21                     | 3.4                            |  |
| 600.0            | 0.41           | 27.59                    | 600.0             | 3.0               | -2.1              | 324.69                     | 3.7                            |  |
| 700.0            | 0.26           | 63.31                    | 700.0             | 3.5               | -1.8              | 332.72                     | 3.9                            |  |
| 800.0            | 0.43           | 59.53                    | 800.0             | 3.7               | -1.3              | 341.47                     | 4.0                            |  |
| 900.0            | 0.46           | 56.96                    | 900.0             | 4.2               | -0.6              | 351.85                     | 4.2                            |  |
| 1,000.0          | 0.33           | 110.27                   | 1,000.0           | 4.3               | 0.0               | 0.15                       | 4.3                            |  |
| 1,100.0          | 0.35           | 148.58                   | 1,100.0           | 3.9               | 0.4               | 6.43                       | 3.9                            |  |

**SDI**  
SDI Survey Report

|                  |                               |                                     |                                     |
|------------------|-------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | APACHE CORP                   | <b>Local Co-ordinate Reference:</b> | Well Northeast Drinkard Unit #263W  |
| <b>Project:</b>  | Eunice Blinbry                | <b>TVD Reference:</b>               | WELL @ 0.0usft (Original Well Elev) |
| <b>Site:</b>     | Lea County, NM                | <b>MD Reference:</b>                | WELL @ 0.0usft (Original Well Elev) |
| <b>Well:</b>     | Northeast Drinkard Unit #263W | <b>North Reference:</b>             | Grid                                |
| <b>Wellbore:</b> | VH - Job #320913-KW-992       | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | VH - Job #320913-KW-992       | <b>Database:</b>                    | EDM-Regulatory                      |

| Survey       |            |                      |               |               |               |                        |                            |  |
|--------------|------------|----------------------|---------------|---------------|---------------|------------------------|----------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Azimuth<br>(°) | Closure Distance<br>(usft) |  |
| 1,200.0      | 0.58       | 136.55               | 1,200.0       | 3.3           | 0.9           | 16.10                  | 3.4                        |  |
| 1,250.0      | 0.64       | 200.10               | 1,250.0       | 2.8           | 1.0           | 19.87                  | 3.0                        |  |



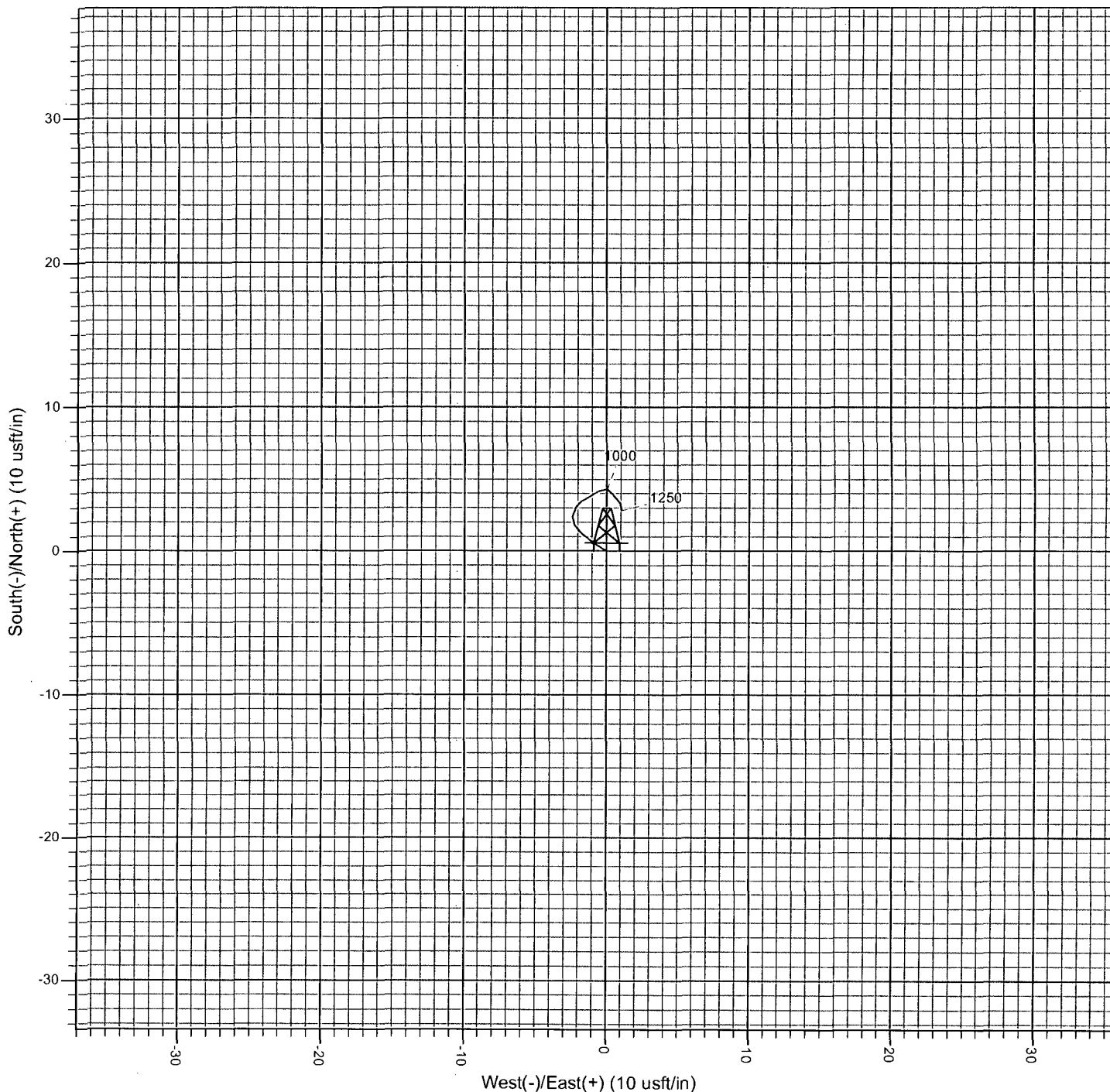
Scientific Drilling

Project: Eunice Blinebry  
Lea County, NM  
Well: Northeast Drinkard Unit #263W  
Wellbore: VH - Job #320913-KW-992  
Design: VH - Job #320913-KW-992

WELL DETAILS: Northeast Drinkard Unit #263W  
WELL @ 0.0usft (Original Well Elev)

Ground Level: 0.0

| +N/-S | +E/-W | Northing  | Easting   | Latitude         | Longitude        | Slot |
|-------|-------|-----------|-----------|------------------|------------------|------|
| 0.0   | 0.0   | 552381.68 | 863475.68 | 32° 30' 47.090 N | 103° 9' 15.240 W |      |



|                                                       |                                        |
|-------------------------------------------------------|----------------------------------------|
| PROJECT DETAILS: Eunice Blinebry                      | SITE DETAILS: Lea County, NM           |
| Geodetic System: US State Plane 1927 (Exact solution) | Site Centre Latitude: 32° 30' 47.090 N |
| Datum: NAD 1927 (NADCON CONUS)                        | Longitude: 103° 9' 15.240 W            |
| Ellipsoid: Clarke 1866                                | Positional Uncertainty: 0.0            |
| Zone: New Mexico East 3001                            | Convergence: 0.63                      |
| System Datum: Mean Sea Level                          | Local North: Grid                      |