

**District I**  
1625 N. French Dr., Hobbs, NM 88249  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6176

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, 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>30-015- <b>42325</b> |  | <sup>2</sup> Pool Code<br><b>97565</b>            |  | <sup>3</sup> Pool Name<br>N Seven Rivers; Glorieta Yeso |                                 |
| <sup>4</sup> Property Code<br>40333             |  | <sup>5</sup> Property Name<br>HEARSE 36 STATE COM |  |                                                         | <sup>6</sup> Well Number<br>7H  |
| <sup>7</sup> OGRID No.<br>229137                |  | <sup>8</sup> Operator Name<br>COG OPERATING, LLC  |  |                                                         | <sup>9</sup> Elevation<br>3399' |

<sup>10</sup> Surface Location

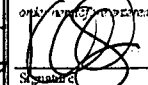
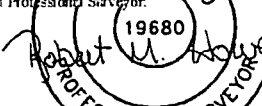
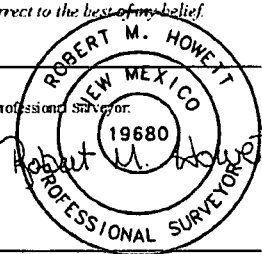
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P             | 36      | 19-S     | 25-E  |         | 150'          | SOUTH            | 990'          | EAST           | EDDY   |

<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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| A             | 36      | 19-S     | 25-E  |         | 330           | NORTH            | 990'          | EAST           | EDDY   |

|                                      |                               |                                  |                         |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>160 | <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><sup>16</sup></p> <p><b>CORNER DATA</b><br/>NAD 27 GRID - NM EAST<br/>A: FOUND BRASS CAP 1947<br/>N 585520.8 - E 465190.9<br/>B: FOUND 1/2" REBAR W/CAP #12641<br/>N 590602.2 - E 465207.3<br/>C: FOUND 1/2" REBAR &amp; STONES<br/>N 590790.7 - E 470475.1<br/>D: FOUND BRASS CAP "1947"<br/>N 585537.2 - E 470474.4<br/>E: FOUND BRASS CAP "1947"<br/>N 585528.7 - E 467832.9</p> <p><b>GEODETIC DATA</b><br/>NAD 27 GRID - NM EAST<br/>SURFACE LOCATION<br/>N 585684.0 - E 469484.7<br/>LAT: 32.61011059° N<br/>LONG: 104.43243322° W<br/>BOTTOM LOCATION<br/>N 590462.8 - E 469485.1</p> | <p>330'</p> <p>990'</p> <p>B. H.</p> <p>N 00°00'17" E (GRID)<br/>4780.09' (HORIZ.)</p> <p>Producing Area</p> <p>Project Area</p> <p>150'</p> <p>990'</p> <p>S. L.</p> | <p><b><sup>17</sup> 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 undivided mineral interest in this 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, as approved by the division.</p> <p> <b>4-16-14</b><br/>Date</p> <p><b>Kelly J. Holly</b><br/>Principal Name</p> <p><b>kholly@concho.com</b><br/>E-mail Address</p> <p><b><sup>18</sup> 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>1-14-14</b><br/>Date of Survey</p> <p><br/>Signature and Seal of Professional Surveyor</p> <p><b>19680</b><br/>Certificate Number</p> <p></p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Prosperity Consultants, LLC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS140025

Estimated  
Completed  
Interval:  
330 FSL  
990 FEL



## **COG Operating LLC**

**Eddy County, NM (NAD27 NME)**

**Hearse 36 State**

**#7H**

**WB1**

**Plan: Plan #1 04-04-14**

**Surface: 150' FSL, 990' FEL, Sec 36, T19S, R25E, Unit P**

**PP: 330' FSL, 990' FEL, Sec 36, T19S, R25E, Unit P**

**BHL: 330' FNL, 990' FEL, Sec 36, T19S, R25E, Unit A**

## **Standard Planning Report**

**04 April, 2014**





Phoenix Technology Services  
Planning Report



|           |                            |                              |                   |
|-----------|----------------------------|------------------------------|-------------------|
| Database: | GCR-DB                     | Local Co-ordinate Reference: | Well: #7H         |
| Company:  | COG Operating LLC          | TVD Reference:               | KB @ 3426.00usft  |
| Project:  | Eddy County NM (NAD27-NME) | MDI Reference:               | KB @ 3426.00usft  |
| Site:     | Hearse 36 State            | North Reference:             | Grid              |
| Well:     | #7H                        | Survey Calculation Method:   | Minimum Curvature |
| Wellbore: | WB1                        |                              |                   |
| Design:   | Plan #1 04-04-14           |                              |                   |

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Eddy County NM (NAD27-NME)           |               |                |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum:  | NAD 1927 (NADCON CONUS)              |               |                |
| Map Zone:   | New Mexico East 3001                 |               |                |

|                       |                 |                   |                     |
|-----------------------|-----------------|-------------------|---------------------|
| Site                  | Hearse 36 State |                   |                     |
| Site Position:        |                 | Northing:         | 585,673.60 usft     |
| From:                 | Map             | Easting:          | 466,182.10 usft     |
| Position Uncertainty: | 0.00 usft       | Slot Radius:      | 13-3/16 "           |
|                       |                 | Latitude:         | 32° 36' 36.26340 N  |
|                       |                 | Longitude:        | 104° 26' 35.37078 W |
|                       |                 | Grid Convergence: | -0.06 °             |

|                      |           |                     |               |
|----------------------|-----------|---------------------|---------------|
| Well                 | #7H       |                     |               |
| Well Position        | +N/-S     | 10.41 usft          | Northing:     |
|                      | +E/-W     | 3,302.60 usft       | Easting:      |
| Position Uncertainty | 0.00 usft | Wellhead Elevation: | Ground Level: |
|                      |           |                     | 3,399.00 usft |

|           |             |             |                |
|-----------|-------------|-------------|----------------|
| Wellbore  | WB1         |             |                |
| Magnetics | Model Name  | Sample Date | Declination    |
|           | IGRF2010_14 | 04/03/14    | 7.67           |
|           |             |             | Dip Angle      |
|           |             |             | 60.33          |
|           |             |             | Field Strength |
|           |             |             | 48,474         |

|                   |                  |        |               |
|-------------------|------------------|--------|---------------|
| Design            | Plan #1 04-04-14 |        |               |
| Audit Notes:      |                  |        |               |
| Version:          | Phase:           | PLAN   | Tie On Depth: |
|                   |                  |        | 0.00          |
| Vertical Section: | Depth From (TVD) | +N/-S  | +E/-W         |
|                   | (usft)           | (usft) | (usft)        |
|                   | 0.00             | 0.00   | 0.00          |
|                   |                  |        | Direction     |
|                   |                  |        | (°)           |
|                   |                  |        | 0.00          |

|               |             |         |          |          |        |             |             |             |      |                     |
|---------------|-------------|---------|----------|----------|--------|-------------|-------------|-------------|------|---------------------|
| Plan Sections |             |         |          |          |        |             |             |             |      |                     |
| Measured      | Inclination | Azimuth | Vertical | +N/-S    | +E/-W  | Dogleg      | Build       | Turn        | TFO  | Target              |
| Depth         | (°)         | (°)     | Depth    | (usft)   | (usft) | Rate        | Rate        | Rate        | (°)  |                     |
| (usft)        |             |         | (usft)   |          |        | (°/100usft) | (°/100usft) | (°/100usft) |      |                     |
| 0.00          | 0.00        | 0.00    | 0.00     | 0.00     | 0.00   | 0.00        | 0.00        | 0.00        | 0.00 |                     |
| 2,682.34      | 0.00        | 0.00    | 2,682.34 | 0.00     | 0.00   | 0.00        | 0.00        | 0.00        | 0.00 |                     |
| 3,502.34      | 90.20       | 0.00    | 3,203.21 | 522.69   | 0.04   | 11.00       | 11.00       | 0.00        | 0.00 |                     |
| 7,758.48      | 90.20       | 0.00    | 3,188.35 | 4,778.80 | 0.40   | 0.00        | 0.00        | 0.00        | 0.00 | PBHL-Hearse 36 Stat |



# Phoenix Technology Services

## Planning Report



|           |                               |                              |                   |
|-----------|-------------------------------|------------------------------|-------------------|
| Database: | GCR-DB                        | Local Co-ordinate Reference: | Well: #7H         |
| Company:  | COG Operating LLC             | TVD Reference:               | KB @ 3426.00usft  |
| Project:  | Eddy County, NM, (NAD27, NME) | MD Reference:                | KB @ 3426.00usft  |
| Site:     | Hearse 36 State               | North Reference:             | Grid              |
| Well:     | #7H                           | Survey Calculation Method:   | Minimum Curvature |
| Wellbore: | WB1                           |                              |                   |
| Design:   | Plan #1, 04-04-14             |                              |                   |

| Planned Survey                   |                 |             |                       |              |              |                         |                         |                        |                       |
|----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)            | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                             | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 2,682.34                         | 0.00            | 0.00        | 2,682.34              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| KOP: 11°/100' Build              |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,700.00                         | 1.94            | 0.00        | 2,700.00              | 0.30         | 0.00         | 0.30                    | 11.00                   | 11.00                  | 0.00                  |
| 2,800.00                         | 12.94           | 0.00        | 2,799.00              | 13.23        | 0.00         | 13.23                   | 11.00                   | 11.00                  | 0.00                  |
| 2,900.00                         | 23.94           | 0.00        | 2,893.72              | 44.82        | 0.00         | 44.82                   | 11.00                   | 11.00                  | 0.00                  |
| 3,000.00                         | 34.94           | 0.00        | 2,980.67              | 93.90        | 0.01         | 93.90                   | 11.00                   | 11.00                  | 0.00                  |
| 3,100.00                         | 45.94           | 0.00        | 3,056.66              | 158.67       | 0.01         | 158.67                  | 11.00                   | 11.00                  | 0.00                  |
| 3,133.11                         | 49.59           | 0.00        | 3,078.92              | 183.18       | 0.02         | 183.18                  | 11.00                   | 11.00                  | 0.00                  |
| PP: Hearse 36 State #7H          |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,200.00                         | 56.94           | 0.00        | 3,118.89              | 236.75       | 0.02         | 236.75                  | 11.00                   | 11.00                  | 0.00                  |
| 3,300.00                         | 67.94           | 0.00        | 3,165.09              | 325.27       | 0.03         | 325.27                  | 11.00                   | 11.00                  | 0.00                  |
| 3,400.00                         | 78.94           | 0.00        | 3,193.54              | 420.97       | 0.04         | 420.97                  | 11.00                   | 11.00                  | 0.00                  |
| 3,496.64                         | 89.57           | 0.00        | 3,203.20              | 516.99       | 0.04         | 516.99                  | 11.00                   | 11.00                  | 0.00                  |
| TL: 3205 TVD @ 0.0 VZ: 90.2° Inc |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,500.00                         | 89.94           | 0.00        | 3,203.21              | 520.35       | 0.04         | 520.35                  | 11.00                   | 11.00                  | 0.00                  |
| 3,502.34                         | 90.20           | 0.00        | 3,203.21              | 522.69       | 0.04         | 522.69                  | 11.00                   | 11.00                  | 0.00                  |
| LP: Hold 90.20° Inc: 0.0° Azm    |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,600.00                         | 90.20           | 0.00        | 3,202.87              | 620.35       | 0.05         | 620.35                  | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00                         | 90.20           | 0.00        | 3,202.52              | 720.35       | 0.06         | 720.35                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00                         | 90.20           | 0.00        | 3,202.17              | 820.35       | 0.07         | 820.35                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                         | 90.20           | 0.00        | 3,201.82              | 920.35       | 0.08         | 920.35                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                         | 90.20           | 0.00        | 3,201.47              | 1,020.35     | 0.09         | 1,020.35                | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                         | 90.20           | 0.00        | 3,201.12              | 1,120.35     | 0.09         | 1,120.35                | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                         | 90.20           | 0.00        | 3,200.77              | 1,220.35     | 0.10         | 1,220.35                | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                         | 90.20           | 0.00        | 3,200.42              | 1,320.34     | 0.11         | 1,320.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                         | 90.20           | 0.00        | 3,200.07              | 1,420.34     | 0.12         | 1,420.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                         | 90.20           | 0.00        | 3,199.72              | 1,520.34     | 0.13         | 1,520.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                         | 90.20           | 0.00        | 3,199.38              | 1,620.34     | 0.14         | 1,620.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                         | 90.20           | 0.00        | 3,199.03              | 1,720.34     | 0.14         | 1,720.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                         | 90.20           | 0.00        | 3,198.68              | 1,820.34     | 0.15         | 1,820.34                | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                         | 90.20           | 0.00        | 3,198.33              | 1,920.34     | 0.16         | 1,920.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                         | 90.20           | 0.00        | 3,197.98              | 2,020.34     | 0.17         | 2,020.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                         | 90.20           | 0.00        | 3,197.63              | 2,120.34     | 0.18         | 2,120.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00                         | 90.20           | 0.00        | 3,197.28              | 2,220.34     | 0.19         | 2,220.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                         | 90.20           | 0.00        | 3,196.93              | 2,320.34     | 0.19         | 2,320.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00                         | 90.20           | 0.00        | 3,196.58              | 2,420.34     | 0.20         | 2,420.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                         | 90.20           | 0.00        | 3,196.23              | 2,520.34     | 0.21         | 2,520.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                         | 90.20           | 0.00        | 3,195.88              | 2,620.34     | 0.22         | 2,620.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                         | 90.20           | 0.00        | 3,195.54              | 2,720.34     | 0.23         | 2,720.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                         | 90.20           | 0.00        | 3,195.19              | 2,820.34     | 0.24         | 2,820.34                | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                         | 90.20           | 0.00        | 3,194.84              | 2,920.34     | 0.24         | 2,920.34                | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                         | 90.20           | 0.00        | 3,194.49              | 3,020.33     | 0.25         | 3,020.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                         | 90.20           | 0.00        | 3,194.14              | 3,120.33     | 0.26         | 3,120.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                         | 90.20           | 0.00        | 3,193.79              | 3,220.33     | 0.27         | 3,220.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                         | 90.20           | 0.00        | 3,193.44              | 3,320.33     | 0.28         | 3,320.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                         | 90.20           | 0.00        | 3,193.09              | 3,420.33     | 0.29         | 3,420.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                         | 90.20           | 0.00        | 3,192.74              | 3,520.33     | 0.29         | 3,520.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                         | 90.20           | 0.00        | 3,192.39              | 3,620.33     | 0.30         | 3,620.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                         | 90.20           | 0.00        | 3,192.04              | 3,720.33     | 0.31         | 3,720.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                         | 90.20           | 0.00        | 3,191.70              | 3,820.33     | 0.32         | 3,820.33                | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                         | 90.20           | 0.00        | 3,191.35              | 3,920.33     | 0.33         | 3,920.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00                         | 90.20           | 0.00        | 3,191.00              | 4,020.33     | 0.34         | 4,020.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00                         | 90.20           | 0.00        | 3,190.65              | 4,120.33     | 0.34         | 4,120.33                | 0.00                    | 0.00                   | 0.00                  |



Phoenix Technology Services  
Planning Report



|           |                             |                              |                   |
|-----------|-----------------------------|------------------------------|-------------------|
| Database: | GCR-DB                      | Local Co-ordinate Reference: | Well #7H          |
| Company:  | COG Operating LLC           | TVD/Reference:               | KB @ 3426.00usft  |
| Project:  | Eddy County, NM (NAD27/NME) | MD/Reference:                | KB @ 3426.00usft  |
| Site:     | Hearse 36 State             | North Reference:             | Grid              |
| Well:     | #7H                         | Survey Calculation Method:   | Minimum Curvature |
| Wellbore: | WB1                         |                              |                   |
| Design:   | Plan #1: 04-04-14           |                              |                   |

| Planned Survey                           |                 |             |                       |              |              |                         |                         |                        |                       |
|------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                    | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 7,200.00                                 | 90.20           | 0.00        | 3,190.30              | 4,220.33     | 0.35         | 4,220.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00                                 | 90.20           | 0.00        | 3,189.95              | 4,320.33     | 0.36         | 4,320.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                                 | 90.20           | 0.00        | 3,189.60              | 4,420.33     | 0.37         | 4,420.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00                                 | 90.20           | 0.00        | 3,189.25              | 4,520.33     | 0.38         | 4,520.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00                                 | 90.20           | 0.00        | 3,188.90              | 4,620.32     | 0.39         | 4,620.32                | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00                                 | 90.20           | 0.00        | 3,188.55              | 4,720.32     | 0.40         | 4,720.32                | 0.00                    | 0.00                   | 0.00                  |
| 7,758.48                                 | 90.20           | 0.00        | 3,188.35              | 4,778.80     | 0.40         | 4,778.80                | 0.00                    | 0.00                   | 0.00                  |
| TD at 7758.48 - PBHL-Hearse 36 State #7H |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets                                                 |               |              |            |              |              |                 |                |                    |                     |
|----------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|--------------------|---------------------|
| Target Name                                                    | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude           | Longitude           |
| hit/miss target                                                |               |              |            |              |              |                 |                |                    |                     |
| Shape                                                          |               |              |            |              |              |                 |                |                    |                     |
| PP-Hearse 36 State #7H<br>- plan hits target center<br>- Point | 0.00          | 360.00       | 3,078.93   | 183.20       | 0.02         | 585,867.20      | 469,484.72     | 32° 36' 38.21140 N | 104° 25' 56.76151 W |
| PBHL-Hearse 36 State #<br>- plan hits target center<br>- Point | 0.00          | 360.00       | 3,188.35   | 4,778.80     | 0.40         | 590,462.80      | 469,485.10     | 32° 37' 23.68829 N | 104° 25' 56.80711 W |

| Formations            |                       |                                 |           |         |                   |
|-----------------------|-----------------------|---------------------------------|-----------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name                            | Lithology | Dip (°) | Dip Direction (°) |
| 3,496.64              | 3,203.20              | TL, 3205' TVD @ 0 VZ, 90.2° Inc |           | -0.20   | 0.00              |

| Plan Annotations      |                       |                   |              |                               |  |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                               |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                       |  |
| 2,682.34              | 2,682.34              | 0.00              | 0.00         | KOP, 11°/100' Build           |  |
| 3,502.34              | 3,203.21              | 522.69            | 0.04         | LP, Hold 90.20° Inc, 0.0° Azm |  |
| 7,758.48              | 3,188.35              | 4,778.80          | 0.40         | TD at 7758.48                 |  |

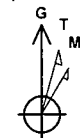




Project: Eddy County, NM (NAD27 NME)  
Site: Hearse 36 State  
Well: #7H  
Wellbore: WB1  
Design: Plan #1 04-04-14



PHOENIX  
TECHNOLOGY SERVICES



Azimuths to Grid North  
True North: 0.05°  
Magnetic North: 7.72°  
Magnetic Field  
Strength: 48473.8nT  
Dip Angle: 60.33°  
Date: 04/03/2014  
Model: IGRF2010\_14

| WELL DETAILS |      |           |                      |                    |                     |           |  |
|--------------|------|-----------|----------------------|--------------------|---------------------|-----------|--|
| +N-S         | +E-W | Northing  | Ground Level Easting | 3399.00            | Latitude            | Longitude |  |
| 0.00         | 0.00 | 585684.00 | 469484.70            | 32° 36' 36.39850 N | 104° 25' 56.75969 W |           |  |

| SECTION DETAILS |         |       |      |         |         |      |       |       |         |                          |                               |
|-----------------|---------|-------|------|---------|---------|------|-------|-------|---------|--------------------------|-------------------------------|
| Sec             | MD      | Inc   | Azi  | TVD     | +N-S    | +E-W | Dleg  | TFace | Vsect   | Target                   | Annotation                    |
| 1               | 0.00    | 0.00  | 0.00 | 0.00    | 0.00    | 0.00 | 0.00  | 0.00  | 0.00    |                          | KOP: 11°/100' Build           |
| 2               | 2682.34 | 0.00  | 0.00 | 2682.34 | 0.00    | 0.00 | 0.00  | 0.00  | 0.00    |                          | LP: Hold 90.20° Inc. 0.0° Azm |
| 3               | 3502.34 | 90.20 | 0.00 | 3203.21 | 522.69  | 0.04 | 11.00 | 0.00  | 522.69  |                          | TD at 7758.48                 |
| 4               | 7758.48 | 90.20 | 0.00 | 3188.35 | 4778.80 | 0.40 | 0.00  | 0.00  | 4778.80 | PBHL-Hearse 36 State #7H |                               |

| DESIGN TARGET DETAILS     |         |         |      |           |           |                    |                     |       |  |
|---------------------------|---------|---------|------|-----------|-----------|--------------------|---------------------|-------|--|
| Name                      | TVD     | +N-S    | +E-W | Northing  | Easting   | Latitude           | Longitude           | Shape |  |
| PP-Hearse 36 State #7H    | 3078.93 | 183.20  | 0.02 | 585687.20 | 469484.72 | 32° 36' 38.21140 N | 104° 25' 56.76151 W | Point |  |
| - plan hits target center |         |         |      |           |           |                    |                     |       |  |
| PBHL-Hearse 36 State #7H  | 3188.35 | 4778.80 | 0.40 | 590462.80 | 469485.10 | 32° 37' 23.68829 N | 104° 25' 56.80711 W | Point |  |
| - plan hits target center |         |         |      |           |           |                    |                     |       |  |

| LEGEND |                  |
|--------|------------------|
| —      | Plan #1 04-04-14 |

Map System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone Name: New Mexico East 3001  
Local Origin: Well #7H, Grid North  
Latitude: 32° 36' 36.39850 N  
Longitude: 104° 25' 56.75969 W  
Grid East: 469484.70  
Grid North: 585684.00  
Scale Factor: 1.000  
Geomagnetic Model: IGRF2010\_14  
Sample Date: 03-Apr-14  
Magnetic Declination: 7.67°  
Dip Angle from Horizontal: 60.33°  
Magnetic Field Strength: 48474  
To convert a Magnetic Direction to a Grid Direction, Add 7.72°  
To convert a Magnetic Direction to a True Direction, Add 0.05°

| FORMATION TOP DETAILS |         |                               |          |        |
|-----------------------|---------|-------------------------------|----------|--------|
| TVDPath               | MDPath  | Formation                     | DipAngle | DipDir |
| 3203.20               | 3496.64 | TL 3205 TVD @ 0 VZ, 90.2° Inc | -0.20    | 0.00   |

