



**PERCUSSION**  
PETROLEUM  
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DISTRICT II-ARTESIA O.C.D.

## **Percussion Petroleum, LLC**

Eddy County, NM

Rose

#6H

OH

Plan: Plan #4

## **Standard Plan With Toolface**

09 May, 2019



Company: Percussion Petroleum, LLC  
Project: Eddy County, NM  
Site: Rose  
Well: #6H  
Wellbore: OH  
Rig: Akita 20  
Design: Plan #4 / 12:56, May 09 2019

#### DESIGN TARGET DETAILS

| Name                                | TVD     | +N-S    | +E-W     | Northing  | Easting   | Latitude  | Longitude   |
|-------------------------------------|---------|---------|----------|-----------|-----------|-----------|-------------|
| Rose 6H: SHL (1420' FNL & 900' FWL) | 0.00    | 0.00    | 0.00     | 610564.90 | 512687.20 | 32.678453 | -104.426449 |
| Rose 6H: PBH (1666' FNL & 20' FWL)  | 3130.33 | -214.50 | -4332.80 | 610250.30 | 506354.40 | 32.677046 | -104.447031 |
| Rose 6H: LTP (1666' FNL & 100' FWL) | 3134.42 | -214.90 | -4252.80 | 610349.90 | 506434.40 | 32.677045 | -104.446771 |
| Rose 6H: FTP (1666' FNL & 100' FEL) | 3230.00 | -243.10 | -1085.40 | 610321.70 | 511601.80 | 32.677782 | -104.429978 |

**TOTAL CORRECTION**  
To convert a Magnetic Direction to a Grid Direction, Add 7.249°

#### WELL DETAILS: #6H

| RKB-16" @ 3395.00usft (Akita 20) |      |           |           |           |             |         |
|----------------------------------|------|-----------|-----------|-----------|-------------|---------|
| +N-S                             | +E-W | Northing  | Easting   | Latitude  | Longitude   |         |
| 0.00                             | 0.00 | 610564.90 | 512687.20 | 32.678453 | -104.426449 | 2679.00 |

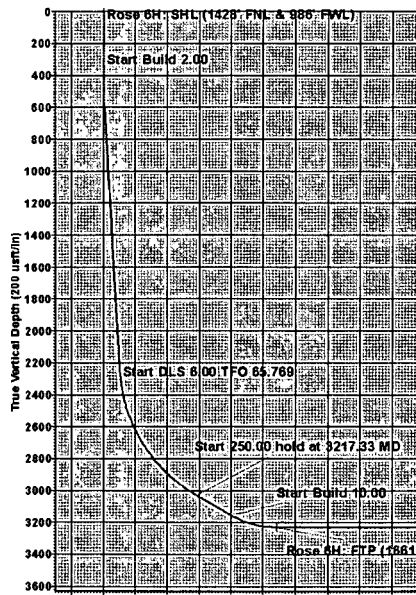
#### SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N-S    | +E-W     | Diag  | Vsect   |
|-----|---------|-------|--------|---------|---------|----------|-------|---------|
| 1   | 0.00    | 0.00  | 0.00   | 0.00    | 0.00    | 0.00     | 0.00  | 0.00    |
| 2   | 300.00  | 0.00  | 0.00   | 300.00  | 0.00    | 0.00     | 0.00  | 0.00    |
| 3   | 650.78  | 7.02  | 208.42 | 649.91  | -18.86  | -10.21   | 2.00  | 10.10   |
| 4   | 2268.98 | 7.02  | 208.42 | 2255.98 | -192.70 | -104.26  | 0.00  | 103.21  |
| 5   | 3217.33 | 60.00 | 270.31 | 3028.24 | -245.84 | -582.42  | 6.00  | 581.08  |
| 6   | 3467.33 | 60.00 | 270.31 | 3153.24 | -244.66 | -126.50  | 0.00  | 797.59  |
| 7   | 3767.33 | 90.00 | 270.31 | 3230.00 | -243.10 | -1085.40 | 10.00 | 1084.07 |
| 8   | 4683.26 | 90.00 | 270.31 | 3230.00 | -227.21 | -4001.29 | 0.00  | 4000.00 |
| 9   | 6808.27 | 92.50 | 270.31 | 3227.27 | -226.53 | -4126.25 | 2.00  | 4124.97 |
| 10  | 8936.87 | 92.50 | 270.31 | 3134.42 | -214.90 | -4252.80 | 0.00  | 6251.55 |
| 11  | 9016.95 | 92.50 | 270.31 | 3130.33 | -214.44 | -4332.80 | 0.00  | 6331.55 |

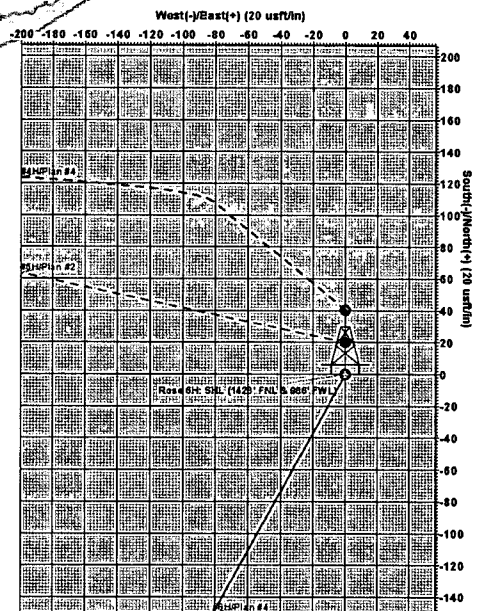
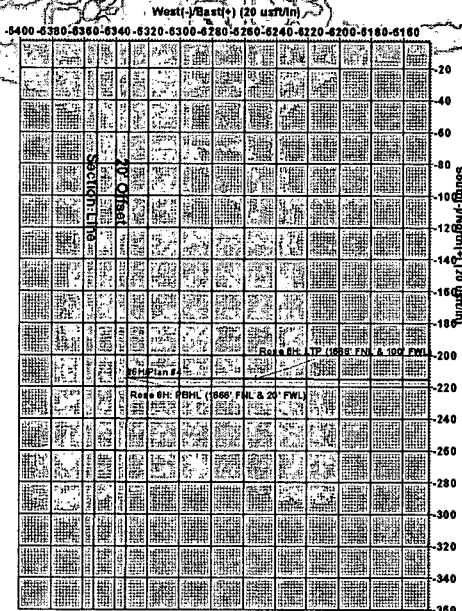
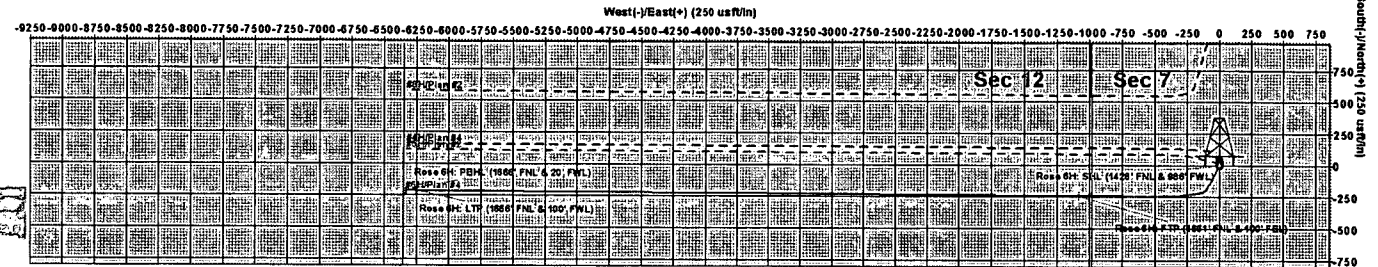


Azimuths to Grid North  
True North 0.00°  
Magnetic North 7.249°  
Magnetic Field  
Strength: 47937.9nT  
Dip Angle: 60.32°  
Date: 3/6/2019  
Model: ICRP2015

PROJECT DETAILS: Eddy County, NM  
Geoidetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level



Vertical Section at 270.31° (200 usft/in)



**Disclaimer:**  
All Plan Details, Boundary Lines and other data is provided by customer and subject to customer's records.

Plan: Plan #4 (RSH/OH) Akita 20  
Created By: Derek Stephens Date: 12:56, May 09 2019



## Wellbenders

Standard Plan With Toolface

|                  |                           |                                     |                                  |
|------------------|---------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Percussion Petroleum, LLC | <b>Local Co-ordinate Reference:</b> | Well #6H                         |
| <b>Project:</b>  | Eddy County, NM           | <b>TVD Reference:</b>               | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Site:</b>     | Rose                      | <b>MD Reference:</b>                | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Well:</b>     | #6H                       | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Plan #4                   | <b>Database:</b>                    | WBDS_SQL_2                       |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project:</b>    | Eddy County, NM           |                      |                |
| <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>                 | Rose      |                     |                 |                          |             |
| <b>Site Position:</b>        |           | <b>Northing:</b>    | 611,332.70 usft | <b>Latitude:</b>         | 32.680563   |
| <b>From:</b>                 | Map       | <b>Easting:</b>     | 512,404.20 usft | <b>Longitude:</b>        | -104.427371 |
| <b>Position Uncertainty:</b> | 0.00 usft | <b>Slot Radius:</b> | 13.200 in       | <b>Grid Convergence:</b> | -0.051 °    |

|                             |             |           |                            |                 |                      |               |
|-----------------------------|-------------|-----------|----------------------------|-----------------|----------------------|---------------|
| <b>Well:</b>                | #6H         |           |                            |                 |                      |               |
| <b>Well Position</b>        | <b>+N-S</b> | 0.00 usft | <b>Northing:</b>           | 610,564.80 usft | <b>Latitude:</b>     | 32.678453     |
|                             | <b>+E-W</b> | 0.00 usft | <b>Easting:</b>            | 512,687.20 usft | <b>Longitude:</b>    | -104.426449   |
| <b>Position Uncertainty</b> |             | 0.00 usft | <b>Wellhead Elevation:</b> | usft            | <b>Ground Level:</b> | 3,379.00 usft |

|                   |                   |                    |                    |                  |                       |
|-------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore:</b>  | OH                |                    |                    |                  |                       |
| <b>Magnetics:</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                   |                   |                    | (°)                | (°)              | (nT)                  |
|                   | IGRF2015          | 3/8/2019           | 7.199              | 60.320           | 47,937.90778146       |

|                          |                         |             |                      |                  |
|--------------------------|-------------------------|-------------|----------------------|------------------|
| <b>Design:</b>           | Plan #4                 |             |                      |                  |
| <b>Audit Notes:</b>      |                         |             |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN        | <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                 | 270.31           |

|                            |              |                          |                  |                        |
|----------------------------|--------------|--------------------------|------------------|------------------------|
| <b>Survey Tool Program</b> | <b>Date:</b> | 5/9/2019                 |                  |                        |
| <b>From</b>                | <b>To</b>    | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>     |
| (usft)                     | (usft)       |                          |                  |                        |
| 0.00                       | 9,016.95     | Plan #4 (OH)             | MWD+IGRF         | OWSG MWD + IGRF or WMM |



## Wellbenders

Standard Plan With Toolface

|                  |                           |                                     |                                  |
|------------------|---------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Percussion Petroleum, LLC | <b>Local Co-ordinate Reference:</b> | Well #6H                         |
| <b>Project:</b>  | Eddy County, NM           | <b>TVD Reference:</b>               | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Site:</b>     | Rose                      | <b>MD Reference:</b>                | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Well:</b>     | #6H                       | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Plan #4                   | <b>Database:</b>                    | WBDS_SQL_2                       |

| Planned Survey |            |                      |               |               |              |                  |                   |                    |                   |              |
|----------------|------------|----------------------|---------------|---------------|--------------|------------------|-------------------|--------------------|-------------------|--------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | EW<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
| 0.00           | 0.00       | 0.00                 | 0.00          | 0.00          | 0.00         | 0.00             | 0.00              | 0.00               | 0.00              | 0.000        |
| 100.00         | 0.00       | 0.00                 | 100.00        | 0.00          | 0.00         | 0.00             | 0.00              | 0.00               | 0.00              | 0.000        |
| 200.00         | 0.00       | 0.00                 | 200.00        | 0.00          | 0.00         | 0.00             | 0.00              | 0.00               | 0.00              | 0.000        |
| 300.00         | 0.00       | 0.00                 | 300.00        | 0.00          | 0.00         | 0.00             | 0.00              | 0.00               | 0.00              | 0.000        |
| 400.00         | 2.00       | 208.42               | 399.98        | -1.53         | -0.83        | 0.82             | 2.00              | 2.00               | 0.00              | 208.415      |
| 500.00         | 4.00       | 208.42               | 499.84        | -6.14         | -3.32        | 3.29             | 2.00              | 2.00               | 0.00              | 0.000        |
| 600.00         | 6.00       | 208.42               | 599.45        | -13.80        | -7.47        | 7.39             | 2.00              | 2.00               | 0.00              | 0.000        |
| 650.78         | 7.02       | 208.42               | 649.91        | -18.86        | -10.21       | 10.10            | 2.00              | 2.00               | 0.00              | 0.000        |
| 700.00         | 7.02       | 208.42               | 698.76        | -24.15        | -13.07       | 12.94            | 0.00              | 0.00               | 0.00              | 0.000        |
| 800.00         | 7.02       | 208.42               | 798.01        | -34.89        | -18.88       | 18.69            | 0.00              | 0.00               | 0.00              | 0.000        |
| 900.00         | 7.02       | 208.42               | 897.26        | -45.64        | -24.69       | 24.44            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,000.00       | 7.02       | 208.42               | 996.51        | -56.38        | -30.50       | 30.20            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,100.00       | 7.02       | 208.42               | 1,095.76      | -67.12        | -36.32       | 35.95            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,200.00       | 7.02       | 208.42               | 1,195.01      | -77.86        | -42.13       | 41.71            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,300.00       | 7.02       | 208.42               | 1,294.26      | -88.61        | -47.94       | 47.46            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,400.00       | 7.02       | 208.42               | 1,393.51      | -99.35        | -53.75       | 53.21            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,500.00       | 7.02       | 208.42               | 1,492.77      | -110.09       | -59.56       | 58.97            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,600.00       | 7.02       | 208.42               | 1,592.02      | -120.83       | -65.38       | 64.72            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,700.00       | 7.02       | 208.42               | 1,691.27      | -131.58       | -71.19       | 70.48            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,800.00       | 7.02       | 208.42               | 1,790.52      | -142.32       | -77.00       | 76.23            | 0.00              | 0.00               | 0.00              | 0.000        |
| 1,900.00       | 7.02       | 208.42               | 1,889.77      | -153.06       | -82.81       | 81.98            | 0.00              | 0.00               | 0.00              | 0.000        |
| 2,000.00       | 7.02       | 208.42               | 1,989.02      | -163.81       | -88.63       | 87.74            | 0.00              | 0.00               | 0.00              | 0.000        |
| 2,100.00       | 7.02       | 208.42               | 2,088.27      | -174.55       | -94.44       | 93.49            | 0.00              | 0.00               | 0.00              | 0.000        |
| 2,200.00       | 7.02       | 208.42               | 2,187.52      | -185.29       | -100.25      | 99.25            | 0.00              | 0.00               | 0.00              | 0.000        |
| 2,268.98       | 7.02       | 208.42               | 2,255.98      | -192.70       | -104.26      | 103.21           | 0.00              | 0.00               | 0.00              | 0.000        |
| 2,300.00       | 7.96       | 220.76               | 2,286.75      | -195.99       | -106.56      | 105.50           | 6.00              | 3.05               | 39.80             | 65.769       |
| 2,350.00       | 10.04      | 234.74               | 2,336.13      | -201.13       | -112.38      | 111.29           | 6.00              | 4.15               | 27.95             | 53.525       |



## Wellbenders

Standard Plan With Toolface

|                  |                           |                                     |                                  |
|------------------|---------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Percussion Petroleum, LLC | <b>Local Co-ordinate Reference:</b> | Well #6H                         |
| <b>Project:</b>  | Eddy County, NM           | <b>TVD Reference:</b>               | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Site:</b>     | Rose                      | <b>MD Reference:</b>                | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Well:</b>     | #6H                       | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Plan #4                   | <b>Database:</b>                    | WBDS_SQL_2                       |

| Planned Survey |            |                      |               |               |               |                  |                   |                    |                   |              |
|----------------|------------|----------------------|---------------|---------------|---------------|------------------|-------------------|--------------------|-------------------|--------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(%/100ft) | Build<br>(%/100ft) | Turn<br>(%/100ft) | TFace<br>(°) |
| 2,400.00       | 12.49      | 243.63               | 2,385.17      | -206.05       | -120.79       | 119.67           | 6.00              | 4.91               | 17.79             | 39.720       |
| 2,450.00       | 15.14      | 249.55               | 2,433.72      | -210.74       | -131.75       | 130.61           | 6.00              | 5.30               | 11.84             | 30.994       |
| 2,500.00       | 17.90      | 253.72               | 2,481.65      | -215.17       | -145.25       | 144.08           | 6.00              | 5.52               | 8.33              | 25.241       |
| 2,550.00       | 20.72      | 256.79               | 2,528.84      | -219.35       | -161.24       | 160.05           | 6.00              | 5.65               | 6.15              | 21.247       |
| 2,600.00       | 23.59      | 259.15               | 2,575.14      | -223.25       | -179.68       | 178.47           | 6.00              | 5.73               | 4.72              | 18.347       |
| 2,650.00       | 26.48      | 261.02               | 2,620.44      | -226.88       | -200.52       | 199.29           | 6.00              | 5.79               | 3.74              | 16.161       |
| 2,700.00       | 29.40      | 262.55               | 2,664.61      | -230.21       | -223.71       | 222.46           | 6.00              | 5.83               | 3.05              | 14.464       |
| 2,750.00       | 32.32      | 263.82               | 2,707.53      | -233.24       | -249.17       | 247.91           | 6.00              | 5.86               | 2.55              | 13.115       |
| 2,800.00       | 35.26      | 264.90               | 2,749.07      | -235.96       | -276.84       | 275.56           | 6.00              | 5.88               | 2.16              | 12.023       |
| 2,850.00       | 38.21      | 265.84               | 2,789.14      | -238.37       | -306.65       | 305.36           | 6.00              | 5.89               | 1.87              | 11.123       |
| 2,900.00       | 41.16      | 266.66               | 2,827.61      | -240.45       | -338.51       | 337.20           | 6.00              | 5.91               | 1.64              | 10.373       |
| 2,950.00       | 44.12      | 267.39               | 2,864.39      | -242.21       | -372.33       | 371.02           | 6.00              | 5.92               | 1.46              | 9.742        |
| 3,000.00       | 47.09      | 268.04               | 2,899.36      | -243.62       | -408.03       | 406.70           | 6.00              | 5.93               | 1.31              | 9.206        |
| 3,050.00       | 50.05      | 268.64               | 2,932.44      | -244.71       | -445.49       | 444.16           | 6.00              | 5.93               | 1.19              | 8.747        |
| 3,100.00       | 53.02      | 269.18               | 2,963.54      | -245.45       | -484.63       | 483.30           | 6.00              | 5.94               | 1.09              | 8.354        |
| 3,150.00       | 56.00      | 269.69               | 2,992.56      | -245.85       | -525.34       | 524.00           | 6.00              | 5.94               | 1.01              | 8.014        |
| 3,200.00       | 58.97      | 270.16               | 3,019.44      | -245.90       | -567.49       | 566.16           | 6.00              | 5.95               | 0.94              | 7.721        |
| 3,217.33       | 60.00      | 270.31               | 3,028.24      | -245.84       | -582.42       | 581.08           | 6.00              | 5.95               | 0.90              | 7.469        |
| 3,300.00       | 60.00      | 270.31               | 3,069.57      | -245.45       | -654.02       | 652.68           | 0.00              | 0.00               | 0.00              | 0.000        |
| 3,400.00       | 60.00      | 270.31               | 3,119.57      | -244.98       | -740.62       | 739.28           | 0.00              | 0.00               | 0.00              | 0.000        |
| 3,467.33       | 60.00      | 270.31               | 3,153.24      | -244.66       | -798.93       | 797.59           | 0.00              | 0.00               | 0.00              | 0.000        |
| 3,500.00       | 63.27      | 270.31               | 3,168.76      | -244.50       | -827.67       | 826.34           | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,550.00       | 68.27      | 270.31               | 3,189.27      | -244.26       | -873.25       | 871.91           | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,600.00       | 73.27      | 270.31               | 3,205.74      | -244.00       | -920.44       | 919.11           | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,650.00       | 78.27      | 270.31               | 3,218.03      | -243.74       | -968.89       | 967.56           | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,700.00       | 83.27      | 270.31               | 3,226.05      | -243.47       | -1,018.23     | 1,016.90         | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,750.00       | 88.27      | 270.31               | 3,229.74      | -243.19       | -1,068.07     | 1,066.74         | 10.00             | 10.00              | 0.00              | 0.000        |



## Wellbenders

Standard Plan With Toolface

|                  |                           |                                     |                                  |
|------------------|---------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Percussion Petroleum, LLC | <b>Local Co-ordinate Reference:</b> | Well #6H                         |
| <b>Project:</b>  | Eddy County, NM           | <b>TVD Reference:</b>               | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Site:</b>     | Rose                      | <b>MD Reference:</b>                | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Well:</b>     | #6H                       | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Plan #4                   | <b>Database:</b>                    | WBDS_SQL_2                       |

| Planned Survey |            |                      |               |               |              |                  |                   |                    |                   |              |
|----------------|------------|----------------------|---------------|---------------|--------------|------------------|-------------------|--------------------|-------------------|--------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | EW<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
| 3,767.33       | 90.00      | 270.31               | 3,230.00      | -243.10       | -1,085.40    | 1,084.07         | 10.00             | 10.00              | 0.00              | 0.000        |
| 3,800.00       | 90.00      | 270.31               | 3,230.00      | -242.92       | -1,118.07    | 1,116.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 3,900.00       | 90.00      | 270.31               | 3,230.00      | -242.38       | -1,218.07    | 1,216.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,000.00       | 90.00      | 270.31               | 3,230.00      | -241.83       | -1,318.07    | 1,316.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,100.00       | 90.00      | 270.31               | 3,230.00      | -241.29       | -1,418.07    | 1,416.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,200.00       | 90.00      | 270.31               | 3,230.00      | -240.74       | -1,518.07    | 1,516.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,300.00       | 90.00      | 270.31               | 3,230.00      | -240.20       | -1,618.06    | 1,616.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,400.00       | 90.00      | 270.31               | 3,230.00      | -239.65       | -1,718.06    | 1,716.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,500.00       | 90.00      | 270.31               | 3,230.00      | -239.11       | -1,818.06    | 1,816.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,600.00       | 90.00      | 270.31               | 3,230.00      | -238.56       | -1,918.06    | 1,916.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,700.00       | 90.00      | 270.31               | 3,230.00      | -238.02       | -2,018.06    | 2,016.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,800.00       | 90.00      | 270.31               | 3,230.00      | -237.47       | -2,118.06    | 2,116.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 4,900.00       | 90.00      | 270.31               | 3,230.00      | -236.93       | -2,218.06    | 2,216.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,000.00       | 90.00      | 270.31               | 3,230.00      | -236.38       | -2,318.05    | 2,316.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,100.00       | 90.00      | 270.31               | 3,230.00      | -235.84       | -2,418.05    | 2,416.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,200.00       | 90.00      | 270.31               | 3,230.00      | -235.29       | -2,518.05    | 2,516.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,300.00       | 90.00      | 270.31               | 3,230.00      | -234.75       | -2,618.05    | 2,616.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,400.00       | 90.00      | 270.31               | 3,230.00      | -234.20       | -2,718.05    | 2,716.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,500.00       | 90.00      | 270.31               | 3,230.00      | -233.66       | -2,818.05    | 2,816.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,600.00       | 90.00      | 270.31               | 3,230.00      | -233.11       | -2,918.04    | 2,916.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,700.00       | 90.00      | 270.31               | 3,230.00      | -232.57       | -3,018.04    | 3,016.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,800.00       | 90.00      | 270.31               | 3,230.00      | -232.02       | -3,118.04    | 3,116.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 5,900.00       | 90.00      | 270.31               | 3,230.00      | -231.48       | -3,218.04    | 3,216.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,000.00       | 90.00      | 270.31               | 3,230.00      | -230.93       | -3,318.04    | 3,316.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,100.00       | 90.00      | 270.31               | 3,230.00      | -230.39       | -3,418.04    | 3,416.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,200.00       | 90.00      | 270.31               | 3,230.00      | -229.84       | -3,518.04    | 3,516.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,300.00       | 90.00      | 270.31               | 3,230.00      | -229.30       | -3,618.03    | 3,616.74         | 0.00              | 0.00               | 0.00              | 0.000        |



## Wellbenders

Standard Plan With Toolface

|                  |                           |                                     |                                  |
|------------------|---------------------------|-------------------------------------|----------------------------------|
| <b>Company:</b>  | Percussion Petroleum, LLC | <b>Local Co-ordinate Reference:</b> | Well #6H                         |
| <b>Project:</b>  | Eddy County, NM           | <b>TVD Reference:</b>               | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Site:</b>     | Rose                      | <b>MD Reference:</b>                | RKB=16' @ 3395.00usft (Akita 20) |
| <b>Well:</b>     | #6H                       | <b>North Reference:</b>             | Grid                             |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                |
| <b>Design:</b>   | Plan #4                   | <b>Database:</b>                    | WBDS_SQL_2                       |

| Planned Survey |            |                      |               |               |              |                  |                   |                    |                   |              |
|----------------|------------|----------------------|---------------|---------------|--------------|------------------|-------------------|--------------------|-------------------|--------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | EW<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
| 6,400.00       | 90.00      | 270.31               | 3,230.00      | -228.75       | -3,718.03    | 3,716.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,500.00       | 90.00      | 270.31               | 3,230.00      | -228.21       | -3,818.03    | 3,816.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,600.00       | 90.00      | 270.31               | 3,230.00      | -227.66       | -3,918.03    | 3,916.74         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,683.26       | 90.00      | 270.31               | 3,230.00      | -227.21       | -4,001.29    | 4,000.00         | 0.00              | 0.00               | 0.00              | 0.000        |
| 6,700.00       | 90.33      | 270.31               | 3,229.95      | -227.12       | -4,018.03    | 4,016.74         | 2.00              | 2.00               | 0.00              | 0.022        |
| 6,808.27       | 92.50      | 270.31               | 3,227.27      | -226.53       | -4,126.25    | 4,124.97         | 2.00              | 2.00               | 0.00              | 0.022        |
| 6,900.00       | 92.50      | 270.31               | 3,223.27      | -226.02       | -4,217.90    | 4,216.61         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,000.00       | 92.50      | 270.31               | 3,218.91      | -225.48       | -4,317.80    | 4,316.52         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,100.00       | 92.50      | 270.31               | 3,214.55      | -224.93       | -4,417.71    | 4,416.42         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,200.00       | 92.50      | 270.31               | 3,210.19      | -224.39       | -4,517.61    | 4,516.33         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,300.00       | 92.50      | 270.31               | 3,205.82      | -223.84       | -4,617.51    | 4,616.23         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,400.00       | 92.50      | 270.31               | 3,201.46      | -223.29       | -4,717.42    | 4,716.14         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,500.00       | 92.50      | 270.31               | 3,197.10      | -222.75       | -4,817.32    | 4,816.04         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,600.00       | 92.50      | 270.31               | 3,192.74      | -222.20       | -4,917.22    | 4,915.95         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,700.00       | 92.50      | 270.31               | 3,188.37      | -221.66       | -5,017.13    | 5,015.85         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,800.00       | 92.50      | 270.31               | 3,184.01      | -221.11       | -5,117.03    | 5,115.76         | 0.00              | 0.00               | 0.00              | 0.000        |
| 7,900.00       | 92.50      | 270.31               | 3,179.65      | -220.56       | -5,216.93    | 5,215.66         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,000.00       | 92.50      | 270.31               | 3,175.29      | -220.02       | -5,316.84    | 5,315.57         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,100.00       | 92.50      | 270.31               | 3,170.93      | -219.47       | -5,416.74    | 5,415.47         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,200.00       | 92.50      | 270.31               | 3,166.56      | -218.92       | -5,516.64    | 5,515.38         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,300.00       | 92.50      | 270.31               | 3,162.20      | -218.38       | -5,616.55    | 5,615.28         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,400.00       | 92.50      | 270.31               | 3,157.84      | -217.83       | -5,716.45    | 5,715.19         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,500.00       | 92.50      | 270.31               | 3,153.48      | -217.29       | -5,816.35    | 5,815.09         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,600.00       | 92.50      | 270.31               | 3,149.11      | -216.74       | -5,916.25    | 5,915.00         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,700.00       | 92.50      | 270.31               | 3,144.75      | -216.19       | -6,016.16    | 6,014.90         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,800.00       | 92.50      | 270.31               | 3,140.39      | -215.65       | -6,116.06    | 6,114.81         | 0.00              | 0.00               | 0.00              | 0.000        |
| 8,900.00       | 92.50      | 270.31               | 3,136.03      | -215.10       | -6,215.96    | 6,214.71         | 0.00              | 0.00               | 0.00              | 0.000        |



**Wellbenders**  
Standard Plan With Toolface

|           |                            |                              |                                  |
|-----------|----------------------------|------------------------------|----------------------------------|
| Company:  | Percussion Petroleum, LLC. | Local/Co-ordinate Reference: | Well #6H.                        |
| Project:  | Eddy County, NM            | TVD Reference:               | RKB=16' @ 3395.00usft (Akita 20) |
| Site:     | Rose                       | MD Reference:                | RKB=16' @ 3395.00usft (Akita 20) |
| Well:     | #6H                        | North Reference:             | Grid                             |
| Wellbore: | OH                         | Survey Calculation Method:   | Minimum Curvature                |
| Design:   | Plan #4                    | Database:                    | WBDS_SQL_2                       |

| Planned Survey |            |                      |               |               |               |                  |                   |                    |                   |              |
|----------------|------------|----------------------|---------------|---------------|---------------|------------------|-------------------|--------------------|-------------------|--------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100ft) | Build<br>(°/100ft) | Turn<br>(°/100ft) | TFace<br>(°) |
| 8,936.87       | 92.50      | 270.31               | 3,134.42      | -214.90       | -6,252.80     | 6,251.55         | 0.00              | 0.00               | 0.00              | 0.000        |
| 9,000.00       | 92.50      | 270.31               | 3,131.67      | -214.56       | -6,315.87     | 6,314.61         | 0.00              | 0.00               | 0.00              | 0.000        |
| 9,016.95       | 92.50      | 270.31               | 3,130.93      | -214.46       | -6,332.80     | 6,331.55         | 0.00              | 0.00               | 0.00              | 0.000        |

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