



## **BC Operating, Inc.**

**Eddy County, New Mexico (NAD27)  
Southern Comfort 25-36 State X  
2H**

**OH  
Plan 1 11-11-16**

**NM OIL CONSERVATION  
ARTESIA DISTRICT  
FEB 03 2017  
RECEIVED**

## **Anticollision Report**

**11 November, 2016**



|                           |                                 |                                     |                                       |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | BC Operating, Inc.              | <b>Local Co-ordinate Reference:</b> | Well 2H                               |
| <b>Project:</b>           | Eddy County, New Mexico (NAD27) | <b>TVD Reference:</b>               | GL + KB @ 2940.50usft (Patterson 244) |
| <b>Reference Site:</b>    | Southern Comfort 25-36 State X  | <b>MD Reference:</b>                | GL + KB @ 2940.50usft (Patterson 244) |
| <b>Site Error:</b>        | 0.00 usft                       | <b>North Reference:</b>             | Grid                                  |
| <b>Reference Well:</b>    | 2H                              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00 usft                       | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | OH                              | <b>Database:</b>                    | Compass 5000 GCR                      |
| <b>Reference Design:</b>  | Plan 1 11-11-16                 | <b>Offset TVD Reference:</b>        | Reference Datum                       |

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| <b>Reference</b>                    | Plan 1 11-11-16                                                     |
| <b>Filter type:</b>                 | GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of refer |
| <b>Interpolation Method:</b>        | MD Interval 100.00usft                                              |
| <b>Depth Range:</b>                 | Unlimited                                                           |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.00 u                       |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma                                                          |
| <b>Error Model:</b>                 | ISCWSA                                                              |
| <b>Scan Method:</b>                 | Closest Approach 3D                                                 |
| <b>Error Surface:</b>               | Elliptical Conic                                                    |
| <b>Casing Method:</b>               | Not applied                                                         |

|                            |                       |                          |
|----------------------------|-----------------------|--------------------------|
| <b>Survey Tool Program</b> | <b>Date</b>           | 11/11/2016               |
| <b>From (usft)</b>         | <b>To (usft)</b>      | <b>Survey (Wellbore)</b> |
| 0.00                       | 17,035.31             | Plan 1 11-11-16 (OH)     |
| <b>Tool Name</b>           | <b>Description</b>    |                          |
| MWD+HDGM                   | OWSG Rev.2 MWD + HDGM |                          |

| Site Name                              | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|----------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------|
| <b>Offset Well - Wellbore - Design</b> |                                 |                              |                                 |                                  |                   |         |
| Southern Comfort 25-36 State X         |                                 |                              |                                 |                                  |                   |         |
| 1H - OH - Plan 1 11-11-16              | 9,100.00                        | 9,104.00                     | 1,010.38                        | 945.58                           | 15.593            | CC      |
| 1H - OH - Plan 1 11-11-16              | 9,200.00                        | 9,203.60                     | 1,010.51                        | 945.01                           | 15.428            | ES      |
| 1H - OH - Plan 1 11-11-16              | 17,035.80                       | 16,992.06                    | 1,319.92                        | 1,094.26                         | 5.849             | SF      |

| Offset Design Southern Comfort 25-36 State X - 1H - OH - Plan 1 11-11-16 |                       |                              |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           | Offset Site Error: | 0.00 usft |
|--------------------------------------------------------------------------|-----------------------|------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------------|---------------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM                                               |                       |                              |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           | Offset Well Error: | 0.00 usft |
| Reference Measured Depth (usft)                                          | Vertical Depth (usft) | Offset Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor  | Warning   |
| 0.00                                                                     | 0.00                  | 4.00                         | 0.00                  | 0.00                             | 0.01                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        |                                  |                           |                    |           |
| 100.00                                                                   | 100.00                | 104.00                       | 100.00                | 0.13                             | 0.14                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,010.11                         | 0.27                      | 3,733.205          |           |
| 200.00                                                                   | 200.00                | 204.00                       | 200.00                | 0.49                             | 0.50                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,009.39                         | 0.99                      | 1,023.075          |           |
| 300.00                                                                   | 300.00                | 304.00                       | 300.00                | 0.85                             | 0.86                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,008.67                         | 1.70                      | 592.760            |           |
| 400.00                                                                   | 400.00                | 404.00                       | 400.00                | 1.20                             | 1.22                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,007.96                         | 2.42                      | 417.257            |           |
| 500.00                                                                   | 500.00                | 504.00                       | 500.00                | 1.56                             | 1.58                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,007.24                         | 3.14                      | 321.939            |           |
| 600.00                                                                   | 600.00                | 604.00                       | 600.00                | 1.92                             | 1.93                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,006.52                         | 3.86                      | 262.071            |           |
| 700.00                                                                   | 700.00                | 704.00                       | 700.00                | 2.28                             | 2.29                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,005.81                         | 4.57                      | 220.978            |           |
| 800.00                                                                   | 800.00                | 804.00                       | 800.00                | 2.64                             | 2.65                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,005.09                         | 5.29                      | 191.025            |           |
| 900.00                                                                   | 900.00                | 904.00                       | 900.00                | 3.00                             | 3.01                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,004.37                         | 6.01                      | 168.223            |           |
| 1,000.00                                                                 | 1,000.00              | 1,004.00                     | 1,000.00              | 3.35                             | 3.37                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,003.66                         | 6.72                      | 150.284            |           |
| 1,100.00                                                                 | 1,100.00              | 1,104.00                     | 1,100.00              | 3.71                             | 3.73                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,002.94                         | 7.44                      | 135.802            |           |
| 1,200.00                                                                 | 1,200.00              | 1,204.00                     | 1,200.00              | 4.07                             | 4.09                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,002.22                         | 8.16                      | 123.866            |           |
| 1,300.00                                                                 | 1,300.00              | 1,304.00                     | 1,300.00              | 4.43                             | 4.44                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,001.50                         | 8.87                      | 113.859            |           |
| 1,400.00                                                                 | 1,400.00              | 1,404.00                     | 1,400.00              | 4.79                             | 4.80                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,000.79                         | 9.59                      | 105.348            |           |
| 1,500.00                                                                 | 1,500.00              | 1,504.00                     | 1,500.00              | 5.15                             | 5.16                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 1,000.07                         | 10.31                     | 98.020             |           |
| 1,600.00                                                                 | 1,600.00              | 1,604.00                     | 1,600.00              | 5.51                             | 5.52                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 999.35                           | 11.02                     | 91.646             |           |
| 1,700.00                                                                 | 1,700.00              | 1,704.00                     | 1,700.00              | 5.86                             | 5.88                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 998.64                           | 11.74                     | 86.050             |           |
| 1,800.00                                                                 | 1,800.00              | 1,804.00                     | 1,800.00              | 6.22                             | 6.24                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 997.92                           | 12.46                     | 81.098             |           |
| 1,900.00                                                                 | 1,900.00              | 1,904.00                     | 1,900.00              | 6.58                             | 6.59                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 997.20                           | 13.18                     | 76.685             |           |
| 2,000.00                                                                 | 2,000.00              | 2,004.00                     | 2,000.00              | 6.94                             | 6.95                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 996.49                           | 13.89                     | 72.728             |           |
| 2,100.00                                                                 | 2,100.00              | 2,104.00                     | 2,100.00              | 7.30                             | 7.31                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 995.77                           | 14.61                     | 69.159             |           |
| 2,200.00                                                                 | 2,200.00              | 2,204.00                     | 2,200.00              | 7.66                             | 7.67                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 995.05                           | 15.33                     | 65.924             |           |
| 2,300.00                                                                 | 2,300.00              | 2,304.00                     | 2,300.00              | 8.01                             | 8.03                          | -90.09                | -1.55                               | -1,010.38                           | 1,010.38                        | 994.33                           | 16.04                     | 62.978             |           |

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Reference Site:** Southern Comfort 25-36 State X  
**Site Error:** 0.00 usft  
**Reference Well:** 2H  
**Well Error:** 0.00 usft  
**Reference Wellbore:** OH  
**Reference Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** Compass 5000 GCR  
**Offset TVD Reference:** Reference Datum

| Offset Design Southern Comfort 25-36 State X - 1H - OH - Plan 1 11-11-16 |                             |                             |                             |                     |                  |                            |                                           |                 |                              |                               |                                 |                      |         | Offset Site Error: | 0.00 usft |
|--------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|----------------------------|-------------------------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|---------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM                                               |                             |                             |                             |                     |                  |                            |                                           |                 |                              |                               |                                 |                      |         | Offset Well Error: | 0.00 usft |
| Reference                                                                |                             | Offset                      |                             | Semi Major Axis     |                  | Highside<br>Tooface<br>(°) | Distance                                  |                 | Between<br>Centres<br>(usft) | Between<br>Ellipses<br>(usft) | Minimum<br>Separation<br>(usft) | Separation<br>Factor | Warning |                    |           |
| Measured<br>Depth<br>(usft)                                              | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                            | Offset Wellbore Centre<br>+N/-S<br>(usft) | +E/-W<br>(usft) |                              |                               |                                 |                      |         |                    |           |
| 2,400.00                                                                 | 2,400.00                    | 2,404.00                    | 2,400.00                    | 8.37                | 8.39             | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 993.62                        | 16.76                           | 60.284               |         |                    |           |
| 2,500.00                                                                 | 2,500.00                    | 2,504.00                    | 2,500.00                    | 8.73                | 8.75             | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 992.90                        | 17.48                           | 57.811               |         |                    |           |
| 2,600.00                                                                 | 2,600.00                    | 2,604.00                    | 2,600.00                    | 9.09                | 9.10             | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 992.18                        | 18.19                           | 55.533               |         |                    |           |
| 2,700.00                                                                 | 2,700.00                    | 2,704.00                    | 2,700.00                    | 9.45                | 9.46             | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 991.47                        | 18.91                           | 53.428               |         |                    |           |
| 2,800.00                                                                 | 2,800.00                    | 2,804.00                    | 2,800.00                    | 9.81                | 9.82             | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 990.75                        | 19.63                           | 51.476               |         |                    |           |
| 2,900.00                                                                 | 2,900.00                    | 2,904.00                    | 2,900.00                    | 10.17               | 10.18            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 990.03                        | 20.35                           | 49.662               |         |                    |           |
| 3,000.00                                                                 | 3,000.00                    | 3,004.00                    | 3,000.00                    | 10.52               | 10.54            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 989.32                        | 21.06                           | 47.972               |         |                    |           |
| 3,100.00                                                                 | 3,100.00                    | 3,104.00                    | 3,100.00                    | 10.88               | 10.90            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 988.60                        | 21.78                           | 46.392               |         |                    |           |
| 3,200.00                                                                 | 3,200.00                    | 3,204.00                    | 3,200.00                    | 11.24               | 11.26            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 987.88                        | 22.50                           | 44.914               |         |                    |           |
| 3,300.00                                                                 | 3,300.00                    | 3,304.00                    | 3,300.00                    | 11.60               | 11.61            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 987.17                        | 23.21                           | 43.527               |         |                    |           |
| 3,400.00                                                                 | 3,400.00                    | 3,404.00                    | 3,400.00                    | 11.96               | 11.97            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 986.45                        | 23.93                           | 42.223               |         |                    |           |
| 3,500.00                                                                 | 3,500.00                    | 3,504.00                    | 3,500.00                    | 12.32               | 12.33            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 985.73                        | 24.65                           | 40.994               |         |                    |           |
| 3,600.00                                                                 | 3,600.00                    | 3,604.00                    | 3,600.00                    | 12.67               | 12.69            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 985.01                        | 25.36                           | 39.836               |         |                    |           |
| 3,700.00                                                                 | 3,700.00                    | 3,704.00                    | 3,700.00                    | 13.03               | 13.05            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 984.30                        | 26.08                           | 38.741               |         |                    |           |
| 3,800.00                                                                 | 3,800.00                    | 3,804.00                    | 3,800.00                    | 13.39               | 13.41            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 983.58                        | 26.80                           | 37.704               |         |                    |           |
| 3,900.00                                                                 | 3,900.00                    | 3,904.00                    | 3,900.00                    | 13.75               | 13.76            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 982.86                        | 27.51                           | 36.722               |         |                    |           |
| 4,000.00                                                                 | 4,000.00                    | 4,004.00                    | 4,000.00                    | 14.11               | 14.12            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 982.15                        | 28.23                           | 35.789               |         |                    |           |
| 4,100.00                                                                 | 4,100.00                    | 4,104.00                    | 4,100.00                    | 14.47               | 14.48            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 981.43                        | 28.95                           | 34.903               |         |                    |           |
| 4,200.00                                                                 | 4,200.00                    | 4,204.00                    | 4,200.00                    | 14.83               | 14.84            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 980.71                        | 29.67                           | 34.059               |         |                    |           |
| 4,300.00                                                                 | 4,300.00                    | 4,304.00                    | 4,300.00                    | 15.18               | 15.20            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 980.00                        | 30.38                           | 33.256               |         |                    |           |
| 4,400.00                                                                 | 4,400.00                    | 4,404.00                    | 4,400.00                    | 15.54               | 15.56            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 979.28                        | 31.10                           | 32.489               |         |                    |           |
| 4,500.00                                                                 | 4,500.00                    | 4,504.00                    | 4,500.00                    | 15.90               | 15.92            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 978.56                        | 31.82                           | 31.757               |         |                    |           |
| 4,600.00                                                                 | 4,600.00                    | 4,604.00                    | 4,600.00                    | 16.26               | 16.27            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 977.85                        | 32.53                           | 31.057               |         |                    |           |
| 4,700.00                                                                 | 4,700.00                    | 4,704.00                    | 4,700.00                    | 16.62               | 16.63            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 977.13                        | 33.25                           | 30.387               |         |                    |           |
| 4,800.00                                                                 | 4,800.00                    | 4,804.00                    | 4,800.00                    | 16.98               | 16.99            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 976.41                        | 33.97                           | 29.746               |         |                    |           |
| 4,900.00                                                                 | 4,900.00                    | 4,904.00                    | 4,900.00                    | 17.33               | 17.35            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 975.69                        | 34.68                           | 29.131               |         |                    |           |
| 5,000.00                                                                 | 5,000.00                    | 5,004.00                    | 5,000.00                    | 17.69               | 17.71            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 974.98                        | 35.40                           | 28.541               |         |                    |           |
| 5,100.00                                                                 | 5,100.00                    | 5,104.00                    | 5,100.00                    | 18.05               | 18.07            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 974.26                        | 36.12                           | 27.975               |         |                    |           |
| 5,200.00                                                                 | 5,200.00                    | 5,204.00                    | 5,200.00                    | 18.41               | 18.42            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 973.54                        | 36.83                           | 27.430               |         |                    |           |
| 5,300.00                                                                 | 5,300.00                    | 5,304.00                    | 5,300.00                    | 18.77               | 18.78            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 972.83                        | 37.55                           | 26.906               |         |                    |           |
| 5,400.00                                                                 | 5,400.00                    | 5,404.00                    | 5,400.00                    | 19.13               | 19.14            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 972.11                        | 38.27                           | 26.402               |         |                    |           |
| 5,500.00                                                                 | 5,500.00                    | 5,504.00                    | 5,500.00                    | 19.49               | 19.50            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 971.39                        | 38.99                           | 25.917               |         |                    |           |
| 5,600.00                                                                 | 5,600.00                    | 5,604.00                    | 5,600.00                    | 19.84               | 19.86            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 970.68                        | 39.70                           | 25.449               |         |                    |           |
| 5,700.00                                                                 | 5,700.00                    | 5,704.00                    | 5,700.00                    | 20.20               | 20.22            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 969.96                        | 40.42                           | 24.997               |         |                    |           |
| 5,800.00                                                                 | 5,800.00                    | 5,804.00                    | 5,800.00                    | 20.56               | 20.58            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 969.24                        | 41.14                           | 24.562               |         |                    |           |
| 5,900.00                                                                 | 5,900.00                    | 5,904.00                    | 5,900.00                    | 20.92               | 20.93            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 968.52                        | 41.85                           | 24.141               |         |                    |           |
| 6,000.00                                                                 | 6,000.00                    | 6,004.00                    | 6,000.00                    | 21.28               | 21.29            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 967.81                        | 42.57                           | 23.734               |         |                    |           |
| 6,100.00                                                                 | 6,100.00                    | 6,104.00                    | 6,100.00                    | 21.64               | 21.65            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 967.09                        | 43.29                           | 23.341               |         |                    |           |
| 6,200.00                                                                 | 6,200.00                    | 6,204.00                    | 6,200.00                    | 21.99               | 22.01            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 966.37                        | 44.00                           | 22.961               |         |                    |           |
| 6,300.00                                                                 | 6,300.00                    | 6,304.00                    | 6,300.00                    | 22.35               | 22.37            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 965.66                        | 44.72                           | 22.593               |         |                    |           |
| 6,400.00                                                                 | 6,400.00                    | 6,404.00                    | 6,400.00                    | 22.71               | 22.73            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 964.94                        | 45.44                           | 22.236               |         |                    |           |
| 6,500.00                                                                 | 6,500.00                    | 6,504.00                    | 6,500.00                    | 23.07               | 23.08            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 964.22                        | 46.15                           | 21.891               |         |                    |           |
| 6,600.00                                                                 | 6,600.00                    | 6,604.00                    | 6,600.00                    | 23.43               | 23.44            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 963.51                        | 46.87                           | 21.556               |         |                    |           |
| 6,700.00                                                                 | 6,700.00                    | 6,704.00                    | 6,700.00                    | 23.79               | 23.80            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 962.79                        | 47.59                           | 21.231               |         |                    |           |
| 6,800.00                                                                 | 6,800.00                    | 6,804.00                    | 6,800.00                    | 24.15               | 24.16            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 962.07                        | 48.31                           | 20.916               |         |                    |           |
| 6,900.00                                                                 | 6,900.00                    | 6,904.00                    | 6,900.00                    | 24.50               | 24.52            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 961.36                        | 49.02                           | 20.610               |         |                    |           |
| 7,000.00                                                                 | 7,000.00                    | 7,004.00                    | 7,000.00                    | 24.86               | 24.88            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 960.64                        | 49.74                           | 20.313               |         |                    |           |
| 7,100.00                                                                 | 7,100.00                    | 7,104.00                    | 7,100.00                    | 25.22               | 25.24            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 959.92                        | 50.46                           | 20.025               |         |                    |           |
| 7,200.00                                                                 | 7,200.00                    | 7,204.00                    | 7,200.00                    | 25.58               | 25.59            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 959.20                        | 51.17                           | 19.744               |         |                    |           |
| 7,300.00                                                                 | 7,300.00                    | 7,304.00                    | 7,300.00                    | 25.94               | 25.95            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 958.49                        | 51.89                           | 19.471               |         |                    |           |
| 7,400.00                                                                 | 7,400.00                    | 7,404.00                    | 7,400.00                    | 26.30               | 26.31            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 957.77                        | 52.61                           | 19.206               |         |                    |           |
| 7,500.00                                                                 | 7,500.00                    | 7,504.00                    | 7,500.00                    | 26.66               | 26.67            | -90.09                     | -1.55                                     | -1,010.38       | 1,010.38                     | 957.05                        | 53.32                           | 18.948               |         |                    |           |

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Reference Site:** Southern Comfort 25-36 State X  
**Site Error:** 0.00 usft  
**Reference Well:** 2H  
**Well Error:** 0.00 usft  
**Reference Wellbore:** OH  
**Reference Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** Compass 5000 GCR  
**Offset TVD Reference:** Reference Datum

| Offset Design Southern Comfort 25-36 State X - 1H - OH - Plan 1 11-11-16 |                             |                             |                             |                     |                  |                             |                        |                 |                              |                               |                                 |                      |         | Offset Site Error: | 0.00 usft |
|--------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|---------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM                                               |                             |                             |                             |                     |                  |                             |                        |                 |                              |                               |                                 |                      |         | Offset Well Error: | 0.00 usft |
| Reference                                                                |                             | Offset                      |                             | Semi Major Axis     |                  | Highside<br>Toolface<br>(°) | Offset Wellbore Centre |                 | Distance                     |                               |                                 |                      | Warning |                    |           |
| Measured<br>Depth<br>(usft)                                              | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                             | +N/-S<br>(usft)        | +E/-W<br>(usft) | Between<br>Centres<br>(usft) | Between<br>Ellipses<br>(usft) | Minimum<br>Separation<br>(usft) | Separation<br>Factor |         |                    |           |
| 7,600.00                                                                 | 7,600.00                    | 7,604.00                    | 7,600.00                    | 27.01               | 27.03            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 956.34                        | 54.04                           | 18.696               |         |                    |           |
| 7,700.00                                                                 | 7,700.00                    | 7,704.00                    | 7,700.00                    | 27.37               | 27.39            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 955.62                        | 54.76                           | 18.452               |         |                    |           |
| 7,800.00                                                                 | 7,800.00                    | 7,804.00                    | 7,800.00                    | 27.73               | 27.74            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 954.90                        | 55.48                           | 18.213               |         |                    |           |
| 7,900.00                                                                 | 7,900.00                    | 7,904.00                    | 7,900.00                    | 28.09               | 28.10            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 954.19                        | 56.19                           | 17.981               |         |                    |           |
| 8,000.00                                                                 | 8,000.00                    | 8,004.00                    | 8,000.00                    | 28.45               | 28.46            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 953.47                        | 56.91                           | 17.754               |         |                    |           |
| 8,100.00                                                                 | 8,100.00                    | 8,104.00                    | 8,100.00                    | 28.81               | 28.82            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 952.75                        | 57.63                           | 17.533               |         |                    |           |
| 8,200.00                                                                 | 8,200.00                    | 8,204.00                    | 8,200.00                    | 29.16               | 29.18            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 952.04                        | 58.34                           | 17.318               |         |                    |           |
| 8,300.00                                                                 | 8,300.00                    | 8,304.00                    | 8,300.00                    | 29.52               | 29.54            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 951.32                        | 59.06                           | 17.108               |         |                    |           |
| 8,400.00                                                                 | 8,400.00                    | 8,404.00                    | 8,400.00                    | 29.88               | 29.90            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 950.60                        | 59.78                           | 16.902               |         |                    |           |
| 8,500.00                                                                 | 8,500.00                    | 8,504.00                    | 8,500.00                    | 30.24               | 30.25            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 949.88                        | 60.49                           | 16.702               |         |                    |           |
| 8,600.00                                                                 | 8,600.00                    | 8,604.00                    | 8,600.00                    | 30.60               | 30.61            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 949.17                        | 61.21                           | 16.507               |         |                    |           |
| 8,700.00                                                                 | 8,700.00                    | 8,704.00                    | 8,700.00                    | 30.96               | 30.97            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 948.45                        | 61.93                           | 16.315               |         |                    |           |
| 8,800.00                                                                 | 8,800.00                    | 8,804.00                    | 8,800.00                    | 31.32               | 31.33            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 947.73                        | 62.64                           | 16.129               |         |                    |           |
| 8,900.00                                                                 | 8,900.00                    | 8,904.00                    | 8,900.00                    | 31.67               | 31.69            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 947.02                        | 63.36                           | 15.946               |         |                    |           |
| 9,000.00                                                                 | 9,000.00                    | 9,004.00                    | 9,000.00                    | 32.03               | 32.05            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 946.30                        | 64.08                           | 15.768               |         |                    |           |
| 9,100.00                                                                 | 9,100.00                    | 9,104.00                    | 9,100.00                    | 32.39               | 32.40            | -90.09                      | -1.55                  | -1,010.38       | 1,010.38                     | 945.58                        | 64.80                           | 15.593 CC            |         |                    |           |
| 9,156.65                                                                 | 9,156.65                    | 9,160.65                    | 9,156.65                    | 32.59               | 32.61            | 106.09                      | -1.55                  | -1,010.38       | 1,010.56                     | 945.36                        | 65.20                           | 15.500               |         |                    |           |
| 9,200.00                                                                 | 9,199.99                    | 9,203.60                    | 9,199.59                    | 32.74               | 32.76            | 106.04                      | -2.16                  | -1,010.38       | 1,010.51                     | 945.01                        | 65.50                           | 15.428 ES            |         |                    |           |
| 9,300.00                                                                 | 9,299.06                    | 9,301.95                    | 9,296.96                    | 33.06               | 33.07            | 105.64                      | -15.11                 | -1,010.47       | 1,014.13                     | 948.10                        | 66.03                           | 15.358               |         |                    |           |
| 9,400.00                                                                 | 9,394.42                    | 9,400.00                    | 9,390.42                    | 33.37               | 33.37            | 104.75                      | -44.38                 | -1,010.67       | 1,022.60                     | 956.14                        | 66.46                           | 15.387               |         |                    |           |
| 9,500.00                                                                 | 9,483.17                    | 9,496.94                    | 9,476.58                    | 33.67               | 33.65            | 103.40                      | -88.56                 | -1,010.98       | 1,035.66                     | 968.80                        | 66.86                           | 15.491               |         |                    |           |
| 9,600.00                                                                 | 9,562.62                    | 9,593.24                    | 9,553.59                    | 33.96               | 33.92            | 101.64                      | -146.18                | -1,011.37       | 1,052.90                     | 985.58                        | 67.32                           | 15.640               |         |                    |           |
| 9,700.00                                                                 | 9,630.35                    | 9,688.70                    | 9,619.36                    | 34.25               | 34.19            | 99.52                       | -215.22                | -1,011.85       | 1,073.81                     | 1,005.90                      | 67.91                           | 15.812               |         |                    |           |
| 9,800.00                                                                 | 9,684.31                    | 9,783.48                    | 9,672.43                    | 34.55               | 34.46            | 97.13                       | -293.61                | -1,012.39       | 1,097.73                     | 1,029.11                      | 68.62                           | 15.997               |         |                    |           |
| 9,900.00                                                                 | 9,722.86                    | 9,877.84                    | 9,711.72                    | 34.88               | 34.73            | 94.53                       | -379.28                | -1,012.98       | 1,123.95                     | 1,054.55                      | 69.39                           | 16.197               |         |                    |           |
| 10,000.00                                                                | 9,744.83                    | 9,972.15                    | 9,736.43                    | 35.22               | 35.02            | 91.84                       | -470.19                | -1,013.61       | 1,151.66                     | 1,081.52                      | 70.14                           | 16.419               |         |                    |           |
| 10,100.00                                                                | 9,750.00                    | 10,066.92                   | 9,745.91                    | 35.58               | 35.31            | 89.79                       | -564.37                | -1,014.25       | 1,179.96                     | 1,109.14                      | 70.81                           | 16.663               |         |                    |           |
| 10,200.00                                                                | 9,750.00                    | 10,163.40                   | 9,746.00                    | 36.00               | 35.63            | 89.80                       | -660.85                | -1,014.92       | 1,205.98                     | 1,134.44                      | 71.54                           | 16.856               |         |                    |           |
| 10,300.00                                                                | 9,750.00                    | 10,260.79                   | 9,746.00                    | 36.46               | 36.01            | 89.81                       | -758.24                | -1,015.59       | 1,228.62                     | 1,156.24                      | 72.38                           | 16.975               |         |                    |           |
| 10,400.00                                                                | 9,750.00                    | 10,358.92                   | 9,746.00                    | 36.98               | 36.43            | 89.81                       | -856.37                | -1,016.27       | 1,247.85                     | 1,174.53                      | 73.32                           | 17.020               |         |                    |           |
| 10,500.00                                                                | 9,750.00                    | 10,457.66                   | 9,746.00                    | 37.54               | 36.91            | 89.82                       | -955.11                | -1,016.95       | 1,263.64                     | 1,189.29                      | 74.34                           | 16.997               |         |                    |           |
| 10,600.00                                                                | 9,750.00                    | 10,556.90                   | 9,746.00                    | 38.14               | 37.44            | 89.82                       | -1,054.34              | -1,017.63       | 1,275.97                     | 1,200.52                      | 75.45                           | 16.911               |         |                    |           |
| 10,700.00                                                                | 9,750.00                    | 10,656.50                   | 9,746.00                    | 38.77               | 38.02            | 89.82                       | -1,153.93              | -1,018.32       | 1,284.83                     | 1,208.20                      | 76.64                           | 16.766               |         |                    |           |
| 10,800.00                                                                | 9,750.00                    | 10,756.35                   | 9,746.00                    | 39.43               | 38.64            | 89.82                       | -1,253.78              | -1,019.00       | 1,290.22                     | 1,212.34                      | 77.88                           | 16.567               |         |                    |           |
| 10,900.00                                                                | 9,750.00                    | 10,856.32                   | 9,746.00                    | 40.11               | 39.31            | 89.82                       | -1,353.76              | -1,019.69       | 1,292.12                     | 1,212.95                      | 79.17                           | 16.320               |         |                    |           |
| 11,000.00                                                                | 9,750.00                    | 10,956.32                   | 9,746.00                    | 40.83               | 40.02            | 89.82                       | -1,453.75              | -1,020.38       | 1,292.58                     | 1,211.97                      | 80.60                           | 16.036               |         |                    |           |
| 11,100.00                                                                | 9,750.00                    | 11,056.32                   | 9,746.00                    | 41.58               | 40.77            | 89.82                       | -1,553.75              | -1,021.07       | 1,293.03                     | 1,210.92                      | 82.11                           | 15.747               |         |                    |           |
| 11,200.00                                                                | 9,750.00                    | 11,156.32                   | 9,746.00                    | 42.37               | 41.55            | 89.82                       | -1,653.75              | -1,021.76       | 1,293.48                     | 1,209.79                      | 83.69                           | 15.456               |         |                    |           |
| 11,300.00                                                                | 9,750.00                    | 11,256.32                   | 9,746.00                    | 43.20               | 42.37            | 89.82                       | -1,753.74              | -1,022.45       | 1,293.94                     | 1,208.60                      | 85.34                           | 15.163               |         |                    |           |
| 11,400.00                                                                | 9,750.00                    | 11,356.32                   | 9,746.00                    | 44.05               | 43.21            | 89.82                       | -1,853.74              | -1,023.14       | 1,294.39                     | 1,207.34                      | 87.05                           | 14.870               |         |                    |           |
| 11,500.00                                                                | 9,750.00                    | 11,456.32                   | 9,746.00                    | 44.94               | 44.09            | 89.82                       | -1,953.74              | -1,023.82       | 1,294.84                     | 1,206.03                      | 88.82                           | 14.579               |         |                    |           |
| 11,600.00                                                                | 9,750.00                    | 11,556.32                   | 9,746.00                    | 45.85               | 45.00            | 89.82                       | -2,053.73              | -1,024.51       | 1,295.29                     | 1,204.65                      | 90.64                           | 14.290               |         |                    |           |
| 11,700.00                                                                | 9,750.00                    | 11,656.32                   | 9,746.00                    | 46.79               | 45.94            | 89.82                       | -2,153.73              | -1,025.20       | 1,295.75                     | 1,203.22                      | 92.52                           | 14.005               |         |                    |           |
| 11,800.00                                                                | 9,750.00                    | 11,756.31                   | 9,746.00                    | 47.75               | 46.90            | 89.82                       | -2,253.73              | -1,025.89       | 1,296.20                     | 1,201.75                      | 94.45                           | 13.723               |         |                    |           |
| 11,900.00                                                                | 9,750.00                    | 11,856.31                   | 9,746.00                    | 48.74               | 47.88            | 89.82                       | -2,353.72              | -1,026.58       | 1,296.65                     | 1,200.22                      | 96.43                           | 13.446               |         |                    |           |
| 12,000.00                                                                | 9,750.00                    | 11,956.31                   | 9,746.00                    | 49.75               | 48.89            | 89.82                       | -2,453.72              | -1,027.27       | 1,297.11                     | 1,198.65                      | 98.45                           | 13.175               |         |                    |           |
| 12,100.00                                                                | 9,750.00                    | 12,056.31                   | 9,746.00                    | 50.78               | 49.92            | 89.82                       | -2,553.72              | -1,027.96       | 1,297.56                     | 1,197.04                      | 100.52                          | 12.909               |         |                    |           |
| 12,200.00                                                                | 9,750.00                    | 12,156.31                   | 9,746.00                    | 51.83               | 50.97            | 89.82                       | -2,653.71              | -1,028.65       | 1,298.01                     | 1,195.39                      | 102.62                          | 12.649               |         |                    |           |
| 12,300.00                                                                | 9,750.00                    | 12,256.31                   | 9,746.00                    | 52.90               | 52.04            | 89.82                       | -2,753.71              | -1,029.33       | 1,298.47                     | 1,193.71                      | 104.76                          | 12.395               |         |                    |           |
| 12,400.00                                                                | 9,750.00                    | 12,356.31                   | 9,746.00                    | 53.99               | 53.12            | 89.82                       | -2,853.71              | -1,030.02       | 1,298.92                     | 1,191.99                      | 106.93                          | 12.147               |         |                    |           |
| 12,500.00                                                                | 9,750.00                    | 12,456.31                   | 9,746.00                    | 55.09               | 54.22            | 89.82                       | -2,953.70              | -1,030.71       | 1,299.37                     | 1,190.23                      | 109.14                          | 11.906               |         |                    |           |
| 12,600.00                                                                | 9,750.00                    | 12,556.31                   | 9,746.00                    | 56.20               | 55.34            | 89.82                       | -3,053.70              | -1,031.40       | 1,299.83                     | 1,188.45                      | 111.38                          | 11.671               |         |                    |           |

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Reference Site:** Southern Comfort 25-36 State X  
**Site Error:** 0.00 usft  
**Reference Well:** 2H  
**Well Error:** 0.00 usft  
**Reference Wellbore:** OH  
**Reference Design:** Plan 1 11-11-16

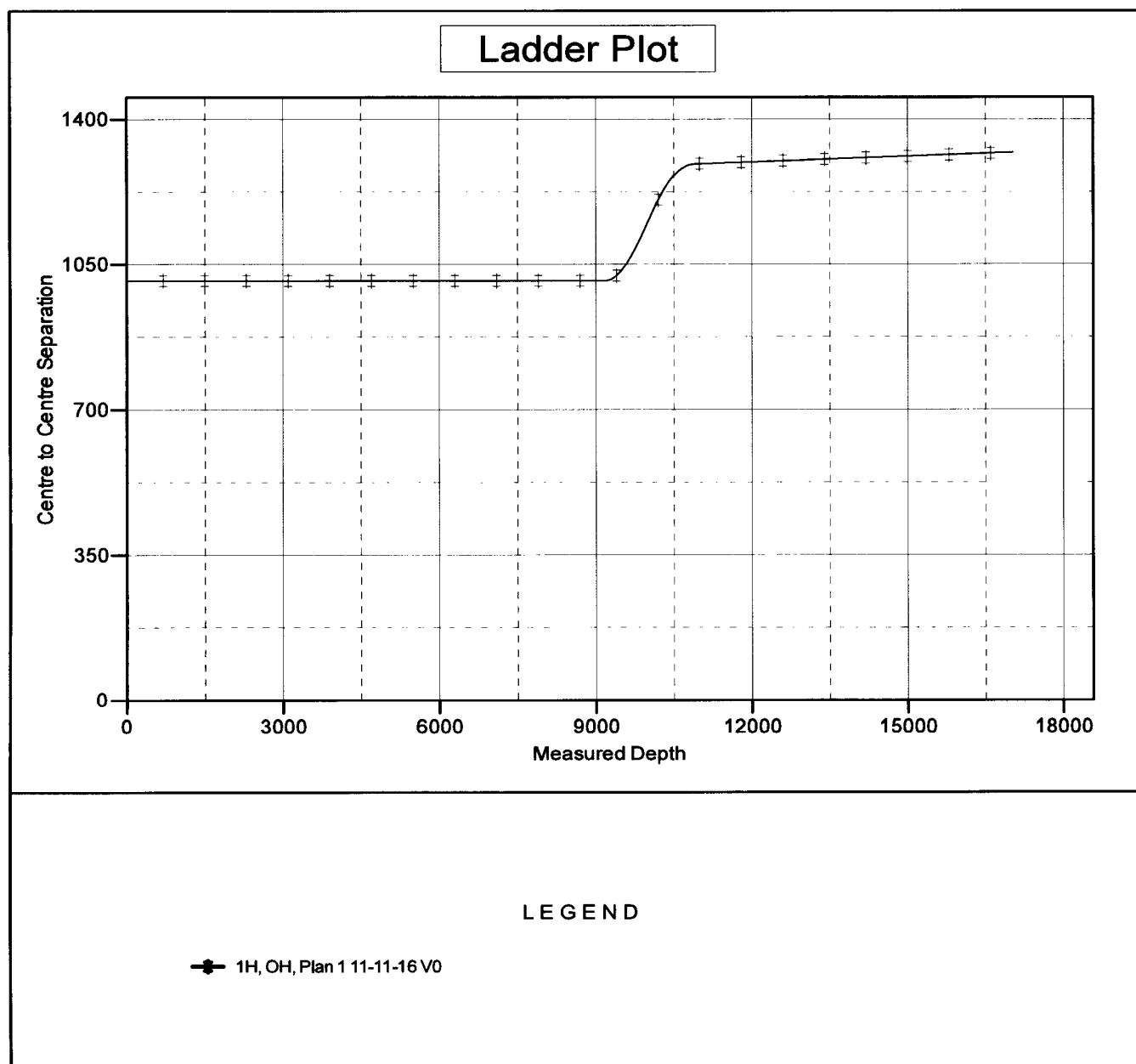
**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** Compass 5000 GCR  
**Offset TVD Reference:** Reference Datum

| Offset Design Southern Comfort 25-36 State X - 1H - OH - Plan 1 11-11-16 |                             |                             |                             |                     |                  |                             |                                           |                 |                              |                               |                                 |                      | Offset Site Error: 0.00 usft |
|--------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|-------------------------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|------------------------------|
| Survey Program: 0-MWD+HDGM                                               |                             |                             |                             |                     |                  |                             |                                           |                 |                              |                               |                                 |                      | Offset Well Error: 0.00 usft |
| Reference                                                                |                             | Offset                      |                             | Semi Major Axis     |                  | Highside<br>Toolface<br>(°) | Distance                                  |                 | Between<br>Centres<br>(usft) | Between<br>Ellipses<br>(usft) | Minimum<br>Separation<br>(usft) | Separation<br>Factor | Warning                      |
| Measured<br>Depth<br>(usft)                                              | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                             | Offset Wellbore Centre<br>+N/-S<br>(usft) | +E/-W<br>(usft) |                              |                               |                                 |                      |                              |
| 12,700.00                                                                | 9,750.00                    | 12,656.31                   | 9,746.00                    | 57.34               | 56.47            | 89.82                       | -3,153.70                                 | -1,032.09       | 1,300.28                     | 1,186.64                      | 113.64                          | 11.442               |                              |
| 12,800.00                                                                | 9,750.00                    | 12,756.30                   | 9,746.00                    | 58.48               | 57.61            | 89.82                       | -3,253.69                                 | -1,032.78       | 1,300.73                     | 1,184.80                      | 115.93                          | 11.220               |                              |
| 12,900.00                                                                | 9,750.00                    | 12,856.30                   | 9,746.00                    | 59.64               | 58.77            | 89.82                       | -3,353.69                                 | -1,033.47       | 1,301.18                     | 1,182.93                      | 118.25                          | 11.003               |                              |
| 13,000.00                                                                | 9,750.00                    | 12,956.30                   | 9,746.00                    | 60.81               | 59.94            | 89.82                       | -3,453.69                                 | -1,034.16       | 1,301.64                     | 1,181.04                      | 120.59                          | 10.794               |                              |
| 13,100.00                                                                | 9,750.00                    | 13,056.30                   | 9,746.00                    | 61.99               | 61.12            | 89.82                       | -3,553.68                                 | -1,034.85       | 1,302.09                     | 1,179.13                      | 122.96                          | 10.590               |                              |
| 13,200.00                                                                | 9,750.00                    | 13,156.30                   | 9,746.00                    | 63.18               | 62.31            | 89.82                       | -3,653.68                                 | -1,035.53       | 1,302.54                     | 1,177.20                      | 125.35                          | 10.392               |                              |
| 13,300.00                                                                | 9,750.00                    | 13,256.30                   | 9,746.00                    | 64.38               | 63.51            | 89.82                       | -3,753.67                                 | -1,036.22       | 1,303.00                     | 1,175.25                      | 127.75                          | 10.199               |                              |
| 13,400.00                                                                | 9,750.00                    | 13,356.30                   | 9,746.00                    | 65.59               | 64.72            | 89.82                       | -3,853.67                                 | -1,036.91       | 1,303.45                     | 1,173.27                      | 130.18                          | 10.013               |                              |
| 13,500.00                                                                | 9,750.00                    | 13,456.30                   | 9,746.00                    | 66.81               | 65.94            | 89.82                       | -3,953.67                                 | -1,037.60       | 1,303.90                     | 1,171.28                      | 132.62                          | 9.832                |                              |
| 13,600.00                                                                | 9,750.00                    | 13,556.30                   | 9,746.00                    | 68.04               | 67.17            | 89.82                       | -4,053.66                                 | -1,038.29       | 1,304.36                     | 1,169.28                      | 135.08                          | 9.656                |                              |
| 13,700.00                                                                | 9,750.00                    | 13,656.30                   | 9,746.00                    | 69.28               | 68.41            | 89.82                       | -4,153.66                                 | -1,038.98       | 1,304.81                     | 1,167.25                      | 137.56                          | 9.486                |                              |
| 13,800.00                                                                | 9,750.00                    | 13,756.29                   | 9,746.00                    | 70.52               | 69.65            | 89.82                       | -4,253.66                                 | -1,039.67       | 1,305.26                     | 1,165.21                      | 140.05                          | 9.320                |                              |
| 13,900.00                                                                | 9,750.00                    | 13,856.29                   | 9,746.00                    | 71.78               | 70.91            | 89.82                       | -4,353.65                                 | -1,040.36       | 1,305.71                     | 1,163.16                      | 142.55                          | 9.159                |                              |
| 14,000.00                                                                | 9,750.00                    | 13,956.29                   | 9,746.00                    | 73.03               | 72.16            | 89.82                       | -4,453.65                                 | -1,041.04       | 1,306.17                     | 1,161.09                      | 145.07                          | 9.003                |                              |
| 14,100.00                                                                | 9,750.00                    | 14,056.29                   | 9,746.00                    | 74.30               | 73.43            | 89.82                       | -4,553.65                                 | -1,041.73       | 1,306.62                     | 1,159.01                      | 147.61                          | 8.852                |                              |
| 14,200.00                                                                | 9,750.00                    | 14,156.29                   | 9,746.00                    | 75.57               | 74.70            | 89.82                       | -4,653.64                                 | -1,042.42       | 1,307.07                     | 1,156.92                      | 150.15                          | 8.705                |                              |
| 14,300.00                                                                | 9,750.00                    | 14,256.29                   | 9,746.00                    | 76.85               | 75.98            | 89.82                       | -4,753.64                                 | -1,043.11       | 1,307.53                     | 1,154.82                      | 152.71                          | 8.562                |                              |
| 14,400.00                                                                | 9,750.00                    | 14,356.29                   | 9,746.00                    | 78.13               | 77.26            | 89.82                       | -4,853.64                                 | -1,043.80       | 1,307.98                     | 1,152.70                      | 155.28                          | 8.423                |                              |
| 14,500.00                                                                | 9,750.00                    | 14,456.29                   | 9,746.00                    | 79.42               | 78.55            | 89.82                       | -4,953.63                                 | -1,044.49       | 1,308.43                     | 1,150.58                      | 157.86                          | 8.289                |                              |
| 14,600.00                                                                | 9,750.00                    | 14,556.29                   | 9,746.00                    | 80.71               | 79.84            | 89.82                       | -5,053.63                                 | -1,045.18       | 1,308.89                     | 1,148.44                      | 160.45                          | 8.158                |                              |
| 14,700.00                                                                | 9,750.00                    | 14,656.29                   | 9,746.00                    | 82.01               | 81.14            | 89.82                       | -5,153.63                                 | -1,045.87       | 1,309.34                     | 1,146.30                      | 163.04                          | 8.031                |                              |
| 14,800.00                                                                | 9,750.00                    | 14,756.28                   | 9,746.00                    | 83.31               | 82.45            | 89.83                       | -5,253.62                                 | -1,046.55       | 1,309.79                     | 1,144.14                      | 165.65                          | 7.907                |                              |
| 14,900.00                                                                | 9,750.00                    | 14,856.28                   | 9,746.00                    | 84.62               | 83.75            | 89.83                       | -5,353.62                                 | -1,047.24       | 1,310.25                     | 1,141.98                      | 168.27                          | 7.787                |                              |
| 15,000.00                                                                | 9,750.00                    | 14,956.28                   | 9,746.00                    | 85.93               | 85.06            | 89.83                       | -5,453.62                                 | -1,047.93       | 1,310.70                     | 1,139.81                      | 170.89                          | 7.670                |                              |
| 15,100.00                                                                | 9,750.00                    | 15,056.28                   | 9,746.00                    | 87.25               | 86.38            | 89.83                       | -5,553.61                                 | -1,048.62       | 1,311.15                     | 1,137.63                      | 173.53                          | 7.556                |                              |
| 15,200.00                                                                | 9,750.00                    | 15,156.28                   | 9,746.00                    | 88.57               | 87.70            | 89.83                       | -5,653.61                                 | -1,049.31       | 1,311.60                     | 1,135.44                      | 176.17                          | 7.445                |                              |
| 15,300.00                                                                | 9,750.00                    | 15,256.28                   | 9,746.00                    | 89.89               | 89.02            | 89.83                       | -5,753.61                                 | -1,050.00       | 1,312.06                     | 1,133.24                      | 178.81                          | 7.338                |                              |
| 15,400.00                                                                | 9,750.00                    | 15,356.28                   | 9,746.00                    | 91.22               | 90.35            | 89.83                       | -5,853.60                                 | -1,050.69       | 1,312.51                     | 1,131.04                      | 181.47                          | 7.233                |                              |
| 15,500.00                                                                | 9,750.00                    | 15,456.28                   | 9,746.00                    | 92.55               | 91.68            | 89.83                       | -5,953.60                                 | -1,051.38       | 1,312.96                     | 1,128.84                      | 184.13                          | 7.131                |                              |
| 15,600.00                                                                | 9,750.00                    | 15,556.28                   | 9,746.00                    | 93.88               | 93.01            | 89.83                       | -6,053.60                                 | -1,052.07       | 1,313.42                     | 1,126.62                      | 186.80                          | 7.031                |                              |
| 15,700.00                                                                | 9,750.00                    | 15,656.27                   | 9,746.00                    | 95.22               | 94.35            | 89.83                       | -6,153.59                                 | -1,052.75       | 1,313.87                     | 1,124.40                      | 189.47                          | 6.934                |                              |
| 15,800.00                                                                | 9,750.00                    | 15,756.27                   | 9,746.00                    | 96.55               | 95.69            | 89.83                       | -6,253.59                                 | -1,053.44       | 1,314.32                     | 1,122.17                      | 192.15                          | 6.840                |                              |
| 15,900.00                                                                | 9,750.00                    | 15,856.27                   | 9,746.00                    | 97.90               | 97.03            | 89.83                       | -6,353.59                                 | -1,054.13       | 1,314.78                     | 1,119.94                      | 194.83                          | 6.748                |                              |
| 16,000.00                                                                | 9,750.00                    | 15,956.27                   | 9,746.00                    | 99.24               | 98.37            | 89.83                       | -6,453.58                                 | -1,054.82       | 1,315.23                     | 1,117.71                      | 197.52                          | 6.659                |                              |
| 16,100.00                                                                | 9,750.00                    | 16,056.27                   | 9,746.00                    | 100.59              | 99.72            | 89.83                       | -6,553.58                                 | -1,055.51       | 1,315.68                     | 1,115.46                      | 200.22                          | 6.571                |                              |
| 16,200.00                                                                | 9,750.00                    | 16,156.27                   | 9,746.00                    | 101.94              | 101.07           | 89.83                       | -6,653.58                                 | -1,056.20       | 1,316.13                     | 1,113.22                      | 202.92                          | 6.486                |                              |
| 16,300.00                                                                | 9,750.00                    | 16,256.27                   | 9,746.00                    | 103.29              | 102.42           | 89.83                       | -6,753.57                                 | -1,056.89       | 1,316.59                     | 1,110.96                      | 205.62                          | 6.403                |                              |
| 16,400.00                                                                | 9,750.00                    | 16,356.27                   | 9,746.00                    | 104.64              | 103.78           | 89.83                       | -6,853.57                                 | -1,057.58       | 1,317.04                     | 1,108.71                      | 208.33                          | 6.322                |                              |
| 16,500.00                                                                | 9,750.00                    | 16,456.27                   | 9,746.00                    | 106.00              | 105.13           | 89.83                       | -6,953.57                                 | -1,058.26       | 1,317.49                     | 1,106.45                      | 211.05                          | 6.243                |                              |
| 16,600.00                                                                | 9,750.00                    | 16,556.27                   | 9,746.00                    | 107.36              | 106.49           | 89.83                       | -7,053.56                                 | -1,058.95       | 1,317.95                     | 1,104.18                      | 213.77                          | 6.165                |                              |
| 16,700.00                                                                | 9,750.00                    | 16,656.26                   | 9,746.00                    | 108.72              | 107.85           | 89.83                       | -7,153.56                                 | -1,059.64       | 1,318.40                     | 1,101.91                      | 216.49                          | 6.090                |                              |
| 16,800.00                                                                | 9,750.00                    | 16,756.26                   | 9,746.00                    | 110.08              | 109.22           | 89.83                       | -7,253.56                                 | -1,060.33       | 1,318.85                     | 1,099.64                      | 219.22                          | 6.016                |                              |
| 16,900.00                                                                | 9,750.00                    | 16,856.26                   | 9,746.00                    | 111.45              | 110.58           | 89.83                       | -7,353.55                                 | -1,061.02       | 1,319.31                     | 1,097.36                      | 221.95                          | 5.944                |                              |
| 17,000.00                                                                | 9,750.00                    | 16,956.26                   | 9,746.00                    | 112.81              | 111.95           | 89.83                       | -7,453.55                                 | -1,061.71       | 1,319.76                     | 1,095.08                      | 224.68                          | 5.874                |                              |
| 17,035.80                                                                | 9,750.00                    | 16,992.06                   | 9,746.00                    | 113.30              | 112.44           | 89.83                       | -7,489.34                                 | -1,061.96       | 1,319.92                     | 1,094.26                      | 225.66                          | 5.849 SF             |                              |

**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Reference Site:** Southern Comfort 25-36 State X  
**Site Error:** 0.00 usft  
**Reference Well:** 2H  
**Well Error:** 0.00 usft  
**Reference Wellbore:** OH  
**Reference Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** Compass 5000 GCR  
**Offset TVD Reference:** Reference Datum

Reference Depths are relative to GL + KB @ 2940.50usft (Patterson 244) Coordinates are relative to: 2H  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30  
Central Meridian is 104° 19' 60.00000 W Grid Convergence at Surface is: 0.16°

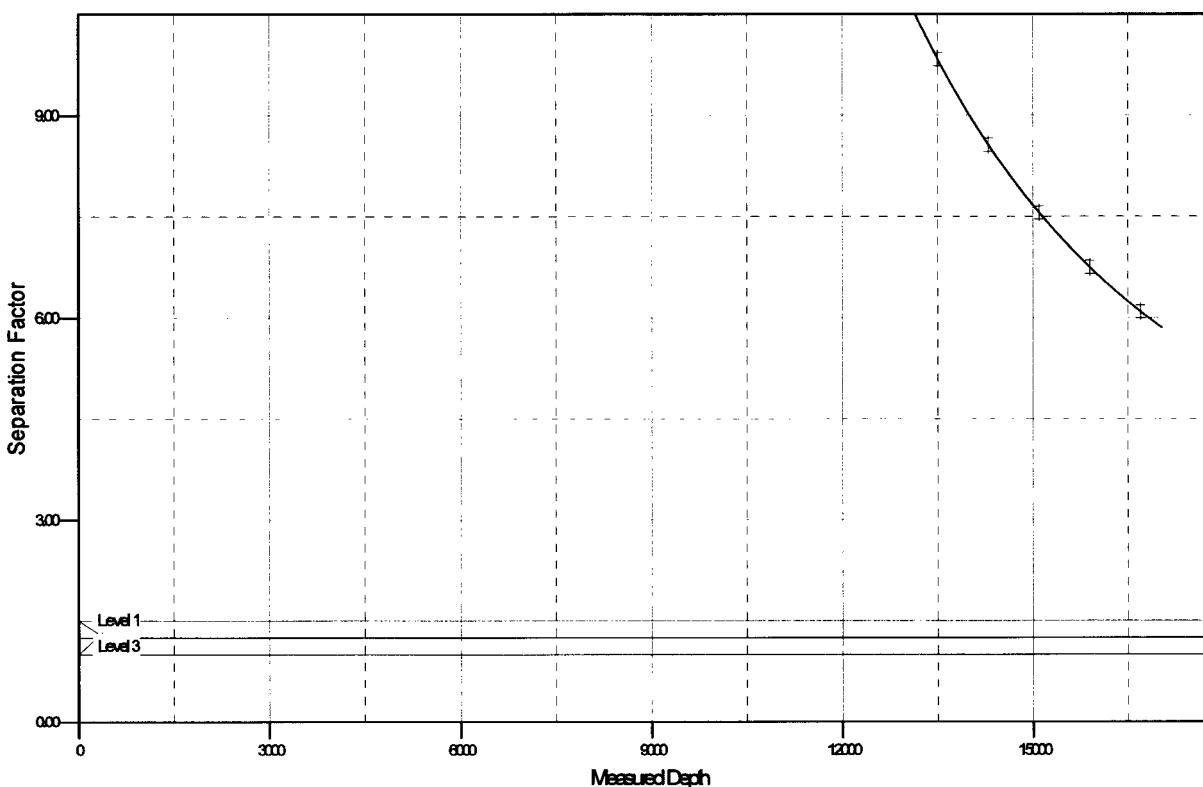


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## Separation Factor Plot



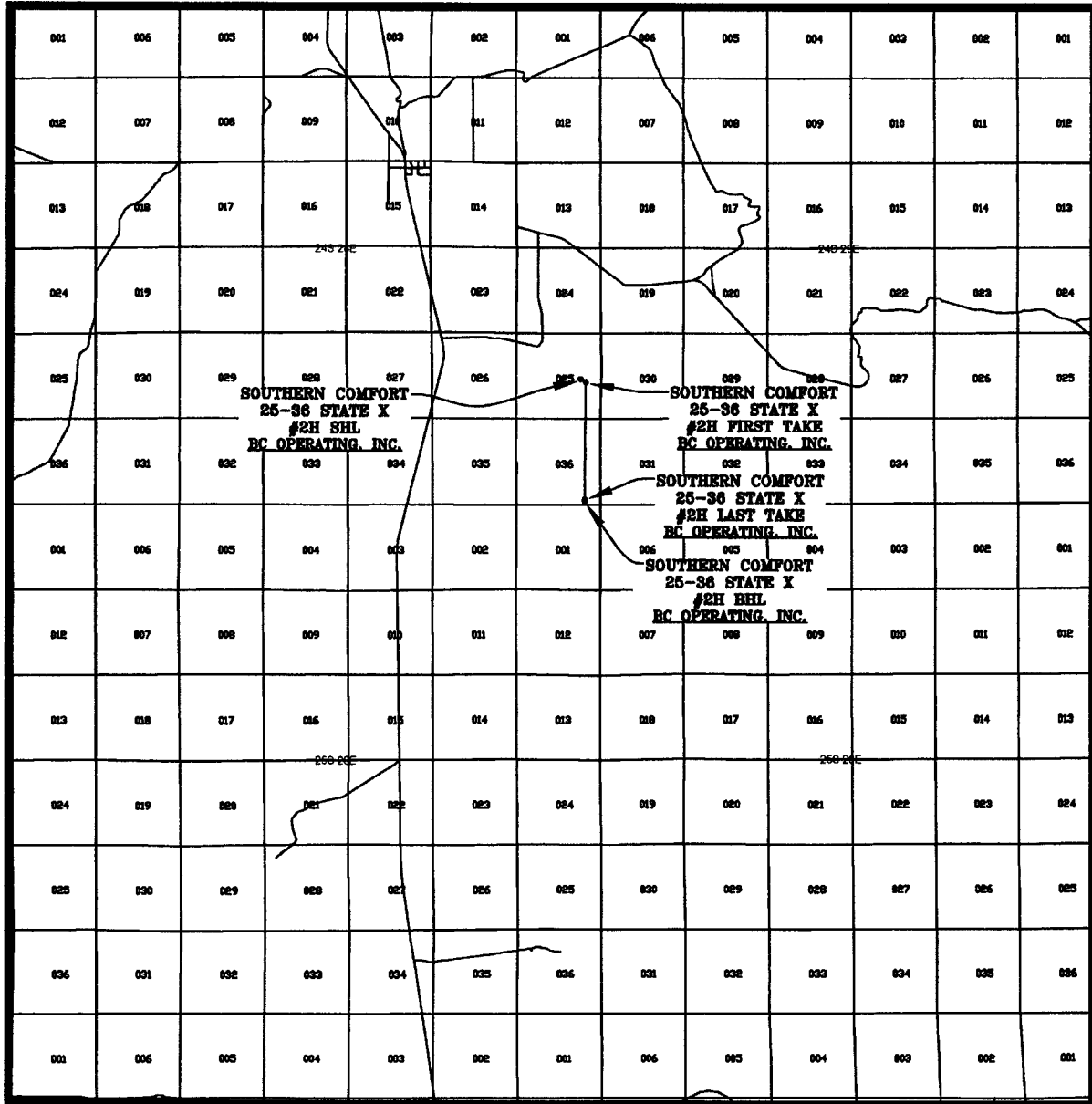
## LEGEND

—●— 1H, OH, Plan 1 11-11-16 V0

SCALE: 1" = 2000'  
CONTOUR INTERVAL = 20'

PREPARED BY:  
R-SQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-6900 OFFICE  
JOB No. R3685\_002

# VICINITY MAP



SEC. 25 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY  
 DESCRIPTION: 2490' FSL & 1300' FEL  
 ELEVATION: 2912'  
 OPERATOR: B.C. OPERATING, INC.  
 LEASE: SOUTHERN COMFORT STATE X  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.

SCALE: 1" = 2 MILES

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 316-323-6900 OFFICE  
 JOB No. R3685\_002

# WELL PAD SURFACE

SEC. 25 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

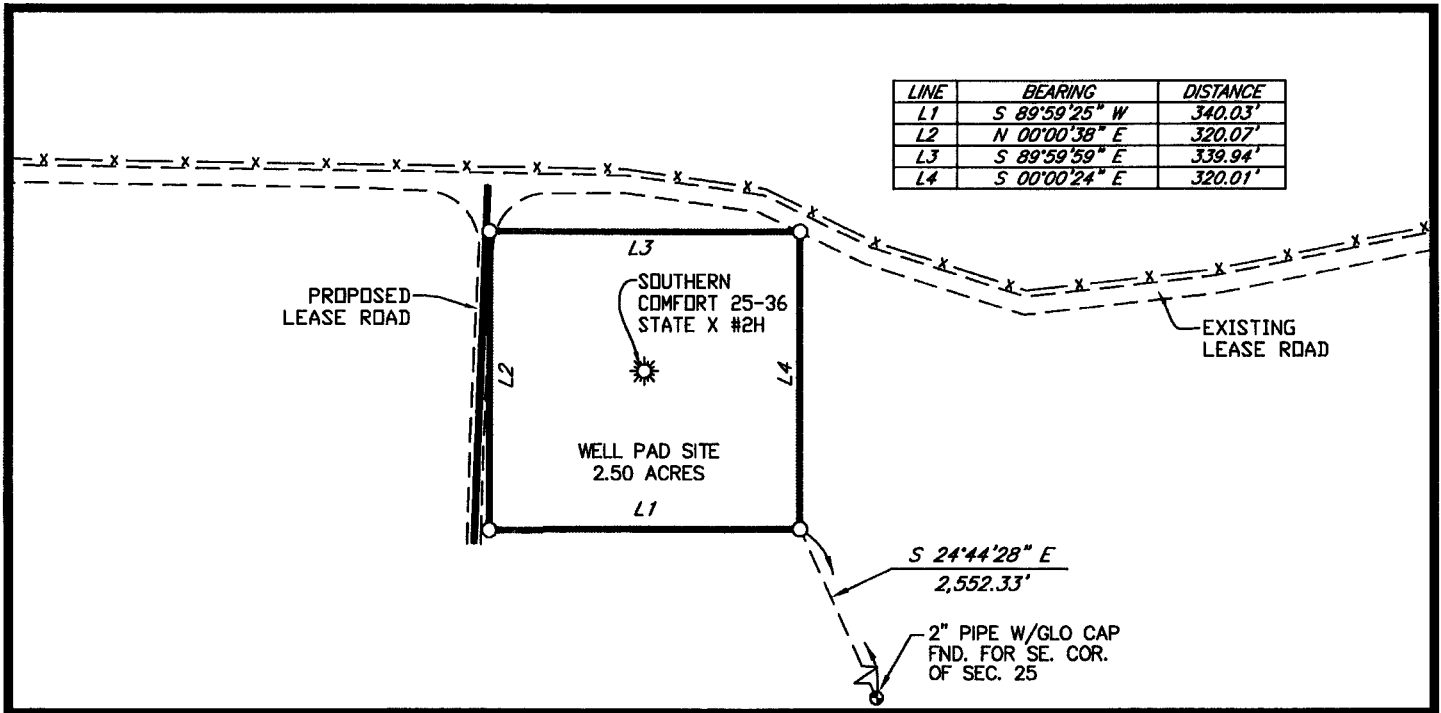
COUNTY: EDDY

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



100' 0' 100' 200'  
SCALE: 1" = 200'

| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| L1   | S 89°59'25" W | 340.03'  |
| L2   | N 00°00'38" E | 320.07'  |
| L3   | S 89°59'59" E | 339.94'  |
| L4   | S 00°00'24" E | 320.01'  |



## FIELD NOTES DESCRIBING

A tract of land being 2.50 acres. Said tract being located in Section 25, Township 24 South, Range 28 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by metes and bounds as follows:

**BEGINNING** at a point from which a 2" pipe with a GLO cap found for the Southeast corner of said Section 25 bears, S 24°44'28" E a distance of 2,552.33 feet.

### THENCE

S 89°59'25" W a distance of 340.03 feet to the Southwest corner of this tract, and N 00°00'38" E a distance of 320.07 feet to the Northwest corner of this tract, and S 89°59'59" E a distance of 339.94 feet to the Northeast corner of this tract, and S 00°00'24" E a distance of 320.01 feet to the **POINT OF BEGINNING**.

The total area of the herein described tract contains 2.50 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings and distances are grid measurements.)

Title information furnished by B.C. Operating, Inc.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO  
COUNTY OF EDDY

I, Lloyd P. Short, New Mexico Professional Surveyor No. 21653, do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.



LLOYD P. SHORT, PS No. 21653 DATE: JANUARY 03, 2017

*Lloyd P. Short*

BC OPERATING, INC.

PLAT FOR A SURFACE SITE ON THE PROPERTY OF  
STATE OF NEW MEXICO  
EDDY COUNTY, NEW MEXICO

**BASIS OF BEARING**  
ALL BEARINGS AND COORDINATES  
REFER TO NAD 83, NEW MEXICO  
STATE PLANE COORDINATE  
SYSTEM, EAST ZONE, U.S. SURVEY  
FEET. (ALL BEARINGS AND  
DISTANCES ARE GRID  
MEASUREMENTS.)

### LEGEND P.O.B. POINT OF BEGINNING

--- EXISTING ROAD  
--- PROPOSED ROAD  
--- SURFACE SITE EDGE  
--- EXIST. PIPELINE  
● MONUMENT  
○ POWER POLE  
● QUARTER SPLIT  
--- ARC LIMITS  
--- FENCE  
--- SECTION LINE  
--- CREEK

R3685\_002

| REV.             | DATE | DESCRIPTION | BY | CHKD |
|------------------|------|-------------|----|------|
| SHEET 4 OF 7     |      |             |    |      |
| DRAWN BY: DEF    |      |             |    |      |
| DATE: 11/03/2016 |      |             |    |      |
| CHECKED BY: LPS  |      |             |    |      |

1309 LOUISVILLE AVE.  
MONROE, LA 71201  
(318) 323-6900  
FAX (318) 362-0064

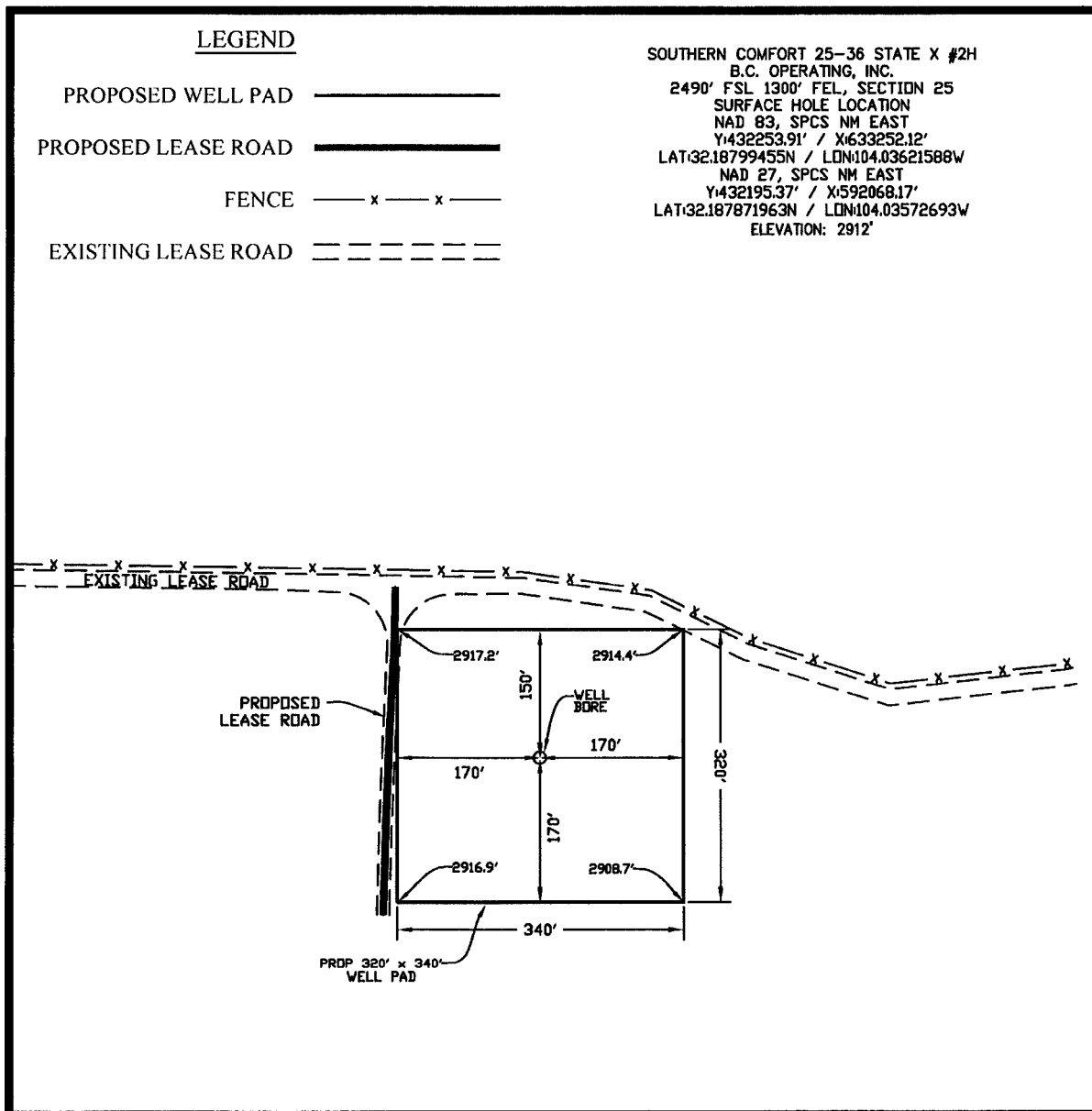
# WELL PAD TOPO

SEC. 25 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



## DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF U.S. HIGHWAY 62/WEST GREENE STREET AND U.S. 180 W./U.S. 62 W./S. CANAL STREET IN CARLESBAD, NEW MEXICO, TRAVEL SOUTH ON U.S. 62 W./S. CANAL STREET TOWARD W. TANSILL ST. FOR 2.0 MILES TO A LEFT TURN ONTO U.S. 285 SOUTH. TRAVEL SOUTH ON U.S. 285 SOUTH FOR 0.2 MILES AND CONTINUE STRAIGHT ONTO U.S. 285 SOUTH/S. CANAL ST. FOR 16.9 MILES TO PULLEY ROAD ON THE LEFT. TRAVEL SOUTHEAST ON PULLEY ROAD FOR 1.2 MILES. STAY STRAIGHT AT "Y" TO TRAVEL SOUTHEAST ON LEASE ROAD FOR 0.8 MILES TO PROPOSED WELL 199 FEET TO THE RIGHT.

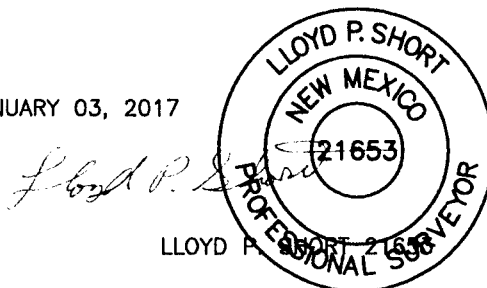
## NOTE:

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM STATE OF NEW MEXICO OIL CONSERVATION DIVISION FORM C-102 INCLUDED IN THIS SUBMITTAL.

100' 0' 100' 200'

SCALE: 1" = 200'

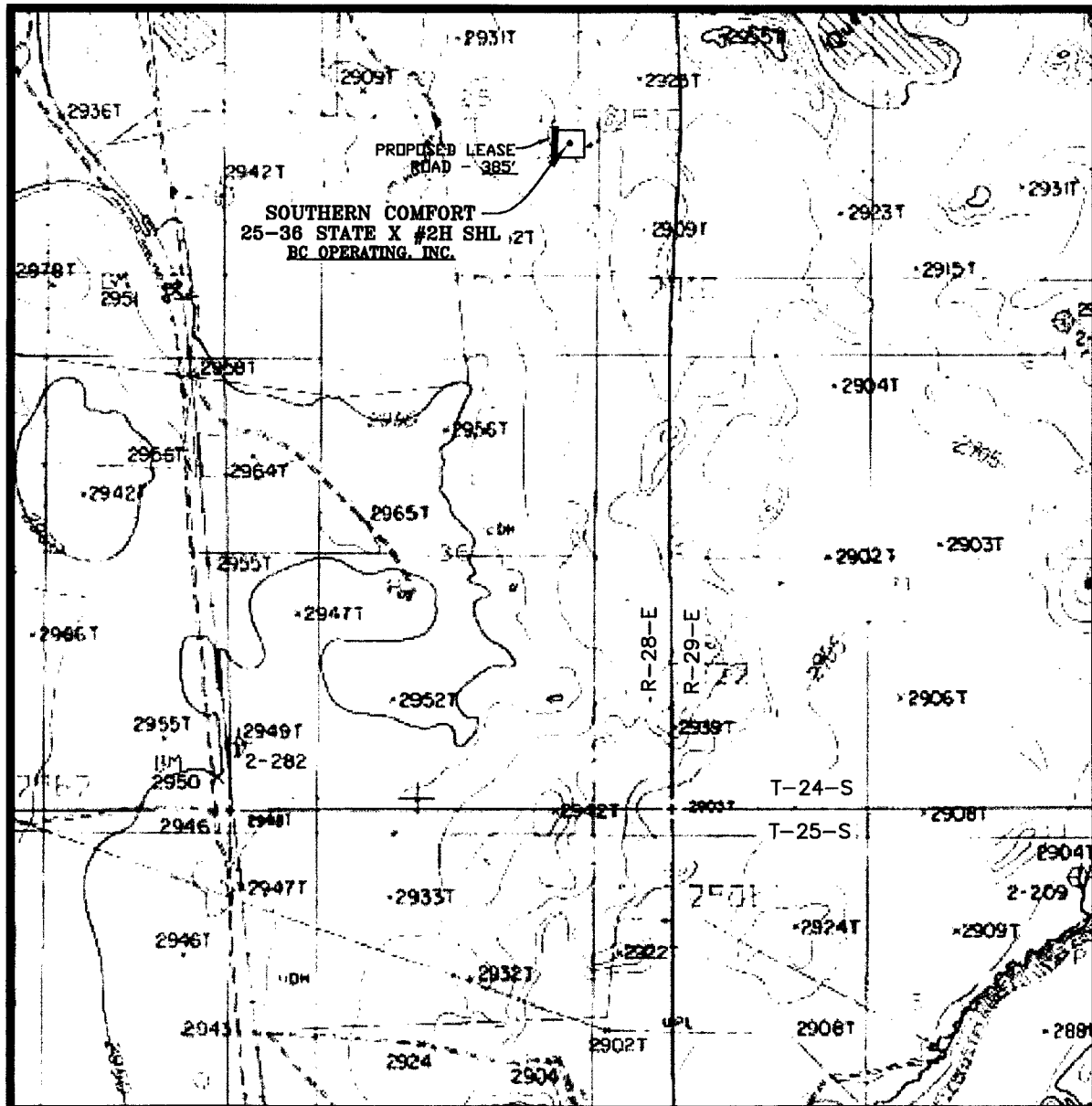
JANUARY 03, 2017



LLOYD P. SHORT

PREPARED BY:  
R-SQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-8900 OFFICE  
JOB No. R3685\_002

# WELL PAD LOCATION VERIFICATION MAP



SEC. 25 TWP. 24-S RGE. 28-E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY  
 DESCRIPTION: 2490' FSL & 1300' FEL  
 ELEVATION: 2912'  
 OPERATOR: B.C. OPERATING, INC.  
 LEASE: SOUTHERN COMFORT 25-36 STATE X  
 U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.

SCALE: 1" = 2000'  
 CONTOUR INTERVAL = 20'

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. R3686\_002

# EXISTING ACCESS ROAD VICINITY MAP

SOUTHERN COMFORT 25-36 STATE X #2H

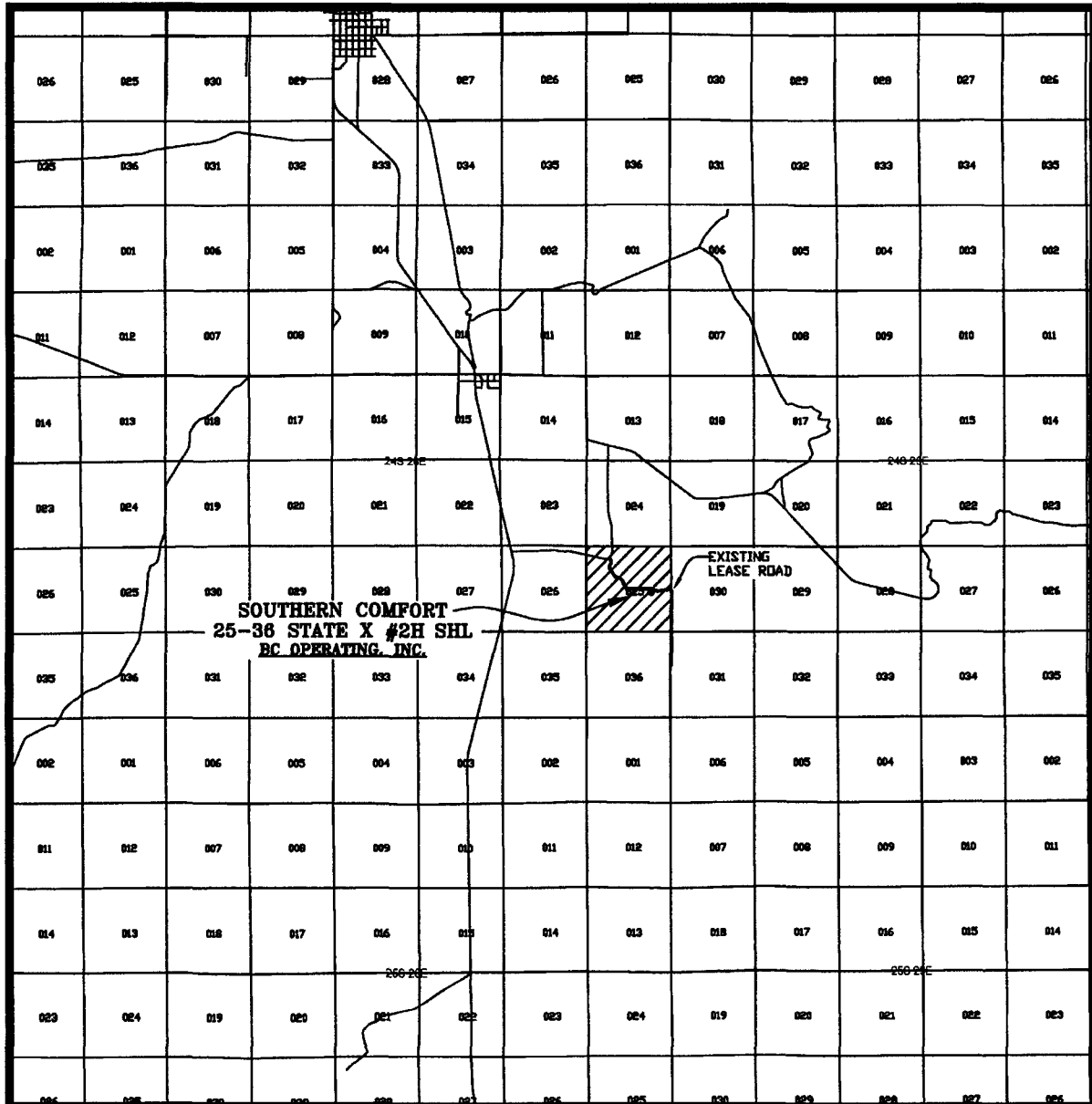
2490' FSL & 1300' FEL

SEC. 25 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.

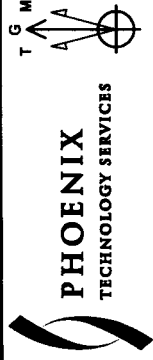


SCALE: 1" = 2 MILES

PREPARED BY:  
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1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-6900 OFFICE  
JOB No. R3685\_002



Project: Eddy County, New Mexico (NAD27)  
Site: Southern Comfort 25-36 State X  
Well: 2H  
Wellbore: OH  
Design: Plan 1 11-11-16  
Rig: Patterson 244



Azimuths to Grid North  
True North: -0.16°  
Magnetic North: 7.11°  
Magnetic Field  
Strength: 49.00  
Dip Angle: 60.03°  
Date: 11/11/2016  
Model: HDGM

#### WELL DETAILS

Ground Level: 2912.00  
Easting: 52068.17  
Northing: 432195.37  
Latitude: 32° 11' 16.3306 N  
Longitude: 104° 2' 8.6147 W

#### SECTION DETAILS

| MD       | Inc   | Asl    | TVD     | +N/S     | -E/W   | Blng  | TFace   | VSect                                                  | Target |
|----------|-------|--------|---------|----------|--------|-------|---------|--------------------------------------------------------|--------|
| 0.00     | 0.00  | 0.00   | 0.00    | 0.00     | 0.00   | 0.00  | 0.00    | 0.00                                                   | 0.00   |
| 9177.04  | 0.00  | 0.00   | 9177.04 | 0.00     | 0.00   | 0.00  | 0.00    | 0.00                                                   | 0.00   |
| 10077.04 | 0.00  | 163.85 | 9750.00 | -550.35  | 159.37 | 10.00 | 163.85  | 555.50                                                 | 0.00   |
| 10881.29 | 90.00 | 180.14 | 9750.00 | -1353.95 | 272.42 | 2.00  | 90.00   | 1382.52                                                | 0.00   |
| 17035.31 | 90.00 | 180.14 | 9750.00 | -7487.95 | 257.83 | 0.00  | 7502.39 | BHL - Southern Comfort 25-36 State X 2H TD at 17035.31 | 0.00   |

RT - K8 @ 2940.50u (Patterson 244)

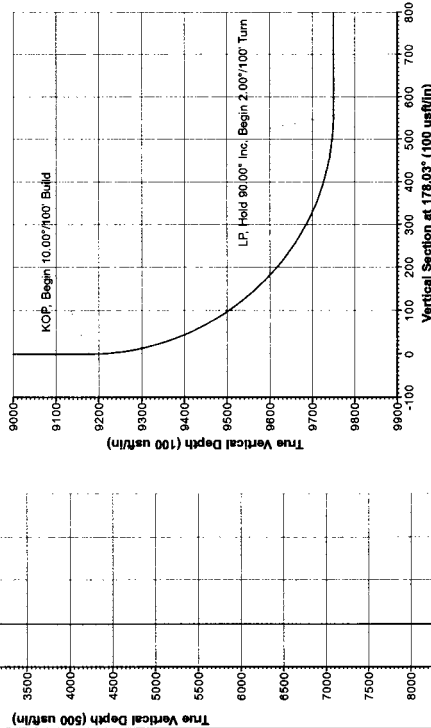
Ground Level: 2912.00

#### DESIGN TARGET DETAILS

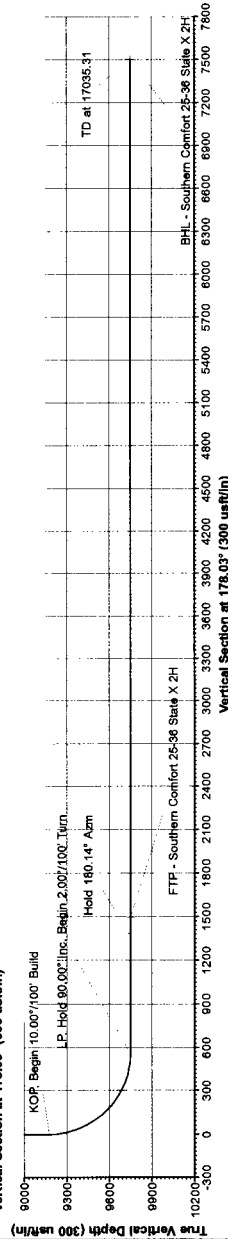
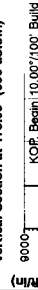
| Name                                    | East     | North  | East      | North     | Longitude        |
|-----------------------------------------|----------|--------|-----------|-----------|------------------|
| BHL - Southern Comfort 25-36 State X 2H | 7487.95  | 257.83 | 424897.42 | 592226.10 | 104° 2' 5.8525 W |
| FTP - Southern Comfort 25-36 State X 2H | -1488.06 | 272.83 | 430706.71 | 592341.00 | 104° 2' 5.4679 W |

#### LEGEND

1H, OH, Plan 1 11-11-16 V0  
Plan 1 11-11-16



Vertical Section at 178.03° (500 usft/in)

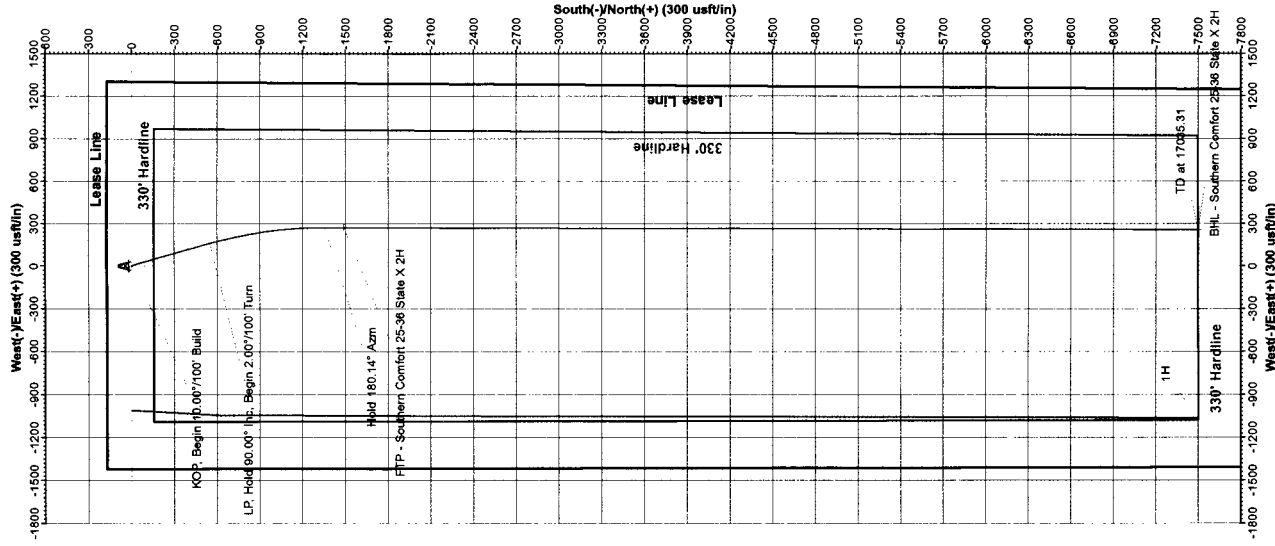
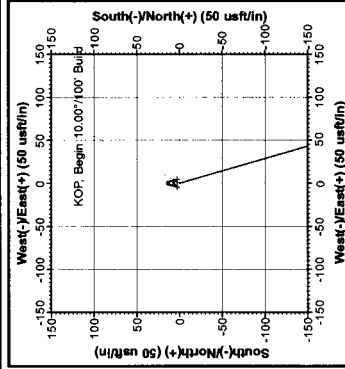


Map System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone Name: New Mexico East 3001  
Local Origin: Well 2H, Grid North  
Latitude: 32° 11' 16.3306 N  
Longitude: 104° 2' 8.6147 W

Grid East: 592068.17  
Grid North: 432195.37  
Scale Factor: 1.000

Geomagnetic Model: HDGM  
Sample Date: 11-Nov-16  
Magnetic Declination: 7.27°  
Dip Angle from Horizontal: 60.03°  
Magnetic Field Strength: 48176

To convert a Magnetic Direction to a Grid Direction, Add 7.11°  
To convert a Magnetic Direction to a True Direction, Add 7.27° East  
To convert a True Direction to a Grid Direction, Subtract 0.16°





## **BC Operating, Inc.**

**Eddy County, New Mexico (NAD27)**

**Southern Comfort 25-36 State X**

**2H**

**OH**

**Plan: Plan 1 11-11-16**

# **Standard Planning Report**

**11 November, 2016**



**Database:** Compass 5000 GCR  
**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Site:** Southern Comfort 25-36 State X  
**Well:** 2H  
**Wellbore:** OH  
**Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, New Mexico (NAD27)      |                      |                |
| <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                 |                      |                |

**Site** Southern Comfort 25-36 State X

**Site Position:** **From:** Map **Northing:** 432,193.82 usft **Latitude:** 32° 11' 16.35125 N  
**Easting:** 591,057.80 usft **Longitude:** 104° 2' 20.37228 W  
**Position Uncertainty:** 0.00 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.16 °

**Well** 2H  
**Well Position** **+N/-S** 1.55 usft **Northing:** 432,195.37 usft **Latitude:** 32° 11' 16.33906 N  
**+E/-W** 1,010.38 usft **Easting:** 592,068.17 usft **Longitude:** 104° 2' 8.61474 W  
**Position Uncertainty** 0.00 usft **Wellhead Elevation:** 0.00 usft **Ground Level:** 2,912.00 usft

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | HDGM       | 11/11/2016  | 7.27            | 60.03         | 48,176              |

**Design** Plan 1 11-11-16

**Audit Notes:**

**Version:** **Phase:** PROTOTYPE **Tie On Depth:** 0.00

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|-------------------|-------------------------|--------------|--------------|---------------|
|                   | 0.00                    | 0.00         | 0.00         | 178.03        |

### Plan Sections

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target            |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|-------------------|
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                   |
| 9,177.04              | 0.00            | 0.00        | 9,177.04              | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                   |
| 10,077.04             | 90.00           | 163.85      | 9,750.00              | -550.35      | 159.37       | 10.00                   | 10.00                  | 0.00                  | 163.85  |                   |
| 10,891.29             | 90.00           | 180.14      | 9,750.00              | -1,353.95    | 272.42       | 2.00                    | 0.00                   | 2.00                  | 90.00   |                   |
| 17,035.31             | 90.00           | 180.14      | 9,750.00              | -7,497.95    | 257.93       | 0.00                    | 0.00                   | 0.00                  | 0.00    | BHL - Southern Co |

**Database:** Compass 5000 GCR  
**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Site:** Southern Comfort 25-36 State X  
**Well:** 2H  
**Wellbore:** OH  
**Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### 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                  |
| 9,177.04                                          | 0.00            | 0.00        | 9,177.04              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP, Begin 10.00°/100' Build</b>               |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,200.00                                          | 2.30            | 163.85      | 9,199.99              | -0.44        | 0.13         | 0.45                    | 10.00                   | 10.00                  | 0.00                  |
| 9,300.00                                          | 12.30           | 163.85      | 9,299.06              | -12.62       | 3.66         | 12.74                   | 10.00                   | 10.00                  | 0.00                  |
| 9,400.00                                          | 22.30           | 163.85      | 9,394.42              | -41.15       | 11.92        | 41.53                   | 10.00                   | 10.00                  | 0.00                  |
| 9,500.00                                          | 32.30           | 163.85      | 9,483.17              | -85.14       | 24.65        | 85.94                   | 10.00                   | 10.00                  | 0.00                  |
| 9,600.00                                          | 42.30           | 163.85      | 9,562.62              | -143.27      | 41.49        | 144.61                  | 10.00                   | 10.00                  | 0.00                  |
| 9,700.00                                          | 52.30           | 163.85      | 9,630.35              | -213.76      | 61.90        | 215.77                  | 10.00                   | 10.00                  | 0.00                  |
| 9,800.00                                          | 62.30           | 163.85      | 9,684.31              | -294.49      | 85.28        | 297.25                  | 10.00                   | 10.00                  | 0.00                  |
| 9,900.00                                          | 72.30           | 163.85      | 9,722.86              | -382.99      | 110.91       | 386.57                  | 10.00                   | 10.00                  | 0.00                  |
| 10,000.00                                         | 82.30           | 163.85      | 9,744.83              | -476.57      | 138.01       | 481.03                  | 10.00                   | 10.00                  | 0.00                  |
| 10,077.04                                         | 90.00           | 163.85      | 9,750.00              | -550.35      | 159.37       | 555.50                  | 10.00                   | 10.00                  | 0.00                  |
| <b>LP, Hold 90.00° Inc, Begin 2.00°/100' Turn</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,100.00                                         | 90.00           | 164.31      | 9,750.00              | -572.43      | 165.67       | 577.78                  | 2.00                    | 0.00                   | 2.00                  |
| 10,200.00                                         | 90.00           | 166.31      | 9,750.00              | -669.15      | 191.03       | 675.32                  | 2.00                    | 0.00                   | 2.00                  |
| 10,300.00                                         | 90.00           | 168.31      | 9,750.00              | -766.70      | 212.99       | 773.57                  | 2.00                    | 0.00                   | 2.00                  |
| 10,400.00                                         | 90.00           | 170.31      | 9,750.00              | -864.96      | 231.54       | 872.41                  | 2.00                    | 0.00                   | 2.00                  |
| 10,500.00                                         | 90.00           | 172.31      | 9,750.00              | -963.81      | 246.65       | 971.72                  | 2.00                    | 0.00                   | 2.00                  |
| 10,600.00                                         | 90.00           | 174.31      | 9,750.00              | -1,063.12    | 258.30       | 1,071.38                | 2.00                    | 0.00                   | 2.00                  |
| 10,700.00                                         | 90.00           | 176.31      | 9,750.00              | -1,162.78    | 266.48       | 1,171.26                | 2.00                    | 0.00                   | 2.00                  |
| 10,800.00                                         | 90.00           | 178.31      | 9,750.00              | -1,262.67    | 271.18       | 1,271.24                | 2.00                    | 0.00                   | 2.00                  |
| 10,891.29                                         | 90.00           | 180.14      | 9,750.00              | -1,353.95    | 272.42       | 1,362.52                | 2.00                    | 0.00                   | 2.00                  |
| <b>Hold 180.14° Azm</b>                           |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,900.00                                         | 90.00           | 180.14      | 9,750.00              | -1,362.66    | 272.40       | 1,371.22                | 0.00                    | 0.00                   | 0.00                  |
| 11,000.00                                         | 90.00           | 180.14      | 9,750.00              | -1,462.66    | 272.16       | 1,471.15                | 0.00                    | 0.00                   | 0.00                  |
| 11,100.00                                         | 90.00           | 180.14      | 9,750.00              | -1,562.66    | 271.92       | 1,571.08                | 0.00                    | 0.00                   | 0.00                  |
| 11,200.00                                         | 90.00           | 180.14      | 9,750.00              | -1,662.66    | 271.69       | 1,671.01                | 0.00                    | 0.00                   | 0.00                  |
| 11,300.00                                         | 90.00           | 180.14      | 9,750.00              | -1,762.66    | 271.45       | 1,770.95                | 0.00                    | 0.00                   | 0.00                  |
| 11,400.00                                         | 90.00           | 180.14      | 9,750.00              | -1,862.66    | 271.22       | 1,870.88                | 0.00                    | 0.00                   | 0.00                  |
| 11,500.00                                         | 90.00           | 180.14      | 9,750.00              | -1,962.65    | 270.98       | 1,970.81                | 0.00                    | 0.00                   | 0.00                  |
| 11,600.00                                         | 90.00           | 180.14      | 9,750.00              | -2,062.65    | 270.74       | 2,070.74                | 0.00                    | 0.00                   | 0.00                  |
| 11,700.00                                         | 90.00           | 180.14      | 9,750.00              | -2,162.65    | 270.51       | 2,170.68                | 0.00                    | 0.00                   | 0.00                  |
| 11,800.00                                         | 90.00           | 180.14      | 9,750.00              | -2,262.65    | 270.27       | 2,270.61                | 0.00                    | 0.00                   | 0.00                  |
| 11,900.00                                         | 90.00           | 180.14      | 9,750.00              | -2,362.65    | 270.04       | 2,370.54                | 0.00                    | 0.00                   | 0.00                  |
| 12,000.00                                         | 90.00           | 180.14      | 9,750.00              | -2,462.65    | 269.80       | 2,470.47                | 0.00                    | 0.00                   | 0.00                  |
| 12,100.00                                         | 90.00           | 180.14      | 9,750.00              | -2,562.65    | 269.57       | 2,570.41                | 0.00                    | 0.00                   | 0.00                  |
| 12,200.00                                         | 90.00           | 180.14      | 9,750.00              | -2,662.65    | 269.33       | 2,670.34                | 0.00                    | 0.00                   | 0.00                  |
| 12,300.00                                         | 90.00           | 180.14      | 9,750.00              | -2,762.65    | 269.09       | 2,770.27                | 0.00                    | 0.00                   | 0.00                  |
| 12,400.00                                         | 90.00           | 180.14      | 9,750.00              | -2,862.65    | 268.86       | 2,870.20                | 0.00                    | 0.00                   | 0.00                  |
| 12,500.00                                         | 90.00           | 180.14      | 9,750.00              | -2,962.65    | 268.62       | 2,970.14                | 0.00                    | 0.00                   | 0.00                  |
| 12,600.00                                         | 90.00           | 180.14      | 9,750.00              | -3,062.65    | 268.39       | 3,070.07                | 0.00                    | 0.00                   | 0.00                  |
| 12,700.00                                         | 90.00           | 180.14      | 9,750.00              | -3,162.65    | 268.15       | 3,170.00                | 0.00                    | 0.00                   | 0.00                  |
| 12,800.00                                         | 90.00           | 180.14      | 9,750.00              | -3,262.65    | 267.92       | 3,269.93                | 0.00                    | 0.00                   | 0.00                  |
| 12,900.00                                         | 90.00           | 180.14      | 9,750.00              | -3,362.65    | 267.68       | 3,369.87                | 0.00                    | 0.00                   | 0.00                  |
| 13,000.00                                         | 90.00           | 180.14      | 9,750.00              | -3,462.65    | 267.44       | 3,469.80                | 0.00                    | 0.00                   | 0.00                  |
| 13,100.00                                         | 90.00           | 180.14      | 9,750.00              | -3,562.65    | 267.21       | 3,569.73                | 0.00                    | 0.00                   | 0.00                  |
| 13,200.00                                         | 90.00           | 180.14      | 9,750.00              | -3,662.65    | 266.97       | 3,669.66                | 0.00                    | 0.00                   | 0.00                  |
| 13,300.00                                         | 90.00           | 180.14      | 9,750.00              | -3,762.65    | 266.74       | 3,769.60                | 0.00                    | 0.00                   | 0.00                  |
| 13,400.00                                         | 90.00           | 180.14      | 9,750.00              | -3,862.65    | 266.50       | 3,869.53                | 0.00                    | 0.00                   | 0.00                  |
| 13,500.00                                         | 90.00           | 180.14      | 9,750.00              | -3,962.65    | 266.27       | 3,969.46                | 0.00                    | 0.00                   | 0.00                  |
| 13,600.00                                         | 90.00           | 180.14      | 9,750.00              | -4,062.65    | 266.03       | 4,069.39                | 0.00                    | 0.00                   | 0.00                  |
| 13,700.00                                         | 90.00           | 180.14      | 9,750.00              | -4,162.65    | 265.79       | 4,169.33                | 0.00                    | 0.00                   | 0.00                  |

**Database:** Compass 5000 GCR  
**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Site:** Southern Comfort 25-36 State X  
**Well:** 2H  
**Wellbore:** OH  
**Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 13,800.00             | 90.00           | 180.14      | 9,750.00              | -4,262.65    | 265.56       | 4,269.26                | 0.00                    | 0.00                   | 0.00                  |
| 13,900.00             | 90.00           | 180.14      | 9,750.00              | -4,362.65    | 265.32       | 4,369.19                | 0.00                    | 0.00                   | 0.00                  |
| 14,000.00             | 90.00           | 180.14      | 9,750.00              | -4,462.65    | 265.09       | 4,469.12                | 0.00                    | 0.00                   | 0.00                  |
| 14,100.00             | 90.00           | 180.14      | 9,750.00              | -4,562.65    | 264.85       | 4,569.06                | 0.00                    | 0.00                   | 0.00                  |
| 14,200.00             | 90.00           | 180.14      | 9,750.00              | -4,662.65    | 264.61       | 4,668.99                | 0.00                    | 0.00                   | 0.00                  |
| 14,300.00             | 90.00           | 180.14      | 9,750.00              | -4,762.65    | 264.38       | 4,768.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,400.00             | 90.00           | 180.14      | 9,750.00              | -4,862.65    | 264.14       | 4,868.85                | 0.00                    | 0.00                   | 0.00                  |
| 14,500.00             | 90.00           | 180.14      | 9,750.00              | -4,962.65    | 263.91       | 4,968.79                | 0.00                    | 0.00                   | 0.00                  |
| 14,600.00             | 90.00           | 180.14      | 9,750.00              | -5,062.65    | 263.67       | 5,068.72                | 0.00                    | 0.00                   | 0.00                  |
| 14,700.00             | 90.00           | 180.14      | 9,750.00              | -5,162.65    | 263.44       | 5,168.65                | 0.00                    | 0.00                   | 0.00                  |
| 14,800.00             | 90.00           | 180.14      | 9,750.00              | -5,262.65    | 263.20       | 5,268.58                | 0.00                    | 0.00                   | 0.00                  |
| 14,900.00             | 90.00           | 180.14      | 9,750.00              | -5,362.65    | 262.96       | 5,368.52                | 0.00                    | 0.00                   | 0.00                  |
| 15,000.00             | 90.00           | 180.14      | 9,750.00              | -5,462.65    | 262.73       | 5,468.45                | 0.00                    | 0.00                   | 0.00                  |
| 15,100.00             | 90.00           | 180.14      | 9,750.00              | -5,562.65    | 262.49       | 5,568.38                | 0.00                    | 0.00                   | 0.00                  |
| 15,200.00             | 90.00           | 180.14      | 9,750.00              | -5,662.64    | 262.26       | 5,668.31                | 0.00                    | 0.00                   | 0.00                  |
| 15,300.00             | 90.00           | 180.14      | 9,750.00              | -5,762.64    | 262.02       | 5,768.25                | 0.00                    | 0.00                   | 0.00                  |
| 15,400.00             | 90.00           | 180.14      | 9,750.00              | -5,862.64    | 261.79       | 5,868.18                | 0.00                    | 0.00                   | 0.00                  |
| 15,500.00             | 90.00           | 180.14      | 9,750.00              | -5,962.64    | 261.55       | 5,968.11                | 0.00                    | 0.00                   | 0.00                  |
| 15,600.00             | 90.00           | 180.14      | 9,750.00              | -6,062.64    | 261.31       | 6,068.04                | 0.00                    | 0.00                   | 0.00                  |
| 15,700.00             | 90.00           | 180.14      | 9,750.00              | -6,162.64    | 261.08       | 6,167.98                | 0.00                    | 0.00                   | 0.00                  |
| 15,800.00             | 90.00           | 180.14      | 9,750.00              | -6,262.64    | 260.84       | 6,267.91                | 0.00                    | 0.00                   | 0.00                  |
| 15,900.00             | 90.00           | 180.14      | 9,750.00              | -6,362.64    | 260.61       | 6,367.84                | 0.00                    | 0.00                   | 0.00                  |
| 16,000.00             | 90.00           | 180.14      | 9,750.00              | -6,462.64    | 260.37       | 6,467.77                | 0.00                    | 0.00                   | 0.00                  |
| 16,100.00             | 90.00           | 180.14      | 9,750.00              | -6,562.64    | 260.14       | 6,567.71                | 0.00                    | 0.00                   | 0.00                  |
| 16,200.00             | 90.00           | 180.14      | 9,750.00              | -6,662.64    | 259.90       | 6,667.64                | 0.00                    | 0.00                   | 0.00                  |
| 16,300.00             | 90.00           | 180.14      | 9,750.00              | -6,762.64    | 259.66       | 6,767.57                | 0.00                    | 0.00                   | 0.00                  |
| 16,400.00             | 90.00           | 180.14      | 9,750.00              | -6,862.64    | 259.43       | 6,867.50                | 0.00                    | 0.00                   | 0.00                  |
| 16,500.00             | 90.00           | 180.14      | 9,750.00              | -6,962.64    | 259.19       | 6,967.44                | 0.00                    | 0.00                   | 0.00                  |
| 16,600.00             | 90.00           | 180.14      | 9,750.00              | -7,062.64    | 258.96       | 7,067.37                | 0.00                    | 0.00                   | 0.00                  |
| 16,700.00             | 90.00           | 180.14      | 9,750.00              | -7,162.64    | 258.72       | 7,167.30                | 0.00                    | 0.00                   | 0.00                  |
| 16,800.00             | 90.00           | 180.14      | 9,750.00              | -7,262.64    | 258.48       | 7,267.23                | 0.00                    | 0.00                   | 0.00                  |
| 16,900.00             | 90.00           | 180.14      | 9,750.00              | -7,362.64    | 258.25       | 7,367.17                | 0.00                    | 0.00                   | 0.00                  |
| 17,000.00             | 90.00           | 180.14      | 9,750.00              | -7,462.64    | 258.01       | 7,467.10                | 0.00                    | 0.00                   | 0.00                  |
| 17,035.31             | 90.00           | 180.14      | 9,750.00              | -7,497.95    | 257.93       | 7,502.39                | 0.00                    | 0.00                   | 0.00                  |

TD at 17035.31

### Design Targets

#### Target Name

| - hit/miss target                                                                              | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude          | Longitude         |
|------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------------|-------------------|
| - Shape                                                                                        |               |              |            |              |              |                 |                |                   |                   |
| FTP - Southern Comf                                                                            | 0.00          | 0.00         | 9,750.00   | -1,488.66    | 272.83       | 430,706.71      | 592,341.00     | 32° 11' 1.59932 N | 104° 2' 5.48796 W |
| - plan misses target center by 0.73usft at 11026.00usft MD (9750.00 TVD, -1488.66 N, 272.10 E) |               |              |            |              |              |                 |                |                   |                   |
| - Point                                                                                        |               |              |            |              |              |                 |                |                   |                   |
| BHL - Southern Comf                                                                            | 0.00          | 0.00         | 9,750.00   | -7,497.95    | 257.93       | 424,697.42      | 592,326.10     | 32° 10' 2.12984 N | 104° 2' 5.85525 W |
| - plan hits target center                                                                      |               |              |            |              |              |                 |                |                   |                   |
| - Point                                                                                        |               |              |            |              |              |                 |                |                   |                   |

**Database:** Compass 5000 GCR  
**Company:** BC Operating, Inc.  
**Project:** Eddy County, New Mexico (NAD27)  
**Site:** Southern Comfort 25-36 State X  
**Well:** 2H  
**Wellbore:** OH  
**Design:** Plan 1 11-11-16

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**MD Reference:** GL + KB @ 2940.50usft (Patterson 244)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

**Plan Annotations**

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                    |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                            |
| 9,177.04                    | 9,177.04                    | 0.00              | 0.00            | KOP, Begin 10.00°/100' Build               |
| 10,077.04                   | 9,750.00                    | -550.35           | 159.37          | LP, Hold 90.00° Inc, Begin 2.00°/100' Turn |
| 10,891.29                   | 9,750.00                    | -1,353.95         | 272.42          | Hold 180.14° Azm                           |
| 17,035.31                   | 9,750.00                    | -7,497.95         | 257.93          | TD at 17035.31                             |