



Company: B.P.  
Project: La Plata County, CO NAD83  
Site: East Sauls Creek Pad  
Well: East Sauls Creek 35 3-1  
Wellbore: Lateral 1 (Lower Lemon)  
Design: Plan #1

PROJECT DETAILS:La Plata County, CO NAD83

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Southern Zone  
System Datum: Mean Sea Level  
Local North: Grid



Plan: Plan #1 (East Sauls Creek 35 3-1/Lateral 1 (Lower Lemon))

Created By: Janie Collins Date: 10:06, November 30 2016

WELL DETAILS: East Sauls Creek 35 3-1

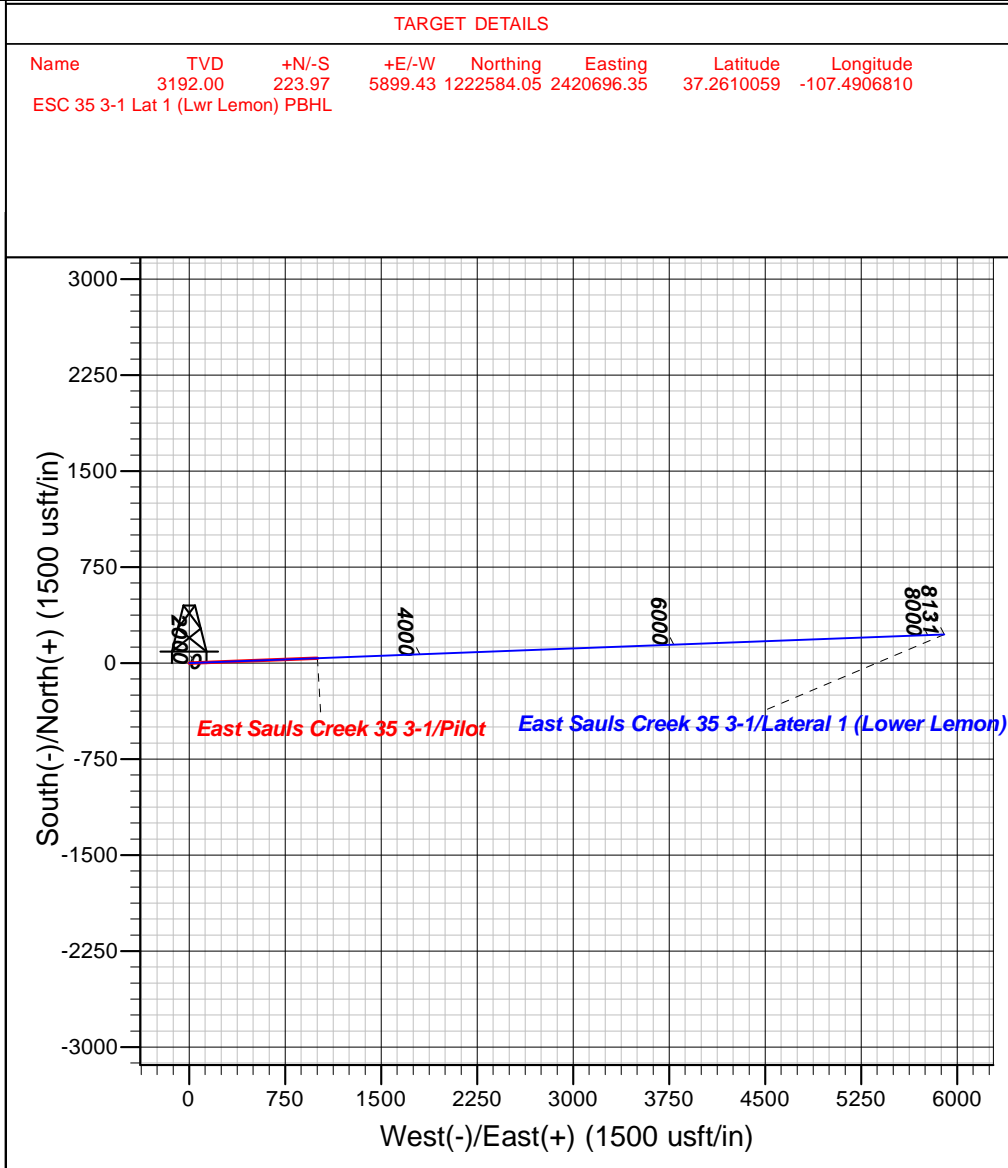
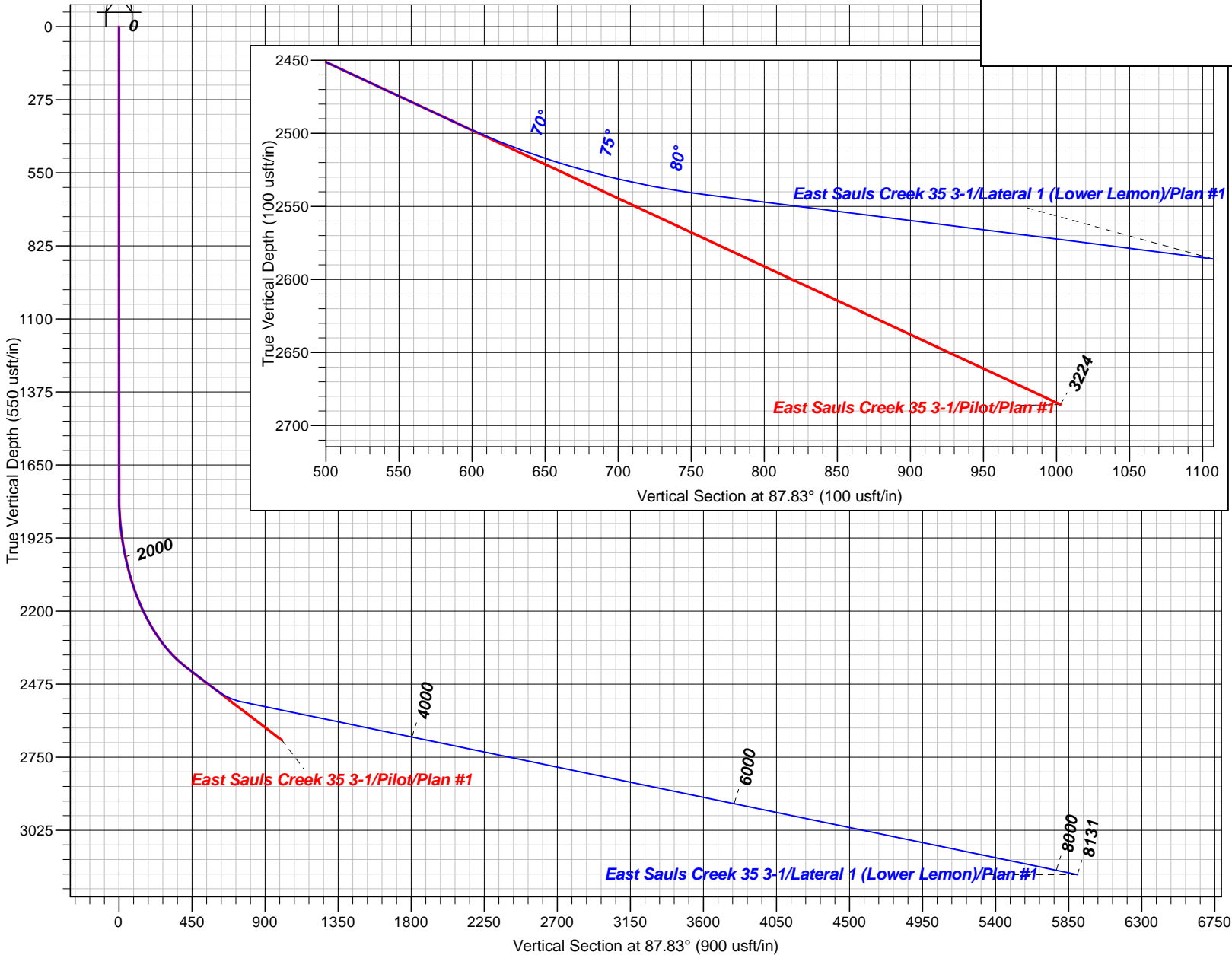
|  |            |            |              |      |
|--|------------|------------|--------------|------|
| GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) 7326.00 |            |            |              |      |
| Northing   | Easting    | Latitude   | Longitude    | Slot |
| 1222360.08   | 2414796.92 | 37.2600439 | -107.5109306 |      |

SECTION DETAILS

| MD                                | Inc   | Azi   | TVD     | +N/-S  | +E/-W   | Dleg  | TFace | VSect   | Target |
|-----------------------------------|-------|-------|---------|--------|---------|-------|-------|---------|--------|
| 2768.05                           | 65.00 | 87.83 | 2492.84 | 22.30  | 588.60  | 0.00  | 0.00  | 589.03  |        |
| 2946.04                           | 82.80 | 87.83 | 2542.00 | 28.76  | 758.80  | 10.00 | -0.02 | 759.34  |        |
| 8131.27                           | 82.80 | 87.83 | 3192.00 | 223.97 | 5899.43 | 0.00  | 0.00  | 5903.68 |        |
| ESC 35 3-1 Lat 1 (Lwr Lemon) PBHL |       |       |         |        |         |       |       |         |        |



Azimuths to Grid North  
True North: 1.23°  
Magnetic North: 10.60°  
  
Magnetic Field  
Strength: 50312.1snT  
Dip Angle: 63.78°  
Date: 11/15/2016  
Model: HDGM





**B.P.**

**La Plata County, CO NAD83  
East Sauls Creek Pad  
East Sauls Creek 35 3-1**

**Lateral 1 (Lower Lemon)**

**Plan: Plan #1**

## **Standard Planning Report**

**29 November, 2016**





|                  |                           |                                    |  |
|------------------|---------------------------|------------------------------------|--|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference</b> | Well East Sauls Creek 35 3-1                 |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>              | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>               | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Site:</b>     | East Sauls Creek Pad      | <b>North Reference:</b>            | Grid   |
| <b>Well:</b>     | East Sauls Creek 35 3-1   | <b>Survey Calculation Method:</b>  | Minimum Curvature                            |
| <b>Wellbore:</b> | Lateral 1 (Lower Lemon)   |                                    |  |
| <b>Design:</b>   | Plan #1                   |                                    |  |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | La Plata County, CO NAD83 |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | Colorado Southern Zone    |                      |                |

|                       |           |                      |                   |                   |              |
|-----------------------|-----------|----------------------|-------------------|-------------------|--------------|
| Site                  |           | East Sauls Creek Pad |                   |                   |              |
| Site Position:        |           | Northing:            | 1,227,806.45 usft | Latitude:         | 37.2749933   |
| From:                 | Map       | Easting:             | 2,414,712.24 usft | Longitude:        | -107.5116245 |
| Position Uncertainty: | 0.00 usft | Slot Radius:         | 13.20 in          | Grid Convergence: | -1.23 °      |

| Well                 | East Sauls Creek 35 3-1 |                |                     |                   |               |               |
|----------------------|-------------------------|----------------|---------------------|-------------------|---------------|---------------|
| Well Position        | +N/-S                   | -5,446.37 usft | Northing:           | 1,222,360.08 usft | Latitude:     | 37.2600439    |
|                      | +E/-W                   | 84.68 usft     | Easting:            | 2,414,796.92 usft | Longitude:    | -107.5109306  |
| Position Uncertainty |                         | 0.00 usft      | Wellhead Elevation: | 0.00 usft         | Ground Level: | 7,326.00 usft |

|                  |                         |                    |                    |                  |                       |
|------------------|-------------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | Lateral 1 (Lower Lemon) |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b>       | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  |                         |                    | (°)                | (°)              | (nT)                  |
|                  | HDGM                    | 11/15/2016         | 9.37               | 63.78            | 50,312                |

|                          |                         |              |                      |                  |  |
|--------------------------|-------------------------|--------------|----------------------|------------------|--|
| <b>Design</b>            | Plan #1                 |              |                      |                  |  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 2,768.05         |  |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |  |
|                          | (usft)                  | (usft)       | (usft)               | (°)              |  |
|                          | 0.00                    | 0.00         | 0.00                 | 87.83            |  |

|                      |                    |                |                 |               |               |                    |                    |                    |            |                      |
|----------------------|--------------------|----------------|-----------------|---------------|---------------|--------------------|--------------------|--------------------|------------|----------------------|
| <b>Plan Sections</b> |                    |                |                 |               |               |                    |                    |                    |            |                      |
| <b>Measured</b>      | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b>  | <b>+E/-W</b>  | <b>Dogleg</b>      | <b>Build</b>       | <b>Turn</b>        | <b>TFO</b> | <b>Target</b>        |
| <b>Depth</b>         | <b>(°)</b>         | <b>(°)</b>     | <b>Depth</b>    | <b>(usft)</b> | <b>(usft)</b> | <b>Rate</b>        | <b>Rate</b>        | <b>Rate</b>        | <b>(°)</b> |                      |
| <b>(usft)</b>        |                    |                | <b>(usft)</b>   |               |               | <b>(°/100usft)</b> | <b>(°/100usft)</b> | <b>(°/100usft)</b> |            |                      |
| 2,768.05             | 65.00              | 87.83          | 2,492.84        | 22.30         | 588.60        | 0.00               | 0.00               | 0.00               | 0.00       |                      |
| 2,946.04             | 82.80              | 87.83          | 2,542.00        | 28.76         | 758.80        | 10.00              | 10.00              | 0.00               | -0.02      |                      |
| 8,131.27             | 82.80              | 87.83          | 3,192.00        | 223.97        | 5,899.43      | 0.00               | 0.00               | 0.00               | 0.00       | ESC 35 3-1 Lat 1 (Lw |



|                  |                           |                                    |  |
|------------------|---------------------------|------------------------------------|--|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference</b> | Well East Sauls Creek 35 3-1                 |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>              | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>               | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Site:</b>     | East Sauls Creek Pad      | <b>North Reference:</b>            | Grid   |
| <b>Well:</b>     | East Sauls Creek 35 3-1   | <b>Survey Calculation Method:</b>  | Minimum Curvature                            |
| <b>Wellbore:</b> | Lateral 1 (Lower Lemon)   |                                    |  |
| <b>Design:</b>   | Plan #1                   |                                    |  |

| 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) |
| 2,768.05              | 65.00           | 87.83       | 2,492.84              | 22.30        | 588.60       | 589.03                  | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00              | 68.20           | 87.83       | 2,505.52              | 23.41        | 617.90       | 618.34                  | 10.00                   | 10.00                  | 0.00                  |
| 2,900.00              | 78.20           | 87.83       | 2,534.40              | 27.04        | 713.44       | 713.95                  | 10.00                   | 10.00                  | 0.00                  |
| 2,946.04              | 82.80           | 87.83       | 2,542.00              | 28.76        | 758.80       | 759.34                  | 10.00                   | 10.00                  | 0.00                  |
| 3,000.00              | 82.80           | 87.83       | 2,548.76              | 30.79        | 812.30       | 812.88                  | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00              | 82.80           | 87.83       | 2,561.30              | 34.56        | 911.44       | 912.09                  | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00              | 82.80           | 87.83       | 2,573.83              | 38.32        | 1,010.58     | 1,011.30                | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00              | 82.80           | 87.83       | 2,586.37              | 42.09        | 1,109.72     | 1,110.52                | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00              | 82.80           | 87.83       | 2,598.90              | 45.85        | 1,208.86     | 1,209.73                | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00              | 82.80           | 87.83       | 2,611.44              | 49.61        | 1,308.00     | 1,308.94                | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00              | 82.80           | 87.83       | 2,623.98              | 53.38        | 1,407.14     | 1,408.15                | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00              | 82.80           | 87.83       | 2,636.51              | 57.14        | 1,506.28     | 1,507.36                | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00              | 82.80           | 87.83       | 2,649.05              | 60.91        | 1,605.42     | 1,606.57                | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00              | 82.80           | 87.83       | 2,661.58              | 64.67        | 1,704.56     | 1,705.78                | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00              | 82.80           | 87.83       | 2,674.12              | 68.44        | 1,803.70     | 1,804.99                | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00              | 82.80           | 87.83       | 2,686.65              | 72.20        | 1,902.84     | 1,904.20                | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00              | 82.80           | 87.83       | 2,699.19              | 75.97        | 2,001.98     | 2,003.42                | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00              | 82.80           | 87.83       | 2,711.73              | 79.73        | 2,101.11     | 2,102.63                | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00              | 82.80           | 87.83       | 2,724.26              | 83.50        | 2,200.25     | 2,201.84                | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00              | 82.80           | 87.83       | 2,736.80              | 87.26        | 2,299.39     | 2,301.05                | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00              | 82.80           | 87.83       | 2,749.33              | 91.03        | 2,398.53     | 2,400.26                | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00              | 82.80           | 87.83       | 2,761.87              | 94.79        | 2,497.67     | 2,499.47                | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00              | 82.80           | 87.83       | 2,774.40              | 98.56        | 2,596.81     | 2,598.68                | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00              | 82.80           | 87.83       | 2,786.94              | 102.32       | 2,695.95     | 2,697.89                | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00              | 82.80           | 87.83       | 2,799.47              | 106.09       | 2,795.09     | 2,797.11                | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00              | 82.80           | 87.83       | 2,812.01              | 109.85       | 2,894.23     | 2,896.32                | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00              | 82.80           | 87.83       | 2,824.55              | 113.62       | 2,993.37     | 2,995.53                | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00              | 82.80           | 87.83       | 2,837.08              | 117.38       | 3,092.51     | 3,094.74                | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00              | 82.80           | 87.83       | 2,849.62              | 121.14       | 3,191.65     | 3,193.95                | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00              | 82.80           | 87.83       | 2,862.15              | 124.91       | 3,290.79     | 3,293.16                | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00              | 82.80           | 87.83       | 2,874.69              | 128.67       | 3,389.93     | 3,392.37                | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00              | 82.80           | 87.83       | 2,887.22              | 132.44       | 3,489.07     | 3,491.58                | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00              | 82.80           | 87.83       | 2,899.76              | 136.20       | 3,588.21     | 3,590.79                | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00              | 82.80           | 87.83       | 2,912.30              | 139.97       | 3,687.35     | 3,690.01                | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00              | 82.80           | 87.83       | 2,924.83              | 143.73       | 3,786.49     | 3,789.22                | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00              | 82.80           | 87.83       | 2,937.37              | 147.50       | 3,885.63     | 3,888.43                | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00              | 82.80           | 87.83       | 2,949.90              | 151.26       | 3,984.77     | 3,987.64                | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00              | 82.80           | 87.83       | 2,962.44              | 155.03       | 4,083.91     | 4,086.85                | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00              | 82.80           | 87.83       | 2,974.97              | 158.79       | 4,183.05     | 4,186.06                | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00              | 82.80           | 87.83       | 2,987.51              | 162.56       | 4,282.19     | 4,285.27                | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00              | 82.80           | 87.83       | 3,000.04              | 166.32       | 4,381.33     | 4,384.48                | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00              | 82.80           | 87.83       | 3,012.58              | 170.09       | 4,480.47     | 4,483.70                | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00              | 82.80           | 87.83       | 3,025.12              | 173.85       | 4,579.61     | 4,582.91                | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00              | 82.80           | 87.83       | 3,037.65              | 177.62       | 4,678.75     | 4,682.12                | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00              | 82.80           | 87.83       | 3,050.19              | 181.38       | 4,777.89     | 4,781.33                | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00              | 82.80           | 87.83       | 3,062.72              | 185.15       | 4,877.03     | 4,880.54                | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00              | 82.80           | 87.83       | 3,075.26              | 188.91       | 4,976.17     | 4,979.75                | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00              | 82.80           | 87.83       | 3,087.79              | 192.67       | 5,075.31     | 5,078.96                | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00              | 82.80           | 87.83       | 3,100.33              | 196.44       | 5,174.45     | 5,178.17                | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00              | 82.80           | 87.83       | 3,112.87              | 200.20       | 5,273.59     | 5,277.39                | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00              | 82.80           | 87.83       | 3,125.40              | 203.97       | 5,372.73     | 5,376.60                | 0.00                    | 0.00                   | 0.00                  |



|                  |                           |                                    |  |
|------------------|---------------------------|------------------------------------|--|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference</b> | Well East Sauls Creek 35 3-1                 |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>              | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>               | GL 7326' & RKB 11' @ 7337.00usft (Aztec 507) |
| <b>Site:</b>     | East Sauls Creek Pad      | <b>North Reference:</b>            | Grid   |
| <b>Well:</b>     | East Sauls Creek 35 3-1   | <b>Survey Calculation Method:</b>  | Minimum Curvature                            |
| <b>Wellbore:</b> | Lateral 1 (Lower Lemon)   |                                    |  |
| <b>Design:</b>   | Plan #1                   |                                    |  |

| Planned Survey   |                 |             |                       |              |              |                         |                         |                        |                       |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)  | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 7,700.00   | 82.80           | 87.83       | 3,137.94              | 207.73       | 5,471.87     | 5,475.81                | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00   | 82.80           | 87.83       | 3,150.47              | 211.50       | 5,571.01     | 5,575.02                | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00   | 82.80           | 87.83       | 3,163.01              | 215.26       | 5,670.15     | 5,674.23                | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00   | 82.80           | 87.83       | 3,175.54              | 219.03       | 5,769.28     | 5,773.44                | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00   | 82.80           | 87.83       | 3,188.08              | 222.79       | 5,868.42     | 5,872.65                | 0.00                    | 0.00                   | 0.00                  |
| 8,120.37   | 82.80           | 87.83       | 3,190.63              | 223.56       | 5,888.62     | 5,892.86                | 0.00                    | 0.00                   | 0.00                  |
| <b>ESC 35 3-1 Lat 3 (Bayfield) PBHL</b>                                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,131.27   | 82.80           | 87.83       | 3,192.00              | 223.97       | 5,899.43     | 5,903.68                | 0.00                    | 0.00                   | 0.00                  |
| <b>ESC 35 3-1 Lat 2 (Lemon) PBHL - ESC 35 3-1 Lat 1 (Lwr Lemon) PBHL</b> |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets            |               |              |            |              |              |                 |                |            |              |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------|--------------|
| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |
| - hit/miss target         |               |              |            |              |              |                 |                |            |              |
| - Shape                   |               |              |            |              |              |                 |                |            |              |
| ESC 35 3-1 Lat 1 (Lwr L   | 0.00          | 0.00         | 3,192.00   | 223.97       | 5,899.43     | 1,222,584.05    | 2,420,696.35   | 37.2610059 | -107.4906810 |
| - plan hits target center |               |              |            |              |              |                 |                |            |              |
| - Point                   |               |              |            |              |              |                 |                |            |              |