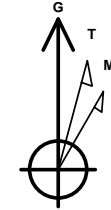




Company: B.P.  
Project: La Plata County, CO NAD83  
Site: Tiffany Pad  
Well: Tiffany 1-3  
Wellbore: Lateral 1  
Design: Plan #1

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



Azimuths to Grid North  
True North: 1.26°  
Magnetic North: 10.56°

Magnetic Field  
Strength: 50285.2snT  
Dip Angle: 63.67°  
Date: 12/7/2015  
Model: HDGM

WELL DETAILS: Tiffany 1-3

GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507)

| +N/-S | +E/-W | Northing   | Easting    | Latitude   | Longitude    |
|-------|-------|------------|------------|------------|--------------|
| 0.00  | 0.00  | 1165033.91 | 2400363.16 | 37.1017781 | -107.5561779 |

C

Plan: Plan #1 (Tiffany 1-3/Lateral 1)

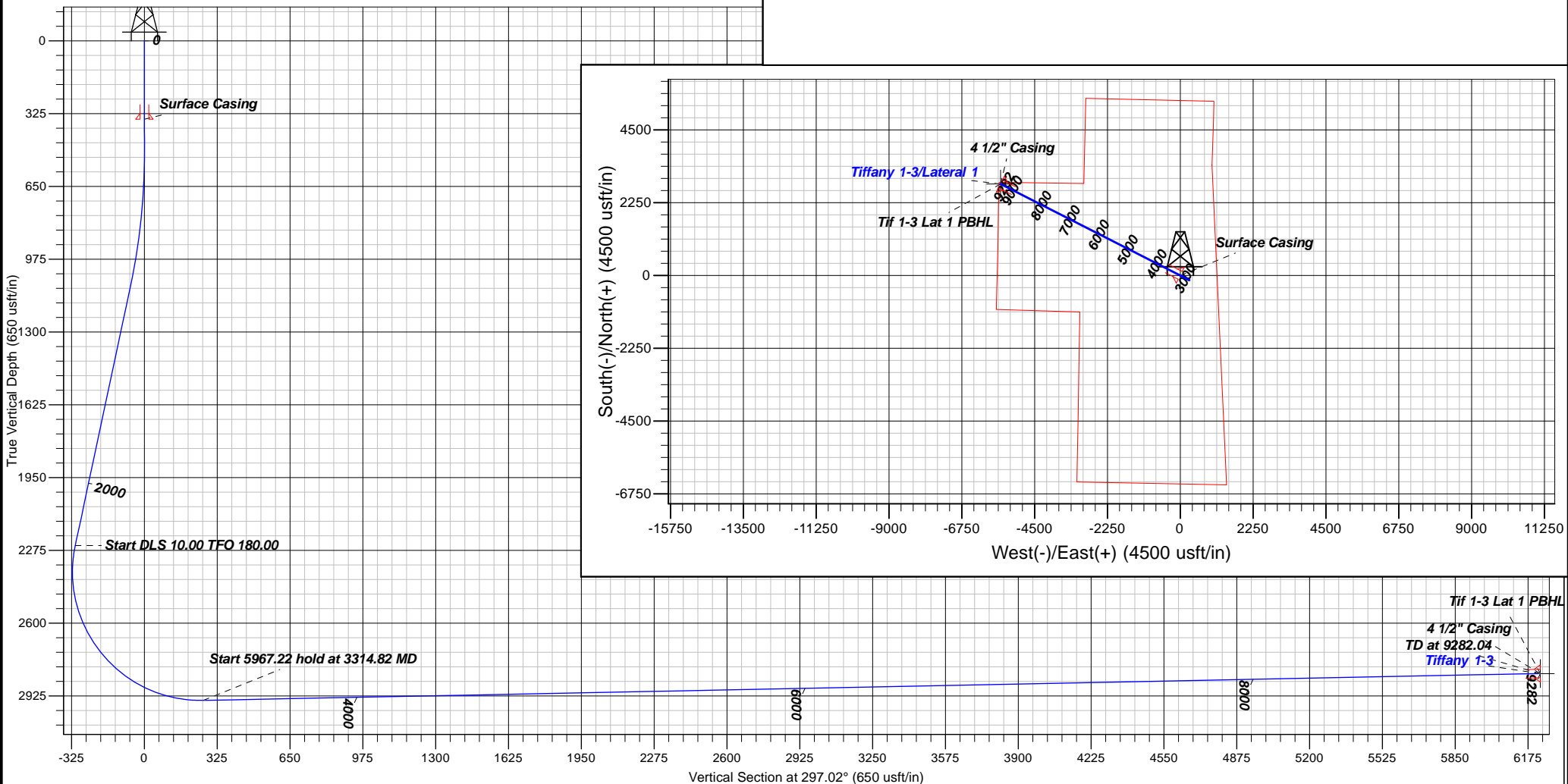
Created By: Janie Collins Date: 15:46, December 21 2015

DESIGN TARGET DETAILS

| Name               | TVD     | +N/-S   | +E/-W    | Northing   | Easting    | Latitude   | Longitude    |
|--------------------|---------|---------|----------|------------|------------|------------|--------------|
| Tif 1-3 Lat 1 PBHL | 2825.00 | 2829.87 | -5549.28 | 1167863.78 | 2394813.88 | 37.1092111 | -107.5754159 |

SECTION DETAILS

| MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W    | Dleg  | TFace  | Vsect   | Target             | Annotation |
|---------|-------|--------|---------|---------|----------|-------|--------|---------|--------------------|------------|
| 2283.22 | 12.01 | 117.02 | 2252.95 | -140.27 | 275.07   | 0.00  | 0.00   | -308.77 |                    |            |
| 3314.82 | 91.15 | 297.02 | 2945.00 | 119.55  | -234.45  | 10.00 | 180.00 | 263.17  |                    |            |
| 9282.04 | 91.15 | 297.02 | 2825.00 | 2829.87 | -5549.28 | 0.00  | 0.00   | 6229.18 | Tif 1-3 Lat 1 PBHL |            |





**B.P.**

**La Plata County, CO NAD83**

**Tiffany Pad**

**Tiffany 1-3 - Slot C**

**Lateral 1**

**Plan: Plan #1**

## **Standard Planning Report**

**21 December, 2015**





|                  |                           |                                     |                                                 |
|------------------|---------------------------|-------------------------------------|-------------------------------------------------|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference:</b> | Well Tiffany 1-3 - Slot C                       |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>               | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>                | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Site:</b>     | Tiffany Pad               | <b>North Reference:</b>             | Grid                                            |
| <b>Well:</b>     | Tiffany 1-3               | <b>Survey Calculation Method:</b>   | Minimum Curvature                               |
| <b>Wellbore:</b> | Lateral 1                 |                                     |                                                 |
| <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                  |           | Tiffany Pad  |                   |                   |              |
| Site Position:        |           | Northing:    | 1,165,118.91 usft | Latitude:         | 37.1020115   |
| From:                 | Map       | Easting:     | 2,400,363.16 usft | Longitude:        | -107.5561843 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.20 in          | Grid Convergence: | -1.26 °      |

| Well                 | Tiffany 1-3 - Slot C |             |                     |                   |               |               |
|----------------------|----------------------|-------------|---------------------|-------------------|---------------|---------------|
| Well Position        | +N/-S                | -85.00 usft | Northing:           | 1,165,033.91 usft | Latitude:     | 37.1017781    |
|                      | +E/-W                | 0.00 usft   | Easting:            | 2,400,363.16 usft | Longitude:    | -107.5561779  |
| Position Uncertainty |                      | 0.00 usft   | Wellhead Elevation: | 0.00 usft         | Ground Level: | 6,479.14 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Lateral 1         |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM              | 12/7/2015          | 9.30                   | 63.67                | 50,285                     |

|                          |                                |                     |                     |                      |          |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|----------|
| <b>Design</b>            | Plan #1                        |                     |                     |                      |          |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |          |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                |                     | <b>Tie On Depth:</b> | 2,283.22 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |          |
|                          | 0.00                           | 0.00                | 0.00                | 297.02               |          |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                    |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------------------|
| 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             |
| 2,283.22              | 12.01           | 117.02      | 2,252.95              | -140.27      | 275.07       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 3,314.82              | 91.15           | 297.02      | 2,945.00              | 119.55       | -234.45      | 10.00                   | 7.67                   | 17.45                 | 180.00  |                    |
| 9,282.04              | 91.15           | 297.02      | 2,825.00              | 2,829.87     | -5,549.28    | 0.00                    | 0.00                   | 0.00                  | 0.00    | Tif 1-3 Lat 1 PBHL |



|                  |                           |                                     |                                                 |
|------------------|---------------------------|-------------------------------------|-------------------------------------------------|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference:</b> | Well Tiffany 1-3 - Slot C                       |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>               | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>                | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Site:</b>     | Tiffany Pad               | <b>North Reference:</b>             | Grid                                            |
| <b>Well:</b>     | Tiffany 1-3               | <b>Survey Calculation Method:</b>   | Minimum Curvature                               |
| <b>Wellbore:</b> | Lateral 1                 |                                     |                                                 |
| <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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 2,283.22              | 12.01           | 117.02      | 2,252.95              | -140.27      | 275.07       | -308.77                 | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00              | 10.33           | 117.02      | 2,269.41              | -141.75      | 277.97       | -312.02                 | 10.00                   | -10.00                 | 0.00                  |
| 2,400.00              | 0.33            | 117.03      | 2,368.85              | -145.97      | 286.23       | -321.30                 | 10.00                   | -10.00                 | 0.01                  |
| 2,500.00              | 9.67            | 297.02      | 2,468.40              | -142.27      | 278.99       | -313.17                 | 10.00                   | 9.34                   | 179.99                |
| 2,600.00              | 19.67           | 297.02      | 2,565.01              | -130.78      | 256.46       | -287.88                 | 10.00                   | 10.00                  | 0.00                  |
| 2,700.00              | 29.67           | 297.02      | 2,655.77              | -111.84      | 219.32       | -246.19                 | 10.00                   | 10.00                  | 0.00                  |
| 2,800.00              | 39.67           | 297.02      | 2,737.91              | -86.03       | 168.71       | -189.38                 | 10.00                   | 10.00                  | 0.00                  |
| 2,900.00              | 49.67           | 297.02      | 2,808.94              | -54.14       | 106.16       | -119.17                 | 10.00                   | 10.00                  | 0.00                  |
| 3,000.00              | 59.67           | 297.02      | 2,866.69              | -17.12       | 33.57        | -37.69                  | 10.00                   | 10.00                  | 0.00                  |
| 3,100.00              | 69.67           | 297.02      | 2,909.42              | 23.89        | -46.85       | 52.59                   | 10.00                   | 10.00                  | 0.00                  |
| 3,200.00              | 79.67           | 297.02      | 2,935.83              | 67.65        | -132.65      | 148.90                  | 10.00                   | 10.00                  | 0.00                  |
| 3,300.00              | 89.67           | 297.02      | 2,945.10              | 112.82       | -221.24      | 248.35                  | 10.00                   | 10.00                  | 0.00                  |
| 3,314.82              | 91.15           | 297.02      | 2,945.00              | 119.55       | -234.45      | 263.17                  | 10.00                   | 10.00                  | 0.00                  |
| 3,400.00              | 91.15           | 297.02      | 2,943.29              | 158.24       | -310.31      | 348.33                  | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00              | 91.15           | 297.02      | 2,941.27              | 203.66       | -399.38      | 448.31                  | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00              | 91.15           | 297.02      | 2,939.26              | 249.08       | -488.44      | 548.29                  | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00              | 91.15           | 297.02      | 2,937.25              | 294.50       | -577.51      | 648.27                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00              | 91.15           | 297.02      | 2,935.24              | 339.92       | -666.58      | 748.25                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00              | 91.15           | 297.02      | 2,933.23              | 385.34       | -755.65      | 848.23                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00              | 91.15           | 297.02      | 2,931.22              | 430.76       | -844.71      | 948.21                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00              | 91.15           | 297.02      | 2,929.21              | 476.18       | -933.78      | 1,048.19                | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00              | 91.15           | 297.02      | 2,927.20              | 521.60       | -1,022.85    | 1,148.17                | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00              | 91.15           | 297.02      | 2,925.19              | 567.02       | -1,111.91    | 1,248.15                | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00              | 91.15           | 297.02      | 2,923.18              | 612.44       | -1,200.98    | 1,348.13                | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00              | 91.15           | 297.02      | 2,921.16              | 657.86       | -1,290.05    | 1,448.11                | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00              | 91.15           | 297.02      | 2,919.15              | 703.28       | -1,379.12    | 1,548.09                | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00              | 91.15           | 297.02      | 2,917.14              | 748.70       | -1,468.18    | 1,648.07                | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00              | 91.15           | 297.02      | 2,915.13              | 794.12       | -1,557.25    | 1,748.05                | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00              | 91.15           | 297.02      | 2,913.12              | 839.54       | -1,646.32    | 1,848.02                | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00              | 91.15           | 297.02      | 2,911.11              | 884.96       | -1,735.39    | 1,948.00                | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00              | 91.15           | 297.02      | 2,909.10              | 930.38       | -1,824.45    | 2,047.98                | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00              | 91.15           | 297.02      | 2,907.09              | 975.80       | -1,913.52    | 2,147.96                | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00              | 91.15           | 297.02      | 2,905.08              | 1,021.22     | -2,002.59    | 2,247.94                | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00              | 91.15           | 297.02      | 2,903.07              | 1,066.64     | -2,091.65    | 2,347.92                | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00              | 91.15           | 297.02      | 2,901.06              | 1,112.06     | -2,180.72    | 2,447.90                | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00              | 91.15           | 297.02      | 2,899.04              | 1,157.48     | -2,269.79    | 2,547.88                | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00              | 91.15           | 297.02      | 2,897.03              | 1,202.90     | -2,358.86    | 2,647.86                | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00              | 91.15           | 297.02      | 2,895.02              | 1,248.32     | -2,447.92    | 2,747.84                | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00              | 91.15           | 297.02      | 2,893.01              | 1,293.74     | -2,536.99    | 2,847.82                | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00              | 91.15           | 297.02      | 2,891.00              | 1,339.16     | -2,626.06    | 2,947.80                | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00              | 91.15           | 297.02      | 2,888.99              | 1,384.58     | -2,715.12    | 3,047.78                | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00              | 91.15           | 297.02      | 2,886.98              | 1,430.00     | -2,804.19    | 3,147.76                | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00              | 91.15           | 297.02      | 2,884.97              | 1,475.42     | -2,893.26    | 3,247.74                | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00              | 91.15           | 297.02      | 2,882.96              | 1,520.84     | -2,982.33    | 3,347.72                | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00              | 91.15           | 297.02      | 2,880.95              | 1,566.26     | -3,071.39    | 3,447.70                | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00              | 91.15           | 297.02      | 2,878.93              | 1,611.68     | -3,160.46    | 3,547.68                | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00              | 91.15           | 297.02      | 2,876.92              | 1,657.10     | -3,249.53    | 3,647.66                | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00              | 91.15           | 297.02      | 2,874.91              | 1,702.52     | -3,338.60    | 3,747.64                | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00              | 91.15           | 297.02      | 2,872.90              | 1,747.95     | -3,427.66    | 3,847.62                | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00              | 91.15           | 297.02      | 2,870.89              | 1,793.37     | -3,516.73    | 3,947.60                | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00              | 91.15           | 297.02      | 2,868.88              | 1,838.79     | -3,605.80    | 4,047.58                | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00              | 91.15           | 297.02      | 2,866.87              | 1,884.21     | -3,694.86    | 4,147.56                | 0.00                    | 0.00                   | 0.00                  |



|                  |                           |                                     |                                                 |
|------------------|---------------------------|-------------------------------------|-------------------------------------------------|
| <b>Database:</b> | Grand Junction District   | <b>Local Co-ordinate Reference:</b> | Well Tiffany 1-3 - Slot C                       |
| <b>Company:</b>  | B.P.                      | <b>TVD Reference:</b>               | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Project:</b>  | La Plata County, CO NAD83 | <b>MD Reference:</b>                | GL 6479.14' & RKB 11' @ 6490.14usft (Aztec 507) |
| <b>Site:</b>     | Tiffany Pad               | <b>North Reference:</b>             | Grid                                            |
| <b>Well:</b>     | Tiffany 1-3               | <b>Survey Calculation Method:</b>   | Minimum Curvature                               |
| <b>Wellbore:</b> | Lateral 1                 |                                     |                                                 |
| <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) |
|------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 7,300.00                           | 91.15           | 297.02      | 2,864.86              | 1,929.63     | -3,783.93    | 4,247.54                | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                           | 91.15           | 297.02      | 2,862.85              | 1,975.05     | -3,873.00    | 4,347.52                | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00                           | 91.15           | 297.02      | 2,860.84              | 2,020.47     | -3,962.07    | 4,447.50                | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00                           | 91.15           | 297.02      | 2,858.83              | 2,065.89     | -4,051.13    | 4,547.48                | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00                           | 91.15           | 297.02      | 2,856.81              | 2,111.31     | -4,140.20    | 4,647.46                | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00                           | 91.15           | 297.02      | 2,854.80              | 2,156.73     | -4,229.27    | 4,747.44                | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00                           | 91.15           | 297.02      | 2,852.79              | 2,202.15     | -4,318.33    | 4,847.42                | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                           | 91.15           | 297.02      | 2,850.78              | 2,247.57     | -4,407.40    | 4,947.40                | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00                           | 91.15           | 297.02      | 2,848.77              | 2,292.99     | -4,496.47    | 5,047.38                | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00                           | 91.15           | 297.02      | 2,846.76              | 2,338.41     | -4,585.54    | 5,147.36                | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00                           | 91.15           | 297.02      | 2,844.75              | 2,383.83     | -4,674.60    | 5,247.34                | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00                           | 91.15           | 297.02      | 2,842.74              | 2,429.25     | -4,763.67    | 5,347.32                | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00                           | 91.15           | 297.02      | 2,840.73              | 2,474.67     | -4,852.74    | 5,447.30                | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00                           | 91.15           | 297.02      | 2,838.72              | 2,520.09     | -4,941.81    | 5,547.28                | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00                           | 91.15           | 297.02      | 2,836.70              | 2,565.51     | -5,030.87    | 5,647.26                | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00                           | 91.15           | 297.02      | 2,834.69              | 2,610.93     | -5,119.94    | 5,747.24                | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00                           | 91.15           | 297.02      | 2,832.68              | 2,656.35     | -5,209.01    | 5,847.22                | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00                           | 91.15           | 297.02      | 2,830.67              | 2,701.77     | -5,298.07    | 5,947.20                | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00                           | 91.15           | 297.02      | 2,828.66              | 2,747.19     | -5,387.14    | 6,047.18                | 0.00                    | 0.00                   | 0.00                  |
| 9,200.00                           | 91.15           | 297.02      | 2,826.65              | 2,792.61     | -5,476.21    | 6,147.16                | 0.00                    | 0.00                   | 0.00                  |
| 9,282.04                           | 91.15           | 297.02      | 2,825.00              | 2,829.87     | -5,549.28    | 6,229.18                | 0.00                    | 0.00                   | 0.00                  |
| 4 1/2" Casing - Tif 1-3 Lat 1 PBHL |                 |             |                       |              |              |                         |                         |                        |                       |

**Design Targets**

| Target Name<br>- hit/miss target<br>- Shape                | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |
|------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------|--------------|
| Tif 1-3 Lat 1 PBHL<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 2,825.00   | 2,829.87     | -5,549.28    | 1,167,863.78    | 2,394,813.88   | 37.1092111 | -107.5754159 |

**Casing Points**

| Measured Depth (usft) | Vertical Depth (usft) | Name           | Casing Diameter (in) | Hole Diameter (in) |
|-----------------------|-----------------------|----------------|----------------------|--------------------|
| 350.00                | 350.00                | Surface Casing | 9.62                 | 12.25              |
| 9,282.04              | 2,825.00              | 4 1/2" Casing  | 4.50                 | 6.13               |