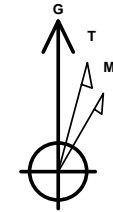




Company: B.P.
Project: La Plata County, CO NAD83
Site: Arthur Jones Pad
Well: Arthur Jones H A3
Wellbore: Lateral 1
Design: Plan #3

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: 1.28°
Magnetic North: 10.58°

Magnetic Field
Strength: 50292.2snT
Dip Angle: 63.67°
Date: 9/15/2015
Model: HDGM

WELL DETAILS: Arthur Jones H A3

GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507)

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-------|-------|------------|------------|------------|--------------|
| 0.00 | 0.00 | 1156462.25 | 2392254.18 | 37.0777494 | -107.5833193 |

Plan: Plan #3 (Arthur Jones H A3/Lateral 1)

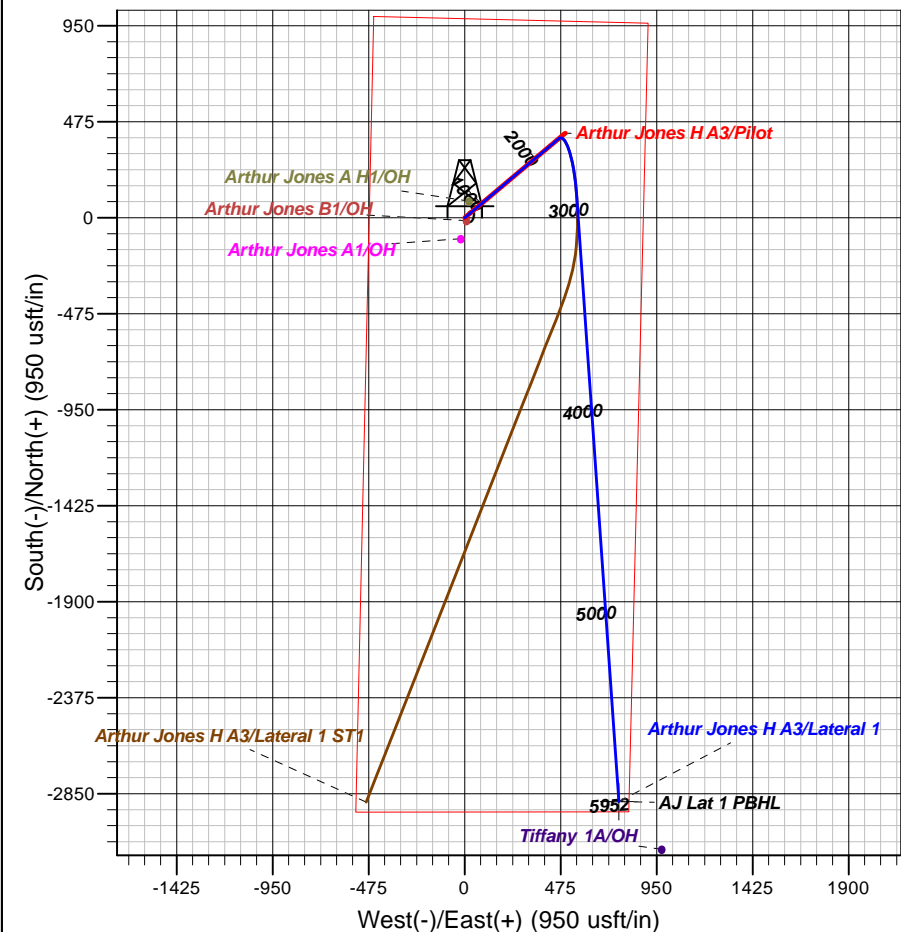
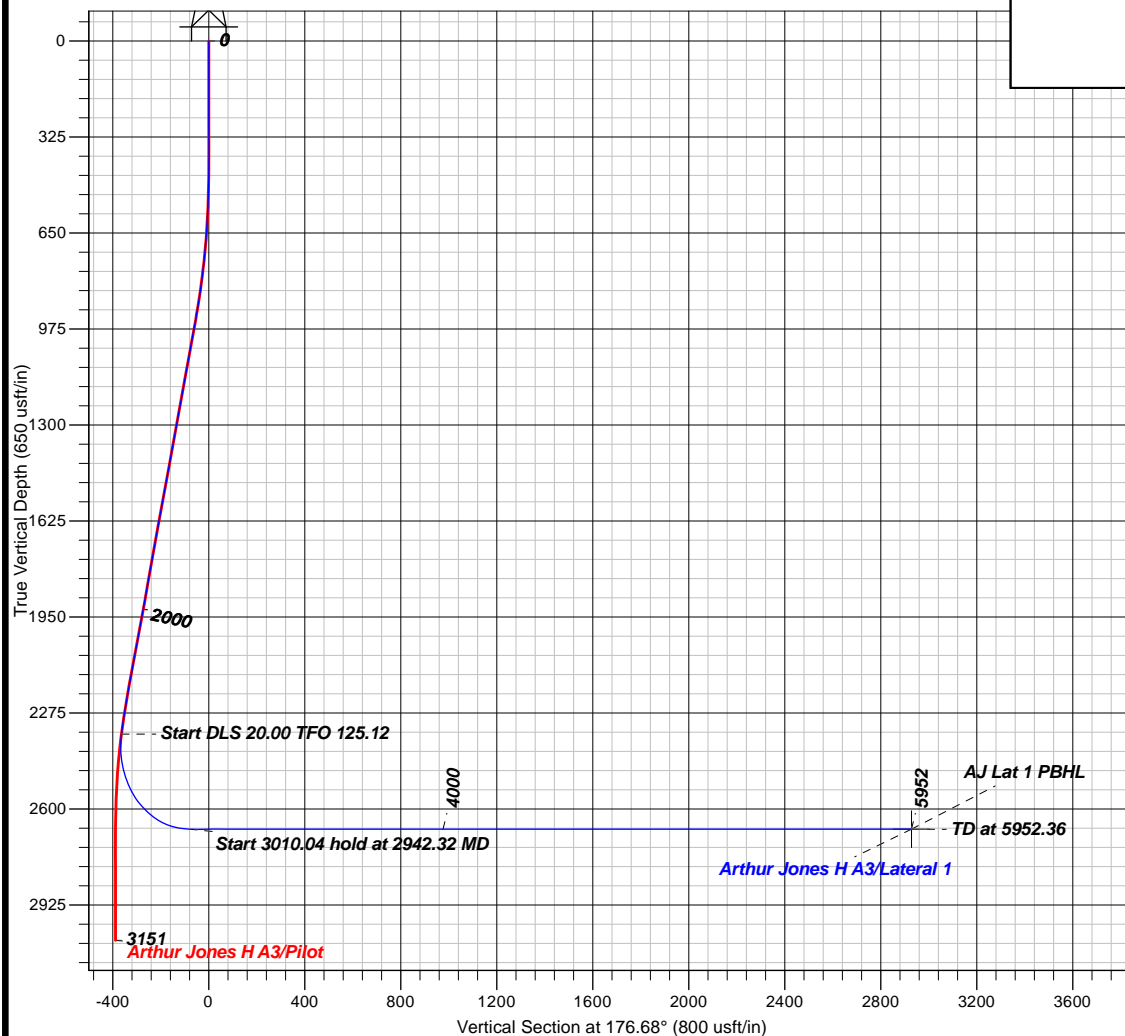
Created By: Janie Collins Date: 11:12, September 28 2015

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---------------|---------|----------|--------|------------|------------|------------|--------------|
| AJ Lat 1 PBHL | 2668.00 | -2889.41 | 763.16 | 1153572.84 | 2393017.34 | 37.0698627 | -107.5804835 |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target | Annotation |
|---------|-------|--------|---------|----------|--------|-------|--------|---------|---------------|------------|
| 2449.57 | 14.65 | 50.00 | 2346.04 | 391.21 | 466.23 | 0.00 | 0.00 | -363.56 | | |
| 2942.32 | 90.00 | 176.01 | 2668.00 | 113.34 | 553.83 | 20.00 | 125.12 | -81.07 | | |
| 5952.36 | 90.00 | 176.01 | 2668.00 | -2889.41 | 763.16 | 0.00 | 0.00 | 2928.76 | AJ Lat 1 PBHL | |





B.P.

La Plata County, CO NAD83

Arthur Jones Pad

Arthur Jones H A3

Lateral 1

Plan: Plan #3

Standard Planning Report

28 September, 2015





| | | | |
|------------------|---------------------------|------------------------------------|---|
| Database: | Grand Junction District | Local Co-ordinate Reference | Well Arthur Jones H A3 |
| Company: | B.P. | TVD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Project: | La Plata County, CO NAD83 | MD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Site: | Arthur Jones Pad | North Reference: | Grid |
| Well: | Arthur Jones H A3 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Lateral 1 | | |
| Design: | Plan #3 | | |

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

| | | | | | |
|-----------------------|-----------|------------------|-------------------|-------------------|--------------|
| Site | | Arthur Jones Pad | | | |
| Site Position: | | Northing: | 1,156,462.25 usft | Latitude: | 37.0777494 |
| From: | Map | Easting: | 2,392,254.18 usft | Longitude: | -107.5833193 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.20 in | Grid Convergence: | -1.28 ° |

| | | | | | | |
|----------------------|-------------------|-----------|---------------------|-------------------|---------------|---------------|
| Well | Arthur Jones H A3 | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 1,156,462.25 usft | Latitude: | 37.0777494 |
| | +E/-W | 0.00 usft | Easting: | 2,392,254.18 usft | Longitude: | -107.5833193 |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 6,503.17 usft |

| | | | | | |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| Wellbore | Lateral 1 | | | | |
| Magnetics | Model Name | Sample Date | Declination | Dip Angle | Field Strength |
| | | | (°) | (°) | (nT) |
| | HDGM | 9/15/2015 | 9.30 | 63.67 | 50,292 |

| | | | | | |
|--------------------------|-------------------------|--------------|--------------|----------------------|----------|
| Design | Plan #3 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PLAN | | Tie On Depth: | 2,449.57 |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W | Direction | |
| | (usft) | (usft) | (usft) | (°) | |
| | 0.00 | 0.00 | 0.00 | 176.68 | |

| | | | | | | | | | | |
|----------------------|--------------------|----------------|-----------------|---------------|---------------|--------------------|--------------------|--------------------|------------|---------------|
| Plan Sections | | | | | | | | | | |
| Measured | Inclination | Azimuth | Vertical | +N/-S | +E/-W | Dogleg | Build | Turn | TFO | Target |
| Depth | (°) | (°) | Depth | (usft) | (usft) | Rate | Rate | Rate | (°) | |
| (usft) | | | (usft) | | | (°/100usft) | (°/100usft) | (°/100usft) | | |
| 2,449.57 | 14.65 | 50.00 | 2,346.04 | 391.21 | 466.23 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,942.32 | 90.00 | 176.01 | 2,668.00 | 113.34 | 553.83 | 20.00 | 15.29 | 25.57 | 125.12 | |
| 5,952.36 | 90.00 | 176.01 | 2,668.00 | -2,889.41 | 763.16 | 0.00 | 0.00 | 0.00 | 0.00 | AJ Lat 1 PBHL |



| | | | |
|------------------|---------------------------|------------------------------------|---|
| Database: | Grand Junction District | Local Co-ordinate Reference | Well Arthur Jones H A3 |
| Company: | B.P. | TVD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Project: | La Plata County, CO NAD83 | MD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Site: | Arthur Jones Pad | North Reference: | Grid |
| Well: | Arthur Jones H A3 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Lateral 1 | | |
| Design: | Plan #3 | | |

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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 2,449.57 | 14.65 | 50.00 | 2,346.04 | 391.21 | 466.23 | -363.56 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 12.03 | 93.40 | 2,395.23 | 395.01 | 476.39 | -366.76 | 20.00 | -5.18 | 86.06 |
| 2,600.00 | 24.48 | 148.35 | 2,490.60 | 376.56 | 497.89 | -347.10 | 20.00 | 12.45 | 54.95 |
| 2,700.00 | 42.92 | 162.87 | 2,573.57 | 325.87 | 519.00 | -295.27 | 20.00 | 18.43 | 14.52 |
| 2,800.00 | 62.21 | 169.61 | 2,634.11 | 249.05 | 537.19 | -217.52 | 20.00 | 19.29 | 6.74 |
| 2,900.00 | 81.72 | 174.25 | 2,664.94 | 155.36 | 550.25 | -123.23 | 20.00 | 19.51 | 4.64 |
| 2,942.32 | 90.00 | 176.01 | 2,668.00 | 113.34 | 553.83 | -81.07 | 20.00 | 19.56 | 4.17 |
| 3,000.00 | 90.00 | 176.01 | 2,668.00 | 55.80 | 557.84 | -23.40 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 90.00 | 176.01 | 2,668.00 | -43.96 | 564.80 | 76.60 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 90.00 | 176.01 | 2,668.00 | -143.72 | 571.75 | 176.59 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 90.00 | 176.01 | 2,668.00 | -243.48 | 578.71 | 276.58 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 90.00 | 176.01 | 2,668.00 | -343.23 | 585.66 | 376.58 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 90.00 | 176.01 | 2,668.00 | -442.99 | 592.61 | 476.57 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 90.00 | 176.01 | 2,668.00 | -542.75 | 599.57 | 576.56 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 90.00 | 176.01 | 2,668.00 | -642.51 | 606.52 | 676.55 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 90.00 | 176.01 | 2,668.00 | -742.27 | 613.48 | 776.55 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 90.00 | 176.01 | 2,668.00 | -842.02 | 620.43 | 876.54 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 90.00 | 176.01 | 2,668.00 | -941.78 | 627.39 | 976.53 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 90.00 | 176.01 | 2,668.00 | -1,041.54 | 634.34 | 1,076.53 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 90.00 | 176.01 | 2,668.00 | -1,141.30 | 641.29 | 1,176.52 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 90.00 | 176.01 | 2,668.00 | -1,241.06 | 648.25 | 1,276.51 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 90.00 | 176.01 | 2,668.00 | -1,340.81 | 655.20 | 1,376.51 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 90.00 | 176.01 | 2,668.00 | -1,440.57 | 662.16 | 1,476.50 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 90.00 | 176.01 | 2,668.00 | -1,540.33 | 669.11 | 1,576.49 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 90.00 | 176.01 | 2,668.00 | -1,640.09 | 676.07 | 1,676.49 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 90.00 | 176.01 | 2,668.00 | -1,739.84 | 683.02 | 1,776.48 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 90.00 | 176.01 | 2,668.00 | -1,839.60 | 689.98 | 1,876.47 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 90.00 | 176.01 | 2,668.00 | -1,939.36 | 696.93 | 1,976.47 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 90.00 | 176.01 | 2,668.00 | -2,039.12 | 703.88 | 2,076.46 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 90.00 | 176.01 | 2,668.00 | -2,138.88 | 710.84 | 2,176.45 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 90.00 | 176.01 | 2,668.00 | -2,238.63 | 717.79 | 2,276.45 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 90.00 | 176.01 | 2,668.00 | -2,338.39 | 724.75 | 2,376.44 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 90.00 | 176.01 | 2,668.00 | -2,438.15 | 731.70 | 2,476.43 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 90.00 | 176.01 | 2,668.00 | -2,537.91 | 738.66 | 2,576.43 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 90.00 | 176.01 | 2,668.00 | -2,637.67 | 745.61 | 2,676.42 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 90.00 | 176.01 | 2,668.00 | -2,737.42 | 752.56 | 2,776.41 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 90.00 | 176.01 | 2,668.00 | -2,837.18 | 759.52 | 2,876.41 | 0.00 | 0.00 | 0.00 |
| 5,952.36 | 90.00 | 176.01 | 2,668.00 | -2,889.41 | 763.16 | 2,928.76 | 0.00 | 0.00 | 0.00 |
| AJ Lat 1 PBHL | | | | | | | | | |

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 | | | | | | | | | |
| AJ Lat 1 PBHL | 0.00 | 360.00 | 2,668.00 | -2,889.41 | 763.16 | 1,153,572.84 | 2,393,017.34 | 37.0698627 | -107.5804835 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |



| | | | |
|------------------|---------------------------|------------------------------------|---|
| Database: | Grand Junction District | Local Co-ordinate Reference | Well Arthur Jones H A3 |
| Company: | B.P. | TVD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Project: | La Plata County, CO NAD83 | MD Reference: | GL 6503.17' & RKB 11' @ 6514.17usft (Aztec 507) |
| Site: | Arthur Jones Pad | North Reference: | Grid |
| Well: | Arthur Jones H A3 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Lateral 1 | | |
| Design: | Plan #3 | | |