

PICEANCE VLY NAD 83

RU 06-07S-093W

RU 13-6 Pad

RU 324-6 - Slot A04

Wellbore #1

Plan: Design #2 2Nov15 sam

Standard Planning Report

09 November, 2015

WPX

Planning Report

| | | | |
|------------------|----------------------|-------------------------------------|--------------------------------|
| Database: | COMPASS | Local Co-ordinate Reference: | Well RU 324-6 (A04) - Slot A04 |
| Company: | PICEANCE VLY NAD 83 | TVD Reference: | KB @ 7009.00usft (HP 318) |
| Project: | RU 06-07S-093W | MD Reference: | KB @ 7009.00usft (HP 318) |
| Site: | RU 13-6 Pad | North Reference: | True |
| Well: | RU 324-6 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 2Nov15 sam | | |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | RU 06-07S-093W | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | Using geodetic scale factor |

| | | | | |
|------------------------------|-------------|---------------------|-------------------|----------------------------------|
| Site | RU 13-6 Pad | | | |
| Site Position: | | Northing: | 1,603,405.40 usft | Latitude: 39.467067 |
| From: Map | | Easting: | 2,343,761.30 usft | Longitude: -107.824733 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.200 in | Grid Convergence: -1.47 ° |

| | | | | |
|-----------------------------|---------------------|------------|----------------------------|-------------------|
| Well | RU 324-6 - Slot A04 | | | |
| Well Position | +N/-S | 21.99 usft | Northing: | 1,603,427.50 usft |
| | +E/-W | -4.66 usft | Easting: | 2,343,757.20 usft |
| Position Uncertainty | 0.00 usft | | Wellhead Elevation: | 0.00 usft |
| | | | Ground Level: | 6,985.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 7/17/2014 | 9.87 | 65.66 | 51,937 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------------|
| Design | Design #2 2Nov15 sam | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (bearing) |
| | 0.00 | 0.00 | 0.00 | 84.76 |

| Plan Sections | | | | | | | | | | |
|-----------------------|-----------------|-------------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (bearing) | 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 | |
| 154.00 | 0.00 | 0.00 | 154.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 719.60 | 16.97 | 84.76 | 711.37 | 7.59 | 82.79 | 3.00 | 3.00 | 0.00 | 84.76 | |
| 5,387.70 | 16.97 | 84.76 | 5,176.25 | 131.94 | 1,439.44 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,518.91 | 0.00 | 0.00 | 6,291.00 | 147.12 | 1,605.03 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 7,218.91 | 0.00 | 0.00 | 6,991.00 | 147.12 | 1,605.03 | 0.00 | 0.00 | 0.00 | 0.00 | RU 324-6 Top Gas 50 |
| 9,433.91 | 0.00 | 0.00 | 9,206.00 | 147.12 | 1,605.03 | 0.00 | 0.00 | 0.00 | 0.00 | |

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| Project: | RU 06-07S-093W | MD Reference: | KB @ 7009.00usft (HP 318) |
| Site: | RU 13-6 Pad | North Reference: | True |
| Well: | RU 324-6 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 2Nov15 sam | | |

| Planned Survey | | | | | | | | | |
|--|-----------------|-------------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (bearing) | 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 |
| 154.00 | 0.00 | 0.00 | 154.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start Build 3.00 | | | | | | | | | |
| 500.00 | 10.38 | 84.76 | 498.11 | 2.85 | 31.13 | 31.26 | 3.00 | 3.00 | 0.00 |
| 719.60 | 16.97 | 84.76 | 711.37 | 7.59 | 82.79 | 83.14 | 3.00 | 3.00 | 0.00 |
| Hold 16.97 Inclination | | | | | | | | | |
| 1,000.00 | 16.97 | 84.76 | 979.56 | 15.06 | 164.28 | 164.97 | 0.00 | 0.00 | 0.00 |
| 1,124.00 | 16.97 | 84.76 | 1,098.16 | 18.36 | 200.32 | 201.16 | 0.00 | 0.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,500.00 | 16.97 | 84.76 | 1,457.80 | 28.38 | 309.59 | 310.89 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 16.97 | 84.76 | 1,936.03 | 41.70 | 454.90 | 456.81 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 16.97 | 84.76 | 2,414.26 | 55.02 | 600.22 | 602.73 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 16.97 | 84.76 | 2,892.50 | 68.34 | 745.53 | 748.65 | 0.00 | 0.00 | 0.00 |
| 3,050.71 | 16.97 | 84.76 | 2,941.00 | 69.69 | 760.26 | 763.45 | 0.00 | 0.00 | 0.00 |
| Top of "G" Sand | | | | | | | | | |
| 3,155.26 | 16.97 | 84.76 | 3,041.00 | 72.47 | 790.65 | 793.96 | 0.00 | 0.00 | 0.00 |
| Base of "G" Sand | | | | | | | | | |
| 3,500.00 | 16.97 | 84.76 | 3,370.73 | 81.66 | 890.84 | 894.57 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 16.97 | 84.76 | 3,848.96 | 94.98 | 1,036.15 | 1,040.49 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 16.97 | 84.76 | 4,327.20 | 108.30 | 1,181.46 | 1,186.41 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 16.97 | 84.76 | 4,805.43 | 121.61 | 1,326.77 | 1,332.33 | 0.00 | 0.00 | 0.00 |
| 5,387.70 | 16.97 | 84.76 | 5,176.25 | 131.94 | 1,439.44 | 1,445.48 | 0.00 | 0.00 | 0.00 |
| Start Drop -1.50 | | | | | | | | | |
| 5,500.00 | 15.28 | 84.76 | 5,284.13 | 134.79 | 1,470.50 | 1,476.67 | 1.50 | -1.50 | 0.00 |
| 5,615.51 | 13.55 | 84.76 | 5,396.00 | 137.41 | 1,499.14 | 1,505.43 | 1.50 | -1.50 | 0.00 |
| Mesaverde | | | | | | | | | |
| 6,000.00 | 7.78 | 84.76 | 5,773.69 | 143.91 | 1,569.99 | 1,576.57 | 1.50 | -1.50 | 0.00 |
| 6,500.00 | 0.28 | 84.76 | 6,272.09 | 147.12 | 1,604.98 | 1,611.71 | 1.50 | -1.50 | 0.00 |
| 6,518.91 | 0.00 | 0.00 | 6,291.00 | 147.12 | 1,605.03 | 1,611.76 | 1.50 | -1.50 | 0.00 |
| Vertical | | | | | | | | | |
| 7,000.00 | 0.00 | 0.00 | 6,772.09 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| 7,218.91 | 0.00 | 0.00 | 6,991.00 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| Top of Target - Approx. Top Gas | | | | | | | | | |
| 7,500.00 | 0.00 | 0.00 | 7,272.09 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,772.09 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| 8,428.91 | 0.00 | 0.00 | 8,201.00 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| Cameo Coals | | | | | | | | | |
| 8,500.00 | 0.00 | 0.00 | 8,272.09 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.00 | 0.00 | 8,772.09 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| 9,123.91 | 0.00 | 0.00 | 8,896.00 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| Coal D | | | | | | | | | |
| 9,283.91 | 0.00 | 0.00 | 9,056.00 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| Rollins SS | | | | | | | | | |
| 9,433.91 | 0.00 | 0.00 | 9,206.00 | 147.12 | 1,605.03 | 1,611.76 | 0.00 | 0.00 | 0.00 |
| TD at 9409.91 - TD | | | | | | | | | |

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| Site: | RU 13-6 Pad | North Reference: | True |
| Well: | RU 324-6 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 2Nov15 sam | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|-----------|----------|--------|----------|--------------|--------------|-----------|-------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (bearing) | (usft) | (usft) | (usft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| RU 324-6 Top Gas 50' R | 0.00 | 0.00 | 6,991.00 | 147.12 | 1,605.03 | 1,603,533.50 | 2,345,365.40 | 39.467532 | -107.819064 |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 50.00) | | | | | | | | | |

| Casing Points | | | | |
|----------------|----------------|-----------------|---------------|--------|
| Measured Depth | Vertical Depth | Name | | |
| (usft) | (usft) | | | |
| | | Casing Diameter | Hole Diameter | |
| | | (in) | (in) | |
| 1,124.00 | 1,098.16 | 9 5/8" | 9.625 | 13.500 |

| Formations | | | | | |
|----------------|----------------|------------------|-----------|------|---------------|
| Measured Depth | Vertical Depth | Name | Lithology | Dip | Dip Direction |
| (usft) | (usft) | | | (°) | (bearing) |
| 3,050.71 | 2,941.00 | Top of "G" Sand | | 0.00 | |
| 3,155.26 | 3,041.00 | Base of "G" Sand | | 0.00 | |
| 5,615.51 | 5,396.00 | Mesaverde | | 0.00 | |
| 7,218.91 | 6,991.00 | Approx. Top Gas | | 0.00 | |
| 8,428.91 | 8,201.00 | Cameo Coals | | 0.00 | |
| 9,123.91 | 8,896.00 | Coal D | | 0.00 | |
| 9,283.91 | 9,056.00 | Rollins SS | | 0.00 | |
| 9,433.91 | 9,206.00 | TD | | 0.00 | |

| Plan Annotations | | | | |
|------------------|----------------|-------------------|----------|------------------------|
| Measured Depth | Vertical Depth | Local Coordinates | | |
| (usft) | (usft) | +N/-S | +E/-W | Comment |
| | | (usft) | (usft) | |
| 154.00 | 154.00 | 0.00 | 0.00 | Start Build 3.00 |
| 719.60 | 711.37 | 7.59 | 82.79 | Hold 16.97 Inclination |
| 5,387.70 | 5,176.25 | 131.94 | 1,439.44 | Start Drop -1.50 |
| 6,518.91 | 6,291.00 | 147.12 | 1,605.03 | Vertical |
| 7,218.91 | 6,991.00 | 147.12 | 1,605.03 | Top of Target |
| 9,433.91 | 9,206.00 | 147.12 | 1,605.03 | TD at 9409.91 |