

PDC Energy Inc. DJ Basin

Well Name: **Red Cloud 10N (Nio C)**

Surface Location: Red Cloud 4N46W01 Pad Sec.1-T4N-64W

North American Datum 1983 , US State Plane 1983, Colorado Northern Zone

Ground Elevation: 4602.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot

0.0 0.0 1369932.40 3280870.28 40.344485 -104.492330

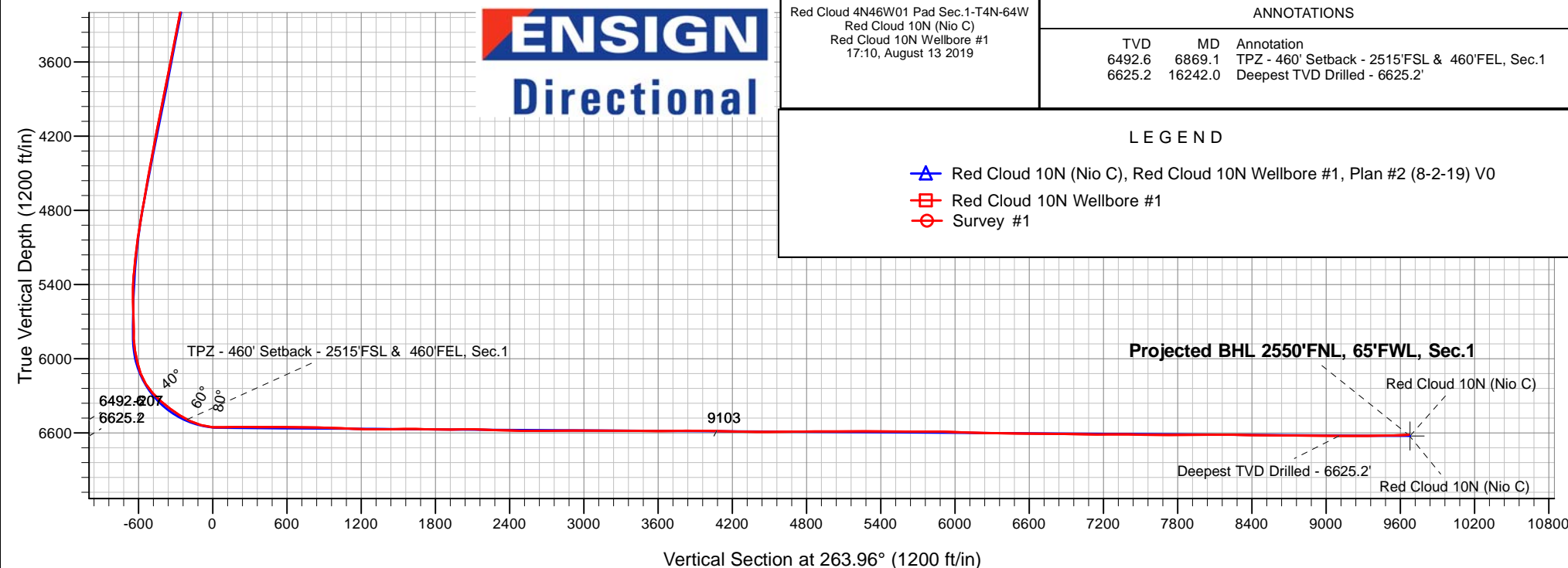
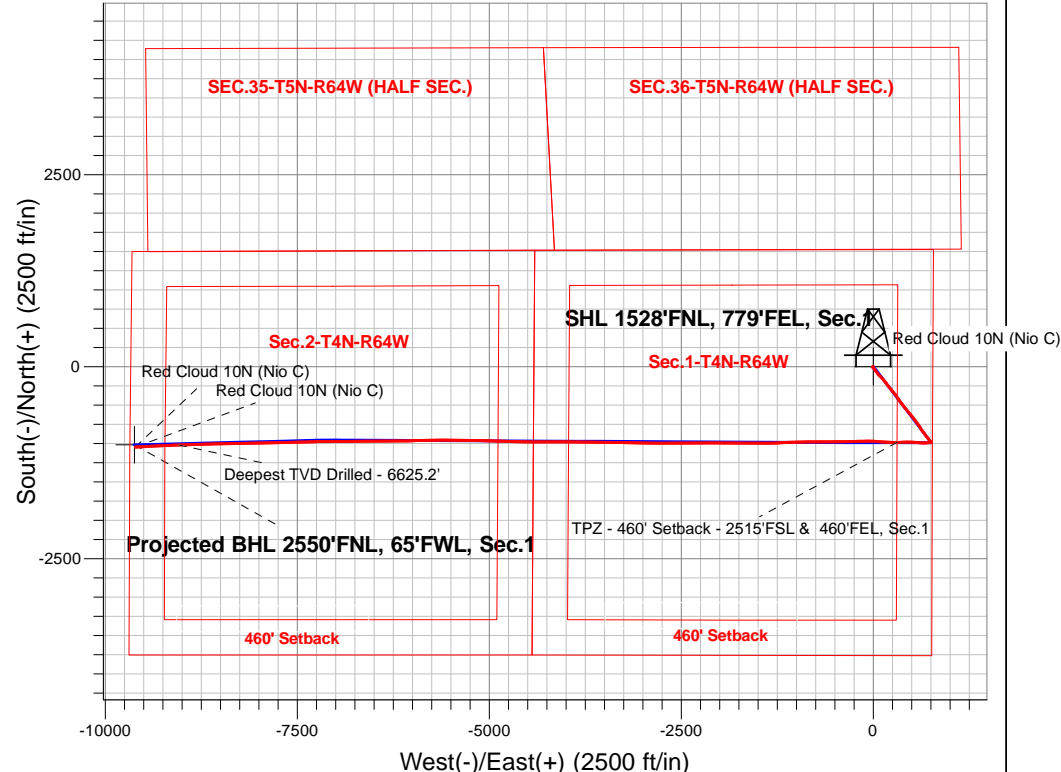
Original Well Elev WELL @ 4625.0ft (Original Well Elev)

FINAL SURVEY

Projected Bottom Hole Location

16,807'MD 6615'TVD 1048'S & 9610'W of SHL

92.71 degree Incl @ 267.28 degree AZM





PDC Energy Inc. DJ Basin

SEC.1-T4N-R64W

Red Cloud 4N46W01 Pad Sec.1-T4N-64W

Red Cloud 10N (Nio C)

Red Cloud 10N Wellbore #1

Survey: Survey #1

Standard Survey Report

13 August, 2019

| | | | |
|------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Red Cloud 10N (Nio C) |
| Project: | SEC.1-T4N-R64W | TVD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Well: | Red Cloud 10N (Nio C) | North Reference: | True |
| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| | | | |
|--------------------|---------------------------------|----------------------|-----------------------------|
| Project | SEC.1-T4N-R64W, Weld County, CO | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

| | | | | | |
|-----------------------|-------------------------------------|--------------|-------------------|-------------------|-------------|
| Site | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | | | | |
| Site Position: | | Northing: | 1,369,932.80 usft | Latitude: | 40.344481 |
| From: | Lat/Long | Easting: | 3,281,020.19 usft | Longitude: | -104.491793 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.65 ° |

| Well | Red Cloud 10N (Nio C) | | | | | |
|----------------------|-----------------------|--------|---------------------|-------------------|---------------|-------------|
| Well Position | +N/-S | 0.0 ft | Northing: | 1,369,932.40 usft | Latitude: | 40.344485 |
| | +E/-W | 0.0 ft | Easting: | 3,280,870.28 usft | Longitude: | -104.492330 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,602.0 ft |

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|------------------|---------------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Red Cloud 10N Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HDGM | 8/2/2019 | 8.08 | 66.87 | 52,130 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|--------|
| Design | Red Cloud 10N Wellbore #1 | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | | 263.96 |

| | | | | | |
|-----------------------|----------------|---------------------------------------|------------------|--------------------|--|
| Survey Program | Date | 8/13/2019 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 155.0 | 16,807.0 | Survey #1 (Red Cloud 10N Wellbore #1) | MWD | MWD - Standard | |

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|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| Survey | | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 155.0 | 0.00 | 257.79 | 155.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 250.0 | 0.40 | 277.03 | 250.0 | 0.0 | -0.3 | 0.3 | 0.42 | 0.42 | 0.00 | |
| 346.0 | 0.14 | 254.93 | 346.0 | 0.1 | -0.8 | 0.8 | 0.29 | -0.27 | -23.02 | |
| 441.0 | 0.18 | 280.32 | 441.0 | 0.0 | -1.0 | 1.0 | 0.08 | 0.04 | 26.73 | |
| 536.0 | 0.69 | 244.07 | 536.0 | -0.2 | -1.7 | 1.7 | 0.58 | 0.54 | -38.16 | |
| 631.0 | 0.99 | 257.21 | 631.0 | -0.6 | -3.0 | 3.1 | 0.37 | 0.32 | 13.83 | |
| 725.0 | 1.14 | 254.65 | 725.0 | -1.0 | -4.7 | 4.8 | 0.17 | 0.16 | -2.72 | |
| 821.0 | 0.99 | 252.46 | 821.0 | -1.5 | -6.4 | 6.5 | 0.16 | -0.16 | -2.28 | |
| 915.0 | 1.11 | 260.88 | 914.9 | -1.9 | -8.1 | 8.2 | 0.21 | 0.13 | 8.96 | |

| | | | |
|------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Red Cloud 10N (Nio C) |
| Project: | SEC.1-T4N-R64W | TVD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Well: | Red Cloud 10N (Nio C) | North Reference: | True |
| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 1,010.0 | 1.12 | 273.57 | 1,009.9 | -2.0 | -9.9 | 10.1 | 0.26 | 0.01 | 13.36 |
| 1,106.0 | 1.34 | 272.53 | 1,105.9 | -1.9 | -12.0 | 12.1 | 0.23 | 0.23 | -1.08 |
| 1,201.0 | 1.32 | 204.47 | 1,200.9 | -2.9 | -13.5 | 13.8 | 1.57 | -0.02 | -71.64 |
| 1,296.0 | 2.48 | 159.51 | 1,295.8 | -5.8 | -13.3 | 13.8 | 1.90 | 1.22 | -47.33 |
| 1,392.0 | 4.29 | 138.46 | 1,391.7 | -10.4 | -10.2 | 11.2 | 2.26 | 1.89 | -21.93 |
| 1,487.0 | 6.20 | 132.53 | 1,486.3 | -16.5 | -4.0 | 5.8 | 2.09 | 2.01 | -6.24 |
| 1,581.0 | 7.42 | 136.56 | 1,579.6 | -24.4 | 3.9 | -1.3 | 1.39 | 1.30 | 4.29 |
| 1,771.0 | 9.81 | 144.86 | 1,767.4 | -46.5 | 21.6 | -16.6 | 1.41 | 1.26 | 4.37 |
| 1,865.0 | 12.76 | 142.46 | 1,859.6 | -61.3 | 32.6 | -25.9 | 3.18 | 3.14 | -2.55 |
| 1,960.0 | 14.99 | 144.57 | 1,951.8 | -79.6 | 46.1 | -37.5 | 2.41 | 2.35 | 2.22 |
| 2,055.0 | 16.97 | 136.77 | 2,043.2 | -99.8 | 62.7 | -51.9 | 3.07 | 2.08 | -8.21 |
| 2,151.0 | 16.52 | 136.45 | 2,135.1 | -119.9 | 81.7 | -68.6 | 0.48 | -0.47 | -0.33 |
| 2,245.0 | 15.59 | 134.36 | 2,225.4 | -138.4 | 100.0 | -84.8 | 1.16 | -0.99 | -2.22 |
| 2,340.0 | 18.02 | 139.00 | 2,316.4 | -158.4 | 118.7 | -101.4 | 2.92 | 2.56 | 4.88 |
| 2,434.0 | 17.51 | 137.98 | 2,405.9 | -179.9 | 137.7 | -118.0 | 0.64 | -0.54 | -1.09 |
| 2,529.0 | 17.98 | 141.98 | 2,496.4 | -202.0 | 156.3 | -134.2 | 1.38 | 0.49 | 4.21 |
| 2,623.0 | 20.74 | 143.42 | 2,585.1 | -226.8 | 175.2 | -150.3 | 2.98 | 2.94 | 1.53 |
| 2,812.0 | 20.24 | 141.87 | 2,762.1 | -279.4 | 215.3 | -184.7 | 0.39 | -0.26 | -0.82 |
| 2,907.0 | 19.49 | 140.99 | 2,851.4 | -304.7 | 235.4 | -202.1 | 0.85 | -0.79 | -0.93 |
| 3,001.0 | 19.00 | 141.16 | 2,940.2 | -328.8 | 254.9 | -218.9 | 0.52 | -0.52 | 0.18 |
| 3,095.0 | 18.13 | 140.05 | 3,029.3 | -351.9 | 273.9 | -235.3 | 1.00 | -0.93 | -1.18 |
| 3,189.0 | 18.59 | 144.36 | 3,118.5 | -375.3 | 292.0 | -250.9 | 1.52 | 0.49 | 4.59 |
| 3,285.0 | 17.80 | 147.37 | 3,209.7 | -400.1 | 308.8 | -265.0 | 1.28 | -0.82 | 3.14 |
| 3,379.0 | 21.76 | 144.62 | 3,298.2 | -426.4 | 326.7 | -280.0 | 4.33 | 4.21 | -2.93 |
| 3,474.0 | 22.07 | 141.84 | 3,386.3 | -454.8 | 347.9 | -298.1 | 1.14 | 0.33 | -2.93 |
| 3,570.0 | 20.94 | 143.90 | 3,475.6 | -482.8 | 369.2 | -316.3 | 1.42 | -1.18 | 2.15 |
| 3,760.0 | 20.60 | 141.75 | 3,653.3 | -536.5 | 409.9 | -351.1 | 0.44 | -0.18 | -1.13 |
| 3,855.0 | 20.22 | 141.68 | 3,742.3 | -562.5 | 430.4 | -368.8 | 0.40 | -0.40 | -0.07 |
| 3,950.0 | 19.67 | 140.74 | 3,831.6 | -587.8 | 450.7 | -386.3 | 0.67 | -0.58 | -0.99 |
| 4,045.0 | 18.94 | 139.30 | 3,921.3 | -611.9 | 470.9 | -403.9 | 0.92 | -0.77 | -1.52 |
| 4,234.0 | 21.17 | 140.39 | 4,098.8 | -661.4 | 512.6 | -440.2 | 1.20 | 1.18 | 0.58 |
| 4,330.0 | 20.31 | 139.70 | 4,188.6 | -687.5 | 534.5 | -459.1 | 0.93 | -0.90 | -0.72 |
| 4,425.0 | 20.12 | 144.65 | 4,277.7 | -713.4 | 554.6 | -476.4 | 1.81 | -0.20 | 5.21 |
| 4,520.0 | 19.08 | 145.13 | 4,367.2 | -739.4 | 572.9 | -491.9 | 1.11 | -1.09 | 0.51 |
| 4,615.0 | 22.34 | 148.03 | 4,456.1 | -767.5 | 591.3 | -507.3 | 3.60 | 3.43 | 3.05 |
| 4,711.0 | 21.33 | 147.16 | 4,545.2 | -797.7 | 610.5 | -523.1 | 1.10 | -1.05 | -0.91 |
| 4,806.0 | 20.39 | 145.66 | 4,634.0 | -825.8 | 629.2 | -538.8 | 1.14 | -0.99 | -1.58 |
| 4,901.0 | 19.70 | 143.66 | 4,723.2 | -852.4 | 648.0 | -554.7 | 1.02 | -0.73 | -2.11 |
| 4,996.0 | 18.94 | 144.27 | 4,812.8 | -877.8 | 666.5 | -570.4 | 0.83 | -0.80 | 0.64 |
| 5,090.0 | 18.03 | 143.66 | 4,902.0 | -901.9 | 684.0 | -585.3 | 0.99 | -0.97 | -0.65 |
| 5,186.0 | 15.72 | 139.87 | 4,993.9 | -923.8 | 701.2 | -600.1 | 2.66 | -2.41 | -3.95 |
| 5,280.0 | 13.92 | 141.88 | 5,084.7 | -942.5 | 716.4 | -613.2 | 1.99 | -1.91 | 2.14 |
| 5,375.0 | 11.76 | 146.01 | 5,177.4 | -959.5 | 728.9 | -623.9 | 2.47 | -2.27 | 4.35 |
| 5,469.0 | 9.70 | 136.47 | 5,269.7 | -973.2 | 739.7 | -633.2 | 2.89 | -2.19 | -10.15 |

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| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
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| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| Survey | | | | | | | | | |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 5,564.0 | 7.04 | 137.97 | 5,363.7 | -983.3 | 749.1 | -641.5 | 2.81 | -2.80 | 1.58 |
| 5,659.0 | 1.21 | 183.71 | 5,458.4 | -988.6 | 752.9 | -644.7 | 6.58 | -6.14 | 48.15 |
| 5,755.0 | 1.50 | 288.06 | 5,554.4 | -989.3 | 751.7 | -643.4 | 2.24 | 0.30 | 108.70 |
| 5,850.0 | 1.41 | 281.90 | 5,649.4 | -988.6 | 749.3 | -641.1 | 0.19 | -0.09 | -6.48 |
| 5,945.0 | 0.97 | 289.83 | 5,744.3 | -988.1 | 747.4 | -639.3 | 0.49 | -0.46 | 8.35 |
| 6,040.0 | 0.69 | 261.49 | 5,839.3 | -987.9 | 746.1 | -638.0 | 0.51 | -0.29 | -29.83 |
| 6,136.0 | 11.06 | 270.74 | 5,934.7 | -987.9 | 736.3 | -628.3 | 10.81 | 10.80 | 9.64 |
| 6,231.0 | 11.64 | 258.28 | 6,027.9 | -989.7 | 717.8 | -609.7 | 2.65 | 0.61 | -13.12 |
| 6,326.0 | 20.84 | 262.02 | 6,119.0 | -994.0 | 691.6 | -583.2 | 9.74 | 9.68 | 3.94 |
| 6,421.0 | 32.61 | 274.38 | 6,203.7 | -994.4 | 649.2 | -541.0 | 13.64 | 12.39 | 13.01 |
| 6,516.0 | 41.69 | 274.84 | 6,279.4 | -989.8 | 592.1 | -484.6 | 9.56 | 9.56 | 0.48 |
| 6,611.0 | 50.19 | 273.09 | 6,345.4 | -985.1 | 524.0 | -417.5 | 9.04 | 8.95 | -1.84 |
| 6,706.0 | 53.21 | 270.94 | 6,404.3 | -982.6 | 449.5 | -343.7 | 3.64 | 3.18 | -2.26 |
| 6,801.0 | 56.84 | 266.75 | 6,458.7 | -984.2 | 371.8 | -266.1 | 5.26 | 3.82 | -4.41 |
| 6,869.1 | 63.39 | 268.80 | 6,492.6 | -986.4 | 312.8 | -207.3 | 9.96 | 9.61 | 3.02 |
| TPZ - 460' Setback - 2515'FSL & 460'FEL, Sec.1 | | | | | | | | | |
| 6,896.0 | 65.98 | 269.55 | 6,504.1 | -986.8 | 288.5 | -183.0 | 9.96 | 9.64 | 2.77 |
| 6,991.0 | 72.90 | 271.98 | 6,537.5 | -985.6 | 199.6 | -94.8 | 7.67 | 7.28 | 2.56 |
| 7,087.0 | 86.68 | 275.42 | 6,554.5 | -979.4 | 105.6 | -1.9 | 14.78 | 14.35 | 3.58 |
| 7,182.0 | 92.64 | 273.32 | 6,555.0 | -972.2 | 10.9 | 91.5 | 6.65 | 6.27 | -2.21 |
| 7,278.0 | 90.99 | 267.96 | 6,552.0 | -971.1 | -85.0 | 186.7 | 5.84 | -1.72 | -5.58 |
| 7,373.0 | 89.06 | 269.29 | 6,552.0 | -973.4 | -180.0 | 281.4 | 2.47 | -2.03 | 1.40 |
| 7,469.0 | 89.33 | 269.11 | 6,553.3 | -974.7 | -276.0 | 377.0 | 0.34 | 0.28 | -0.19 |
| 7,564.0 | 90.29 | 268.63 | 6,553.6 | -976.6 | -370.9 | 471.7 | 1.13 | 1.01 | -0.51 |
| 7,660.0 | 89.35 | 269.90 | 6,553.9 | -977.8 | -466.9 | 567.2 | 1.65 | -0.98 | 1.32 |
| 7,756.0 | 90.03 | 269.37 | 6,554.4 | -978.4 | -562.9 | 662.8 | 0.90 | 0.71 | -0.55 |
| 7,852.0 | 88.94 | 269.68 | 6,555.3 | -979.2 | -658.9 | 758.3 | 1.18 | -1.14 | 0.32 |
| 7,947.0 | 89.65 | 270.30 | 6,556.5 | -979.3 | -753.9 | 852.8 | 0.99 | 0.75 | 0.65 |
| 8,043.0 | 87.04 | 269.49 | 6,559.2 | -979.4 | -849.9 | 948.2 | 2.85 | -2.72 | -0.84 |
| 8,138.0 | 87.20 | 268.77 | 6,564.0 | -980.9 | -944.7 | 1,042.7 | 0.78 | 0.17 | -0.76 |
| 8,234.0 | 87.94 | 267.73 | 6,568.1 | -983.8 | -1,040.6 | 1,138.3 | 1.33 | 0.77 | -1.08 |
| 8,329.0 | 88.89 | 267.29 | 6,570.7 | -987.9 | -1,135.5 | 1,233.1 | 1.10 | 1.00 | -0.46 |
| 8,453.0 | 90.36 | 266.74 | 6,571.5 | -994.4 | -1,259.3 | 1,356.9 | 1.27 | 1.19 | -0.44 |
| 8,549.0 | 90.85 | 269.65 | 6,570.5 | -997.4 | -1,355.2 | 1,452.7 | 3.07 | 0.51 | 3.03 |
| 8,644.0 | 90.78 | 270.73 | 6,569.2 | -997.1 | -1,450.2 | 1,547.1 | 1.14 | -0.07 | 1.14 |
| 8,740.0 | 89.24 | 270.68 | 6,569.1 | -995.9 | -1,546.2 | 1,642.4 | 1.61 | -1.60 | -0.05 |
| 8,835.0 | 88.53 | 270.06 | 6,571.0 | -995.3 | -1,641.2 | 1,736.8 | 0.99 | -0.75 | -0.65 |
| 8,931.0 | 88.94 | 269.61 | 6,573.1 | -995.6 | -1,737.2 | 1,832.3 | 0.63 | 0.43 | -0.47 |
| 9,026.0 | 90.61 | 269.48 | 6,573.5 | -996.3 | -1,832.2 | 1,926.8 | 1.76 | 1.76 | -0.14 |
| 9,121.0 | 91.32 | 269.17 | 6,571.9 | -997.4 | -1,927.1 | 2,021.4 | 0.82 | 0.75 | -0.33 |
| 9,217.0 | 88.57 | 271.18 | 6,572.0 | -997.2 | -2,023.1 | 2,116.8 | 3.55 | -2.86 | 2.09 |
| 9,407.0 | 87.62 | 270.44 | 6,578.3 | -994.5 | -2,213.0 | 2,305.4 | 0.63 | -0.50 | -0.39 |
| 9,502.0 | 88.62 | 270.25 | 6,581.4 | -993.9 | -2,307.9 | 2,399.7 | 1.07 | 1.05 | -0.20 |

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| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Well: | Red Cloud 10N (Nio C) | North Reference: | True |
| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 9,598.0 | 89.40 | 269.47 | 6,583.1 | -994.1 | -2,403.9 | 2,495.2 | 1.15 | 0.81 | -0.81 |
| 9,694.0 | 89.94 | 269.07 | 6,583.6 | -995.4 | -2,499.9 | 2,590.8 | 0.70 | 0.56 | -0.42 |
| 9,789.0 | 90.64 | 268.37 | 6,583.1 | -997.5 | -2,594.9 | 2,685.4 | 1.04 | 0.74 | -0.74 |
| 9,884.0 | 89.99 | 270.84 | 6,582.6 | -998.1 | -2,689.9 | 2,780.0 | 2.69 | -0.68 | 2.60 |
| 9,980.0 | 90.85 | 270.24 | 6,581.9 | -997.2 | -2,785.9 | 2,875.3 | 1.09 | 0.90 | -0.63 |
| 10,171.0 | 88.80 | 271.30 | 6,582.5 | -994.7 | -2,976.8 | 3,065.0 | 1.21 | -1.07 | 0.55 |
| 10,267.0 | 89.62 | 271.20 | 6,583.8 | -992.6 | -3,072.8 | 3,160.2 | 0.86 | 0.85 | -0.10 |
| 10,362.0 | 90.31 | 270.79 | 6,583.9 | -990.9 | -3,167.8 | 3,254.5 | 0.84 | 0.73 | -0.43 |
| 10,458.0 | 91.19 | 270.39 | 6,582.6 | -989.9 | -3,263.8 | 3,349.8 | 1.01 | 0.92 | -0.42 |
| 10,553.0 | 88.92 | 271.53 | 6,582.5 | -988.3 | -3,358.8 | 3,444.1 | 2.67 | -2.39 | 1.20 |
| 10,649.0 | 88.43 | 270.92 | 6,584.8 | -986.3 | -3,454.7 | 3,539.3 | 0.81 | -0.51 | -0.64 |
| 10,744.0 | 89.91 | 270.80 | 6,586.1 | -984.9 | -3,549.7 | 3,633.6 | 1.56 | 1.56 | -0.13 |
| 10,840.0 | 91.29 | 270.59 | 6,585.1 | -983.7 | -3,645.7 | 3,728.9 | 1.45 | 1.44 | -0.22 |
| 10,935.0 | 89.58 | 270.65 | 6,584.4 | -982.7 | -3,740.7 | 3,823.3 | 1.80 | -1.80 | 0.06 |
| 11,031.0 | 89.62 | 270.34 | 6,585.1 | -981.8 | -3,836.6 | 3,918.7 | 0.33 | 0.04 | -0.32 |
| 11,127.0 | 90.62 | 270.36 | 6,584.9 | -981.3 | -3,932.6 | 4,014.1 | 1.04 | 1.04 | 0.02 |
| 11,222.0 | 88.55 | 270.76 | 6,585.6 | -980.3 | -4,027.6 | 4,108.4 | 2.22 | -2.18 | 0.42 |
| 11,318.0 | 87.62 | 270.37 | 6,588.8 | -979.4 | -4,123.6 | 4,203.7 | 1.05 | -0.97 | -0.41 |
| 11,413.0 | 88.50 | 269.73 | 6,592.0 | -979.3 | -4,218.5 | 4,298.1 | 1.15 | 0.93 | -0.67 |
| 11,509.0 | 89.72 | 269.27 | 6,593.5 | -980.1 | -4,314.5 | 4,393.7 | 1.36 | 1.27 | -0.48 |
| 11,604.0 | 91.17 | 269.14 | 6,592.7 | -981.4 | -4,409.5 | 4,488.3 | 1.53 | 1.53 | -0.14 |
| 11,700.0 | 90.55 | 271.26 | 6,591.3 | -981.1 | -4,505.5 | 4,583.7 | 2.30 | -0.65 | 2.21 |
| 11,795.0 | 90.09 | 271.87 | 6,590.8 | -978.5 | -4,600.4 | 4,677.9 | 0.80 | -0.48 | 0.64 |
| 11,891.0 | 91.57 | 271.83 | 6,589.4 | -975.4 | -4,696.4 | 4,772.9 | 1.54 | 1.54 | -0.04 |
| 11,986.0 | 89.85 | 271.79 | 6,588.2 | -972.4 | -4,791.3 | 4,867.0 | 1.81 | -1.81 | -0.04 |
| 12,082.0 | 89.73 | 271.37 | 6,588.5 | -969.8 | -4,887.3 | 4,962.2 | 0.46 | -0.13 | -0.44 |
| 12,177.0 | 90.91 | 271.88 | 6,588.0 | -967.1 | -4,982.2 | 5,056.3 | 1.35 | 1.24 | 0.54 |
| 12,273.0 | 89.71 | 271.65 | 6,587.5 | -964.1 | -5,078.2 | 5,151.4 | 1.27 | -1.25 | -0.24 |
| 12,369.0 | 89.53 | 271.04 | 6,588.1 | -961.9 | -5,174.2 | 5,246.6 | 0.66 | -0.19 | -0.64 |
| 12,464.0 | 90.24 | 270.74 | 6,588.3 | -960.4 | -5,269.1 | 5,340.9 | 0.81 | 0.75 | -0.32 |
| 12,559.0 | 90.29 | 270.45 | 6,587.9 | -959.4 | -5,364.1 | 5,435.3 | 0.31 | 0.05 | -0.31 |
| 12,655.0 | 89.15 | 271.26 | 6,588.4 | -958.0 | -5,460.1 | 5,530.6 | 1.46 | -1.19 | 0.84 |
| 12,751.0 | 89.13 | 270.13 | 6,589.8 | -956.8 | -5,556.1 | 5,625.9 | 1.18 | -0.02 | -1.18 |
| 12,846.0 | 90.11 | 269.85 | 6,590.4 | -956.8 | -5,651.1 | 5,720.4 | 1.07 | 1.03 | -0.29 |
| 12,942.0 | 90.75 | 269.10 | 6,589.7 | -957.7 | -5,747.1 | 5,816.0 | 1.03 | 0.67 | -0.78 |
| 13,038.0 | 87.90 | 268.69 | 6,590.8 | -959.6 | -5,843.1 | 5,911.6 | 3.00 | -2.97 | -0.43 |
| 13,229.0 | 88.05 | 267.53 | 6,597.6 | -965.9 | -6,033.8 | 6,102.0 | 0.61 | 0.08 | -0.61 |
| 13,325.0 | 88.57 | 270.20 | 6,600.4 | -967.8 | -6,129.8 | 6,197.6 | 2.83 | 0.54 | 2.78 |
| 13,421.0 | 88.81 | 269.17 | 6,602.6 | -968.3 | -6,225.7 | 6,293.1 | 1.10 | 0.25 | -1.07 |
| 13,516.0 | 89.34 | 268.82 | 6,604.1 | -969.9 | -6,320.7 | 6,387.7 | 0.67 | 0.56 | -0.37 |
| 13,612.0 | 89.04 | 270.27 | 6,605.5 | -970.7 | -6,416.7 | 6,483.2 | 1.54 | -0.31 | 1.51 |
| 13,707.0 | 89.74 | 270.13 | 6,606.5 | -970.4 | -6,511.7 | 6,577.6 | 0.75 | 0.74 | -0.15 |
| 13,803.0 | 89.46 | 269.21 | 6,607.2 | -970.9 | -6,607.7 | 6,673.2 | 1.00 | -0.29 | -0.96 |
| 13,899.0 | 89.67 | 268.42 | 6,607.9 | -972.9 | -6,703.7 | 6,768.8 | 0.85 | 0.22 | -0.82 |

| | | | |
|------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Red Cloud 10N (Nio C) |
| Project: | SEC.1-T4N-R64W | TVD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Well: | Red Cloud 10N (Nio C) | North Reference: | True |
| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| Survey | | | | | | | | | |
|-------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 13,994.0 | 88.92 | 269.84 | 6,609.1 | -974.4 | -6,798.6 | 6,863.4 | 1.69 | -0.79 | 1.49 |
| 14,090.0 | 88.88 | 270.18 | 6,610.9 | -974.3 | -6,894.6 | 6,958.9 | 0.36 | -0.04 | 0.35 |
| 14,185.0 | 89.39 | 270.06 | 6,612.4 | -974.1 | -6,989.6 | 7,053.3 | 0.55 | 0.54 | -0.13 |
| 14,281.0 | 89.97 | 269.72 | 6,612.9 | -974.3 | -7,085.6 | 7,148.8 | 0.70 | 0.60 | -0.35 |
| 14,377.0 | 90.43 | 269.09 | 6,612.6 | -975.3 | -7,181.6 | 7,244.4 | 0.81 | 0.48 | -0.66 |
| 14,472.0 | 90.40 | 267.71 | 6,611.9 | -978.0 | -7,276.6 | 7,339.1 | 1.45 | -0.03 | -1.45 |
| 14,568.0 | 88.34 | 266.70 | 6,612.9 | -982.7 | -7,372.4 | 7,434.9 | 2.39 | -2.15 | -1.05 |
| 14,663.0 | 88.57 | 269.74 | 6,615.5 | -985.6 | -7,467.3 | 7,529.6 | 3.21 | 0.24 | 3.20 |
| 14,758.0 | 89.17 | 269.40 | 6,617.4 | -986.3 | -7,562.3 | 7,624.1 | 0.73 | 0.63 | -0.36 |
| 14,853.0 | 89.93 | 269.49 | 6,618.1 | -987.2 | -7,657.3 | 7,718.7 | 0.81 | 0.80 | 0.09 |
| 14,949.0 | 90.75 | 269.35 | 6,617.5 | -988.2 | -7,753.3 | 7,814.2 | 0.87 | 0.85 | -0.15 |
| 15,045.0 | 90.97 | 268.34 | 6,616.1 | -990.1 | -7,849.3 | 7,909.9 | 1.08 | 0.23 | -1.05 |
| 15,140.0 | 89.30 | 268.99 | 6,615.9 | -992.4 | -7,944.2 | 8,004.6 | 1.89 | -1.76 | 0.68 |
| 15,235.0 | 89.76 | 268.40 | 6,616.7 | -994.5 | -8,039.2 | 8,099.2 | 0.79 | 0.48 | -0.62 |
| 15,330.0 | 90.83 | 268.38 | 6,616.2 | -997.2 | -8,134.2 | 8,193.9 | 1.13 | 1.13 | -0.02 |
| 15,426.0 | 88.54 | 269.26 | 6,616.7 | -999.2 | -8,230.1 | 8,289.6 | 2.56 | -2.39 | 0.92 |
| 15,521.0 | 88.95 | 268.89 | 6,618.8 | -1,000.7 | -8,325.1 | 8,384.2 | 0.58 | 0.43 | -0.39 |
| 15,617.0 | 89.35 | 268.37 | 6,620.2 | -1,003.0 | -8,421.1 | 8,479.9 | 0.68 | 0.42 | -0.54 |
| 15,712.0 | 89.84 | 267.66 | 6,620.9 | -1,006.3 | -8,516.0 | 8,574.6 | 0.91 | 0.52 | -0.75 |
| 15,807.0 | 89.72 | 269.47 | 6,621.2 | -1,008.7 | -8,611.0 | 8,669.3 | 1.91 | -0.13 | 1.91 |
| 15,902.0 | 89.92 | 269.50 | 6,621.5 | -1,009.5 | -8,706.0 | 8,763.9 | 0.21 | 0.21 | 0.03 |
| 15,998.0 | 89.78 | 267.88 | 6,621.8 | -1,011.7 | -8,801.9 | 8,859.5 | 1.69 | -0.15 | -1.69 |
| 16,094.0 | 88.89 | 268.20 | 6,622.9 | -1,015.0 | -8,897.9 | 8,955.3 | 0.99 | -0.93 | 0.33 |
| 16,189.0 | 89.04 | 267.95 | 6,624.6 | -1,018.2 | -8,992.8 | 9,050.0 | 0.31 | 0.16 | -0.26 |
| 16,242.0 | 89.70 | 267.67 | 6,625.2 | -1,020.2 | -9,045.8 | 9,102.9 | 1.35 | 1.24 | -0.53 |
| Deepest TVD Drilled - 6625.2' | | | | | | | | | |
| 16,284.0 | 90.22 | 267.45 | 6,625.2 | -1,022.0 | -9,087.7 | 9,144.8 | 1.35 | 1.24 | -0.53 |
| 16,380.0 | 90.76 | 267.32 | 6,624.4 | -1,026.4 | -9,183.6 | 9,240.6 | 0.58 | 0.56 | -0.14 |
| 16,475.0 | 89.87 | 267.33 | 6,623.9 | -1,030.8 | -9,278.5 | 9,335.5 | 0.94 | -0.94 | 0.01 |
| 16,571.0 | 90.77 | 266.75 | 6,623.4 | -1,035.8 | -9,374.4 | 9,431.3 | 1.12 | 0.94 | -0.60 |
| 16,666.0 | 91.75 | 266.91 | 6,621.3 | -1,041.0 | -9,469.2 | 9,526.2 | 1.05 | 1.03 | 0.17 |
| 16,749.0 | 92.71 | 267.28 | 6,618.0 | -1,045.2 | -9,552.0 | 9,609.0 | 1.24 | 1.16 | 0.45 |
| 16,807.0 | 92.71 | 267.28 | 6,615.3 | -1,048.0 | -9,609.9 | 9,666.8 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Red Cloud 10N (Nio C) |
| Project: | SEC.1-T4N-R64W | TVD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Site: | Red Cloud 4N46W01 Pad Sec.1-T4N-64W | MD Reference: | WELL @ 4625.0ft (Original Well Elev) |
| Well: | Red Cloud 10N (Nio C) | North Reference: | True |
| Wellbore: | Red Cloud 10N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Red Cloud 10N Wellbore #1 | Database: | US_EDM |

| Design Targets | | | | | | | | | |
|--|------------------|-----------------|-------------|---------------|---------------|--------------------|-------------------|-----------|-------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| SHL 1528'FNL, 779'FEL - survey hits target center - Point | 0.00 | 0.00 | 1.0 | 0.0 | 0.0 | 1,369,932.41 | 3,280,870.28 | 40.344485 | -104.492330 |
| Target BHL 2520'FNL, 5i - survey misses target center by 34.3ft at 16807.0ft MD (6615.3 TVD, -1048.0 N, -9609.9 E) - Point | 0.00 | 0.00 | 6,625.0 | -1,018.4 | -9,624.4 | 1,368,804.71 | 3,271,258.46 | 40.341684 | -104.526856 |

| Survey Annotations | | | | |
|---------------------------|---------------------------|-------------------|---------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 6,869.1 | 6,492.6 | -986.4 | 312.8 | TPZ - 460' Setback - 2515'FSL & 460'FEL, Sec.1 |
| 16,242.0 | 6,625.2 | -1,020.2 | -9,045.8 | Deepest TVD Drilled - 6625.2' |

| | | |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|