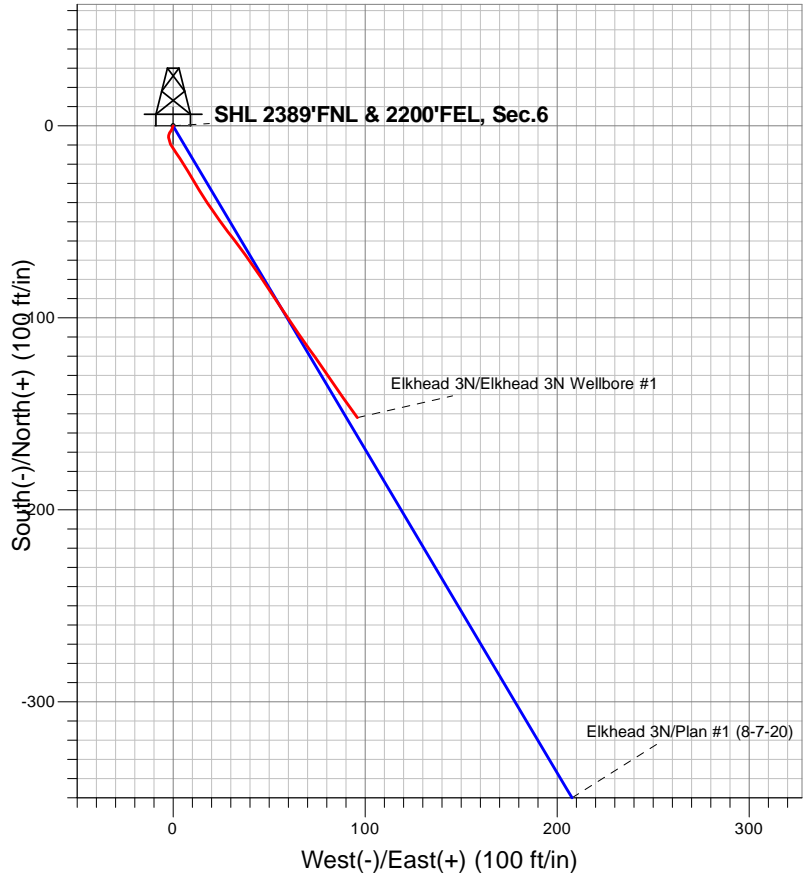
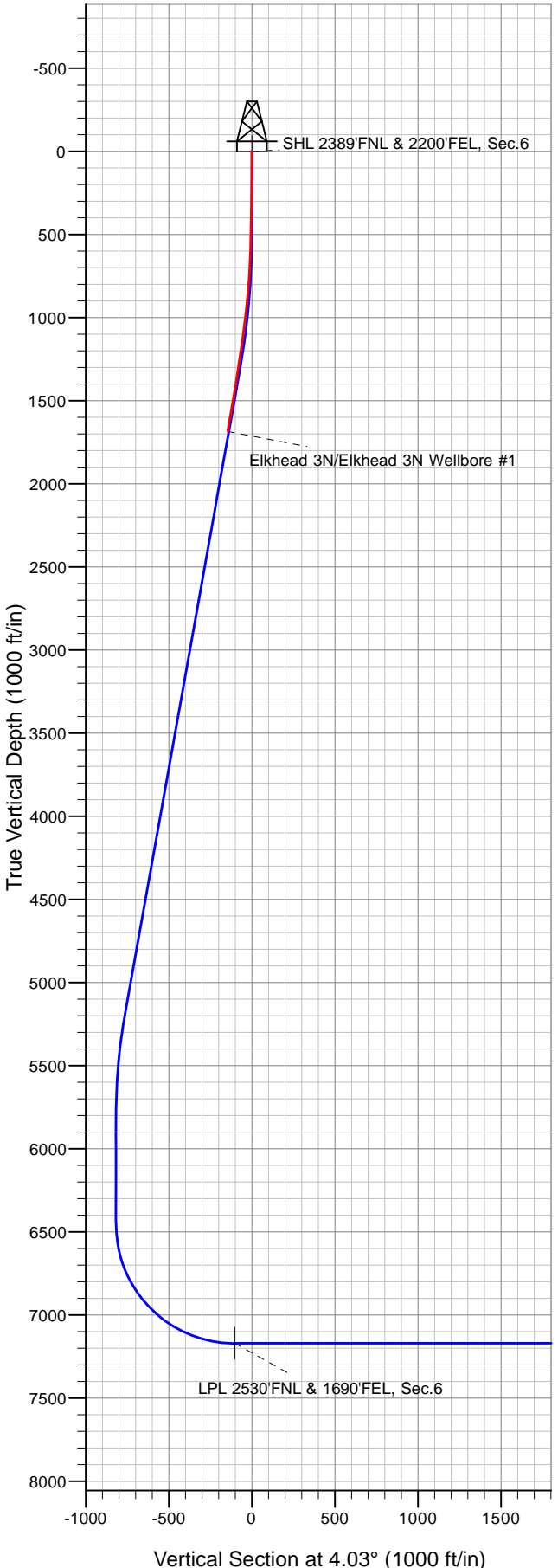


PDC Energy Inc. DJ Basin



LEGEND

- Elkhead 3N, Elkhead 3N Wellbore #1, Plan #1 (8-7-20) V0
- Elkhead 3N Wellbore #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Elkhead 03N65W06 1-16 Pad
 Well: Elkhead 3N
 Plan: Elkhead 3N Wellbore #1



PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Elkhead 03N65W06 1-16 Pad

Elkhead 3N

Elkhead 3N Wellbore #1

Design: Elkhead 3N Wellbore #1

Standard Survey Report

23 November, 2020



| | | | |
|------------------|---------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Elkhead 3N |
| Project: | SEC.6-T3N-R65W | TVD Reference: | WELL @ 4988.0ft (Original Well Elev) |
| Site: | Elkhead 03N65W06 1-16 Pad | MD Reference: | WELL @ 4988.0ft (Original Well Elev) |
| Well: | Elkhead 3N | North Reference: | True |
| Wellbore: | Elkhead 3N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Elkhead 3N Wellbore #1 | Database: | US_EDM |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | SEC.6-T3N-R65W | | |
| 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 | Elkhead 03N65W06 1-16 Pad | | | | |
| Site Position: | | Northing: | 1,336,763.37 usft | Latitude: | 40.255081 |
| From: | Lat/Long | Easting: | 3,222,007.75 usft | Longitude: | -104.704564 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.51 ° |

| | | | | | | |
|-----------------------------|--------------|--------|----------------------------|-------------------|----------------------|-------------|
| Well | Elkhead 3N | | | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 1,336,778.34 usft | Latitude: | 40.255122 |
| | +E/-W | 0.0 ft | Easting: | 3,222,007.56 usft | Longitude: | -104.704564 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,975.0 ft |

| | | | | | |
|------------------|------------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Elkhead 3N Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HDGM | 08/07/2020 | 7.98 | 66.62 | 52,048 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|-----|
| Design | Elkhead 3N 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 | 4.03 | |

| | | | | | |
|-----------------------|----------------|------------------------------------|------------------|--------------------|--|
| Survey Program | Date | 11/23/2020 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 147.0 | 1,700.0 | Survey #1 (Elkhead 3N Wellbore #1) | MWD | MWD - Standard | |

| | | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| 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 | |
| 147.0 | 0.70 | 201.52 | 147.0 | -0.8 | -0.3 | -0.9 | 0.48 | 0.48 | 0.00 | |
| 239.0 | 0.79 | 201.87 | 239.0 | -1.9 | -0.8 | -2.0 | 0.10 | 0.10 | 0.38 | |
| 330.0 | 0.62 | 216.81 | 330.0 | -2.9 | -1.3 | -3.0 | 0.27 | -0.19 | 16.42 | |
| 450.0 | 0.62 | 209.78 | 450.0 | -4.0 | -2.0 | -4.1 | 0.06 | 0.00 | -5.86 | |
| 539.0 | 2.11 | 182.71 | 538.9 | -6.1 | -2.3 | -6.2 | 1.78 | 1.67 | -30.42 | |
| 628.0 | 2.73 | 150.89 | 627.9 | -9.5 | -1.4 | -9.6 | 1.63 | 0.70 | -35.75 | |
| 717.0 | 4.22 | 144.21 | 716.7 | -14.1 | 1.6 | -13.9 | 1.73 | 1.67 | -7.51 | |
| 806.0 | 5.36 | 148.96 | 805.4 | -20.3 | 5.6 | -19.8 | 1.36 | 1.28 | 5.34 | |
| 896.0 | 6.68 | 149.66 | 894.9 | -28.4 | 10.4 | -27.6 | 1.47 | 1.47 | 0.78 | |

| | | | |
|------------------|---------------------------|-------------------------------------|--------------------------------------|
| Company: | PDC Energy Inc. DJ Basin | Local Co-ordinate Reference: | Well Elkhead 3N |
| Project: | SEC.6-T3N-R65W | TVD Reference: | WELL @ 4988.0ft (Original Well Elev) |
| Site: | Elkhead 03N65W06 1-16 Pad | MD Reference: | WELL @ 4988.0ft (Original Well Elev) |
| Well: | Elkhead 3N | North Reference: | True |
| Wellbore: | Elkhead 3N Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Elkhead 3N 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) | |
| 985.0 | 8.18 | 146.85 | 983.1 | -38.2 | 16.5 | -36.9 | 1.73 | 1.69 | -3.16 | |
| 1,070.0 | 9.58 | 144.39 | 1,067.1 | -49.0 | 23.9 | -47.2 | 1.71 | 1.65 | -2.89 | |
| 1,161.0 | 10.64 | 141.93 | 1,156.7 | -61.7 | 33.5 | -59.2 | 1.26 | 1.16 | -2.70 | |
| 1,250.0 | 10.99 | 146.50 | 1,244.1 | -75.3 | 43.3 | -72.1 | 1.04 | 0.39 | 5.13 | |
| 1,339.0 | 11.52 | 146.85 | 1,331.4 | -89.8 | 52.8 | -85.9 | 0.60 | 0.60 | 0.39 | |
| 1,429.0 | 11.96 | 144.39 | 1,419.5 | -104.9 | 63.2 | -100.2 | 0.74 | 0.49 | -2.73 | |
| 1,519.0 | 12.31 | 146.14 | 1,507.5 | -120.5 | 73.9 | -115.0 | 0.56 | 0.39 | 1.94 | |
| 1,640.0 | 12.22 | 144.56 | 1,625.8 | -141.6 | 88.6 | -135.0 | 0.29 | -0.07 | -1.31 | |
| 1,700.0 | 12.22 | 144.56 | 1,684.4 | -152.0 | 95.9 | -144.8 | 0.00 | 0.00 | 0.00 | |

Checked By: _____ Approved By: _____ Date: _____