

Longs Peak Resources
Project: Weld County, Co (NAD 83)
Site: Jaco West Pad
Well: Jaco West 1807-3NH
Wellbore: Wellbore #1
Plan: Design #1 (Jaco West 1807-3NH/Wellbore #1)

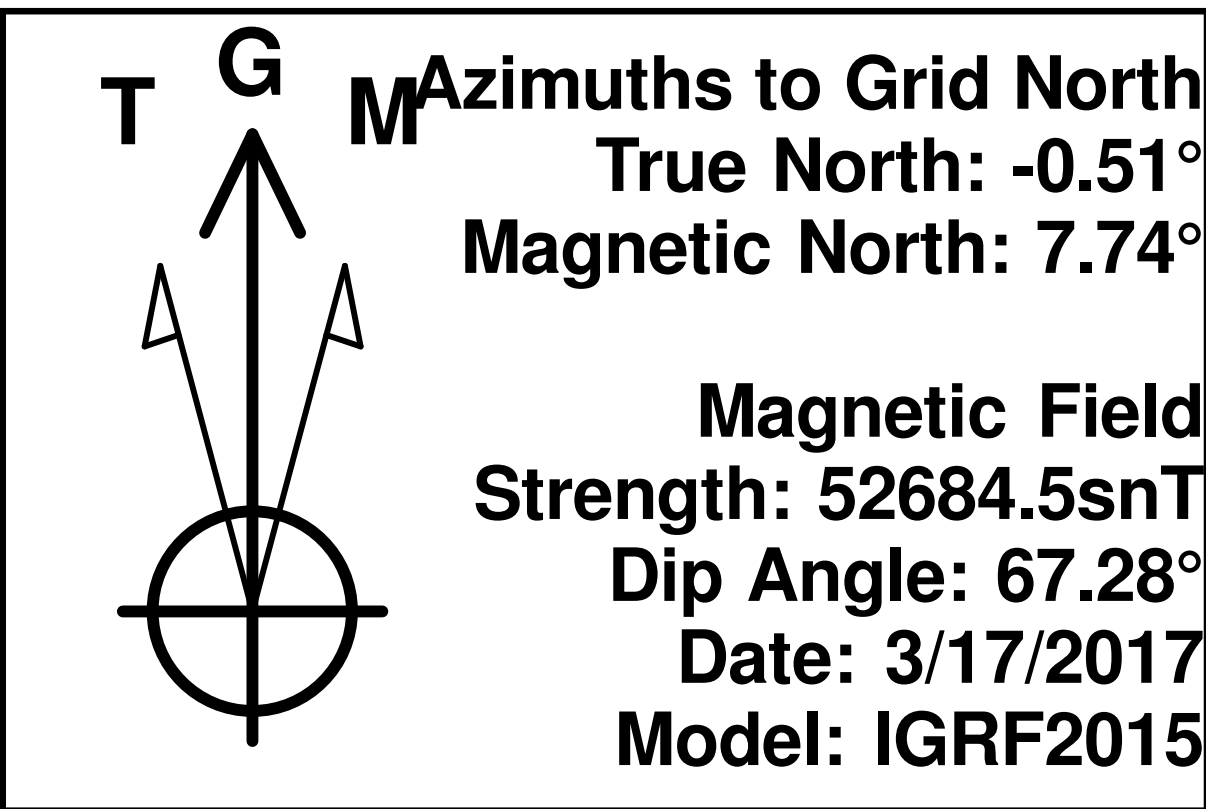


WELL DETAILS: Jaco West 1807-3NH

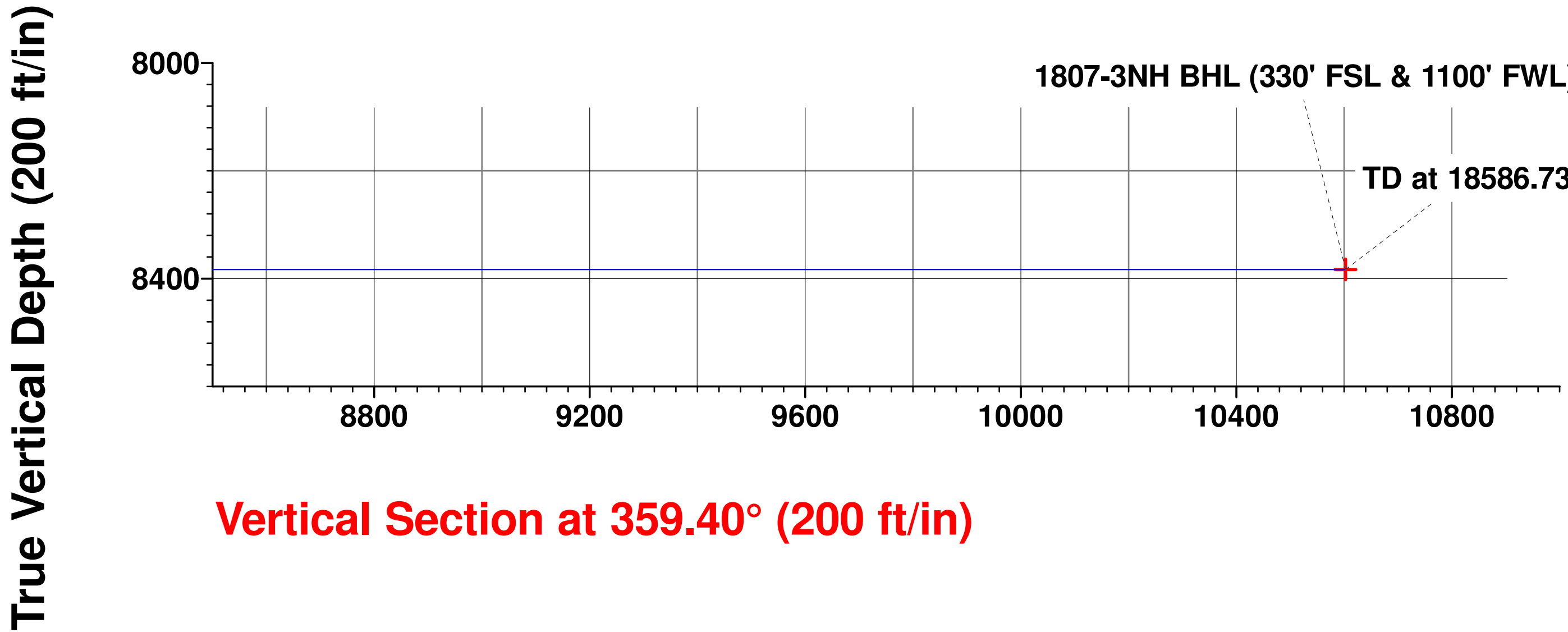
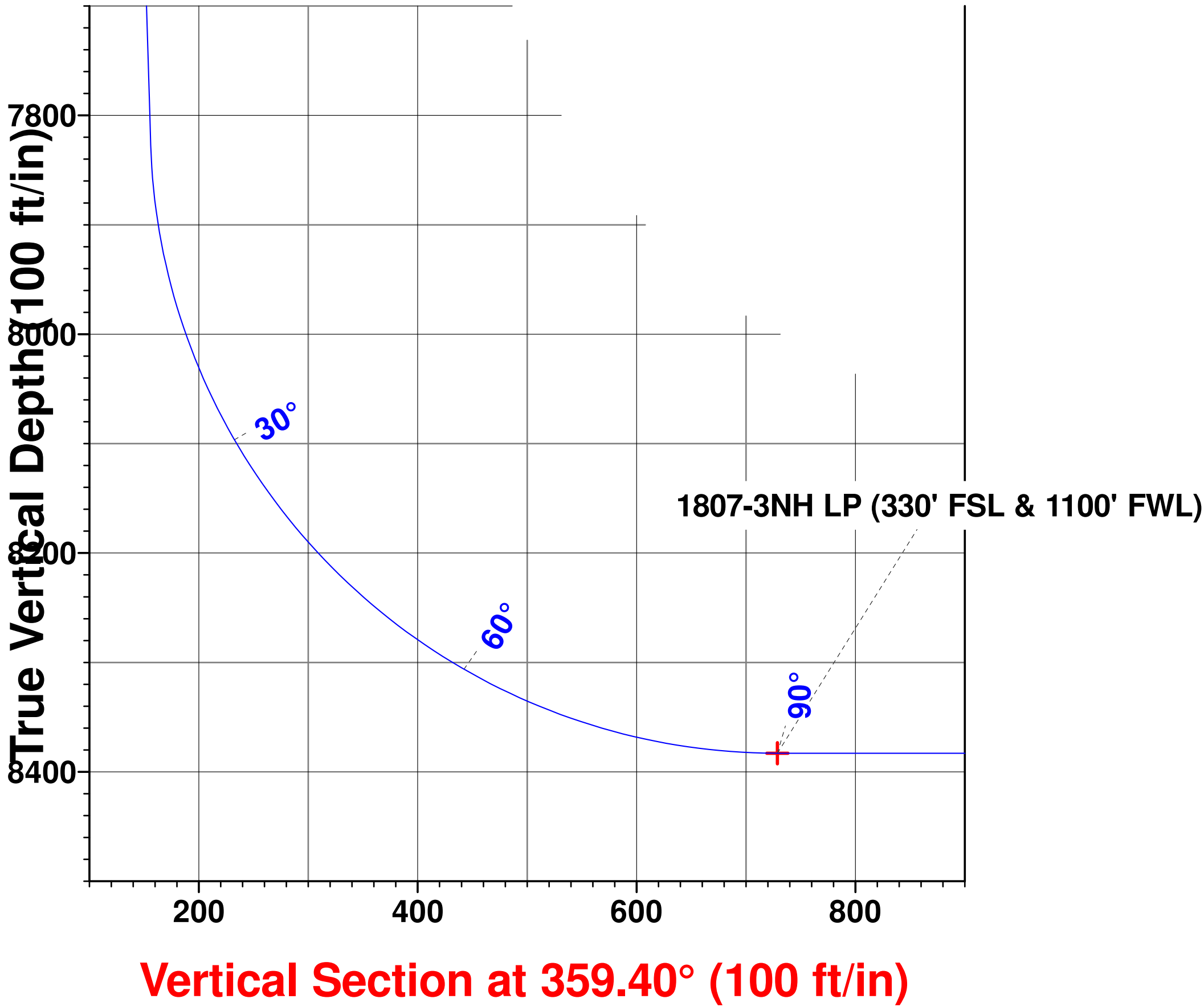
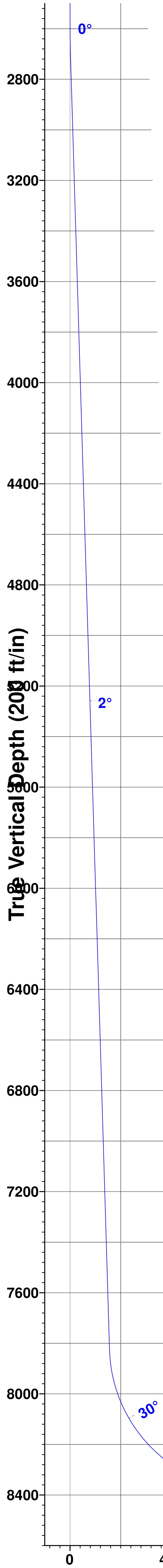
Ground Elevation:: 5615.00
RKB Elevation: KB=25' @ 5640.00ft
Rig Name:

| Northing | Easting | Latitude | Longitude |
|--------------|--------------|------------------|-------------------|
| 1576246.5787 | 3218177.2011 | 40° 54' 45.000 N | 104° 42' 38.340 W |

| Planned Section Details | | | | | | | | | |
|-------------------------|----------|-------|--------|---------|----------|---------|-------|--------|----------|
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect |
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 2600.00 | 0.00 | 0.00 | 2600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 2690.41 | 1.81 | 341.97 | 2690.39 | 1.36 | -0.44 | 2.00 | 341.97 | 1.36 |
| 4 | 7829.86 | 1.81 | 341.97 | 7827.29 | 155.55 | -50.64 | 0.00 | 0.00 | 156.08 |
| 5 | 8712.64 | 90.00 | 359.70 | 8383.00 | 728.22 | -59.00 | 10.00 | 17.74 | 728.80 |
| 6 | 18586.73 | 90.00 | 359.70 | 8383.00 | 10602.17 | -110.96 | 0.00 | 0.00 | 10602.75 |

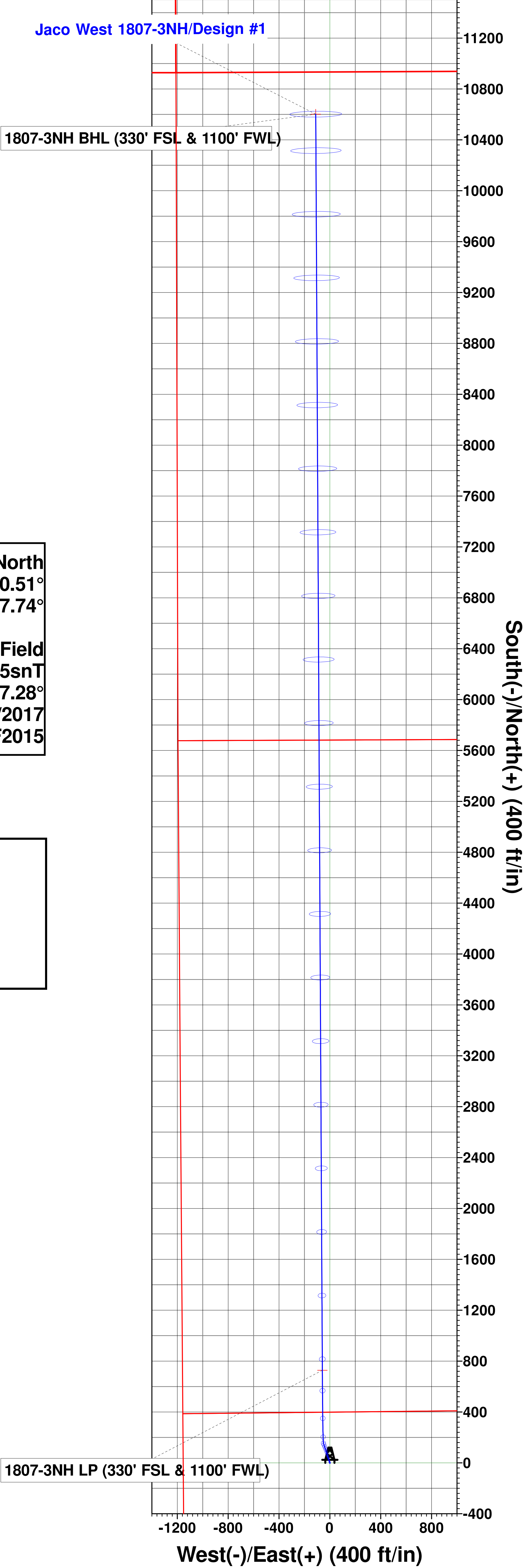


PROJECT DETAILS: Weld County, Co (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level
Local North: Grid



1807-3NH LP (330' FSL & 1100' FWL)

Vertical Section at 359.40° (200 ft/in)



Longs Peak Resources

Weld County, Co (NAD 83)

Jaco West Pad

Jaco West 1807-3NH

Wellbore #1

Plan: Design #1

Standard Survey Report

17 March, 2017



Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County, Co (NAD 83) | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|---------------|--------------|---------------------|-------------------|-------------------|
| Site | Jaco West Pad | | | | |
| Site Position: | | Northing: | 1,576,245.8732 usft | Latitude: | 40° 54' 45.000 N |
| From: | Lat/Long | Easting: | 3,218,097.0468 usft | Longitude: | 104° 42' 39.384 W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.51 ° |

| Well | | Jaco West 1807-3NH | | | | |
|----------------------|-------|--------------------|---------------------|---------------------|---------------|-------------------|
| Well Position | +N/-S | 0.00 ft | Northing: | 1,576,246.5788 usfl | Latitude: | 40° 54' 45.000 N |
| | +E/-W | 0.00 ft | Easting: | 3,218,177.2011 usfl | Longitude: | 104° 42' 38.340 W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | 0.00 ft | Ground Level: | 5,615.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 3/17/2017 | 8.25 | 67.28 | 52,685 |

| | | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|--------|
| Design | Design #1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | | 359.40 |

| | | | | | |
|----------------------------|----------------|--------------------------|------------------|--------------------|--|
| Survey Tool Program | Date | 3/17/2017 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 0.00 | 18,586.73 | Design #1 (Wellbore #1) | MWD | MWD - Standard | |

| | | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| Planned 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) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.00 | 0.00 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,690.41 | 1.81 | 341.97 | 2,690.39 | 1.36 | -0.44 | 1.36 | 2.00 | 2.00 | 0.00 |
| 2,700.00 | 1.81 | 341.97 | 2,699.98 | 1.64 | -0.54 | 1.65 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 1.81 | 341.97 | 2,799.93 | 4.64 | -1.51 | 4.66 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 1.81 | 341.97 | 2,899.88 | 7.64 | -2.49 | 7.67 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 1.81 | 341.97 | 2,999.83 | 10.64 | -3.47 | 10.68 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 1.81 | 341.97 | 3,099.78 | 13.65 | -4.44 | 13.69 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 1.81 | 341.97 | 3,199.73 | 16.65 | -5.42 | 16.70 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 1.81 | 341.97 | 3,299.68 | 19.65 | -6.40 | 19.71 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 1.81 | 341.97 | 3,399.63 | 22.65 | -7.37 | 22.72 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 1.81 | 341.97 | 3,499.58 | 25.65 | -8.35 | 25.73 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 1.81 | 341.97 | 3,599.53 | 28.65 | -9.33 | 28.74 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 1.81 | 341.97 | 3,699.48 | 31.65 | -10.30 | 31.75 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 1.81 | 341.97 | 3,799.43 | 34.65 | -11.28 | 34.76 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 1.81 | 341.97 | 3,899.38 | 37.65 | -12.26 | 37.77 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 1.81 | 341.97 | 3,999.33 | 40.65 | -13.23 | 40.78 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 1.81 | 341.97 | 4,099.28 | 43.65 | -14.21 | 43.79 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 1.81 | 341.97 | 4,199.23 | 46.65 | -15.19 | 46.80 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 1.81 | 341.97 | 4,299.18 | 49.65 | -16.16 | 49.81 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 1.81 | 341.97 | 4,399.13 | 52.65 | -17.14 | 52.83 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 1.81 | 341.97 | 4,499.08 | 55.65 | -18.12 | 55.84 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 1.81 | 341.97 | 4,599.03 | 58.65 | -19.09 | 58.85 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 1.81 | 341.97 | 4,698.98 | 61.65 | -20.07 | 61.86 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 1.81 | 341.97 | 4,798.93 | 64.65 | -21.05 | 64.87 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 1.81 | 341.97 | 4,898.88 | 67.65 | -22.02 | 67.88 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 1.81 | 341.97 | 4,998.84 | 70.65 | -23.00 | 70.89 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 1.81 | 341.97 | 5,098.79 | 73.65 | -23.98 | 73.90 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 1.81 | 341.97 | 5,198.74 | 76.65 | -24.96 | 76.91 | 0.00 | 0.00 | 0.00 |

Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 5,300.00 | 1.81 | 341.97 | 5,298.69 | 79.65 | -25.93 | 79.92 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 1.81 | 341.97 | 5,398.64 | 82.65 | -26.91 | 82.93 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 1.81 | 341.97 | 5,498.59 | 85.65 | -27.89 | 85.94 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 1.81 | 341.97 | 5,598.54 | 88.65 | -28.86 | 88.95 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 1.81 | 341.97 | 5,698.49 | 91.65 | -29.84 | 91.96 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 1.81 | 341.97 | 5,798.44 | 94.65 | -30.82 | 94.97 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 1.81 | 341.97 | 5,898.39 | 97.65 | -31.79 | 97.98 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 1.81 | 341.97 | 5,998.34 | 100.65 | -32.77 | 100.99 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 1.81 | 341.97 | 6,098.29 | 103.65 | -33.75 | 104.00 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 1.81 | 341.97 | 6,198.24 | 106.65 | -34.72 | 107.01 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 1.81 | 341.97 | 6,298.19 | 109.65 | -35.70 | 110.02 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 1.81 | 341.97 | 6,398.14 | 112.65 | -36.68 | 113.03 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 1.81 | 341.97 | 6,498.09 | 115.65 | -37.65 | 116.04 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 1.81 | 341.97 | 6,598.04 | 118.65 | -38.63 | 119.05 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 1.81 | 341.97 | 6,697.99 | 121.66 | -39.61 | 122.06 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 1.81 | 341.97 | 6,797.94 | 124.66 | -40.58 | 125.07 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 1.81 | 341.97 | 6,897.89 | 127.66 | -41.56 | 128.08 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 1.81 | 341.97 | 6,997.84 | 130.66 | -42.54 | 131.09 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 1.81 | 341.97 | 7,097.79 | 133.66 | -43.51 | 134.10 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 1.81 | 341.97 | 7,197.74 | 136.66 | -44.49 | 137.11 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 1.81 | 341.97 | 7,297.69 | 139.66 | -45.47 | 140.12 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 1.81 | 341.97 | 7,397.64 | 142.66 | -46.44 | 143.14 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 1.81 | 341.97 | 7,497.59 | 145.66 | -47.42 | 146.15 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 1.81 | 341.97 | 7,597.54 | 148.66 | -48.40 | 149.16 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 1.81 | 341.97 | 7,697.49 | 151.66 | -49.38 | 152.17 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 1.81 | 341.97 | 7,797.44 | 154.66 | -50.35 | 155.18 | 0.00 | 0.00 | 0.00 |
| 7,829.86 | 1.81 | 341.97 | 7,827.29 | 155.55 | -50.64 | 156.08 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 8.75 | 356.12 | 7,897.09 | 161.94 | -51.35 | 162.47 | 10.00 | 9.90 | 20.18 |
| 8,000.00 | 18.74 | 358.07 | 7,994.10 | 185.65 | -52.41 | 186.19 | 10.00 | 9.99 | 1.96 |
| 8,100.00 | 28.74 | 358.69 | 8,085.52 | 225.84 | -53.50 | 226.39 | 10.00 | 10.00 | 0.62 |
| 8,200.00 | 38.74 | 359.01 | 8,168.57 | 281.31 | -54.59 | 281.86 | 10.00 | 10.00 | 0.32 |
| 8,300.00 | 48.74 | 359.22 | 8,240.73 | 350.35 | -55.64 | 350.91 | 10.00 | 10.00 | 0.20 |
| 8,400.00 | 58.74 | 359.36 | 8,299.80 | 430.87 | -56.64 | 431.44 | 10.00 | 10.00 | 0.15 |
| 8,500.00 | 68.74 | 359.48 | 8,343.99 | 520.43 | -57.53 | 521.00 | 10.00 | 10.00 | 0.12 |
| 8,600.00 | 78.74 | 359.59 | 8,371.96 | 616.30 | -58.31 | 616.88 | 10.00 | 10.00 | 0.10 |
| 8,700.00 | 88.74 | 359.69 | 8,382.86 | 715.58 | -58.93 | 716.16 | 10.00 | 10.00 | 0.10 |
| 8,712.64 | 90.00 | 359.70 | 8,383.00 | 728.22 | -59.00 | 728.80 | 10.00 | 10.00 | 0.10 |
| 8,800.00 | 90.00 | 359.70 | 8,383.00 | 815.58 | -59.46 | 816.15 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.00 | 359.70 | 8,383.00 | 915.58 | -59.99 | 916.15 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.00 | 359.70 | 8,383.00 | 1,015.57 | -60.51 | 1,016.15 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.00 | 359.70 | 8,383.00 | 1,115.57 | -61.04 | 1,116.15 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.00 | 359.70 | 8,383.00 | 1,215.57 | -61.56 | 1,216.15 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.00 | 359.70 | 8,383.00 | 1,315.57 | -62.09 | 1,316.15 | 0.00 | 0.00 | 0.00 |

Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 9,400.00 | 90.00 | 359.70 | 8,383.00 | 1,415.57 | -62.62 | 1,416.15 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.00 | 359.70 | 8,383.00 | 1,515.57 | -63.14 | 1,516.15 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.00 | 359.70 | 8,383.00 | 1,615.57 | -63.67 | 1,616.14 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.00 | 359.70 | 8,383.00 | 1,715.56 | -64.20 | 1,716.14 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.00 | 359.70 | 8,383.00 | 1,815.56 | -64.72 | 1,816.14 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.00 | 359.70 | 8,383.00 | 1,915.56 | -65.25 | 1,916.14 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.00 | 359.70 | 8,383.00 | 2,015.56 | -65.77 | 2,016.14 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.00 | 359.70 | 8,383.00 | 2,115.56 | -66.30 | 2,116.14 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.00 | 359.70 | 8,383.00 | 2,215.56 | -66.83 | 2,216.14 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.00 | 359.70 | 8,383.00 | 2,315.56 | -67.35 | 2,316.13 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.00 | 359.70 | 8,383.00 | 2,415.55 | -67.88 | 2,416.13 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.00 | 359.70 | 8,383.00 | 2,515.55 | -68.40 | 2,516.13 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.00 | 359.70 | 8,383.00 | 2,615.55 | -68.93 | 2,616.13 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.00 | 359.70 | 8,383.00 | 2,715.55 | -69.46 | 2,716.13 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.00 | 359.70 | 8,383.00 | 2,815.55 | -69.98 | 2,816.13 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.00 | 359.70 | 8,383.00 | 2,915.55 | -70.51 | 2,916.13 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.00 | 359.70 | 8,383.00 | 3,015.55 | -71.04 | 3,016.12 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.00 | 359.70 | 8,383.00 | 3,115.55 | -71.56 | 3,116.12 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.00 | 359.70 | 8,383.00 | 3,215.54 | -72.09 | 3,216.12 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.00 | 359.70 | 8,383.00 | 3,315.54 | -72.61 | 3,316.12 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 359.70 | 8,383.00 | 3,415.54 | -73.14 | 3,416.12 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 359.70 | 8,383.00 | 3,515.54 | -73.67 | 3,516.12 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 359.70 | 8,383.00 | 3,615.54 | -74.19 | 3,616.12 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 359.70 | 8,383.00 | 3,715.54 | -74.72 | 3,716.12 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 359.70 | 8,383.00 | 3,815.54 | -75.25 | 3,816.11 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.00 | 359.70 | 8,383.00 | 3,915.53 | -75.77 | 3,916.11 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.00 | 359.70 | 8,383.00 | 4,015.53 | -76.30 | 4,016.11 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.00 | 359.70 | 8,383.00 | 4,115.53 | -76.82 | 4,116.11 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.00 | 359.70 | 8,383.00 | 4,215.53 | -77.35 | 4,216.11 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.00 | 359.70 | 8,383.00 | 4,315.53 | -77.88 | 4,316.11 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.00 | 359.70 | 8,383.00 | 4,415.53 | -78.40 | 4,416.11 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.00 | 359.70 | 8,383.00 | 4,515.53 | -78.93 | 4,516.10 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.00 | 359.70 | 8,383.00 | 4,615.52 | -79.46 | 4,616.10 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.00 | 359.70 | 8,383.00 | 4,715.52 | -79.98 | 4,716.10 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.00 | 359.70 | 8,383.00 | 4,815.52 | -80.51 | 4,816.10 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.00 | 359.70 | 8,383.00 | 4,915.52 | -81.03 | 4,916.10 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.00 | 359.70 | 8,383.00 | 5,015.52 | -81.56 | 5,016.10 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.00 | 359.70 | 8,383.00 | 5,115.52 | -82.09 | 5,116.10 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.00 | 359.70 | 8,383.00 | 5,215.52 | -82.61 | 5,216.10 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 90.00 | 359.70 | 8,383.00 | 5,315.51 | -83.14 | 5,316.09 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 90.00 | 359.70 | 8,383.00 | 5,415.51 | -83.66 | 5,416.09 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 90.00 | 359.70 | 8,383.00 | 5,515.51 | -84.19 | 5,516.09 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 90.00 | 359.70 | 8,383.00 | 5,615.51 | -84.72 | 5,616.09 | 0.00 | 0.00 | 0.00 |

Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 13,700.00 | 90.00 | 359.70 | 8,383.00 | 5,715.51 | -85.24 | 5,716.09 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 90.00 | 359.70 | 8,383.00 | 5,815.51 | -85.77 | 5,816.09 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 90.00 | 359.70 | 8,383.00 | 5,915.51 | -86.30 | 5,916.09 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 90.00 | 359.70 | 8,383.00 | 6,015.51 | -86.82 | 6,016.08 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 90.00 | 359.70 | 8,383.00 | 6,115.50 | -87.35 | 6,116.08 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 90.00 | 359.70 | 8,383.00 | 6,215.50 | -87.87 | 6,216.08 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 90.00 | 359.70 | 8,383.00 | 6,315.50 | -88.40 | 6,316.08 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 90.00 | 359.70 | 8,383.00 | 6,415.50 | -88.93 | 6,416.08 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 90.00 | 359.70 | 8,383.00 | 6,515.50 | -89.45 | 6,516.08 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 90.00 | 359.70 | 8,383.00 | 6,615.50 | -89.98 | 6,616.08 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 90.00 | 359.70 | 8,383.00 | 6,715.50 | -90.51 | 6,716.07 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 90.00 | 359.70 | 8,383.00 | 6,815.49 | -91.03 | 6,816.07 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 90.00 | 359.70 | 8,383.00 | 6,915.49 | -91.56 | 6,916.07 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 90.00 | 359.70 | 8,383.00 | 7,015.49 | -92.08 | 7,016.07 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 90.00 | 359.70 | 8,383.00 | 7,115.49 | -92.61 | 7,116.07 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 90.00 | 359.70 | 8,383.00 | 7,215.49 | -93.14 | 7,216.07 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 90.00 | 359.70 | 8,383.00 | 7,315.49 | -93.66 | 7,316.07 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 90.00 | 359.70 | 8,383.00 | 7,415.49 | -94.19 | 7,416.07 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 90.00 | 359.70 | 8,383.00 | 7,515.48 | -94.71 | 7,516.06 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 90.00 | 359.70 | 8,383.00 | 7,615.48 | -95.24 | 7,616.06 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 90.00 | 359.70 | 8,383.00 | 7,715.48 | -95.77 | 7,716.06 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 90.00 | 359.70 | 8,383.00 | 7,815.48 | -96.29 | 7,816.06 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 90.00 | 359.70 | 8,383.00 | 7,915.48 | -96.82 | 7,916.06 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 90.00 | 359.70 | 8,383.00 | 8,015.48 | -97.35 | 8,016.06 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 90.00 | 359.70 | 8,383.00 | 8,115.48 | -97.87 | 8,116.06 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 90.00 | 359.70 | 8,383.00 | 8,215.47 | -98.40 | 8,216.05 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 90.00 | 359.70 | 8,383.00 | 8,315.47 | -98.92 | 8,316.05 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 90.00 | 359.70 | 8,383.00 | 8,415.47 | -99.45 | 8,416.05 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 90.00 | 359.70 | 8,383.00 | 8,515.47 | -99.98 | 8,516.05 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 90.00 | 359.70 | 8,383.00 | 8,615.47 | -100.50 | 8,616.05 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 90.00 | 359.70 | 8,383.00 | 8,715.47 | -101.03 | 8,716.05 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 90.00 | 359.70 | 8,383.00 | 8,815.47 | -101.56 | 8,816.05 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 90.00 | 359.70 | 8,383.00 | 8,915.46 | -102.08 | 8,916.05 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 90.00 | 359.70 | 8,383.00 | 9,015.46 | -102.61 | 9,016.04 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 90.00 | 359.70 | 8,383.00 | 9,115.46 | -103.13 | 9,116.04 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 90.00 | 359.70 | 8,383.00 | 9,215.46 | -103.66 | 9,216.04 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 90.00 | 359.70 | 8,383.00 | 9,315.46 | -104.19 | 9,316.04 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 90.00 | 359.70 | 8,383.00 | 9,415.46 | -104.71 | 9,416.04 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 90.00 | 359.70 | 8,383.00 | 9,515.46 | -105.24 | 9,516.04 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 90.00 | 359.70 | 8,383.00 | 9,615.46 | -105.76 | 9,616.04 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 90.00 | 359.70 | 8,383.00 | 9,715.45 | -106.29 | 9,716.03 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 90.00 | 359.70 | 8,383.00 | 9,815.45 | -106.82 | 9,816.03 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 90.00 | 359.70 | 8,383.00 | 9,915.45 | -107.34 | 9,916.03 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 90.00 | 359.70 | 8,383.00 | 10,015.45 | -107.87 | 10,016.03 | 0.00 | 0.00 | 0.00 |

Integrity Directional Services, LLC

Survey Report



| | | | |
|------------------|--------------------------|-------------------------------------|--------------------------|
| Company: | Longs Peak Resources | Local Co-ordinate Reference: | Well Jaco West 1807-3NH |
| Project: | Weld County, Co (NAD 83) | TVD Reference: | KB=25' @ 5640.00ft |
| Site: | Jaco West Pad | MD Reference: | KB=25' @ 5640.00ft |
| Well: | Jaco West 1807-3NH | North Reference: | Grid |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Design #1 | Database: | EDM 5000.1 Multi User Db |

Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 18,100.00 | 90.00 | 359.70 | 8,383.00 | 10,115.45 | -108.40 | 10,116.03 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 90.00 | 359.70 | 8,383.00 | 10,215.45 | -108.92 | 10,216.03 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 90.00 | 359.70 | 8,383.00 | 10,315.45 | -109.45 | 10,316.03 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 90.00 | 359.70 | 8,383.00 | 10,415.44 | -109.97 | 10,416.02 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 90.00 | 359.70 | 8,383.00 | 10,515.44 | -110.50 | 10,516.02 | 0.00 | 0.00 | 0.00 |
| 18,586.73 | 90.00 | 359.70 | 8,383.00 | 10,602.17 | -110.96 | 10,602.75 | 0.00 | 0.00 | 0.00 |

Design Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---------------------------|---------------|--------------|----------|------------|------------|-----------------|----------------|------------------|-------------------|
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| 1807-3NH LP (330' F) | 0.00 | 0.00 | 8,383.00 | 728.22 | -59.00 | 1,576,974.7954 | 3,218,118.2012 | 40° 54' 52.200 N | 104° 42' 39.024 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| 1807-3NH BHL (330' I) | 0.00 | 0.00 | 8,383.00 | 10,602.17 | -110.96 | 1,586,848.7317 | 3,218,066.2444 | 40° 56' 29.760 N | 104° 42' 38.556 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Checked By: _____ Approved By: _____ Date: _____