

BISON OIL & GAS II

**WELD COUNTY
SEC 18-T8N-R60W
ROSS 8-60 18-7-4**

OWB

Design: FINAL SURVEY

Standard Survey Report

07 June, 2022

Project: WELD COUNTY
Site: SEC 18-T8N-R60W
Well: ROSS 8-60 18-7-4
Wellbore: OWB
Design: FINAL SURVEY

PROJECT DETAILS: WELD COUNTY
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.44°
Magnetic Field
Strength: 52056.4snT
Dip Angle: 66.91°
Date: 5/4/2022
Model: IGRF2020

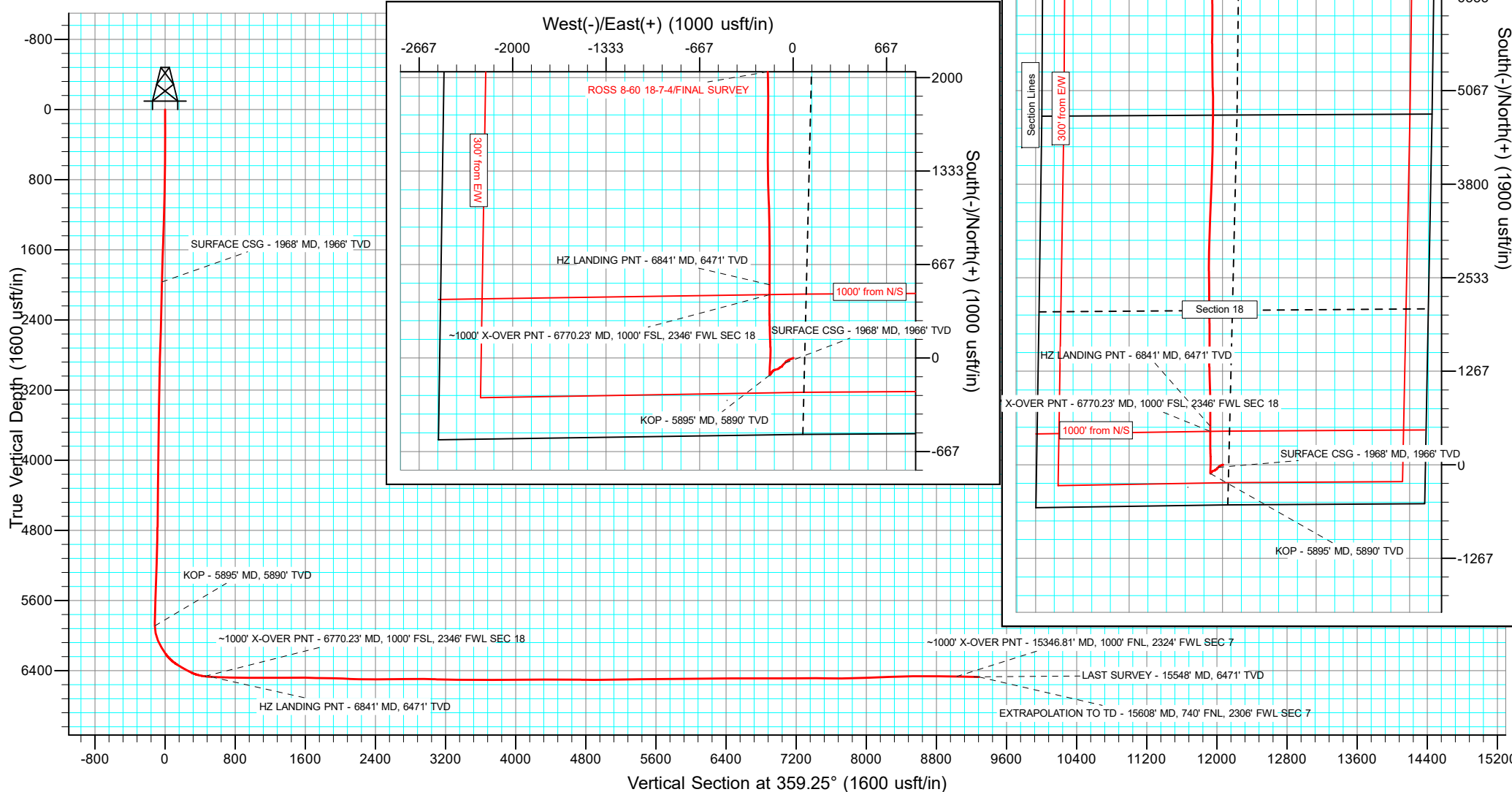
WELL DETAILS: ROSS 8-60 18-7-4

| | | 4950.00 | | | | | | | | | |
|-------|-------|------------|------------|-------------|--------------|------|--|--|--|--|--|
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot | | | | | |
| 0.00 | 0.00 | 1484916.64 | 3378756.04 | 40.656488°N | 104.134846°W | | | | | | |

ANNOTATIONS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSect | Departure | Annotation |
|----------|-------|--------|---------|---------|---------|---------|-----------|--|
| 1968.00 | 1.99 | 223.81 | 1965.94 | -36.79 | -59.64 | -36.01 | 77.85 | SURFACE CSG - 1968' MD, 1966' TVD |
| 5895.00 | 1.26 | 261.42 | 5890.32 | -120.75 | -166.28 | -118.57 | 219.94 | KOP - 5895' MD, 5890' TVD |
| 6770.23 | 82.69 | 0.39 | 6464.53 | 451.77 | -167.71 | 453.92 | 794.31 | ~1000' X-OVER PNT - 6770.23' MD, 1000' FSL, 2346' FWL SEC 18 |
| 6841.00 | 86.64 | 0.35 | 6470.93 | 522.24 | -167.24 | 524.37 | 864.73 | HZ LANDING PNT - 6841' MD, 6471' TVD |
| 15346.81 | 89.23 | 357.47 | 6466.45 | 9024.44 | -103.77 | 9025.03 | 9369.13 | ~1000' X-OVER PNT - 15346.81' MD, 1000' FNL, 2324' FWL SEC 7 |
| 15548.00 | 87.98 | 355.34 | 6470.50 | 9225.19 | -116.05 | 9225.92 | 9570.27 | LAST SURVEY - 15548' MD, 6471' TVD |
| 15608.00 | 87.98 | 355.34 | 6472.62 | 9284.96 | -120.92 | 9285.75 | 9630.24 | EXTRAPOLATION TO TD - 15608' MD, 740' FNL, 2306' FWL SEC 7 |

SHL:
546' FSL, 2520' FWL
Sec 18-T8N-R60W
~1000' X-OVER PNT:
1000' FSL, 2346' FWL
Sec 18-T8N-R60W
~1000' X-OVER PNT:
1000' FNL, 2324' FWL
Sec 7-T8N-R60W
BHL:
740' FNL, 2306' FWL
Sec 7-T8N-R60W



Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | WELD COUNTY | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

| | | | | | | | |
|-----------------------|----------|-----------------|--------------|--------|------------|-------------------|--------|
| Site | | SEC 18-T8N-R60W | | | | | |
| Site Position: | | Northing: | 1,484,295.38 | usft | Latitude: | 40.654889°N | |
| From: | Lat/Long | Easting: | 3,376,236.78 | usft | Longitude: | 104.143959°W | |
| Position Uncertainty: | 0.00 | usft | Slot Radius: | 13.200 | in | Grid Convergence: | 0.88 ° |

| | | | | | | |
|----------------------|------------------|-----------|---------------------|-------------------|---------------|---------------|
| Well | ROSS 8-60 18-7-4 | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 1,484,916.64 usft | Latitude: | 40.656488°N |
| | +E/-W | 0.00 usft | Easting: | 3,378,756.04 usft | Longitude: | 104.134846°W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 4,950.00 usft |

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|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OWB | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2020 | 5/4/2022 | 7.44 | 66.91 | 52,056.41997643 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| Design | FINAL SURVEY | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 359.25 | |

| | | | | | |
|-----------------------|------------------|--------------------------|------------------|---------------------|--|
| Survey Program | Date | 6/7/2022 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 157.00 | 1,902.00 | SURFACE SURVEY (OWB) | MWD | OWSG MWD - Standard | |
| 2,027.00 | 15,608.00 | FINAL SURVEY (OWB) | MWD | OWSG MWD - Standard | |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|------------------------------|-----------------------------|----------------------------|--|
| Survey | | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 157.00 | 0.40 | 72.83 | 157.00 | 0.16 | 0.52 | 0.15 | 0.25 | 0.25 | 0.00 | |
| 246.00 | 0.35 | 76.66 | 246.00 | 0.32 | 1.08 | 0.30 | 0.06 | -0.06 | 4.30 | |
| 335.00 | 0.57 | 85.08 | 334.99 | 0.42 | 1.79 | 0.39 | 0.26 | 0.25 | 9.46 | |
| 424.00 | 0.62 | 94.51 | 423.99 | 0.42 | 2.71 | 0.38 | 0.12 | 0.06 | 10.60 | |
| 513.00 | 0.80 | 228.03 | 512.99 | -0.04 | 2.73 | -0.07 | 1.47 | 0.20 | 150.02 | |
| 602.00 | 2.08 | 247.99 | 601.96 | -1.06 | 0.77 | -1.07 | 1.52 | 1.44 | 22.43 | |
| 691.00 | 2.70 | 253.33 | 690.88 | -2.26 | -2.74 | -2.23 | 0.74 | 0.70 | 6.00 | |
| 780.00 | 2.92 | 253.28 | 779.77 | -3.52 | -6.91 | -3.43 | 0.25 | 0.25 | -0.06 | |
| 869.00 | 3.23 | 247.16 | 868.64 | -5.14 | -11.40 | -4.99 | 0.51 | 0.35 | -6.88 | |

Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Survey | | | | | | | | | |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 958.00 | 3.40 | 246.89 | 957.49 | -7.15 | -16.13 | -6.94 | 0.19 | 0.19 | -0.30 |
| 1,047.00 | 3.58 | 248.52 | 1,046.33 | -9.21 | -21.15 | -8.93 | 0.23 | 0.20 | 1.83 |
| 1,136.00 | 4.15 | 249.84 | 1,135.13 | -11.33 | -26.76 | -10.98 | 0.65 | 0.64 | 1.48 |
| 1,225.00 | 3.14 | 238.96 | 1,223.95 | -13.70 | -31.87 | -13.28 | 1.37 | -1.13 | -12.22 |
| 1,314.00 | 3.23 | 236.27 | 1,312.81 | -16.35 | -36.04 | -15.88 | 0.20 | 0.10 | -3.02 |
| 1,403.00 | 3.76 | 237.33 | 1,401.64 | -19.32 | -40.58 | -18.79 | 0.60 | 0.60 | 1.19 |
| 1,492.00 | 4.55 | 237.46 | 1,490.41 | -22.79 | -46.02 | -22.19 | 0.89 | 0.89 | 0.15 |
| 1,581.00 | 3.58 | 231.47 | 1,579.18 | -26.42 | -51.17 | -25.75 | 1.19 | -1.09 | -6.73 |
| 1,670.00 | 1.86 | 218.91 | 1,668.08 | -29.28 | -54.25 | -28.57 | 2.03 | -1.93 | -14.11 |
| 1,760.00 | 1.55 | 212.43 | 1,758.04 | -31.44 | -55.82 | -30.71 | 0.41 | -0.34 | -7.20 |
| 1,902.00 | 1.94 | 214.50 | 1,899.98 | -35.04 | -58.21 | -34.28 | 0.28 | 0.27 | 1.46 |
| 1,968.00 | 1.99 | 223.81 | 1,965.94 | -36.79 | -59.64 | -36.01 | 0.49 | 0.08 | 14.10 |
| SURFACE CSG - 1968' MD, 1966' TVD | | | | | | | | | |
| 2,027.00 | 2.08 | 231.56 | 2,024.90 | -38.19 | -61.18 | -37.39 | 0.49 | 0.15 | 13.14 |
| 2,205.00 | 2.12 | 228.52 | 2,202.78 | -42.38 | -66.18 | -41.52 | 0.07 | 0.02 | -1.71 |
| 2,295.00 | 1.99 | 226.89 | 2,292.72 | -44.55 | -68.57 | -43.66 | 0.16 | -0.14 | -1.81 |
| 2,384.00 | 2.08 | 224.59 | 2,381.67 | -46.76 | -70.83 | -45.83 | 0.14 | 0.10 | -2.58 |
| 2,473.00 | 1.94 | 217.98 | 2,470.61 | -49.10 | -72.89 | -48.14 | 0.30 | -0.16 | -7.43 |
| 2,562.00 | 1.99 | 214.77 | 2,559.56 | -51.55 | -74.70 | -50.58 | 0.14 | 0.06 | -3.61 |
| 2,682.00 | 2.43 | 209.74 | 2,679.47 | -55.48 | -77.15 | -54.47 | 0.40 | 0.37 | -4.19 |
| 2,771.00 | 2.70 | 214.11 | 2,768.38 | -58.85 | -79.26 | -57.81 | 0.37 | 0.30 | 4.91 |
| 2,860.00 | 2.30 | 245.83 | 2,857.30 | -61.32 | -82.07 | -60.24 | 1.59 | -0.45 | 35.64 |
| 2,949.00 | 2.47 | 243.19 | 2,946.22 | -62.91 | -85.41 | -61.79 | 0.23 | 0.19 | -2.97 |
| 3,038.00 | 2.34 | 244.34 | 3,035.14 | -64.56 | -88.76 | -63.40 | 0.16 | -0.15 | 1.29 |
| 3,127.00 | 2.12 | 243.32 | 3,124.08 | -66.09 | -91.87 | -64.89 | 0.25 | -0.25 | -1.15 |
| 3,216.00 | 1.94 | 240.99 | 3,213.02 | -67.56 | -94.65 | -66.32 | 0.22 | -0.20 | -2.62 |
| 3,305.00 | 1.59 | 236.54 | 3,301.98 | -68.97 | -97.00 | -67.70 | 0.42 | -0.39 | -5.00 |
| 3,394.00 | 1.46 | 222.96 | 3,390.95 | -70.48 | -98.80 | -69.19 | 0.43 | -0.15 | -15.26 |
| 3,484.00 | 1.46 | 220.54 | 3,480.92 | -72.19 | -100.33 | -70.88 | 0.07 | 0.00 | -2.69 |
| 3,573.00 | 1.55 | 217.45 | 3,569.89 | -74.01 | -101.80 | -72.68 | 0.14 | 0.10 | -3.47 |
| 3,662.00 | 1.41 | 214.50 | 3,658.86 | -75.87 | -103.15 | -74.52 | 0.18 | -0.16 | -3.31 |
| 3,751.00 | 2.52 | 253.28 | 3,747.81 | -77.33 | -105.65 | -75.95 | 1.88 | 1.25 | 43.57 |
| 3,840.00 | 2.47 | 252.93 | 3,836.72 | -78.46 | -109.35 | -77.03 | 0.06 | -0.06 | -0.39 |
| 3,929.00 | 2.39 | 256.76 | 3,925.64 | -79.45 | -112.99 | -77.97 | 0.20 | -0.09 | 4.30 |
| 4,107.00 | 2.21 | 255.79 | 4,103.50 | -81.14 | -119.93 | -79.57 | 0.10 | -0.10 | -0.54 |
| 4,196.00 | 2.08 | 264.30 | 4,192.44 | -81.72 | -123.20 | -80.11 | 0.39 | -0.15 | 9.56 |
| 4,374.00 | 1.90 | 250.55 | 4,370.33 | -83.02 | -129.20 | -81.33 | 0.29 | -0.10 | -7.72 |
| 4,463.00 | 2.39 | 237.86 | 4,459.27 | -84.50 | -132.16 | -82.77 | 0.76 | 0.55 | -14.26 |
| 4,553.00 | 2.21 | 240.55 | 4,549.20 | -86.35 | -135.26 | -84.59 | 0.23 | -0.20 | 2.99 |
| 4,642.00 | 1.68 | 247.55 | 4,638.15 | -87.70 | -137.96 | -85.89 | 0.65 | -0.60 | 7.87 |
| 4,731.00 | 1.46 | 250.77 | 4,727.11 | -88.57 | -140.24 | -86.73 | 0.27 | -0.25 | 3.62 |
| 4,820.00 | 2.65 | 227.55 | 4,816.05 | -90.33 | -142.83 | -88.46 | 1.61 | 1.34 | -26.09 |
| 4,909.00 | 1.81 | 228.65 | 4,904.99 | -92.65 | -145.40 | -90.75 | 0.94 | -0.94 | 1.24 |

Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Survey | | | | | | | | | |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,998.00 | 1.19 | 218.95 | 4,993.96 | -94.29 | -147.04 | -92.37 | 0.75 | -0.70 | -10.90 |
| 5,087.00 | 1.37 | 216.93 | 5,082.93 | -95.86 | -148.26 | -93.92 | 0.21 | 0.20 | -2.27 |
| 5,177.00 | 1.86 | 214.85 | 5,172.90 | -97.92 | -149.74 | -95.96 | 0.55 | 0.54 | -2.31 |
| 5,266.00 | 2.92 | 210.05 | 5,261.82 | -101.07 | -151.70 | -99.09 | 1.21 | 1.19 | -5.39 |
| 5,355.00 | 2.83 | 205.38 | 5,350.71 | -105.02 | -153.78 | -103.01 | 0.28 | -0.10 | -5.25 |
| 5,444.00 | 2.47 | 225.61 | 5,439.61 | -108.34 | -156.09 | -106.30 | 1.12 | -0.40 | 22.73 |
| 5,533.00 | 2.34 | 222.96 | 5,528.53 | -111.02 | -158.70 | -108.94 | 0.19 | -0.15 | -2.98 |
| 5,622.00 | 2.03 | 217.63 | 5,617.47 | -113.59 | -160.90 | -111.49 | 0.42 | -0.35 | -5.99 |
| 5,711.00 | 1.68 | 206.31 | 5,706.42 | -116.01 | -162.44 | -113.89 | 0.57 | -0.39 | -12.72 |
| 5,800.00 | 2.17 | 219.61 | 5,795.37 | -118.48 | -164.09 | -116.33 | 0.74 | 0.55 | 14.94 |
| 5,889.00 | 1.72 | 227.68 | 5,884.32 | -120.68 | -166.15 | -118.50 | 0.59 | -0.51 | 9.07 |
| 5,895.00 | 1.26 | 261.42 | 5,890.32 | -120.75 | -166.28 | -118.57 | 16.17 | -7.68 | 562.36 |
| KOP - 5895' MD, 5890' TVD | | | | | | | | | |
| 5,978.00 | 13.26 | 356.31 | 5,972.58 | -111.34 | -167.81 | -109.15 | 16.17 | 14.46 | 114.32 |
| 6,067.00 | 22.76 | 4.07 | 6,057.13 | -83.92 | -167.24 | -81.73 | 10.99 | 10.67 | 8.72 |
| 6,157.00 | 31.86 | 4.16 | 6,137.02 | -42.77 | -164.27 | -40.63 | 10.11 | 10.11 | 0.10 |
| 6,246.00 | 34.91 | 1.78 | 6,211.33 | 6.12 | -161.78 | 8.23 | 3.73 | 3.43 | -2.67 |
| 6,335.00 | 47.99 | 358.91 | 6,277.90 | 64.90 | -161.62 | 67.00 | 14.85 | 14.70 | -3.22 |
| 6,424.00 | 57.93 | 357.15 | 6,331.44 | 135.80 | -164.13 | 137.92 | 11.28 | 11.17 | -1.98 |
| 6,513.00 | 60.50 | 358.96 | 6,376.99 | 212.20 | -166.70 | 214.36 | 3.37 | 2.89 | 2.03 |
| 6,602.00 | 63.32 | 359.40 | 6,418.90 | 290.70 | -167.82 | 292.86 | 3.20 | 3.17 | 0.49 |
| 6,691.00 | 75.92 | 0.19 | 6,449.83 | 373.96 | -168.10 | 376.12 | 14.18 | 14.16 | 0.89 |
| 6,770.23 | 82.69 | 0.39 | 6,464.53 | 451.77 | -167.71 | 453.92 | 8.54 | 8.54 | 0.25 |
| ~1000' X-OVER PNT - 6770.23' MD, 1000' FSL, 2346' FWL SEC 18 | | | | | | | | | |
| 6,780.00 | 83.52 | 0.41 | 6,465.70 | 461.47 | -167.64 | 463.61 | 8.54 | 8.54 | 0.24 |
| 6,841.00 | 86.64 | 0.35 | 6,470.93 | 522.24 | -167.24 | 524.37 | 5.11 | 5.11 | -0.10 |
| HZ LANDING PNT - 6841' MD, 6471' TVD | | | | | | | | | |
| 6,869.00 | 88.07 | 0.32 | 6,472.22 | 550.21 | -167.07 | 552.33 | 5.11 | 5.11 | -0.10 |
| 6,958.00 | 88.42 | 359.97 | 6,474.95 | 639.16 | -166.85 | 641.28 | 0.56 | 0.39 | -0.39 |
| 7,047.00 | 88.11 | 359.48 | 6,477.64 | 728.12 | -167.28 | 730.24 | 0.65 | -0.35 | -0.55 |
| 7,136.00 | 89.22 | 0.19 | 6,479.72 | 817.09 | -167.53 | 819.21 | 1.48 | 1.25 | 0.80 |
| 7,225.00 | 89.04 | 358.87 | 6,481.07 | 906.08 | -168.26 | 908.19 | 1.50 | -0.20 | -1.48 |
| 7,314.00 | 89.44 | 358.69 | 6,482.25 | 995.05 | -170.16 | 997.18 | 0.49 | 0.45 | -0.20 |
| 7,403.00 | 90.10 | 358.56 | 6,482.61 | 1,084.02 | -172.29 | 1,086.18 | 0.76 | 0.74 | -0.15 |
| 7,492.00 | 90.32 | 358.07 | 6,482.28 | 1,172.98 | -174.91 | 1,175.16 | 0.60 | 0.25 | -0.55 |
| 7,581.00 | 90.94 | 357.81 | 6,481.30 | 1,261.92 | -178.11 | 1,264.13 | 0.76 | 0.70 | -0.29 |
| 7,670.00 | 90.63 | 359.22 | 6,480.08 | 1,350.88 | -180.41 | 1,353.12 | 1.62 | -0.35 | 1.58 |
| 7,759.00 | 89.88 | 1.25 | 6,479.69 | 1,439.87 | -180.05 | 1,442.10 | 2.43 | -0.84 | 2.28 |
| 7,848.00 | 90.10 | 1.20 | 6,479.70 | 1,528.85 | -178.15 | 1,531.04 | 0.25 | 0.25 | -0.06 |
| 7,937.00 | 88.47 | 359.62 | 6,480.81 | 1,617.84 | -177.51 | 1,620.01 | 2.55 | -1.83 | -1.78 |
| 8,026.00 | 88.73 | 0.28 | 6,482.99 | 1,706.81 | -177.59 | 1,708.98 | 0.80 | 0.29 | 0.74 |
| 8,115.00 | 89.22 | 359.75 | 6,484.58 | 1,795.80 | -177.56 | 1,797.96 | 0.81 | 0.55 | -0.60 |
| 8,205.00 | 89.44 | 359.88 | 6,485.63 | 1,885.79 | -177.85 | 1,887.95 | 0.28 | 0.24 | 0.14 |
| 8,294.00 | 87.58 | 358.91 | 6,487.95 | 1,974.75 | -178.79 | 1,976.91 | 2.36 | -2.09 | -1.09 |

Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 8,383.00 | 87.10 | 359.00 | 6,492.08 | 2,063.64 | -180.41 | 2,065.81 | 0.55 | -0.54 | 0.10 | |
| 8,472.00 | 88.51 | 0.10 | 6,495.49 | 2,152.57 | -181.11 | 2,154.74 | 2.01 | 1.58 | 1.24 | |
| 8,561.00 | 89.04 | 359.84 | 6,497.39 | 2,241.55 | -181.16 | 2,243.71 | 0.66 | 0.60 | -0.29 | |
| 8,650.00 | 89.44 | 359.57 | 6,498.57 | 2,330.54 | -181.62 | 2,332.70 | 0.54 | 0.45 | -0.30 | |
| 8,739.00 | 90.06 | 359.04 | 6,498.96 | 2,419.53 | -182.70 | 2,421.70 | 0.92 | 0.70 | -0.60 | |
| 8,828.00 | 90.50 | 359.62 | 6,498.52 | 2,508.52 | -183.74 | 2,510.70 | 0.82 | 0.49 | 0.65 | |
| 8,917.00 | 91.03 | 358.82 | 6,497.33 | 2,597.50 | -184.95 | 2,599.69 | 1.08 | 0.60 | -0.90 | |
| 9,006.00 | 91.74 | 359.00 | 6,495.18 | 2,686.46 | -186.64 | 2,688.66 | 0.82 | 0.80 | 0.20 | |
| 9,095.00 | 89.79 | 0.54 | 6,493.99 | 2,775.45 | -187.00 | 2,777.64 | 2.79 | -2.19 | 1.73 | |
| 9,184.00 | 90.10 | 0.85 | 6,494.08 | 2,864.44 | -185.92 | 2,866.62 | 0.49 | 0.35 | 0.35 | |
| 9,273.00 | 88.60 | 2.22 | 6,495.09 | 2,953.40 | -183.54 | 2,955.54 | 2.28 | -1.69 | 1.54 | |
| 9,363.00 | 88.73 | 2.35 | 6,497.19 | 3,043.30 | -179.95 | 3,045.39 | 0.20 | 0.14 | 0.14 | |
| 9,451.00 | 88.86 | 2.52 | 6,499.04 | 3,131.20 | -176.21 | 3,133.23 | 0.24 | 0.15 | 0.19 | |
| 9,541.00 | 88.82 | 2.26 | 6,500.86 | 3,221.10 | -172.46 | 3,223.08 | 0.29 | -0.04 | -0.29 | |
| 9,630.00 | 88.69 | 2.13 | 6,502.79 | 3,310.02 | -169.05 | 3,311.94 | 0.21 | -0.15 | -0.15 | |
| 9,719.00 | 89.44 | 2.52 | 6,504.24 | 3,398.93 | -165.44 | 3,400.80 | 0.95 | 0.84 | 0.44 | |
| 9,808.00 | 89.62 | 2.17 | 6,504.98 | 3,487.85 | -161.80 | 3,489.67 | 0.44 | 0.20 | -0.39 | |
| 9,897.00 | 90.10 | 1.95 | 6,505.19 | 3,576.80 | -158.60 | 3,578.56 | 0.59 | 0.54 | -0.25 | |
| 9,986.00 | 90.50 | 3.14 | 6,504.73 | 3,665.71 | -154.65 | 3,667.41 | 1.41 | 0.45 | 1.34 | |
| 10,075.00 | 89.53 | 1.73 | 6,504.70 | 3,754.62 | -150.87 | 3,756.27 | 1.92 | -1.09 | -1.58 | |
| 10,164.00 | 89.66 | 1.47 | 6,505.33 | 3,843.58 | -148.38 | 3,845.19 | 0.33 | 0.15 | -0.29 | |
| 10,253.00 | 89.88 | 1.69 | 6,505.69 | 3,932.55 | -145.93 | 3,934.12 | 0.35 | 0.25 | 0.25 | |
| 10,343.00 | 90.54 | 1.51 | 6,505.36 | 4,022.51 | -143.41 | 4,024.04 | 0.76 | 0.73 | -0.20 | |
| 10,432.00 | 89.97 | 0.63 | 6,504.96 | 4,111.50 | -141.75 | 4,112.99 | 1.18 | -0.64 | -0.99 | |
| 10,521.00 | 90.37 | 0.94 | 6,504.70 | 4,200.49 | -140.53 | 4,201.96 | 0.57 | 0.45 | 0.35 | |
| 10,610.00 | 91.43 | 1.73 | 6,503.30 | 4,289.45 | -138.46 | 4,290.89 | 1.49 | 1.19 | 0.89 | |
| 10,699.00 | 90.50 | 1.29 | 6,501.80 | 4,378.41 | -136.11 | 4,379.81 | 1.16 | -1.04 | -0.49 | |
| 10,788.00 | 91.38 | 1.33 | 6,500.34 | 4,467.37 | -134.08 | 4,468.74 | 0.99 | 0.99 | 0.04 | |
| 10,877.00 | 89.70 | 0.63 | 6,499.50 | 4,556.35 | -132.56 | 4,557.69 | 2.04 | -1.89 | -0.79 | |
| 10,966.00 | 89.09 | 0.72 | 6,500.44 | 4,645.34 | -131.51 | 4,646.66 | 0.69 | -0.69 | 0.10 | |
| 11,055.00 | 87.85 | 0.32 | 6,502.82 | 4,734.30 | -130.70 | 4,735.60 | 1.46 | -1.39 | -0.45 | |
| 11,144.00 | 89.70 | 0.76 | 6,504.72 | 4,823.27 | -129.86 | 4,824.55 | 2.14 | 2.08 | 0.49 | |
| 11,233.00 | 89.97 | 359.70 | 6,504.98 | 4,912.27 | -129.51 | 4,913.54 | 1.23 | 0.30 | -1.19 | |
| 11,322.00 | 90.63 | 358.65 | 6,504.51 | 5,001.26 | -130.79 | 5,002.54 | 1.39 | 0.74 | -1.18 | |
| 11,411.00 | 90.72 | 357.68 | 6,503.46 | 5,090.20 | -133.64 | 5,091.51 | 1.09 | 0.10 | -1.09 | |
| 11,500.00 | 90.68 | 359.53 | 6,502.38 | 5,179.17 | -135.80 | 5,180.50 | 2.08 | -0.04 | 2.08 | |
| 11,589.00 | 90.99 | 358.56 | 6,501.08 | 5,268.14 | -137.29 | 5,269.49 | 1.14 | 0.35 | -1.09 | |
| 11,678.00 | 91.30 | 0.23 | 6,499.30 | 5,357.12 | -138.23 | 5,358.46 | 1.91 | 0.35 | 1.88 | |
| 11,767.00 | 91.34 | 359.09 | 6,497.25 | 5,446.09 | -138.75 | 5,447.44 | 1.28 | 0.04 | -1.28 | |
| 11,856.00 | 91.25 | 359.00 | 6,495.24 | 5,535.06 | -140.24 | 5,536.41 | 0.14 | -0.10 | -0.10 | |
| 11,945.00 | 90.68 | 359.70 | 6,493.74 | 5,624.04 | -141.25 | 5,625.40 | 1.01 | -0.64 | 0.79 | |
| 12,034.00 | 91.16 | 359.44 | 6,492.31 | 5,713.02 | -141.92 | 5,714.39 | 0.61 | 0.54 | -0.29 | |
| 12,123.00 | 89.70 | 1.16 | 6,491.64 | 5,802.01 | -141.45 | 5,803.36 | 2.53 | -1.64 | 1.93 | |

Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Survey | | | | | | | | | | |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 12,212.00 | 90.28 | 1.07 | 6,491.66 | 5,891.00 | -139.72 | 5,892.32 | 0.66 | 0.65 | -0.10 | |
| 12,302.00 | 89.88 | 0.28 | 6,491.53 | 5,980.99 | -138.66 | 5,982.29 | 0.98 | -0.44 | -0.88 | |
| 12,391.00 | 90.41 | 359.79 | 6,491.31 | 6,069.99 | -138.60 | 6,071.28 | 0.81 | 0.60 | -0.55 | |
| 12,480.00 | 90.50 | 359.62 | 6,490.60 | 6,158.98 | -139.06 | 6,160.27 | 0.22 | 0.10 | -0.19 | |
| 12,569.00 | 90.23 | 359.04 | 6,490.03 | 6,247.98 | -140.10 | 6,249.27 | 0.72 | -0.30 | -0.65 | |
| 12,658.00 | 90.46 | 358.25 | 6,489.50 | 6,336.95 | -142.21 | 6,338.26 | 0.92 | 0.26 | -0.89 | |
| 12,747.00 | 89.88 | 0.45 | 6,489.23 | 6,425.94 | -143.22 | 6,427.26 | 2.56 | -0.65 | 2.47 | |
| 12,836.00 | 90.63 | 0.23 | 6,488.84 | 6,514.93 | -142.69 | 6,516.24 | 0.88 | 0.84 | -0.25 | |
| 12,925.00 | 89.75 | 0.63 | 6,488.54 | 6,603.93 | -142.02 | 6,605.22 | 1.09 | -0.99 | 0.45 | |
| 13,014.00 | 90.63 | 1.11 | 6,488.25 | 6,692.92 | -140.67 | 6,694.18 | 1.13 | 0.99 | 0.54 | |
| 13,103.00 | 89.62 | 2.22 | 6,488.05 | 6,781.88 | -138.08 | 6,783.10 | 1.69 | -1.13 | 1.25 | |
| 13,193.00 | 90.41 | 1.42 | 6,488.03 | 6,871.83 | -135.22 | 6,873.01 | 1.25 | 0.88 | -0.89 | |
| 13,282.00 | 90.19 | 0.76 | 6,487.56 | 6,960.81 | -133.53 | 6,961.96 | 0.78 | -0.25 | -0.74 | |
| 13,371.00 | 89.62 | 1.82 | 6,487.71 | 7,049.79 | -131.53 | 7,050.90 | 1.35 | -0.64 | 1.19 | |
| 13,460.00 | 90.50 | 2.08 | 6,487.62 | 7,138.74 | -128.50 | 7,139.80 | 1.03 | 0.99 | 0.29 | |
| 13,549.00 | 90.81 | 2.48 | 6,486.60 | 7,227.66 | -124.96 | 7,228.67 | 0.57 | 0.35 | 0.45 | |
| 13,638.00 | 90.32 | 2.04 | 6,485.72 | 7,316.58 | -121.45 | 7,317.55 | 0.74 | -0.55 | -0.49 | |
| 13,727.00 | 89.93 | 1.38 | 6,485.53 | 7,405.54 | -118.79 | 7,406.46 | 0.86 | -0.44 | -0.74 | |
| 13,816.00 | 89.09 | 1.51 | 6,486.29 | 7,494.51 | -116.55 | 7,495.39 | 0.96 | -0.94 | 0.15 | |
| 13,905.00 | 88.56 | 0.76 | 6,488.12 | 7,583.47 | -114.79 | 7,584.33 | 1.03 | -0.60 | -0.84 | |
| 13,994.00 | 90.37 | 1.86 | 6,488.95 | 7,672.44 | -112.75 | 7,673.26 | 2.38 | 2.03 | 1.24 | |
| 14,083.00 | 89.93 | 1.69 | 6,488.71 | 7,761.40 | -110.00 | 7,762.17 | 0.53 | -0.49 | -0.19 | |
| 14,172.00 | 92.22 | 1.82 | 6,487.04 | 7,850.34 | -107.27 | 7,851.07 | 2.58 | 2.57 | 0.15 | |
| 14,261.00 | 92.62 | 1.47 | 6,483.29 | 7,939.22 | -104.72 | 7,939.91 | 0.60 | 0.45 | -0.39 | |
| 14,350.00 | 93.33 | 1.16 | 6,478.67 | 8,028.08 | -102.68 | 8,028.73 | 0.87 | 0.80 | -0.35 | |
| 14,439.00 | 91.21 | 1.51 | 6,475.14 | 8,116.98 | -100.61 | 8,117.60 | 2.41 | -2.38 | 0.39 | |
| 14,528.00 | 91.60 | 1.16 | 6,472.96 | 8,205.93 | -98.53 | 8,206.51 | 0.59 | 0.44 | -0.39 | |
| 14,617.00 | 91.38 | 0.23 | 6,470.65 | 8,294.89 | -97.45 | 8,295.45 | 1.07 | -0.25 | -1.04 | |
| 14,706.00 | 92.22 | 0.19 | 6,467.85 | 8,383.84 | -97.13 | 8,384.40 | 0.94 | 0.94 | -0.04 | |
| 14,795.00 | 90.59 | 0.41 | 6,465.67 | 8,472.81 | -96.66 | 8,473.35 | 1.85 | -1.83 | 0.25 | |
| 14,884.00 | 91.07 | 0.14 | 6,464.38 | 8,561.80 | -96.23 | 8,562.33 | 0.62 | 0.54 | -0.30 | |
| 14,973.00 | 89.40 | 0.37 | 6,464.01 | 8,650.80 | -95.84 | 8,651.31 | 1.89 | -1.88 | 0.26 | |
| 15,062.00 | 89.79 | 359.92 | 6,464.64 | 8,739.79 | -95.61 | 8,740.30 | 0.67 | 0.44 | -0.51 | |
| 15,151.00 | 90.06 | 359.09 | 6,464.76 | 8,828.79 | -96.38 | 8,829.29 | 0.98 | 0.30 | -0.93 | |
| 15,241.00 | 89.40 | 357.41 | 6,465.18 | 8,918.74 | -99.13 | 8,919.28 | 2.01 | -0.73 | -1.87 | |
| 15,330.00 | 89.26 | 357.55 | 6,466.22 | 9,007.65 | -103.04 | 9,008.23 | 0.22 | -0.16 | 0.16 | |
| 15,346.81 | 89.23 | 357.47 | 6,466.45 | 9,024.44 | -103.77 | 9,025.03 | 0.49 | -0.19 | -0.45 | |
| ~1000' X-OVER PNT - 15346.81' MD, 1000' FNL, 2324' FWL SEC 7 | | | | | | | | | | |
| 15,419.00 | 89.09 | 357.15 | 6,467.51 | 9,096.54 | -107.16 | 9,097.17 | 0.49 | -0.19 | -0.45 | |
| 15,507.00 | 88.60 | 355.52 | 6,469.28 | 9,184.34 | -112.78 | 9,185.03 | 1.93 | -0.56 | -1.85 | |
| 15,548.00 | 87.98 | 355.34 | 6,470.50 | 9,225.20 | -116.05 | 9,225.92 | 1.57 | -1.51 | -0.44 | |
| LAST SURVEY - 15548' MD, 6471' TVD | | | | | | | | | | |
| 15,608.00 | 87.98 | 355.34 | 6,472.62 | 9,284.96 | -120.92 | 9,285.75 | 0.00 | 0.00 | 0.00 | |
| EXTRAPOLATION TO TD - 15608' MD, 740' FNL, 2306' FWL SEC 7 | | | | | | | | | | |

Survey Report

| | | | |
|------------------|--------------------|-------------------------------------|-----------------------|
| Company: | BISON OIL & GAS II | Local Co-ordinate Reference: | Well ROSS 8-60 18-7-4 |
| Project: | WELD COUNTY | TVD Reference: | KB 24' @ 4974.00usft |
| Site: | SEC 18-T8N-R60W | MD Reference: | KB 24' @ 4974.00usft |
| Well: | ROSS 8-60 18-7-4 | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |

| Design Targets | | | | | | | | | |
|---|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|--------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| PBHL-ROSS 8-60 4 - actual wellpath misses target center by 17.88usft at 15496.36usft MD (6469.02 TVD, 9173.73 N, -111.97 E) - Point | 0.00 | 0.00 | 6,478.00 | 9,174.54 | -96.52 | 1,494,088.45 | 3,378,518.29 | 40.681670°N | 104.135194°W |
| EPI-ROSS 8-60 4 - actual wellpath misses target center by 13.22usft at 15346.68usft MD (6466.44 TVD, 9024.31 N, -103.77 E) - Point | 0.00 | 0.00 | 6,478.00 | 9,024.44 | -97.35 | 1,493,938.35 | 3,378,519.77 | 40.681258°N | 104.135197°W |
| LP-ROSS 8-60 4 - actual wellpath misses target center by 21.96usft at 6771.98usft MD (6464.75 TVD, 453.51 N, -167.69 E) - Point | 0.00 | 0.00 | 6,480.00 | 451.77 | -183.40 | 1,485,365.53 | 3,378,565.71 | 40.657728°N | 104.135507°W |

| Design Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|--|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | | |
| | | +N/-S (usft) | +E/-W (usft) | Comment | |
| 1,968.00 | 1,965.94 | -36.79 | -59.64 | SURFACE CSG - 1968' MD, 1966' TVD | |
| 5,895.00 | 5,890.32 | -120.75 | -166.28 | KOP - 5895' MD, 5890' TVD | |
| 6,770.23 | 6,464.53 | 451.77 | -167.71 | ~1000' X-OVER PNT - 6770.23' MD, 1000' FSL, 2346' FWL SEC 18 | |
| 6,841.00 | 6,470.93 | 522.24 | -167.24 | HZ LANDING PNT - 6841' MD, 6471' TVD | |
| 15,346.81 | 6,466.45 | 9,024.44 | -103.77 | ~1000' X-OVER PNT - 15346.81' MD, 1000' FNL, 2324' FWL SEC 7 | |
| 15,548.00 | 6,470.50 | 9,225.20 | -116.05 | LAST SURVEY - 15548' MD, 6471' TVD | |
| 15,608.00 | 6,472.62 | 9,284.96 | -120.92 | EXTRAPOLATION TO TD - 15608' MD, 740' FNL, 2306' FWL SEC 7 | |

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