

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

SW SE SEC 36 T6N R66W 6th P.M.

CS-SHERWOOD 1-1-13

ORIGINAL WELLBORE

29 November, 2016

Plan: PROPOSAL #3



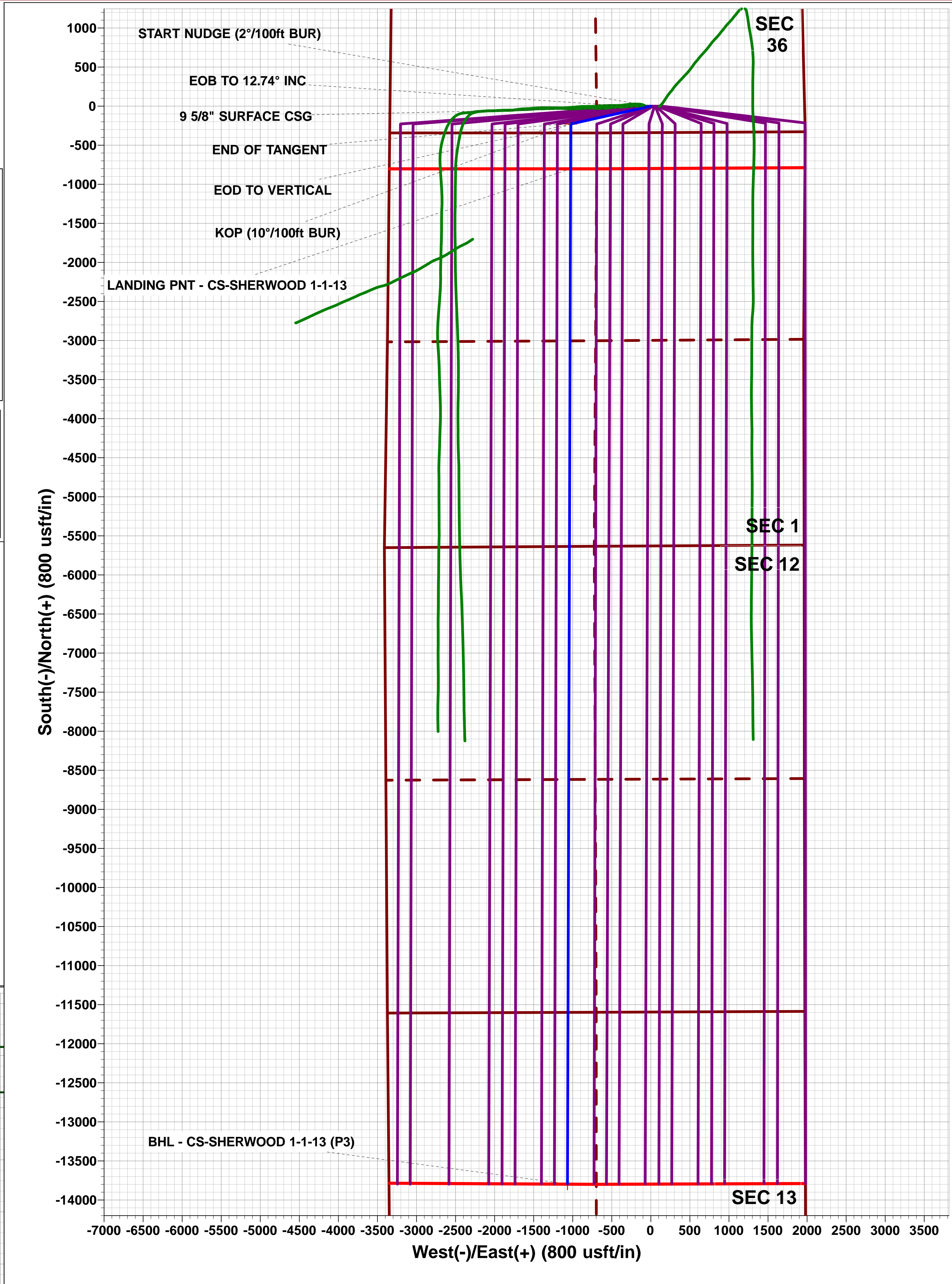
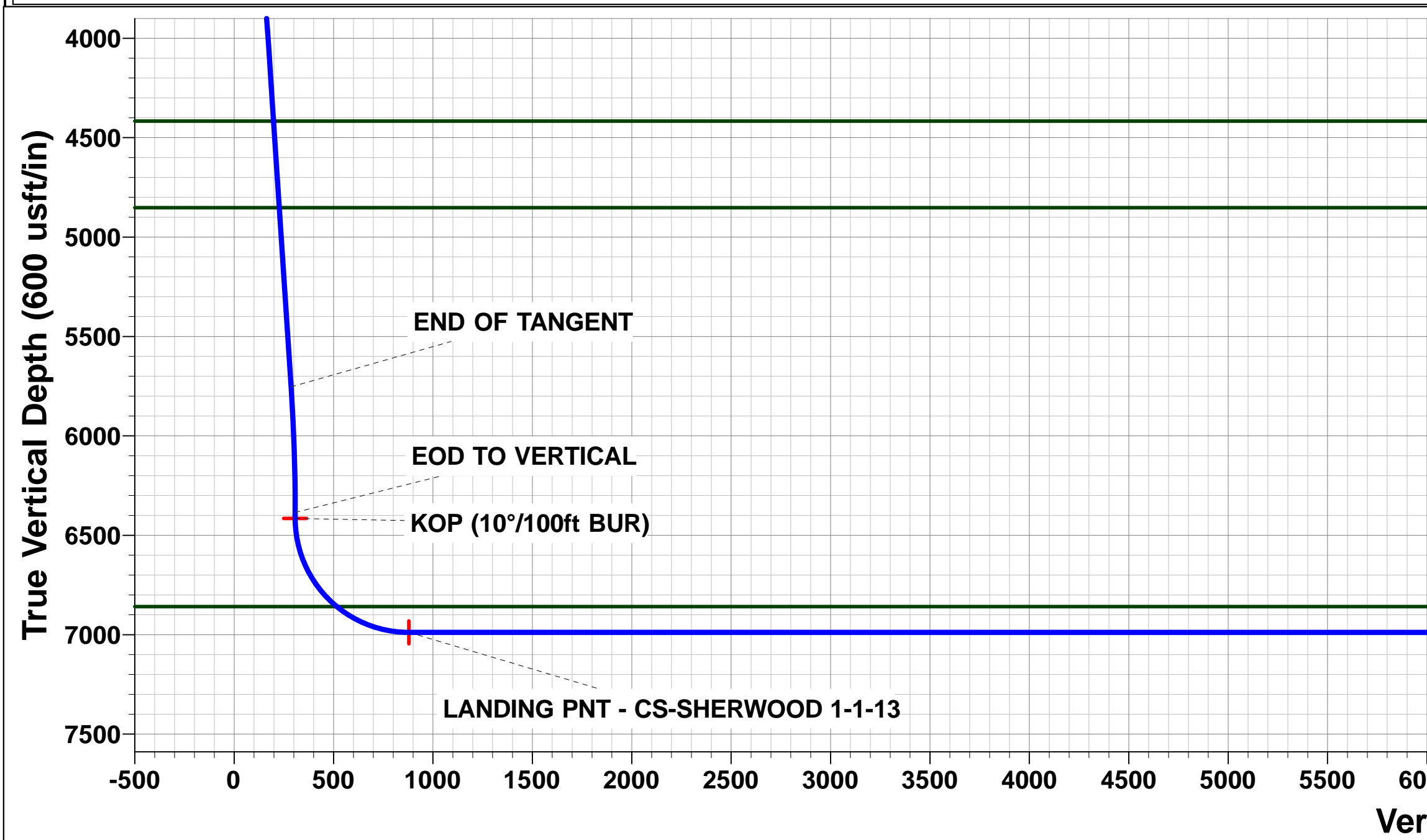
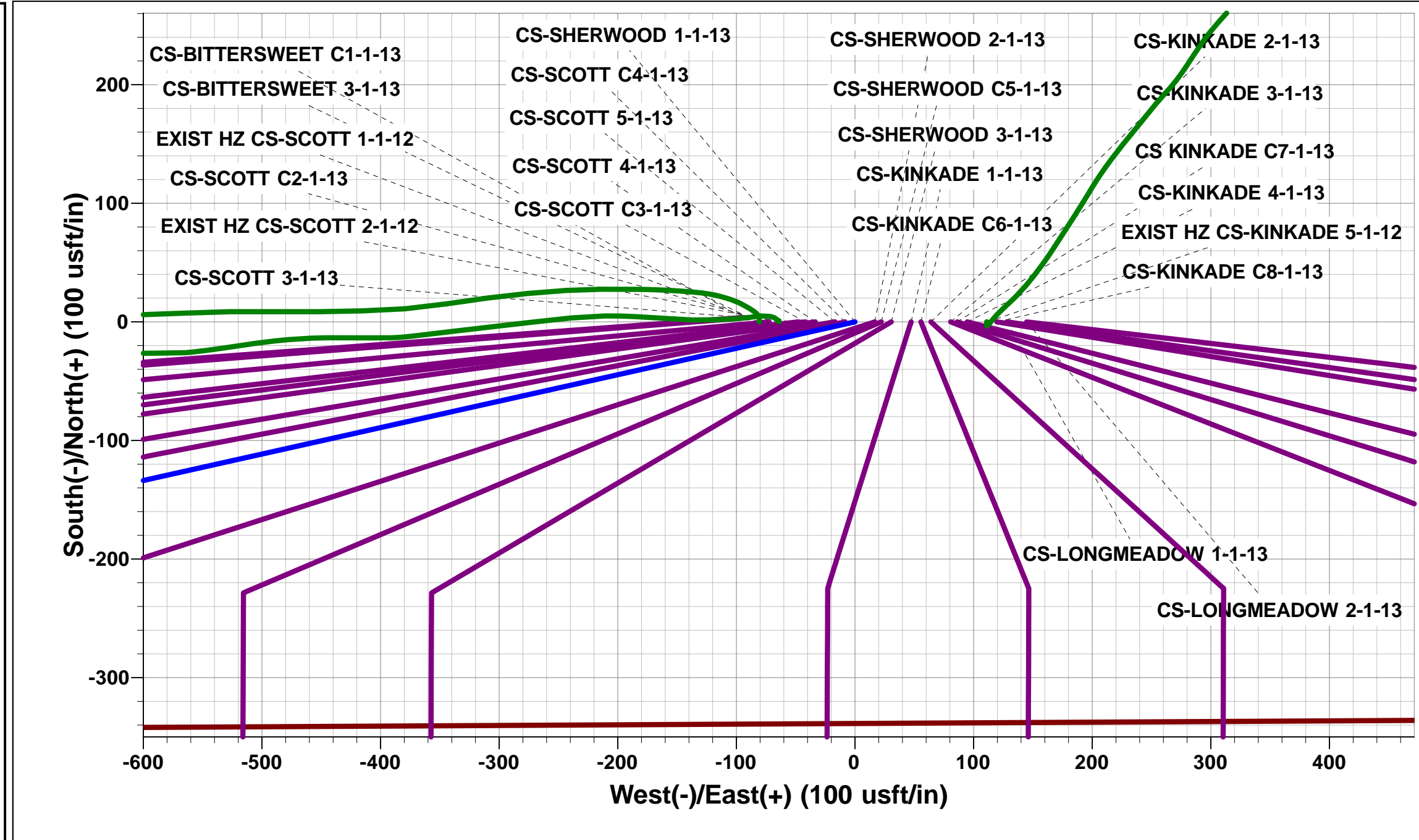
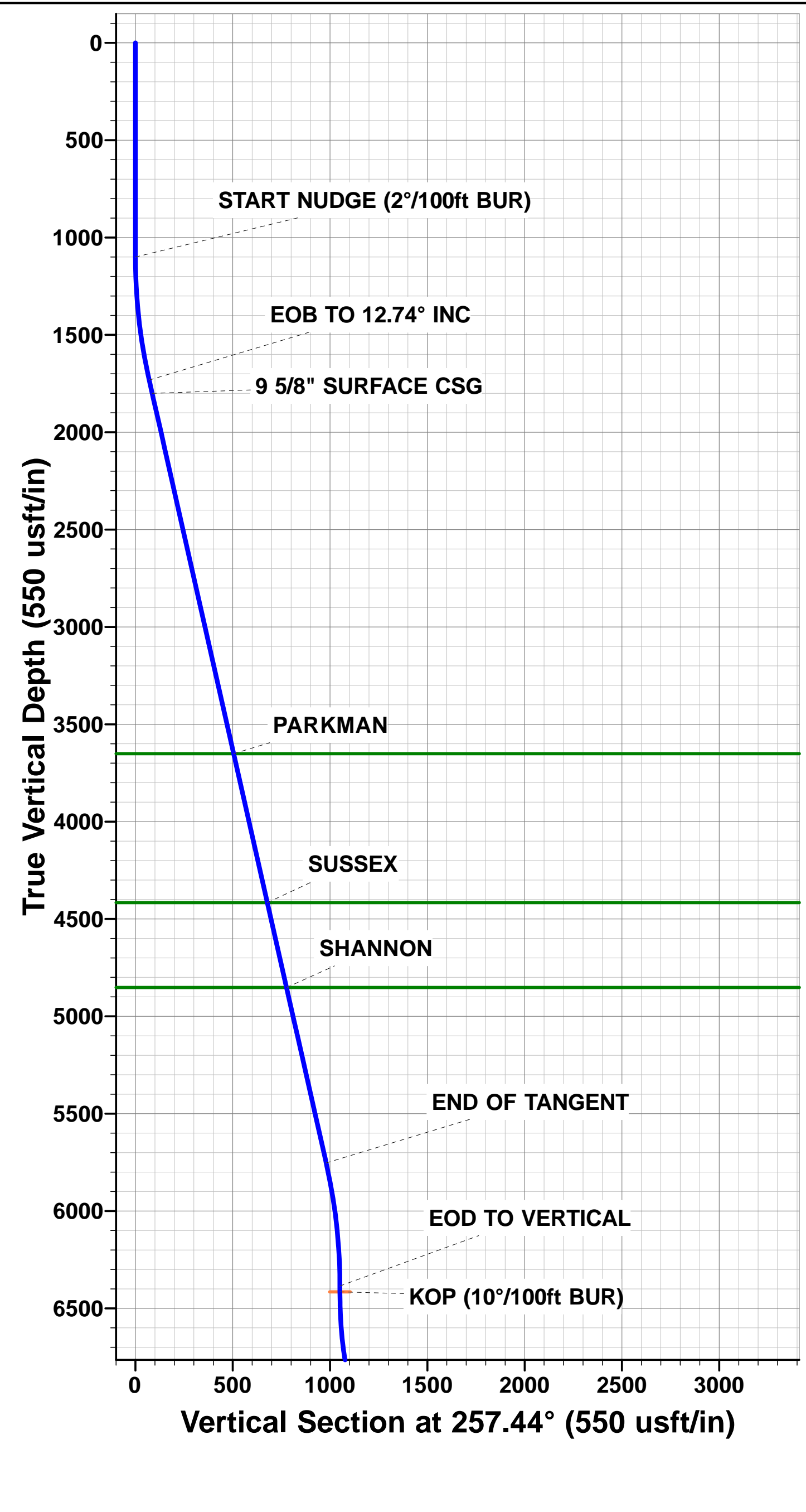


Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW SE SEC 36 T6N R66W 6th P.M.
Well: CS-SHERWOOD 1-1-13
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #3

| ANNOTATIONS | | | | | | | | | |
|-------------|---------|-------|--------|----------|---------|---------|---------|----------------------------------|--|
| TVD | MD | Inc | Azi | +N/-S | +E/-W | Vsect | Dep | Annotation | |
| 1100.0 | 1100.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) | |
| 1732.0 | 1737.2 | 12.74 | 257.44 | -15.4 | -68.9 | 20.6 | 70.6 | EOB TO 12.74° INC | |
| 1800.0 | 1807.0 | 12.74 | 257.44 | -18.7 | -83.9 | 25.1 | 86.0 | 9 5/8" SURFACE CSG | |
| 5753.0 | 5859.8 | 12.74 | 257.44 | -213.1 | -956.6 | 286.3 | 980.1 | END OF TANGENT | |
| 6385.0 | 6497.1 | 0.00 | 0.00 | -228.5 | -1025.5 | 306.9 | 1050.6 | EOD TO VERTICAL | |
| 6415.0 | 6527.1 | 0.00 | 0.00 | -228.5 | -1025.5 | 306.9 | 1050.6 | KOP (10°/100ft BUR) | |
| 6988.0 | 7427.1 | 90.00 | 180.17 | -801.5 | -1027.2 | 878.3 | 1623.6 | LANDING PNT - CS-SHERWOOD 1-1-13 | |
| 6988.0 | 20418.5 | 90.00 | 180.18 | -13792.8 | -1066.7 | 13834.0 | 14615.0 | BHL - CS-SHERWOOD 1-1-13 (P3) | |

PROPOSED LOCAL COORDINATES:
SHL: 340ft FSL & 1968ft FEL Sec 36
LANDING PNT: 460ft FNL & 2319t FWL Sec 1
BHL: 2196ft FNL & 2287ft FWL Sec 13

| WELLBORE TARGET DETAILS (LAT/LONG) | | | | | |
|------------------------------------|--------|----------|---------|-----------|-------------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
| KOP - CS-SHERWOOD 1-1-13 | 6415.0 | -228.5 | -1025.5 | 40.437743 | -104.726624 |
| BHL - CS-SHERWOOD 1-1-13 (P3) | 6988.0 | -13792.8 | -1066.7 | 40.400510 | -104.726770 |
| LANDING PNT - CS-SHERWOOD 1-1-13 | 6988.0 | -801.5 | -1027.2 | 40.436170 | -104.726630 |



Vertical Section at 184.42° (600 usft/in)

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

| | | | |
|--------------------|--------------------------------|----------------------|-----------------------------|
| Project | WELD COUNTY, COLORADO (NAD 83) | | |
| 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 | SW SE SEC 36 T6N R66W 6th P.M. | | |
| Site Position: | | Northing: | 1,403,485.52 usft |
| From: | Lat/Long | Easting: | 3,216,213.28 usft |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 1.10000ft |
| | | Latitude: | 40.438370 |
| | | Longitude: | -104.723230 |
| | | Grid Convergence: | 0.50 ° |

| | | | |
|-----------------------------|--------------------|-----------|----------------------------|
| Well | CS-SHERWOOD 1-1-13 | | |
| Well Position | +N/-S | 0.0 usft | Northing: |
| | +E/-W | 80.7 usft | Easting: |
| Position Uncertainty | 0.0 usft | | Wellhead Elevation: |
| | | | Latitude: |
| | | | Longitude: |
| | | | Ground Level: |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | ORIGINAL WELLBORE | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 23/06/2015 | 8.40 | 66.94 | 52,644 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | PROPOSAL #3 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 6,988.0 | 0.0 | 0.0 | 184.42 |

| Plan Sections | | | | | | | | | | | |
|----------------------|---------|---------|----------------|-----------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|------------------|
| MD (usft) | Inc (°) | Azi (°) | Vertical Depth | SS (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | -4,681.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | -3,581.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,737.2 | 12.74 | 257.44 | 1,732.0 | -2,949.0 | -15.4 | -68.9 | 2.00 | 2.00 | 0.00 | 257.44 | |
| 5,859.8 | 12.74 | 257.44 | 5,753.0 | 1,072.0 | -213.1 | -956.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,497.1 | 0.00 | 0.00 | 6,385.0 | 1,704.0 | -228.5 | -1,025.5 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,527.1 | 0.00 | 0.00 | 6,415.0 | 1,734.0 | -228.5 | -1,025.5 | 0.00 | 0.00 | 0.00 | 0.00 | KOP - CS-SHERW |
| 7,427.1 | 90.00 | 180.17 | 6,988.0 | 2,307.0 | -801.5 | -1,027.2 | 10.00 | 10.00 | -19.98 | 180.17 | LANDING PNT - CS |
| 20,418.5 | 90.00 | 180.18 | 6,988.0 | 2,307.0 | -13,792.8 | -1,066.7 | 0.00 | 0.00 | 0.00 | 53.50 | BHL - CS-SHERW |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

Planned Survey

| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------------------|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 4,681.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 4,581.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 4,481.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 4,381.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 4,281.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 4,181.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 4,081.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 3,981.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 3,881.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 3,781.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 3,681.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| START NUDGE (2°/100ft BUR) | | | | | | | | | | |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 3,581.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 2.00 | 257.44 | 1,200.0 | 3,481.02 | -0.4 | -1.7 | 0.5 | 2.00 | 2.00 | 0.00 |
| 1,300.0 | 4.00 | 257.44 | 1,299.8 | 3,381.16 | -1.5 | -6.8 | 2.0 | 2.00 | 2.00 | 0.00 |
| 1,400.0 | 6.00 | 257.44 | 1,399.5 | 3,281.55 | -3.4 | -15.3 | 4.6 | 2.00 | 2.00 | 0.00 |
| 1,500.0 | 8.00 | 257.44 | 1,498.7 | 3,182.30 | -6.1 | -27.2 | 8.1 | 2.00 | 2.00 | 0.00 |
| 1,600.0 | 10.00 | 257.44 | 1,597.5 | 3,083.53 | -9.5 | -42.5 | 12.7 | 2.00 | 2.00 | 0.00 |
| 1,700.0 | 12.00 | 257.44 | 1,695.6 | 2,985.38 | -13.6 | -61.1 | 18.3 | 2.00 | 2.00 | 0.00 |
| EOB TO 12.74° INC | | | | | | | | | | |
| 1,737.2 | 12.74 | 257.44 | 1,732.0 | 2,949.00 | -15.4 | -68.9 | 20.6 | 2.00 | 2.00 | 0.00 |
| 1,800.0 | 12.74 | 257.44 | 1,793.2 | 2,887.79 | -18.4 | -82.4 | 24.7 | 0.00 | 0.00 | 0.00 |
| 9 5/8" SURFACE CSG | | | | | | | | | | |
| 1,807.0 | 12.74 | 257.44 | 1,800.0 | 2,881.00 | -18.7 | -83.9 | 25.1 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 12.74 | 257.44 | 1,890.7 | 2,790.25 | -23.2 | -103.9 | 31.1 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 12.74 | 257.44 | 1,988.3 | 2,692.72 | -28.0 | -125.5 | 37.5 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 12.74 | 257.44 | 2,085.8 | 2,595.18 | -32.8 | -147.0 | 44.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 12.74 | 257.44 | 2,183.4 | 2,497.64 | -37.6 | -168.5 | 50.4 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 12.74 | 257.44 | 2,280.9 | 2,400.11 | -42.4 | -190.1 | 56.9 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 12.74 | 257.44 | 2,378.4 | 2,302.57 | -47.1 | -211.6 | 63.3 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 12.74 | 257.44 | 2,476.0 | 2,205.03 | -51.9 | -233.1 | 69.8 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 12.74 | 257.44 | 2,573.5 | 2,107.50 | -56.7 | -254.7 | 76.2 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 12.74 | 257.44 | 2,671.0 | 2,009.96 | -61.5 | -276.2 | 82.7 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 12.74 | 257.44 | 2,768.6 | 1,912.43 | -66.3 | -297.7 | 89.1 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 12.74 | 257.44 | 2,866.1 | 1,814.89 | -71.1 | -319.3 | 95.5 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 12.74 | 257.44 | 2,963.6 | 1,717.35 | -75.9 | -340.8 | 102.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 12.74 | 257.44 | 3,061.2 | 1,619.82 | -80.7 | -362.3 | 108.4 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 12.74 | 257.44 | 3,158.7 | 1,522.28 | -85.5 | -383.9 | 114.9 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 12.74 | 257.44 | 3,256.3 | 1,424.75 | -90.3 | -405.4 | 121.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 12.74 | 257.44 | 3,353.8 | 1,327.21 | -95.1 | -426.9 | 127.8 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 12.74 | 257.44 | 3,451.3 | 1,229.67 | -99.9 | -448.5 | 134.2 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 12.74 | 257.44 | 3,548.9 | 1,132.14 | -104.7 | -470.0 | 140.7 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 12.74 | 257.44 | 3,646.4 | 1,034.60 | -109.5 | -491.5 | 147.1 | 0.00 | 0.00 | 0.00 |
| PARKMAN | | | | | | | | | | |
| 3,704.7 | 12.74 | 257.44 | 3,651.0 | 1,030.00 | -109.7 | -492.5 | 147.4 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 12.74 | 257.44 | 3,743.9 | 937.06 | -114.3 | -513.1 | 153.5 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 12.74 | 257.44 | 3,841.5 | 839.53 | -119.1 | -534.6 | 160.0 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 12.74 | 257.44 | 3,939.0 | 741.99 | -123.9 | -556.1 | 166.4 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 12.74 | 257.44 | 4,036.5 | 644.46 | -128.7 | -577.7 | 172.9 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 12.74 | 257.44 | 4,134.1 | 546.92 | -133.5 | -599.2 | 179.3 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 12.74 | 257.44 | 4,231.6 | 449.38 | -138.3 | -620.7 | 185.8 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 12.74 | 257.44 | 4,329.2 | 351.85 | -143.1 | -642.3 | 192.2 | 0.00 | 0.00 | 0.00 |
| SUSSEX | | | | | | | | | | |
| 4,489.0 | 12.74 | 257.44 | 4,416.0 | 265.00 | -147.4 | -661.4 | 197.9 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

Planned Survey

| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|--------------|---------------|----------------|------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 4,500.0 | 12.74 | 257.44 | 4,426.7 | 254.31 | -147.9 | -663.8 | 198.7 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 12.74 | 257.44 | 4,524.2 | 156.77 | -152.7 | -685.3 | 205.1 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 12.74 | 257.44 | 4,621.8 | 59.24 | -157.5 | -706.9 | 211.5 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 12.74 | 257.44 | 4,719.3 | -38.30 | -162.3 | -728.4 | 218.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 12.74 | 257.44 | 4,816.8 | -135.83 | -167.1 | -749.9 | 224.4 | 0.00 | 0.00 | 0.00 |
| SHANNON | | | | | | | | | | |
| 4,936.1 | 12.74 | 257.44 | 4,852.0 | -171.00 | -168.8 | -757.7 | 226.8 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 12.74 | 257.44 | 4,914.4 | -233.37 | -171.9 | -771.5 | 230.9 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 12.74 | 257.44 | 5,011.9 | -330.91 | -176.7 | -793.0 | 237.3 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 12.74 | 257.44 | 5,109.4 | -428.44 | -181.5 | -814.5 | 243.8 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 12.74 | 257.44 | 5,207.0 | -525.98 | -186.3 | -836.1 | 250.2 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 12.74 | 257.44 | 5,304.5 | -623.51 | -191.1 | -857.6 | 256.6 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 12.74 | 257.44 | 5,402.1 | -721.05 | -195.9 | -879.1 | 263.1 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 12.74 | 257.44 | 5,499.6 | -818.59 | -200.7 | -900.7 | 269.5 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 12.74 | 257.44 | 5,597.1 | -916.12 | -205.5 | -922.2 | 276.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 12.74 | 257.44 | 5,694.7 | -1,013.66 | -210.3 | -943.7 | 282.4 | 0.00 | 0.00 | 0.00 |
| END OF TANGENT | | | | | | | | | | |
| 5,859.8 | 12.74 | 257.44 | 5,753.0 | -1,072.00 | -213.1 | -956.6 | 286.3 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 11.94 | 257.44 | 5,792.3 | -1,111.26 | -215.0 | -965.0 | 288.8 | 2.00 | -2.00 | 0.00 |
| 6,000.0 | 9.94 | 257.44 | 5,890.4 | -1,209.43 | -219.1 | -983.5 | 294.3 | 2.00 | -2.00 | 0.00 |
| 6,100.0 | 7.94 | 257.44 | 5,989.2 | -1,308.21 | -222.5 | -998.7 | 298.9 | 2.00 | -2.00 | 0.00 |
| 6,200.0 | 5.94 | 257.44 | 6,088.5 | -1,407.48 | -225.2 | -1,010.5 | 302.4 | 2.00 | -2.00 | 0.00 |
| 6,300.0 | 3.94 | 257.44 | 6,188.1 | -1,507.10 | -227.0 | -1,018.9 | 304.9 | 2.00 | -2.00 | 0.00 |
| 6,400.0 | 1.94 | 257.44 | 6,288.0 | -1,606.96 | -228.1 | -1,023.9 | 306.4 | 2.00 | -2.00 | 0.00 |
| EOD TO VERTICAL | | | | | | | | | | |
| 6,497.1 | 0.00 | 0.00 | 6,385.0 | -1,704.00 | -228.5 | -1,025.5 | 306.9 | 2.00 | -2.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,387.9 | -1,706.94 | -228.5 | -1,025.5 | 306.9 | 0.00 | 0.00 | 0.00 |
| KOP (10°/100ft BUR) | | | | | | | | | | |
| 6,527.1 | 0.00 | 0.00 | 6,415.0 | -1,734.00 | -228.5 | -1,025.5 | 306.9 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 7.29 | 180.17 | 6,487.7 | -1,806.75 | -233.1 | -1,025.5 | 311.5 | 10.00 | 10.00 | 0.00 |
| 6,700.0 | 17.29 | 180.17 | 6,585.3 | -1,904.33 | -254.4 | -1,025.6 | 332.7 | 10.00 | 10.00 | 0.00 |
| 6,800.0 | 27.29 | 180.17 | 6,677.7 | -1,996.74 | -292.3 | -1,025.7 | 370.5 | 10.00 | 10.00 | 0.00 |
| 6,900.0 | 37.29 | 180.17 | 6,762.2 | -2,081.16 | -345.6 | -1,025.8 | 423.7 | 10.00 | 10.00 | 0.00 |
| 7,000.0 | 47.29 | 180.17 | 6,836.0 | -2,155.04 | -412.8 | -1,026.0 | 490.7 | 10.00 | 10.00 | 0.00 |
| NIOBRARA | | | | | | | | | | |
| 7,033.4 | 50.64 | 180.17 | 6,858.0 | -2,177.00 | -438.1 | -1,026.1 | 515.9 | 10.00 | 10.00 | 0.00 |
| 7,100.0 | 57.29 | 180.17 | 6,897.1 | -2,216.13 | -491.9 | -1,026.3 | 569.5 | 10.00 | 10.00 | 0.00 |
| 7,200.0 | 67.29 | 180.17 | 6,943.6 | -2,262.57 | -580.3 | -1,026.5 | 657.7 | 10.00 | 10.00 | 0.00 |
| 7,300.0 | 77.29 | 180.17 | 6,974.0 | -2,292.96 | -675.4 | -1,026.8 | 752.6 | 10.00 | 10.00 | 0.00 |
| 7,400.0 | 87.29 | 180.17 | 6,987.4 | -2,306.36 | -774.4 | -1,027.1 | 851.3 | 10.00 | 10.00 | 0.00 |
| LANDING PNT - CS-SHERWOOD 1-1-13 | | | | | | | | | | |
| 7,427.1 | 90.00 | 180.17 | 6,988.0 | -2,307.00 | -801.5 | -1,027.2 | 878.3 | 10.00 | 10.00 | 0.00 |
| 7,500.0 | 90.00 | 180.17 | 6,988.0 | -2,307.00 | -874.4 | -1,027.4 | 951.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.00 | 180.17 | 6,988.0 | -2,307.01 | -974.4 | -1,027.7 | 1,050.7 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.00 | 180.17 | 6,988.0 | -2,307.02 | -1,074.4 | -1,028.0 | 1,150.4 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.00 | 180.17 | 6,988.0 | -2,307.02 | -1,174.4 | -1,028.3 | 1,250.2 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.00 | 180.17 | 6,988.0 | -2,307.03 | -1,274.4 | -1,028.6 | 1,349.9 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.00 | 180.17 | 6,988.0 | -2,307.04 | -1,374.4 | -1,028.9 | 1,449.6 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.00 | 180.17 | 6,988.0 | -2,307.04 | -1,474.4 | -1,029.2 | 1,549.3 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.00 | 180.17 | 6,988.0 | -2,307.05 | -1,574.4 | -1,029.5 | 1,649.1 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.00 | 180.17 | 6,988.1 | -2,307.05 | -1,674.4 | -1,029.8 | 1,748.8 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.00 | 180.17 | 6,988.1 | -2,307.06 | -1,774.4 | -1,030.1 | 1,848.5 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.00 | 180.17 | 6,988.1 | -2,307.06 | -1,874.4 | -1,030.4 | 1,948.2 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

| Planned Survey | | | | | | | | | | |
|----------------|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,600.0 | 90.00 | 180.17 | 6,988.1 | -2,307.07 | -1,974.4 | -1,030.7 | 2,048.0 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 180.17 | 6,988.1 | -2,307.07 | -2,074.4 | -1,031.0 | 2,147.7 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 180.17 | 6,988.1 | -2,307.08 | -2,174.4 | -1,031.3 | 2,247.4 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 180.17 | 6,988.1 | -2,307.08 | -2,274.4 | -1,031.6 | 2,347.1 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 180.17 | 6,988.1 | -2,307.09 | -2,374.4 | -1,031.9 | 2,446.9 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 180.17 | 6,988.1 | -2,307.09 | -2,474.4 | -1,032.2 | 2,546.6 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 180.17 | 6,988.1 | -2,307.10 | -2,574.4 | -1,032.5 | 2,646.3 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 180.17 | 6,988.1 | -2,307.10 | -2,674.4 | -1,032.8 | 2,746.0 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 180.17 | 6,988.1 | -2,307.11 | -2,774.4 | -1,033.1 | 2,845.8 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 180.17 | 6,988.1 | -2,307.11 | -2,874.4 | -1,033.4 | 2,945.5 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 180.17 | 6,988.1 | -2,307.12 | -2,974.4 | -1,033.6 | 3,045.2 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 180.17 | 6,988.1 | -2,307.12 | -3,074.4 | -1,033.9 | 3,144.9 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 180.17 | 6,988.1 | -2,307.12 | -3,174.4 | -1,034.2 | 3,244.7 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 180.17 | 6,988.1 | -2,307.13 | -3,274.4 | -1,034.5 | 3,344.4 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 180.17 | 6,988.1 | -2,307.13 | -3,374.4 | -1,034.8 | 3,444.1 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 180.17 | 6,988.1 | -2,307.14 | -3,474.4 | -1,035.1 | 3,543.8 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 180.17 | 6,988.1 | -2,307.14 | -3,574.4 | -1,035.4 | 3,643.6 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 180.17 | 6,988.1 | -2,307.14 | -3,674.4 | -1,035.7 | 3,743.3 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 180.17 | 6,988.1 | -2,307.15 | -3,774.4 | -1,036.0 | 3,843.0 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 180.17 | 6,988.2 | -2,307.15 | -3,874.4 | -1,036.3 | 3,942.7 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 180.17 | 6,988.2 | -2,307.15 | -3,974.4 | -1,036.6 | 4,042.5 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 180.17 | 6,988.2 | -2,307.16 | -4,074.4 | -1,036.9 | 4,142.2 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 180.17 | 6,988.2 | -2,307.16 | -4,174.4 | -1,037.2 | 4,241.9 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 180.17 | 6,988.2 | -2,307.16 | -4,274.4 | -1,037.5 | 4,341.6 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 180.17 | 6,988.2 | -2,307.17 | -4,374.4 | -1,037.8 | 4,441.4 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 180.17 | 6,988.2 | -2,307.17 | -4,474.4 | -1,038.1 | 4,541.1 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 180.17 | 6,988.2 | -2,307.17 | -4,574.4 | -1,038.4 | 4,640.8 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 180.17 | 6,988.2 | -2,307.17 | -4,674.4 | -1,038.7 | 4,740.5 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 180.17 | 6,988.2 | -2,307.18 | -4,774.4 | -1,039.0 | 4,840.3 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 180.17 | 6,988.2 | -2,307.18 | -4,874.4 | -1,039.3 | 4,940.0 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 180.17 | 6,988.2 | -2,307.18 | -4,974.4 | -1,039.6 | 5,039.7 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 180.17 | 6,988.2 | -2,307.18 | -5,074.4 | -1,039.9 | 5,139.4 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 180.17 | 6,988.2 | -2,307.19 | -5,174.4 | -1,040.2 | 5,239.2 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 180.17 | 6,988.2 | -2,307.19 | -5,274.4 | -1,040.5 | 5,338.9 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 180.17 | 6,988.2 | -2,307.19 | -5,374.4 | -1,040.9 | 5,438.6 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 180.17 | 6,988.2 | -2,307.19 | -5,474.4 | -1,041.2 | 5,538.3 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 180.17 | 6,988.2 | -2,307.19 | -5,574.4 | -1,041.5 | 5,638.1 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -5,674.4 | -1,041.8 | 5,737.8 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -5,774.4 | -1,042.1 | 5,837.5 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -5,874.4 | -1,042.4 | 5,937.2 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -5,974.4 | -1,042.7 | 6,037.0 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -6,074.4 | -1,043.0 | 6,136.7 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -6,174.4 | -1,043.3 | 6,236.4 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -6,274.4 | -1,043.6 | 6,336.1 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 180.17 | 6,988.2 | -2,307.20 | -6,374.3 | -1,043.9 | 6,435.9 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,474.3 | -1,044.2 | 6,535.6 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,574.3 | -1,044.5 | 6,635.3 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,674.3 | -1,044.8 | 6,735.0 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,774.3 | -1,045.1 | 6,834.8 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,874.3 | -1,045.4 | 6,934.5 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -6,974.3 | -1,045.7 | 7,034.2 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,074.3 | -1,046.0 | 7,133.9 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,174.3 | -1,046.3 | 7,233.7 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,274.3 | -1,046.6 | 7,333.4 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

| Planned Survey | | | | | | | | | | |
|----------------|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 14,000.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,374.3 | -1,046.9 | 7,433.1 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,474.3 | -1,047.2 | 7,532.8 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,574.3 | -1,047.5 | 7,632.6 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,674.3 | -1,047.8 | 7,732.3 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,774.3 | -1,048.1 | 7,832.0 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,874.3 | -1,048.4 | 7,931.7 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -7,974.3 | -1,048.7 | 8,031.5 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 180.17 | 6,988.2 | -2,307.21 | -8,074.3 | -1,049.0 | 8,131.2 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 180.18 | 6,988.2 | -2,307.21 | -8,174.3 | -1,049.4 | 8,230.9 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,274.3 | -1,049.7 | 8,330.6 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,374.3 | -1,050.0 | 8,430.4 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,474.3 | -1,050.3 | 8,530.1 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,574.3 | -1,050.6 | 8,629.8 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,674.3 | -1,050.9 | 8,729.5 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,774.3 | -1,051.2 | 8,829.3 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 180.18 | 6,988.2 | -2,307.20 | -8,874.3 | -1,051.5 | 8,929.0 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -8,974.3 | -1,051.8 | 9,028.7 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -9,074.3 | -1,052.1 | 9,128.4 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -9,174.3 | -1,052.4 | 9,228.2 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -9,274.3 | -1,052.7 | 9,327.9 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -9,374.3 | -1,053.0 | 9,427.6 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 180.18 | 6,988.2 | -2,307.19 | -9,474.3 | -1,053.3 | 9,527.3 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 180.18 | 6,988.2 | -2,307.18 | -9,574.3 | -1,053.6 | 9,627.1 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 180.18 | 6,988.2 | -2,307.18 | -9,674.3 | -1,053.9 | 9,726.8 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 180.18 | 6,988.2 | -2,307.18 | -9,774.3 | -1,054.3 | 9,826.5 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 180.18 | 6,988.2 | -2,307.18 | -9,874.3 | -1,054.6 | 9,926.3 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 180.18 | 6,988.2 | -2,307.17 | -9,974.3 | -1,054.9 | 10,026.0 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 180.18 | 6,988.2 | -2,307.17 | -10,074.3 | -1,055.2 | 10,125.7 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 90.00 | 180.18 | 6,988.2 | -2,307.17 | -10,174.3 | -1,055.5 | 10,225.4 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 180.18 | 6,988.2 | -2,307.17 | -10,274.3 | -1,055.8 | 10,325.2 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 180.18 | 6,988.2 | -2,307.16 | -10,374.3 | -1,056.1 | 10,424.9 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 180.18 | 6,988.2 | -2,307.16 | -10,474.3 | -1,056.4 | 10,524.6 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 180.18 | 6,988.2 | -2,307.16 | -10,574.3 | -1,056.7 | 10,624.3 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 90.00 | 180.18 | 6,988.2 | -2,307.15 | -10,674.3 | -1,057.0 | 10,724.1 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 180.18 | 6,988.1 | -2,307.15 | -10,774.3 | -1,057.3 | 10,823.8 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 180.18 | 6,988.1 | -2,307.15 | -10,874.3 | -1,057.6 | 10,923.5 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 180.18 | 6,988.1 | -2,307.14 | -10,974.3 | -1,058.0 | 11,023.2 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 90.00 | 180.18 | 6,988.1 | -2,307.14 | -11,074.3 | -1,058.3 | 11,123.0 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 90.00 | 180.18 | 6,988.1 | -2,307.13 | -11,174.3 | -1,058.6 | 11,222.7 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 90.00 | 180.18 | 6,988.1 | -2,307.13 | -11,274.3 | -1,058.9 | 11,322.4 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 90.00 | 180.18 | 6,988.1 | -2,307.13 | -11,374.3 | -1,059.2 | 11,422.1 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 90.00 | 180.18 | 6,988.1 | -2,307.12 | -11,474.3 | -1,059.5 | 11,521.9 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 90.00 | 180.18 | 6,988.1 | -2,307.12 | -11,574.3 | -1,059.8 | 11,621.6 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 90.00 | 180.18 | 6,988.1 | -2,307.11 | -11,674.3 | -1,060.1 | 11,721.3 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 90.00 | 180.18 | 6,988.1 | -2,307.11 | -11,774.3 | -1,060.4 | 11,821.0 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 90.00 | 180.18 | 6,988.1 | -2,307.11 | -11,874.3 | -1,060.7 | 11,920.8 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 90.00 | 180.18 | 6,988.1 | -2,307.10 | -11,974.3 | -1,061.1 | 12,020.5 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 90.00 | 180.18 | 6,988.1 | -2,307.10 | -12,074.3 | -1,061.4 | 12,120.2 | 0.00 | 0.00 | 0.00 |
| 18,800.0 | 90.00 | 180.18 | 6,988.1 | -2,307.09 | -12,174.3 | -1,061.7 | 12,219.9 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 90.00 | 180.18 | 6,988.1 | -2,307.09 | -12,274.3 | -1,062.0 | 12,319.7 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 90.00 | 180.18 | 6,988.1 | -2,307.08 | -12,374.3 | -1,062.3 | 12,419.4 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 90.00 | 180.18 | 6,988.1 | -2,307.08 | -12,474.3 | -1,062.6 | 12,519.1 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 90.00 | 180.18 | 6,988.1 | -2,307.07 | -12,574.3 | -1,062.9 | 12,618.8 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 90.00 | 180.18 | 6,988.1 | -2,307.07 | -12,674.3 | -1,063.2 | 12,718.6 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

| Planned Survey | | | | | | | | | | |
|--------------------------------------|--------------|---------------|----------------|------------------|------------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| MD (usft) | Inc (°) | Azi (°) | TVD (usft) | SS (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 19,400.0 | 90.00 | 180.18 | 6,988.1 | -2,307.06 | -12,774.3 | -1,063.5 | 12,818.3 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 90.00 | 180.18 | 6,988.1 | -2,307.05 | -12,874.3 | -1,063.9 | 12,918.0 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 90.00 | 180.18 | 6,988.0 | -2,307.05 | -12,974.3 | -1,064.2 | 13,017.7 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 90.00 | 180.18 | 6,988.0 | -2,307.04 | -13,074.3 | -1,064.5 | 13,117.5 | 0.00 | 0.00 | 0.00 |
| 19,800.0 | 90.00 | 180.18 | 6,988.0 | -2,307.04 | -13,174.3 | -1,064.8 | 13,217.2 | 0.00 | 0.00 | 0.00 |
| 19,900.0 | 90.00 | 180.18 | 6,988.0 | -2,307.03 | -13,274.3 | -1,065.1 | 13,316.9 | 0.00 | 0.00 | 0.00 |
| 20,000.0 | 90.00 | 180.18 | 6,988.0 | -2,307.03 | -13,374.3 | -1,065.4 | 13,416.7 | 0.00 | 0.00 | 0.00 |
| 20,100.0 | 90.00 | 180.18 | 6,988.0 | -2,307.02 | -13,474.3 | -1,065.7 | 13,516.4 | 0.00 | 0.00 | 0.00 |
| 20,200.0 | 90.00 | 180.18 | 6,988.0 | -2,307.01 | -13,574.3 | -1,066.0 | 13,616.1 | 0.00 | 0.00 | 0.00 |
| 20,300.0 | 90.00 | 180.18 | 6,988.0 | -2,307.01 | -13,674.3 | -1,066.4 | 13,715.8 | 0.00 | 0.00 | 0.00 |
| 20,400.0 | 90.00 | 180.18 | 6,988.0 | -2,307.00 | -13,774.3 | -1,066.7 | 13,815.6 | 0.00 | 0.00 | 0.00 |
| BHL - CS-SHERWOOD 1-1-13 (P3) | | | | | | | | | | |
| 20,418.5 | 90.00 | 180.18 | 6,988.0 | -2,307.00 | -13,792.8 | -1,066.7 | 13,834.0 | 0.00 | 0.00 | 0.00 |

| Targets | | | | | | | | | |
|--|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|-----------|-------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| KOP - CS-SHERWOC - hit/miss target - Shape - Point | 0.00 | 0.00 | 6,415.0 | -228.5 | -1,025.5 | 1,403,248.75 | 3,215,270.58 | 40.437743 | -104.726624 |
| LANDING PNT - CS-SHERWOC - plan hits target center - Point | 0.00 | 0.00 | 6,988.0 | -801.5 | -1,027.2 | 1,402,675.82 | 3,215,273.91 | 40.436170 | -104.726630 |
| BHL - CS-SHERWOC - plan hits target center - Point | 0.00 | 0.00 | 6,988.0 | -13,792.8 | -1,066.7 | 1,389,685.09 | 3,215,348.21 | 40.400510 | -104.726770 |

| Formations | | | | | | |
|--------------|---------------|----------|-----------|------------|-------------------------|--|
| MD (usft) | TVD (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 3,704.7 | 3,651.0 | PARKMAN | | | | |
| 4,489.0 | 4,416.0 | SUSSEX | | | | |
| 4,936.1 | 4,852.0 | SHANNON | | | | |
| 7,033.4 | 6,858.0 | NIOBRARA | | | | |

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well CS-SHERWOOD 1-1-13 |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB-EST @ 4681.0usft (SAV 802) |
| Site: | SW SE SEC 36 T6N R66W 6th P.M. | North Reference: | True |
| Well: | CS-SHERWOOD 1-1-13 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #3 | | |

Plan Annotations

| MD (usft) | TVD (usft) | Local Coordinates | | Comment |
|--------------|---------------|-------------------|-----------------|----------------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 1,100.0 | 1,100.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) |
| 1,737.2 | 1,732.0 | -15.4 | -68.9 | EOB TO 12.74° INC |
| 1,807.0 | 1,800.0 | -18.7 | -83.9 | 9 5/8" SURFACE CSG |
| 5,859.8 | 5,753.0 | -213.1 | -956.6 | END OF TANGENT |
| 6,497.1 | 6,385.0 | -228.5 | -1,025.5 | EOD TO VERTICAL |
| 6,527.1 | 6,415.0 | -228.5 | -1,025.5 | KOP (10°/100ft BUR) |
| 7,427.1 | 6,988.0 | -801.5 | -1,027.2 | LANDING PNT - CS-SHERWOOD 1-1-13 |
| 20,418.5 | 6,988.0 | -13,792.8 | -1,066.7 | BHL - CS-SHERWOOD 1-1-13 (P3) |