

BONANZA CREEK ENERGY INC.

WELD COUNTY, COLORADO (NAD 83)

SE SE SEC. 22 T4N R63W 6th P.M.

MUSTANG X44-22-21XRLNB

ORIGINAL WELLBORE

14 June, 2017

Plan: PROPOSAL #4

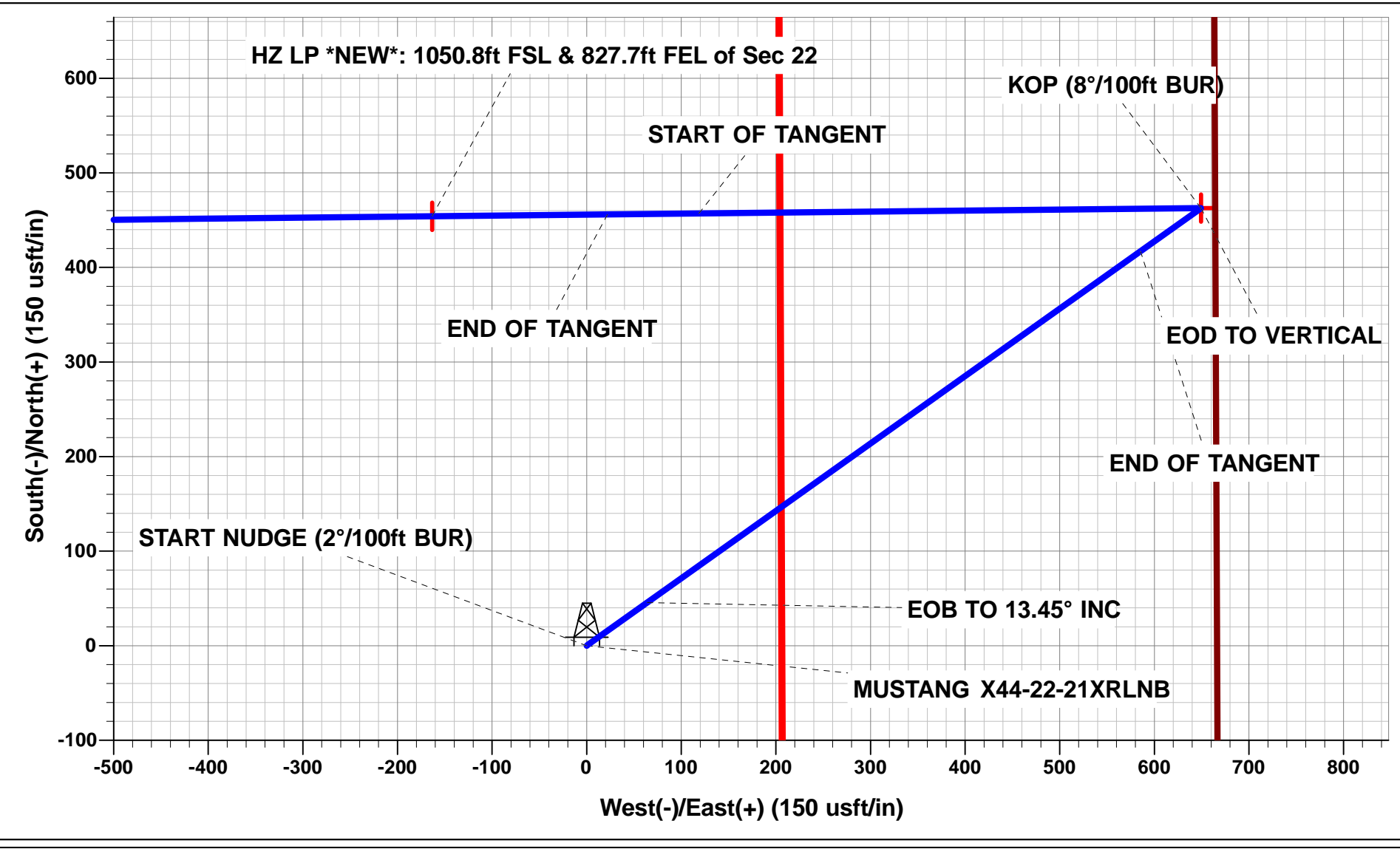




Project: WELD COUNTY, COLORADO (NAD 83)
Site: SE SE SEC. 22 T4N R63W 6th P.M.
Well: MUSTANG X44-22-21XRLNB
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #4

| ANNOTATIONS | | | | | | | | | |
|-------------|---------|-------|--------|-------|---------|--------|---------|---|--|
| TVD | MD | Inc | Azi | +N/-S | +E/-W | Vsect | Dep | Annotation | |
| 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | SHL: 598ft FSL & 666ft FEL of Sec 22 | |
| 1700.0 | 1700.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) | |
| 2366.3 | 2372.5 | 13.45 | 54.53 | 45.6 | 64.0 | -61.9 | 78.6 | EOB TO 13.45° INC | |
| 5042.9 | 5124.5 | 13.45 | 54.53 | 417.1 | 585.3 | -566.7 | 718.7 | END OF TANGENT | |
| 5709.2 | 5797.0 | 0.00 | 54.53 | 462.7 | 649.3 | -628.6 | 797.3 | EOD TO VERTICAL | |
| 5739.2 | 5827.0 | 0.00 | 0.00 | 462.7 | 649.3 | -628.6 | 797.3 | KOP (8°/100ft BUR) | |
| 6431.0 | 6764.5 | 75.00 | 269.39 | 457.0 | 118.5 | -98.6 | 1328.1 | START OF TANGENT | |
| 6456.9 | 6864.5 | 75.00 | 269.39 | 456.0 | 21.9 | -2.1 | 1424.7 | END OF TANGENT | |
| 6481.3 | 7052.0 | 90.00 | 269.39 | 454.0 | -163.4 | 183.0 | 1610.1 | HZ LP *NEW*: 1050.8ft FSL & 827.7ft FEL of Sec 22 | |
| 6481.3 | 11504.7 | 90.00 | 269.40 | 406.9 | -4615.9 | 4629.2 | 6062.8 | MID LAT TGT: 1042ft FSL & 0ft FWL of Sec 22 | |
| 6481.3 | 11525.9 | 90.00 | 270.03 | 406.8 | -4637.1 | 4650.4 | 6084.0 | EOT TO 270.03° AZ | |
| 6481.3 | 16319.7 | 90.00 | 270.03 | 409.6 | -9430.9 | 9439.8 | 10877.8 | BHL: 1046ft FSL & 470ft FWL of Sec 21 | |

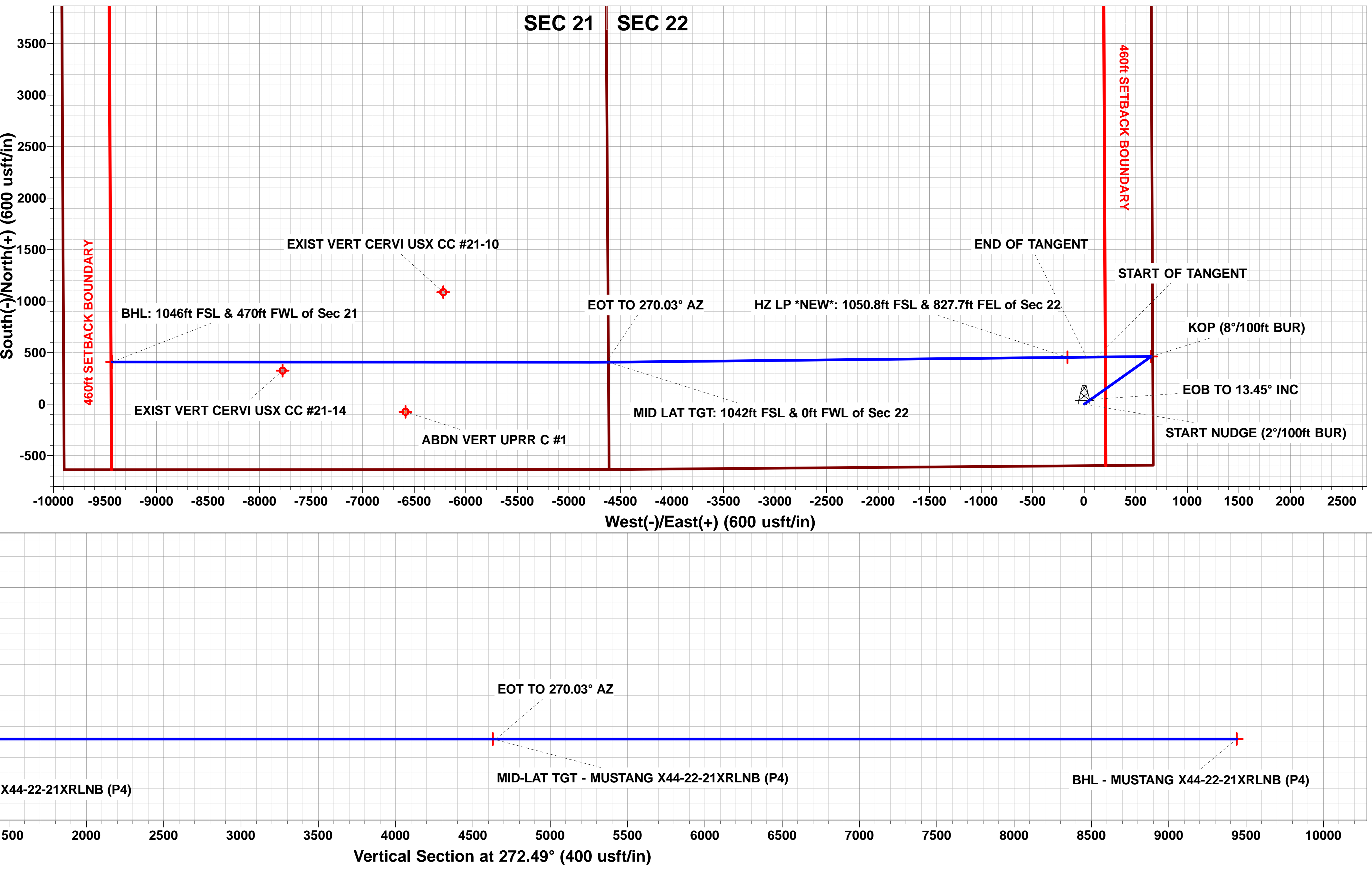
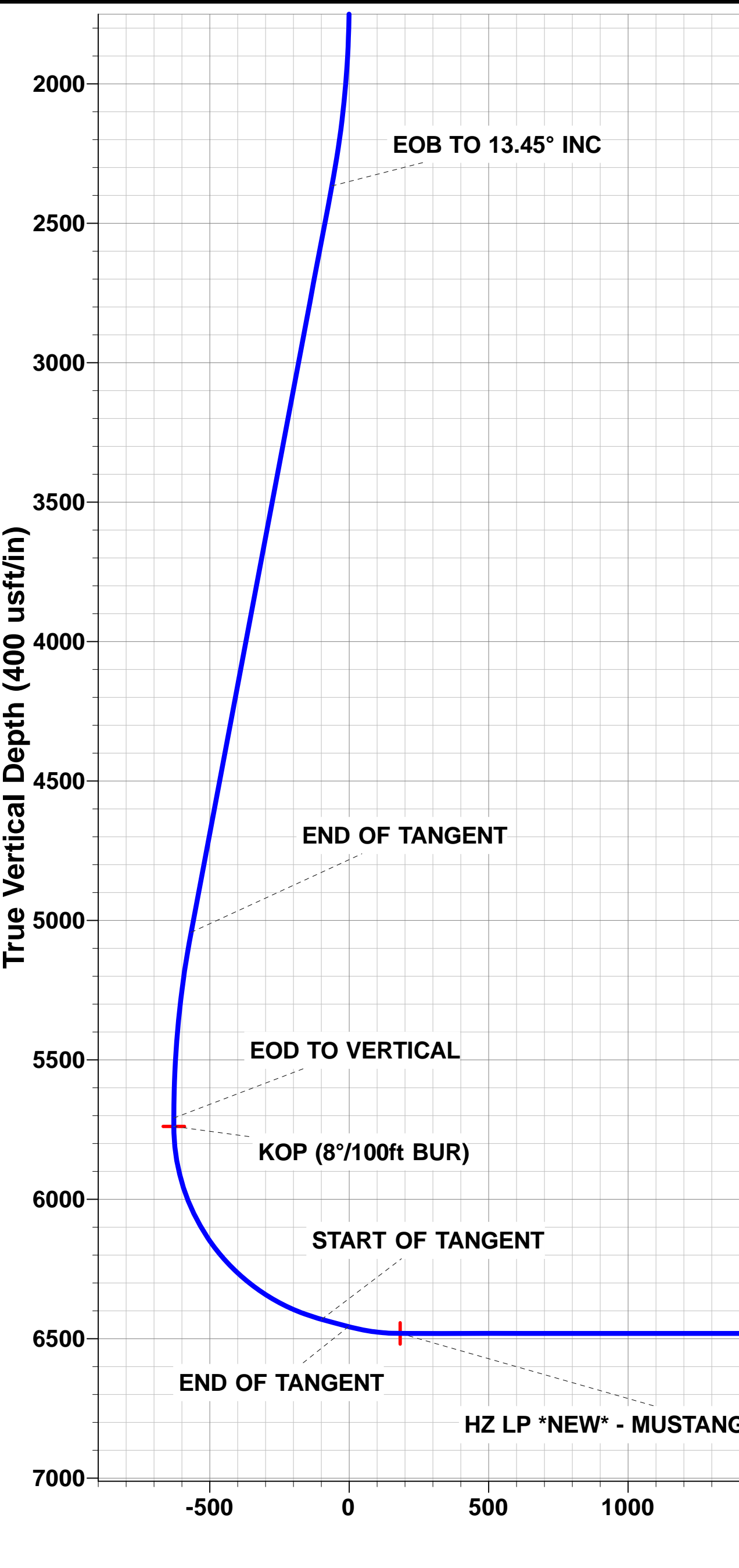
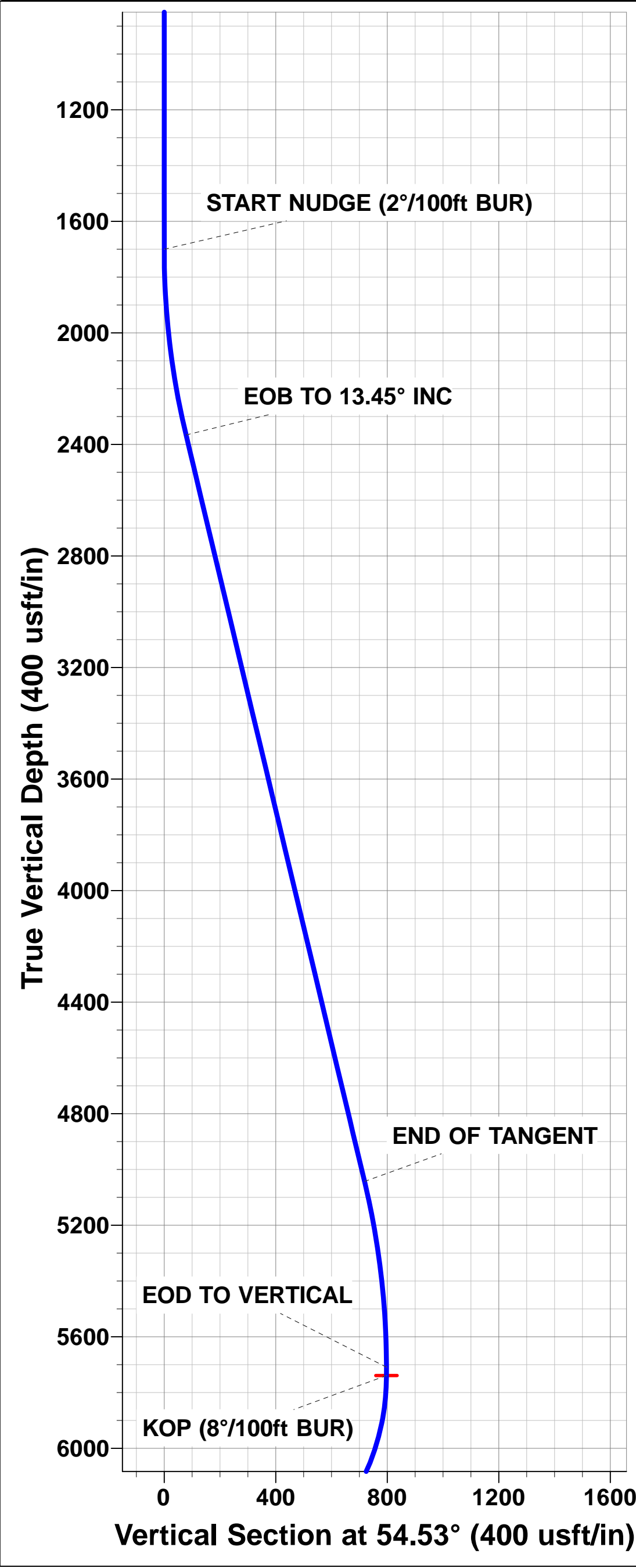
| WELLBORE TARGET DETAILS (LAT/LONG) | | | | | |
|---|--------|-------|---------|-----------|-------------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
| KOP - MUSTANG X44-22-21XRLNB (P4) | 5739.2 | 462.7 | 649.3 | 40.293650 | -104.414631 |
| MID-LAT TGT - MUSTANG X44-22-21XRLNB (P4) | 6481.3 | 406.9 | -4615.9 | 40.293496 | -104.433505 |
| BHL - MUSTANG X44-22-21XRLNB (P4) | 6481.3 | 409.6 | -9430.9 | 40.293499 | -104.450766 |
| HZ LP *NEW* - MUSTANG X44-22-21XRLNB (P4) | 6481.3 | 454.0 | -163.4 | 40.293626 | -104.417544 |



PROPOSED LOCAL COORDINATES:
SHL: 598ft FSL & 666ft FEL of Sec 22
HZ LP *NEW*: 1050.8ft FSL & 827.7ft FEL of Sec 22
MID-LAT TGT: 1042ft FSL & 0ft FWL of Sec 22
BHL: 1046ft FSL & 470ft FWL of Sec 21

Azimuths to True North
Magnetic North: 8.02°

Magnetic Field
Strength: 52374.5snT
Dip Angle: 66.82°
Date: 12/06/2017
Model: IGRF2015



| | | | |
|------------------|---------------------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well MUSTANG X44-22-21XRLNB |
| Company: | BONANZA CREEK ENERGY INC. | TVD Reference: | KB @ 4801.3usft |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB @ 4801.3usft |
| Site: | SE SE SEC. 22 T4N R63W 6th P.M. | North Reference: | True |
| Well: | MUSTANG X44-22-21XRLNB | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #4 | | |

| | | | |
|--------------------|--------------------------------|----------------------|-----------------------------|
| 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 | SE SE SEC. 22 T4N R63W 6th P.M. | | |
| Site Position: | | Northing: | 1,351,101.64 usft |
| From: | Lat/Long | Easting: | 3,302,157.25 usft |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 1.10000ft |
| | | Latitude: | 40.292108 |
| | | Longitude: | -104.416792 |
| | | Grid Convergence: | 0.70 ° |

| | | | | | | |
|----------------------|------------------------|------------|---------------------|-------------------|---------------|--------------|
| Well | MUSTANG X44-22-21XRLNB | | | | | |
| Well Position | +N/-S | 99.0 usft | Northing: | 1,351,200.09 usfi | Latitude: | 40.292380 |
| | +E/-W | -46.4 usft | Easting: | 3,302,109.62 usfi | Longitude: | -104.416958 |
| Position Uncertainty | | 0.0 usft | Wellhead Elevation: | usfi | Ground Level: | 4,784.3 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | ORIGINAL WELLBORE | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 12/06/2017 | 8.02 | 66.82 | 52,375 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| Design | PROPOSAL #4 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 | |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 272.49 | |

| Plan Sections | | | | | | | | | | | |
|----------------------|---------|---------|----------------|-----------|--------------|--------------|------------------------|-----------------------|----------------------|---------|------------------|
| MD (usft) | Inc (°) | Azi (°) | Vertical Depth | SS (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usf) | Build Rate (°/100usf) | Turn Rate (°/100usf) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | -4,801.3 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | -3,101.3 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,372.5 | 13.45 | 54.53 | 2,366.4 | -2,434.9 | 45.6 | 64.0 | 2.00 | 2.00 | 0.00 | 54.53 | |
| 5,124.5 | 13.45 | 54.53 | 5,042.8 | 241.5 | 417.1 | 585.3 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,797.0 | 0.00 | 0.00 | 5,709.2 | 907.9 | 462.7 | 649.3 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 5,827.0 | 0.00 | 0.00 | 5,739.2 | 937.9 | 462.7 | 649.3 | 0.00 | 0.00 | 0.00 | 0.00 | KOP - MUSTANG > |
| 6,764.5 | 75.00 | 269.39 | 6,431.0 | 1,629.7 | 457.0 | 118.5 | 8.00 | 8.00 | 0.00 | 269.39 | |
| 6,864.5 | 75.00 | 269.39 | 6,456.9 | 1,655.6 | 456.0 | 21.9 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,052.0 | 90.00 | 269.39 | 6,481.3 | 1,680.0 | 454.0 | -163.4 | 8.00 | 8.00 | 0.00 | 0.00 | |
| 11,504.7 | 90.00 | 269.40 | 6,481.3 | 1,680.0 | 406.9 | -4,615.9 | 0.00 | 0.00 | 0.00 | 94.44 | MID-LAT TGT - MU |
| 11,525.9 | 90.00 | 270.03 | 6,481.3 | 1,680.0 | 406.8 | -4,637.1 | 3.00 | 0.00 | 3.00 | 89.95 | |
| 16,319.7 | 90.00 | 270.03 | 6,481.3 | 1,680.0 | 409.6 | -9,430.9 | 0.00 | 0.00 | 0.00 | 0.00 | BHL - MUSTANG X |

| | | | |
|------------------|---------------------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well MUSTANG X44-22-21XRLNB |
| Company: | BONANZA CREEK ENERGY INC. | TVD Reference: | KB @ 4801.3usft |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB @ 4801.3usft |
| Site: | SE SE SEC. 22 T4N R63W 6th P.M. | North Reference: | True |
| Well: | MUSTANG X44-22-21XRLNB | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #4 | | |

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) |
|---|------------|------------|---------------|--------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| SHL: 598ft FSL & 666ft FEL of Sec 22 | | | | | | | | | | |
| 0.0 | 0.00 | 0.00 | 0.0 | 4,801.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 4,701.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 4,601.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 4,501.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 4,401.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 4,301.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 4,201.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 4,101.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 4,001.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 3,901.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 3,801.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 3,701.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 3,601.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 3,501.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 3,401.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 3,301.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 3,201.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| START NUDGE (2°/100ft BUR) | | | | | | | | | | |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 3,101.30 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 2.00 | 54.53 | 1,800.0 | 3,001.32 | 1.0 | 1.4 | -1.4 | 2.00 | 2.00 | 0.00 |
| 1,900.0 | 4.00 | 54.53 | 1,899.8 | 2,901.46 | 4.0 | 5.7 | -5.5 | 2.00 | 2.00 | 0.00 |
| 2,000.0 | 6.00 | 54.53 | 1,999.5 | 2,801.85 | 9.1 | 12.8 | -12.4 | 2.00 | 2.00 | 0.00 |
| 2,100.0 | 8.00 | 54.53 | 2,098.7 | 2,702.60 | 16.2 | 22.7 | -22.0 | 2.00 | 2.00 | 0.00 |
| 2,200.0 | 10.00 | 54.53 | 2,197.5 | 2,603.83 | 25.3 | 35.4 | -34.3 | 2.00 | 2.00 | 0.00 |
| 2,300.0 | 12.00 | 54.53 | 2,295.6 | 2,505.68 | 36.3 | 51.0 | -49.4 | 2.00 | 2.00 | 0.00 |
| EOB TO 13.45° INC | | | | | | | | | | |
| 2,372.5 | 13.45 | 54.53 | 2,366.3 | 2,434.96 | 45.6 | 64.0 | -61.9 | 2.00 | 2.00 | 0.00 |
| 2,400.0 | 13.45 | 54.53 | 2,393.1 | 2,408.21 | 49.3 | 69.2 | -67.0 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 13.45 | 54.53 | 2,490.3 | 2,310.96 | 62.8 | 88.1 | -85.3 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 13.45 | 54.53 | 2,587.6 | 2,213.70 | 76.3 | 107.1 | -103.7 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 13.45 | 54.53 | 2,684.9 | 2,116.44 | 89.8 | 126.0 | -122.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 13.45 | 54.53 | 2,782.1 | 2,019.19 | 103.3 | 145.0 | -140.4 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 13.45 | 54.53 | 2,879.4 | 1,921.93 | 116.8 | 163.9 | -158.7 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 13.45 | 54.53 | 2,976.6 | 1,824.67 | 130.3 | 182.9 | -177.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 13.45 | 54.53 | 3,073.9 | 1,727.42 | 143.8 | 201.8 | -195.4 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 13.45 | 54.53 | 3,171.1 | 1,630.16 | 157.3 | 220.7 | -213.7 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 13.45 | 54.53 | 3,268.4 | 1,532.90 | 170.8 | 239.7 | -232.1 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 13.45 | 54.53 | 3,365.7 | 1,435.64 | 184.3 | 258.6 | -250.4 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 13.45 | 54.53 | 3,462.9 | 1,338.39 | 197.8 | 277.6 | -268.7 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 13.45 | 54.53 | 3,560.2 | 1,241.13 | 211.3 | 296.5 | -287.1 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 13.45 | 54.53 | 3,657.4 | 1,143.87 | 224.8 | 315.5 | -305.4 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 13.45 | 54.53 | 3,754.7 | 1,046.62 | 238.3 | 334.4 | -323.8 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 13.45 | 54.53 | 3,851.9 | 949.36 | 251.8 | 353.3 | -342.1 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 13.45 | 54.53 | 3,949.2 | 852.10 | 265.3 | 372.3 | -360.4 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 13.45 | 54.53 | 4,046.5 | 754.85 | 278.8 | 391.2 | -378.8 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 13.45 | 54.53 | 4,143.7 | 657.59 | 292.3 | 410.2 | -397.1 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 13.45 | 54.53 | 4,241.0 | 560.33 | 305.8 | 429.1 | -415.4 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 13.45 | 54.53 | 4,338.2 | 463.08 | 319.3 | 448.1 | -433.8 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 13.45 | 54.53 | 4,435.5 | 365.82 | 332.8 | 467.0 | -452.1 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 13.45 | 54.53 | 4,532.7 | 268.56 | 346.3 | 486.0 | -470.5 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 13.45 | 54.53 | 4,630.0 | 171.30 | 359.8 | 504.9 | -488.8 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 13.45 | 54.53 | 4,727.3 | 74.05 | 373.3 | 523.8 | -507.1 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|---------------------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well MUSTANG X44-22-21XRLNB |
| Company: | BONANZA CREEK ENERGY INC. | TVD Reference: | KB @ 4801.3usft |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB @ 4801.3usft |
| Site: | SE SE SEC. 22 T4N R63W 6th P.M. | North Reference: | True |
| Well: | MUSTANG X44-22-21XRLNB | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #4 | | |

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) |
|--|--------------|---------------|----------------|------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 4,900.0 | 13.45 | 54.53 | 4,824.5 | -23.21 | 386.8 | 542.8 | -525.5 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 13.45 | 54.53 | 4,921.8 | -120.47 | 400.3 | 561.7 | -543.8 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 13.45 | 54.53 | 5,019.0 | -217.72 | 413.8 | 580.7 | -562.2 | 0.00 | 0.00 | 0.00 |
| END OF TANGENT | | | | | | | | | | |
| 5,124.5 | 13.45 | 54.53 | 5,042.9 | -241.55 | 417.1 | 585.3 | -566.7 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 11.94 | 54.53 | 5,116.5 | -315.20 | 426.7 | 598.8 | -579.7 | 2.00 | -2.00 | 0.00 |
| 5,300.0 | 9.94 | 54.53 | 5,214.7 | -413.38 | 437.7 | 614.3 | -594.7 | 2.00 | -2.00 | 0.00 |
| 5,400.0 | 7.94 | 54.53 | 5,313.5 | -512.16 | 446.8 | 626.9 | -607.0 | 2.00 | -2.00 | 0.00 |
| 5,500.0 | 5.94 | 54.53 | 5,412.7 | -611.42 | 453.8 | 636.8 | -616.5 | 2.00 | -2.00 | 0.00 |
| 5,600.0 | 3.94 | 54.53 | 5,512.3 | -711.05 | 458.8 | 643.8 | -623.3 | 2.00 | -2.00 | 0.00 |
| 5,700.0 | 1.94 | 54.53 | 5,612.2 | -810.91 | 461.7 | 648.0 | -627.3 | 2.00 | -2.00 | 0.00 |
| EOD TO VERTICAL | | | | | | | | | | |
| 5,797.0 | 0.00 | 54.53 | 5,709.2 | -907.89 | 462.7 | 649.3 | -628.6 | 2.00 | -2.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,712.2 | -910.89 | 462.7 | 649.3 | -628.6 | 0.01 | -0.01 | 0.00 |
| KOP (8°/100ft BUR) | | | | | | | | | | |
| 5,827.0 | 0.00 | 0.00 | 5,739.2 | -937.89 | 462.7 | 649.3 | -628.6 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 5.84 | 269.39 | 5,812.1 | -1,010.77 | 462.7 | 645.6 | -624.9 | 8.00 | 8.00 | 0.00 |
| 6,000.0 | 13.84 | 269.39 | 5,910.5 | -1,109.21 | 462.5 | 628.5 | -607.9 | 8.00 | 8.00 | 0.00 |
| 6,100.0 | 21.84 | 269.39 | 6,005.6 | -1,204.33 | 462.2 | 597.9 | -577.3 | 8.00 | 8.00 | 0.00 |
| 6,200.0 | 29.84 | 269.39 | 6,095.6 | -1,294.26 | 461.7 | 554.4 | -533.8 | 8.00 | 8.00 | 0.00 |
| 6,300.0 | 37.84 | 269.39 | 6,178.6 | -1,377.25 | 461.1 | 498.7 | -478.2 | 8.00 | 8.00 | 0.00 |
| 6,400.0 | 45.84 | 269.39 | 6,253.0 | -1,451.69 | 460.4 | 432.1 | -411.7 | 8.00 | 8.00 | 0.00 |
| 6,500.0 | 53.84 | 269.39 | 6,317.4 | -1,516.13 | 459.6 | 355.7 | -335.4 | 8.00 | 8.00 | 0.00 |
| 6,600.0 | 61.84 | 269.39 | 6,370.6 | -1,569.32 | 458.7 | 271.1 | -251.0 | 8.00 | 8.00 | 0.00 |
| 6,700.0 | 69.84 | 269.39 | 6,411.5 | -1,610.22 | 457.7 | 180.0 | -159.9 | 8.00 | 8.00 | 0.00 |
| START OF TANGENT | | | | | | | | | | |
| 6,764.5 | 75.00 | 269.39 | 6,431.0 | -1,629.69 | 457.0 | 118.5 | -98.6 | 8.00 | 8.00 | 0.00 |
| 6,800.0 | 75.00 | 269.39 | 6,440.2 | -1,638.88 | 456.7 | 84.2 | -64.3 | 0.00 | 0.00 | 0.00 |
| END OF TANGENT | | | | | | | | | | |
| 6,864.5 | 75.00 | 269.39 | 6,456.9 | -1,655.57 | 456.0 | 21.9 | -2.1 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 77.84 | 269.39 | 6,465.2 | -1,663.91 | 455.7 | -12.6 | 32.3 | 8.00 | 8.00 | 0.00 |
| 7,000.0 | 85.84 | 269.39 | 6,479.4 | -1,678.09 | 454.6 | -111.5 | 131.1 | 8.00 | 8.00 | 0.00 |
| HZ LP *NEW*: 1050.8ft FSL & 827.7ft FEL of Sec 22 | | | | | | | | | | |
| 7,052.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 454.0 | -163.4 | 183.0 | 8.00 | 8.00 | 0.00 |
| 7,100.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 453.5 | -211.4 | 230.9 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 452.5 | -311.4 | 330.8 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 451.4 | -411.4 | 430.6 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 450.3 | -511.4 | 530.5 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 449.3 | -611.4 | 630.3 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 448.2 | -711.4 | 730.2 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 447.2 | -811.4 | 830.0 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 446.1 | -911.4 | 929.9 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 445.0 | -1,011.4 | 1,029.7 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 444.0 | -1,111.4 | 1,129.6 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 442.9 | -1,211.4 | 1,229.5 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 441.8 | -1,311.4 | 1,329.3 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 440.8 | -1,411.4 | 1,429.2 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 439.7 | -1,511.4 | 1,529.0 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 438.7 | -1,611.4 | 1,628.9 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 437.6 | -1,711.3 | 1,728.7 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 436.5 | -1,811.3 | 1,828.6 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 435.5 | -1,911.3 | 1,928.4 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 434.4 | -2,011.3 | 2,028.3 | 0.00 | 0.00 | 0.00 |

Planning Report



| | | | |
|------------------|---------------------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well MUSTANG X44-22-21XRLNB |
| Company: | BONANZA CREEK ENERGY INC. | TVD Reference: | KB @ 4801.3usft |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB @ 4801.3usft |
| Site: | SE SE SEC. 22 T4N R63W 6th P.M. | North Reference: | True |
| Well: | MUSTANG X44-22-21XRLNB | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #4 | | |

| 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) |
| 9,000.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 433.4 | -2,111.3 | 2,128.1 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 432.3 | -2,211.3 | 2,228.0 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 431.2 | -2,311.3 | 2,327.8 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 430.2 | -2,411.3 | 2,427.7 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 269.39 | 6,481.3 | -1,679.98 | 429.1 | -2,511.3 | 2,527.6 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 428.1 | -2,611.3 | 2,627.4 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 427.0 | -2,711.3 | 2,727.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 426.0 | -2,811.3 | 2,827.1 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 424.9 | -2,911.3 | 2,927.0 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 423.8 | -3,011.3 | 3,026.8 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 422.8 | -3,111.3 | 3,126.7 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 421.7 | -3,211.3 | 3,226.5 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 269.39 | 6,481.3 | -1,679.99 | 420.7 | -3,311.3 | 3,326.4 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 419.6 | -3,411.3 | 3,426.2 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 418.6 | -3,511.2 | 3,526.1 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 417.5 | -3,611.2 | 3,626.0 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 416.4 | -3,711.2 | 3,725.8 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 415.4 | -3,811.2 | 3,825.7 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 414.3 | -3,911.2 | 3,925.5 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 269.40 | 6,481.3 | -1,679.99 | 413.3 | -4,011.2 | 4,025.4 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 412.2 | -4,111.2 | 4,125.2 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 411.2 | -4,211.2 | 4,225.1 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 410.1 | -4,311.2 | 4,324.9 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 409.1 | -4,411.2 | 4,424.8 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 408.0 | -4,511.2 | 4,524.6 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 407.0 | -4,611.2 | 4,624.5 | 0.00 | 0.00 | 0.00 |
| MID LAT TGT: 1042ft FSL & 0ft FWL of Sec 22 | | | | | | | | | | |
| 11,504.7 | 90.00 | 269.40 | 6,481.3 | -1,680.00 | 406.9 | -4,615.9 | 4,629.2 | 0.00 | 0.00 | 0.00 |
| EOT TO 270.03° AZ | | | | | | | | | | |
| 11,525.9 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 406.8 | -4,637.1 | 4,650.4 | 3.00 | 0.00 | 3.00 |
| 11,600.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 406.8 | -4,711.2 | 4,724.4 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 406.9 | -4,811.2 | 4,824.3 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.0 | -4,911.2 | 4,924.2 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.0 | -5,011.2 | 5,024.1 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.1 | -5,111.2 | 5,124.0 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.1 | -5,211.2 | 5,223.9 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.2 | -5,311.2 | 5,323.9 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.3 | -5,411.2 | 5,423.8 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.3 | -5,511.2 | 5,523.7 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.4 | -5,611.2 | 5,623.6 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.4 | -5,711.2 | 5,723.5 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.5 | -5,811.2 | 5,823.4 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.5 | -5,911.2 | 5,923.3 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.6 | -6,011.2 | 6,023.2 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.7 | -6,111.2 | 6,123.1 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.7 | -6,211.2 | 6,223.0 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.8 | -6,311.2 | 6,322.9 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.8 | -6,411.2 | 6,422.8 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 407.9 | -6,511.2 | 6,522.8 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.0 | -6,611.2 | 6,622.7 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.0 | -6,711.2 | 6,722.6 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.1 | -6,811.2 | 6,822.5 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.1 | -6,911.2 | 6,922.4 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.2 | -7,011.2 | 7,022.3 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|---------------------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well MUSTANG X44-22-21XRLNB |
| Company: | BONANZA CREEK ENERGY INC. | TVD Reference: | KB @ 4801.3usft |
| Project: | WELD COUNTY, COLORADO (NAD 83) | MD Reference: | KB @ 4801.3usft |
| Site: | SE SE SEC. 22 T4N R63W 6th P.M. | North Reference: | True |
| Well: | MUSTANG X44-22-21XRLNB | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ORIGINAL WELLBORE | | |
| Design: | PROPOSAL #4 | | |

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 | 270.03 | 6,481.3 | -1,680.00 | 408.2 | -7,111.2 | 7,122.2 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.3 | -7,211.2 | 7,222.1 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.4 | -7,311.2 | 7,322.0 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.4 | -7,411.2 | 7,421.9 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.5 | -7,511.2 | 7,521.8 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.5 | -7,611.2 | 7,621.7 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.6 | -7,711.2 | 7,721.7 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.7 | -7,811.2 | 7,821.6 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.7 | -7,911.2 | 7,921.5 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.8 | -8,011.2 | 8,021.4 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.8 | -8,111.2 | 8,121.3 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.9 | -8,211.2 | 8,221.2 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 408.9 | -8,311.2 | 8,321.1 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.0 | -8,411.2 | 8,421.0 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.1 | -8,511.2 | 8,520.9 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.1 | -8,611.2 | 8,620.8 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.2 | -8,711.2 | 8,720.7 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.2 | -8,811.2 | 8,820.6 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.3 | -8,911.2 | 8,920.6 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.4 | -9,011.2 | 9,020.5 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.4 | -9,111.2 | 9,120.4 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.5 | -9,211.2 | 9,220.3 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.5 | -9,311.2 | 9,320.2 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.6 | -9,411.2 | 9,420.1 | 0.00 | 0.00 | 0.00 |
| BHL: 1046ft FSL & 470ft FWL of Sec 21 | | | | | | | | | | |
| 16,319.7 | 90.00 | 270.03 | 6,481.3 | -1,680.00 | 409.6 | -9,430.9 | 9,439.8 | 0.00 | 0.00 | 0.00 |

Plan Annotations

| MD (usft) | TVD (usft) | Local Coordinates | | Comment |
|--------------|---------------|-------------------|-----------------|---|
| | | +N/-S (usft) | +E/-W (usft) | |
| 0.0 | 0.0 | 0.0 | 0.0 | SHL: 598ft FSL & 666ft FEL of Sec 22 |
| 1,700.0 | 1,700.0 | 0.0 | 0.0 | START NUDGE (2°/100ft BUR) |
| 2,372.5 | 2,366.3 | 45.6 | 64.0 | EOB TO 13.45° INC |
| 5,124.5 | 5,042.9 | 417.1 | 585.3 | END OF TANGENT |
| 5,797.0 | 5,709.2 | 462.7 | 649.3 | EOD TO VERTICAL |
| 5,827.0 | 5,739.2 | 462.7 | 649.3 | KOP (8°/100ft BUR) |
| 6,764.5 | 6,431.0 | 457.0 | 118.5 | START OF TANGENT |
| 6,864.5 | 6,456.9 | 456.0 | 21.9 | END OF TANGENT |
| 7,052.0 | 6,481.3 | 454.0 | -163.4 | HZ LP *NEW*: 1050.8ft FSL & 827.7ft FEL of Sec 22 |
| 11,504.7 | 6,481.3 | 406.9 | -4,615.9 | MID LAT TGT: 1042ft FSL & 0ft FWL of Sec 22 |
| 11,525.9 | 6,481.3 | 406.8 | -4,637.1 | EOT TO 270.03° AZ |
| 16,319.7 | 6,481.3 | 409.6 | -9,430.9 | BHL: 1046ft FSL & 470ft FWL of Sec 21 |