

BONANZA CREEK ENERGY

WELD COUNTY

SEC 2-T5N-R62W

STATE ANTELOPE V-B-3HN

OWB

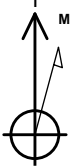
Design: FINAL SURVEY

Standard Survey Report

14 November, 2022

Project: WELD COUNTY
Site: SEC 2-T5N-R62W
Well: STATE ANTELOPE V-B-3HN
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: 7.52°
Magnetic Field
Strength: 51932.2nT
Dip Angle: 66.71°
Date: 4/13/2022
Model: IGRF2020

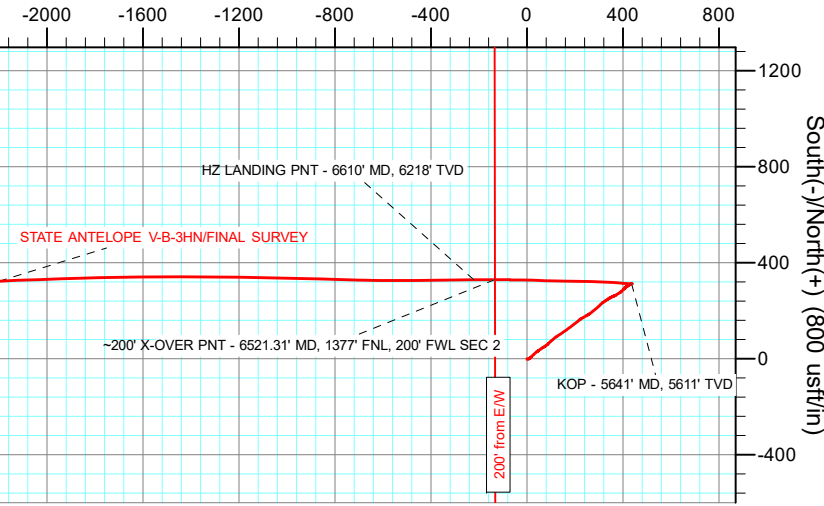
WELL DETAILS: STATE ANTELOPE V-B-3HN

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|-------|-------|------------|------------|-------------|--------------|------|
| 0.00 | 0.00 | 1402508.07 | 3334367.02 | 40.432070°N | 104.298840°W | |

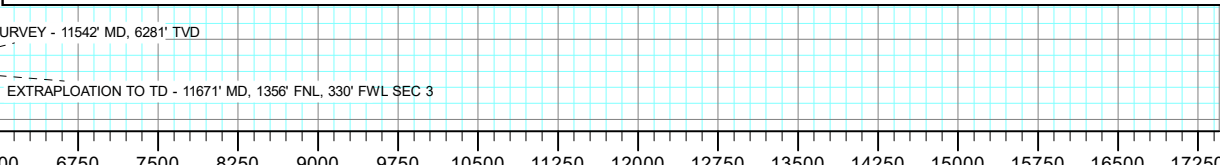
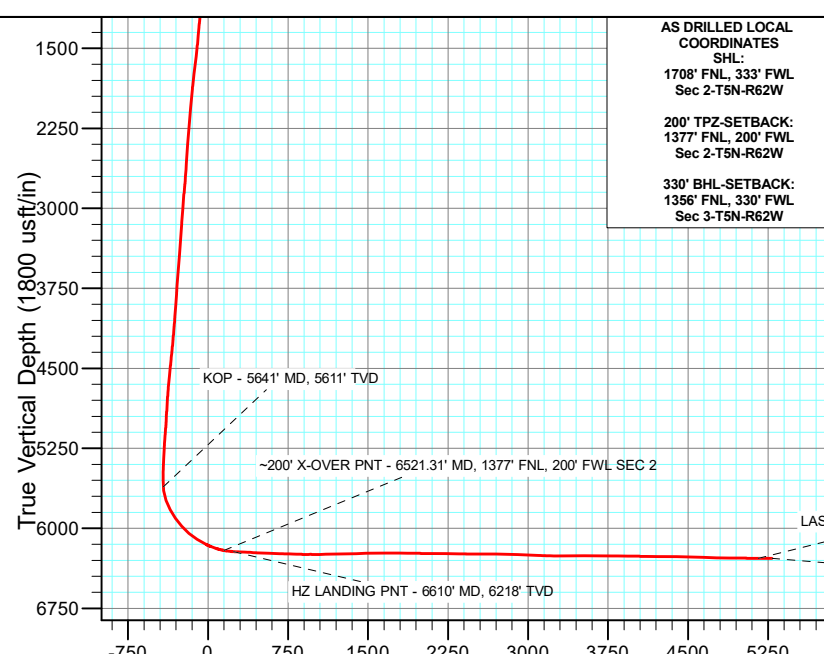
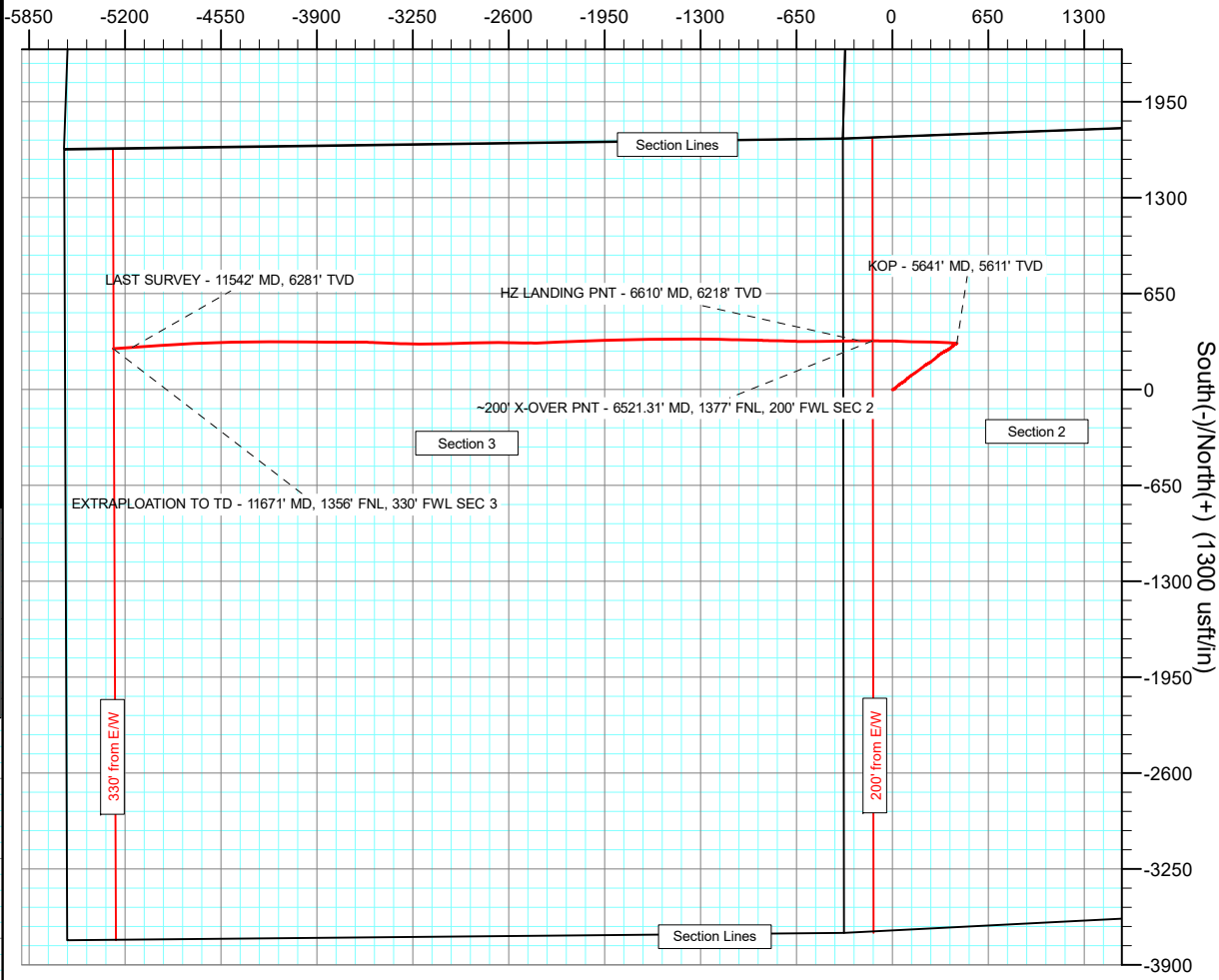
ANNOTATIONS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSec | Departure | Annotation |
|----------|-------|--------|---------|--------|----------|---------|-----------|--|
| 5641.00 | 4.52 | 267.08 | 5611.23 | 312.64 | 436.31 | -419.35 | 551.05 | KOP - 5641' MD, 5611' TVD |
| 6521.31 | 79.31 | 270.41 | 6207.10 | 329.16 | -133.63 | 150.67 | 1120.50 | ~200' X-OVER PNT - 6521.31' MD, 1377' FNL, 200' FWL SEC 2 |
| 6610.00 | 86.55 | 269.82 | 6217.97 | 329.39 | -221.59 | 238.53 | 1208.40 | HZ LANDING PNT - 6610' MD, 6218' TVD |
| 11542.00 | 90.30 | 266.21 | 6280.78 | 285.21 | -5150.03 | 5157.90 | 6139.03 | LAST SURVEY - 11542' MD, 6281' TVD |
| 11671.00 | 90.30 | 266.21 | 6280.10 | 276.68 | -5278.74 | 5285.99 | 6268.03 | EXTRAPLOATION TO TD - 11671' MD, 1356' FNL, 330' FWL SEC 3 |

West(-)/East(+) (800 usft/in)



West(-)/East(+) (1300 usft/in)



AS DRILLED LOCAL
COORDINATES
SHL:
1708' FNL, 333' FWL
Sec 2-T5N-R62W
200' TPZ-SETBACK:
1377' FNL, 200' FWL
Sec 2-T5N-R62W
330' BHL-SETBACK:
1356' FNL, 330' FWL
Sec 3-T5N-R62W

Vertical Section at 273.00° (1800 usft/in)

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | BONANZA CREEK ENERGY | Local Co-ordinate Reference: | Well STATE ANTELOPE V-B-3HN |
| Project: | WELD COUNTY | TVD Reference: | KB 25' @ 4670.00usft |
| Site: | SEC 2-T5N-R62W | MD Reference: | KB 25' @ 4670.00usft |
| Well: | STATE ANTELOPE V-B-3HN | 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 2-T5N-R62W | | | |
| Site Position: | | Northing: | 1,404,201.39 usft | Latitude: | 40.436731°N |
| From: | Lat/Long | Easting: | 3,334,009.19 usft | Longitude: | 104.300043°W |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.200 in | Grid Convergence: | 0.78 ° |

| Well | STATE ANTELOPE V-B-3HN | | | | | |
|----------------------|------------------------|-----------|---------------------|-------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 1,402,508.07 usft | Latitude: | 40.432070°N |
| | +E/-W | 0.00 usft | Easting: | 3,334,367.02 usft | Longitude: | 104.298840°W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 4,645.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OWB | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2020 | 4/13/2022 | 7.52 | 66.71 | 51,932.16532556 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|--------|
| 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 | | 273.00 |

| | | | | | |
|-----------------------|------------------|--------------------------|------------------|---------------------|--|
| Survey Program | Date | 11/14/2022 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 211.00 | 1,597.00 | SURFACE SURVEY (OWB) | MWD OWSG | OWSG MWD - Standard | |
| 1,675.00 | 11,671.00 | FINAL SURVEY (OWB) | MWD OWSG | 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 | |
| 211.00 | 0.70 | 165.20 | 210.99 | -1.25 | 0.33 | -0.39 | 0.33 | 0.33 | 0.00 | |
| 303.00 | 2.50 | 106.90 | 302.96 | -2.37 | 2.39 | -2.51 | 2.41 | 1.96 | -63.37 | |
| 376.00 | 3.20 | 79.70 | 375.87 | -2.47 | 5.92 | -6.04 | 2.06 | 0.96 | -37.26 | |
| 463.00 | 4.10 | 42.50 | 462.71 | 0.26 | 10.41 | -10.38 | 2.85 | 1.03 | -42.76 | |
| 551.00 | 5.90 | 46.40 | 550.37 | 5.70 | 15.81 | -15.49 | 2.08 | 2.05 | 4.43 | |
| 638.00 | 7.51 | 46.76 | 636.77 | 12.67 | 23.19 | -22.50 | 1.85 | 1.85 | 0.41 | |
| 725.00 | 8.30 | 47.40 | 722.94 | 20.82 | 31.96 | -30.82 | 0.91 | 0.91 | 0.74 | |
| 812.00 | 8.00 | 51.70 | 809.06 | 28.82 | 41.33 | -39.77 | 0.78 | -0.34 | 4.94 | |
| 899.00 | 5.40 | 54.90 | 895.46 | 34.93 | 49.43 | -47.54 | 3.02 | -2.99 | 3.68 | |

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | BONANZA CREEK ENERGY | Local Co-ordinate Reference: | Well STATE ANTELOPE V-B-3HN |
| Project: | WELD COUNTY | TVD Reference: | KB 25' @ 4670.00usft |
| Site: | SEC 2-T5N-R62W | MD Reference: | KB 25' @ 4670.00usft |
| Well: | STATE ANTELOPE V-B-3HN | 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) |
| 987.00 | 5.20 | 55.60 | 983.09 | 39.56 | 56.11 | -53.96 | 0.24 | -0.23 | 0.80 |
| 1,074.00 | 6.20 | 57.80 | 1,069.66 | 44.29 | 63.34 | -60.93 | 1.18 | 1.15 | 2.53 |
| 1,161.00 | 7.70 | 60.20 | 1,156.01 | 49.69 | 72.37 | -69.67 | 1.76 | 1.72 | 2.76 |
| 1,248.00 | 8.40 | 51.20 | 1,242.16 | 56.57 | 82.38 | -79.31 | 1.65 | 0.80 | -10.34 |
| 1,336.00 | 7.40 | 43.30 | 1,329.33 | 64.73 | 91.28 | -87.77 | 1.67 | -1.14 | -8.98 |
| 1,423.00 | 7.40 | 48.40 | 1,415.60 | 72.52 | 99.31 | -95.38 | 0.75 | 0.00 | 5.86 |
| 1,510.00 | 8.20 | 50.20 | 1,501.80 | 80.21 | 108.27 | -103.92 | 0.96 | 0.92 | 2.07 |
| 1,597.00 | 8.40 | 51.70 | 1,587.89 | 88.12 | 118.02 | -113.25 | 0.34 | 0.23 | 1.72 |
| 1,675.00 | 8.77 | 57.42 | 1,665.01 | 94.86 | 127.50 | -122.36 | 1.19 | 0.47 | 7.33 |
| 1,864.00 | 7.51 | 55.45 | 1,852.11 | 109.62 | 149.82 | -143.88 | 0.68 | -0.67 | -1.04 |
| 1,958.00 | 6.87 | 55.87 | 1,945.37 | 116.26 | 159.53 | -153.23 | 0.68 | -0.68 | 0.45 |
| 2,053.00 | 6.48 | 53.52 | 2,039.72 | 122.63 | 168.55 | -161.90 | 0.50 | -0.41 | -2.47 |
| 2,244.00 | 6.11 | 52.74 | 2,229.57 | 135.20 | 185.30 | -177.97 | 0.20 | -0.19 | -0.41 |
| 2,432.00 | 5.58 | 52.40 | 2,416.59 | 146.83 | 200.51 | -192.55 | 0.28 | -0.28 | -0.18 |
| 2,717.00 | 4.78 | 49.47 | 2,700.43 | 163.00 | 220.51 | -211.68 | 0.30 | -0.28 | -1.03 |
| 2,812.00 | 6.59 | 61.42 | 2,794.96 | 168.18 | 228.31 | -219.19 | 2.27 | 1.91 | 12.58 |
| 2,907.00 | 5.81 | 59.59 | 2,889.40 | 173.22 | 237.24 | -227.85 | 0.85 | -0.82 | -1.93 |
| 3,001.00 | 5.33 | 61.34 | 2,982.96 | 177.73 | 245.18 | -235.54 | 0.54 | -0.51 | 1.86 |
| 3,120.00 | 4.16 | 59.39 | 3,101.55 | 182.58 | 253.74 | -243.84 | 0.99 | -0.98 | -1.64 |
| 3,215.00 | 5.52 | 53.44 | 3,196.21 | 187.05 | 260.38 | -250.23 | 1.52 | 1.43 | -6.26 |
| 3,309.00 | 5.55 | 53.51 | 3,289.77 | 192.45 | 267.66 | -257.22 | 0.03 | 0.03 | 0.07 |
| 3,404.00 | 5.72 | 52.77 | 3,384.31 | 198.04 | 275.13 | -264.38 | 0.19 | 0.18 | -0.78 |
| 3,499.00 | 6.11 | 51.76 | 3,478.80 | 204.04 | 282.87 | -271.80 | 0.42 | 0.41 | -1.06 |
| 3,594.00 | 6.25 | 48.69 | 3,573.25 | 210.58 | 290.72 | -279.30 | 0.38 | 0.15 | -3.23 |
| 3,689.00 | 5.94 | 46.37 | 3,667.72 | 217.39 | 298.16 | -286.38 | 0.42 | -0.33 | -2.44 |
| 3,784.00 | 5.78 | 46.66 | 3,762.22 | 224.06 | 305.20 | -293.05 | 0.17 | -0.17 | 0.31 |
| 3,879.00 | 5.16 | 45.56 | 3,856.79 | 230.34 | 311.73 | -299.25 | 0.66 | -0.65 | -1.16 |
| 3,973.00 | 5.78 | 58.96 | 3,950.36 | 235.74 | 318.80 | -306.03 | 1.51 | 0.66 | 14.26 |
| 4,068.00 | 4.99 | 54.54 | 4,044.94 | 240.60 | 326.27 | -313.23 | 0.94 | -0.83 | -4.65 |
| 4,162.00 | 6.57 | 56.14 | 4,138.46 | 245.97 | 334.06 | -320.73 | 1.69 | 1.68 | 1.70 |
| 4,256.00 | 5.27 | 58.30 | 4,231.96 | 251.23 | 342.20 | -328.58 | 1.40 | -1.38 | 2.30 |
| 4,352.00 | 7.45 | 63.49 | 4,327.36 | 256.33 | 351.52 | -337.63 | 2.35 | 2.27 | 5.41 |
| 4,446.00 | 5.45 | 69.16 | 4,420.76 | 260.64 | 361.15 | -347.01 | 2.23 | -2.13 | 6.03 |
| 4,541.00 | 7.50 | 60.01 | 4,515.15 | 265.34 | 370.74 | -356.34 | 2.41 | 2.16 | -9.63 |
| 4,635.00 | 6.70 | 56.64 | 4,608.43 | 271.42 | 380.63 | -365.90 | 0.96 | -0.85 | -3.59 |
| 4,730.00 | 5.72 | 58.23 | 4,702.88 | 276.96 | 389.29 | -374.25 | 1.05 | -1.03 | 1.67 |
| 4,825.00 | 5.44 | 43.07 | 4,797.43 | 282.75 | 396.39 | -381.04 | 1.57 | -0.29 | -15.96 |
| 4,919.00 | 5.79 | 45.08 | 4,890.98 | 289.35 | 402.79 | -387.09 | 0.43 | 0.37 | 2.14 |
| 5,012.00 | 4.15 | 42.76 | 4,983.63 | 295.13 | 408.39 | -392.39 | 1.78 | -1.76 | -2.49 |
| 5,107.00 | 6.04 | 60.60 | 5,078.25 | 300.11 | 415.08 | -398.80 | 2.57 | 1.99 | 18.78 |
| 5,202.00 | 4.79 | 56.74 | 5,172.83 | 304.74 | 422.75 | -406.22 | 1.37 | -1.32 | -4.06 |
| 5,296.00 | 3.77 | 55.89 | 5,266.56 | 308.63 | 428.59 | -411.85 | 1.09 | -1.09 | -0.90 |
| 5,391.00 | 2.98 | 67.15 | 5,361.40 | 311.34 | 433.46 | -416.57 | 1.08 | -0.83 | 11.85 |

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | BONANZA CREEK ENERGY | Local Co-ordinate Reference: | Well STATE ANTELOPE V-B-3HN |
| Project: | WELD COUNTY | TVD Reference: | KB 25' @ 4670.00usft |
| Site: | SEC 2-T5N-R62W | MD Reference: | KB 25' @ 4670.00usft |
| Well: | STATE ANTELOPE V-B-3HN | 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) | |
| 5,487.00 | 1.92 | 98.33 | 5,457.31 | 312.07 | 437.35 | -420.41 | 1.74 | -1.10 | 32.48 | |
| 5,581.00 | 0.70 | 345.87 | 5,551.30 | 312.40 | 438.76 | -421.81 | 2.43 | -1.30 | -119.64 | |
| 5,641.00 | 4.52 | 267.08 | 5,611.23 | 312.64 | 436.31 | -419.35 | 7.40 | 6.37 | -131.32 | |
| KOP - 5641' MD, 5611' TVD | | | | | | | | | | |
| 5,676.00 | 7.09 | 263.83 | 5,646.05 | 312.33 | 432.79 | -415.85 | 7.40 | 7.34 | -9.28 | |
| 5,771.00 | 20.33 | 275.88 | 5,738.15 | 313.40 | 410.44 | -393.47 | 14.18 | 13.94 | 12.68 | |
| 5,866.00 | 27.73 | 274.61 | 5,824.86 | 316.87 | 371.94 | -354.84 | 7.81 | 7.79 | -1.34 | |
| 5,961.00 | 34.75 | 272.93 | 5,906.03 | 320.03 | 322.81 | -305.61 | 7.45 | 7.39 | -1.77 | |
| 6,056.00 | 42.15 | 270.11 | 5,980.39 | 321.48 | 263.80 | -246.62 | 8.00 | 7.79 | -2.97 | |
| 6,150.00 | 49.67 | 270.68 | 6,045.74 | 321.97 | 196.34 | -179.22 | 8.01 | 8.00 | 0.61 | |
| 6,246.00 | 57.77 | 272.67 | 6,102.51 | 324.30 | 119.06 | -101.92 | 8.60 | 8.44 | 2.07 | |
| 6,341.00 | 62.99 | 271.63 | 6,149.45 | 327.38 | 36.56 | -19.37 | 5.58 | 5.49 | -1.09 | |
| 6,435.00 | 71.77 | 270.19 | 6,185.57 | 328.72 | -50.11 | 67.25 | 9.45 | 9.34 | -1.53 | |
| 6,521.31 | 79.31 | 270.41 | 6,207.10 | 329.16 | -133.63 | 150.67 | 8.74 | 8.74 | 0.25 | |
| ~200' X-OVER PNT - 6521.31' MD, 1377' FNL, 200' FWL SEC 2 | | | | | | | | | | |
| 6,530.00 | 80.07 | 270.43 | 6,208.66 | 329.22 | -142.18 | 159.21 | 8.74 | 8.74 | 0.25 | |
| 6,610.00 | 86.55 | 269.82 | 6,217.97 | 329.39 | -221.59 | 238.53 | 8.13 | 8.10 | -0.77 | |
| HZ LANDING PNT - 6610' MD, 6218' TVD | | | | | | | | | | |
| 6,624.00 | 87.68 | 269.71 | 6,218.68 | 329.33 | -235.57 | 252.48 | 8.13 | 8.10 | -0.76 | |
| 6,719.00 | 87.05 | 268.93 | 6,223.05 | 328.20 | -330.46 | 347.19 | 1.05 | -0.66 | -0.82 | |
| 6,814.00 | 86.67 | 268.87 | 6,228.25 | 326.38 | -425.30 | 441.80 | 0.40 | -0.40 | -0.06 | |
| 6,908.00 | 88.21 | 270.36 | 6,232.45 | 325.75 | -519.20 | 535.54 | 2.28 | 1.64 | 1.59 | |
| 7,002.00 | 87.80 | 270.00 | 6,235.72 | 326.05 | -613.14 | 629.37 | 0.58 | -0.44 | -0.38 | |
| 7,097.00 | 88.67 | 272.27 | 6,238.65 | 327.93 | -708.07 | 724.27 | 2.56 | 0.92 | 2.39 | |
| 7,192.00 | 87.45 | 271.11 | 6,241.86 | 330.73 | -802.97 | 819.18 | 1.77 | -1.28 | -1.22 | |
| 7,287.00 | 90.33 | 272.11 | 6,243.70 | 333.40 | -897.91 | 914.13 | 3.21 | 3.03 | 1.05 | |
| 7,382.00 | 89.54 | 270.91 | 6,243.81 | 335.90 | -992.87 | 1,009.09 | 1.51 | -0.83 | -1.26 | |
| 7,476.00 | 91.42 | 271.20 | 6,243.02 | 337.63 | -1,086.85 | 1,103.03 | 2.02 | 2.00 | 0.31 | |
| 7,571.00 | 91.35 | 271.17 | 6,240.73 | 339.60 | -1,181.80 | 1,197.95 | 0.08 | -0.07 | -0.03 | |
| 7,666.00 | 91.05 | 270.17 | 6,238.74 | 340.71 | -1,276.77 | 1,292.85 | 1.10 | -0.32 | -1.05 | |
| 7,761.00 | 91.29 | 270.08 | 6,236.80 | 340.91 | -1,371.75 | 1,387.71 | 0.27 | 0.25 | -0.09 | |
| 7,855.00 | 91.46 | 270.22 | 6,234.54 | 341.16 | -1,465.72 | 1,481.57 | 0.23 | 0.18 | 0.15 | |
| 8,044.00 | 90.02 | 269.00 | 6,232.10 | 339.87 | -1,654.69 | 1,670.22 | 1.00 | -0.76 | -0.65 | |
| 8,233.00 | 89.55 | 268.65 | 6,232.81 | 336.00 | -1,843.65 | 1,858.71 | 0.31 | -0.25 | -0.19 | |
| 8,328.00 | 88.96 | 267.52 | 6,234.05 | 332.82 | -1,938.59 | 1,953.35 | 1.34 | -0.62 | -1.19 | |
| 8,422.00 | 90.18 | 268.45 | 6,234.75 | 329.52 | -2,032.53 | 2,046.99 | 1.63 | 1.30 | 0.99 | |
| 8,516.00 | 89.35 | 267.88 | 6,235.14 | 326.51 | -2,126.47 | 2,140.65 | 1.07 | -0.88 | -0.61 | |
| 8,705.00 | 88.55 | 266.51 | 6,238.60 | 317.26 | -2,315.21 | 2,328.64 | 0.84 | -0.42 | -0.72 | |
| 8,799.00 | 89.72 | 270.15 | 6,240.02 | 314.52 | -2,409.14 | 2,422.30 | 4.07 | 1.24 | 3.87 | |
| 8,894.00 | 89.24 | 270.27 | 6,240.88 | 314.87 | -2,504.14 | 2,517.19 | 0.52 | -0.51 | 0.13 | |
| 8,989.00 | 90.55 | 272.67 | 6,241.06 | 317.31 | -2,599.10 | 2,612.14 | 2.88 | 1.38 | 2.53 | |
| 9,084.00 | 88.95 | 268.60 | 6,241.47 | 318.36 | -2,694.07 | 2,707.04 | 4.60 | -1.68 | -4.28 | |
| 9,178.00 | 88.58 | 268.61 | 6,243.50 | 316.07 | -2,788.02 | 2,800.74 | 0.39 | -0.39 | 0.01 | |
| 9,272.00 | 88.38 | 268.68 | 6,245.99 | 313.85 | -2,881.96 | 2,894.44 | 0.23 | -0.21 | 0.07 | |

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | BONANZA CREEK ENERGY | Local Co-ordinate Reference: | Well STATE ANTELOPE V-B-3HN |
| Project: | WELD COUNTY | TVD Reference: | KB 25' @ 4670.00usft |
| Site: | SEC 2-T5N-R62W | MD Reference: | KB 25' @ 4670.00usft |
| Well: | STATE ANTELOPE V-B-3HN | 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) | |
| 9,367.00 | 88.17 | 268.17 | 6,248.85 | 311.24 | -2,976.88 | 2,989.09 | 0.58 | -0.22 | -0.54 | |
| 9,461.00 | 87.25 | 268.12 | 6,252.61 | 308.20 | -3,070.75 | 3,082.68 | 0.98 | -0.98 | -0.05 | |
| 9,556.00 | 87.92 | 270.71 | 6,256.61 | 307.23 | -3,165.66 | 3,177.40 | 2.81 | 0.71 | 2.73 | |
| 9,651.00 | 89.64 | 271.08 | 6,258.63 | 308.72 | -3,260.62 | 3,272.31 | 1.85 | 1.81 | 0.39 | |
| 9,746.00 | 90.48 | 271.99 | 6,258.53 | 311.26 | -3,355.58 | 3,367.28 | 1.30 | 0.88 | 0.96 | |
| 9,841.00 | 90.25 | 273.05 | 6,257.93 | 315.44 | -3,450.49 | 3,462.27 | 1.14 | -0.24 | 1.12 | |
| 9,936.00 | 90.38 | 272.00 | 6,257.41 | 319.62 | -3,545.39 | 3,557.26 | 1.11 | 0.14 | -1.11 | |
| 10,030.00 | 89.38 | 269.76 | 6,257.60 | 321.07 | -3,639.37 | 3,651.19 | 2.61 | -1.06 | -2.38 | |
| 10,125.00 | 89.35 | 269.97 | 6,258.66 | 320.84 | -3,734.37 | 3,746.04 | 0.22 | -0.03 | 0.22 | |
| 10,219.00 | 89.51 | 269.56 | 6,259.59 | 320.46 | -3,828.36 | 3,839.89 | 0.47 | 0.17 | -0.44 | |
| 10,314.00 | 89.46 | 270.69 | 6,260.45 | 320.66 | -3,923.36 | 3,934.76 | 1.19 | -0.05 | 1.19 | |
| 10,409.00 | 89.39 | 271.40 | 6,261.40 | 322.40 | -4,018.34 | 4,029.70 | 0.75 | -0.07 | 0.75 | |
| 10,503.00 | 89.00 | 269.71 | 6,262.72 | 323.31 | -4,112.32 | 4,123.60 | 1.84 | -0.41 | -1.80 | |
| 10,598.00 | 89.30 | 270.65 | 6,264.13 | 323.61 | -4,207.31 | 4,218.48 | 1.04 | 0.32 | 0.99 | |
| 10,692.00 | 89.43 | 269.26 | 6,265.17 | 323.53 | -4,301.30 | 4,312.34 | 1.49 | 0.14 | -1.48 | |
| 10,786.00 | 89.88 | 269.61 | 6,265.74 | 322.60 | -4,395.29 | 4,406.15 | 0.61 | 0.48 | 0.37 | |
| 10,881.00 | 88.41 | 268.01 | 6,267.15 | 320.63 | -4,490.25 | 4,500.88 | 2.29 | -1.55 | -1.68 | |
| 10,976.00 | 88.12 | 267.81 | 6,270.03 | 317.17 | -4,585.15 | 4,595.46 | 0.37 | -0.31 | -0.21 | |
| 11,070.00 | 87.42 | 266.88 | 6,273.69 | 312.82 | -4,678.97 | 4,688.93 | 1.24 | -0.74 | -0.99 | |
| 11,165.00 | 89.17 | 267.81 | 6,276.51 | 308.42 | -4,773.83 | 4,783.42 | 2.09 | 1.84 | 0.98 | |
| 11,259.00 | 88.34 | 266.68 | 6,278.56 | 303.90 | -4,867.69 | 4,876.93 | 1.49 | -0.88 | -1.20 | |
| 11,353.00 | 90.63 | 267.28 | 6,279.40 | 298.95 | -4,961.55 | 4,970.40 | 2.52 | 2.44 | 0.64 | |
| 11,448.00 | 88.70 | 264.91 | 6,279.96 | 292.48 | -5,056.32 | 5,064.70 | 3.22 | -2.03 | -2.49 | |
| 11,542.00 | 90.30 | 266.21 | 6,280.78 | 285.21 | -5,150.03 | 5,157.90 | 2.19 | 1.70 | 1.38 | |
| LAST SURVEY - 11542' MD, 6281' TVD | | | | | | | | | | |
| 11,671.00 | 90.30 | 266.21 | 6,280.10 | 276.68 | -5,278.74 | 5,285.99 | 0.00 | 0.00 | 0.00 | |
| EXTRAPLOATION TO TD - 11671' MD, 1356' FNL, 330' FWL SEC 3 | | | | | | | | | | |

| Design Targets | | | | | | | | | | |
|---------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|--|--|--------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | | Longitude |
| LP-STATE ANTELOPE \ | 0.00 | 0.00 | 6,225.00 | 335.18 | -133.63 | 1,402,841.40 | 3,334,228.88 | 40.432990°N | | 104.299320°W |
| - hit/miss target | | | | | | | | - actual wellpath misses target center by 18.59usft at 6524.56usft MD (6207.70 TVD, 329.18 N, -136.82 E) | | |
| - Shape | | | | | | | | - Point | | |
| PBHL-STATE ANTELOP | 0.00 | 0.00 | 6,285.00 | 288.35 | -5,279.01 | 1,402,724.89 | 3,329,084.79 | 40.432860°N | | 104.317803°W |
| - hit/miss target | | | | | | | | - actual wellpath misses target center by 12.65usft at 11670.47usft MD (6280.10 TVD, 276.72 N, -5278.21 E) | | |
| - Shape | | | | | | | | - Point | | |

Survey Report

| | | | |
|------------------|------------------------|-------------------------------------|-----------------------------|
| Company: | BONANZA CREEK ENERGY | Local Co-ordinate Reference: | Well STATE ANTELOPE V-B-3HN |
| Project: | WELD COUNTY | TVD Reference: | KB 25' @ 4670.00usft |
| Site: | SEC 2-T5N-R62W | MD Reference: | KB 25' @ 4670.00usft |
| Well: | STATE ANTELOPE V-B-3HN | North Reference: | True |
| Wellbore: | OWB | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEY | Database: | EDT_32Bit_ODBC |

| Design Annotations | | | | |
|-----------------------|-----------------------|-------------------|--------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 5,641.00 | 5,611.23 | 312.64 | 436.31 | KOP - 5641' MD, 5611' TVD |
| 6,521.31 | 6,207.10 | 329.16 | -133.63 | ~200' X-OVER PNT - 6521.31' MD, 1377' FNL, 200' FWL SEC 2 |
| 6,610.00 | 6,217.97 | 329.39 | -221.59 | HZ LANDING PNT - 6610' MD, 6218' TVD |
| 11,542.00 | 6,280.78 | 285.21 | -5,150.03 | LAST SURVEY - 11542' MD, 6281' TVD |
| 11,671.00 | 6,280.10 | 276.68 | -5,278.74 | EXTRAPLOATION TO TD - 11671' MD, 1356' FNL, 330' FWL SEC 3 |

Checked By: _____ Approved By: _____ Date: _____