



**Scientific
Drilling**

Survey Certification

7327 West Barton Road
Casper, WY 82604
(307)-472-6621 Fax (307) 472-5439

| | |
|----------------------------|----------------------------------|
| Operator | _____ KP Kauffman Co, Inc. _____ |
| Well Name & No. | _____ David Howard B-3 _____ |
| County & State | _____ Weld County, CO _____ |
| SDI Job No. | _____ 411113K77768 _____ |
| Rig | _____ Halliburton 1668 _____ |
| Survey Date | _____ 4-Nov-2013 _____ |

I, Steven F. Gottschalk, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 0 feet to a measured depth of 4959.3 feet is true and correct as determined from all available records.


Signature

25-Nov-2013
Date

Steven F. Gottschalk
Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District

KP Kauffman Co, Inc.

Weld County, CO

David Howard

David Howard B-3

OH

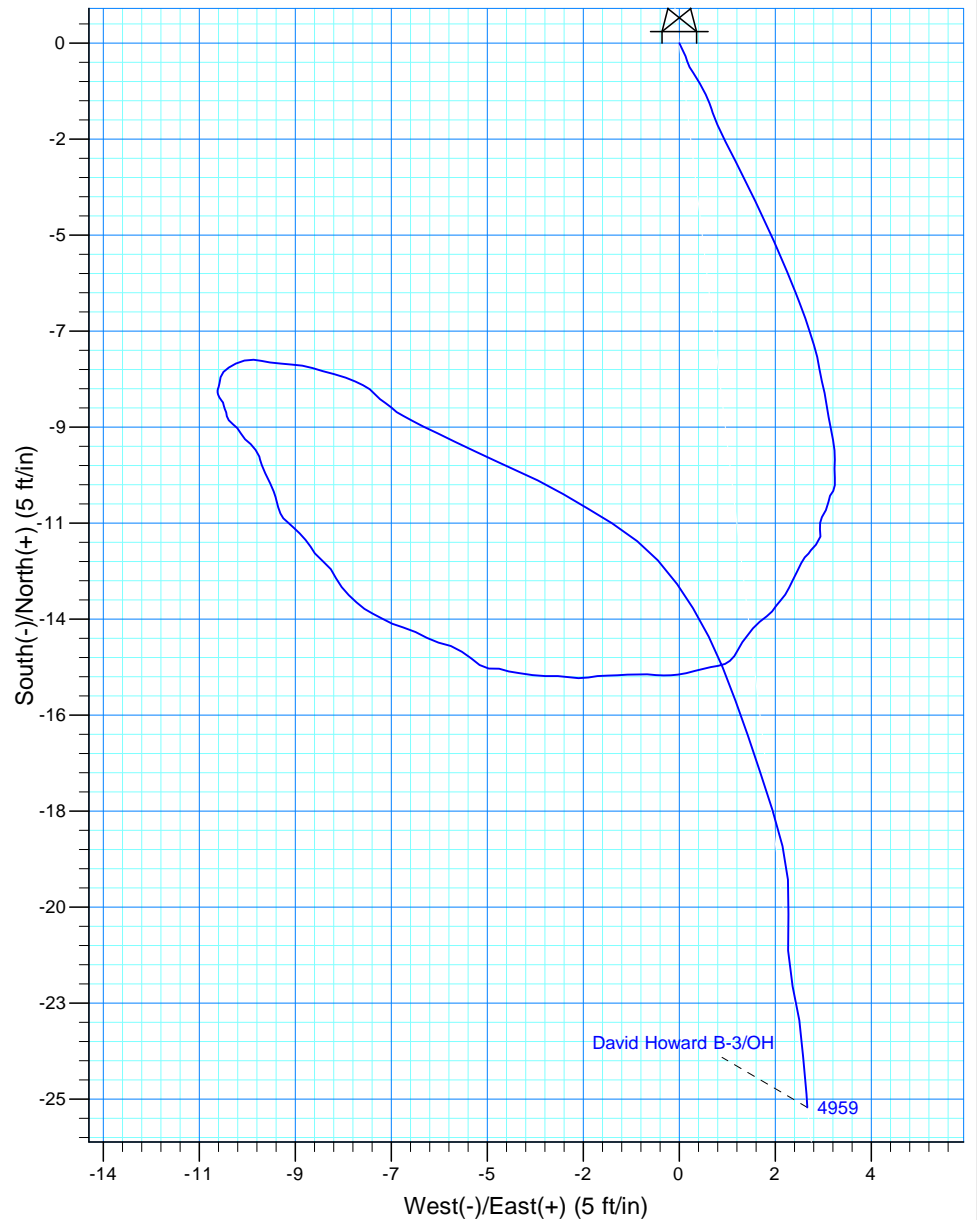
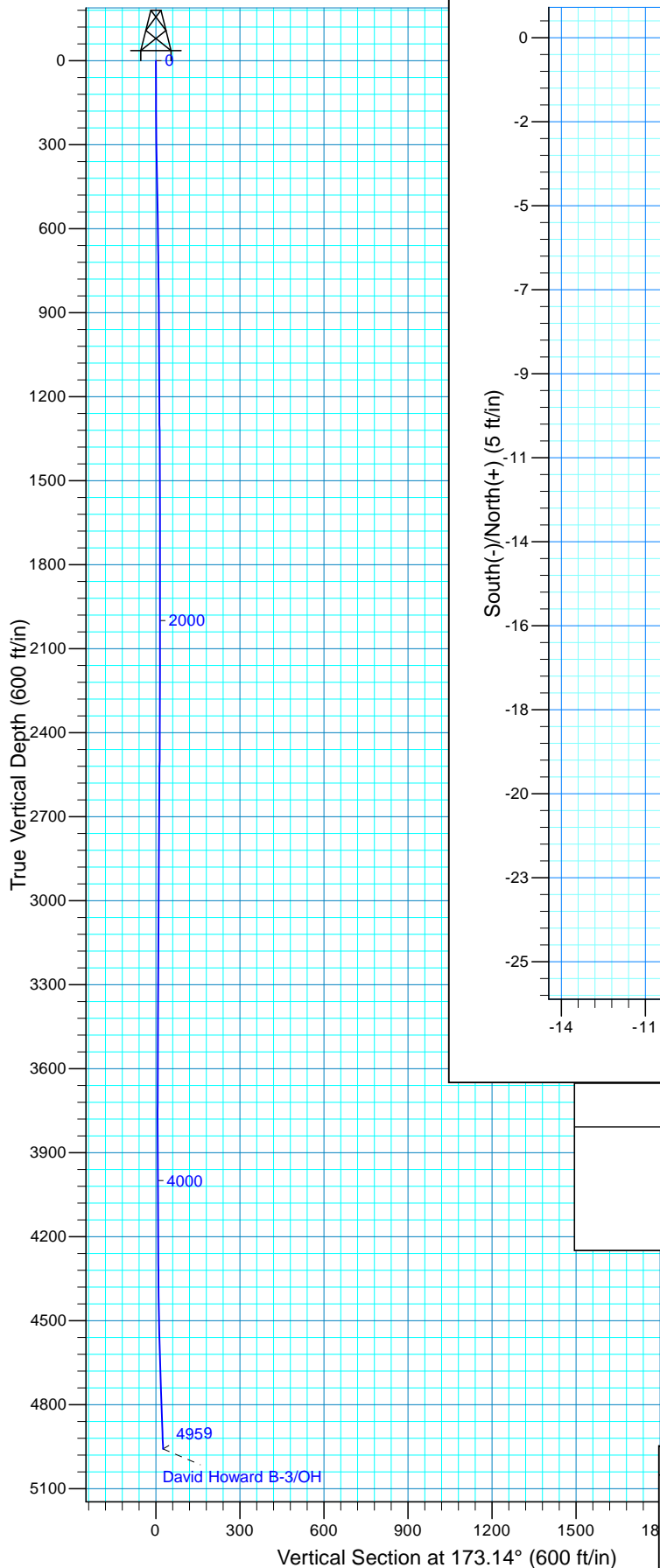
Design: OH

Standard Survey Report

25 November, 2013



Project: Weld County, CO
Site: David Howard
Well: David Howard B-3
Wellbore: OH
Design: OH



WELL DETAILS: David Howard B-3

| | | | |
|---------------|------------|-----------------|-------------------|
| Ground Level: | 5035.00 | | |
| Northings | Easting | Latitude | Longitude |
| 1249478.35 | 3169987.52 | 40° 0' 59.788 N | 104° 53' 35.095 W |

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well David Howard B-3, True North
Vertical (TVD) Reference: GL 5035' @ 5035.00ft (Halliburton 1668)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 5035' @ 5035.00ft (Halliburton 1668)
Calculation Method: Minimum Curvature
Local North: True
Location:

PROJECT DETAILS: Weld County, CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

Design: OH (David Howard B-3/OH)

Created By: Steve Gottschalk 16:33, November 25 2013

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County, CO | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

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|-----------------------|--------------|--------------|-------------------|-------------------|-------------------|
| Site | David Howard | | | | |
| Site Position: | | Northing: | 1,249,478.35 usft | Latitude: | 40° 0' 59.788 N |
| From: | Lat/Long | Easting: | 3,169,987.52 usft | Longitude: | 104° 53' 35.095 W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | 0.39 ° |

| | | | | | | |
|----------------------|--|---------|---------------------|-------------------|---------------|-------------------|
| Well | David Howard B-3, 660' FSL, 1980' FEL, SEC 28 T1N R67W | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 1,249,478.34 usft | Latitude: | 40° 0' 59.788 N |
| | +E/-W | 0.00 ft | Easting: | 3,169,987.52 usft | Longitude: | 104° 53' 35.095 W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | 0.00 ft | Ground Level: | 5,035.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OH | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2013 | 11/4/2013 | 8.62 | 66.63 | 52,588 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | OH | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 173.14 | |

| | | | | | |
|-----------------------|----------------|------------------------------|-------------------------|--|--|
| Survey Program | Date | 11/25/2013 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 101.81 | 4,959.30 | Survey #1 Surface Gyros (OH) | SDI Standard Keeper 103 | SDI Standard Wireline Keeper ver 1.0.3 | |

| | | | | | | | | | |
|------------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|
| Survey | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | 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 |
| 101.81 | 0.38 | 154.25 | 101.81 | -0.30 | 0.15 | 0.32 | 0.37 | 0.37 | 0.00 |
| First SDI Gyro Survey | | | | | | | | | |
| 124.36 | 0.26 | 176.22 | 124.36 | -0.42 | 0.18 | 0.44 | 0.75 | -0.53 | 97.43 |
| 149.74 | 0.44 | 145.81 | 149.74 | -0.56 | 0.24 | 0.59 | 1.00 | 0.71 | -119.82 |
| 174.99 | 0.32 | 149.42 | 174.99 | -0.70 | 0.33 | 0.74 | 0.48 | -0.48 | 14.30 |
| 199.24 | 0.37 | 147.07 | 199.24 | -0.83 | 0.41 | 0.87 | 0.21 | 0.21 | -9.69 |
| 224.06 | 0.33 | 146.80 | 224.06 | -0.95 | 0.49 | 1.00 | 0.16 | -0.16 | -1.09 |
| 249.73 | 0.33 | 156.83 | 249.73 | -1.08 | 0.56 | 1.14 | 0.22 | 0.00 | 39.07 |
| 274.99 | 0.36 | 153.58 | 274.99 | -1.22 | 0.62 | 1.29 | 0.14 | 0.12 | -12.87 |
| 298.58 | 0.55 | 157.91 | 298.58 | -1.39 | 0.70 | 1.47 | 0.82 | 0.81 | 18.36 |

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 323.77 | 0.57 | 162.70 | 323.76 | -1.62 | 0.78 | 1.71 | 0.20 | 0.08 | 19.02 |
| 348.92 | 0.83 | 156.23 | 348.91 | -1.91 | 0.89 | 2.00 | 1.08 | 1.03 | -25.73 |
| 374.13 | 1.19 | 153.17 | 374.12 | -2.31 | 1.09 | 2.42 | 1.44 | 1.43 | -12.14 |
| 399.17 | 1.41 | 152.58 | 399.15 | -2.82 | 1.34 | 2.96 | 0.88 | 0.88 | -2.36 |
| 423.65 | 1.53 | 154.23 | 423.62 | -3.38 | 1.63 | 3.55 | 0.52 | 0.49 | 6.74 |
| 449.09 | 1.48 | 154.41 | 449.06 | -3.98 | 1.91 | 4.18 | 0.20 | -0.20 | 0.71 |
| 474.82 | 1.47 | 156.48 | 474.78 | -4.58 | 2.19 | 4.81 | 0.21 | -0.04 | 8.05 |
| 499.54 | 1.36 | 155.88 | 499.49 | -5.14 | 2.44 | 5.39 | 0.45 | -0.44 | -2.43 |
| 524.19 | 1.16 | 158.38 | 524.13 | -5.64 | 2.65 | 5.92 | 0.84 | -0.81 | 10.14 |
| 549.08 | 1.00 | 159.25 | 549.02 | -6.08 | 2.82 | 6.37 | 0.65 | -0.64 | 3.50 |
| 574.27 | 0.81 | 160.26 | 574.21 | -6.45 | 2.96 | 6.76 | 0.76 | -0.75 | 4.01 |
| 599.90 | 0.76 | 164.17 | 599.83 | -6.78 | 3.06 | 7.10 | 0.29 | -0.20 | 15.26 |
| 624.47 | 0.70 | 159.32 | 624.40 | -7.08 | 3.16 | 7.41 | 0.35 | -0.24 | -19.74 |
| 649.03 | 0.64 | 170.72 | 648.96 | -7.36 | 3.24 | 7.69 | 0.59 | -0.24 | 46.42 |
| 674.72 | 0.66 | 169.67 | 674.65 | -7.64 | 3.29 | 7.98 | 0.09 | 0.08 | -4.09 |
| 699.69 | 0.64 | 167.08 | 699.62 | -7.92 | 3.34 | 8.26 | 0.14 | -0.08 | -10.37 |
| 724.24 | 0.69 | 167.41 | 724.16 | -8.20 | 3.41 | 8.55 | 0.20 | 0.20 | 1.34 |
| 749.85 | 0.63 | 173.76 | 749.77 | -8.49 | 3.45 | 8.84 | 0.37 | -0.23 | 24.80 |
| 774.00 | 0.68 | 167.39 | 773.92 | -8.76 | 3.50 | 9.12 | 0.37 | 0.21 | -26.38 |
| 799.59 | 0.63 | 171.32 | 799.51 | -9.05 | 3.55 | 9.41 | 0.26 | -0.20 | 15.36 |
| 824.14 | 0.58 | 166.34 | 824.06 | -9.30 | 3.60 | 9.67 | 0.30 | -0.20 | -20.29 |
| 849.71 | 0.52 | 177.53 | 849.63 | -9.54 | 3.64 | 9.91 | 0.48 | -0.23 | 43.76 |
| 874.16 | 0.50 | 180.44 | 874.08 | -9.76 | 3.64 | 10.13 | 0.13 | -0.08 | 11.90 |
| 898.56 | 0.47 | 180.69 | 898.48 | -9.97 | 3.64 | 10.33 | 0.12 | -0.12 | 1.02 |
| 924.48 | 0.47 | 177.61 | 924.39 | -10.18 | 3.64 | 10.54 | 0.10 | 0.00 | -11.88 |
| 949.31 | 0.35 | 184.08 | 949.22 | -10.36 | 3.64 | 10.72 | 0.52 | -0.48 | 26.06 |
| 974.43 | 0.30 | 205.22 | 974.34 | -10.49 | 3.61 | 10.85 | 0.51 | -0.20 | 84.16 |
| 999.92 | 0.32 | 223.99 | 999.83 | -10.61 | 3.53 | 10.95 | 0.40 | 0.08 | 73.64 |
| 1,024.31 | 0.47 | 173.66 | 1,024.22 | -10.75 | 3.50 | 11.10 | 1.49 | 0.62 | -206.36 |
| 1,048.96 | 0.51 | 217.62 | 1,048.87 | -10.94 | 3.44 | 11.27 | 1.50 | 0.16 | 178.34 |
| 1,074.56 | 0.36 | 198.78 | 1,074.47 | -11.11 | 3.34 | 11.43 | 0.80 | -0.59 | -73.59 |
| 1,098.89 | 0.31 | 193.45 | 1,098.80 | -11.24 | 3.30 | 11.56 | 0.24 | -0.21 | -21.91 |
| 1,123.96 | 0.37 | 173.88 | 1,123.87 | -11.39 | 3.30 | 11.70 | 0.52 | 0.24 | -78.06 |
| 1,149.30 | 0.42 | 178.40 | 1,149.21 | -11.57 | 3.31 | 11.88 | 0.23 | 0.20 | 17.84 |
| 1,174.41 | 0.66 | 228.90 | 1,174.32 | -11.75 | 3.20 | 12.05 | 2.03 | 0.96 | 201.12 |
| 1,199.47 | 0.18 | 199.47 | 1,199.38 | -11.88 | 3.08 | 12.17 | 2.04 | -1.92 | -117.44 |
| 1,224.07 | 0.24 | 222.34 | 1,223.98 | -11.96 | 3.03 | 12.24 | 0.41 | 0.24 | 92.97 |
| 1,249.04 | 0.34 | 225.11 | 1,248.95 | -12.05 | 2.95 | 12.32 | 0.40 | 0.40 | 11.09 |
| 1,273.97 | 0.41 | 201.83 | 1,273.88 | -12.18 | 2.86 | 12.44 | 0.67 | 0.28 | -93.38 |
| 1,299.15 | 0.54 | 210.83 | 1,299.06 | -12.37 | 2.77 | 12.61 | 0.59 | 0.52 | 35.74 |
| 1,324.28 | 0.49 | 199.41 | 1,324.18 | -12.57 | 2.67 | 12.80 | 0.45 | -0.20 | -45.44 |
| 1,349.70 | 0.46 | 213.68 | 1,349.60 | -12.76 | 2.58 | 12.98 | 0.48 | -0.12 | 56.14 |
| 1,374.67 | 0.40 | 204.76 | 1,374.57 | -12.92 | 2.48 | 13.13 | 0.36 | -0.24 | -35.72 |

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 1,399.57 | 0.39 | 231.15 | 1,399.47 | -13.06 | 2.38 | 13.25 | 0.73 | -0.04 | 105.98 |
| 1,424.46 | 0.40 | 209.86 | 1,424.36 | -13.18 | 2.27 | 13.36 | 0.59 | 0.04 | -85.54 |
| 1,449.43 | 0.35 | 220.01 | 1,449.33 | -13.32 | 2.18 | 13.48 | 0.33 | -0.20 | 40.65 |
| 1,474.39 | 0.44 | 233.90 | 1,474.29 | -13.43 | 2.05 | 13.58 | 0.52 | 0.36 | 55.65 |
| 1,499.27 | 0.53 | 231.96 | 1,499.17 | -13.56 | 1.89 | 13.69 | 0.37 | 0.36 | -7.80 |
| 1,524.51 | 0.47 | 218.82 | 1,524.41 | -13.71 | 1.73 | 13.82 | 0.51 | -0.24 | -52.06 |
| 1,549.38 | 0.48 | 216.81 | 1,549.28 | -13.88 | 1.60 | 13.97 | 0.08 | 0.04 | -8.08 |
| 1,574.83 | 0.43 | 217.07 | 1,574.73 | -14.04 | 1.48 | 14.11 | 0.20 | -0.20 | 1.02 |
| 1,599.03 | 0.45 | 202.88 | 1,598.93 | -14.20 | 1.39 | 14.26 | 0.46 | 0.08 | -58.64 |
| 1,624.98 | 0.41 | 220.00 | 1,624.88 | -14.36 | 1.29 | 14.41 | 0.52 | -0.15 | 65.97 |
| 1,649.75 | 0.29 | 226.43 | 1,649.65 | -14.47 | 1.19 | 14.51 | 0.51 | -0.48 | 25.96 |
| 1,674.17 | 0.35 | 246.19 | 1,674.07 | -14.55 | 1.08 | 14.57 | 0.51 | 0.25 | 80.92 |
| 1,699.59 | 0.42 | 259.44 | 1,699.48 | -14.59 | 0.91 | 14.60 | 0.44 | 0.28 | 52.12 |
| 1,724.06 | 0.40 | 259.83 | 1,723.95 | -14.63 | 0.74 | 14.61 | 0.08 | -0.08 | 1.59 |
| 1,749.03 | 0.44 | 254.78 | 1,748.92 | -14.67 | 0.56 | 14.63 | 0.22 | 0.16 | -20.22 |
| 1,774.89 | 0.48 | 258.74 | 1,774.78 | -14.71 | 0.36 | 14.65 | 0.20 | 0.15 | 15.31 |
| 1,799.60 | 0.46 | 253.66 | 1,799.49 | -14.76 | 0.16 | 14.68 | 0.19 | -0.08 | -20.56 |
| 1,824.96 | 0.43 | 265.40 | 1,824.85 | -14.80 | -0.03 | 14.69 | 0.38 | -0.12 | 46.29 |
| 1,849.39 | 0.37 | 265.80 | 1,849.28 | -14.81 | -0.20 | 14.68 | 0.25 | -0.25 | 1.64 |
| 1,874.67 | 0.38 | 268.79 | 1,874.56 | -14.82 | -0.36 | 14.67 | 0.09 | 0.04 | 11.83 |
| 1,899.08 | 0.47 | 277.78 | 1,898.97 | -14.81 | -0.54 | 14.64 | 0.46 | 0.37 | 36.83 |
| 1,924.47 | 0.46 | 271.73 | 1,924.36 | -14.79 | -0.75 | 14.59 | 0.20 | -0.04 | -23.83 |
| 1,949.07 | 0.56 | 266.23 | 1,948.96 | -14.79 | -0.97 | 14.57 | 0.45 | 0.41 | -22.36 |
| 1,973.98 | 0.58 | 271.91 | 1,973.87 | -14.80 | -1.22 | 14.55 | 0.24 | 0.08 | 22.80 |
| 1,999.54 | 0.47 | 260.39 | 1,999.42 | -14.81 | -1.45 | 14.53 | 0.59 | -0.43 | -45.07 |
| 2,023.77 | 0.59 | 273.36 | 2,023.65 | -14.82 | -1.67 | 14.52 | 0.70 | 0.50 | 53.53 |
| 2,049.21 | 0.52 | 261.57 | 2,049.09 | -14.83 | -1.92 | 14.50 | 0.53 | -0.28 | -46.34 |
| 2,073.92 | 0.49 | 260.23 | 2,073.80 | -14.86 | -2.13 | 14.50 | 0.13 | -0.12 | -5.42 |
| 2,099.78 | 0.54 | 271.72 | 2,099.66 | -14.88 | -2.36 | 14.49 | 0.44 | 0.19 | 44.43 |
| 2,124.52 | 0.52 | 279.23 | 2,124.40 | -14.86 | -2.59 | 14.44 | 0.29 | -0.08 | 30.36 |
| 2,149.37 | 0.66 | 274.22 | 2,149.25 | -14.83 | -2.84 | 14.38 | 0.60 | 0.56 | -20.16 |
| 2,174.13 | 0.73 | 266.13 | 2,174.01 | -14.83 | -3.14 | 14.35 | 0.49 | 0.28 | -32.67 |
| 2,198.74 | 0.67 | 282.64 | 2,198.61 | -14.81 | -3.44 | 14.29 | 0.85 | -0.24 | 67.09 |
| 2,224.81 | 0.67 | 273.82 | 2,224.68 | -14.77 | -3.74 | 14.21 | 0.40 | 0.00 | -33.83 |
| 2,249.60 | 0.54 | 287.22 | 2,249.47 | -14.72 | -4.00 | 14.14 | 0.77 | -0.52 | 54.05 |
| 2,273.87 | 0.55 | 283.63 | 2,273.74 | -14.66 | -4.22 | 14.05 | 0.15 | 0.04 | -14.79 |
| 2,299.75 | 0.56 | 259.29 | 2,299.62 | -14.65 | -4.46 | 14.02 | 0.90 | 0.04 | -94.05 |
| 2,324.52 | 0.64 | 316.40 | 2,324.39 | -14.58 | -4.68 | 13.91 | 2.33 | 0.32 | 230.56 |
| 2,349.22 | 0.56 | 300.65 | 2,349.09 | -14.41 | -4.88 | 13.73 | 0.74 | -0.32 | -63.77 |
| 2,373.91 | 0.67 | 308.34 | 2,373.78 | -14.26 | -5.09 | 13.55 | 0.56 | 0.45 | 31.15 |
| 2,399.76 | 0.65 | 287.01 | 2,399.62 | -14.13 | -5.35 | 13.39 | 0.95 | -0.08 | -82.51 |
| 2,424.51 | 0.74 | 283.90 | 2,424.37 | -14.05 | -5.64 | 13.27 | 0.39 | 0.36 | -12.57 |
| 2,449.19 | 0.65 | 301.03 | 2,449.05 | -13.94 | -5.92 | 13.13 | 0.91 | -0.36 | 69.41 |

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 2,473.73 | 0.72 | 295.11 | 2,473.59 | -13.80 | -6.18 | 12.96 | 0.41 | 0.29 | -24.12 |
| 2,499.70 | 0.67 | 284.80 | 2,499.56 | -13.69 | -6.47 | 12.82 | 0.52 | -0.19 | -39.70 |
| 2,523.96 | 0.60 | 291.97 | 2,523.81 | -13.61 | -6.73 | 12.71 | 0.44 | -0.29 | 29.55 |
| 2,549.78 | 0.58 | 303.43 | 2,549.63 | -13.49 | -6.96 | 12.56 | 0.46 | -0.08 | 44.38 |
| 2,574.41 | 0.58 | 292.24 | 2,574.26 | -13.37 | -7.18 | 12.42 | 0.46 | 0.00 | -45.43 |
| 2,599.03 | 0.50 | 308.64 | 2,598.88 | -13.26 | -7.38 | 12.28 | 0.70 | -0.32 | 66.61 |
| 2,624.82 | 0.57 | 310.59 | 2,624.67 | -13.10 | -7.56 | 12.10 | 0.28 | 0.27 | 7.56 |
| 2,649.43 | 0.58 | 314.68 | 2,649.28 | -12.93 | -7.75 | 11.92 | 0.17 | 0.04 | 16.62 |
| 2,674.11 | 0.59 | 322.62 | 2,673.96 | -12.75 | -7.91 | 11.71 | 0.33 | 0.04 | 32.17 |
| 2,699.48 | 0.53 | 332.61 | 2,699.33 | -12.54 | -8.04 | 11.49 | 0.45 | -0.24 | 39.38 |
| 2,724.49 | 0.57 | 326.97 | 2,724.34 | -12.33 | -8.17 | 11.27 | 0.27 | 0.16 | -22.55 |
| 2,749.09 | 0.72 | 307.05 | 2,748.93 | -12.14 | -8.36 | 11.05 | 1.09 | 0.61 | -80.98 |
| 2,774.86 | 0.44 | 327.09 | 2,774.70 | -11.95 | -8.54 | 10.85 | 1.33 | -1.09 | 77.76 |
| 2,799.01 | 0.43 | 324.59 | 2,798.85 | -11.80 | -8.64 | 10.69 | 0.09 | -0.04 | -10.35 |
| 2,824.37 | 0.47 | 325.31 | 2,824.21 | -11.64 | -8.76 | 10.51 | 0.16 | 0.16 | 2.84 |
| 2,849.12 | 0.50 | 309.82 | 2,848.96 | -11.49 | -8.90 | 10.34 | 0.54 | 0.12 | -62.59 |
| 2,874.36 | 0.40 | 317.94 | 2,874.20 | -11.35 | -9.04 | 10.19 | 0.47 | -0.40 | 32.17 |
| 2,899.68 | 0.41 | 306.66 | 2,899.52 | -11.23 | -9.17 | 10.06 | 0.32 | 0.04 | -44.55 |
| 2,923.95 | 0.28 | 320.35 | 2,923.79 | -11.13 | -9.28 | 9.95 | 0.63 | -0.54 | 56.41 |
| 2,949.30 | 0.31 | 337.98 | 2,949.14 | -11.02 | -9.35 | 9.83 | 0.38 | 0.12 | 69.55 |
| 2,974.62 | 0.41 | 340.97 | 2,974.46 | -10.87 | -9.40 | 9.67 | 0.40 | 0.39 | 11.81 |
| 2,999.98 | 0.38 | 350.02 | 2,999.82 | -10.70 | -9.44 | 9.50 | 0.27 | -0.12 | 35.69 |
| 3,024.09 | 0.40 | 337.98 | 3,023.93 | -10.55 | -9.49 | 9.34 | 0.35 | 0.08 | -49.94 |
| 3,049.46 | 0.44 | 337.70 | 3,049.30 | -10.38 | -9.56 | 9.16 | 0.16 | 0.16 | -1.10 |
| 3,074.74 | 0.48 | 331.88 | 3,074.57 | -10.19 | -9.65 | 8.97 | 0.24 | 0.16 | -23.02 |
| 3,099.98 | 0.41 | 334.86 | 3,099.81 | -10.02 | -9.74 | 8.78 | 0.29 | -0.28 | 11.81 |
| 3,124.17 | 0.42 | 347.89 | 3,124.00 | -9.85 | -9.79 | 8.61 | 0.39 | 0.04 | 53.87 |
| 3,149.80 | 0.36 | 338.40 | 3,149.63 | -9.69 | -9.84 | 8.44 | 0.34 | -0.23 | -37.03 |
| 3,174.52 | 0.46 | 322.46 | 3,174.35 | -9.54 | -9.93 | 8.28 | 0.61 | 0.40 | -64.48 |
| 3,199.16 | 0.39 | 318.03 | 3,198.99 | -9.39 | -10.05 | 8.13 | 0.31 | -0.28 | -17.98 |
| 3,224.87 | 0.38 | 305.03 | 3,224.70 | -9.28 | -10.17 | 8.00 | 0.34 | -0.04 | -50.56 |
| 3,249.58 | 0.43 | 339.69 | 3,249.41 | -9.15 | -10.27 | 7.85 | 1.00 | 0.20 | 140.27 |
| 3,273.74 | 0.33 | 305.69 | 3,273.57 | -9.02 | -10.36 | 7.72 | 1.00 | -0.41 | -140.73 |
| 3,298.92 | 0.29 | 319.92 | 3,298.75 | -8.93 | -10.46 | 7.62 | 0.34 | -0.16 | 56.51 |
| 3,324.76 | 0.30 | 309.37 | 3,324.59 | -8.84 | -10.56 | 7.51 | 0.21 | 0.04 | -40.83 |
| 3,348.89 | 0.25 | 4.51 | 3,348.72 | -8.74 | -10.60 | 7.42 | 1.07 | -0.21 | 228.51 |
| 3,374.56 | 0.20 | 323.56 | 3,374.39 | -8.65 | -10.62 | 7.32 | 0.64 | -0.19 | -159.52 |
| 3,399.84 | 0.20 | 357.42 | 3,399.67 | -8.57 | -10.65 | 7.24 | 0.46 | 0.00 | 133.94 |
| 3,424.33 | 0.20 | 327.07 | 3,424.16 | -8.49 | -10.68 | 7.16 | 0.43 | 0.00 | -123.93 |
| 3,449.98 | 0.17 | 14.74 | 3,449.81 | -8.42 | -10.69 | 7.08 | 0.59 | -0.12 | 185.85 |
| 3,474.50 | 0.18 | 290.00 | 3,474.33 | -8.37 | -10.72 | 7.03 | 0.96 | 0.04 | -345.60 |
| 3,499.74 | 0.18 | 330.53 | 3,499.57 | -8.32 | -10.77 | 6.98 | 0.49 | 0.00 | 160.58 |
| 3,524.57 | 0.12 | 359.18 | 3,524.40 | -8.26 | -10.79 | 6.92 | 0.38 | -0.24 | 115.38 |
| 3,549.01 | 0.18 | 326.22 | 3,548.84 | -8.21 | -10.81 | 6.86 | 0.42 | 0.25 | -134.86 |

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 3,574.59 | 0.16 | 25.66 | 3,574.42 | -8.14 | -10.82 | 6.79 | 0.66 | -0.08 | 232.37 |
| 3,598.58 | 0.20 | 8.78 | 3,598.41 | -8.07 | -10.80 | 6.72 | 0.28 | 0.17 | -70.36 |
| 3,624.08 | 0.27 | 14.25 | 3,623.91 | -7.97 | -10.78 | 6.62 | 0.29 | 0.27 | 21.45 |
| 3,649.88 | 0.35 | 10.42 | 3,649.71 | -7.83 | -10.75 | 6.49 | 0.32 | 0.31 | -14.84 |
| 3,674.94 | 0.34 | 44.71 | 3,674.77 | -7.70 | -10.68 | 6.37 | 0.81 | -0.04 | 136.83 |
| 3,700.00 | 0.40 | 57.01 | 3,699.83 | -7.60 | -10.56 | 6.29 | 0.40 | 0.24 | 49.08 |
| 3,723.96 | 0.51 | 63.02 | 3,723.79 | -7.51 | -10.39 | 6.21 | 0.50 | 0.46 | 25.08 |
| 3,749.01 | 0.48 | 77.95 | 3,748.83 | -7.44 | -10.19 | 6.16 | 0.53 | -0.12 | 59.60 |
| 3,774.04 | 0.51 | 92.68 | 3,773.86 | -7.42 | -9.98 | 6.17 | 0.52 | 0.12 | 58.85 |
| 3,799.05 | 0.36 | 107.61 | 3,798.87 | -7.45 | -9.79 | 6.22 | 0.75 | -0.60 | 59.70 |
| 3,824.04 | 0.59 | 95.37 | 3,823.86 | -7.48 | -9.59 | 6.28 | 1.00 | 0.92 | -48.98 |
| 3,848.91 | 0.57 | 96.41 | 3,848.73 | -7.51 | -9.34 | 6.34 | 0.09 | -0.08 | 4.18 |
| 3,874.03 | 0.57 | 93.66 | 3,873.85 | -7.53 | -9.09 | 6.39 | 0.11 | 0.00 | -10.95 |
| 3,899.79 | 0.58 | 97.99 | 3,899.61 | -7.56 | -8.83 | 6.45 | 0.17 | 0.04 | 16.81 |
| 3,924.77 | 0.55 | 107.61 | 3,924.59 | -7.61 | -8.59 | 6.53 | 0.40 | -0.12 | 38.51 |
| 3,949.73 | 0.58 | 106.24 | 3,949.55 | -7.68 | -8.36 | 6.63 | 0.13 | 0.12 | -5.49 |
| 3,974.71 | 0.70 | 104.70 | 3,974.52 | -7.76 | -8.09 | 6.74 | 0.49 | 0.48 | -6.16 |
| 3,999.67 | 0.61 | 108.19 | 3,999.48 | -7.84 | -7.81 | 6.85 | 0.39 | -0.36 | 13.98 |
| 4,024.63 | 0.49 | 117.02 | 4,024.44 | -7.93 | -7.59 | 6.96 | 0.59 | -0.48 | 35.38 |
| 4,049.46 | 0.45 | 113.69 | 4,049.27 | -8.01 | -7.41 | 7.07 | 0.20 | -0.16 | -13.41 |
| 4,074.52 | 0.38 | 129.81 | 4,074.33 | -8.11 | -7.26 | 7.18 | 0.54 | -0.28 | 64.33 |
| 4,099.83 | 0.40 | 139.08 | 4,099.64 | -8.23 | -7.13 | 7.32 | 0.26 | 0.08 | 36.63 |
| 4,124.78 | 0.35 | 129.56 | 4,124.59 | -8.34 | -7.02 | 7.44 | 0.32 | -0.20 | -38.16 |
| 4,149.77 | 0.40 | 120.11 | 4,149.58 | -8.43 | -6.88 | 7.55 | 0.32 | 0.20 | -37.82 |
| 4,174.64 | 0.41 | 136.09 | 4,174.45 | -8.54 | -6.75 | 7.67 | 0.45 | 0.04 | 64.25 |
| 4,199.09 | 0.35 | 122.82 | 4,198.90 | -8.65 | -6.62 | 7.79 | 0.43 | -0.25 | -54.27 |
| 4,224.06 | 0.47 | 117.59 | 4,223.87 | -8.73 | -6.47 | 7.90 | 0.50 | 0.48 | -20.95 |
| 4,249.33 | 0.63 | 118.93 | 4,249.14 | -8.85 | -6.25 | 8.04 | 0.64 | 0.63 | 5.30 |
| 4,274.23 | 0.73 | 116.09 | 4,274.03 | -8.99 | -5.99 | 8.21 | 0.42 | 0.40 | -11.41 |
| 4,299.05 | 0.92 | 114.61 | 4,298.85 | -9.14 | -5.67 | 8.40 | 0.77 | 0.77 | -5.96 |
| 4,324.00 | 1.12 | 117.84 | 4,323.80 | -9.34 | -5.27 | 8.64 | 0.83 | 0.80 | 12.95 |
| 4,348.91 | 1.20 | 113.41 | 4,348.70 | -9.55 | -4.82 | 8.91 | 0.48 | 0.32 | -17.78 |
| 4,373.80 | 1.25 | 116.52 | 4,373.59 | -9.78 | -4.33 | 9.19 | 0.33 | 0.20 | 12.49 |
| 4,398.69 | 1.22 | 112.74 | 4,398.47 | -10.00 | -3.85 | 9.47 | 0.35 | -0.12 | -15.19 |
| 4,423.58 | 1.47 | 115.96 | 4,423.35 | -10.24 | -3.32 | 9.77 | 1.05 | 1.00 | 12.94 |
| 4,449.91 | 1.49 | 121.11 | 4,449.67 | -10.57 | -2.72 | 10.17 | 0.51 | 0.08 | 19.56 |
| 4,474.44 | 1.58 | 119.70 | 4,474.20 | -10.90 | -2.15 | 10.56 | 0.40 | 0.37 | -5.75 |
| 4,498.91 | 1.61 | 122.51 | 4,498.66 | -11.25 | -1.57 | 10.98 | 0.34 | 0.12 | 11.48 |
| 4,524.88 | 1.57 | 128.53 | 4,524.62 | -11.67 | -0.98 | 11.47 | 0.66 | -0.15 | 23.18 |
| 4,548.98 | 1.58 | 137.65 | 4,548.71 | -12.12 | -0.50 | 11.97 | 1.04 | 0.04 | 37.84 |
| 4,574.93 | 1.59 | 144.12 | 4,574.65 | -12.68 | -0.05 | 12.58 | 0.69 | 0.04 | 24.93 |
| 4,598.93 | 1.62 | 149.11 | 4,598.64 | -13.24 | 0.32 | 13.18 | 0.60 | 0.13 | 20.79 |
| 4,624.53 | 1.82 | 152.53 | 4,624.23 | -13.91 | 0.69 | 13.89 | 0.88 | 0.78 | 13.36 |

Scientific Drilling International

Survey Report

| | | | |
|------------------|----------------------|-------------------------------------|---|
| Company: | KP Kauffman Co, Inc. | Local Co-ordinate Reference: | Well David Howard B-3 |
| Project: | Weld County, CO | TVD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Site: | David Howard | MD Reference: | GL 5035' @ 5035.00ft (Halliburton 1668) |
| Well: | David Howard B-3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 4,648.97 | 1.88 | 158.79 | 4,648.65 | -14.63 | 1.02 | 14.64 | 0.86 | 0.25 | 25.61 | |
| 4,674.40 | 1.90 | 159.18 | 4,674.07 | -15.41 | 1.32 | 15.46 | 0.09 | 0.08 | 1.53 | |
| 4,699.98 | 2.01 | 161.47 | 4,699.64 | -16.23 | 1.61 | 16.31 | 0.53 | 0.43 | 8.95 | |
| 4,724.39 | 2.14 | 161.76 | 4,724.03 | -17.07 | 1.89 | 17.17 | 0.53 | 0.53 | 1.19 | |
| 4,749.84 | 2.13 | 162.22 | 4,749.46 | -17.97 | 2.18 | 18.10 | 0.08 | -0.04 | 1.81 | |
| 4,774.27 | 1.99 | 166.57 | 4,773.88 | -18.82 | 2.42 | 18.97 | 0.86 | -0.57 | 17.81 | |
| 4,798.60 | 1.79 | 176.01 | 4,798.19 | -19.61 | 2.55 | 19.77 | 1.52 | -0.82 | 38.80 | |
| 4,824.39 | 1.78 | 181.55 | 4,823.97 | -20.41 | 2.56 | 20.57 | 0.67 | -0.04 | 21.48 | |
| 4,849.01 | 2.21 | 180.12 | 4,848.57 | -21.27 | 2.55 | 21.42 | 1.76 | 1.75 | -5.81 | |
| 4,873.97 | 1.70 | 163.41 | 4,873.52 | -22.10 | 2.66 | 22.26 | 3.04 | -2.04 | -66.95 | |
| 4,899.63 | 1.94 | 173.86 | 4,899.17 | -22.90 | 2.81 | 23.07 | 1.59 | 0.94 | 40.72 | |
| 4,924.27 | 2.10 | 174.24 | 4,923.79 | -23.76 | 2.90 | 23.94 | 0.65 | 0.65 | 1.54 | |
| 4,949.61 | 1.87 | 174.65 | 4,949.12 | -24.64 | 2.99 | 24.82 | 0.91 | -0.91 | 1.62 | |
| 4,959.30 | 1.74 | 179.02 | 4,958.80 | -24.94 | 3.00 | 25.12 | 1.95 | -1.34 | 45.10 | |
| Last SDI Gyro Survey | | | | | | | | | | |

| Design Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|-----------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment | |
| | | +N/-S (ft) | +E/-W (ft) | | |
| 101.81 | 101.81 | -0.30 | 0.15 | First SDI Gyro Survey | |
| 4,959.30 | 4,958.80 | -24.94 | 3.00 | Last SDI Gyro Survey | |

Checked By: _____ Approved By: _____ Date: _____