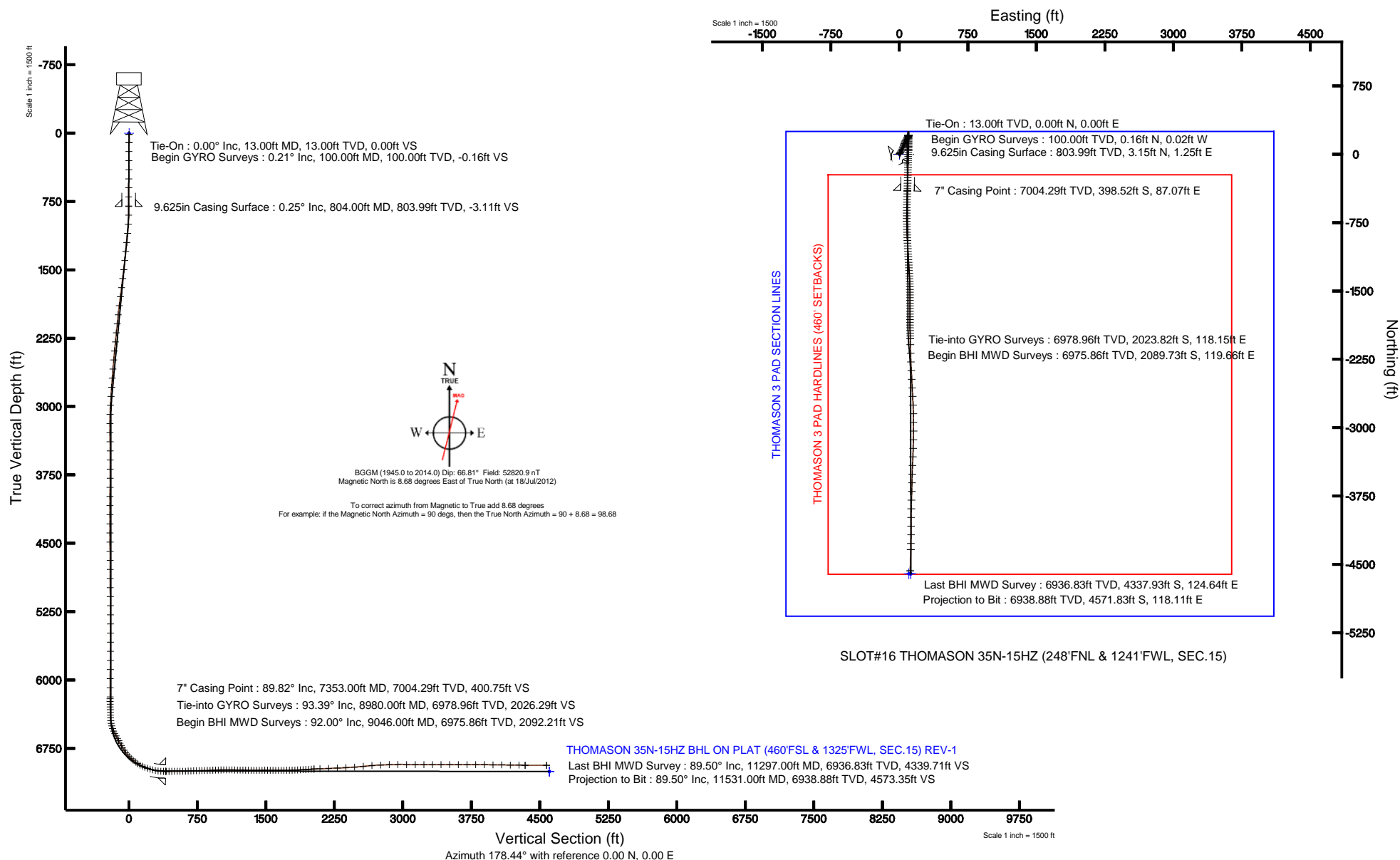


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#16 THOMASON 35N-15HZ (248°FNL & 1241'FWL, SEC.15)
 Field: WELD COUNTY (KERR MCGEE) Well: THOMASON 35N-15HZ
 Facility: SEC.15-T2N-R65W Wellbore: THOMASON 35N-15HZ PWB

Plot reference wellpath is THOMASON 35N-15HZ (REV-C.2) PWB

| | |
|--|--|
| True vertical depths are referenced to ENSIGN 138 (RKB) | Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet |
| Measured depths are referenced to ENSIGN 138 (RKB) | North Reference: True north |
| ENSGIN 138 (RKB) to Mean Sea Level: 4876 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: SLOT#16 THOMASON 35N-15HZ (248°FNL & 1241'FWL, SEC.15)): 0 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: augunora on 18/Sep/2012 |





Actual Wellpath Report

THOMASON 35N-15HZ AWP

Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

REPORT SETUP INFORMATION

| | | | |
|---------------------|---|----------------------|---------------------------------------|
| Projection System | NAD83 / Lambert Colorado SP, Northern Zone (501), US feet | Software System | WellArchitect® 3.0.0 |
| North Reference | True | User | Augunora |
| Scale | 0.999959 | Report Generated | 18/Sep/2012 at 09:37 |
| Convergence at slot | 0.55° East | Database/Source file | WA_ANADARKO/THOMASON_35N-15HZ_AWB.xml |

WELLPATH LOCATION

| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 1010.16 | -2712.05 | 3236162.92 | 1296898.47 | 40°08'43.053"N | 104°39'18.759"W |
| Facility Reference Pt | | | 3238884.46 | 1295914.54 | 40°08'33.072"N | 104°38'43.836"W |
| Field Reference Pt | | | 3197771.84 | 1268891.29 | 40°04'09.600"N | 104°47'36.000"W |

WELLPATH DATUM

| | | | |
|--------------------------|-------------------|---|-------------------|
| Calculation method | Minimum curvature | ENSIGN 138 (RKB) to Facility Vertical Datum | 4876.00ft |
| Horizontal Reference Pt | Slot | ENSIGN 138 (RKB) to Mean Sea Level | 4876.00ft |
| Vertical Reference Pt | ENSIGN 138 (RKB) | ENSIGN 138 (RKB) to Mud Line at Slot (SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15)) | 4876.00ft |
| MD Reference Pt | ENSIGN 138 (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 178.52° |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH DATA (184 stations) † = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|---------|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|--------------------|
| 0.00† | 0.000 | 351.984 | 0.00 | 0.00 | 0.00 | 0.00 | 40°08'43.053"N | 104°39'18.759"W | 0.00 | |
| 13.00 | 0.000 | 351.984 | 13.00 | 0.00 | 0.00 | 0.00 | 40°08'43.053"N | 104°39'18.759"W | 0.00 | Tie-On |
| 100.00 | 0.214 | 351.984 | 100.00 | -0.16 | 0.16 | -0.02 | 40°08'43.055"N | 104°39'18.759"W | 0.25 | Begin GYRO Surveys |
| 200.00 | 0.427 | 343.969 | 200.00 | -0.71 | 0.70 | -0.15 | 40°08'43.060"N | 104°39'18.761"W | 0.22 | |
| 300.00 | 0.485 | 38.872 | 300.00 | -1.39 | 1.39 | 0.01 | 40°08'43.067"N | 104°39'18.759"W | 0.42 | |
| 400.00 | 0.306 | 32.581 | 399.99 | -1.93 | 1.95 | 0.42 | 40°08'43.072"N | 104°39'18.754"W | 0.18 | |
| 500.00 | 0.335 | 14.969 | 499.99 | -2.44 | 2.45 | 0.64 | 40°08'43.077"N | 104°39'18.751"W | 0.10 | |
| 600.00 | 0.283 | 21.263 | 599.99 | -2.94 | 2.97 | 0.80 | 40°08'43.082"N | 104°39'18.749"W | 0.06 | |
| 700.00 | 0.114 | 131.943 | 699.99 | -3.10 | 3.13 | 0.97 | 40°08'43.084"N | 104°39'18.747"W | 0.34 | |
| 800.00 | 0.234 | 68.230 | 799.99 | -3.11 | 3.14 | 1.23 | 40°08'43.084"N | 104°39'18.743"W | 0.21 | |
| 900.00 | 0.963 | 22.545 | 899.98 | -3.94 | 3.99 | 1.74 | 40°08'43.092"N | 104°39'18.737"W | 0.82 | |
| 1000.00 | 3.728 | 23.619 | 999.89 | -7.66 | 7.75 | 3.37 | 40°08'43.130"N | 104°39'18.716"W | 2.77 | |
| 1100.00 | 6.134 | 29.951 | 1099.51 | -15.16 | 15.36 | 7.34 | 40°08'43.205"N | 104°39'18.664"W | 2.46 | |
| 1200.00 | 7.091 | 29.942 | 1198.85 | -24.99 | 25.33 | 13.09 | 40°08'43.303"N | 104°39'18.590"W | 0.96 | |
| 1300.00 | 7.068 | 28.680 | 1298.08 | -35.57 | 36.08 | 19.12 | 40°08'43.410"N | 104°39'18.513"W | 0.16 | |
| 1400.00 | 7.024 | 27.690 | 1397.33 | -46.23 | 46.89 | 24.91 | 40°08'43.516"N | 104°39'18.438"W | 0.13 | |
| 1500.00 | 7.543 | 25.967 | 1496.52 | -57.40 | 58.21 | 30.63 | 40°08'43.628"N | 104°39'18.365"W | 0.56 | |
| 1600.00 | 7.818 | 23.139 | 1595.63 | -69.40 | 70.36 | 36.18 | 40°08'43.748"N | 104°39'18.293"W | 0.47 | |
| 1700.00 | 7.974 | 20.818 | 1694.68 | -82.00 | 83.10 | 41.31 | 40°08'43.874"N | 104°39'18.227"W | 0.35 | |
| 1800.00 | 7.683 | 18.570 | 1793.75 | -94.70 | 95.92 | 45.91 | 40°08'44.001"N | 104°39'18.168"W | 0.42 | |
| 1900.00 | 7.181 | 18.123 | 1892.91 | -106.87 | 108.20 | 49.98 | 40°08'44.122"N | 104°39'18.115"W | 0.51 | |
| 2000.00 | 6.542 | 15.360 | 1992.19 | -118.21 | 119.63 | 53.43 | 40°08'44.235"N | 104°39'18.071"W | 0.72 | |
| 2100.00 | 6.209 | 17.126 | 2091.57 | -128.79 | 130.29 | 56.54 | 40°08'44.341"N | 104°39'18.031"W | 0.39 | |
| 2200.00 | 6.227 | 33.167 | 2190.99 | -138.37 | 140.00 | 61.10 | 40°08'44.436"N | 104°39'17.972"W | 1.73 | |
| 2300.00 | 7.098 | 30.037 | 2290.31 | -148.10 | 149.89 | 67.16 | 40°08'44.534"N | 104°39'17.894"W | 0.94 | |
| 2400.00 | 6.471 | 29.411 | 2389.61 | -158.21 | 160.14 | 73.02 | 40°08'44.636"N | 104°39'17.819"W | 0.63 | |
| 2500.00 | 5.815 | 31.241 | 2489.04 | -167.30 | 169.38 | 78.41 | 40°08'44.727"N | 104°39'17.749"W | 0.68 | |
| 2600.00 | 5.481 | 30.664 | 2588.55 | -175.61 | 177.82 | 83.47 | 40°08'44.810"N | 104°39'17.684"W | 0.34 | |
| 2700.00 | 4.882 | 29.997 | 2688.14 | -183.28 | 185.62 | 88.04 | 40°08'44.887"N | 104°39'17.625"W | 0.60 | |
| 2800.00 | 4.658 | 29.767 | 2787.80 | -190.38 | 192.83 | 92.18 | 40°08'44.959"N | 104°39'17.572"W | 0.22 | |
| 2900.00 | 4.559 | 26.540 | 2887.47 | -197.36 | 199.91 | 95.97 | 40°08'45.028"N | 104°39'17.523"W | 0.28 | |
| 3000.00 | 3.291 | 20.511 | 2987.24 | -203.53 | 206.15 | 98.75 | 40°08'45.090"N | 104°39'17.487"W | 1.33 | |
| 3100.00 | 1.658 | 22.689 | 3087.14 | -207.51 | 210.17 | 100.32 | 40°08'45.130"N | 104°39'17.467"W | 1.64 | |
| 3200.00 | 0.446 | 91.532 | 3187.12 | -208.81 | 211.50 | 101.26 | 40°08'45.143"N | 104°39'17.455"W | 1.55 | |
| 3300.00 | 0.434 | 167.036 | 3287.12 | -208.42 | 211.12 | 101.74 | 40°08'45.139"N | 104°39'17.449"W | 0.54 | |
| 3400.00 | 0.510 | 165.086 | 3387.12 | -207.62 | 210.32 | 101.94 | 40°08'45.131"N | 104°39'17.446"W | 0.08 | |
| 3500.00 | 0.598 | 149.957 | 3487.11 | -206.73 | 209.44 | 102.31 | 40°08'45.123"N | 104°39'17.442"W | 0.17 | |
| 3600.00 | 0.606 | 154.090 | 3587.11 | -205.79 | 208.51 | 102.81 | 40°08'45.114"N | 104°39'17.435"W | 0.04 | |
| 3700.00 | 0.415 | 40.370 | 3687.11 | -205.58 | 208.31 | 103.27 | 40°08'45.112"N | 104°39'17.429"W | 0.86 | |
| 3800.00 | 0.699 | 341.161 | 3787.10 | -206.43 | 209.16 | 103.31 | 40°08'45.120"N | 104°39'17.429"W | 0.60 | |
| 3900.00 | 0.512 | 332.257 | 3887.10 | -207.41 | 210.14 | 102.90 | 40°08'45.130"N | 104°39'17.434"W | 0.21 | |
| 4000.00 | 0.356 | 299.728 | 3987.09 | -207.97 | 210.69 | 102.43 | 40°08'45.135"N | 104°39'17.440"W | 0.29 | |
| 4100.00 | 0.166 | 293.716 | 4087.09 | -208.19 | 210.90 | 102.02 | 40°08'45.137"N | 104°39'17.445"W | 0.19 | |
| 4200.00 | 0.255 | 6.373 | 4187.09 | -208.48 | 211.18 | 101.92 | 40°08'45.140"N | 104°39'17.447"W | 0.26 | |
| 4300.00 | 0.470 | 244.440 | 4287.09 | -208.53 | 211.22 | 101.57 | 40°08'45.140"N | 104°39'17.451"W | 0.64 | |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH DATA (184 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| 4400.00 | 0.747 | 247.883 | 4387.09 | -208.13 | 210.80 | 100.60 | 40°08'45.136"N | 104°39'17.464"W | 0.28 | |
| 4500.00 | 0.627 | 259.890 | 4487.08 | -207.82 | 210.46 | 99.45 | 40°08'45.133"N | 104°39'17.478"W | 0.19 | |
| 4600.00 | 0.769 | 255.138 | 4587.07 | -207.58 | 210.19 | 98.27 | 40°08'45.130"N | 104°39'17.494"W | 0.15 | |
| 4700.00 | 0.646 | 252.756 | 4687.06 | -207.27 | 209.85 | 97.08 | 40°08'45.127"N | 104°39'17.509"W | 0.13 | |
| 4800.00 | 0.621 | 232.111 | 4787.06 | -206.80 | 209.35 | 96.11 | 40°08'45.122"N | 104°39'17.521"W | 0.23 | |
| 4900.00 | 0.684 | 239.706 | 4887.05 | -206.19 | 208.72 | 95.17 | 40°08'45.116"N | 104°39'17.533"W | 0.11 | |
| 5000.00 | 0.501 | 201.028 | 4987.05 | -205.50 | 208.01 | 94.50 | 40°08'45.109"N | 104°39'17.542"W | 0.43 | |
| 5100.00 | 0.205 | 165.473 | 5087.04 | -204.92 | 207.43 | 94.39 | 40°08'45.103"N | 104°39'17.544"W | 0.35 | |
| 5200.00 | 0.425 | 221.383 | 5187.04 | -204.47 | 206.98 | 94.19 | 40°08'45.098"N | 104°39'17.546"W | 0.35 | |
| 5300.00 | 0.347 | 162.131 | 5287.04 | -203.91 | 206.41 | 94.03 | 40°08'45.093"N | 104°39'17.548"W | 0.39 | |
| 5400.00 | 0.235 | 208.347 | 5387.04 | -203.44 | 205.94 | 94.03 | 40°08'45.088"N | 104°39'17.548"W | 0.25 | |
| 5500.00 | 0.288 | 102.202 | 5487.04 | -203.21 | 205.71 | 94.18 | 40°08'45.086"N | 104°39'17.546"W | 0.42 | |
| 5600.00 | 0.308 | 94.650 | 5587.04 | -203.12 | 205.63 | 94.69 | 40°08'45.085"N | 104°39'17.540"W | 0.04 | |
| 5700.00 | 0.269 | 45.946 | 5687.04 | -203.25 | 205.77 | 95.13 | 40°08'45.086"N | 104°39'17.534"W | 0.24 | |
| 5800.00 | 0.728 | 318.046 | 5787.03 | -203.89 | 206.41 | 94.87 | 40°08'45.093"N | 104°39'17.537"W | 0.77 | |
| 5900.00 | 0.598 | 347.903 | 5887.03 | -204.89 | 207.39 | 94.34 | 40°08'45.102"N | 104°39'17.544"W | 0.36 | |
| 6000.00 | 0.698 | 19.153 | 5987.02 | -205.97 | 208.48 | 94.43 | 40°08'45.113"N | 104°39'17.543"W | 0.36 | |
| 6100.00 | 0.702 | 68.482 | 6087.01 | -206.75 | 209.28 | 95.20 | 40°08'45.121"N | 104°39'17.533"W | 0.58 | |
| 6200.00 | 0.906 | 66.458 | 6187.00 | -207.26 | 209.82 | 96.49 | 40°08'45.126"N | 104°39'17.516"W | 0.21 | |
| 6220.00 | 1.116 | 67.398 | 6207.00 | -207.39 | 209.96 | 96.82 | 40°08'45.128"N | 104°39'17.512"W | 1.05 | |
| 6250.00 | 0.911 | 107.849 | 6237.00 | -207.41 | 210.00 | 97.31 | 40°08'45.128"N | 104°39'17.506"W | 2.42 | |
| 6280.00 | 1.730 | 153.296 | 6266.99 | -206.92 | 209.52 | 97.74 | 40°08'45.123"N | 104°39'17.500"W | 4.23 | |
| 6310.00 | 1.843 | 156.551 | 6296.98 | -206.07 | 208.67 | 98.14 | 40°08'45.115"N | 104°39'17.495"W | 0.51 | |
| 6340.00 | 2.101 | 156.202 | 6326.96 | -205.11 | 207.73 | 98.55 | 40°08'45.106"N | 104°39'17.490"W | 0.86 | |
| 6370.00 | 2.308 | 158.250 | 6356.94 | -204.04 | 206.66 | 99.00 | 40°08'45.095"N | 104°39'17.484"W | 0.74 | |
| 6400.00 | 1.961 | 157.282 | 6386.91 | -202.99 | 205.63 | 99.42 | 40°08'45.085"N | 104°39'17.479"W | 1.16 | |
| 6430.00 | 2.228 | 168.456 | 6416.89 | -201.94 | 204.58 | 99.74 | 40°08'45.075"N | 104°39'17.475"W | 1.62 | |
| 6460.00 | 5.399 | 178.184 | 6446.82 | -199.95 | 202.60 | 99.90 | 40°08'45.055"N | 104°39'17.473"W | 10.75 | |
| 6490.00 | 9.761 | 179.567 | 6476.56 | -196.00 | 198.64 | 99.96 | 40°08'45.016"N | 104°39'17.472"W | 14.55 | |
| 6520.00 | 15.673 | 179.981 | 6505.81 | -189.40 | 192.04 | 99.98 | 40°08'44.951"N | 104°39'17.472"W | 19.71 | |
| 6550.00 | 21.126 | 179.598 | 6534.26 | -179.93 | 182.58 | 100.02 | 40°08'44.857"N | 104°39'17.471"W | 18.18 | |
| 6580.00 | 23.997 | 180.190 | 6561.96 | -168.43 | 171.07 | 100.04 | 40°08'44.744"N | 104°39'17.471"W | 9.60 | |
| 6610.00 | 26.155 | 179.973 | 6589.13 | -155.72 | 158.35 | 100.02 | 40°08'44.618"N | 104°39'17.471"W | 7.20 | |
| 6640.00 | 28.301 | 180.828 | 6615.81 | -142.00 | 144.63 | 99.92 | 40°08'44.482"N | 104°39'17.472"W | 7.27 | |
| 6670.00 | 29.935 | 179.138 | 6642.02 | -127.41 | 130.03 | 99.93 | 40°08'44.338"N | 104°39'17.472"W | 6.10 | |
| 6700.00 | 28.310 | 178.113 | 6668.22 | -112.81 | 115.44 | 100.28 | 40°08'44.194"N | 104°39'17.468"W | 5.67 | |
| 6730.00 | 27.652 | 178.252 | 6694.72 | -98.73 | 101.37 | 100.73 | 40°08'44.055"N | 104°39'17.462"W | 2.20 | |
| 6760.00 | 29.346 | 180.412 | 6721.08 | -84.42 | 87.06 | 100.89 | 40°08'43.913"N | 104°39'17.460"W | 6.61 | |
| 6790.00 | 30.339 | 180.615 | 6747.10 | -69.51 | 72.13 | 100.75 | 40°08'43.766"N | 104°39'17.462"W | 3.33 | |
| 6820.00 | 31.970 | 182.759 | 6772.78 | -54.01 | 56.62 | 100.29 | 40°08'43.613"N | 104°39'17.468"W | 6.57 | |
| 6850.00 | 34.943 | 183.646 | 6797.80 | -37.53 | 40.11 | 99.36 | 40°08'43.449"N | 104°39'17.480"W | 10.04 | |
| 6880.00 | 40.355 | 185.559 | 6821.55 | -19.32 | 21.85 | 97.87 | 40°08'43.269"N | 104°39'17.499"W | 18.45 | |
| 6910.00 | 44.712 | 182.966 | 6843.65 | 0.85 | 1.64 | 96.38 | 40°08'43.069"N | 104°39'17.518"W | 15.65 | |
| 6940.00 | 49.274 | 181.603 | 6864.11 | 22.74 | -20.28 | 95.52 | 40°08'42.853"N | 104°39'17.529"W | 15.56 | |
| 6970.00 | 51.955 | 180.543 | 6883.14 | 45.90 | -43.46 | 95.09 | 40°08'42.624"N | 104°39'17.535"W | 9.34 | |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH DATA (184 stations) † = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|-----------------|
| 7000.00 | 52.780 | 180.455 | 6901.46 | 69.64 | -67.21 | 94.88 | 40°08'42.389"N | 104°39'17.537"W | 2.76 | |
| 7030.00 | 56.566 | 180.195 | 6918.80 | 94.10 | -91.69 | 94.74 | 40°08'42.147"N | 104°39'17.539"W | 12.64 | |
| 7060.00 | 60.514 | 180.733 | 6934.46 | 119.67 | -117.27 | 94.53 | 40°08'41.894"N | 104°39'17.542"W | 13.25 | |
| 7090.00 | 65.512 | 179.763 | 6948.07 | 146.38 | -143.99 | 94.42 | 40°08'41.630"N | 104°39'17.543"W | 16.91 | |
| 7120.00 | 69.597 | 181.441 | 6959.52 | 174.09 | -171.71 | 94.13 | 40°08'41.356"N | 104°39'17.547"W | 14.56 | |
| 7150.00 | 70.689 | 182.541 | 6969.71 | 202.25 | -199.91 | 93.15 | 40°08'41.077"N | 104°39'17.560"W | 5.01 | |
| 7180.00 | 71.207 | 181.611 | 6979.50 | 230.55 | -228.25 | 92.12 | 40°08'40.797"N | 104°39'17.573"W | 3.40 | |
| 7210.00 | 74.594 | 181.629 | 6988.32 | 259.18 | -256.91 | 91.31 | 40°08'40.514"N | 104°39'17.583"W | 11.29 | |
| 7240.00 | 79.137 | 181.490 | 6995.14 | 288.35 | -286.10 | 90.51 | 40°08'40.226"N | 104°39'17.593"W | 15.15 | |
| 7270.00 | 83.308 | 181.615 | 6999.72 | 317.95 | -315.73 | 89.71 | 40°08'39.933"N | 104°39'17.604"W | 13.91 | |
| 7300.00 | 85.913 | 181.766 | 7002.53 | 347.77 | -345.59 | 88.83 | 40°08'39.638"N | 104°39'17.615"W | 8.70 | |
| 7330.00 | 88.598 | 181.903 | 7003.97 | 377.68 | -375.53 | 87.87 | 40°08'39.342"N | 104°39'17.628"W | 8.96 | |
| 7353.00† | 89.820 | 182.066 | 7004.29 | 400.63 | -398.52 | 87.07 | 40°08'39.115"N | 104°39'17.638"W | 5.36 | 7" Casing Point |
| 7360.00 | 90.192 | 182.115 | 7004.29 | 407.62 | -405.51 | 86.82 | 40°08'39.046"N | 104°39'17.641"W | 5.36 | |
| 7390.00 | 90.632 | 182.271 | 7004.07 | 437.56 | -435.49 | 85.67 | 40°08'38.749"N | 104°39'17.656"W | 1.56 | |
| 7420.00 | 90.850 | 181.956 | 7003.68 | 467.50 | -465.47 | 84.56 | 40°08'38.453"N | 104°39'17.670"W | 1.28 | |
| 7450.00 | 90.255 | 181.733 | 7003.39 | 497.44 | -495.45 | 83.60 | 40°08'38.157"N | 104°39'17.683"W | 2.12 | |
| 7480.00 | 90.563 | 181.629 | 7003.18 | 527.40 | -525.44 | 82.72 | 40°08'37.861"N | 104°39'17.694"W | 1.08 | |
| 7510.00 | 89.737 | 181.628 | 7003.10 | 557.35 | -555.42 | 81.87 | 40°08'37.564"N | 104°39'17.705"W | 2.75 | |
| 7540.00 | 91.419 | 181.599 | 7002.80 | 587.31 | -585.41 | 81.02 | 40°08'37.268"N | 104°39'17.716"W | 5.61 | |
| 7570.00 | 91.916 | 180.809 | 7001.92 | 617.26 | -615.39 | 80.39 | 40°08'36.972"N | 104°39'17.724"W | 3.11 | |
| 7600.00 | 92.202 | 180.810 | 7000.85 | 647.22 | -645.37 | 79.97 | 40°08'36.675"N | 104°39'17.729"W | 0.95 | |
| 7630.00 | 92.154 | 180.728 | 6999.71 | 677.17 | -675.34 | 79.56 | 40°08'36.379"N | 104°39'17.734"W | 0.32 | |
| 7660.00 | 92.244 | 179.774 | 6998.56 | 707.14 | -705.32 | 79.43 | 40°08'36.083"N | 104°39'17.736"W | 3.19 | |
| 7690.00 | 91.720 | 179.327 | 6997.52 | 737.11 | -735.30 | 79.67 | 40°08'35.787"N | 104°39'17.733"W | 2.30 | |
| 7720.00 | 91.201 | 178.907 | 6996.75 | 767.10 | -765.29 | 80.13 | 40°08'35.490"N | 104°39'17.727"W | 2.23 | |
| 7750.00 | 91.986 | 177.973 | 6995.92 | 797.09 | -795.26 | 80.95 | 40°08'35.194"N | 104°39'17.717"W | 4.07 | |
| 7780.00 | 91.461 | 177.840 | 6995.02 | 827.07 | -825.23 | 82.04 | 40°08'34.898"N | 104°39'17.703"W | 1.81 | |
| 7810.00 | 91.988 | 177.594 | 6994.11 | 857.06 | -855.19 | 83.24 | 40°08'34.602"N | 104°39'17.687"W | 1.94 | |
| 7840.00 | 92.480 | 177.495 | 6992.94 | 887.03 | -885.14 | 84.52 | 40°08'34.306"N | 104°39'17.671"W | 1.67 | |
| 7870.00 | 92.587 | 177.294 | 6991.62 | 916.99 | -915.08 | 85.88 | 40°08'34.010"N | 104°39'17.653"W | 0.76 | |
| 7900.00 | 91.492 | 176.975 | 6990.55 | 946.97 | -945.03 | 87.38 | 40°08'33.714"N | 104°39'17.634"W | 3.80 | |
| 7930.00 | 91.787 | 176.750 | 6989.69 | 976.94 | -974.97 | 89.02 | 40°08'33.418"N | 104°39'17.613"W | 1.24 | |
| 7960.00 | 91.791 | 176.790 | 6988.76 | 1006.91 | -1004.91 | 90.71 | 40°08'33.122"N | 104°39'17.591"W | 0.13 | |
| 7990.00 | 90.506 | 176.846 | 6988.15 | 1036.89 | -1034.85 | 92.38 | 40°08'32.827"N | 104°39'17.569"W | 4.29 | |
| 8020.00 | 89.614 | 176.996 | 6988.12 | 1066.88 | -1064.81 | 93.99 | 40°08'32.530"N | 104°39'17.549"W | 3.02 | |
| 8050.00 | 89.899 | 176.873 | 6988.25 | 1096.87 | -1094.77 | 95.59 | 40°08'32.234"N | 104°39'17.528"W | 1.03 | |
| 8080.00 | 89.490 | 176.852 | 6988.41 | 1126.86 | -1124.72 | 97.24 | 40°08'31.938"N | 104°39'17.507"W | 1.37 | |
| 8110.00 | 88.520 | 176.821 | 6988.93 | 1156.84 | -1154.67 | 98.89 | 40°08'31.642"N | 104°39'17.486"W | 3.23 | |
| 8140.00 | 89.032 | 176.685 | 6989.57 | 1186.82 | -1184.61 | 100.59 | 40°08'31.347"N | 104°39'17.464"W | 1.77 | |
| 8170.00 | 88.659 | 176.617 | 6990.18 | 1216.80 | -1214.56 | 102.34 | 40°08'31.051"N | 104°39'17.441"W | 1.26 | |
| 8200.00 | 89.317 | 176.577 | 6990.71 | 1246.77 | -1244.50 | 104.12 | 40°08'30.755"N | 104°39'17.418"W | 2.20 | |
| 8230.00 | 88.760 | 176.413 | 6991.21 | 1276.75 | -1274.44 | 105.96 | 40°08'30.459"N | 104°39'17.395"W | 1.94 | |
| 8260.00 | 89.293 | 176.337 | 6991.72 | 1306.72 | -1304.37 | 107.85 | 40°08'30.163"N | 104°39'17.370"W | 1.79 | |
| 8290.00 | 88.881 | 176.331 | 6992.20 | 1336.70 | -1334.31 | 109.77 | 40°08'29.867"N | 104°39'17.346"W | 1.37 | |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH DATA (184 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|-----------------------|
| 8320.00 | 90.538 | 176.492 | 6992.35 | 1366.68 | -1364.25 | 111.65 | 40°08'29.571"N | 104°39'17.321"W | 5.55 | |
| 8350.00 | 90.016 | 177.531 | 6992.20 | 1396.67 | -1394.21 | 113.21 | 40°08'29.275"N | 104°39'17.301"W | 3.88 | |
| 8380.00 | 90.123 | 178.996 | 6992.17 | 1426.67 | -1424.19 | 114.12 | 40°08'28.979"N | 104°39'17.290"W | 4.90 | |
| 8410.00 | 91.140 | 179.403 | 6991.84 | 1456.66 | -1454.19 | 114.54 | 40°08'28.683"N | 104°39'17.284"W | 3.65 | |
| 8440.00 | 90.534 | 179.354 | 6991.40 | 1486.65 | -1484.18 | 114.87 | 40°08'28.386"N | 104°39'17.280"W | 2.03 | |
| 8470.00 | 88.236 | 179.807 | 6991.72 | 1516.65 | -1514.18 | 115.09 | 40°08'28.090"N | 104°39'17.277"W | 7.81 | |
| 8500.00 | 89.444 | 179.909 | 6992.33 | 1546.63 | -1544.17 | 115.16 | 40°08'27.793"N | 104°39'17.276"W | 4.04 | |
| 8530.00 | 89.453 | 179.815 | 6992.62 | 1576.62 | -1574.17 | 115.23 | 40°08'27.497"N | 104°39'17.275"W | 0.31 | |
| 8560.00 | 89.468 | 179.845 | 6992.90 | 1606.61 | -1604.17 | 115.32 | 40°08'27.200"N | 104°39'17.274"W | 0.11 | |
| 8590.00 | 91.041 | 179.396 | 6992.77 | 1636.60 | -1634.17 | 115.52 | 40°08'26.904"N | 104°39'17.272"W | 5.45 | |
| 8620.00 | 90.713 | 179.590 | 6992.31 | 1666.60 | -1664.16 | 115.79 | 40°08'26.608"N | 104°39'17.276"W | 1.27 | |
| 8650.00 | 90.382 | 179.725 | 6992.02 | 1696.59 | -1694.16 | 115.96 | 40°08'26.311"N | 104°39'17.266"W | 1.19 | |
| 8680.00 | 90.451 | 179.883 | 6991.80 | 1726.58 | -1724.16 | 116.07 | 40°08'26.015"N | 104°39'17.265"W | 0.57 | |
| 8710.00 | 90.119 | 179.566 | 6991.65 | 1756.57 | -1754.16 | 116.21 | 40°08'25.718"N | 104°39'17.263"W | 1.53 | |
| 8740.00 | 91.537 | 179.623 | 6991.22 | 1786.56 | -1784.15 | 116.42 | 40°08'25.422"N | 104°39'17.260"W | 4.73 | |
| 8770.00 | 92.690 | 179.843 | 6990.11 | 1816.54 | -1814.13 | 116.56 | 40°08'25.126"N | 104°39'17.258"W | 3.91 | |
| 8800.00 | 92.528 | 179.965 | 6988.75 | 1846.50 | -1844.10 | 116.61 | 40°08'24.829"N | 104°39'17.257"W | 0.68 | |
| 8830.00 | 92.988 | 179.826 | 6987.30 | 1876.45 | -1874.07 | 116.67 | 40°08'24.533"N | 104°39'17.257"W | 1.60 | |
| 8860.00 | 93.199 | 180.074 | 6985.69 | 1906.40 | -1904.02 | 116.69 | 40°08'24.237"N | 104°39'17.256"W | 1.08 | |
| 8890.00 | 92.571 | 179.053 | 6984.18 | 1936.36 | -1933.98 | 116.92 | 40°08'23.941"N | 104°39'17.254"W | 3.99 | |
| 8920.00 | 92.733 | 179.084 | 6982.79 | 1966.32 | -1963.95 | 117.41 | 40°08'23.645"N | 104°39'17.247"W | 0.55 | |
| 8950.00 | 94.245 | 179.495 | 6980.96 | 1996.26 | -1993.89 | 117.78 | 40°08'23.349"N | 104°39'17.242"W | 5.22 | |
| 8980.00 | 93.390 | 179.082 | 6978.96 | 2026.19 | -2023.82 | 118.15 | 40°08'23.053"N | 104°39'17.238"W | 3.16 | Tie-into GYRO Surveys |
| 9046.00 | 92.000 | 178.300 | 6975.86 | 2092.12 | -2089.73 | 119.66 | 40°08'22.402"N | 104°39'17.218"W | 2.42 | Begin BHI MWD Surveys |
| 9141.00 | 92.400 | 178.100 | 6972.21 | 2187.05 | -2184.61 | 122.64 | 40°08'21.465"N | 104°39'17.180"W | 0.47 | |
| 9236.00 | 92.300 | 177.800 | 6968.32 | 2281.96 | -2279.47 | 126.04 | 40°08'20.527"N | 104°39'17.136"W | 0.33 | |
| 9331.00 | 93.400 | 177.300 | 6963.60 | 2376.83 | -2374.26 | 130.09 | 40°08'19.590"N | 104°39'17.084"W | 1.27 | |
| 9426.00 | 94.400 | 177.000 | 6957.13 | 2471.58 | -2468.92 | 134.81 | 40°08'18.655"N | 104°39'17.023"W | 1.10 | |
| 9521.00 | 95.100 | 176.700 | 6949.27 | 2566.21 | -2563.45 | 140.01 | 40°08'17.721"N | 104°39'16.956"W | 0.80 | |
| 9616.00 | 95.200 | 177.400 | 6940.74 | 2660.80 | -2657.94 | 144.88 | 40°08'16.787"N | 104°39'16.894"W | 0.74 | |
| 9711.00 | 92.600 | 176.700 | 6934.28 | 2755.54 | -2752.59 | 149.75 | 40°08'15.852"N | 104°39'16.831"W | 2.83 | |
| 9806.00 | 91.800 | 178.900 | 6930.63 | 2850.46 | -2847.44 | 153.40 | 40°08'14.914"N | 104°39'16.784"W | 2.46 | |
| 9901.00 | 90.300 | 180.200 | 6928.89 | 2945.42 | -2942.42 | 154.14 | 40°08'13.976"N | 104°39'16.774"W | 2.09 | |
| 9996.00 | 89.200 | 179.600 | 6929.31 | 3040.39 | -3037.42 | 154.31 | 40°08'13.037"N | 104°39'16.772"W | 1.32 | |
| 10090.00 | 90.400 | 181.400 | 6929.63 | 3134.33 | -3131.41 | 153.49 | 40°08'12.108"N | 104°39'16.783"W | 2.30 | |
| 10185.00 | 89.900 | 181.900 | 6929.38 | 3229.18 | -3226.37 | 150.75 | 40°08'11.170"N | 104°39'16.818"W | 0.74 | |
| 10279.00 | 90.000 | 182.500 | 6929.47 | 3322.99 | -3320.30 | 147.15 | 40°08'10.242"N | 104°39'16.864"W | 0.65 | |
| 10374.00 | 90.100 | 182.100 | 6929.38 | 3417.78 | -3415.22 | 143.33 | 40°08'09.304"N | 104°39'16.914"W | 0.43 | |
| 10470.00 | 89.700 | 181.800 | 6929.55 | 3513.61 | -3511.16 | 140.07 | 40°08'08.355"N | 104°39'16.956"W | 0.52 | |
| 10565.00 | 89.600 | 181.100 | 6930.13 | 3608.48 | -3606.13 | 137.66 | 40°08'07.417"N | 104°39'16.987"W | 0.74 | |
| 10660.00 | 89.900 | 181.800 | 6930.55 | 3703.36 | -3701.10 | 135.26 | 40°08'06.478"N | 104°39'17.018"W | 0.80 | |
| 10755.00 | 89.900 | 181.800 | 6930.71 | 3798.20 | -3796.05 | 132.27 | 40°08'05.540"N | 104°39'17.056"W | 0.00 | |
| 10850.00 | 89.700 | 181.300 | 6931.04 | 3893.07 | -3891.02 | 129.71 | 40°08'04.602"N | 104°39'17.089"W | 0.57 | |
| 10945.00 | 89.200 | 179.700 | 6931.96 | 3988.00 | -3986.01 | 128.88 | 40°08'03.663"N | 104°39'17.100"W | 1.76 | |
| 11039.00 | 89.100 | 180.100 | 6933.35 | 4081.97 | -4079.99 | 129.04 | 40°08'02.734"N | 104°39'17.098"W | 0.44 | |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH DATA (184 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|----------|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|---------------------|
| 11134.00 | 89.300 | 181.000 | 6934.68 | 4176.90 | -4174.98 | 128.13 | 40°08'01.796"N | 104°39'17.109"W | 0.97 | |
| 11229.00 | 89.100 | 181.200 | 6936.00 | 4271.79 | -4269.95 | 126.30 | 40°08'00.857"N | 104°39'17.133"W | 0.30 | |
| 11297.00 | 89.500 | 181.600 | 6936.83 | 4339.70 | -4337.93 | 124.64 | 40°08'00.185"N | 104°39'17.154"W | 0.83 | Last BHI MWD Survey |
| 11531.00 | 89.500 | 181.600 | 6938.88 | 4573.35 | -4571.83 | 118.11 | 40°07'57.874"N | 104°39'17.238"W | 0.00 | Projection to Bit |

HOLE & CASING SECTIONS - Ref Wellbore: THOMASON 35N-15HZ AWP Ref Wellpath: THOMASON 35N-15HZ AWP

| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] |
|-------------------------|---------------|-------------|---------------|----------------|--------------|----------------|----------------|--------------|--------------|
| 13.5in Open Hole | 13.00 | 804.00 | 791.00 | 13.00 | 803.99 | 0.00 | 0.00 | 3.15 | 1.25 |
| 9.625in Casing Surface | 13.00 | 804.00 | 791.00 | 13.00 | 803.99 | 0.00 | 0.00 | 3.15 | 1.25 |
| 8.75in Open Hole | 804.00 | 7355.00 | 6551.00 | 803.99 | 7004.29 | 3.15 | 1.25 | -400.52 | 87.00 |
| 7in Casing Intermediate | 13.00 | 7353.00 | 7340.00 | 13.00 | 7004.29 | 0.00 | 0.00 | -398.52 | 87.07 |
| 6.125in Open Hole | 7353.00 | 11363.00 | 4010.00 | 7004.29 | 6937.41 | -398.52 | 87.07 | -4403.90 | 122.80 |

TARGETS

| Name | MD [ft] | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
|--|---------|----------|------------|-----------|-------------------|--------------------|----------------|-----------------|---------|
| THOMASON 3 PAD SECTION LINES | | 0.00 | 0.00 | 0.00 | 3236162.92 | 1296898.47 | 40°08'43.053"N | 104°39'18.759"W | polygon |
| THOMASON 35N-15HZ BHL (460'FSL & 1345'FWL, SEC.15) REV-2 | | 7006.00 | -4603.38 | 123.69 | 3236330.46 | 1292296.68 | 40°07'57.562"N | 104°39'17.167"W | point |
| THOMASON 35N-15HZ BHL (460'FSL & 1347'FWL, SEC.15) REV-3 | | 7006.00 | -4603.38 | 125.69 | 3236332.45 | 1292296.70 | 40°07'57.562"N | 104°39'17.141"W | point |
| THOMASON 35N-15HZ BHL ON PLAT (460'FSL & 1325'FWL, SEC.15) REV-1 | | 7006.00 | -4603.38 | 103.69 | 3236310.46 | 1292296.49 | 40°07'57.562"N | 104°39'17.424"W | point |
| THOMASON 3 PAD HARDLINES (460' SETBACKS) | | 7180.00 | 0.00 | 0.00 | 3236162.92 | 1296898.47 | 40°08'43.053"N | 104°39'18.759"W | polygon |

WELLPATH COMPOSITION - Ref Wellbore: THOMASON 35N-15HZ AWP Ref Wellpath: THOMASON 35N-15HZ AWP

| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
|---------------|-------------|--------------------------------------|--|-----------------------|
| 13.00 | 8980.00 | Generic gyro - continuous (Standard) | GYRODATA SURVEYS <100-8990> | THOMASON 35N-15HZ AWB |
| 8980.00 | 11297.00 | OnTrak (Standard) | BHI MWD SURVEYS 6 1/8" HOLE <9046-11297> | THOMASON 35N-15HZ AWB |
| 11297.00 | 11531.00 | Blind Drilling (std) | Projection to bit | THOMASON 35N-15HZ AWB |



Actual Wellpath Report

THOMASON 35N-15HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#16 THOMASON 35N-15HZ (248'FNL & 1241'FWL, SEC.15) |
| Area | COLORADO | Well | THOMASON 35N-15HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | THOMASON 35N-15HZ AWB |
| Facility | SEC.15-T2N-R65W | | |

WELLPATH COMMENTS

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
|------------|--------------------|----------------|-------------|-----------------------|
| 13.00 | 0.000 | 351.984 | 13.00 | Tie-On |
| 100.00 | 0.214 | 351.984 | 100.00 | Begin GYRO Surveys |
| 7353.00 | 89.820 | 182.066 | 7004.29 | 7" Casing Point |
| 8980.00 | 93.390 | 179.082 | 6978.96 | Tie-into GYRO Surveys |
| 9046.00 | 92.000 | 178.300 | 6975.86 | Begin BHI MWD Surveys |
| 11297.00 | 89.500 | 181.600 | 6936.83 | Last BHI MWD Survey |
| 11531.00 | 89.500 | 181.600 | 6938.88 | Projection to Bit |