

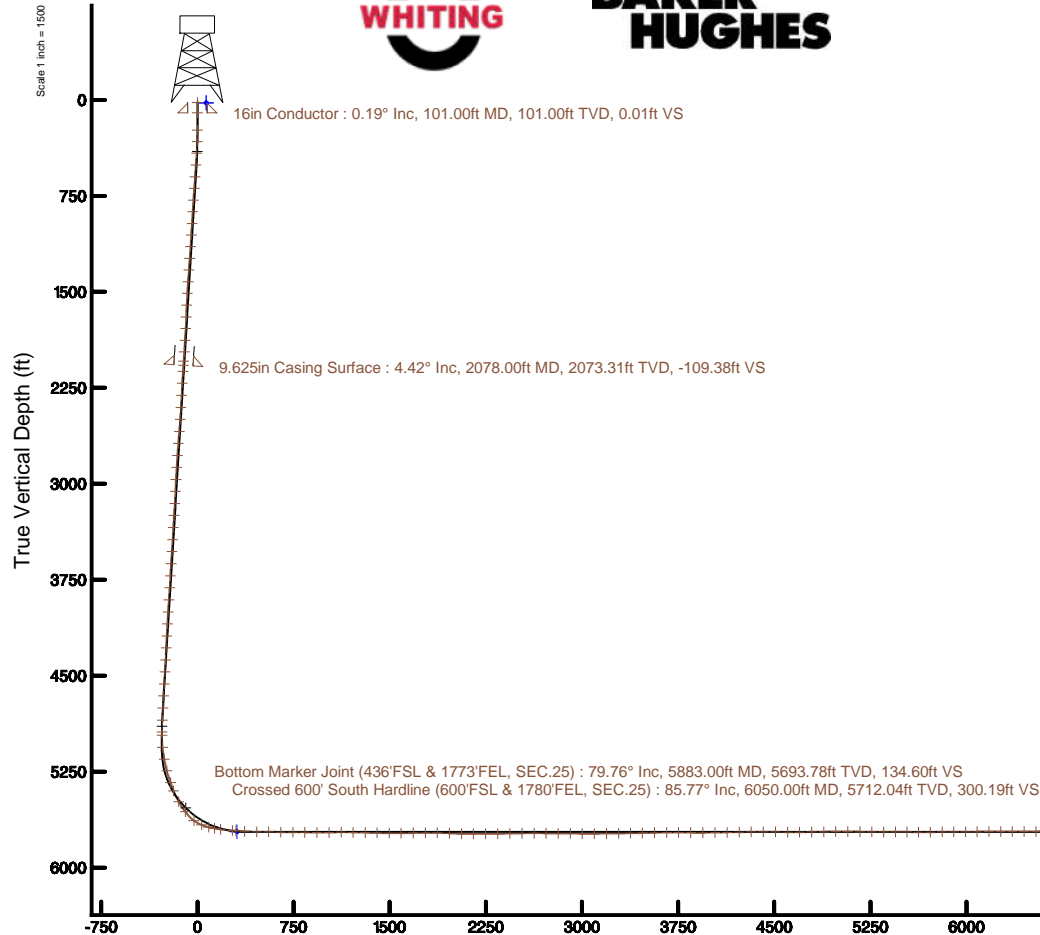
# WHITING OIL & GAS CORPORATION

Location: COLORADO Slot: SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25)  
Field: WELD COUNTY Well: RAZOR #250-2444  
Facility: SEC.25-T10N-R58W Wellbore: RAZOR #250-2444 PWB

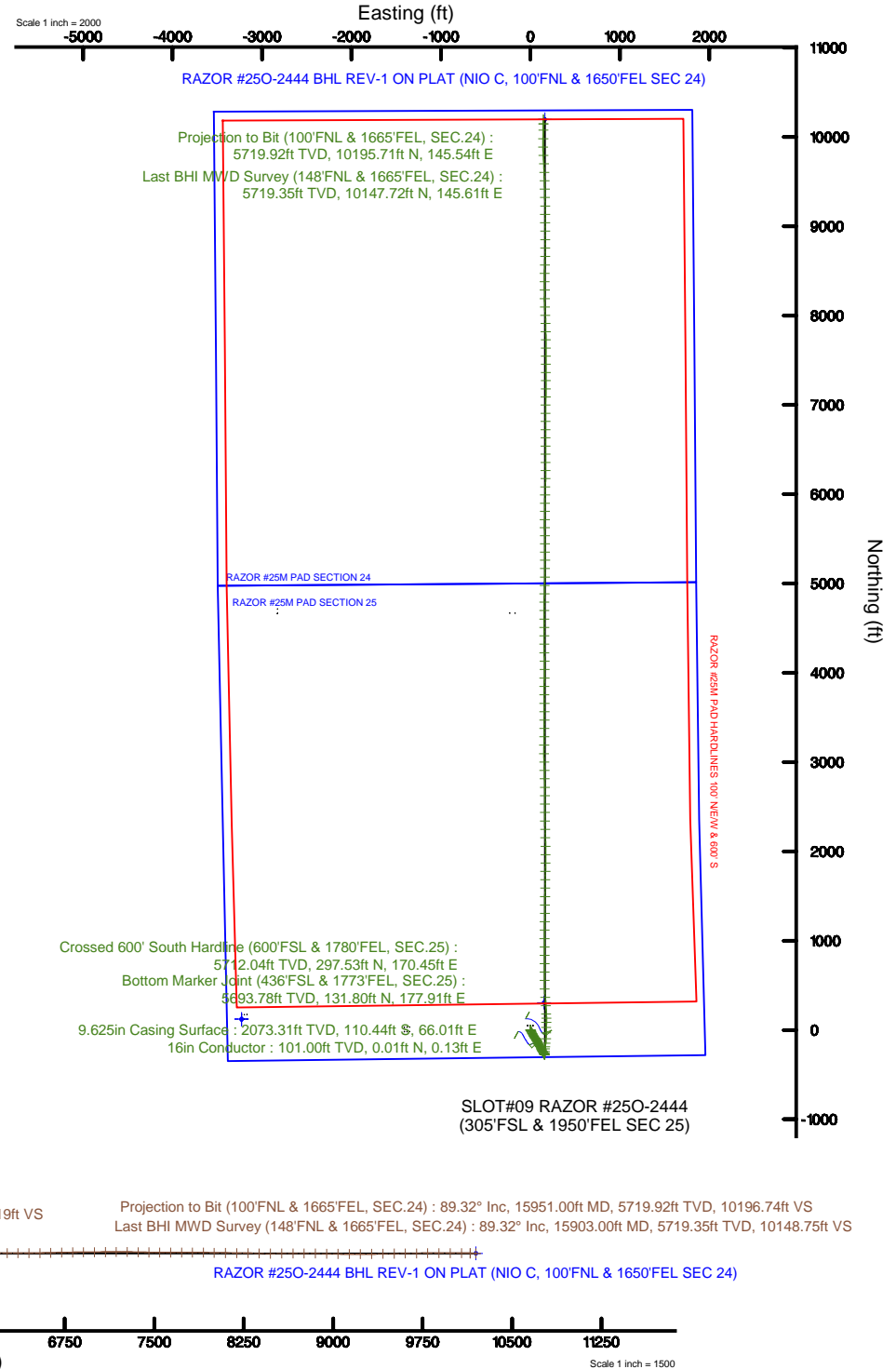
|   |  |
|---|--|
| Plot reference wellpath is RAZOR #250-2444 REV-B.0 PWP  | Grid System: NAD83 / Lambert Colorado SP. Northern Zone (501), US feet |
| True vertical depths are referenced to UNIT 406 (21) (RKB)  | * = Wellpath was transformed from a different geodetic datum           |
| Measured depths are referenced to UNIT 406 (21) (RKB)   | North Reference: True north  |
| UNIT 406 (21) (RKB) to Mean Sea Level: 4739 feet  | Scale: True distance   |
| Mean Sea Level to Mud line (At Slot: SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25)): 0 feet | Depths are in feet   |
| Coordinates are in feet referenced to Slot  | Created by: ingnjamm on 2016-12-15                                     |
|   | Database: WA_DEN_Denver_Dein   |

## Location Information

| Facility Name  |              |              |                   | Grid East (US ft)  | Grid North (US ft) | Latitude        | Longitude       |
|--|--------------|--------------|-------------------|--------------------|--------------------|-----------------|-----------------|
| SEC.25-T10N-R58W   |              |              |                   | 3464569.074        | 1540014.606        | 40°48'13.160"N  | 103°49'18.690"W |
| Slot   | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude           | Longitude       |                 |
| SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25)  | -120.22      | 3229.18      | 3467799.958       | 1539955.514        | 40°48'11.970"N     | 103°48'36.700"W |                 |
| UNIT 406 (21) (RKB) to Mud line (At Slot: SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25)) |              |              |                   |                    |                    | 4739ft          |                 |
| Mean Sea Level to Mud line (At Slot: SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25))      |              |              |                   |                    |                    | 0ft             |                 |
| UNIT 406 (21) (RKB) to Mean Sea Level  |              |              |                   |                    |                    | -4739ft         |                 |



Azimuth 0.91° with reference 0.00 N, 0.00 E





# Actual Wellpath Report

RAZOR #250-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #250-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #250-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## REPORT SETUP INFORMATION

|                     |   |                      |  |
|---------------------|---|----------------------|--|
| Projection System   | NAD83 / Lambert Colorado SP, Northern Zone (501), US feet | Software System      | WellArchitect® 5.0                         |
| North Reference     | True  | User                 | Ingmjmr                                    |
| Scale               | 1.000003  | Report Generated     | 12/15/2016 at 10:38:29 AM                  |
| Convergence at slot | 1.10° East  | Database/Source file | WA_DEN_Denver_Defn/RAZOR_#250-2444_awp.xml |

## WELLPATH LOCATION

|                       | Local coordinates |          | Grid coordinates |                 | Geographic coordinates |                 |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
|                       | North[ft]         | East[ft] | Easting[US ft]   | Northing[US ft] | Latitude               | Longitude       |
| Slot Location         | -120.22           | 3229.18  | 3467799.96       | 1539955.51      | 40°48'11.970"N         | 103°48'36.700"W |
| Facility Reference Pt |                   |          | 3464569.07       | 1540014.61      | 40°48'13.160"N         | 103°49'18.690"W |
| Field Reference Pt    |                   |          | 3471270.16       | 1558347.59      | 40°51'13.010"N         | 103°47'46.990"W |

## WELLPATH DATUM

|                          |                      |  |                   |
|--------------------------|----------------------|--|-------------------|
| Calculation method       | Minimum curvature    | UNIT 406 (21') (RKB) to Facility Vertical Datum  | 4739.00ft         |
| Horizontal Reference Pt  | Slot                 | UNIT 406 (21') (RKB) to Mean Sea Level   | 4739.00ft         |
| Vertical Reference Pt    | UNIT 406 (21') (RKB) | UNIT 406 (21') (RKB) to Mud Line at Slot (SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25)) | 4739.00ft         |
| MD Reference Pt          | UNIT 406 (21') (RKB) | Section Origin   | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level       | Section Azimuth  | 0.91°             |



# Actual Wellpath Report

RAZOR #250-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #250-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #250-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------|
| 0.00†      | 0.000              | 85.800         | 0.00        | 0.00              | 0.00          | 0.00         | 0.00             |          |
| 21.00      | 0.000              | 85.800         | 21.00       | 0.00              | 0.00          | 0.00         | 0.00             |          |
| 237.00     | 0.500              | 85.800         | 237.00      | 0.08              | 0.07          | 0.94         | 0.23             |          |
| 326.00     | 2.190              | 152.240        | 325.97      | -1.37             | -1.41         | 2.12         | 2.29             |          |
| 417.00     | 4.230              | 154.590        | 416.82      | -5.91             | -5.98         | 4.37         | 2.25             |          |
| 509.00     | 4.300              | 156.650        | 508.57      | -12.09            | -12.21        | 7.19         | 0.18             |          |
| 601.00     | 4.180              | 155.610        | 600.32      | -18.27            | -18.43        | 9.94         | 0.15             |          |
| 692.00     | 4.470              | 154.900        | 691.06      | -24.46            | -24.66        | 12.82        | 0.32             |          |
| 784.00     | 4.260              | 153.730        | 782.79      | -30.72            | -30.97        | 15.85        | 0.25             |          |
| 876.00     | 3.750              | 152.450        | 874.57      | -36.40            | -36.70        | 18.75        | 0.56             |          |
| 967.00     | 4.130              | 150.850        | 965.35      | -41.85            | -42.20        | 21.73        | 0.43             |          |
| 1059.00    | 4.260              | 148.520        | 1057.11     | -47.61            | -48.01        | 25.13        | 0.23             |          |
| 1149.00    | 4.290              | 155.310        | 1146.86     | -53.47            | -53.92        | 28.28        | 0.56             |          |
| 1241.00    | 4.710              | 149.570        | 1238.57     | -59.80            | -60.30        | 31.63        | 0.67             |          |
| 1332.00    | 4.560              | 150.450        | 1329.27     | -66.10            | -66.67        | 35.30        | 0.18             |          |
| 1424.00    | 4.730              | 150.040        | 1420.97     | -72.51            | -73.14        | 39.00        | 0.19             |          |
| 1516.00    | 4.250              | 144.440        | 1512.69     | -78.51            | -79.20        | 42.88        | 0.71             |          |
| 1608.00    | 3.660              | 140.340        | 1604.47     | -83.48            | -84.23        | 46.74        | 0.71             |          |
| 1699.00    | 3.070              | 133.300        | 1695.31     | -87.33            | -88.14        | 50.36        | 0.79             |          |
| 1791.00    | 3.650              | 140.800        | 1787.16     | -91.23            | -92.10        | 54.01        | 0.79             |          |
| 1882.00    | 4.600              | 148.500        | 1877.92     | -96.53            | -97.46        | 57.74        | 1.21             |          |
| 1973.00    | 4.320              | 146.470        | 1968.64     | -102.44           | -103.42       | 61.54        | 0.35             |          |
| 2047.00    | 4.740              | 147.880        | 2042.41     | -107.30           | -108.34       | 64.71        | 0.59             |          |
| 2126.00    | 3.920              | 150.040        | 2121.19     | -112.35           | -113.44       | 67.79        | 1.06             |          |
| 2220.00    | 3.890              | 148.940        | 2214.97     | -117.82           | -118.96       | 71.04        | 0.09             |          |
| 2314.00    | 3.670              | 150.650        | 2308.76     | -123.12           | -124.31       | 74.16        | 0.26             |          |
| 2409.00    | 3.320              | 148.950        | 2403.59     | -128.08           | -129.32       | 77.07        | 0.38             |          |
| 2503.00    | 5.060              | 156.420        | 2497.33     | -134.16           | -135.45       | 80.13        | 1.94             |          |
| 2597.00    | 4.920              | 154.160        | 2590.98     | -141.54           | -142.88       | 83.55        | 0.26             |          |
| 2690.00    | 4.820              | 156.540        | 2683.64     | -148.66           | -150.05       | 86.84        | 0.24             |          |



# Actual Wellpath Report

RAZOR #250-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #250-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #250-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations)

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------|
| 2785.00    | 4.540              | 156.170        | 2778.32     | -155.71           | -157.15       | 89.95        | 0.30             |          |
| 2879.00    | 4.030              | 152.390        | 2872.06     | -161.99           | -163.48       | 92.98        | 0.62             |          |
| 2973.00    | 3.560              | 141.950        | 2965.86     | -167.16           | -168.71       | 96.31        | 0.89             |          |
| 3068.00    | 2.910              | 140.510        | 3060.70     | -171.29           | -172.89       | 99.67        | 0.69             |          |
| 3162.00    | 4.310              | 148.820        | 3154.52     | -176.10           | -177.75       | 103.01       | 1.59             |          |
| 3256.00    | 4.330              | 146.560        | 3248.25     | -182.02           | -183.74       | 106.80       | 0.18             |          |
| 3350.00    | 4.350              | 143.080        | 3341.98     | -187.77           | -189.55       | 110.89       | 0.28             |          |
| 3445.00    | 4.190              | 147.850        | 3436.72     | -193.52           | -195.37       | 114.90       | 0.41             |          |
| 3539.00    | 4.010              | 152.460        | 3530.48     | -199.29           | -201.19       | 118.25       | 0.40             |          |
| 3633.00    | 3.700              | 156.080        | 3624.26     | -204.93           | -206.87       | 121.00       | 0.42             |          |
| 3728.00    | 3.220              | 170.620        | 3719.09     | -210.34           | -212.31       | 122.68       | 1.05             |          |
| 3822.00    | 4.220              | 158.350        | 3812.89     | -216.13           | -218.13       | 124.39       | 1.35             |          |
| 3917.00    | 4.070              | 156.670        | 3907.65     | -222.43           | -224.47       | 127.01       | 0.20             |          |
| 4011.00    | 3.940              | 154.820        | 4001.42     | -228.38           | -230.46       | 129.70       | 0.19             |          |
| 4105.00    | 3.850              | 152.910        | 4095.20     | -234.06           | -236.19       | 132.52       | 0.17             |          |
| 4199.00    | 3.220              | 155.390        | 4189.02     | -239.23           | -241.40       | 135.05       | 0.69             |          |
| 4293.00    | 3.440              | 135.560        | 4282.86     | -243.60           | -245.81       | 138.13       | 1.24             |          |
| 4387.00    | 3.390              | 146.290        | 4376.70     | -247.87           | -250.14       | 141.64       | 0.68             |          |
| 4481.00    | 3.730              | 152.000        | 4470.52     | -252.83           | -255.15       | 144.62       | 0.52             |          |
| 4576.00    | 4.580              | 150.440        | 4565.27     | -258.80           | -261.18       | 147.94       | 0.90             |          |
| 4670.00    | 3.760              | 151.770        | 4659.02     | -264.73           | -267.16       | 151.25       | 0.88             |          |
| 4764.00    | 3.270              | 148.210        | 4752.84     | -269.68           | -272.15       | 154.12       | 0.57             |          |
| 4859.00    | 2.930              | 147.980        | 4847.70     | -274.00           | -276.52       | 156.84       | 0.36             |          |
| 4953.00    | 1.730              | 99.240         | 4941.63     | -276.22           | -278.78       | 159.51       | 2.35             |          |
| 4977.00    | 1.470              | 104.480        | 4965.62     | -276.34           | -278.92       | 160.17       | 1.24             |          |
| 5071.00    | 5.250              | 2.820          | 5059.49     | -272.33           | -274.92       | 161.55       | 6.10             |          |
| 5165.00    | 10.740             | 3.940          | 5152.54     | -259.27           | -261.87       | 162.36       | 5.84             |          |
| 5259.00    | 15.050             | 359.250        | 5244.15     | -238.32           | -240.92       | 162.80       | 4.71             |          |
| 5354.00    | 20.040             | 1.000          | 5334.70     | -209.69           | -212.30       | 162.93       | 5.28             |          |
| 5424.00    | 20.620             | 6.150          | 5400.34     | -185.42           | -188.05       | 164.46       | 2.69             |          |



# Actual Wellpath Report

RAZOR #250-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #250-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #250-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations) † = interpolated/extrapolated station

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>[°/100ft] | Comments   |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|--|
| 5519.00    | 29.660             | 7.910          | 5486.26     | -145.35           | -148.05       | 169.49       | 9.55             |  |
| 5612.00    | 36.790             | 2.130          | 5564.02     | -94.59            | -97.35        | 173.70       | 8.38             |  |
| 5708.00    | 52.670             | 0.810          | 5632.01     | -27.25            | -30.03        | 175.32       | 16.57            |  |
| 5777.00    | 67.830             | 1.600          | 5666.15     | 32.48             | 29.69         | 176.61       | 21.99            |  |
| 5835.00    | 76.490             | 0.890          | 5683.90     | 87.64             | 84.83         | 177.80       | 14.98            |  |
| 5883.00†   | 79.756             | 359.379        | 5693.78     | 134.60            | 131.80        | 177.91       | 7.47             | Bottom Marker Joint (436'FSL & 1773'FEL, SEC.25)         |
| 5930.00    | 82.960             | 357.930        | 5700.84     | 181.02            | 178.24        | 176.81       | 7.47             |  |
| 6024.00    | 85.720             | 356.340        | 5710.11     | 274.35            | 271.66        | 172.13       | 3.38             |  |
| 6050.00†   | 85.770             | 356.218        | 5712.04     | 300.19            | 297.53        | 170.45       | 0.50             | Crossed 600' South Hardline (600'FSL & 1780'FEL, SEC.25) |
| 6118.00    | 85.900             | 355.900        | 5716.98     | 367.77            | 365.19        | 165.79       | 0.50             |  |
| 6213.00    | 90.370             | 357.450        | 5720.07     | 462.43            | 459.95        | 160.29       | 4.98             |  |
| 6307.00    | 89.010             | 359.870        | 5720.58     | 556.35            | 553.92        | 158.09       | 2.95             |  |
| 6401.00    | 88.340             | 0.030          | 5722.75     | 650.31            | 647.89        | 158.01       | 0.73             |  |
| 6495.00    | 90.000             | 0.540          | 5724.11     | 744.29            | 741.88        | 158.47       | 1.85             |  |
| 6589.00    | 89.600             | 0.300          | 5724.44     | 838.29            | 835.87        | 159.16       | 0.50             |  |
| 6683.00    | 89.290             | 359.130        | 5725.35     | 932.26            | 929.86        | 158.70       | 1.29             |  |
| 6777.00    | 90.990             | 359.730        | 5725.12     | 1026.22           | 1023.86       | 157.76       | 1.92             |  |
| 6872.00    | 90.220             | 1.330          | 5724.12     | 1121.21           | 1118.84       | 158.64       | 1.87             |  |
| 6966.00    | 88.830             | 1.410          | 5724.90     | 1215.21           | 1212.81       | 160.89       | 1.48             |  |
| 7059.00    | 88.890             | 0.310          | 5726.75     | 1308.19           | 1305.78       | 162.28       | 1.18             |  |
| 7153.00    | 88.460             | 0.490          | 5728.92     | 1402.16           | 1399.75       | 162.94       | 0.50             |  |
| 7247.00    | 89.420             | 0.680          | 5730.66     | 1496.14           | 1493.73       | 163.90       | 1.04             |  |
| 7341.00    | 90.620             | 0.710          | 5730.63     | 1590.14           | 1587.72       | 165.04       | 1.28             |  |
| 7435.00    | 90.830             | 0.710          | 5729.44     | 1684.13           | 1681.71       | 166.20       | 0.22             |  |
| 7529.00    | 90.460             | 0.790          | 5728.38     | 1778.12           | 1775.69       | 167.43       | 0.40             |  |
| 7623.00    | 89.110             | 0.270          | 5728.73     | 1872.12           | 1869.69       | 168.30       | 1.54             |  |
| 7717.00    | 86.550             | 0.240          | 5732.29     | 1966.03           | 1963.61       | 168.72       | 2.72             |  |
| 7811.00    | 89.600             | 359.340        | 5735.45     | 2059.95           | 2057.54       | 168.38       | 3.38             |  |
| 7905.00    | 90.250             | 358.920        | 5735.57     | 2153.91           | 2151.53       | 166.95       | 0.82             |  |
| 8000.00    | 89.690             | 358.450        | 5735.62     | 2248.83           | 2246.51       | 164.77       | 0.77             |  |



# Actual Wellpath Report

RAZOR #25O-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #25O-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #25O-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #25O-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations)

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------|
| 8094.00    | 90.460             | 359.790        | 5735.50     | 2342.78           | 2340.49       | 163.32       | 1.64             |          |
| 8189.00    | 91.720             | 0.250          | 5733.69     | 2437.75           | 2435.47       | 163.36       | 1.41             |          |
| 8283.00    | 90.340             | 359.600        | 5732.00     | 2531.72           | 2529.45       | 163.23       | 1.62             |          |
| 8378.00    | 89.910             | 359.890        | 5731.80     | 2626.70           | 2624.45       | 162.81       | 0.55             |          |
| 8471.00    | 89.660             | 359.140        | 5732.14     | 2719.67           | 2717.45       | 162.02       | 0.85             |          |
| 8565.00    | 89.350             | 358.730        | 5732.96     | 2813.61           | 2811.43       | 160.28       | 0.55             |          |
| 8660.00    | 89.600             | 358.410        | 5733.83     | 2908.53           | 2906.39       | 157.91       | 0.43             |          |
| 8754.00    | 89.320             | 358.060        | 5734.71     | 3002.42           | 3000.35       | 155.01       | 0.48             |          |
| 8848.00    | 90.520             | 0.110          | 5734.84     | 3096.37           | 3094.33       | 153.51       | 2.53             |          |
| 8942.00    | 90.150             | 0.750          | 5734.29     | 3190.36           | 3188.32       | 154.22       | 0.79             |          |
| 9037.00    | 91.200             | 0.710          | 5733.18     | 3285.36           | 3283.31       | 155.43       | 1.11             |          |
| 9131.00    | 91.170             | 0.480          | 5731.23     | 3379.33           | 3377.28       | 156.40       | 0.25             |          |
| 9224.00    | 91.290             | 0.410          | 5729.24     | 3472.31           | 3470.26       | 157.12       | 0.15             |          |
| 9318.00    | 91.110             | 359.940        | 5727.27     | 3566.28           | 3564.24       | 157.41       | 0.54             |          |
| 9412.00    | 90.990             | 359.720        | 5725.54     | 3660.25           | 3658.22       | 157.13       | 0.27             |          |
| 9506.00    | 89.260             | 0.000          | 5725.34     | 3754.23           | 3752.22       | 156.90       | 1.86             |          |
| 9601.00    | 88.770             | 0.040          | 5726.97     | 3849.20           | 3847.20       | 156.94       | 0.52             |          |
| 9695.00    | 90.890             | 1.100          | 5727.25     | 3943.19           | 3941.19       | 157.87       | 2.52             |          |
| 9790.00    | 90.310             | 0.050          | 5726.26     | 4038.19           | 4036.18       | 158.82       | 1.26             |          |
| 9884.00    | 91.390             | 359.150        | 5724.86     | 4132.15           | 4130.16       | 158.17       | 1.50             |          |
| 9979.00    | 91.140             | 359.370        | 5722.76     | 4227.09           | 4225.13       | 156.94       | 0.35             |          |
| 10073.00   | 90.580             | 359.230        | 5721.35     | 4321.04           | 4319.11       | 155.79       | 0.61             |          |
| 10167.00   | 90.090             | 359.910        | 5720.80     | 4415.01           | 4413.11       | 155.09       | 0.89             |          |
| 10261.00   | 89.410             | 0.080          | 5721.21     | 4509.00           | 4507.11       | 155.08       | 0.75             |          |
| 10356.00   | 88.830             | 359.960        | 5722.67     | 4603.97           | 4602.09       | 155.11       | 0.62             |          |
| 10450.00   | 91.050             | 0.740          | 5722.77     | 4697.96           | 4696.09       | 155.69       | 2.50             |          |
| 10544.00   | 90.150             | 0.500          | 5721.79     | 4791.96           | 4790.07       | 156.70       | 0.99             |          |
| 10638.00   | 92.130             | 0.960          | 5719.92     | 4885.93           | 4884.04       | 157.90       | 2.16             |          |
| 10731.00   | 89.660             | 1.470          | 5718.46     | 4978.91           | 4977.00       | 159.87       | 2.71             |          |
| 10825.00   | 89.880             | 1.190          | 5718.84     | 5072.91           | 5070.98       | 162.05       | 0.38             |          |



# Actual Wellpath Report

RAZOR #25O-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #25O-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #25O-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #25O-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations)

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>[°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------|
| 10920.00   | 89.200             | 0.420          | 5719.60     | 5167.90           | 5165.96       | 163.39       | 1.08             |          |
| 11014.00   | 88.770             | 359.930        | 5721.27     | 5261.88           | 5259.95       | 163.68       | 0.69             |          |
| 11106.00   | 90.430             | 359.110        | 5721.91     | 5353.85           | 5351.94       | 162.91       | 2.01             |          |
| 11197.00   | 90.030             | 359.770        | 5721.55     | 5444.82           | 5442.93       | 162.02       | 0.85             |          |
| 11287.00   | 89.690             | 359.530        | 5721.77     | 5534.79           | 5532.93       | 161.47       | 0.46             |          |
| 11378.00   | 89.200             | 359.320        | 5722.65     | 5625.76           | 5623.92       | 160.55       | 0.59             |          |
| 11470.00   | 90.830             | 1.030          | 5722.62     | 5717.74           | 5715.91       | 160.83       | 2.57             |          |
| 11562.00   | 90.520             | 0.760          | 5721.54     | 5809.74           | 5807.90       | 162.27       | 0.45             |          |
| 11653.00   | 90.550             | 0.780          | 5720.69     | 5900.73           | 5898.88       | 163.49       | 0.04             |          |
| 11745.00   | 89.940             | 0.150          | 5720.30     | 5992.73           | 5990.88       | 164.24       | 0.95             |          |
| 11836.00   | 91.050             | 1.720          | 5719.51     | 6083.72           | 6081.86       | 165.73       | 2.11             |          |
| 11928.00   | 90.430             | 1.300          | 5718.32     | 6175.71           | 6173.82       | 168.15       | 0.81             |          |
| 12020.00   | 90.250             | 0.560          | 5717.78     | 6267.71           | 6265.81       | 169.64       | 0.83             |          |
| 12110.00   | 89.970             | 0.110          | 5717.60     | 6357.70           | 6355.80       | 170.17       | 0.59             |          |
| 12201.00   | 89.450             | 359.460        | 5718.06     | 6448.68           | 6446.80       | 169.83       | 0.91             |          |
| 12293.00   | 91.290             | 359.550        | 5717.47     | 6540.65           | 6538.79       | 169.03       | 2.00             |          |
| 12385.00   | 91.260             | 359.500        | 5715.42     | 6632.60           | 6630.77       | 168.27       | 0.06             |          |
| 12477.00   | 91.110             | 0.450          | 5713.52     | 6724.57           | 6722.74       | 168.23       | 1.05             |          |
| 12568.00   | 90.800             | 0.030          | 5712.00     | 6815.55           | 6813.73       | 168.61       | 0.57             |          |
| 12660.00   | 90.580             | 359.900        | 5710.90     | 6907.53           | 6905.72       | 168.56       | 0.28             |          |
| 12752.00   | 90.520             | 0.840          | 5710.01     | 6999.52           | 6997.72       | 169.15       | 1.02             |          |
| 12843.00   | 90.370             | 1.300          | 5709.31     | 7090.51           | 7088.70       | 170.85       | 0.53             |          |
| 12934.00   | 90.680             | 0.810          | 5708.47     | 7181.51           | 7179.68       | 172.52       | 0.64             |          |
| 13025.00   | 89.140             | 0.400          | 5708.62     | 7272.51           | 7270.67       | 173.48       | 1.75             |          |
| 13117.00   | 88.860             | 359.610        | 5710.22     | 7364.48           | 7362.66       | 173.49       | 0.91             |          |
| 13208.00   | 88.580             | 359.310        | 5712.25     | 7455.43           | 7453.63       | 172.64       | 0.45             |          |
| 13299.00   | 90.400             | 0.010          | 5713.06     | 7546.40           | 7544.62       | 172.10       | 2.14             |          |
| 13391.00   | 90.250             | 359.910        | 5712.54     | 7638.38           | 7636.62       | 172.03       | 0.20             |          |
| 13482.00   | 89.940             | 359.460        | 5712.39     | 7729.36           | 7727.62       | 171.53       | 0.60             |          |
| 13573.00   | 89.450             | 359.290        | 5712.88     | 7820.33           | 7818.61       | 170.54       | 0.57             |          |



# Actual Wellpath Report

RAZOR #250-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #250-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #250-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #250-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH DATA (176 stations)

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Vert Sect<br>[ft] | North<br>[ft] | East<br>[ft] | DLS<br>["/100ft] | Comments   |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|--|
| 13665.00   | 89.230             | 358.860        | 5713.94     | 7912.28           | 7910.59       | 169.05       | 0.52             |  |
| 13756.00   | 89.080             | 358.060        | 5715.28     | 8003.18           | 8001.55       | 166.61       | 0.89             |  |
| 13850.00   | 89.140             | 357.060        | 5716.74     | 8097.01           | 8095.45       | 162.61       | 1.07             |  |
| 13944.00   | 89.600             | 0.540          | 5717.77     | 8190.92           | 8189.41       | 160.64       | 3.73             |  |
| 14039.00   | 88.920             | 359.540        | 5719.00     | 8285.90           | 8284.40       | 160.71       | 1.27             |  |
| 14133.00   | 88.150             | 358.960        | 5721.40     | 8379.83           | 8378.36       | 159.48       | 1.03             |  |
| 14227.00   | 90.990             | 1.420          | 5722.11     | 8473.81           | 8472.34       | 159.79       | 4.00             |  |
| 14321.00   | 90.520             | 1.560          | 5720.87     | 8567.79           | 8566.30       | 162.23       | 0.52             |  |
| 14416.00   | 90.030             | 1.270          | 5720.41     | 8662.79           | 8661.27       | 164.58       | 0.60             |  |
| 14510.00   | 89.600             | 0.680          | 5720.72     | 8756.79           | 8755.25       | 166.18       | 0.78             |  |
| 14604.00   | 89.420             | 359.760        | 5721.52     | 8850.78           | 8849.25       | 166.54       | 1.00             |  |
| 14699.00   | 89.110             | 359.260        | 5722.74     | 8945.74           | 8944.24       | 165.73       | 0.62             |  |
| 14793.00   | 89.010             | 359.210        | 5724.28     | 9039.69           | 9038.22       | 164.47       | 0.12             |  |
| 14888.00   | 89.750             | 0.710          | 5725.31     | 9134.66           | 9133.21       | 164.40       | 1.76             |  |
| 14982.00   | 90.520             | 359.900        | 5725.09     | 9228.66           | 9227.20       | 164.90       | 1.19             |  |
| 15077.00   | 90.060             | 358.430        | 5724.61     | 9323.61           | 9322.19       | 163.52       | 1.62             |  |
| 15170.00   | 91.050             | 358.690        | 5723.71     | 9416.53           | 9415.15       | 161.18       | 1.10             |  |
| 15265.00   | 90.740             | 358.170        | 5722.22     | 9511.42           | 9510.11       | 158.58       | 0.64             |  |
| 15359.00   | 90.580             | 357.960        | 5721.14     | 9605.30           | 9604.05       | 155.41       | 0.28             |  |
| 15453.00   | 90.680             | 357.040        | 5720.10     | 9699.13           | 9697.95       | 151.31       | 0.98             |  |
| 15547.00   | 91.080             | 356.810        | 5718.66     | 9792.89           | 9791.80       | 146.27       | 0.49             |  |
| 15642.00   | 90.120             | 359.580        | 5717.67     | 9887.77           | 9886.74       | 143.27       | 3.09             |  |
| 15736.00   | 89.780             | 1.040          | 5717.75     | 9981.76           | 9980.74       | 143.78       | 1.59             |  |
| 15830.00   | 89.320             | 0.710          | 5718.49     | 10075.76          | 10074.72      | 145.22       | 0.60             |  |
| 15903.00   | 89.320             | 359.910        | 5719.35     | 10148.75          | 10147.72      | 145.61       | 1.10             | Last BHI MWD Survey (148'FNL & 1665'FEL, SEC.24) |
| 15951.00   | 89.320             | 359.910        | 5719.92     | 10196.74          | 10195.71      | 145.54       | 0.00             | Projection to Bit (100'FNL & 1665'FEL, SEC.24)   |





# Actual Wellpath Report

RAZOR #25O-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #25O-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #25O-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #25O-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## HOLE & CASING SECTIONS - Ref Wellbore: RAZOR #25O-2444 awb Ref Wellpath: RAZOR #25O-2444 awp

| String/Diameter        | Start MD<br>[ft] | End MD<br>[ft] | Interval<br>[ft] | Start TVD<br>[ft] | End TVD<br>[ft] | Start N/S<br>[ft] | Start E/W<br>[ft] | End N/S<br>[ft] | End E/W<br>[ft] |
|------------------------|------------------|----------------|------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-----------------|
| 16in Conductor         | 21.00            | 101.00         | 80.00            | 21.00             | 101.00          | 0.00              | 0.00              | 0.01            | 0.13            |
| 13.5in Open Hole       | 101.00           | 2100.00        | 1999.00          | 101.00            | 2095.25         | 0.01              | 0.13              | -111.86         | 66.86           |
| 9.625in Casing Surface | 21.00            | 2078.00        | 2057.00          | 21.00             | 2073.31         | 0.00              | 0.00              | -110.44         | 66.01           |
| 8.5in Open Hole        | 2100.00          | 15951.00       | 13851.00         | 2095.25           | 5719.92         | -111.86           | 66.86             | 10195.71        | 145.54          |

## TARGETS

| Name   | TVD<br>[ft] | North<br>[ft] | East<br>[ft] | Grid East<br>[US ft] | Grid North<br>[US ft] | Latitude       | Longitude       | Shape   |
|--|-------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|---------|
| RAZOR #25M PAD SECTION 24  | 23.00       | 120.65        | -3229.17     | 3464569.07           | 1540014.61            | 40°48'13.160"N | 103°49'18.690"W | polygon |
| RAZOR #25M PAD SECTION 25  | 23.00       | 120.65        | -3229.17     | 3464569.07           | 1540014.61            | 40°48'13.160"N | 103°49'18.690"W | polygon |
| RAZOR #25O-2444 BHL REV-1 ON PLAT (NIO C, 100'FNL & 1650'FEL SEC 24) | 5720.00     | 10196.44      | 161.43       | 3467767.06           | 1550153.19            | 40°49'52.720"N | 103°48'34.600"W | point   |
| RAZOR #25O-2444 TOP OF PRODUCING (610'FSL & 1789'FEL SEC 25)         | 5720.00     | 306.65        | 152.27       | 3467946.35           | 1540265.01            | 40°48'15.000"N | 103°48'34.720"W | point   |
| RAZOR #25M PAD HARDLINES 100' N/E/W & 600' S                         | 5740.00     | 120.65        | -3229.17     | 3464569.07           | 1540014.61            | 40°48'13.160"N | 103°49'18.690"W | polygon |

## WELLPATH COMPOSITION - Ref Wellbore: RAZOR #25O-2444 awb Ref Wellpath: RAZOR #25O-2444 awp

| Start MD<br>[ft] | End MD<br>[ft] | Positional Uncertainty Model  | Log Name/Comment   | Wellbore            |
|------------------|----------------|---|--|---------------------|
| 21.00            | 2047.00        | Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model) | BHI NAVITRAK MWD ROCKIES GT, SURCON IFR SAG 13 1/2" <237-2047> | RAZOR #25O-2444 awb |
| 2047.00          | 15903.00       | Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model) | BHI NAVITRAK MWD ROCKIES GT, SURCON IFR SAG 8.75" <2126-15903> | RAZOR #25O-2444 awb |
| 15903.00         | 15951.00       | Blind Drilling (std)  | Projection to bit  | RAZOR #25O-2444 awb |



# Actual Wellpath Report

RAZOR #25O-2444 awp

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## REFERENCE WELLPATH IDENTIFICATION

|          |                               |          |   |
|----------|-------------------------------|----------|---|
| Operator | WHITING OIL & GAS CORPORATION | Slot     | SLOT#09 RAZOR #25O-2444 (305'FSL & 1950'FEL SEC 25) |
| Area     | COLORADO                      | Well     | RAZOR #25O-2444                                     |
| Field    | WELD COUNTY                   | Wellbore | RAZOR #25O-2444 awb                                 |
| Facility | SEC.25-T10N-R58W              |          |   |

## WELLPATH COMMENTS

| MD<br>[ft] | Inclination<br>[°] | Azimuth<br>[°] | TVD<br>[ft] | Comment  |
|------------|--------------------|----------------|-------------|--|
| 5883.00    | 79.756             | 359.379        | 5693.78     | Bottom Marker Joint (436'FSL & 1773'FEL, SEC.25)         |
| 6050.00    | 85.770             | 356.218        | 5712.04     | Crossed 600' South Hardline (600'FSL & 1780'FEL, SEC.25) |
| 15903.00   | 89.320             | 359.910        | 5719.35     | Last BHI MWD Survey (148'FNL & 1665'FEL, SEC.24)         |
| 15951.00   | 89.320             | 359.910        | 5719.92     | Projection to Bit (100'FNL & 1665'FEL, SEC.24)           |