

Whiting Oil & Gas

Well Name: **Razor 12-0141H**

Surface Location: Razor 12-0141H Pad Sec.12-T10N-R58W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4947.9

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---|-------|------------|------------|-----------|-------------|------|
| 0.0 | 0.0 | 1558479.43 | 3468486.86 | 40.854122 | -103.806436 | |
| (RKB - 16.5') WELL @ 4964.4ft ((RKB - 16.5')) | | | | | | |

Razor 12-0141H Pad Sec.12-T10N-R58W

Razor 12-0141H
Plan #2 (8-9-12)
16:35, August 09 2012

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|-------------------------------|--------|--------|--------|-----------|-------------|---------|
| HARDLINES BHL 660'FNL | 1.0 | 7049.0 | -454.5 | 40.873469 | -103.808079 | Polygon |
| HARDLINES SHL 660'FSL | 1.0 | 400.0 | -398.6 | 40.855220 | -103.807877 | Polygon |
| SHL 2388'FNL & 662'FEL SEC 12 | 121.0 | 70.0 | 1.4 | 40.854314 | -103.806431 | Point |
| BHL 660'FNL, 660'FEL, SEC. 1 | 6011.0 | 7048.9 | -54.5 | 40.873469 | -103.806633 | Point |

South(-)/North(+) (2500 ft/in)

Casing pt
1868'FNL &
658"FEL

SHL 2388'FNL & 662'FEL SEC 12

HARDLINES SHL 660'FSL

HARDLINES BHL 660'FNL

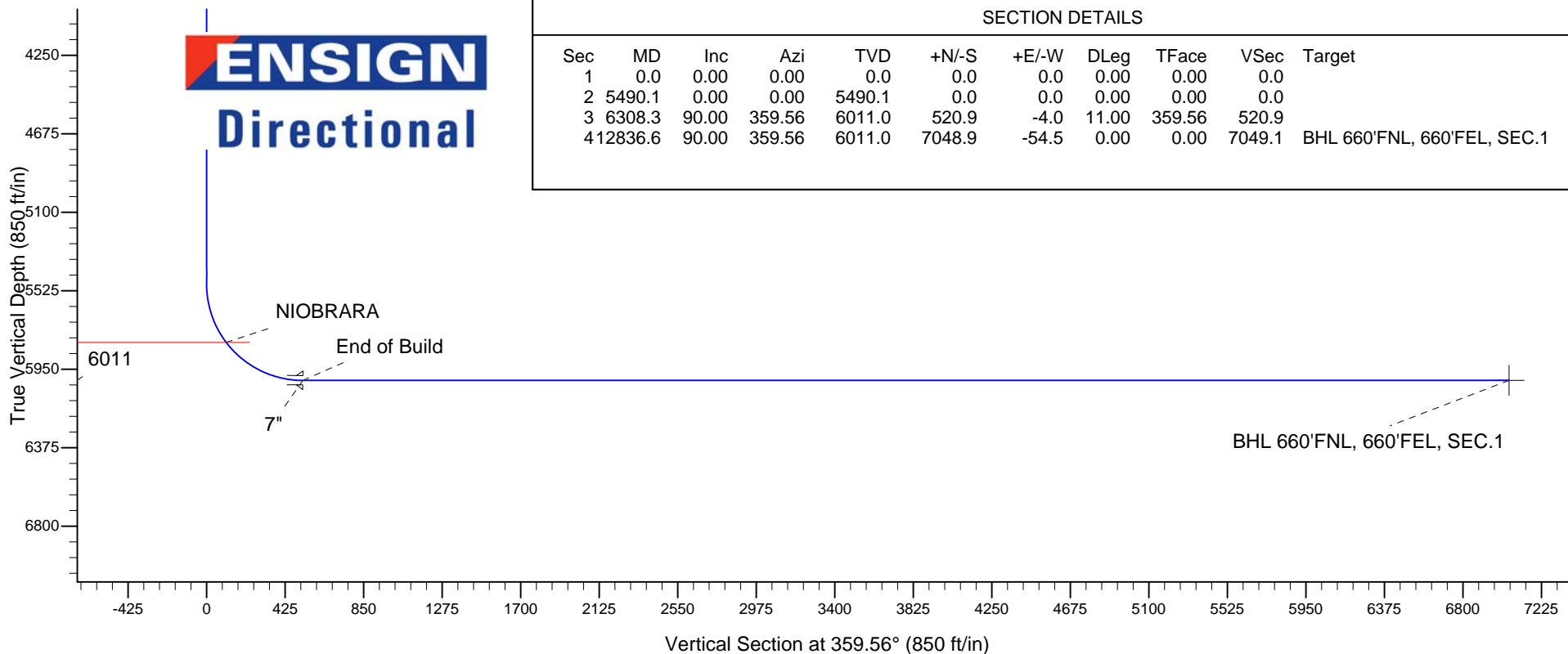
Razor 12-0141H
BHL 660'FNL, 660'FEL, SEC.1

Azimuths to True North
Magnetic North: 8.24°

Magnetic Field
Strength: 53364.3snT
Dip Angle: 67.54°
Date: 5/29/2012
Model: IGRF2010

End of Build

West(-)/East(+) (2500 ft/in)





Directional

Whiting Oil & Gas

SEC.12-T10N-R58W

Razor 12-0141H Pad Sec.12-T10N-R58W

Razor 12-0141H

Wellbore #1

Plan: Plan #2 (8-9-12)

Standard Planning Report

09 August, 2012

| Plan Sections | | | | | | | | | | |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|-------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,490.1 | 0.00 | 0.00 | 5,490.1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,308.3 | 90.00 | 359.56 | 6,011.0 | 520.9 | -4.0 | 11.00 | 11.00 | 0.00 | 359.56 | |
| 12,836.6 | 90.00 | 359.56 | 6,011.0 | 7,048.9 | -54.5 | 0.00 | 0.00 | 0.00 | 0.00 | BHL 660'FNL, 660' |

| | | | |
|------------------|-------------------------------------|-------------------------------------|---------------------------------|
| Database: | Landmark | Local Co-ordinate Reference: | Well Razor 12-0141H |
| Company: | Whiting Oil & Gas | TVD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Project: | SEC.12-T10N-R58W | MD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Site: | Razor 12-0141H Pad Sec.12-T10N-R58W | North Reference: | True |
| Well: | Razor 12-0141H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #2 (8-9-12) | | |

| Planned 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) |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 0.00 | 0.00 | 2,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 0.00 | 0.00 | 2,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 0.00 | 0.00 | 2,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 0.00 | 0.00 | 2,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 0.00 | 0.00 | 2,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 0.00 | 0.00 | 2,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 0.00 | 0.00 | 2,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 0.00 | 0.00 | 2,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 0.00 | 0.00 | 3,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 0.00 | 0.00 | 3,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 0.00 | 0.00 | 3,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 0.00 | 0.00 | 3,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 0.00 | 0.00 | 3,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 0.00 | 0.00 | 3,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 0.00 | 0.00 | 3,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 0.00 | 0.00 | 3,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 0.00 | 0.00 | 3,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 0.00 | 0.00 | 4,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 0.00 | 0.00 | 4,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 4,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 0.00 | 0.00 | 4,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 0.00 | 0.00 | 4,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 0.00 | 0.00 | 5,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 5,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 5,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 0.00 | 0.00 | 5,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |

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| Site: | Razor 12-0141H Pad Sec.12-T10N-R58W | North Reference: | True |
| Well: | Razor 12-0141H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #2 (8-9-12) | | |

| Planned 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) |
| 5,400.0 | 0.00 | 0.00 | 5,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,490.1 | 0.00 | 0.00 | 5,490.1 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 1.09 | 359.56 | 5,500.0 | 0.1 | 0.0 | 0.1 | 11.00 | 11.00 | 0.00 |
| 5,600.0 | 12.09 | 359.56 | 5,599.2 | 11.5 | -0.1 | 11.5 | 11.00 | 11.00 | 0.00 |
| 5,700.0 | 23.09 | 359.56 | 5,694.4 | 41.7 | -0.3 | 41.7 | 11.00 | 11.00 | 0.00 |
| 5,800.0 | 34.09 | 359.56 | 5,782.0 | 89.5 | -0.7 | 89.5 | 11.00 | 11.00 | 0.00 |
| 5,828.0 | 37.17 | 359.56 | 5,804.8 | 105.8 | -0.8 | 105.8 | 11.00 | 11.00 | 0.00 |
| NIOBRARA | | | | | | | | | |
| 5,900.0 | 45.09 | 359.56 | 5,859.0 | 153.1 | -1.2 | 153.1 | 11.00 | 11.00 | 0.00 |
| 6,000.0 | 56.09 | 359.56 | 5,922.4 | 230.2 | -1.8 | 230.3 | 11.00 | 11.00 | 0.00 |
| 6,100.0 | 67.09 | 359.56 | 5,969.9 | 318.1 | -2.5 | 318.1 | 11.00 | 11.00 | 0.00 |
| 6,200.0 | 78.09 | 359.56 | 5,999.8 | 413.3 | -3.2 | 413.3 | 11.00 | 11.00 | 0.00 |
| 6,300.0 | 89.09 | 359.56 | 6,010.9 | 512.5 | -4.0 | 512.6 | 11.00 | 11.00 | 0.00 |
| 6,308.3 | 90.00 | 359.56 | 6,011.0 | 520.8 | -4.0 | 520.9 | 11.00 | 11.00 | 0.00 |
| End of Build - 7" | | | | | | | | | |
| 6,400.0 | 90.00 | 359.56 | 6,011.0 | 612.5 | -4.7 | 612.6 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 90.00 | 359.56 | 6,011.0 | 712.5 | -5.5 | 712.6 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 90.00 | 359.56 | 6,011.0 | 812.5 | -6.3 | 812.6 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 90.00 | 359.56 | 6,011.0 | 912.5 | -7.1 | 912.6 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 90.00 | 359.56 | 6,011.0 | 1,012.5 | -7.8 | 1,012.6 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 90.00 | 359.56 | 6,011.0 | 1,112.5 | -8.6 | 1,112.6 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 90.00 | 359.56 | 6,011.0 | 1,212.5 | -9.4 | 1,212.6 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 90.00 | 359.56 | 6,011.0 | 1,312.5 | -10.1 | 1,312.6 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 90.00 | 359.56 | 6,011.0 | 1,412.5 | -10.9 | 1,412.6 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 90.00 | 359.56 | 6,011.0 | 1,512.5 | -11.7 | 1,512.6 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 90.00 | 359.56 | 6,011.0 | 1,612.5 | -12.5 | 1,612.6 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.00 | 359.56 | 6,011.0 | 1,712.5 | -13.2 | 1,712.6 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.00 | 359.56 | 6,011.0 | 1,812.5 | -14.0 | 1,812.6 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.00 | 359.56 | 6,011.0 | 1,912.5 | -14.8 | 1,912.6 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.00 | 359.56 | 6,011.0 | 2,012.5 | -15.6 | 2,012.6 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.00 | 359.56 | 6,011.0 | 2,112.5 | -16.3 | 2,112.6 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.00 | 359.56 | 6,011.0 | 2,212.5 | -17.1 | 2,212.6 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.00 | 359.56 | 6,011.0 | 2,312.5 | -17.9 | 2,312.6 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.00 | 359.56 | 6,011.0 | 2,412.5 | -18.6 | 2,412.6 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.00 | 359.56 | 6,011.0 | 2,512.5 | -19.4 | 2,512.6 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.00 | 359.56 | 6,011.0 | 2,612.5 | -20.2 | 2,612.6 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.00 | 359.56 | 6,011.0 | 2,712.5 | -21.0 | 2,712.6 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.00 | 359.56 | 6,011.0 | 2,812.5 | -21.7 | 2,812.6 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 359.56 | 6,011.0 | 2,912.5 | -22.5 | 2,912.6 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 359.56 | 6,011.0 | 3,012.5 | -23.3 | 3,012.6 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 359.56 | 6,011.0 | 3,112.5 | -24.1 | 3,112.6 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 359.56 | 6,011.0 | 3,212.5 | -24.8 | 3,212.6 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 359.56 | 6,011.0 | 3,312.5 | -25.6 | 3,312.6 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 359.56 | 6,011.0 | 3,412.5 | -26.4 | 3,412.6 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 359.56 | 6,011.0 | 3,512.5 | -27.1 | 3,512.6 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 359.56 | 6,011.0 | 3,612.5 | -27.9 | 3,612.6 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 359.56 | 6,011.0 | 3,712.4 | -28.7 | 3,712.6 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 359.56 | 6,011.0 | 3,812.4 | -29.5 | 3,812.6 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 359.56 | 6,011.0 | 3,912.4 | -30.2 | 3,912.6 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 359.56 | 6,011.0 | 4,012.4 | -31.0 | 4,012.6 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 359.56 | 6,011.0 | 4,112.4 | -31.8 | 4,112.6 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 359.56 | 6,011.0 | 4,212.4 | -32.6 | 4,212.6 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 359.56 | 6,011.0 | 4,312.4 | -33.3 | 4,312.6 | 0.00 | 0.00 | 0.00 |

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|------------------|-------------------------------------|-------------------------------------|---------------------------------|
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| Company: | Whiting Oil & Gas | TVD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Project: | SEC.12-T10N-R58W | MD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Site: | Razor 12-0141H Pad Sec.12-T10N-R58W | North Reference: | True |
| Well: | Razor 12-0141H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #2 (8-9-12) | | |

| Planned 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) | |
| 10,200.0 | 90.00 | 359.56 | 6,011.0 | 4,412.4 | -34.1 | 4,412.6 | 0.00 | 0.00 | 0.00 | |
| 10,300.0 | 90.00 | 359.56 | 6,011.0 | 4,512.4 | -34.9 | 4,512.6 | 0.00 | 0.00 | 0.00 | |
| 10,400.0 | 90.00 | 359.56 | 6,011.0 | 4,612.4 | -35.7 | 4,612.6 | 0.00 | 0.00 | 0.00 | |
| 10,500.0 | 90.00 | 359.56 | 6,011.0 | 4,712.4 | -36.4 | 4,712.6 | 0.00 | 0.00 | 0.00 | |
| 10,600.0 | 90.00 | 359.56 | 6,011.0 | 4,812.4 | -37.2 | 4,812.6 | 0.00 | 0.00 | 0.00 | |
| 10,700.0 | 90.00 | 359.56 | 6,011.0 | 4,912.4 | -38.0 | 4,912.6 | 0.00 | 0.00 | 0.00 | |
| 10,800.0 | 90.00 | 359.56 | 6,011.0 | 5,012.4 | -38.7 | 5,012.6 | 0.00 | 0.00 | 0.00 | |
| 10,900.0 | 90.00 | 359.56 | 6,011.0 | 5,112.4 | -39.5 | 5,112.6 | 0.00 | 0.00 | 0.00 | |
| 11,000.0 | 90.00 | 359.56 | 6,011.0 | 5,212.4 | -40.3 | 5,212.6 | 0.00 | 0.00 | 0.00 | |
| 11,100.0 | 90.00 | 359.56 | 6,011.0 | 5,312.4 | -41.1 | 5,312.6 | 0.00 | 0.00 | 0.00 | |
| 11,200.0 | 90.00 | 359.56 | 6,011.0 | 5,412.4 | -41.8 | 5,412.6 | 0.00 | 0.00 | 0.00 | |
| 11,300.0 | 90.00 | 359.56 | 6,011.0 | 5,512.4 | -42.6 | 5,512.6 | 0.00 | 0.00 | 0.00 | |
| 11,400.0 | 90.00 | 359.56 | 6,011.0 | 5,612.4 | -43.4 | 5,612.6 | 0.00 | 0.00 | 0.00 | |
| 11,500.0 | 90.00 | 359.56 | 6,011.0 | 5,712.4 | -44.2 | 5,712.6 | 0.00 | 0.00 | 0.00 | |
| 11,600.0 | 90.00 | 359.56 | 6,011.0 | 5,812.4 | -44.9 | 5,812.6 | 0.00 | 0.00 | 0.00 | |
| 11,700.0 | 90.00 | 359.56 | 6,011.0 | 5,912.4 | -45.7 | 5,912.6 | 0.00 | 0.00 | 0.00 | |
| 11,800.0 | 90.00 | 359.56 | 6,011.0 | 6,012.4 | -46.5 | 6,012.6 | 0.00 | 0.00 | 0.00 | |
| 11,900.0 | 90.00 | 359.56 | 6,011.0 | 6,112.4 | -47.2 | 6,112.6 | 0.00 | 0.00 | 0.00 | |
| 12,000.0 | 90.00 | 359.56 | 6,011.0 | 6,212.4 | -48.0 | 6,212.6 | 0.00 | 0.00 | 0.00 | |
| 12,100.0 | 90.00 | 359.56 | 6,011.0 | 6,312.4 | -48.8 | 6,312.6 | 0.00 | 0.00 | 0.00 | |
| 12,200.0 | 90.00 | 359.56 | 6,011.0 | 6,412.4 | -49.6 | 6,412.6 | 0.00 | 0.00 | 0.00 | |
| 12,300.0 | 90.00 | 359.56 | 6,011.0 | 6,512.4 | -50.3 | 6,512.6 | 0.00 | 0.00 | 0.00 | |
| 12,400.0 | 90.00 | 359.56 | 6,011.0 | 6,612.4 | -51.1 | 6,612.6 | 0.00 | 0.00 | 0.00 | |
| 12,500.0 | 90.00 | 359.56 | 6,011.0 | 6,712.4 | -51.9 | 6,712.6 | 0.00 | 0.00 | 0.00 | |
| 12,600.0 | 90.00 | 359.56 | 6,011.0 | 6,812.4 | -52.7 | 6,812.6 | 0.00 | 0.00 | 0.00 | |
| 12,700.0 | 90.00 | 359.56 | 6,011.0 | 6,912.4 | -53.4 | 6,912.6 | 0.00 | 0.00 | 0.00 | |
| 12,800.0 | 90.00 | 359.56 | 6,011.0 | 7,012.4 | -54.2 | 7,012.6 | 0.00 | 0.00 | 0.00 | |
| 12,836.6 | 90.00 | 359.56 | 6,011.0 | 7,048.9 | -54.5 | 7,049.1 | 0.00 | 0.00 | 0.00 | |

| Targets | | | | | | | | | | |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|--|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude | |
| - hit/miss target | | | | | | | | | | |
| - Shape | | | | | | | | | | |
| SHL 2388'FNL & 662' | 0.00 | 0.00 | 1.0 | 70.0 | 1.4 | 1,558,549.40 | 3,468,486.91 | 40.854314 | -103.806431 | |
| - plan misses target center by 70.0ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E) | | | | | | | | | | |
| - Point | | | | | | | | | | |
| HARDLINES BHL 66C | 0.00 | 0.00 | 1.0 | 7,049.0 | -454.5 | 1,565,518.49 | 3,467,897.80 | 40.873469 | -103.808079 | |
| - plan misses target center by 6023.3ft at 12836.6ft MD (6011.0 TVD, 7048.9 N, -54.5 E) | | | | | | | | | | |
| - Polygon | | | | | | | | | | |
| Point 1 | | | 1.0 | 0.0 | 0.0 | 1,565,518.49 | 3,467,897.80 | | | |
| Point 2 | | | 1.0 | 0.0 | 800.0 | 1,565,533.77 | 3,468,697.67 | | | |
| BHL 660'FNL, 660'FE | 0.00 | 0.00 | 6,011.0 | 7,048.9 | -54.5 | 1,565,526.11 | 3,468,297.77 | 40.873469 | -103.806633 | |
| - plan hits target center | | | | | | | | | | |
| - Point | | | | | | | | | | |
| HARDLINES SHL 66C | 0.00 | 0.00 | 1.0 | 400.0 | -398.6 | 1,558,871.70 | 3,468,080.68 | 40.855220 | -103.807877 | |
| - plan misses target center by 564.7ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E) | | | | | | | | | | |
| - Polygon | | | | | | | | | | |
| Point 1 | | | 1.0 | 0.0 | 0.0 | 1,558,871.70 | 3,468,080.68 | | | |
| Point 2 | | | 1.0 | 0.0 | 800.0 | 1,558,886.98 | 3,468,880.54 | | | |

| | | | |
|------------------|-------------------------------------|-------------------------------------|---------------------------------|
| Database: | Landmark | Local Co-ordinate Reference: | Well Razor 12-0141H |
| Company: | Whiting Oil & Gas | TVD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Project: | SEC.12-T10N-R58W | MD Reference: | WELL @ 4964.4ft ((RKB - 16.5')) |
| Site: | Razor 12-0141H Pad Sec.12-T10N-R58W | North Reference: | True |
| Well: | Razor 12-0141H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #2 (8-9-12) | | |

| Casing Points | | | | | |
|---------------------|---------------------|------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 6,308.3 | 6,011.0 | 7" | 7 | 8-3/4 | |

| Formations | | | | | |
|---------------------|---------------------|----------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| 5,828.0 | 5,804.8 | NIOBRARA | | | |

| Plan Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|--------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | | |
| | | +N/-S (ft) | +E/-W (ft) | Comment | |
| 6,308.3 | 6,011.0 | 520.8 | -4.0 | End of Build | |