

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

Skim 35-21HZ Pad

SKIM 34C-28HZ

Plan A

Plan: Rev A0 Permit

Sperry Drilling Services

Proposal Report

11 October, 2014

Well Coordinates: 14,601,715.74 N, 1,731,548.32 E (40° 12' 19.63" N, 104° 40' 24.99" W)

Ground Level: 4,847.00 usft

Local Coordinate Origin:

Centered on Well SKIM 34C-28HZ

Viewing Datum:

RKB = 17' @ 4864.00usft (D Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - Planning Rockies

Version: 5000.1 Build: 70

HALLIBURTON

Project: WELD-NAD83-UTMFT13N
 Site: Skim 35-21HZ Pad
 Well: SKIM 34C-28HZ
 Wellbore: Plan A
 Design: Rev A0 Permit

US ROCKIES WATTENBERG PLANNING

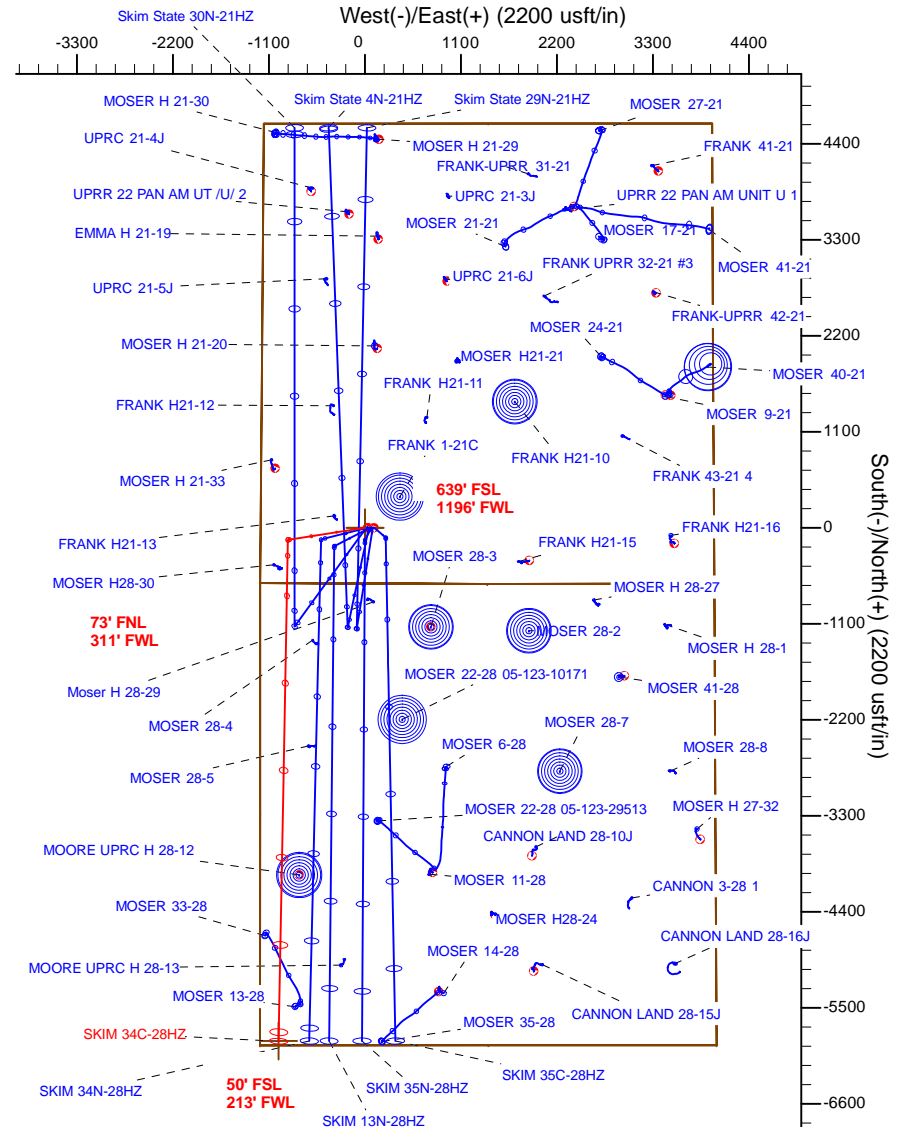
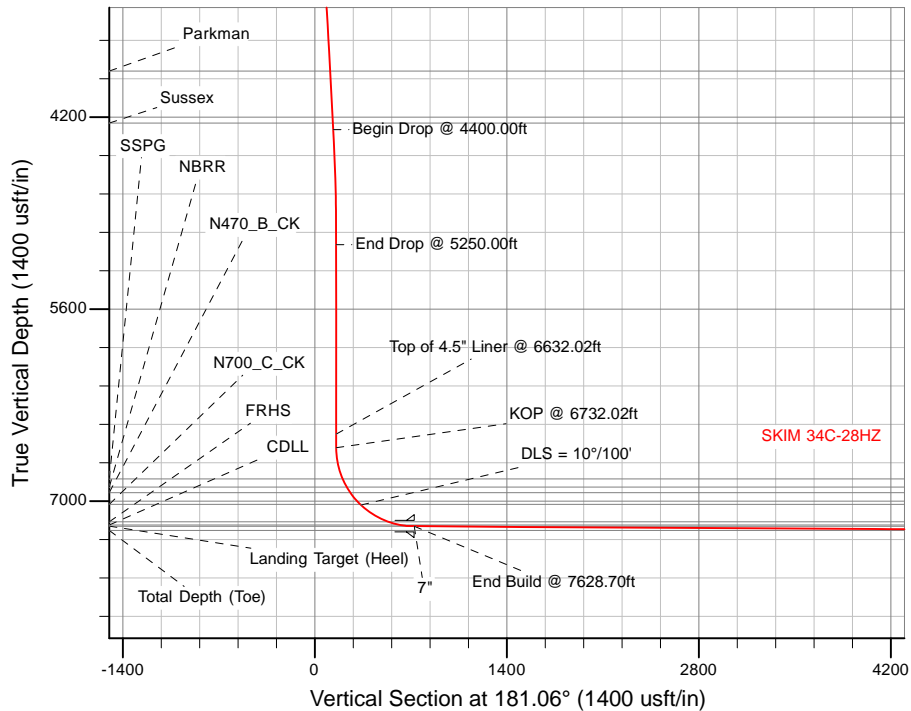


SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|---------|-------|--------|---------|-------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 1350.00 | 0.00 | 0.00 | 1350.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 2200.00 | 17.00 | 261.00 | 2187.58 | -19.58 | -123.64 | 2.00 | 261.00 | 21.87 | |
| 4 | 4400.00 | 17.00 | 261.00 | 4291.45 | -120.20 | -758.94 | 0.00 | 0.00 | 134.22 | |
| 5 | 5250.00 | 0.00 | 0.00 | 5129.03 | -139.79 | -882.57 | 2.00 | 180.00 | 156.09 | |
| 6 | 6732.02 | 0.00 | 0.00 | 6611.05 | -139.79 | -882.57 | 0.00 | 0.00 | 156.09 | |
| 7 | 7628.70 | 89.67 | 181.06 | 7184.00 | -709.32 | -893.15 | 10.00 | 181.06 | 725.72 | |
| 8 | 12802.18 | 89.67 | 181.06 | 7214.00 | -5881.83 | -989.21 | 0.00 | 0.00 | 5899.12 | SKIM 34C-28HZ_BHL |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Polygon |
|-------------------------|---------|----------|---------|-----------|-------------|---------|
| Sec. 28 and 21-T3N-R65W | -- | 0.00 | 0.00 | 40.205452 | -104.673609 | |
| SKIM 34C-28HZ_SHL | | 0.00 | 0.00 | 40.205452 | -104.673609 | Polygon |
| SKIM 34C-28HZ_BHL | 7214.00 | -5881.83 | -989.21 | 40.189300 | -104.677151 | |



| TVD | | MD | Notes |
|---------|---------|----|-------------------------------|
| 6511.06 | 6632.02 | | Top of 4.5" Liner @ 6632.02ft |
| 6611.06 | 6732.02 | | KOP @ 6732.02ft |

| WELL DETAILS: SKIM 34C-28HZ | |
|--|------------------|
| Ground Level: | 4847.00 |
| RKB = 17' @ 4864.00usft (D Rig) | |
| Plan: Rev A0 Permit (SKIM 34C-28HZ/Plan A) | |
| Created By: Clint Eshelman | Date: 10/11/2014 |
| Reviewed: | Date: |



Plan Report for SKIM 34C-28HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SKIM 34C-28HZ_SHL - Sec. 28 and 21-T3N-R65W | | | | | | | | | | |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 623.00 | 0.00 | 0.00 | 623.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Base Fox Hills | | | | | | | | | | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,136.00 | 0.00 | 0.00 | 1,136.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Surface Csg Setting Depth - 9 5/8" | | | | | | | | | | |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,350.00 | 0.00 | 0.00 | 1,350.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Nudge @ 1350.00ft | | | | | | | | | | |
| 1,400.00 | 1.00 | 261.00 | 1,400.00 | -0.07 | -0.43 | 0.08 | 2.00 | 2.00 | 0.00 | 261.00 |
| 1,500.00 | 3.00 | 261.00 | 1,499.93 | -0.61 | -3.88 | 0.69 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,600.00 | 5.00 | 261.00 | 1,599.68 | -1.71 | -10.77 | 1.90 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,700.00 | 7.00 | 261.00 | 1,699.13 | -3.34 | -21.09 | 3.73 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,800.00 | 9.00 | 261.00 | 1,798.15 | -5.52 | -34.84 | 6.16 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,900.00 | 11.00 | 261.00 | 1,896.63 | -8.23 | -51.99 | 9.19 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,000.00 | 13.00 | 261.00 | 1,994.44 | -11.49 | -72.52 | 12.83 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,100.00 | 15.00 | 261.00 | 2,091.46 | -15.27 | -96.41 | 17.05 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,200.00 | 17.00 | 261.00 | 2,187.58 | -19.58 | -123.64 | 21.87 | 2.00 | 2.00 | 0.00 | 0.00 |
| End Nudge @ 2200.00ft | | | | | | | | | | |
| 2,300.00 | 17.00 | 261.00 | 2,283.21 | -24.16 | -152.51 | 26.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 17.00 | 261.00 | 2,378.84 | -28.73 | -181.39 | 32.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 17.00 | 261.00 | 2,474.47 | -33.30 | -210.27 | 37.19 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 17.00 | 261.00 | 2,570.11 | -37.88 | -239.15 | 42.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 17.00 | 261.00 | 2,665.74 | -42.45 | -268.02 | 47.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 17.00 | 261.00 | 2,761.37 | -47.02 | -296.90 | 52.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 17.00 | 261.00 | 2,857.00 | -51.60 | -325.78 | 57.62 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 17.00 | 261.00 | 2,952.63 | -56.17 | -354.65 | 62.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 17.00 | 261.00 | 3,048.26 | -60.75 | -383.53 | 67.83 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 17.00 | 261.00 | 3,143.89 | -65.32 | -412.41 | 72.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 17.00 | 261.00 | 3,239.52 | -69.89 | -441.29 | 78.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 17.00 | 261.00 | 3,335.15 | -74.47 | -470.16 | 83.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 17.00 | 261.00 | 3,430.78 | -79.04 | -499.04 | 88.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 17.00 | 261.00 | 3,526.41 | -83.61 | -527.92 | 93.37 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 17.00 | 261.00 | 3,622.04 | -88.19 | -556.80 | 98.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 17.00 | 261.00 | 3,717.67 | -92.76 | -585.67 | 103.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 17.00 | 261.00 | 3,813.30 | -97.34 | -614.55 | 108.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,953.01 | 17.00 | 261.00 | 3,863.99 | -99.76 | -629.86 | 111.39 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | | |
| 4,000.00 | 17.00 | 261.00 | 3,908.93 | -101.91 | -643.43 | 113.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 17.00 | 261.00 | 4,004.56 | -106.48 | -672.30 | 118.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 17.00 | 261.00 | 4,100.19 | -111.06 | -701.18 | 124.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 17.00 | 261.00 | 4,195.82 | -115.63 | -730.06 | 129.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,350.37 | 17.00 | 261.00 | 4,243.99 | -117.93 | -744.60 | 131.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sussex | | | | | | | | | | |
| 4,400.00 | 17.00 | 261.00 | 4,291.45 | -120.20 | -758.94 | 134.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Drop @ 4400.00ft | | | | | | | | | | |



Plan Report for SKIM 34C-28HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 4,500.00 | 15.00 | 261.00 | 4,387.57 | -124.52 | -786.16 | 139.04 | 2.00 | -2.00 | 0.00 | 180.00 |
| 4,600.00 | 13.00 | 261.00 | 4,484.60 | -128.30 | -810.05 | 143.26 | 2.00 | -2.00 | 0.00 | 180.00 |
| 4,700.00 | 11.00 | 261.00 | 4,582.41 | -131.55 | -830.59 | 146.89 | 2.00 | -2.00 | 0.00 | 180.00 |
| 4,800.00 | 9.00 | 261.00 | 4,680.89 | -134.27 | -847.74 | 149.93 | 2.00 | -2.00 | 0.00 | 180.00 |
| 4,900.00 | 7.00 | 261.00 | 4,779.91 | -136.45 | -861.48 | 152.36 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,000.00 | 5.00 | 261.00 | 4,879.35 | -138.08 | -871.80 | 154.18 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,100.00 | 3.00 | 261.00 | 4,979.11 | -139.17 | -878.69 | 155.40 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,200.00 | 1.00 | 261.00 | 5,079.04 | -139.72 | -882.14 | 156.01 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,250.00 | 0.00 | 0.00 | 5,129.04 | -139.79 | -882.57 | 156.09 | 2.00 | -2.00 | 0.00 | 180.00 |
| End Drop @ 5250.00ft | | | | | | | | | | |
| 5,300.00 | 0.00 | 0.00 | 5,179.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,279.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,379.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,479.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,579.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,679.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,779.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,879.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 5,979.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,079.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,179.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,279.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,379.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,479.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,632.02 | 0.00 | 0.00 | 6,511.06 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| Top of 4.5" Liner @ 6632.02ft | | | | | | | | | | |
| 6,700.00 | 0.00 | 0.00 | 6,579.04 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,732.02 | 0.00 | 0.00 | 6,611.06 | -139.79 | -882.57 | 156.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| KOP @ 6732.02ft | | | | | | | | | | |
| 6,800.00 | 6.80 | 181.06 | 6,678.88 | -143.81 | -882.65 | 160.12 | 10.00 | 10.00 | 0.00 | 181.06 |
| 6,900.00 | 16.80 | 181.06 | 6,776.64 | -164.23 | -883.03 | 180.54 | 10.00 | 10.00 | 0.00 | 0.00 |
| 6,965.35 | 23.33 | 181.06 | 6,837.99 | -186.63 | -883.44 | 202.95 | 10.00 | 10.00 | 0.00 | 0.00 |
| SSPG | | | | | | | | | | |
| 7,000.00 | 26.80 | 181.06 | 6,869.37 | -201.31 | -883.71 | 217.62 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,032.54 | 30.05 | 181.06 | 6,897.99 | -216.80 | -884.00 | 233.11 | 10.00 | 10.00 | 0.00 | 0.00 |
| NBRR | | | | | | | | | | |
| 7,079.94 | 34.79 | 181.06 | 6,937.99 | -242.20 | -884.47 | 258.52 | 10.00 | 10.00 | 0.00 | 0.00 |
| N470_B_CK | | | | | | | | | | |
| 7,100.00 | 36.80 | 181.06 | 6,954.26 | -253.93 | -884.69 | 270.25 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,193.14 | 46.11 | 181.06 | 7,023.99 | -315.51 | -885.84 | 331.85 | 10.00 | 10.00 | 0.00 | 0.00 |
| N700_C_CK | | | | | | | | | | |
| 7,200.00 | 46.80 | 181.06 | 7,028.71 | -320.48 | -885.93 | 336.82 | 10.00 | 10.00 | 0.00 | 0.00 |
| DLS = 10°/100' | | | | | | | | | | |
| 7,300.00 | 56.80 | 181.06 | 7,090.48 | -398.95 | -887.38 | 415.30 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,400.00 | 66.80 | 181.06 | 7,137.67 | -486.96 | -889.02 | 503.32 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,436.53 | 70.45 | 181.06 | 7,150.99 | -520.96 | -889.65 | 537.33 | 10.00 | 10.00 | 0.00 | 0.00 |
| FRHS | | | | | | | | | | |
| 7,500.00 | 76.80 | 181.06 | 7,168.87 | -581.81 | -890.78 | 598.19 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,524.67 | 79.27 | 181.06 | 7,173.99 | -605.94 | -891.23 | 622.33 | 10.00 | 10.00 | 0.00 | 0.00 |
| CDLL | | | | | | | | | | |
| 7,600.00 | 86.80 | 181.06 | 7,183.12 | -680.65 | -892.62 | 697.05 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,628.70 | 89.67 | 181.06 | 7,184.00 | -709.33 | -893.15 | 725.73 | 10.00 | 10.00 | 0.00 | 0.00 |
| End Build @ 7628.70ft - Landing Target (Heel) - 7" | | | | | | | | | | |
| 7,700.00 | 89.67 | 181.06 | 7,184.42 | -780.61 | -894.47 | 797.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 89.67 | 181.06 | 7,185.00 | -880.60 | -896.33 | 897.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 89.67 | 181.06 | 7,185.58 | -980.58 | -898.19 | 997.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 89.67 | 181.06 | 7,186.16 | -1,080.56 | -900.04 | 1,097.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 89.67 | 181.06 | 7,186.74 | -1,180.54 | -901.90 | 1,197.02 | 0.00 | 0.00 | 0.00 | 0.00 |

Plan Report for SKIM 34C-28HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|----------------------------|
| 8,200.00 | 89.67 | 181.06 | 7,187.32 | -1,280.52 | -903.76 | 1,297.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 89.67 | 181.06 | 7,187.89 | -1,380.50 | -905.61 | 1,397.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 89.67 | 181.06 | 7,188.47 | -1,480.48 | -907.47 | 1,497.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 89.67 | 181.06 | 7,189.05 | -1,580.46 | -909.33 | 1,597.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 89.67 | 181.06 | 7,189.63 | -1,680.44 | -911.18 | 1,697.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 89.67 | 181.06 | 7,190.21 | -1,780.43 | -913.04 | 1,797.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 89.67 | 181.06 | 7,190.79 | -1,880.41 | -914.90 | 1,897.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 89.67 | 181.06 | 7,191.37 | -1,980.39 | -916.75 | 1,997.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 89.67 | 181.06 | 7,191.95 | -2,080.37 | -918.61 | 2,097.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 89.67 | 181.06 | 7,192.53 | -2,180.35 | -920.47 | 2,197.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 89.67 | 181.06 | 7,193.11 | -2,280.33 | -922.32 | 2,297.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 89.67 | 181.06 | 7,193.69 | -2,380.31 | -924.18 | 2,397.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 89.67 | 181.06 | 7,194.27 | -2,480.29 | -926.04 | 2,497.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 89.67 | 181.06 | 7,194.85 | -2,580.27 | -927.90 | 2,597.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 89.67 | 181.06 | 7,195.43 | -2,680.25 | -929.75 | 2,697.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 89.67 | 181.06 | 7,196.01 | -2,780.24 | -931.61 | 2,796.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 89.67 | 181.06 | 7,196.59 | -2,880.22 | -933.47 | 2,896.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 89.67 | 181.06 | 7,197.17 | -2,980.20 | -935.32 | 2,996.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 89.67 | 181.06 | 7,197.75 | -3,080.18 | -937.18 | 3,096.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 89.67 | 181.06 | 7,198.33 | -3,180.16 | -939.04 | 3,196.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 89.67 | 181.06 | 7,198.91 | -3,280.14 | -940.89 | 3,296.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 89.67 | 181.06 | 7,199.49 | -3,380.12 | -942.75 | 3,396.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 89.67 | 181.06 | 7,200.07 | -3,480.10 | -944.61 | 3,496.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 89.67 | 181.06 | 7,200.65 | -3,580.08 | -946.46 | 3,596.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 89.67 | 181.06 | 7,201.23 | -3,680.07 | -948.32 | 3,696.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 89.67 | 181.06 | 7,201.81 | -3,780.05 | -950.18 | 3,796.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 89.67 | 181.06 | 7,202.39 | -3,880.03 | -952.03 | 3,896.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 89.67 | 181.06 | 7,202.97 | -3,980.01 | -953.89 | 3,996.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 89.67 | 181.06 | 7,203.55 | -4,079.99 | -955.75 | 4,096.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 89.67 | 181.06 | 7,204.13 | -4,179.97 | -957.60 | 4,196.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 89.67 | 181.06 | 7,204.71 | -4,279.95 | -959.46 | 4,296.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 89.67 | 181.06 | 7,205.29 | -4,379.93 | -961.32 | 4,396.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 89.67 | 181.06 | 7,205.87 | -4,479.91 | -963.17 | 4,496.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 89.67 | 181.06 | 7,206.45 | -4,579.90 | -965.03 | 4,596.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 89.67 | 181.06 | 7,207.03 | -4,679.88 | -966.89 | 4,696.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 89.67 | 181.06 | 7,207.61 | -4,779.86 | -968.74 | 4,796.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 89.67 | 181.06 | 7,208.19 | -4,879.84 | -970.60 | 4,896.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 89.67 | 181.06 | 7,208.77 | -4,979.82 | -972.46 | 4,996.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 89.67 | 181.06 | 7,209.35 | -5,079.80 | -974.32 | 5,096.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 89.67 | 181.06 | 7,209.93 | -5,179.78 | -976.17 | 5,196.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 89.67 | 181.06 | 7,210.51 | -5,279.76 | -978.03 | 5,296.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 89.67 | 181.06 | 7,211.09 | -5,379.74 | -979.89 | 5,396.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 89.67 | 181.06 | 7,211.67 | -5,479.73 | -981.74 | 5,496.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 89.67 | 181.06 | 7,212.25 | -5,579.71 | -983.60 | 5,596.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 89.67 | 181.06 | 7,212.83 | -5,679.69 | -985.46 | 5,696.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.67 | 181.06 | 7,213.41 | -5,779.67 | -987.31 | 5,796.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.67 | 181.06 | 7,213.99 | -5,879.65 | -989.17 | 5,896.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,802.18 | 89.67 | 181.06 | 7,214.00 | -5,881.83 | -989.21 | 5,899.12 | 0.00 | 0.00 | 0.00 | 0.00 |

TD Well @ 12802.18ft - Total Depth (Toe) - SKIM 34C-28HZ_BHL

Plan Report for SKIM 34C-28HZ - Rev A0 Permit

Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 1,350.00 | 1,350.00 | 0.00 | 0.00 | Begin Nudge @ 1350.00ft |
| 2,200.00 | 2,187.58 | -19.58 | -123.64 | End Nudge @ 2200.00ft |
| 4,400.00 | 4,291.45 | -120.20 | -758.94 | Begin Drop @ 4400.00ft |
| 5,250.00 | 5,129.04 | -139.79 | -882.57 | End Drop @ 5250.00ft |
| 6,632.02 | 6,511.06 | -139.79 | -882.57 | Top of 4.5" Liner @ 6632.02ft |
| 6,732.02 | 6,611.06 | -139.79 | -882.57 | KOP @ 6732.02ft |
| 7,200.00 | 7,028.71 | -320.48 | -885.93 | DLS = 10°/100' |
| 7,628.70 | 7,184.00 | -709.33 | -893.15 | End Build @ 7628.70ft |
| 12,802.18 | 7,214.00 | -5,881.83 | -989.21 | TD Well @ 12802.18ft |

Vertical Section Information

| Angle Type | Target | Azimuth (°) | Origin Type | Origin | | Start TVD (usft) |
|------------|----------------------|-------------|-------------|--------------|--------------|------------------|
| | | | | +N/_S (usft) | +E/-W (usft) | |
| User | No Target (Freehand) | 181.06 | Slot | 0.00 | 0.00 | 0.00 |

Survey tool program

| From (usft) | To (usft) | Survey/Plan | Survey Tool |
|-------------|-----------|---------------|-------------|
| 0.00 | 7,628.70 | Rev A0 Permit | MWD+IFR1 |
| 7,628.70 | 12,802.18 | Rev A0 Permit | MWD+IFR1 |

Casing Details

| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
|-----------------------|-----------------------|--------|---------------------|-------------------|
| 1,136.00 | 1,136.00 | 9 5/8" | 9-5/8 | 13-1/2 |
| 7,628.70 | 7,184.00 | 7" | 7 | 8-3/4 |

Formation Details

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|-----------------------|-----------------------|---------------------------|-----------|---------|-------------------|
| 623.00 | 623.00 | Base Fox Hills | | 0.00 | |
| 1,136.00 | 1,136.00 | Surface Csg Setting Depth | | 0.00 | |
| 3,953.01 | 3,863.99 | Parkman | | 0.00 | |
| 4,350.37 | 4,243.99 | Sussex | | 0.00 | |
| 6,965.35 | 6,837.99 | SSPG | | 0.00 | |
| 7,032.54 | 6,897.99 | NBRR | | 0.00 | |
| 7,079.94 | 6,937.99 | N470_B_CK | | 0.00 | |
| 7,193.14 | 7,023.99 | N700_C_CK | | 0.00 | |
| 7,436.53 | 7,150.99 | FRHS | | 0.00 | |
| 7,524.67 | 7,173.99 | CDLL | | 0.00 | |
| 7,628.70 | 7,184.00 | Landing Target (Heel) | | 0.00 | |
| 12,802.18 | 7,214.00 | Total Depth (Toe) | | 0.00 | |

Plan Report for SKIM 34C-28HZ - Rev A0 Permit

Targets associated with this wellbore

| Target Name | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Shape |
|-------------------------|---------------|-----------------|-----------------|---------|
| SKIM 34C-28HZ_SHL | 0.00 | 0.00 | 0.00 | Point |
| Sec. 28 and 21-T3N-R65W | 0.00 | 0.00 | 0.00 | Polygon |
| SKIM 34C-28HZ_BHL | 7,214.00 | -5,881.83 | -989.21 | Point |

North Reference Sheet for Skim 35-21HZ Pad - SKIM 34C-28HZ - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference .
 Vertical Depths are relative to RKB = 17' @ 4864.00usft (D Rig). Northing and Easting are relative to SKIM 34C-28HZ
 Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum North American Datum 1983, ellipsoid
 Projection method is Transverse Mercator (Gauss-Kruger)
 Central Meridian is -105.00°, Longitude Origin:0.000000°, Latitude Origin:0.000000°
 False Easting: 1,640,416.67usft, False Northing: 0.00usft, Scale Reduction: 0.99960950

Grid Coordinates of Well: 14,601,715.74 usft N, 1,731,548.32 usft E
 Geographical Coordinates of Well: 40° 12' 19.63" N, 104° 40' 24.99" W
 Grid Convergence at Surface is: 0.21°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,802.18usft
 the Bottom Hole Displacement is 5,964.43usft in the Direction of 189.55° (True).

Magnetic Convergence at surface is: -8.14° (10 October 2014, , IGRF2010)

