

|      |                       |       |                           |           |                           |
|------|-----------------------|-------|---------------------------|-----------|---------------------------|
| WELL | Hittle Cattle 12-12H2 | FIELD | CO, Mesa Co. (NAD83UTM13) | STRUCTURE | Encana 01-10S-96W (PL1NW) |
|------|-----------------------|-------|---------------------------|-----------|---------------------------|

|                     |         |                 |                     |                            |                               |
|---------------------|---------|-----------------|---------------------|----------------------------|-------------------------------|
| Magnetic Parameters | Dip     | Date            | Surface Location    | NAD83 UTM Zone 13N US Feet | Miscellaneous                 |
| Model: BGGM 2011    | 65.496° | August 30, 2011 | Lat: N 39 13 25.129 | 1420888.36 NUS             | Slot: Hittle Cattle 12-12H2   |
| Mag Dec: 10.331°    |         | FS: S2040.3nT   | Lon: W 106 3 34.211 | Nothing: 773892 52 NUS     | Plan: R0 ors 30-Aug-11        |
|                     |         |                 |                     | Grid Conv: -1.93579136°    | TVD Ref: RKB(60315 above MSL) |
|                     |         |                 |                     | Scale Fact: 1.00045901     | Srvy Date: August 30, 2011    |

Surface Location

Nothing: 14258688.36 Easting: 773892.52

| Target Name              | Shape | Major Axis | N(+)S(-) | E(+)W(-) | TVD     | YSec    | N(+)S(-) | E(+)W(-) |
|--------------------------|-------|------------|----------|----------|---------|---------|----------|----------|
| Hittle Cattle 12-12H2 TD | Point | 0.00       | 39.20    | -108.06  | 7463.00 | 8344.08 | -8337.97 | -319.17  |

Quality Control

Date Drawn: September 09, 2011 12:59:09 PM

Drawn by: Current User

Checked by:

Client OK:

Proposal

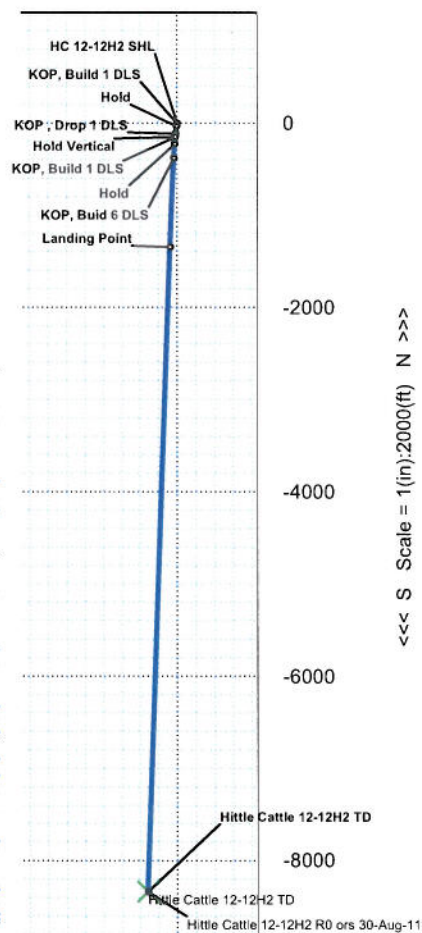
| Critical Point           | MD       | INCL  | AZIM   | TVD     | YSEC    | N(+)S(-) | E(+)W(-) | DLS  |
|--------------------------|----------|-------|--------|---------|---------|----------|----------|------|
| HIC 12-12H2 SHL          | 0.00     | 0.00  | 187.59 | 0.00    | 0.00    | 0.00     | 0.00     | 0.00 |
| Marker MudLine           | 22.00    | 0.00  | 187.59 | 22.00   | 0.00    | 0.00     | 0.00     | 0.00 |
| KOP, Build 1 DLS         | 400.00   | 0.00  | 187.59 | 400.00  | 0.00    | 0.00     | 0.00     | 0.00 |
| Hold                     | 1031.13  | 6.31  | 187.59 | 1029.86 | 34.57   | -34.42   | -4.59    | 1.00 |
| Ohio Creek (Top Km)      | 1214.39  | 6.31  | 187.59 | 1212.00 | 54.63   | -54.39   | -7.25    | 0.00 |
| Williams Fork Fm         | 1531.31  | 6.31  | 187.59 | 1527.00 | 89.31   | -88.92   | -11.86   | 0.00 |
| KOP, Drop 1 DLS          | 1775.93  | 6.31  | 187.59 | 1770.14 | 116.08  | -115.58  | -15.41   | 0.00 |
| Hold Vertical            | 2407.07  | 0.00  | 187.59 | 2400.00 | 150.66  | -150.00  | -20.00   | 1.00 |
| Top Gas                  | 3049.07  | 0.00  | 187.59 | 3042.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| Coal Ridge (Paludal)     | 3663.07  | 0.00  | 187.59 | 3656.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| Rollins Ss (Iles Fm)     | 3942.07  | 0.00  | 187.59 | 3935.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| Cozzette Ss              | 4228.07  | 0.00  | 187.59 | 4221.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| Corcoran Ss              | 4409.07  | 0.00  | 187.59 | 4402.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| KOP, Build 1 DLS         | 5007.07  | 0.00  | 187.59 | 5000.00 | 150.66  | -150.00  | -20.00   | 0.00 |
| Buck Tongue              | 5121.07  | 1.14  | 184.08 | 5114.00 | 151.79  | -151.13  | -20.08   | 1.00 |
| Castlegate               | 5646.39  | 6.39  | 184.08 | 5638.00 | 186.27  | -185.54  | -22.53   | 1.00 |
| Mancos B                 | 5913.85  | 9.07  | 184.08 | 5903.00 | 222.22  | -221.42  | -25.09   | 1.00 |
| Hold                     | 5952.82  | 9.46  | 184.08 | 5941.47 | 228.49  | -227.68  | -25.53   | 1.00 |
| Blue Gate                | 5972.62  | 9.46  | 184.08 | 5961.00 | 231.74  | -230.93  | -25.77   | 0.00 |
| Prairie Canyon           | 6273.72  | 9.46  | 184.08 | 6258.00 | 281.19  | -280.28  | -29.28   | 0.00 |
| KOP, Build 6 DLS         | 6872.31  | 9.46  | 184.08 | 6848.46 | 379.50  | -378.39  | -36.27   | 0.00 |
| Niobrara Fm              | 7269.88  | 33.31 | 182.53 | 7216.00 | 523.39  | -522.10  | -43.52   | 6.00 |
| Landing Point            | 8239.79  | 91.50 | 182.00 | 7646.24 | 1346.47 | -1344.59 | -74.96   | 6.00 |
| Horizontal Target        | Infinity |       |        | 7654.00 |         |          |          |      |
| Hittle Cattle 12-12H2 TD | 15239.79 | 91.50 | 182.00 | 7463.00 | 8344.03 | -8337.93 | -319.17  | 0.00 |



Grid North  
Tot Corr (M->G 12.2665°)  
Mag Dec (10.331°)  
Grid Conv (-1.93579136°)



<<< W Scale = 1(in):2000(ft) E >>>  
0



TVD Scale = 1(in):2000(ft)

<<< S Scale = 1(in):2000(ft) N >>>

Vertical Section (ft) Azim = 182.19°, Scale = 1(in):2000(ft) Origin = 0 N/-S, 0 E/-W





## Hittle Cattle 12-12H2 R0 ors 30-Aug-11 Proposal Report

(Def Plan)

**Report Date:** September 09, 2011 - 12:58 PM  
**Client:** EnCana Oil & Gas (USA) Inc.  
**Field:** CO, Mesa County (NAD 83 UTM 13) EnCana 2010  
**Structure / Slot:** Encana 01-10S-96W (PL1NW Pad) / Hittle Cattle 12-12H2  
**Well:** Hittle Cattle 12-12H2  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** Hittle Cattle 12-12H2 R0 ors 30-Aug-11  
**Survey Date:** August 30, 2011  
**Tort / AHD / DDI / ERD Ratio:** 104.129 ° / 8344.886 ft / 6.239 / 1.091  
**Coordinate Reference System:** NAD83 UTM Zone 13N, US Feet  
**Location Lat / Long:** N 39° 13' 25.12920", W 108° 3' 34.21082"  
**Location Grid N/E Y/X:** N 14258688.362 ftUS, E 773892.519 ftUS  
**CRS Grid Convergence Angle:** -1.93579136 °  
**Grid Scale Factor:** 1.00045901

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 182.192 ° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** RKB  
**TVD Reference Elevation:** 6031.000 ft above MSL  
**Seabed / Ground Elevation:** 6009.000 ft above MSL  
**Magnetic Declination:** 10.331 °  
**Total Field Strength:** 52040.324 nT  
**Magnetic Dip Angle:** 65.496 °  
**Declination Date:** August 30, 2011  
**Magnetic Declination Model:** BGM 2011  
**North Reference:** Grid North  
**Grid Convergence Used:** -1.936 °  
**Total Corr Mag North->Grid North:** 12.267 °  
**Local Coord Referenced To:** Well Head

| Comments                | MD<br>(ft) | Incl<br>(°) | Azim Grid<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|-------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
| HC 12-12H2 SHL          | 0.00       | 0.00        | 187.59           | 0.00        | 0.00         | 0.00       | 0.00       | N/A              | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
| Marker MudLine          | 22.00      | 0.00        | 187.59           | 22.00       | 0.00         | 0.00       | 0.00       | 0.00             | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
|                         | 100.00     | 0.00        | 187.59           | 100.00      | 0.00         | 0.00       | 0.00       | 0.00             | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
|                         | 200.00     | 0.00        | 187.59           | 200.00      | 0.00         | 0.00       | 0.00       | 0.00             | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
|                         | 300.00     | 0.00        | 187.59           | 300.00      | 0.00         | 0.00       | 0.00       | 0.00             | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
| KOP, Build 1 DLS        | 400.00     | 0.00        | 187.59           | 400.00      | 0.00         | 0.00       | 0.00       | 0.00             | 14258688.36        | 773892.52         | N 39 13 25.13           | W 108 3 34.21            |
|                         | 500.00     | 1.00        | 187.59           | 499.99      | 0.87         | -0.86      | -0.12      | 1.00             | 14258687.50        | 773892.40         | N 39 13 25.12           | W 108 3 34.21            |
|                         | 600.00     | 2.00        | 187.59           | 599.96      | 3.47         | -3.46      | -0.46      | 1.00             | 14258684.90        | 773892.06         | N 39 13 25.09           | W 108 3 34.22            |
|                         | 700.00     | 3.00        | 187.59           | 699.86      | 7.82         | -7.78      | -1.04      | 1.00             | 14258680.57        | 773891.48         | N 39 13 25.05           | W 108 3 34.22            |
|                         | 800.00     | 4.00        | 187.59           | 799.68      | 13.89        | -13.83     | -1.84      | 1.00             | 14258674.52        | 773890.67         | N 39 13 24.99           | W 108 3 34.23            |
|                         | 900.00     | 5.00        | 187.59           | 899.37      | 21.71        | -21.61     | -2.88      | 1.00             | 14258666.74        | 773889.64         | N 39 13 24.91           | W 108 3 34.24            |
|                         | 1000.00    | 6.00        | 187.59           | 998.90      | 31.25        | -31.11     | -4.15      | 1.00             | 14258657.24        | 773888.37         | N 39 13 24.82           | W 108 3 34.25            |
| Hold                    | 1031.13    | 6.31        | 187.59           | 1029.86     | 34.57        | -34.42     | -4.59      | 1.00             | 14258653.93        | 773887.93         | N 39 13 24.79           | W 108 3 34.25            |
|                         | 1100.00    | 6.31        | 187.59           | 1098.31     | 42.11        | -41.93     | -5.59      | 0.00             | 14258646.42        | 773886.93         | N 39 13 24.71           | W 108 3 34.26            |
|                         | 1200.00    | 6.31        | 187.59           | 1197.70     | 53.05        | -52.82     | -7.04      | 0.00             | 14258635.52        | 773885.47         | N 39 13 24.61           | W 108 3 34.28            |
| Ohio Creek (Top<br>Kmv) | 1214.39    | 6.31        | 187.59           | 1212.00     | 54.63        | -54.39     | -7.25      | 0.00             | 14258633.95        | 773885.26         | N 39 13 24.59           | W 108 3 34.28            |
|                         | 1300.00    | 6.31        | 187.59           | 1297.09     | 64.00        | -63.72     | -8.50      | 0.00             | 14258624.61        | 773884.02         | N 39 13 24.50           | W 108 3 34.29            |
|                         | 1400.00    | 6.31        | 187.59           | 1396.49     | 74.94        | -74.62     | -9.95      | 0.00             | 14258613.71        | 773882.57         | N 39 13 24.39           | W 108 3 34.31            |
|                         | 1500.00    | 6.31        | 187.59           | 1495.88     | 85.89        | -85.51     | -11.40     | 0.00             | 14258602.81        | 773881.11         | N 39 13 24.28           | W 108 3 34.32            |
| Williams Fork Fm        | 1531.31    | 6.31        | 187.59           | 1527.00     | 89.31        | -88.92     | -11.86     | 0.00             | 14258599.40        | 773880.66         | N 39 13 24.25           | W 108 3 34.32            |
|                         | 1600.00    | 6.31        | 187.59           | 1595.28     | 96.83        | -96.41     | -12.85     | 0.00             | 14258591.91        | 773879.66         | N 39 13 24.17           | W 108 3 34.33            |
|                         | 1700.00    | 6.31        | 187.59           | 1694.67     | 107.77       | -107.30    | -14.31     | 0.00             | 14258581.01        | 773878.21         | N 39 13 24.06           | W 108 3 34.35            |
| KOP, Drop 1 DLS         | 1775.93    | 6.31        | 187.59           | 1770.14     | 116.08       | -115.58    | -15.41     | 0.00             | 14258572.73        | 773877.10         | N 39 13 23.98           | W 108 3 34.36            |
|                         | 1800.00    | 6.07        | 187.59           | 1794.07     | 118.67       | -118.15    | -15.75     | 1.00             | 14258570.16        | 773876.76         | N 39 13 23.96           | W 108 3 34.36            |
|                         | 1900.00    | 5.07        | 187.59           | 1893.60     | 128.33       | -127.77    | -17.04     | 1.00             | 14258560.53        | 773875.47         | N 39 13 23.86           | W 108 3 34.37            |
|                         | 2000.00    | 4.07        | 187.59           | 1993.28     | 136.27       | -135.67    | -18.09     | 1.00             | 14258552.63        | 773874.42         | N 39 13 23.78           | W 108 3 34.38            |
|                         | 2100.00    | 3.07        | 187.59           | 2093.08     | 142.47       | -141.85    | -18.91     | 1.00             | 14258546.45        | 773873.60         | N 39 13 23.72           | W 108 3 34.39            |
|                         | 2200.00    | 2.07        | 187.59           | 2192.98     | 146.93       | -146.29    | -19.51     | 1.00             | 14258542.00        | 773873.00         | N 39 13 23.68           | W 108 3 34.40            |
|                         | 2300.00    | 1.07        | 187.59           | 2292.94     | 149.66       | -149.01    | -19.87     | 1.00             | 14258539.29        | 773872.64         | N 39 13 23.65           | W 108 3 34.40            |
| Hold Vertical           | 2400.00    | 0.07        | 187.59           | 2392.93     | 150.65       | -150.00    | -20.00     | 1.00             | 14258538.30        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2407.07    | 0.00        | 187.59           | 2400.00     | 150.66       | -150.00    | -20.00     | 1.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2500.00    | 0.00        | 187.59           | 2492.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2600.00    | 0.00        | 187.59           | 2592.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2700.00    | 0.00        | 187.59           | 2692.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2800.00    | 0.00        | 187.59           | 2792.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 2900.00    | 0.00        | 187.59           | 2892.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3000.00    | 0.00        | 187.59           | 2992.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| Top Gas                 | 3049.07    | 0.00        | 187.59           | 3042.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3100.00    | 0.00        | 187.59           | 3092.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3200.00    | 0.00        | 187.59           | 3192.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3300.00    | 0.00        | 187.59           | 3292.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3400.00    | 0.00        | 187.59           | 3392.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3500.00    | 0.00        | 187.59           | 3492.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3600.00    | 0.00        | 187.59           | 3592.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| Coal Ridge<br>(Paludal) | 3663.07    | 0.00        | 187.59           | 3656.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3700.00    | 0.00        | 187.59           | 3692.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3800.00    | 0.00        | 187.59           | 3792.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 3900.00    | 0.00        | 187.59           | 3892.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| Rollins Ss (Iles Fm)    | 3942.07    | 0.00        | 187.59           | 3935.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4000.00    | 0.00        | 187.59           | 3992.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4100.00    | 0.00        | 187.59           | 4092.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4200.00    | 0.00        | 187.59           | 4192.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| Cozzette Ss             | 4228.07    | 0.00        | 187.59           | 4221.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4300.00    | 0.00        | 187.59           | 4292.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4400.00    | 0.00        | 187.59           | 4392.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| Corcoran Ss             | 4409.07    | 0.00        | 187.59           | 4402.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4500.00    | 0.00        | 187.59           | 4492.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4600.00    | 0.00        | 187.59           | 4592.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4700.00    | 0.00        | 187.59           | 4692.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4800.00    | 0.00        | 187.59           | 4792.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 4900.00    | 0.00        | 187.59           | 4892.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 5000.00    | 0.00        | 187.59           | 4992.93     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
| KOP, Build 1 DLS        | 5007.07    | 0.00        | 187.59           | 5000.00     | 150.66       | -150.00    | -20.00     | 0.00             | 14258538.29        | 773872.51         | N 39 13 23.64           | W 108 3 34.40            |
|                         | 5100.00    | 0.93        | 184.08           | 5092.93     | 151.41       | -150.75    | -20.05     | 1.00             | 14258537.54        | 773872.46         | N 39 13 23.63           | W 108 3 34.40            |
| Buck Tongue             | 5121.07    | 1.14        | 184.08           | 5114.00     | 151.79       | -151.13    | -20.08     | 1.00             | 14258537.16        | 773872.43         | N 39 13 23.63           | W 108 3 34.40            |
|                         | 5200.00    | 1.93        | 184.08           | 5192.90     | 153.90       | -153.24    | -20.23     | 1.00             | 14258535.05        | 773872.28         | N 39 13 23.61           | W 108 3 34.40            |
|                         | 5300.00    | 2.93        | 184.08           | 5292.81     | 158.14       | -157.47    | -20.53     | 1.00             | 14258530.82        | 773871.98         | N 39 13 23.57           | W 108 3 34.40            |
|                         | 5400.00    | 3.93        | 184.08           | 5392.63     | 164.12       | -163.43    | -20.96     | 1.00             | 14258524.85        | 773871.55         | N 39 13 23.51           | W 108 3 34.41            |
|                         | 5500.00    | 4.93        | 184.08           | 5492.33     | 171.84       | -171.14    | -21.51     | 1.00             | 14258517.15        | 773871.00         | N 39 13 23.43           | W 108 3 34.41            |
|                         | 5600.00    | 5.93        | 184.08           | 5591.88     | 181.29       | -180.58    | -22.18     | 1.00             | 14258507.70        | 773               |                         |                          |

| Comments        | MD<br>(ft) | Incl<br>(°) | Azim Grid<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|-----------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
|                 | 6100.00    | 9.46        | 184.08           | 6086.65     | 252.66       | -251.80    | -27.25     | 0.00             | 1425846.44         | 773865.25         | N 39 13 22.63           | W 108 3 34.45            |
|                 | 6200.00    | 9.46        | 184.08           | 6185.29     | 269.09       | -268.19    | -28.42     | 0.00             | 1425840.04         | 773864.08         | N 39 13 22.47           | W 108 3 34.46            |
| Prairie Canyon  | 6273.72    | 9.46        | 184.08           | 6258.00     | 281.19       | -280.28    | -29.28     | 0.00             | 1425840.76         | 773863.22         | N 39 13 22.35           | W 108 3 34.46            |
|                 | 6300.00    | 9.46        | 184.08           | 6283.93     | 285.51       | -284.58    | -29.59     | 0.00             | 1425840.65         | 773862.92         | N 39 13 22.31           | W 108 3 34.46            |
|                 | 6400.00    | 9.46        | 184.08           | 6382.57     | 301.93       | -300.98    | -30.76     | 0.00             | 1425838.75         | 773861.75         | N 39 13 22.15           | W 108 3 34.47            |
|                 | 6500.00    | 9.46        | 184.08           | 6481.21     | 318.35       | -317.37    | -31.92     | 0.00             | 1425837.85         | 773860.58         | N 39 13 21.98           | W 108 3 34.48            |
|                 | 6600.00    | 9.46        | 184.08           | 6579.85     | 334.78       | -333.76    | -33.09     | 0.00             | 1425835.45         | 773859.41         | N 39 13 21.82           | W 108 3 34.49            |
|                 | 6700.00    | 9.46        | 184.08           | 6678.49     | 351.20       | -350.15    | -34.26     | 0.00             | 1425833.06         | 773858.24         | N 39 13 21.66           | W 108 3 34.50            |
|                 | 6800.00    | 9.46        | 184.08           | 6777.13     | 367.62       | -366.54    | -35.43     | 0.00             | 14258321.66        | 773857.07         | N 39 13 21.50           | W 108 3 34.50            |
| KOP, Buid 6 DLS | 6872.31    | 9.46        | 184.08           | 6848.46     | 379.50       | -378.39    | -36.27     | 0.00             | 14258309.80        | 773856.23         | N 39 13 21.38           | W 108 3 34.51            |
|                 | 6900.00    | 11.12       | 183.76           | 6875.70     | 384.44       | -383.32    | -36.61     | 6.00             | 14258304.87        | 773855.89         | N 39 13 21.33           | W 108 3 34.51            |
|                 | 7000.00    | 17.12       | 183.13           | 6972.64     | 408.81       | -407.66    | -38.05     | 6.00             | 14258280.52        | 773854.46         | N 39 13 21.09           | W 108 3 34.52            |
|                 | 7100.00    | 23.12       | 182.82           | 7066.49     | 443.19       | -441.99    | -39.81     | 6.00             | 14258246.17        | 773852.69         | N 39 13 20.75           | W 108 3 34.53            |
|                 | 7200.00    | 29.11       | 182.63           | 7156.25     | 487.18       | -485.93    | -41.90     | 6.00             | 14258202.20        | 773850.60         | N 39 13 20.32           | W 108 3 34.53            |
| Niobrara Fm     | 7269.88    | 33.37       | 182.53           | 7216.00     | 523.39       | -522.10    | -43.52     | 6.00             | 14258166.02        | 773848.98         | N 39 13 19.96           | W 108 3 34.54            |
|                 | 7300.00    | 35.11       | 182.50           | 7240.91     | 540.32       | -539.02    | -44.27     | 6.00             | 14258149.10        | 773848.23         | N 39 13 19.79           | W 108 3 34.54            |
|                 | 7400.00    | 41.11       | 182.40           | 7319.55     | 602.01       | -600.66    | -46.90     | 6.00             | 14258087.43        | 773845.60         | N 39 13 19.18           | W 108 3 34.55            |
|                 | 7500.00    | 47.11       | 182.33           | 7391.31     | 671.59       | -670.17    | -49.77     | 6.00             | 14258017.88        | 773842.73         | N 39 13 18.49           | W 108 3 34.56            |
|                 | 7600.00    | 53.11       | 182.27           | 7455.41     | 748.28       | -746.81    | -52.84     | 6.00             | 14257941.21        | 773839.65         | N 39 13 17.73           | W 108 3 34.56            |
|                 | 7700.00    | 59.11       | 182.21           | 7511.14     | 831.26       | -829.72    | -56.09     | 6.00             | 14257858.26        | 773836.41         | N 39 13 16.91           | W 108 3 34.57            |
|                 | 7800.00    | 65.11       | 182.17           | 7557.89     | 919.61       | -918.00    | -59.47     | 6.00             | 14257769.94        | 773833.03         | N 39 13 16.04           | W 108 3 34.57            |
|                 | 7900.00    | 71.11       | 182.13           | 7595.15     | 1012.36      | -1010.69   | -62.94     | 6.00             | 14257677.21        | 773829.55         | N 39 13 15.12           | W 108 3 34.58            |
|                 | 8000.00    | 77.11       | 182.09           | 7622.51     | 1108.49      | -1106.76   | -66.48     | 6.00             | 14257581.10        | 773826.01         | N 39 13 14.17           | W 108 3 34.58            |
|                 | 8100.00    | 83.11       | 182.05           | 7639.68     | 1206.96      | -1205.17   | -70.03     | 6.00             | 14257482.64        | 773822.46         | N 39 13 13.20           | W 108 3 34.58            |
|                 | 8200.00    | 89.11       | 182.01           | 7646.45     | 1306.69      | -1304.83   | -73.57     | 6.00             | 14257382.94        | 773818.92         | N 39 13 12.22           | W 108 3 34.59            |
| Landing Point   | 8239.79    | 91.50       | 182.00           | 7646.24     | 1346.47      | -1344.59   | -74.96     | 6.00             | 14257343.16        | 773817.52         | N 39 13 11.82           | W 108 3 34.59            |
|                 | 8300.00    | 91.50       | 182.00           | 7644.66     | 1406.66      | -1404.74   | -77.06     | 0.00             | 14257282.98        | 773815.42         | N 39 13 11.23           | W 108 3 34.59            |
|                 | 8400.00    | 91.50       | 182.00           | 7642.04     | 1506.63      | -1504.65   | -80.55     | 0.00             | 14257183.03        | 773811.93         | N 39 13 10.24           | W 108 3 34.59            |
|                 | 8500.00    | 91.50       | 182.00           | 7639.43     | 1606.59      | -1604.55   | -84.04     | 0.00             | 14257083.08        | 773808.44         | N 39 13 9.25            | W 108 3 34.59            |
|                 | 8600.00    | 91.50       | 182.00           | 7636.81     | 1706.56      | -1704.46   | -87.53     | 0.00             | 14256983.13        | 773804.95         | N 39 13 8.26            | W 108 3 34.59            |
|                 | 8700.00    | 91.50       | 182.00           | 7634.19     | 1806.52      | -1804.36   | -91.02     | 0.00             | 14256883.18        | 773801.46         | N 39 13 7.28            | W 108 3 34.59            |
|                 | 8800.00    | 91.50       | 182.00           | 7631.57     | 1906.49      | -1904.27   | -94.51     | 0.00             | 14256783.22        | 773797.97         | N 39 13 6.29            | W 108 3 34.59            |
|                 | 8900.00    | 91.50       | 182.00           | 7628.96     | 2006.45      | -2004.17   | -97.99     | 0.00             | 14256683.27        | 773794.48         | N 39 13 5.30            | W 108 3 34.60            |
|                 | 9000.00    | 91.50       | 182.00           | 7626.34     | 2106.42      | -2104.08   | -101.48    | 0.00             | 14256583.32        | 773790.99         | N 39 13 4.31            | W 108 3 34.60            |
|                 | 9100.00    | 91.50       | 182.00           | 7623.72     | 2206.38      | -2203.98   | -104.97    | 0.00             | 14256483.37        | 773787.50         | N 39 13 3.32            | W 108 3 34.60            |
|                 | 9200.00    | 91.50       | 182.00           | 7621.10     | 2306.35      | -2303.89   | -108.46    | 0.00             | 14256383.42        | 773784.01         | N 39 13 2.34            | W 108 3 34.60            |
|                 | 9300.00    | 91.50       | 182.00           | 7618.49     | 2406.31      | -2403.79   | -111.95    | 0.00             | 14256283.47        | 773780.52         | N 39 13 1.35            | W 108 3 34.60            |
|                 | 9400.00    | 91.50       | 182.00           | 7615.87     | 2506.28      | -2503.70   | -115.44    | 0.00             | 14256183.52        | 773777.03         | N 39 13 0.36            | W 108 3 34.60            |
|                 | 9500.00    | 91.50       | 182.00           | 7613.25     | 2606.24      | -2603.60   | -118.93    | 0.00             | 14256083.57        | 773773.54         | N 39 12 59.37           | W 108 3 34.60            |
|                 | 9600.00    | 91.50       | 182.00           | 7610.63     | 2706.21      | -2703.51   | -122.42    | 0.00             | 14255983.62        | 773770.05         | N 39 12 58.38           | W 108 3 34.61            |
|                 | 9700.00    | 91.50       | 182.00           | 7608.01     | 2806.17      | -2803.41   | -125.90    | 0.00             | 14255883.67        | 773766.56         | N 39 12 57.40           | W 108 3 34.61            |
|                 | 9800.00    | 91.50       | 182.00           | 7605.40     | 2906.14      | -2903.32   | -129.39    | 0.00             | 14255783.72        | 773763.07         | N 39 12 56.41           | W 108 3 34.61            |
|                 | 9900.00    | 91.50       | 182.00           | 7602.78     | 3006.10      | -3003.22   | -132.88    | 0.00             | 14255683.77        | 773759.58         | N 39 12 55.42           | W 108 3 34.61            |
|                 | 10000.00   | 91.50       | 182.00           | 7600.16     | 3106.07      | -3103.12   | -136.37    | 0.00             | 14255583.82        | 773756.09         | N 39 12 54.43           | W 108 3 34.61            |
|                 | 10100.00   | 91.50       | 182.00           | 7597.54     | 3206.04      | -3203.03   | -139.86    | 0.00             | 14255483.87        | 773752.60         | N 39 12 53.44           | W 108 3 34.61            |
|                 | 10200.00   | 91.50       | 182.00           | 7594.93     | 3306.00      | -3302.93   | -143.35    | 0.00             | 14255383.92        | 773749.11         | N 39 12 52.45           | W 108 3 34.61            |
|                 | 10300.00   | 91.50       | 182.00           | 7592.31     | 3405.97      | -3402.84   | -146.84    | 0.00             | 14255283.97        | 773745.62         | N 39 12 51.47           | W 108 3 34.62            |
|                 | 10400.00   | 91.50       | 182.00           | 7589.69     | 3505.93      | -3502.74   | -150.33    | 0.00             | 14255184.02        | 773742.13         | N 39 12 50.48           | W 108 3 34.62            |
|                 | 10500.00   | 91.50       | 182.00           | 7587.07     | 3605.90      | -3602.65   | -153.81    | 0.00             | 14255084.07        | 773738.63         | N 39 12 49.49           | W 108 3 34.62            |
|                 | 10600.00   | 91.50       | 182.00           | 7584.46     | 3705.86      | -3702.55   | -157.30    | 0.00             | 14254984.12        | 773735.14         | N 39 12 48.50           | W 108 3 34.62            |
|                 | 10700.00   | 91.50       | 182.00           | 7581.84     | 3805.83      | -3802.46   | -160.79    | 0.00             | 14254884.17        | 773731.65         | N 39 12 47.51           | W 108 3 34.62            |
|                 | 10800.00   | 91.50       | 182.00           | 7579.22     | 3905.79      | -3902.36   | -164.28    | 0.00             | 14254784.21        | 773728.16         | N 39 12 46.53           | W 108 3 34.62            |
|                 | 10900.00   | 91.50       | 182.00           | 7576.60     | 4005.76      | -4002.27   | -167.77    | 0.00             | 14254684.26        | 773724.67         | N 39 12 45.54           | W 108 3 34.62            |
|                 | 11000.00   | 91.50       | 182.00           | 7573.98     | 4105.72      | -4102.17   | -171.26    | 0.00             | 14254584.31        | 773721.18         | N 39 12 44.55           | W 108 3 34.63            |
|                 | 11100.00   | 91.50       | 182.00           | 7571.37     | 4205.69      | -4202.08   | -174.75    | 0.00             | 14254484.36        | 773717.69         | N 39 12 43.56           | W 108 3 34.63            |
|                 | 11200.00   | 91.50       | 182.00           | 7568.75     | 4305.65      | -4301.98   | -178.24    | 0.00             | 14254384.41        | 773714.20         | N 39 12 42.57           | W 108 3 34.63            |
|                 | 11300.00   | 91.50       | 182.00           | 7566.13     | 4405.62      | -4401.89   | -181.72    | 0.00             | 14254284.46        | 773710.71         | N 39 12 41.59           | W 108 3 34.63            |
|                 | 11400.00   | 91.50       | 182.00           | 7563.51     | 4505.58      | -4501.79   | -185.21    | 0.00             | 14254184.51        | 773707.22         | N 39 12 40.60           | W 108 3 34.63            |
|                 | 11500.00   | 91.50       | 182.00           | 7560.90     | 4605.55      | -4601.70   | -188.70    | 0.00             | 14254084.56        | 773703.73         | N 39 12 39.61           | W 108 3 34.63            |
|                 | 11600.00   | 91.50       | 182.00           | 7558.28     | 4705.51      | -4701.60   | -192.19    | 0.00             | 14253984.61        | 773700.24         | N 39 12 38.62           | W 108 3 34.63            |
|                 | 11700.00   | 91.50       | 182.00           | 7555.66     | 4805.48      | -4801.51   | -195.68    | 0.00             | 14253884.66        | 773696.75         | N 39 12 37.63           | W 108 3 34.64            |
|                 | 11800.00   | 91.50       | 182.00           | 7553.04     | 4905.44      | -4901.41   | -199.17    | 0.00             | 14253784.71        | 773693.26         | N 39 12 36.65           | W 108 3 34.64            |
|                 | 11900.00   | 91.50       | 182.00           | 7550.43     | 5005.41      | -5001.32   | -202.66    | 0.00             | 14253684.76        | 773689.77         | N 39 12 35.66           | W 108 3 34.64            |
|                 | 12000.00   | 91.50       | 182.00           | 7547.81     | 5105.37      | -5101.22   | -206.15    | 0.00             | 14253584.81        | 773686.28         | N 39 12 34.67           | W 108 3 34.64            |
|                 | 12100.00   | 91.50       | 182.00           | 7545.19     | 5205.34      | -5201.13   | -209.63    | 0.00             | 14253484.86        | 773682.79         | N 39 12 33.68           | W 108 3 34.64            |
|                 | 12200.00   | 91.50       | 182.00           | 7542.57     | 5305.30      | -5301.03   | -213.12    | 0.00             | 14253384.91        | 773679.30         | N 39 12 32.69           | W 108 3 34.64            |
|                 | 12300.00   | 91.50       | 182.00           | 7539.95     | 5405.27      | -5400.94   | -216.61    | 0.00             | 14253284.96        | 773675.81         | N 39 12 31.71           | W 108 3 34.64            |
|                 | 12400.00   | 91.50       | 182.00           | 7537.34     | 5505.23      | -5500.84   | -220.10    | 0.00             | 14253185.01        | 773672.32         | N 39 12 30.72           | W 108 3 34.65            |
|                 | 12500.00   | 91.50       | 182.00           | 7534.72     | 5605.20      | -5600.75   | -223.59    | 0.00             | 14253085.06        | 773668.83         | N 39 12 29.73           | W 108 3 34.65            |
|                 | 12600.00   | 91.50       | 182.00           | 7532.10     | 5705.16      | -5700.65   | -227.08    | 0.00             | 14252985.11        | 773665.34         | N 39 12 28.74           | W 108 3 34.65            |
|                 | 12700.00   | 91.50       | 182.00           | 7529.48     | 5805.13      | -5800.56   | -230.57    | 0.00             | 14252885.16        | 773661.85         | N 39 12 27.75           | W 108 3 34.65            |
|                 | 12800.00   | 91.50       | 182.00           | 7526.87     | 5905.09      | -5900.46   | -234.06    | 0.00             | 14252785.20        | 773658.36         | N 39 12 26.77           | W 108 3 34.65            |
|                 | 12900.00   | 91.50       | 182.00           | 7524.25     | 6005.06      | -6000.37   | -237.54    | 0.00             | 14252685.25        | 773654.87         | N 39 12 25.78           | W 108 3 34.65            |
|                 | 13000.00   | 91.50       | 182.00           | 7521.63     | 6105.03      | -6100.27   | -241.03    | 0.00             | 14252585.30        | 773651.38         | N 39 12 24.79           | W 108 3 34.65            |
|                 | 13100.00   | 91.50       | 182.00           | 7519.01     | 6204.99      | -6200.17   | -244.52    | 0.00             | 14252485.35        | 773647.89         | N 39 12 23.80           | W 108 3 34.66            |
|                 | 13200.00   | 91.50       |                  |             |              |            |            |                  |                    |                   |                         |                          |

