Job Number: DC 1-25 PRELIM
Company: SWEPI LP
Lease/Well: DAWSON CREEK 1-25
Location: 25-T6N-R88W
Rig Name:
RKB: 0.00 Ft
Vertical Datum:

State/Country:
Declination: 10.06°E
Grid: -1.11;US State Plane 1983
Project name: DAWSON CREEK 1-25-Project
Date/Time: 09-Jun-11 / 11:28
Well Name: DAWSON CREEK 1-25 Proposal REV0
North Reference: Grid North
Convergence: -1.1071°

**EXCEL Directional Technologies LLC**

***WinSURV3D SURVEY CALCULATIONS***
***Minimum Curvature Method***
***Vertical Section Plane 239.50°***
***Vertical Section Referenced to Wellhead***
***Local Coordinates Referenced to Structure Reference :***
***EW=2523194.68 Ft, NS=1411558.96 Ft***
***Direction referenced to Grid North -1.107° Convergence***

| Measured Depth Ft | Incl Angle Deg | Drift Direction Deg | True Vertical Depth | LOCALS N-S Ft | LOCALS E-W Ft | Vertical Section Ft | CLOSURE Distance Ft | CLOSURE Direction Deg | Dogleg Severity Deg/100 |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 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 |
| 300.00 | 0.00 | 0.00 | 300.00 | 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 |
| 500.00 | 0.00 | 0.00 | 500.00 | 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 |
| 700.00 | 0.00 | 0.00 | 700.00 | 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 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1000.00 | 0.00 | 0.00 | 1000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1100.00 | 0.00 | 0.00 | 1100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1200.00 | 0.00 | 0.00 | 1200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1300.00 | 0.00 | 0.00 | 1300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1400.00 | 0.00 | 0.00 | 1400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1500.00 | 0.00 | 0.00 | 1500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **10 3/4 Surface Casing @ 1600 Ft MD** | | | | | | | | | |
| 1600.00 | 0.00 | 0.00 | 1600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1700.00 | 0.00 | 0.00 | 1700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1800.00 | 0.00 | 0.00 | 1800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1900.00 | 0.00 | 0.00 | 1900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2000.00 | 0.00 | 0.00 | 2000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2100.00 | 0.00 | 0.00 | 2100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2200.00 | 0.00 | 0.00 | 2200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2300.00 | 0.00 | 0.00 | 2300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2400.00 | 0.00 | 0.00 | 2400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2500.00 | 0.00 | 0.00 | 2500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Measured Depth Ft | Incl Angle Deg | Drift Direction Deg | True Vertical Depth | LOCALS N-S Ft | LOCALS E-W Ft | Vertical Section Ft | CLOSURE Distance Ft | CLOSURE Direction Deg | Dogleg Severity Deg/100 |
|---|---|---|---|---|---|---|---|---|---|
| 2600.00 | 0.00 | 0.00 | 2600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2700.00 | 0.00 | 0.00 | 2700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2800.00 | 0.00 | 0.00 | 2800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2900.00 | 0.00 | 0.00 | 2900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3000.00 | 0.00 | 0.00 | 3000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **KOP: Begin Build @ 3100MD ,1.28°/ 100 Ft** | | | | | | | | | |
| 3100.00 | 0.00 | 0.00 | 3100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3130.00 | 0.39 | 239.50 | 3130.00 | -0.05 | -0.09 | 0.10 | 0.10 | 239.50 | 1.28 |
| 3160.00 | 0.77 | 239.50 | 3160.00 | -0.20 | -0.35 | 0.40 | 0.40 | 239.50 | 1.28 |
| 3190.00 | 1.16 | 239.50 | 3189.99 | -0.46 | -0.78 | 0.91 | 0.91 | 239.50 | 1.28 |
| 3220.00 | 1.54 | 239.50 | 3219.99 | -0.82 | -1.39 | 1.61 | 1.61 | 239.50 | 1.28 |
| 3250.00 | 1.93 | 239.50 | 3249.97 | -1.28 | -2.17 | 2.52 | 2.52 | 239.50 | 1.28 |
| 3280.00 | 2.31 | 239.50 | 3279.95 | -1.84 | -3.13 | 3.63 | 3.63 | 239.50 | 1.28 |
| 3310.00 | 2.70 | 239.50 | 3309.92 | -2.51 | -4.25 | 4.94 | 4.94 | 239.50 | 1.28 |
| 3340.00 | 3.08 | 239.50 | 3339.88 | -3.27 | -5.56 | 6.45 | 6.45 | 239.50 | 1.28 |
| 3370.00 | 3.47 | 239.50 | 3369.84 | -4.14 | -7.03 | 8.16 | 8.16 | 239.50 | 1.28 |
| 3400.00 | 3.85 | 239.50 | 3399.77 | -5.11 | -8.68 | 10.08 | 10.08 | 239.50 | 1.28 |
| 3430.00 | 4.24 | 239.50 | 3429.70 | -6.19 | -10.50 | 12.19 | 12.19 | 239.50 | 1.28 |
| 3460.00 | 4.62 | 239.50 | 3459.61 | -7.36 | -12.50 | 14.51 | 14.51 | 239.50 | 1.28 |
| 3490.00 | 5.01 | 239.50 | 3489.50 | -8.64 | -14.67 | 17.02 | 17.02 | 239.50 | 1.28 |
| 3520.00 | 5.39 | 239.50 | 3519.38 | -10.02 | -17.01 | 19.74 | 19.74 | 239.50 | 1.28 |
| 3550.00 | 5.78 | 239.50 | 3549.24 | -11.50 | -19.53 | 22.66 | 22.66 | 239.50 | 1.28 |
| 3580.00 | 6.16 | 239.50 | 3579.08 | -13.08 | -22.21 | 25.78 | 25.78 | 239.50 | 1.28 |
| 3610.00 | 6.55 | 239.50 | 3608.89 | -14.77 | -25.07 | 29.10 | 29.10 | 239.50 | 1.28 |
| 3640.00 | 6.93 | 239.50 | 3638.68 | -16.56 | -28.11 | 32.62 | 32.62 | 239.50 | 1.28 |
| 3670.00 | 7.32 | 239.50 | 3668.45 | -18.44 | -31.31 | 36.34 | 36.34 | 239.50 | 1.28 |
| 3700.00 | 7.70 | 239.50 | 3698.20 | -20.43 | -34.69 | 40.26 | 40.26 | 239.50 | 1.28 |
| 3730.00 | 8.09 | 239.50 | 3727.91 | -22.52 | -38.24 | 44.38 | 44.38 | 239.50 | 1.28 |
| 3760.00 | 8.47 | 239.50 | 3757.60 | -24.72 | -41.96 | 48.70 | 48.70 | 239.50 | 1.28 |
| 3790.00 | 8.86 | 239.50 | 3787.26 | -27.01 | -45.85 | 53.22 | 53.22 | 239.50 | 1.28 |
| 3820.00 | 9.24 | 239.50 | 3816.88 | -29.41 | -49.92 | 57.94 | 57.94 | 239.50 | 1.28 |
| 3850.00 | 9.63 | 239.50 | 3846.48 | -31.90 | -54.16 | 62.85 | 62.85 | 239.50 | 1.28 |
| 3880.00 | 10.01 | 239.50 | 3876.04 | -34.50 | -58.56 | 67.97 | 67.97 | 239.50 | 1.28 |
| 3910.00 | 10.40 | 239.50 | 3905.56 | -37.19 | -63.14 | 73.28 | 73.28 | 239.50 | 1.28 |
| 3940.00 | 10.78 | 239.50 | 3935.05 | -39.99 | -67.89 | 78.79 | 78.79 | 239.50 | 1.28 |
| 3970.00 | 11.17 | 239.50 | 3964.50 | -42.89 | -72.81 | 84.51 | 84.51 | 239.50 | 1.28 |
| 4000.00 | 11.55 | 239.50 | 3993.92 | -45.89 | -77.90 | 90.41 | 90.41 | 239.50 | 1.28 |
| 4030.00 | 11.94 | 239.50 | 4023.29 | -48.99 | -83.16 | 96.52 | 96.52 | 239.50 | 1.28 |
| 4060.00 | 12.32 | 239.50 | 4052.62 | -52.19 | -88.59 | 102.82 | 102.82 | 239.50 | 1.28 |
| 4090.00 | 12.71 | 239.50 | 4081.91 | -55.49 | -94.19 | 109.32 | 109.32 | 239.50 | 1.28 |
| 4120.00 | 13.09 | 239.50 | 4111.15 | -58.89 | -99.97 | 116.02 | 116.02 | 239.50 | 1.28 |
| 4150.00 | 13.48 | 239.50 | 4140.35 | -62.38 | -105.90 | 122.91 | 122.91 | 239.50 | 1.28 |
| 4180.00 | 13.86 | 239.50 | 4169.50 | -65.98 | -112.01 | 130.00 | 130.00 | 239.50 | 1.28 |
| 4210.00 | 14.25 | 239.50 | 4198.60 | -69.68 | -118.29 | 137.29 | 137.29 | 239.50 | 1.28 |
| 4240.00 | 14.63 | 239.50 | 4227.65 | -73.48 | -124.73 | 144.77 | 144.77 | 239.50 | 1.28 |
| 4270.00 | 15.02 | 239.50 | 4256.65 | -77.37 | -131.35 | 152.44 | 152.44 | 239.50 | 1.28 |
| 4300.00 | 15.40 | 239.50 | 4285.60 | -81.37 | -138.13 | 160.31 | 160.31 | 239.50 | 1.28 |
| 4330.00 | 15.79 | 239.50 | 4314.50 | -85.46 | -145.08 | 168.38 | 168.38 | 239.50 | 1.28 |
| 4360.00 | 16.17 | 239.50 | 4343.34 | -89.65 | -152.19 | 176.64 | 176.64 | 239.50 | 1.28 |
| 4390.00 | 16.56 | 239.50 | 4372.12 | -93.94 | -159.48 | 185.09 | 185.09 | 239.50 | 1.28 |

| Measured Depth Ft | Incl Angle Deg | Drift Direction Deg | True Vertical Depth | LOCALS N-S Ft | LOCALS E-W Ft | Vertical Section Ft | CLOSURE Distance Ft | CLOSURE Direction Deg | Dogleg Severity Deg/100 |
|---|---|---|---|---|---|---|---|---|---|
| 4420.00 | 16.94 | 239.50 | 4400.85 | -98.33 | -166.92 | 193.73 | 193.73 | 239.50 | 1.28 |
| 4450.00 | 17.33 | 239.50 | 4429.52 | -102.81 | -174.54 | 202.57 | 202.57 | 239.50 | 1.28 |
| 4480.00 | 17.71 | 239.50 | 4458.13 | -107.40 | -182.32 | 211.60 | 211.60 | 239.50 | 1.28 |
| 4510.00 | 18.10 | 239.50 | 4486.67 | -112.08 | -190.27 | 220.82 | 220.82 | 239.50 | 1.28 |
| 4540.00 | 18.48 | 239.50 | 4515.16 | -116.86 | -198.38 | 230.24 | 230.24 | 239.50 | 1.28 |
| 4570.00 | 18.87 | 239.50 | 4543.58 | -121.73 | -206.65 | 239.84 | 239.84 | 239.50 | 1.28 |
| 4600.00 | 19.25 | 239.50 | 4571.93 | -126.70 | -215.10 | 249.64 | 249.64 | 239.50 | 1.28 |
| 4630.00 | 19.64 | 239.50 | 4600.22 | -131.77 | -223.70 | 259.63 | 259.63 | 239.50 | 1.28 |
| 4660.00 | 20.02 | 239.50 | 4628.44 | -136.94 | -232.47 | 269.80 | 269.80 | 239.50 | 1.28 |
| 4690.00 | 20.41 | 239.50 | 4656.60 | -142.20 | -241.40 | 280.17 | 280.17 | 239.50 | 1.28 |
| 4720.00 | 20.79 | 239.50 | 4684.68 | -147.56 | -250.49 | 290.72 | 290.72 | 239.50 | 1.28 |
| 4750.00 | 21.18 | 239.50 | 4712.69 | -153.01 | -259.75 | 301.47 | 301.47 | 239.50 | 1.28 |
| 4780.00 | 21.56 | 239.50 | 4740.63 | -158.56 | -269.17 | 312.40 | 312.40 | 239.50 | 1.28 |
| 4810.00 | 21.95 | 239.50 | 4768.49 | -164.20 | -278.75 | 323.52 | 323.52 | 239.50 | 1.28 |
| 4840.00 | 22.33 | 239.50 | 4796.28 | -169.94 | -288.49 | 334.82 | 334.82 | 239.50 | 1.28 |
| 4870.00 | 22.72 | 239.50 | 4823.99 | -175.77 | -298.39 | 346.31 | 346.31 | 239.50 | 1.28 |
| 4900.00 | 23.10 | 239.50 | 4851.62 | -181.70 | -308.45 | 357.99 | 357.99 | 239.50 | 1.28 |
| 4930.00 | 23.49 | 239.50 | 4879.18 | -187.72 | -318.68 | 369.86 | 369.86 | 239.50 | 1.28 |
| 4960.00 | 23.87 | 239.50 | 4906.65 | -193.84 | -329.06 | 381.90 | 381.90 | 239.50 | 1.28 |
| 4990.00 | 24.26 | 239.50 | 4934.04 | -200.04 | -339.60 | 394.14 | 394.14 | 239.50 | 1.28 |
| 5020.00 | 24.64 | 239.50 | 4961.35 | -206.35 | -350.30 | 406.55 | 406.55 | 239.50 | 1.28 |
| 5050.00 | 25.03 | 239.50 | 4988.58 | -212.74 | -361.15 | 419.15 | 419.15 | 239.50 | 1.28 |
| 5080.00 | 25.41 | 239.50 | 5015.72 | -219.23 | -372.17 | 431.94 | 431.94 | 239.50 | 1.28 |
| 5110.00 | 25.80 | 239.50 | 5042.77 | -225.81 | -383.34 | 444.90 | 444.90 | 239.50 | 1.28 |
| 5140.00 | 26.18 | 239.50 | 5069.74 | -232.48 | -394.66 | 458.05 | 458.05 | 239.50 | 1.28 |
| 5170.00 | 26.57 | 239.50 | 5096.62 | -239.25 | -406.15 | 471.37 | 471.37 | 239.50 | 1.28 |
| 5200.00 | 26.95 | 239.50 | 5123.40 | -246.10 | -417.79 | 484.88 | 484.88 | 239.50 | 1.28 |
| 5230.00 | 27.34 | 239.50 | 5150.10 | -253.05 | -429.58 | 498.57 | 498.57 | 239.50 | 1.28 |
| 5260.00 | 27.72 | 239.50 | 5176.70 | -260.09 | -441.53 | 512.44 | 512.44 | 239.50 | 1.28 |
| 5290.00 | 28.11 | 239.50 | 5203.21 | -267.22 | -453.63 | 526.48 | 526.48 | 239.50 | 1.28 |
| 5320.00 | 28.49 | 239.50 | 5229.63 | -274.43 | -465.88 | 540.70 | 540.70 | 239.50 | 1.28 |
| 5350.00 | 28.88 | 239.50 | 5255.95 | -281.74 | -478.29 | 555.10 | 555.10 | 239.50 | 1.28 |
| 5380.00 | 29.26 | 239.50 | 5282.17 | -289.14 | -490.85 | 569.68 | 569.68 | 239.50 | 1.28 |
| 5410.00 | 29.65 | 239.50 | 5308.29 | -296.63 | -503.56 | 584.43 | 584.43 | 239.50 | 1.28 |
| 5440.00 | 30.03 | 239.50 | 5334.31 | -304.20 | -516.42 | 599.36 | 599.36 | 239.50 | 1.28 |
| 5470.00 | 30.42 | 239.50 | 5360.23 | -311.87 | -529.43 | 614.46 | 614.46 | 239.50 | 1.28 |
| 5500.00 | 30.80 | 239.50 | 5386.05 | -319.62 | -542.59 | 629.74 | 629.74 | 239.50 | 1.28 |
| 5530.00 | 31.19 | 239.50 | 5411.77 | -327.46 | -555.90 | 645.18 | 645.18 | 239.50 | 1.28 |
| 5560.00 | 31.57 | 239.50 | 5437.38 | -335.39 | -569.36 | 660.81 | 660.81 | 239.50 | 1.28 |
| 5590.00 | 31.96 | 239.50 | 5462.89 | -343.41 | -582.97 | 676.60 | 676.60 | 239.50 | 1.28 |
| 5620.00 | 32.34 | 239.50 | 5488.29 | -351.51 | -596.73 | 692.56 | 692.56 | 239.50 | 1.28 |
| 5650.00 | 32.73 | 239.50 | 5513.58 | -359.70 | -610.63 | 708.70 | 708.70 | 239.50 | 1.28 |
| 5680.00 | 33.11 | 239.50 | 5538.76 | -367.97 | -624.68 | 725.00 | 725.00 | 239.50 | 1.28 |
| 5710.00 | 33.50 | 239.50 | 5563.83 | -376.34 | -638.87 | 741.47 | 741.47 | 239.50 | 1.28 |
| 5740.00 | 33.88 | 239.50 | 5588.80 | -384.78 | -653.21 | 758.11 | 758.11 | 239.50 | 1.28 |
| 5770.00 | 34.27 | 239.50 | 5613.64 | -393.31 | -667.69 | 774.92 | 774.92 | 239.50 | 1.28 |
| 5800.00 | 34.65 | 239.50 | 5638.38 | -401.93 | -682.32 | 791.90 | 791.90 | 239.50 | 1.28 |
| 5830.00 | 35.04 | 239.50 | 5663.00 | -410.63 | -697.09 | 809.04 | 809.04 | 239.50 | 1.28 |
| 5860.00 | 35.42 | 239.50 | 5687.51 | -419.41 | -712.00 | 826.34 | 826.34 | 239.50 | 1.28 |
| 5890.00 | 35.81 | 239.50 | 5711.89 | -428.28 | -727.05 | 843.82 | 843.82 | 239.50 | 1.28 |

| Measured Depth Ft | Incl Angle Deg | Drift Direction Deg | True Vertical Depth | LOCALS N-S Ft | LOCALS E-W Ft | Vertical Section Ft | CLOSURE Distance Ft | CLOSURE Direction Deg | Dogleg Severity Deg/100 |
|---|---|---|---|---|---|---|---|---|---|
| 5920.00 | 36.19 | 239.50 | 5736.16 | -437.23 | -742.24 | 861.45 | 861.45 | 239.50 | 1.28 |
| 5950.00 | 36.58 | 239.50 | 5760.32 | -446.26 | -757.58 | 879.25 | 879.25 | 239.50 | 1.28 |
| 5980.00 | 36.96 | 239.50 | 5784.35 | -455.38 | -773.05 | 897.20 | 897.20 | 239.50 | 1.28 |
| **7 5/8 Intermed Casing @ 6000 Ft MD** | | | | | | | | | |
| 6000.00 | 37.22 | 239.50 | 5800.30 | -461.50 | -783.44 | 909.27 | 909.27 | 239.50 | 1.28 |
| 6010.00 | 37.35 | 239.50 | 5808.26 | -464.57 | -788.66 | 915.32 | 915.32 | 239.50 | 1.28 |
| 6040.00 | 37.73 | 239.50 | 5832.04 | -473.85 | -804.41 | 933.60 | 933.60 | 239.50 | 1.28 |
| 6070.00 | 38.12 | 239.50 | 5855.71 | -483.21 | -820.30 | 952.04 | 952.04 | 239.50 | 1.28 |
| 6100.00 | 38.50 | 239.50 | 5879.25 | -492.65 | -836.32 | 970.64 | 970.64 | 239.50 | 1.28 |
| 6130.00 | 38.89 | 239.50 | 5902.66 | -502.17 | -852.48 | 989.39 | 989.39 | 239.50 | 1.28 |
| 6160.00 | 39.27 | 239.50 | 5925.95 | -511.77 | -868.78 | 1008.31 | 1008.31 | 239.50 | 1.28 |
| 6190.00 | 39.66 | 239.50 | 5949.11 | -521.44 | -885.21 | 1027.38 | 1027.38 | 239.50 | 1.28 |
| 6220.00 | 40.04 | 239.50 | 5972.14 | -531.20 | -901.77 | 1046.60 | 1046.60 | 239.50 | 1.28 |
| 6250.00 | 40.43 | 239.50 | 5995.04 | -541.04 | -918.47 | 1065.98 | 1065.98 | 239.50 | 1.28 |
| 6280.00 | 40.81 | 239.50 | 6017.82 | -550.95 | -935.30 | 1085.51 | 1085.51 | 239.50 | 1.28 |
| 6310.00 | 41.20 | 239.50 | 6040.45 | -560.94 | -952.26 | 1105.19 | 1105.19 | 239.50 | 1.28 |
| 6340.00 | 41.58 | 239.50 | 6062.96 | -571.01 | -969.35 | 1125.03 | 1125.03 | 239.50 | 1.28 |
| 6370.00 | 41.97 | 239.50 | 6085.33 | -581.15 | -986.57 | 1145.01 | 1145.01 | 239.50 | 1.28 |
| 6400.00 | 42.35 | 239.50 | 6107.57 | -591.37 | -1003.92 | 1165.15 | 1165.15 | 239.50 | 1.28 |
| 6430.00 | 42.74 | 239.50 | 6129.67 | -601.67 | -1021.40 | 1185.44 | 1185.44 | 239.50 | 1.28 |
| 6460.00 | 43.12 | 239.50 | 6151.64 | -612.04 | -1039.00 | 1205.87 | 1205.87 | 239.50 | 1.28 |
| 6490.00 | 43.51 | 239.50 | 6173.47 | -622.48 | -1056.74 | 1226.45 | 1226.45 | 239.50 | 1.28 |
| 6520.00 | 43.89 | 239.50 | 6195.16 | -633.00 | -1074.60 | 1247.18 | 1247.18 | 239.50 | 1.28 |
| 6550.00 | 44.28 | 239.50 | 6216.70 | -643.60 | -1092.58 | 1268.05 | 1268.05 | 239.50 | 1.28 |
| 6580.00 | 44.66 | 239.50 | 6238.11 | -654.27 | -1110.69 | 1289.07 | 1289.07 | 239.50 | 1.28 |
| 6610.00 | 45.05 | 239.50 | 6259.38 | -665.00 | -1128.92 | 1310.22 | 1310.22 | 239.50 | 1.28 |
| 6640.00 | 45.43 | 239.50 | 6280.50 | -675.82 | -1147.27 | 1331.53 | 1331.53 | 239.50 | 1.28 |
| 6670.00 | 45.82 | 239.50 | 6301.48 | -686.70 | -1165.75 | 1352.97 | 1352.97 | 239.50 | 1.28 |
| 6700.00 | 46.20 | 239.50 | 6322.32 | -697.66 | -1184.35 | 1374.56 | 1374.56 | 239.50 | 1.28 |
| 6730.00 | 46.59 | 239.50 | 6343.01 | -708.68 | -1203.06 | 1396.28 | 1396.28 | 239.50 | 1.28 |
| 6760.00 | 46.97 | 239.50 | 6363.55 | -719.78 | -1221.90 | 1418.14 | 1418.14 | 239.50 | 1.28 |
| 6790.00 | 47.36 | 239.50 | 6383.95 | -730.94 | -1240.86 | 1440.14 | 1440.14 | 239.50 | 1.28 |
| 6820.00 | 47.74 | 239.50 | 6404.20 | -742.18 | -1259.93 | 1462.28 | 1462.28 | 239.50 | 1.28 |
| 6850.00 | 48.13 | 239.50 | 6424.29 | -753.48 | -1279.12 | 1484.55 | 1484.55 | 239.50 | 1.28 |
| 6880.00 | 48.51 | 239.50 | 6444.24 | -764.86 | -1298.43 | 1506.96 | 1506.96 | 239.50 | 1.28 |
| 6910.00 | 48.90 | 239.50 | 6464.04 | -776.30 | -1317.85 | 1529.50 | 1529.50 | 239.50 | 1.28 |
| 6940.00 | 49.28 | 239.50 | 6483.69 | -787.80 | -1337.38 | 1552.17 | 1552.17 | 239.50 | 1.28 |
| 6970.00 | 49.67 | 239.50 | 6503.18 | -799.38 | -1357.03 | 1574.97 | 1574.97 | 239.50 | 1.28 |
| 7000.00 | 50.05 | 239.50 | 6522.52 | -811.02 | -1376.79 | 1597.91 | 1597.91 | 239.50 | 1.28 |
| 7030.00 | 50.44 | 239.50 | 6541.70 | -822.72 | -1396.66 | 1620.97 | 1620.97 | 239.50 | 1.28 |
| 7060.00 | 50.82 | 239.50 | 6560.73 | -834.50 | -1416.65 | 1644.16 | 1644.16 | 239.50 | 1.28 |
| 7090.00 | 51.21 | 239.50 | 6579.60 | -846.33 | -1436.74 | 1667.48 | 1667.48 | 239.50 | 1.28 |
| 7120.00 | 51.59 | 239.50 | 6598.32 | -858.23 | -1456.94 | 1690.93 | 1690.93 | 239.50 | 1.28 |
| 7150.00 | 51.98 | 239.50 | 6616.88 | -870.20 | -1477.25 | 1714.50 | 1714.50 | 239.50 | 1.28 |
| 7180.00 | 52.36 | 239.50 | 6635.28 | -882.22 | -1497.67 | 1738.20 | 1738.20 | 239.50 | 1.28 |
| 7210.00 | 52.75 | 239.50 | 6653.52 | -894.31 | -1518.19 | 1762.01 | 1762.01 | 239.50 | 1.28 |
| 7240.00 | 53.13 | 239.50 | 6671.60 | -906.46 | -1538.82 | 1785.96 | 1785.96 | 239.50 | 1.28 |
| 7270.00 | 53.52 | 239.50 | 6689.51 | -918.67 | -1559.55 | 1810.02 | 1810.02 | 239.50 | 1.28 |
| 7300.00 | 53.90 | 239.50 | 6707.27 | -930.95 | -1580.39 | 1834.20 | 1834.20 | 239.50 | 1.28 |
| 7330.00 | 54.29 | 239.50 | 6724.86 | -943.28 | -1601.32 | 1858.50 | 1858.50 | 239.50 | 1.28 |

| Measured Depth Ft | Incl Angle Deg | Drift Direction Deg | True Vertical Depth | LOCALS N-S Ft | LOCALS E-W Ft | Vertical Section Ft | CLOSURE Distance Ft | CLOSURE Direction Deg | Dogleg Severity Deg/100 |
|---|---|---|---|---|---|---|---|---|---|
| 7360.00 | 54.67 | 239.50 | 6742.29 | -955.67 | -1622.36 | 1882.92 | 1882.92 | 239.50 | 1.28 |
| 7390.00 | 55.06 | 239.50 | 6759.55 | -968.13 | -1643.50 | 1907.45 | 1907.45 | 239.50 | 1.28 |
| 7420.00 | 55.44 | 239.50 | 6776.65 | -980.64 | -1664.74 | 1932.10 | 1932.10 | 239.50 | 1.28 |
| 7450.00 | 55.83 | 239.50 | 6793.59 | -993.21 | -1686.08 | 1956.86 | 1956.86 | 239.50 | 1.28 |
| 7480.00 | 56.21 | 239.50 | 6810.35 | -1005.83 | -1707.51 | 1981.74 | 1981.74 | 239.50 | 1.28 |
| 7510.00 | 56.60 | 239.50 | 6826.95 | -1018.52 | -1729.04 | 2006.73 | 2006.73 | 239.50 | 1.28 |
| 7540.00 | 56.98 | 239.50 | 6843.38 | -1031.26 | -1750.67 | 2031.83 | 2031.83 | 239.50 | 1.28 |
| 7570.00 | 57.37 | 239.50 | 6859.64 | -1044.05 | -1772.39 | 2057.04 | 2057.04 | 239.50 | 1.28 |
| 7600.00 | 57.75 | 239.50 | 6875.73 | -1056.90 | -1794.21 | 2082.36 | 2082.36 | 239.50 | 1.28 |
| 7630.00 | 58.14 | 239.50 | 6891.66 | -1069.81 | -1816.12 | 2107.79 | 2107.79 | 239.50 | 1.28 |
| 7660.00 | 58.52 | 239.50 | 6907.41 | -1082.77 | -1838.12 | 2133.32 | 2133.32 | 239.50 | 1.28 |
| 7690.00 | 58.91 | 239.50 | 6922.98 | -1095.78 | -1860.21 | 2158.96 | 2158.96 | 239.50 | 1.28 |
| 7720.00 | 59.29 | 239.50 | 6938.39 | -1108.85 | -1882.39 | 2184.70 | 2184.70 | 239.50 | 1.28 |
| 7750.00 | 59.68 | 239.50 | 6953.62 | -1121.96 | -1904.66 | 2210.55 | 2210.55 | 239.50 | 1.28 |
| **Begin Hold @ 60.00°, 239.50° Azm** | | | | | | | | | |
| 7774.96 | 60.00 | 239.50 | 6966.16 | -1132.92 | -1923.25 | 2232.13 | 2232.13 | 239.50 | 1.28 |
| **TOP NIOBRARA** | | | | | | | | | |
| 7842.64 | 60.00 | 239.50 | 7000.00 | -1162.67 | -1973.75 | 2290.74 | 2290.74 | 239.50 | 0.00 |
| 7874.96 | 60.00 | 239.50 | 7016.16 | -1176.87 | -1997.87 | 2318.73 | 2318.73 | 239.50 | 0.00 |
| 7974.96 | 60.00 | 239.50 | 7066.16 | -1220.83 | -2072.49 | 2405.34 | 2405.34 | 239.50 | 0.00 |
| 8074.96 | 60.00 | 239.50 | 7116.16 | -1264.78 | -2147.11 | 2491.94 | 2491.94 | 239.50 | 0.00 |
| 8174.96 | 60.00 | 239.50 | 7166.16 | -1308.74 | -2221.73 | 2578.54 | 2578.54 | 239.50 | 0.00 |
| 8274.96 | 60.00 | 239.50 | 7216.16 | -1352.69 | -2296.35 | 2665.14 | 2665.14 | 239.50 | 0.00 |
| 8374.96 | 60.00 | 239.50 | 7266.16 | -1396.65 | -2370.96 | 2751.75 | 2751.75 | 239.50 | 0.00 |
| 8474.96 | 60.00 | 239.50 | 7316.16 | -1440.60 | -2445.58 | 2838.35 | 2838.35 | 239.50 | 0.00 |
| 8574.96 | 60.00 | 239.50 | 7366.16 | -1484.56 | -2520.20 | 2924.95 | 2924.95 | 239.50 | 0.00 |
| 8674.96 | 60.00 | 239.50 | 7416.16 | -1528.51 | -2594.82 | 3011.55 | 3011.55 | 239.50 | 0.00 |
| 8774.96 | 60.00 | 239.50 | 7466.16 | -1572.47 | -2669.44 | 3098.16 | 3098.16 | 239.50 | 0.00 |
| 8874.96 | 60.00 | 239.50 | 7516.16 | -1616.42 | -2744.06 | 3184.76 | 3184.76 | 239.50 | 0.00 |
| 8974.96 | 60.00 | 239.50 | 7566.16 | -1660.38 | -2818.68 | 3271.36 | 3271.36 | 239.50 | 0.00 |
| 9074.96 | 60.00 | 239.50 | 7616.16 | -1704.33 | -2893.30 | 3357.96 | 3357.96 | 239.50 | 0.00 |
| 9174.96 | 60.00 | 239.50 | 7666.16 | -1748.29 | -2967.91 | 3444.57 | 3444.57 | 239.50 | 0.00 |
| 9274.96 | 60.00 | 239.50 | 7716.16 | -1792.25 | -3042.53 | 3531.17 | 3531.17 | 239.50 | 0.00 |
| 9374.96 | 60.00 | 239.50 | 7766.16 | -1836.20 | -3117.15 | 3617.77 | 3617.77 | 239.50 | 0.00 |
| 9474.96 | 60.00 | 239.50 | 7816.16 | -1880.16 | -3191.77 | 3704.37 | 3704.37 | 239.50 | 0.00 |
| 9574.96 | 60.00 | 239.50 | 7866.16 | -1924.11 | -3266.39 | 3790.98 | 3790.98 | 239.50 | 0.00 |
| 9674.96 | 60.00 | 239.50 | 7916.16 | -1968.07 | -3341.01 | 3877.58 | 3877.58 | 239.50 | 0.00 |
| 9774.96 | 60.00 | 239.50 | 7966.16 | -2012.02 | -3415.63 | 3964.18 | 3964.18 | 239.50 | 0.00 |
| 9874.96 | 60.00 | 239.50 | 8016.16 | -2055.98 | -3490.24 | 4050.78 | 4050.78 | 239.50 | 0.00 |
| 9974.96 | 60.00 | 239.50 | 8066.16 | -2099.93 | -3564.86 | 4137.39 | 4137.39 | 239.50 | 0.00 |
| 10074.96 | 60.00 | 239.50 | 8116.16 | -2143.89 | -3639.48 | 4223.99 | 4223.99 | 239.50 | 0.00 |
| 10174.96 | 60.00 | 239.50 | 8166.16 | -2187.84 | -3714.10 | 4310.59 | 4310.59 | 239.50 | 0.00 |
| 10274.96 | 60.00 | 239.50 | 8216.16 | -2231.80 | -3788.72 | 4397.19 | 4397.19 | 239.50 | 0.00 |
| **PBHL @ 10285 MD / 8221 Ft TVD** | | | | | | | | | |
| 10284.64 | 60.00 | 239.50 | 8221.00 | -2236.05 | -3795.94 | 4405.57 | 4405.57 | 239.50 | 0.00 |

# SWEPI LP

DAWSON CREEK 1-25
SEC 25 - TWN 6N - R88W
HAYDEN UNIT
ROUTT COUNTY, C0

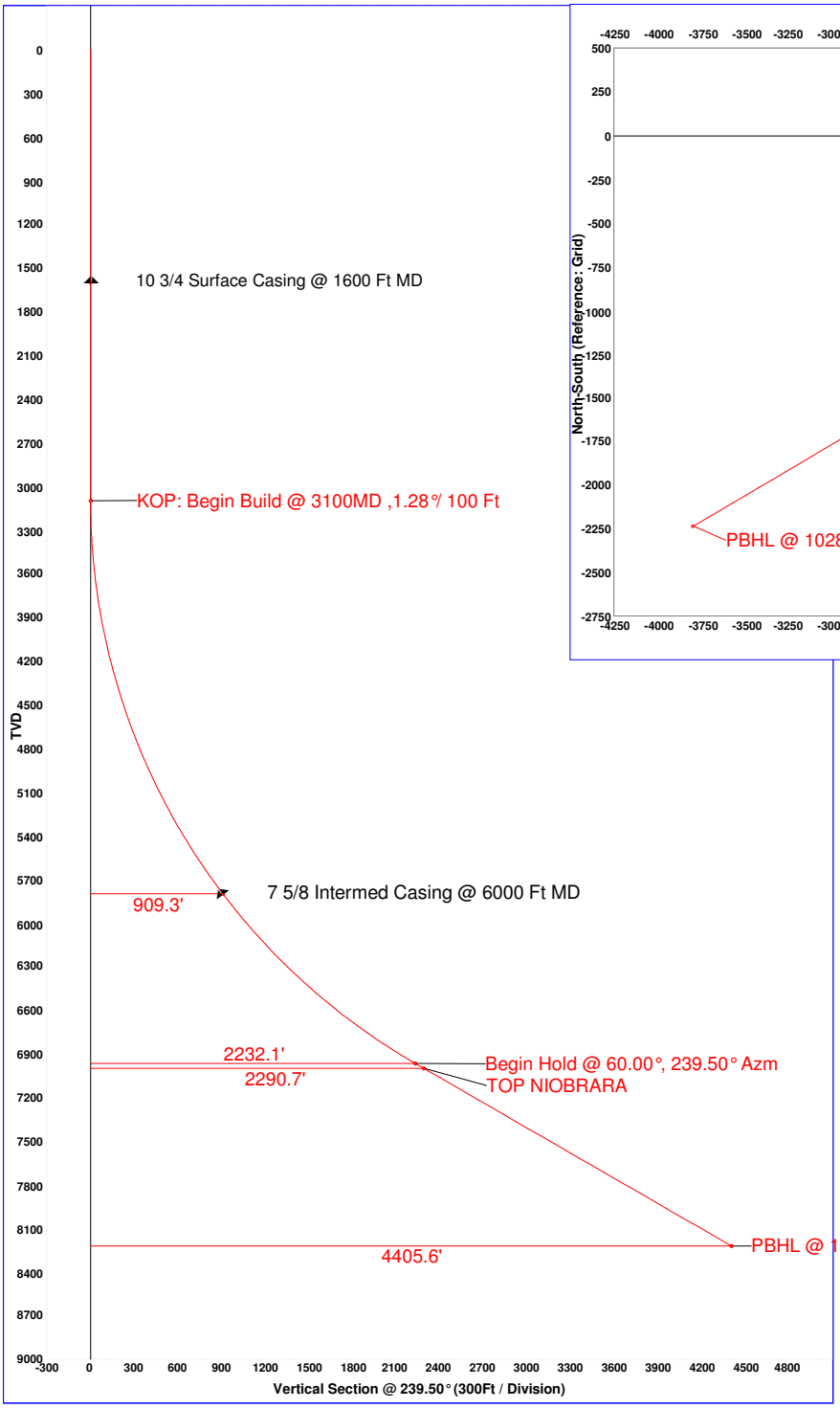
## GEODETIC INFORMATION

Grid System C083-N — Datum: NAD83
Group: US-SPC83 — Units: USFEET
Surface Location: X= 2523194.68 — Y = 1411558.96
Latitude: 40° 27' 01.75" N — Longitude: -107° 12' 48.12" W
Convergence: -0.86° W — Scale Factor: 1.0000

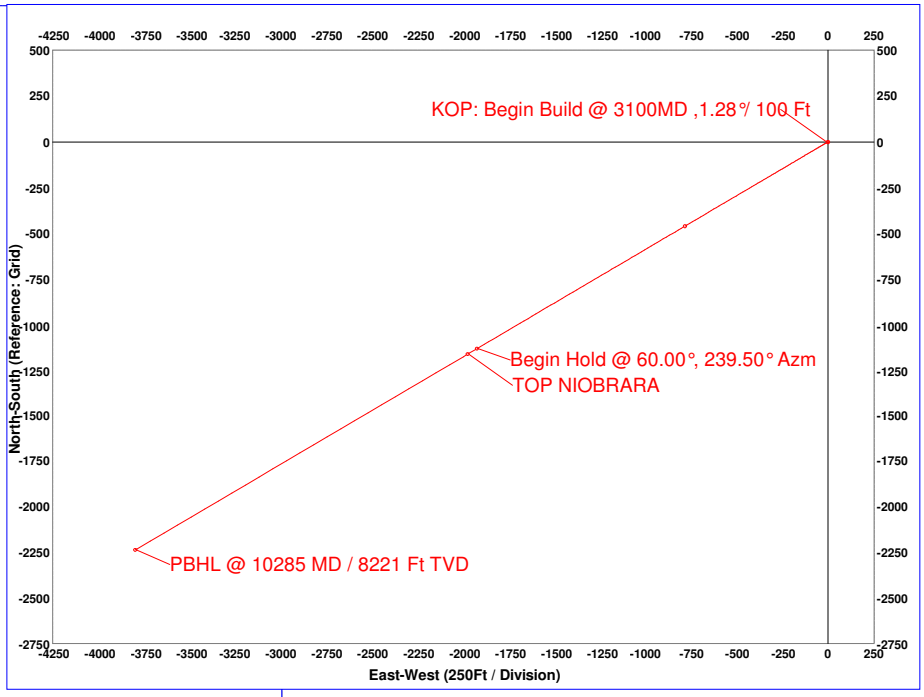
## MAGNETIC INFORMATION

Declination Date: Thursday, June 9, 2011
Model: IGRF 2010
Total Correction: 10.97° E --> GN = MN + 10.97 : Magnetic to Grid
Field Strength: 52926 (nt) — Mag Dip Angle: 66.67°
Bx,By,Bz (nt): Bx=20628, By=3680, Bz=48597

PROPOSED VERTICAL SECTION PLANE: 239.50
SCALE = 300 Ft / DIV.




PLAN VIEW SCALE = 250 Ft / DIV.




**SURFACE LOCATION**
**GL Elevation: 6658.3' , RKB:'**
2032' FNL & 1639' FWL (Sec 26)
Y=1411558.96'
X=2523194.68'
LAT: 40° 27' 1.7499" N
LONG: -107° 12' 48.1200" W

**PBHL @ 10265 MD / 8221' TVD**
4405.57' @ 239.50°
S:2236.05' W:3795.94'
971' FSL & 2022' FEL (Sec 26)
Y=1409322.91'
X=2519398.74'
LAT: 40° 26' 38.9300" N
LONG: -107° 13' 36.6500" W

**Critical Points for DAWSON CREEK 1-25 Proposal REV0**

| MD Ft | INC Deg | Azm Deg | TVD Ft | NS Ft | EW Ft | VS Ft | DLS | Comments |
|---|---|---|---|---|---|---|---|---|
| 1600.00 | 0.00 | 0.00 | 1600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10 3/4 Surface Casing @ 1600 Ft MD |
| 3100.00 | 0.00 | 0.00 | 3100.00 | 0.00 | 0.00 | 0.00 | 0.00 | KOP: Begin Build @ 3100MD ,1.28°/ 100 Ft |
| 6000.00 | 37.22 | 239.50 | 5800.30 | -461.50 | -783.44 | 909.27 | 1.28 | 7 5/8 Intermed Casing @ 6000 Ft MD |
| 7774.96 | 60.00 | 239.50 | 6966.16 | -1132.92 | -1923.25 | 2232.13 | 1.28 | Begin Hold @ 60.00°, 239.50° Azm |
| 7842.64 | 60.00 | 239.50 | 7000.00 | -1162.67 | -1973.75 | 2290.74 | 0.00 | TOP NIOBRARA |
| 10284.64 | 60.00 | 239.50 | 8221.00 | -2236.05 | -3795.94 | 4405.57 | 0.00 | PBHL @ 10285 MD / 8221 Ft TVD |

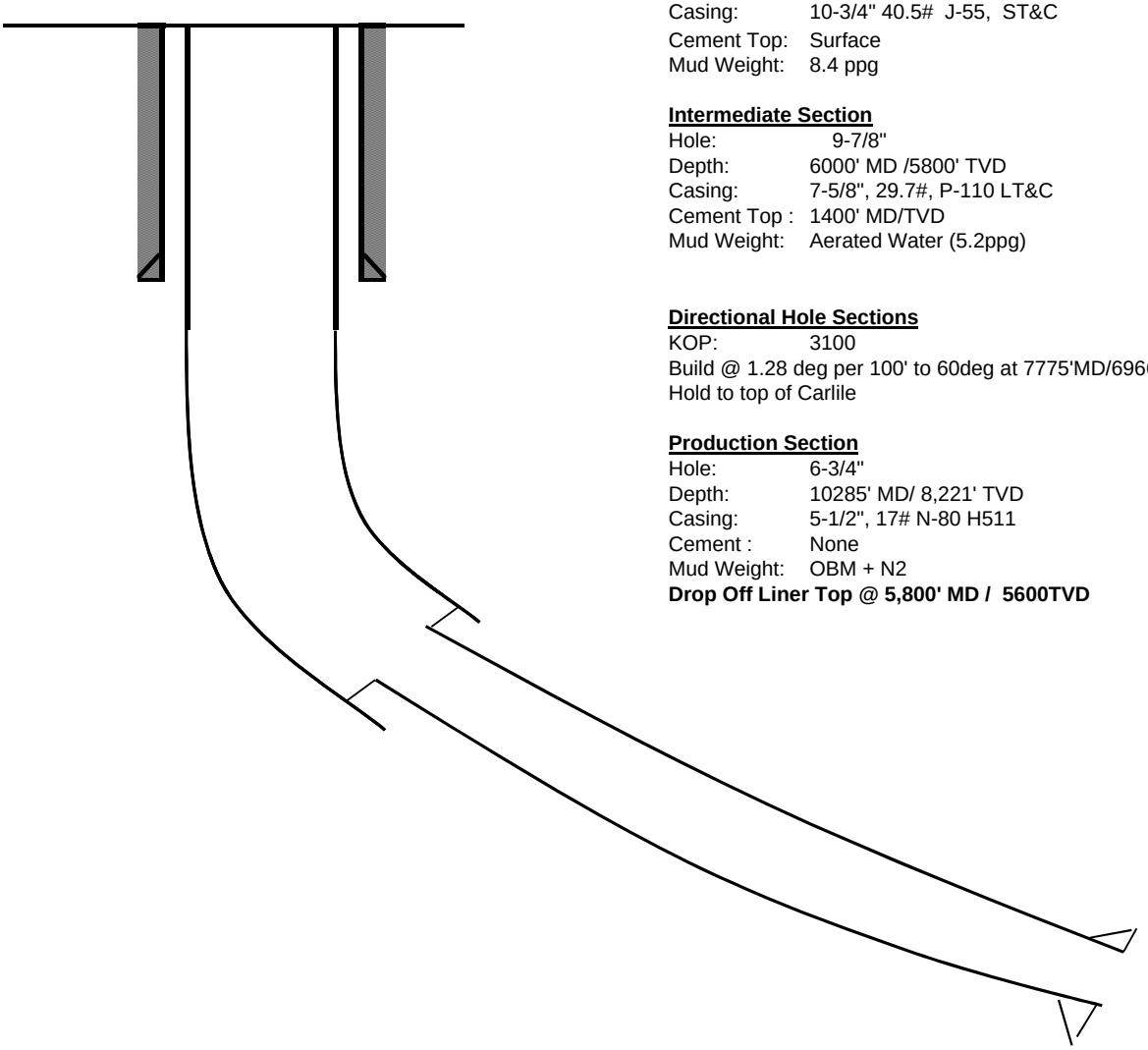
Rig:

*Report Date: Thursday, June 9, 2011*

# Dawson Creek 1-25

**T6N, R88W, SEC21**
**Wellbore Diagram**

Updated: 3/25/2011
Location: Section 25 Township 6N Range 88W Routt County, Colorado
Unit Hayden Unit
API Number: Pending Elevation: 6658 GL
Target Zone: Niobrara Shale 6669 KB



**Surface Section**
Hole: 13-1/2"
Depth: 1600' MD
Casing: 10-3/4" 40.5# J-55, ST&C
Cement Top: Surface
Mud Weight: 8.4 ppg

**Intermediate Section**
Hole: 9-7/8"
Depth: 6000' MD /5800' TVD
Casing: 7-5/8", 29.7#, P-110 LT&C
Cement Top : 1400' MD/TVD
Mud Weight: Aerated Water (5.2ppg)

**Directional Hole Sections**
KOP: 3100
Build @ 1.28 deg per 100' to 60deg at 7775'MD/6966' TVD
Hold to top of Carlile

**Production Section**
Hole: 6-3/4"
Depth: 10285' MD/ 8,221' TVD
Casing: 5-1/2", 17# N-80 H511
Cement : None
Mud Weight: OBM + N2
**Drop Off Liner Top @ 5,800' MD / 5600TVD**

Drilling and Completion Plan – Horizontal Hole

This well is a “toe-up” horizontal well. See attached directional plan for well.

The surface hole will be 13-1/2” with a 10-3/4” casing cemented from the bottom to the surface. The intermediate hole will be a 9-7/8” with a 7-5/8” casing. The production section will be a 6-3/4” hole with a 5-1/2” casing. Depths of casing strings will vary by hole and are detailed on Form 2. All casing will be new, range 3 casing.

Completion of the main horizontal (lateral) borehole will consist of an open-hole section covered by a perforated or slotted liner run to the well TD by the drilling rig. The producing interval will be the Niobrara Formation and will start below the intermediate casing string set point near the top of the Niobrara Formation. If drilling with casing is required, a contingency will be to perforate the liner once landed in the well.

Artificial lift will consist of a sucker rod and pump jack system. The tubing will be run near the low spot of the well, the “heel”, and anchored above the producing interval. The sucker rods will be run with the pump set near the end of the tubing. All tubing and sucker rod equipment will be run with a workover rig or the drilling rig, each with a BOP package and a kill weight completion fluid system. Fracing or additional stimulation methods are not anticipated to be necessary. The surface pump unit will initially be a rental system to test the well, with a permanent pump jack unit being installed at a later date.