

# **EXTRACTION OIL & GAS**

**WELD COUNTY, COLORADO (NAD 83)**

**NE SE SEC. 8 T5N R66W 6th P.M.**

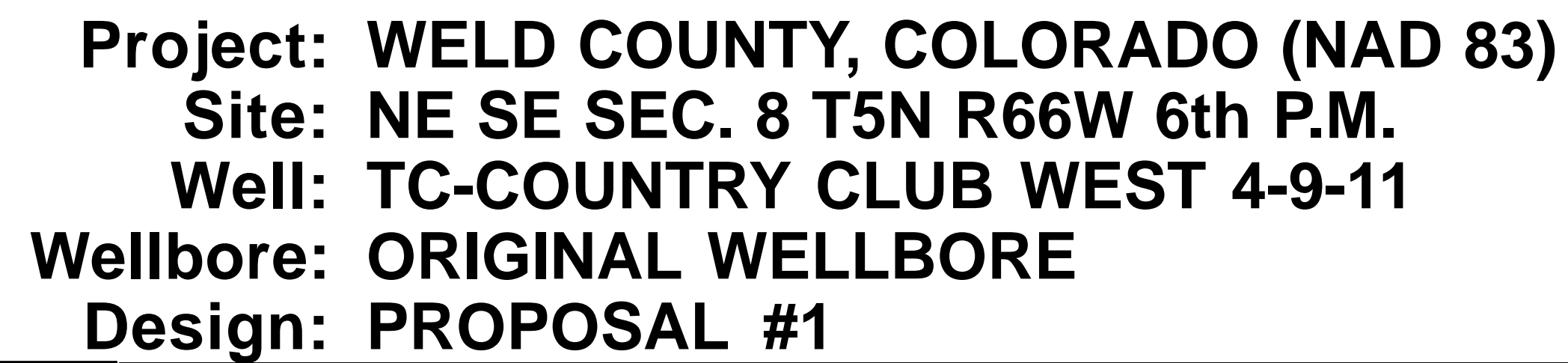
**TC-COUNTRY CLUB WEST 4-9-11**

**ORIGINAL WELLBORE**

**23 July, 2015**

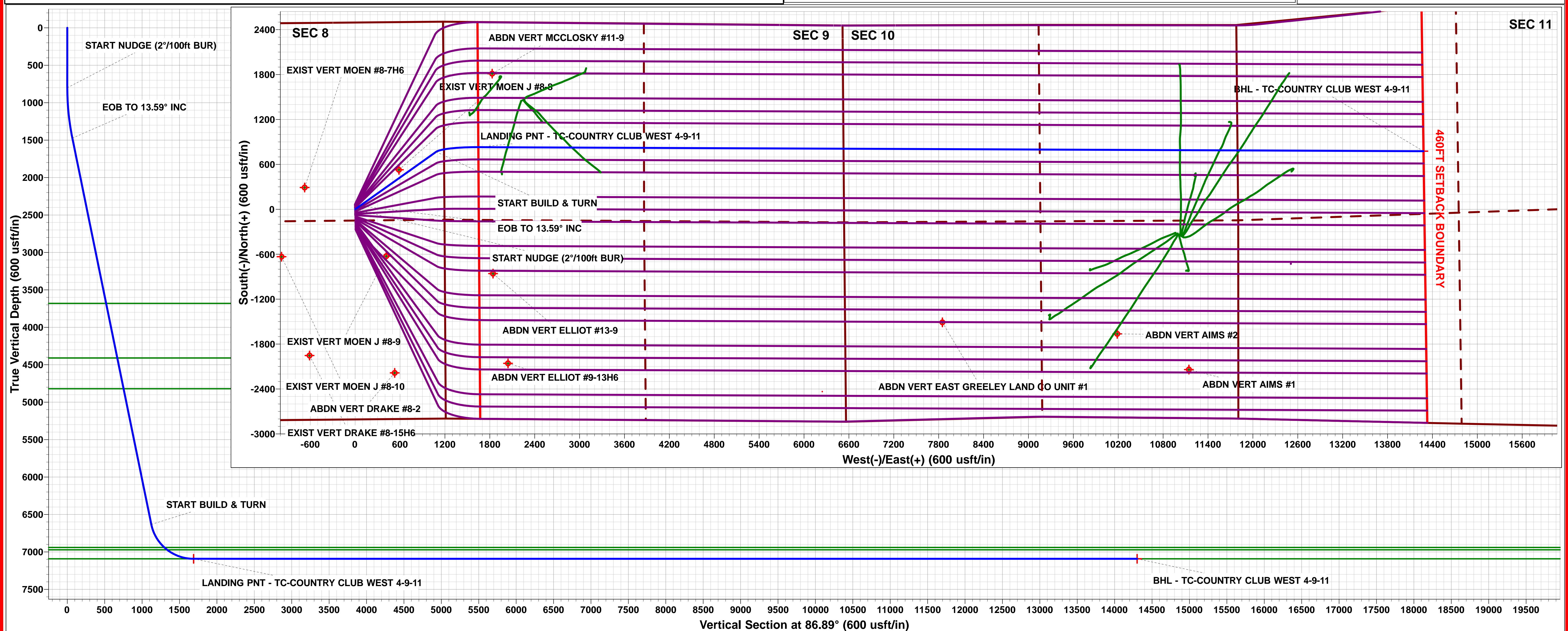
**Plan: PROPOSAL #1**





FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3680.0	3750.0	PARKMAN
4410.0	4501.0	SUSSEX
4820.0	4922.8	SHANNON
6940.0	7148.6	SHARON SPRINGS
6972.0	7198.4	NIOBRARA
7092.0	7578.0	NIO B TARGET

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-COUNTRY CLUB WEST 4-9-11	7092.0	830.7	1645.7	40.416830	-104.792770
BHL - TC-COUNTRY CLUB WEST 4-9-11	7092.0	776.5	14279.1	40.416670	-104.747400



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 4-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD COUNTY, COLORADO (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	NE SE SEC. 8 T5N R66W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,394,363.62 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,195,288.63 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.413810
		<b>Longitude:</b>	-104.798660
		<b>Grid Convergence:</b>	0.45 °

<b>Well</b>	TC-COUNTRY CLUB WEST 4-9-11		
<b>Well Position</b>	<b>+N/-S</b>	269.6 usft	<b>Northing:</b>
	<b>+E/-W</b>	-5.6 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	23/07/2015	8.43	66.91	52,614

<b>Design</b>	PROPOSAL #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	7,092.0	0.0	0.0	86.89	

<b>Plan Sections</b>											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,804.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	-4,004.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,479.5	13.59	54.64	1,473.1	-3,330.9	46.4	65.4	2.00	2.00	0.00	54.64	
1,479.5	13.59	54.64	1,473.2	-3,330.8	46.4	65.4	10.00	10.00	0.00	0.00	
6,788.1	13.59	54.64	6,633.1	1,829.1	768.5	1,083.0	0.00	0.00	0.00	0.00	
7,578.0	90.00	90.25	7,092.0	2,288.0	830.7	1,645.7	10.00	9.67	4.51	36.38	LANDING PNT - TC
20,211.5	90.00	90.25	7,092.0	2,288.0	776.5	14,279.1	0.00	0.00	0.00	0.00	BHL - TC-COUNTR

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 4-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

## Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	4,804.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,704.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,604.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,504.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,404.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,304.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,204.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,104.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
800.0	0.00	0.00	800.0	4,004.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	2.00	54.64	900.0	3,904.02	1.0	1.4	1.5	2.00	2.00	0.00
1,000.0	4.00	54.64	999.8	3,804.16	4.0	5.7	5.9	2.00	2.00	0.00
1,100.0	6.00	54.64	1,099.5	3,704.55	9.1	12.8	13.3	2.00	2.00	0.00
1,200.0	8.00	54.64	1,198.7	3,605.30	16.1	22.7	23.6	2.00	2.00	0.00
1,300.0	10.00	54.64	1,297.5	3,506.53	25.2	35.5	36.8	2.00	2.00	0.00
1,400.0	12.00	54.64	1,395.6	3,408.38	36.2	51.1	52.9	2.00	2.00	0.00
<b>EOB TO 13.59° INC</b>										
1,479.5	13.59	54.64	1,473.1	3,330.85	46.4	65.4	67.8	2.00	2.00	0.00
1,500.0	13.59	54.64	1,493.1	3,310.93	49.2	69.3	71.9	0.02	0.02	0.00
1,600.0	13.59	54.64	1,590.3	3,213.73	62.8	88.5	91.8	0.00	0.00	0.00
1,700.0	13.59	54.64	1,687.5	3,116.53	76.4	107.7	111.7	0.00	0.00	0.00
1,800.0	13.59	54.64	1,784.7	3,019.33	90.0	126.8	131.5	0.00	0.00	0.00
1,900.0	13.59	54.64	1,881.9	2,922.13	103.6	146.0	151.4	0.00	0.00	0.00
2,000.0	13.59	54.64	1,979.1	2,824.93	117.2	165.2	171.3	0.00	0.00	0.00
2,100.0	13.59	54.64	2,076.3	2,727.74	130.8	184.4	191.2	0.00	0.00	0.00
2,200.0	13.59	54.64	2,173.5	2,630.54	144.4	203.5	211.1	0.00	0.00	0.00
2,300.0	13.59	54.64	2,270.7	2,533.34	158.0	222.7	230.9	0.00	0.00	0.00
2,400.0	13.59	54.64	2,367.9	2,436.14	171.6	241.9	250.8	0.00	0.00	0.00
2,500.0	13.59	54.64	2,465.1	2,338.94	185.2	261.0	270.7	0.00	0.00	0.00
2,600.0	13.59	54.64	2,562.3	2,241.74	198.8	280.2	290.6	0.00	0.00	0.00
2,700.0	13.59	54.64	2,659.5	2,144.54	212.4	299.4	310.5	0.00	0.00	0.00
2,800.0	13.59	54.64	2,756.7	2,047.35	226.0	318.5	330.3	0.00	0.00	0.00
2,900.0	13.59	54.64	2,853.9	1,950.15	239.6	337.7	350.2	0.00	0.00	0.00
3,000.0	13.59	54.64	2,951.1	1,852.95	253.2	356.9	370.1	0.00	0.00	0.00
3,100.0	13.59	54.64	3,048.2	1,755.75	266.8	376.0	390.0	0.00	0.00	0.00
3,200.0	13.59	54.64	3,145.4	1,658.55	280.4	395.2	409.8	0.00	0.00	0.00
3,300.0	13.59	54.64	3,242.6	1,561.35	294.0	414.4	429.7	0.00	0.00	0.00
3,400.0	13.59	54.64	3,339.8	1,464.15	307.6	433.5	449.6	0.00	0.00	0.00
3,500.0	13.59	54.64	3,437.0	1,366.96	321.2	452.7	469.5	0.00	0.00	0.00
3,600.0	13.59	54.64	3,534.2	1,269.76	334.8	471.9	489.4	0.00	0.00	0.00
3,700.0	13.59	54.64	3,631.4	1,172.56	348.4	491.0	509.2	0.00	0.00	0.00
<b>PARKMAN</b>										
3,750.0	13.59	54.64	3,680.0	1,124.00	355.2	500.6	519.2	0.00	0.00	0.00
3,800.0	13.59	54.64	3,728.6	1,075.36	362.1	510.2	529.1	0.00	0.00	0.00
3,900.0	13.59	54.64	3,825.8	978.16	375.7	529.4	549.0	0.00	0.00	0.00
4,000.0	13.59	54.64	3,923.0	880.96	389.3	548.5	568.9	0.00	0.00	0.00
4,100.0	13.59	54.64	4,020.2	783.76	402.9	567.7	588.8	0.00	0.00	0.00
4,200.0	13.59	54.64	4,117.4	686.57	416.5	586.9	608.6	0.00	0.00	0.00
4,300.0	13.59	54.64	4,214.6	589.37	430.1	606.1	628.5	0.00	0.00	0.00
4,400.0	13.59	54.64	4,311.8	492.17	443.7	625.2	648.4	0.00	0.00	0.00
4,500.0	13.59	54.64	4,409.0	394.97	457.3	644.4	668.3	0.00	0.00	0.00
<b>SUSSEX</b>										
4,501.0	13.59	54.64	4,410.0	394.00	457.4	644.6	668.5	0.00	0.00	0.00
4,600.0	13.59	54.64	4,506.2	297.77	470.9	663.6	688.1	0.00	0.00	0.00



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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	13.59	54.64	4,603.4	200.57	484.5	682.7	708.0	0.00	0.00	0.00
4,800.0	13.59	54.64	4,700.6	103.37	498.1	701.9	727.9	0.00	0.00	0.00
4,900.0	13.59	54.64	4,797.8	6.18	511.7	721.1	747.8	0.00	0.00	0.00
<b>SHANNON</b>										
<b>4,922.8</b>	<b>13.59</b>	<b>54.64</b>	<b>4,820.0</b>	<b>-16.00</b>	<b>514.8</b>	<b>725.4</b>	<b>752.3</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,000.0	13.59	54.64	4,895.0	-91.02	525.3	740.2	767.7	0.00	0.00	0.00
5,100.0	13.59	54.64	4,992.2	-188.22	538.9	759.4	787.5	0.00	0.00	0.00
5,200.0	13.59	54.64	5,089.4	-285.42	552.5	778.6	807.4	0.00	0.00	0.00
5,300.0	13.59	54.64	5,186.6	-382.62	566.1	797.7	827.3	0.00	0.00	0.00
5,400.0	13.59	54.64	5,283.8	-479.82	579.7	816.9	847.2	0.00	0.00	0.00
5,500.0	13.59	54.64	5,381.0	-577.02	593.3	836.1	867.1	0.00	0.00	0.00
5,600.0	13.59	54.64	5,478.2	-674.21	606.9	855.2	886.9	0.00	0.00	0.00
5,700.0	13.59	54.64	5,575.4	-771.41	620.5	874.4	906.8	0.00	0.00	0.00
5,800.0	13.59	54.64	5,672.6	-868.61	634.1	893.6	926.7	0.00	0.00	0.00
5,900.0	13.59	54.64	5,769.8	-965.81	647.7	912.7	946.6	0.00	0.00	0.00
6,000.0	13.59	54.64	5,867.0	-1,063.01	661.3	931.9	966.4	0.00	0.00	0.00
6,100.0	13.59	54.64	5,964.2	-1,160.21	674.9	951.1	986.3	0.00	0.00	0.00
6,200.0	13.59	54.64	6,061.4	-1,257.41	688.5	970.2	1,006.2	0.00	0.00	0.00
6,300.0	13.59	54.64	6,158.6	-1,354.60	702.1	989.4	1,026.1	0.00	0.00	0.00
6,400.0	13.59	54.64	6,255.8	-1,451.80	715.7	1,008.6	1,046.0	0.00	0.00	0.00
6,500.0	13.59	54.64	6,353.0	-1,549.00	729.3	1,027.8	1,065.8	0.00	0.00	0.00
6,600.0	13.59	54.64	6,450.2	-1,646.20	742.9	1,046.9	1,085.7	0.00	0.00	0.00
6,700.0	13.59	54.64	6,547.4	-1,743.40	756.5	1,066.1	1,105.6	0.00	0.00	0.00
<b>START BUILD &amp; TURN</b>										
<b>6,788.1</b>	<b>13.59</b>	<b>54.64</b>	<b>6,633.0</b>	<b>-1,829.03</b>	<b>768.5</b>	<b>1,083.0</b>	<b>1,123.1</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,800.0	14.57	57.44	6,644.6	-1,840.57	770.1	1,085.4	1,125.6	9.98	8.17	23.54
6,900.0	23.54	71.39	6,739.0	-1,935.05	783.3	1,115.0	1,155.9	10.00	8.97	13.95
7,000.0	33.08	77.76	6,827.0	-2,023.00	795.5	1,160.7	1,202.2	10.00	9.54	6.38
7,100.0	42.82	81.51	6,905.8	-2,101.78	806.3	1,221.1	1,263.1	10.00	9.74	3.74
<b>SHARON SPRINGS</b>										
<b>7,148.6</b>	<b>47.58</b>	<b>82.85</b>	<b>6,940.0</b>	<b>-2,136.00</b>	<b>811.0</b>	<b>1,255.3</b>	<b>1,297.4</b>	<b>10.00</b>	<b>9.80</b>	<b>2.78</b>
<b>NIOBRARA</b>										
<b>7,198.4</b>	<b>52.48</b>	<b>84.04</b>	<b>6,972.0</b>	<b>-2,168.00</b>	<b>815.3</b>	<b>1,293.2</b>	<b>1,335.6</b>	<b>10.00</b>	<b>9.83</b>	<b>2.38</b>
7,200.0	52.64	84.07	6,973.0	-2,168.97	815.4	1,294.4	1,336.8	10.00	9.84	2.21
7,300.0	62.50	86.04	7,026.5	-2,222.53	822.6	1,378.4	1,421.1	10.00	9.86	1.97
7,400.0	72.38	87.68	7,064.9	-2,260.85	827.6	1,470.5	1,513.3	10.00	9.88	1.64
7,500.0	82.28	89.15	7,086.8	-2,282.76	830.3	1,567.9	1,610.7	10.00	9.90	1.47
<b>LANDING PNT - TC-COUNTRY CLUB WEST 4-9-11 - NIO B TARGET</b>										
<b>7,578.0</b>	<b>90.00</b>	<b>90.25</b>	<b>7,092.0</b>	<b>-2,288.00</b>	<b>830.7</b>	<b>1,645.7</b>	<b>1,688.3</b>	<b>10.00</b>	<b>9.90</b>	<b>1.40</b>
7,600.0	90.00	90.25	7,092.0	-2,288.00	830.6	1,667.7	1,710.3	0.00	0.00	0.00
7,700.0	90.00	90.25	7,092.0	-2,288.00	830.2	1,767.7	1,810.2	0.00	0.00	0.00
7,800.0	90.00	90.25	7,092.0	-2,288.00	829.7	1,867.7	1,910.0	0.00	0.00	0.00
7,900.0	90.00	90.25	7,092.0	-2,288.00	829.3	1,967.7	2,009.8	0.00	0.00	0.00
8,000.0	90.00	90.25	7,092.0	-2,288.00	828.9	2,067.7	2,109.6	0.00	0.00	0.00
8,100.0	90.00	90.25	7,092.0	-2,288.00	828.5	2,167.7	2,209.5	0.00	0.00	0.00
8,200.0	90.00	90.25	7,092.0	-2,288.00	828.0	2,267.7	2,309.3	0.00	0.00	0.00
8,300.0	90.00	90.25	7,092.0	-2,288.00	827.6	2,367.7	2,409.1	0.00	0.00	0.00
8,400.0	90.00	90.25	7,092.0	-2,288.00	827.2	2,467.7	2,509.0	0.00	0.00	0.00
8,500.0	90.00	90.25	7,092.0	-2,288.00	826.7	2,567.7	2,608.8	0.00	0.00	0.00
8,600.0	90.00	90.25	7,092.0	-2,288.00	826.3	2,667.7	2,708.6	0.00	0.00	0.00
8,700.0	90.00	90.25	7,092.0	-2,288.00	825.9	2,767.7	2,808.4	0.00	0.00	0.00
8,800.0	90.00	90.25	7,092.0	-2,288.00	825.5	2,867.7	2,908.3	0.00	0.00	0.00
8,900.0	90.00	90.25	7,092.0	-2,288.00	825.0	2,967.7	3,008.1	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 4-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.0	90.00	90.25	7,092.0	-2,288.00	824.6	3,067.7	3,107.9	0.00	0.00	0.00
9,100.0	90.00	90.25	7,092.0	-2,288.00	824.2	3,167.7	3,207.8	0.00	0.00	0.00
9,200.0	90.00	90.25	7,092.0	-2,288.00	823.7	3,267.7	3,307.6	0.00	0.00	0.00
9,300.0	90.00	90.25	7,092.0	-2,288.00	823.3	3,367.7	3,407.4	0.00	0.00	0.00
9,400.0	90.00	90.25	7,092.0	-2,288.00	822.9	3,467.7	3,507.2	0.00	0.00	0.00
9,500.0	90.00	90.25	7,092.0	-2,288.00	822.4	3,567.7	3,607.1	0.00	0.00	0.00
9,600.0	90.00	90.25	7,092.0	-2,288.00	822.0	3,667.7	3,706.9	0.00	0.00	0.00
9,700.0	90.00	90.25	7,092.0	-2,288.00	821.6	3,767.7	3,806.7	0.00	0.00	0.00
9,800.0	90.00	90.25	7,092.0	-2,288.00	821.2	3,867.7	3,906.6	0.00	0.00	0.00
9,900.0	90.00	90.25	7,092.0	-2,288.00	820.7	3,967.7	4,006.4	0.00	0.00	0.00
10,000.0	90.00	90.25	7,092.0	-2,288.00	820.3	4,067.7	4,106.2	0.00	0.00	0.00
10,100.0	90.00	90.25	7,092.0	-2,288.00	819.9	4,167.7	4,206.0	0.00	0.00	0.00
10,200.0	90.00	90.25	7,092.0	-2,288.00	819.4	4,267.7	4,305.9	0.00	0.00	0.00
10,300.0	90.00	90.25	7,092.0	-2,288.00	819.0	4,367.7	4,405.7	0.00	0.00	0.00
10,400.0	90.00	90.25	7,092.0	-2,288.00	818.6	4,467.7	4,505.5	0.00	0.00	0.00
10,500.0	90.00	90.25	7,092.0	-2,288.00	818.2	4,567.7	4,605.4	0.00	0.00	0.00
10,600.0	90.00	90.25	7,092.0	-2,288.00	817.7	4,667.7	4,705.2	0.00	0.00	0.00
10,700.0	90.00	90.25	7,092.0	-2,288.00	817.3	4,767.7	4,805.0	0.00	0.00	0.00
10,800.0	90.00	90.25	7,092.0	-2,288.00	816.9	4,867.7	4,904.8	0.00	0.00	0.00
10,900.0	90.00	90.25	7,092.0	-2,288.00	816.4	4,967.7	5,004.7	0.00	0.00	0.00
11,000.0	90.00	90.25	7,092.0	-2,288.00	816.0	5,067.7	5,104.5	0.00	0.00	0.00
11,100.0	90.00	90.25	7,092.0	-2,288.00	815.6	5,167.7	5,204.3	0.00	0.00	0.00
11,200.0	90.00	90.25	7,092.0	-2,288.00	815.2	5,267.7	5,304.1	0.00	0.00	0.00
11,300.0	90.00	90.25	7,092.0	-2,288.00	814.7	5,367.7	5,404.0	0.00	0.00	0.00
11,400.0	90.00	90.25	7,092.0	-2,288.00	814.3	5,467.7	5,503.8	0.00	0.00	0.00
11,500.0	90.00	90.25	7,092.0	-2,288.00	813.9	5,567.7	5,603.6	0.00	0.00	0.00
11,600.0	90.00	90.25	7,092.0	-2,288.00	813.4	5,667.7	5,703.5	0.00	0.00	0.00
11,700.0	90.00	90.25	7,092.0	-2,288.00	813.0	5,767.7	5,803.3	0.00	0.00	0.00
11,800.0	90.00	90.25	7,092.0	-2,288.00	812.6	5,867.7	5,903.1	0.00	0.00	0.00
11,900.0	90.00	90.25	7,092.0	-2,288.00	812.1	5,967.7	6,002.9	0.00	0.00	0.00
12,000.0	90.00	90.25	7,092.0	-2,288.00	811.7	6,067.7	6,102.8	0.00	0.00	0.00
12,100.0	90.00	90.25	7,092.0	-2,288.00	811.3	6,167.6	6,202.6	0.00	0.00	0.00
12,200.0	90.00	90.25	7,092.0	-2,288.00	810.9	6,267.6	6,302.4	0.00	0.00	0.00
12,300.0	90.00	90.25	7,092.0	-2,288.00	810.4	6,367.6	6,402.3	0.00	0.00	0.00
12,400.0	90.00	90.25	7,092.0	-2,288.00	810.0	6,467.6	6,502.1	0.00	0.00	0.00
12,500.0	90.00	90.25	7,092.0	-2,288.00	809.6	6,567.6	6,601.9	0.00	0.00	0.00
12,600.0	90.00	90.25	7,092.0	-2,288.00	809.1	6,667.6	6,701.7	0.00	0.00	0.00
12,700.0	90.00	90.25	7,092.0	-2,288.00	808.7	6,767.6	6,801.6	0.00	0.00	0.00
12,800.0	90.00	90.25	7,092.0	-2,288.00	808.3	6,867.6	6,901.4	0.00	0.00	0.00
12,900.0	90.00	90.25	7,092.0	-2,288.00	807.9	6,967.6	7,001.2	0.00	0.00	0.00
13,000.0	90.00	90.25	7,092.0	-2,288.00	807.4	7,067.6	7,101.1	0.00	0.00	0.00
13,100.0	90.00	90.25	7,092.0	-2,288.00	807.0	7,167.6	7,200.9	0.00	0.00	0.00
13,200.0	90.00	90.25	7,092.0	-2,288.00	806.6	7,267.6	7,300.7	0.00	0.00	0.00
13,300.0	90.00	90.25	7,092.0	-2,288.00	806.1	7,367.6	7,400.5	0.00	0.00	0.00
13,400.0	90.00	90.25	7,092.0	-2,288.00	805.7	7,467.6	7,500.4	0.00	0.00	0.00
13,500.0	90.00	90.25	7,092.0	-2,288.00	805.3	7,567.6	7,600.2	0.00	0.00	0.00
13,600.0	90.00	90.25	7,092.0	-2,288.00	804.9	7,667.6	7,700.0	0.00	0.00	0.00
13,700.0	90.00	90.25	7,092.0	-2,288.00	804.4	7,767.6	7,799.9	0.00	0.00	0.00
13,800.0	90.00	90.25	7,092.0	-2,288.00	804.0	7,867.6	7,899.7	0.00	0.00	0.00
13,900.0	90.00	90.25	7,092.0	-2,288.00	803.6	7,967.6	7,999.5	0.00	0.00	0.00
14,000.0	90.00	90.25	7,092.0	-2,288.00	803.1	8,067.6	8,099.3	0.00	0.00	0.00
14,100.0	90.00	90.25	7,092.0	-2,288.00	802.7	8,167.6	8,199.2	0.00	0.00	0.00
14,200.0	90.00	90.25	7,092.0	-2,288.00	802.3	8,267.6	8,299.0	0.00	0.00	0.00
14,300.0	90.00	90.25	7,092.0	-2,288.00	801.8	8,367.6	8,398.8	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 4-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,400.0	90.00	90.25	7,092.0	-2,288.00	801.4	8,467.6	8,498.7	0.00	0.00	0.00
14,500.0	90.00	90.25	7,092.0	-2,288.00	801.0	8,567.6	8,598.5	0.00	0.00	0.00
14,600.0	90.00	90.25	7,092.0	-2,288.00	800.6	8,667.6	8,698.3	0.00	0.00	0.00
14,700.0	90.00	90.25	7,092.0	-2,288.00	800.1	8,767.6	8,798.1	0.00	0.00	0.00
14,800.0	90.00	90.25	7,092.0	-2,288.00	799.7	8,867.6	8,898.0	0.00	0.00	0.00
14,900.0	90.00	90.25	7,092.0	-2,288.00	799.3	8,967.6	8,997.8	0.00	0.00	0.00
15,000.0	90.00	90.25	7,092.0	-2,288.00	798.8	9,067.6	9,097.6	0.00	0.00	0.00
15,100.0	90.00	90.25	7,092.0	-2,288.00	798.4	9,167.6	9,197.5	0.00	0.00	0.00
15,200.0	90.00	90.25	7,092.0	-2,288.00	798.0	9,267.6	9,297.3	0.00	0.00	0.00
15,300.0	90.00	90.25	7,092.0	-2,288.00	797.6	9,367.6	9,397.1	0.00	0.00	0.00
15,400.0	90.00	90.25	7,092.0	-2,288.00	797.1	9,467.6	9,496.9	0.00	0.00	0.00
15,500.0	90.00	90.25	7,092.0	-2,288.00	796.7	9,567.6	9,596.8	0.00	0.00	0.00
15,600.0	90.00	90.25	7,092.0	-2,288.00	796.3	9,667.6	9,696.6	0.00	0.00	0.00
15,700.0	90.00	90.25	7,092.0	-2,288.00	795.8	9,767.6	9,796.4	0.00	0.00	0.00
15,800.0	90.00	90.25	7,092.0	-2,288.00	795.4	9,867.6	9,896.2	0.00	0.00	0.00
15,900.0	90.00	90.25	7,092.0	-2,288.00	795.0	9,967.6	9,996.1	0.00	0.00	0.00
16,000.0	90.00	90.25	7,092.0	-2,288.00	794.6	10,067.6	10,095.9	0.00	0.00	0.00
16,100.0	90.00	90.25	7,092.0	-2,288.00	794.1	10,167.6	10,195.7	0.00	0.00	0.00
16,200.0	90.00	90.25	7,092.0	-2,288.00	793.7	10,267.6	10,295.6	0.00	0.00	0.00
16,300.0	90.00	90.25	7,092.0	-2,288.00	793.3	10,367.6	10,395.4	0.00	0.00	0.00
16,400.0	90.00	90.25	7,092.0	-2,288.00	792.8	10,467.6	10,495.2	0.00	0.00	0.00
16,500.0	90.00	90.25	7,092.0	-2,288.00	792.4	10,567.6	10,595.0	0.00	0.00	0.00
16,600.0	90.00	90.25	7,092.0	-2,288.00	792.0	10,667.6	10,694.9	0.00	0.00	0.00
16,700.0	90.00	90.25	7,092.0	-2,288.00	791.5	10,767.6	10,794.7	0.00	0.00	0.00
16,800.0	90.00	90.25	7,092.0	-2,288.00	791.1	10,867.6	10,894.5	0.00	0.00	0.00
16,900.0	90.00	90.25	7,092.0	-2,288.00	790.7	10,967.6	10,994.4	0.00	0.00	0.00
17,000.0	90.00	90.25	7,092.0	-2,288.00	790.3	11,067.6	11,094.2	0.00	0.00	0.00
17,100.0	90.00	90.25	7,092.0	-2,288.00	789.8	11,167.6	11,194.0	0.00	0.00	0.00
17,200.0	90.00	90.25	7,092.0	-2,288.00	789.4	11,267.6	11,293.8	0.00	0.00	0.00
17,300.0	90.00	90.25	7,092.0	-2,288.00	789.0	11,367.6	11,393.7	0.00	0.00	0.00
17,400.0	90.00	90.25	7,092.0	-2,288.00	788.5	11,467.6	11,493.5	0.00	0.00	0.00
17,500.0	90.00	90.25	7,092.0	-2,288.00	788.1	11,567.6	11,593.3	0.00	0.00	0.00
17,600.0	90.00	90.25	7,092.0	-2,288.00	787.7	11,667.6	11,693.2	0.00	0.00	0.00
17,700.0	90.00	90.25	7,092.0	-2,288.00	787.3	11,767.6	11,793.0	0.00	0.00	0.00
17,800.0	90.00	90.25	7,092.0	-2,288.00	786.8	11,867.6	11,892.8	0.00	0.00	0.00
17,900.0	90.00	90.25	7,092.0	-2,288.00	786.4	11,967.6	11,992.6	0.00	0.00	0.00
18,000.0	90.00	90.25	7,092.0	-2,288.00	786.0	12,067.6	12,092.5	0.00	0.00	0.00
18,100.0	90.00	90.25	7,092.0	-2,288.00	785.5	12,167.6	12,192.3	0.00	0.00	0.00
18,200.0	90.00	90.25	7,092.0	-2,288.00	785.1	12,267.6	12,292.1	0.00	0.00	0.00
18,300.0	90.00	90.25	7,092.0	-2,288.00	784.7	12,367.6	12,392.0	0.00	0.00	0.00
18,400.0	90.00	90.25	7,092.0	-2,288.00	784.3	12,467.6	12,491.8	0.00	0.00	0.00
18,500.0	90.00	90.25	7,092.0	-2,288.00	783.8	12,567.6	12,591.6	0.00	0.00	0.00
18,600.0	90.00	90.25	7,092.0	-2,288.00	783.4	12,667.6	12,691.4	0.00	0.00	0.00
18,700.0	90.00	90.25	7,092.0	-2,288.00	783.0	12,767.6	12,791.3	0.00	0.00	0.00
18,800.0	90.00	90.25	7,092.0	-2,288.00	782.5	12,867.6	12,891.1	0.00	0.00	0.00
18,900.0	90.00	90.25	7,092.0	-2,288.00	782.1	12,967.6	12,990.9	0.00	0.00	0.00
19,000.0	90.00	90.25	7,092.0	-2,288.00	781.7	13,067.6	13,090.8	0.00	0.00	0.00
19,100.0	90.00	90.25	7,092.0	-2,288.00	781.2	13,167.6	13,190.6	0.00	0.00	0.00
19,200.0	90.00	90.25	7,092.0	-2,288.00	780.8	13,267.6	13,290.4	0.00	0.00	0.00
19,300.0	90.00	90.25	7,092.0	-2,288.00	780.4	13,367.6	13,390.2	0.00	0.00	0.00
19,400.0	90.00	90.25	7,092.0	-2,288.00	780.0	13,467.6	13,490.1	0.00	0.00	0.00
19,500.0	90.00	90.25	7,092.0	-2,288.00	779.5	13,567.6	13,589.9	0.00	0.00	0.00
19,600.0	90.00	90.25	7,092.0	-2,288.00	779.1	13,667.6	13,689.7	0.00	0.00	0.00
19,700.0	90.00	90.25	7,092.0	-2,288.00	778.7	13,767.6	13,789.6	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 4-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 4-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

## Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,800.0	90.00	90.25	7,092.0	-2,288.00	778.2	13,867.6	13,889.4	0.00	0.00	0.00
19,900.0	90.00	90.25	7,092.0	-2,288.00	777.8	13,967.6	13,989.2	0.00	0.00	0.00
20,000.0	90.00	90.25	7,092.0	-2,288.00	777.4	14,067.6	14,089.0	0.00	0.00	0.00
20,100.0	90.00	90.25	7,092.0	-2,288.00	777.0	14,167.6	14,188.9	0.00	0.00	0.00
20,200.0	90.00	90.25	7,092.0	-2,288.00	776.5	14,267.6	14,288.7	0.00	0.00	0.00
<b>BHL - TC-COUNTRY CLUB WEST 4-9-11</b>										
<b>20,211.5</b>	<b>90.00</b>	<b>90.25</b>	<b>7,092.0</b>	<b>-2,288.00</b>	<b>776.5</b>	<b>14,279.1</b>	<b>14,300.2</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,750.0	3,680.0	PARKMAN			
4,501.0	4,410.0	SUSSEX			
4,922.8	4,820.0	SHANNON			
7,148.6	6,940.0	SHARON SPRINGS			
7,198.4	6,972.0	NIOBRARA			
7,578.0	7,092.0	NIO B TARGET			

## Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
800.0	800.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,479.5	1,473.1	46.4	65.4	EOB TO 13.59° INC
6,788.1	6,633.0	768.5	1,083.0	START BUILD & TURN
7,578.0	7,092.0	830.7	1,645.7	LANDING PNT - TC-COUNTRY CLUB WEST 4-9-11
20,211.5	7,092.0	776.5	14,279.1	BHL - TC-COUNTRY CLUB WEST 4-9-11