

# **EXTRACTION OIL & GAS**

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

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

**TC-COUNTRY CLUB WEST 1-9-11**

**ORIGINAL WELLBORE**

**23 July, 2015**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO (NAD 83)  
Site: NE SE SEC. 8 T5N R66W 6th P.M.  
Well: TC-COUNTRY CLUB WEST 1-9-11  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

ANNOTATIONS										FORMATION TOP DETAILS		
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSection	Dep	Annotation		TVDPath	MDPath	Formation
400.0	400.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		3680.0	3831.1	PARKMAN
1328.0	1345.0	18.90	33.04	129.5	84.2	99.2	154.5	EOB TO 18.9° INC		4410.0	4602.6	SUSSEX
6638.0	6957.6	18.90	33.04	1653.3	1075.4	1266.4	1972.3	START BUILD & TURN		4820.0	5036.0	SHANNON
7092.0	7756.5	90.00	90.25	1781.6	1640.0	1842.3	2564.4	LANDING PNT - TC-COUNTRY CLUB WEST 1-9-11		6940.0	7320.3	SHARON SPRINGS
7092.0	20381.2	90.00	90.25	1727.3	14264.6	14368.8	15189.1	BHL - TC-COUNTRY CLUB WEST 1-9-11		6972.0	7371.0	NIOBRARA
										7092.0	7753.2	NIO B TARGET

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-COUNTRY CLUB WEST 1-9-11	7092.0	1781.6	1640.0	40.419550	-104.792790
BHL - TC-COUNTRY CLUB WEST 1-9-11	7092.0	1727.3	14264.6	40.419390	-104.747450

South(-)/North(+) (150 usft/in)

West(-)/East(+) (150 usft/in)

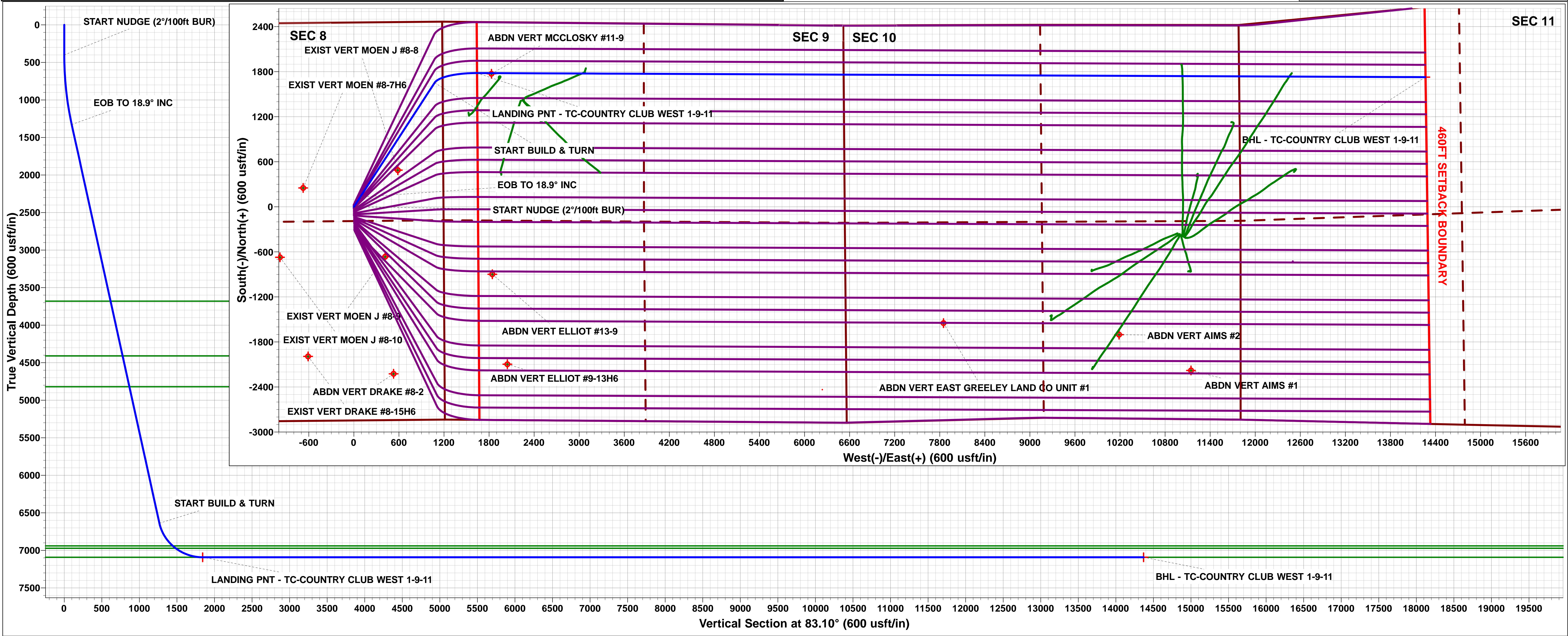
TC-MOISER HILL 2-9-7  
TC-MOISER HILL 3-9-11  
TC-COUNTRY CLUB WEST C1-9-11  
TC-COUNTRY CLUB WEST 1-9-11  
TC-COUNTRY CLUB WEST 2-9-11  
TC-COUNTRY CLUB WEST C2-9-11  
TC-COUNTRY CLUB WEST 3-9-11  
TC-COUNTRY CLUB WEST 4-9-11  
TC-COUNTRY CLUB WEST C3-9-11  
TC-COUNTRY CLUB WEST 5-9-11  
TC-AIMS 1-9-11  
TC-AIMS C4-9-11  
TC-AIMS 2-9-11  
TC-AIMS 3-9-11  
TC-AIMS C5-9-11  
TC-AIMS 4-9-11  
TC-HILAND KNOLLS 1-9-11  
TC-HILAND KNOLLS C6-9-11  
TC-HILAND KNOLLS 2-9-11  
TC-HILAND KNOLLS 3-9-11  
TC-HILAND KNOLLS C7-9-11  
TC-HILAND KNOLLS 4-9-11  
TC-PINNACLE PARK 1-9-11  
TC-PINNACLE PARK C8-9-11  
TC-PINNACLE PARK 2-9-11

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3680.0	3831.1	PARKMAN
4410.0	4602.6	SUSSEX
4820.0	5036.0	SHANNON
6940.0	7320.3	SHARON SPRINGS
6972.0	7371.0	NIOBRARA
7092.0	7753.2	NIO B TARGET

Azimuths to True North  
Magnetic North: 8.43°

Magnetic Field  
Strength: 52613.7snT  
Dip Angle: 66.91°  
Date: 23/07/2015  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 1-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4803.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4803.0usft (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 1-9-11	<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 °

Well	TC-COUNTRY CLUB WEST 1-9-11					
Well Position	+N/-S	309.7 usft	Northing:	1,394,673.22 usfi	Latitude:	40.414660
	+E/-W	-5.6 usft	Easting:	3,195,280.61 usfi	Longitude:	-104.798680
Position Uncertainty		0.0 usft	Wellhead Elevation:	usfi	Ground Level:	4,787.0 usft

<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	83.10

<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	-4,803.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	-4,403.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,345.0	18.90	33.04	1,328.0	-3,475.0	129.5	84.2	2.00	2.00	0.00	33.04	
1,345.0	18.90	33.04	1,328.0	-3,475.0	129.5	84.2	10.00	-9.67	9.60	162.17	
6,957.6	18.90	33.04	6,638.0	1,835.0	1,653.3	1,075.4	0.00	0.00	0.00	0.00	
7,756.5	90.00	90.25	7,092.0	2,289.0	1,781.6	1,640.0	10.00	8.90	7.16	58.63	LANDING PNT - TC
20,381.2	90.00	90.25	7,092.0	2,289.0	1,727.3	14,264.6	0.00	0.00	0.00	0.00	BHL - TC-COUNTR

# Planning Report



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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4803.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4803.0usft (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 1-9-11	<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	4,803.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,703.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,603.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,503.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
400.0	0.00	0.00	400.0	4,403.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	2.00	33.04	500.0	4,303.02	1.5	1.0	1.1	2.00	2.00	0.00
600.0	4.00	33.04	599.8	4,203.16	5.8	3.8	4.5	2.00	2.00	0.00
700.0	6.00	33.04	699.5	4,103.55	13.2	8.6	10.1	2.00	2.00	0.00
800.0	8.00	33.04	798.7	4,004.30	23.4	15.2	17.9	2.00	2.00	0.00
900.0	10.00	33.04	897.5	3,905.53	36.5	23.7	27.9	2.00	2.00	0.00
1,000.0	12.00	33.04	995.6	3,807.38	52.5	34.1	40.2	2.00	2.00	0.00
1,100.0	14.00	33.04	1,093.1	3,709.94	71.3	46.4	54.6	2.00	2.00	0.00
1,200.0	16.00	33.04	1,189.6	3,613.36	93.0	60.5	71.3	2.00	2.00	0.00
1,300.0	18.00	33.04	1,285.3	3,517.73	117.5	76.4	90.0	2.00	2.00	0.00
EOB TO 18.9° INC										
1,345.0	18.90	33.04	1,328.0	3,475.04	129.5	84.2	99.2	2.00	2.00	0.00
1,400.0	18.90	33.04	1,380.0	3,423.01	144.4	93.9	110.6	0.00	0.00	0.00
1,500.0	18.90	33.04	1,474.6	3,328.40	171.6	111.6	131.4	0.00	0.00	0.00
1,600.0	18.90	33.04	1,569.2	3,233.79	198.7	129.2	152.2	0.00	0.00	0.00
1,700.0	18.90	33.04	1,663.8	3,139.18	225.9	146.9	173.0	0.00	0.00	0.00
1,800.0	18.90	33.04	1,758.4	3,044.57	253.0	164.6	193.8	0.00	0.00	0.00
1,900.0	18.90	33.04	1,853.0	2,949.96	280.2	182.2	214.6	0.00	0.00	0.00
2,000.0	18.90	33.04	1,947.6	2,855.35	307.3	199.9	235.4	0.00	0.00	0.00
2,100.0	18.90	33.04	2,042.3	2,760.74	334.5	217.5	256.2	0.00	0.00	0.00
2,200.0	18.90	33.04	2,136.9	2,666.13	361.6	235.2	277.0	0.00	0.00	0.00
2,300.0	18.90	33.04	2,231.5	2,571.52	388.8	252.9	297.8	0.00	0.00	0.00
2,400.0	18.90	33.04	2,326.1	2,476.91	415.9	270.5	318.6	0.00	0.00	0.00
2,500.0	18.90	33.04	2,420.7	2,382.30	443.1	288.2	339.4	0.00	0.00	0.00
2,600.0	18.90	33.04	2,515.3	2,287.69	470.2	305.8	360.2	0.00	0.00	0.00
2,700.0	18.90	33.04	2,609.9	2,193.09	497.4	323.5	380.9	0.00	0.00	0.00
2,800.0	18.90	33.04	2,704.5	2,098.48	524.5	341.2	401.7	0.00	0.00	0.00
2,900.0	18.90	33.04	2,799.1	2,003.87	551.7	358.8	422.5	0.00	0.00	0.00
3,000.0	18.90	33.04	2,893.7	1,909.26	578.8	376.5	443.3	0.00	0.00	0.00
3,100.0	18.90	33.04	2,988.4	1,814.65	606.0	394.1	464.1	0.00	0.00	0.00
3,200.0	18.90	33.04	3,083.0	1,720.04	633.1	411.8	484.9	0.00	0.00	0.00
3,300.0	18.90	33.04	3,177.6	1,625.43	660.3	429.5	505.7	0.00	0.00	0.00
3,400.0	18.90	33.04	3,272.2	1,530.82	687.4	447.1	526.5	0.00	0.00	0.00
3,500.0	18.90	33.04	3,366.8	1,436.21	714.6	464.8	547.3	0.00	0.00	0.00
3,600.0	18.90	33.04	3,461.4	1,341.60	741.7	482.4	568.1	0.00	0.00	0.00
3,700.0	18.90	33.04	3,556.0	1,246.99	768.9	500.1	588.9	0.00	0.00	0.00
3,800.0	18.90	33.04	3,650.6	1,152.38	796.0	517.8	609.7	0.00	0.00	0.00
PARKMAN										
3,831.1	18.90	33.04	3,680.0	1,123.00	804.5	523.2	616.2	0.00	0.00	0.00
3,900.0	18.90	33.04	3,745.2	1,057.77	823.2	535.4	630.5	0.00	0.00	0.00
4,000.0	18.90	33.04	3,839.8	963.16	850.3	553.1	651.3	0.00	0.00	0.00
4,100.0	18.90	33.04	3,934.4	868.55	877.5	570.7	672.1	0.00	0.00	0.00
4,200.0	18.90	33.04	4,029.1	773.94	904.6	588.4	692.9	0.00	0.00	0.00
4,300.0	18.90	33.04	4,123.7	679.33	931.8	606.1	713.7	0.00	0.00	0.00
4,400.0	18.90	33.04	4,218.3	584.72	958.9	623.7	734.5	0.00	0.00	0.00
4,500.0	18.90	33.04	4,312.9	490.11	986.1	641.4	755.3	0.00	0.00	0.00
4,600.0	18.90	33.04	4,407.5	395.50	1,013.2	659.0	776.1	0.00	0.00	0.00
SUSSEX										
4,602.6	18.90	33.04	4,410.0	393.00	1,013.9	659.5	776.6	0.00	0.00	0.00



# Planning Report



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<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 1-9-11	<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	18.90	33.04	4,502.1	300.89	1,040.4	676.7	796.9	0.00	0.00	0.00
4,800.0	18.90	33.04	4,596.7	206.28	1,067.5	694.4	817.7	0.00	0.00	0.00
4,900.0	18.90	33.04	4,691.3	111.67	1,094.7	712.0	838.5	0.00	0.00	0.00
5,000.0	18.90	33.04	4,785.9	17.06	1,121.8	729.7	859.3	0.00	0.00	0.00
<b>SHANNON</b>										
<b>5,036.0</b>	<b>18.90</b>	<b>33.04</b>	<b>4,820.0</b>	<b>-17.00</b>	<b>1,131.6</b>	<b>736.0</b>	<b>866.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,100.0	18.90	33.04	4,880.5	-77.54	1,149.0	747.3	880.0	0.00	0.00	0.00
5,200.0	18.90	33.04	4,975.2	-172.15	1,176.1	765.0	900.8	0.00	0.00	0.00
5,300.0	18.90	33.04	5,069.8	-266.76	1,203.3	782.7	921.6	0.00	0.00	0.00
5,400.0	18.90	33.04	5,164.4	-361.37	1,230.4	800.3	942.4	0.00	0.00	0.00
5,500.0	18.90	33.04	5,259.0	-455.98	1,257.6	818.0	963.2	0.00	0.00	0.00
5,600.0	18.90	33.04	5,353.6	-550.59	1,284.7	835.6	984.0	0.00	0.00	0.00
5,700.0	18.90	33.04	5,448.2	-645.20	1,311.9	853.3	1,004.8	0.00	0.00	0.00
5,800.0	18.90	33.04	5,542.8	-739.81	1,339.0	871.0	1,025.6	0.00	0.00	0.00
5,900.0	18.90	33.04	5,637.4	-834.42	1,366.2	888.6	1,046.4	0.00	0.00	0.00
6,000.0	18.90	33.04	5,732.0	-929.03	1,393.3	906.3	1,067.2	0.00	0.00	0.00
6,100.0	18.90	33.04	5,826.6	-1,023.64	1,420.5	923.9	1,088.0	0.00	0.00	0.00
6,200.0	18.90	33.04	5,921.3	-1,118.25	1,447.6	941.6	1,108.8	0.00	0.00	0.00
6,300.0	18.90	33.04	6,015.9	-1,212.86	1,474.8	959.3	1,129.6	0.00	0.00	0.00
6,400.0	18.90	33.04	6,110.5	-1,307.47	1,501.9	976.9	1,150.4	0.00	0.00	0.00
6,500.0	18.90	33.04	6,205.1	-1,402.08	1,529.1	994.6	1,171.2	0.00	0.00	0.00
6,600.0	18.90	33.04	6,299.7	-1,496.69	1,556.2	1,012.2	1,192.0	0.00	0.00	0.00
6,700.0	18.90	33.04	6,394.3	-1,591.30	1,583.4	1,029.9	1,212.8	0.00	0.00	0.00
6,800.0	18.90	33.04	6,488.9	-1,685.91	1,610.5	1,047.6	1,233.6	0.00	0.00	0.00
6,900.0	18.90	33.04	6,583.5	-1,780.52	1,637.7	1,065.2	1,254.4	0.00	0.00	0.00
<b>START BUILD &amp; TURN</b>										
<b>6,957.6</b>	<b>18.90</b>	<b>33.04</b>	<b>6,638.0</b>	<b>-1,835.01</b>	<b>1,653.3</b>	<b>1,075.4</b>	<b>1,266.4</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,000.0	21.40	43.01	6,677.8	-1,874.83	1,664.7	1,084.4	1,276.7	10.01	5.91	23.51
7,100.0	28.89	58.81	6,768.4	-1,965.38	1,690.7	1,117.6	1,312.8	10.00	7.49	15.80
7,200.0	37.49	68.21	6,852.0	-2,049.04	1,714.5	1,166.7	1,364.3	10.00	8.60	9.40
7,300.0	46.59	74.45	6,926.3	-2,123.27	1,735.6	1,230.1	1,429.8	10.00	9.10	6.24
<b>SHARON SPRINGS</b>										
<b>7,320.3</b>	<b>48.47</b>	<b>75.48</b>	<b>6,940.0</b>	<b>-2,137.00</b>	<b>1,739.5</b>	<b>1,244.6</b>	<b>1,444.7</b>	<b>10.00</b>	<b>9.27</b>	<b>5.08</b>
<b>NIOBRARA</b>										
<b>7,371.0</b>	<b>53.21</b>	<b>77.82</b>	<b>6,972.0</b>	<b>-2,169.00</b>	<b>1,748.6</b>	<b>1,282.8</b>	<b>1,483.7</b>	<b>10.00</b>	<b>9.34</b>	<b>4.61</b>
7,400.0	55.93	79.03	6,988.8	-2,185.79	1,753.3	1,305.9	1,507.2	10.00	9.41	4.17
7,500.0	65.42	82.68	7,037.7	-2,234.73	1,767.0	1,391.9	1,594.2	10.00	9.48	3.66
7,600.0	74.97	85.82	7,071.6	-2,268.58	1,776.3	1,485.4	1,688.2	10.00	9.56	3.13
7,700.0	84.57	88.68	7,089.3	-2,286.32	1,781.0	1,583.6	1,786.2	10.00	9.60	2.86
<b>NIO B TARGET</b>										
<b>7,753.2</b>	<b>89.37</b>	<b>90.07</b>	<b>7,092.0</b>	<b>-2,289.00</b>	<b>1,781.6</b>	<b>1,636.6</b>	<b>1,838.9</b>	<b>9.41</b>	<b>9.04</b>	<b>2.61</b>
<b>LANDING PNT - TC-COUNTRY CLUB WEST 1-9-11</b>										
<b>7,756.5</b>	<b>90.00</b>	<b>90.25</b>	<b>7,092.0</b>	<b>-2,289.00</b>	<b>1,781.6</b>	<b>1,640.0</b>	<b>1,842.3</b>	<b>19.44</b>	<b>18.68</b>	<b>5.38</b>
7,800.0	90.00	90.25	7,092.0	-2,289.00	1,781.4	1,683.5	1,885.4	0.01	0.01	0.00
7,900.0	90.00	90.25	7,092.0	-2,289.00	1,780.9	1,783.5	1,984.6	0.00	0.00	0.00
8,000.0	90.00	90.25	7,092.0	-2,289.00	1,780.5	1,883.5	2,083.9	0.00	0.00	0.00
8,100.0	90.00	90.25	7,092.0	-2,289.00	1,780.1	1,983.5	2,183.1	0.00	0.00	0.00
8,200.0	90.00	90.25	7,092.0	-2,289.00	1,779.6	2,083.5	2,282.3	0.00	0.00	0.00
8,300.0	90.00	90.25	7,092.0	-2,289.00	1,779.2	2,183.5	2,381.5	0.00	0.00	0.00
8,400.0	90.00	90.25	7,092.0	-2,289.00	1,778.8	2,283.5	2,480.8	0.00	0.00	0.00
8,500.0	90.00	90.25	7,092.0	-2,289.00	1,778.4	2,383.5	2,580.0	0.00	0.00	0.00
8,600.0	90.00	90.25	7,092.0	-2,289.00	1,777.9	2,483.5	2,679.2	0.00	0.00	0.00
8,700.0	90.00	90.25	7,092.0	-2,289.00	1,777.5	2,583.5	2,778.4	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 1-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4803.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4803.0usft (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 1-9-11	<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)
8,800.0	90.00	90.25	7,092.0	-2,289.00	1,777.1	2,683.5	2,877.6	0.00	0.00	0.00
8,900.0	90.00	90.25	7,092.0	-2,289.00	1,776.6	2,783.5	2,976.9	0.00	0.00	0.00
9,000.0	90.00	90.25	7,092.0	-2,289.00	1,776.2	2,883.5	3,076.1	0.00	0.00	0.00
9,100.0	90.00	90.25	7,092.0	-2,289.00	1,775.8	2,983.5	3,175.3	0.00	0.00	0.00
9,200.0	90.00	90.25	7,092.0	-2,289.00	1,775.4	3,083.5	3,274.5	0.00	0.00	0.00
9,300.0	90.00	90.25	7,092.0	-2,289.00	1,774.9	3,183.5	3,373.8	0.00	0.00	0.00
9,400.0	90.00	90.25	7,092.0	-2,289.00	1,774.5	3,283.5	3,473.0	0.00	0.00	0.00
9,500.0	90.00	90.25	7,092.0	-2,289.00	1,774.1	3,383.5	3,572.2	0.00	0.00	0.00
9,600.0	90.00	90.25	7,092.0	-2,289.00	1,773.6	3,483.5	3,671.4	0.00	0.00	0.00
9,700.0	90.00	90.25	7,092.0	-2,289.00	1,773.2	3,583.5	3,770.6	0.00	0.00	0.00
9,800.0	90.00	90.25	7,092.0	-2,289.00	1,772.8	3,683.5	3,869.9	0.00	0.00	0.00
9,900.0	90.00	90.25	7,092.0	-2,289.00	1,772.3	3,783.5	3,969.1	0.00	0.00	0.00
10,000.0	90.00	90.25	7,092.0	-2,289.00	1,771.9	3,883.5	4,068.3	0.00	0.00	0.00
10,100.0	90.00	90.25	7,092.0	-2,289.00	1,771.5	3,983.5	4,167.5	0.00	0.00	0.00
10,200.0	90.00	90.25	7,092.0	-2,289.00	1,771.1	4,083.5	4,266.8	0.00	0.00	0.00
10,300.0	90.00	90.25	7,092.0	-2,289.00	1,770.6	4,183.5	4,366.0	0.00	0.00	0.00
10,400.0	90.00	90.25	7,092.0	-2,289.00	1,770.2	4,283.5	4,465.2	0.00	0.00	0.00
10,500.0	90.00	90.25	7,092.0	-2,289.00	1,769.8	4,383.5	4,564.4	0.00	0.00	0.00
10,600.0	90.00	90.25	7,092.0	-2,289.00	1,769.3	4,483.5	4,663.6	0.00	0.00	0.00
10,700.0	90.00	90.25	7,092.0	-2,289.00	1,768.9	4,583.5	4,762.9	0.00	0.00	0.00
10,800.0	90.00	90.25	7,092.0	-2,289.00	1,768.5	4,683.5	4,862.1	0.00	0.00	0.00
10,900.0	90.00	90.25	7,092.0	-2,289.00	1,768.0	4,783.5	4,961.3	0.00	0.00	0.00
11,000.0	90.00	90.25	7,092.0	-2,289.00	1,767.6	4,883.5	5,060.5	0.00	0.00	0.00
11,100.0	90.00	90.25	7,092.0	-2,289.00	1,767.2	4,983.5	5,159.8	0.00	0.00	0.00
11,200.0	90.00	90.25	7,092.0	-2,289.00	1,766.8	5,083.5	5,259.0	0.00	0.00	0.00
11,300.0	90.00	90.25	7,092.0	-2,289.00	1,766.3	5,183.5	5,358.2	0.00	0.00	0.00
11,400.0	90.00	90.25	7,092.0	-2,289.00	1,765.9	5,283.5	5,457.4	0.00	0.00	0.00
11,500.0	90.00	90.25	7,092.0	-2,289.00	1,765.5	5,383.5	5,556.6	0.00	0.00	0.00
11,600.0	90.00	90.25	7,092.0	-2,289.00	1,765.0	5,483.5	5,655.9	0.00	0.00	0.00
11,700.0	90.00	90.25	7,092.0	-2,289.00	1,764.6	5,583.5	5,755.1	0.00	0.00	0.00
11,800.0	90.00	90.25	7,092.0	-2,289.00	1,764.2	5,683.4	5,854.3	0.00	0.00	0.00
11,900.0	90.00	90.25	7,092.0	-2,289.00	1,763.8	5,783.4	5,953.5	0.00	0.00	0.00
12,000.0	90.00	90.25	7,092.0	-2,289.00	1,763.3	5,883.4	6,052.8	0.00	0.00	0.00
12,100.0	90.00	90.25	7,092.0	-2,289.00	1,762.9	5,983.4	6,152.0	0.00	0.00	0.00
12,200.0	90.00	90.25	7,092.0	-2,289.00	1,762.5	6,083.4	6,251.2	0.00	0.00	0.00
12,300.0	90.00	90.25	7,092.0	-2,289.00	1,762.0	6,183.4	6,350.4	0.00	0.00	0.00
12,400.0	90.00	90.25	7,092.0	-2,289.00	1,761.6	6,283.4	6,449.6	0.00	0.00	0.00
12,500.0	90.00	90.25	7,092.0	-2,289.00	1,761.2	6,383.4	6,548.9	0.00	0.00	0.00
12,600.0	90.00	90.25	7,092.0	-2,289.00	1,760.7	6,483.4	6,648.1	0.00	0.00	0.00
12,700.0	90.00	90.25	7,092.0	-2,289.00	1,760.3	6,583.4	6,747.3	0.00	0.00	0.00
12,800.0	90.00	90.25	7,092.0	-2,289.00	1,759.9	6,683.4	6,846.5	0.00	0.00	0.00
12,900.0	90.00	90.25	7,092.0	-2,289.00	1,759.5	6,783.4	6,945.8	0.00	0.00	0.00
13,000.0	90.00	90.25	7,092.0	-2,289.00	1,759.0	6,883.4	7,045.0	0.00	0.00	0.00
13,100.0	90.00	90.25	7,092.0	-2,289.00	1,758.6	6,983.4	7,144.2	0.00	0.00	0.00
13,200.0	90.00	90.25	7,092.0	-2,289.00	1,758.2	7,083.4	7,243.4	0.00	0.00	0.00
13,300.0	90.00	90.25	7,092.0	-2,289.00	1,757.7	7,183.4	7,342.6	0.00	0.00	0.00
13,400.0	90.00	90.25	7,092.0	-2,289.00	1,757.3	7,283.4	7,441.9	0.00	0.00	0.00
13,500.0	90.00	90.25	7,092.0	-2,289.00	1,756.9	7,383.4	7,541.1	0.00	0.00	0.00
13,600.0	90.00	90.25	7,092.0	-2,289.00	1,756.5	7,483.4	7,640.3	0.00	0.00	0.00
13,700.0	90.00	90.25	7,092.0	-2,289.00	1,756.0	7,583.4	7,739.5	0.00	0.00	0.00
13,800.0	90.00	90.25	7,092.0	-2,289.00	1,755.6	7,683.4	7,838.8	0.00	0.00	0.00
13,900.0	90.00	90.25	7,092.0	-2,289.00	1,755.2	7,783.4	7,938.0	0.00	0.00	0.00
14,000.0	90.00	90.25	7,092.0	-2,289.00	1,754.7	7,883.4	8,037.2	0.00	0.00	0.00
14,100.0	90.00	90.25	7,092.0	-2,289.00	1,754.3	7,983.4	8,136.4	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 1-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4803.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4803.0usft (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 1-9-11	<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)
14,200.0	90.00	90.25	7,092.0	-2,289.00	1,753.9	8,083.4	8,235.6	0.00	0.00	0.00
14,300.0	90.00	90.25	7,092.0	-2,289.00	1,753.4	8,183.4	8,334.9	0.00	0.00	0.00
14,400.0	90.00	90.25	7,092.0	-2,289.00	1,753.0	8,283.4	8,434.1	0.00	0.00	0.00
14,500.0	90.00	90.25	7,092.0	-2,289.00	1,752.6	8,383.4	8,533.3	0.00	0.00	0.00
14,600.0	90.00	90.25	7,092.0	-2,289.00	1,752.2	8,483.4	8,632.5	0.00	0.00	0.00
14,700.0	90.00	90.25	7,092.0	-2,289.00	1,751.7	8,583.4	8,731.8	0.00	0.00	0.00
14,800.0	90.00	90.25	7,092.0	-2,289.00	1,751.3	8,683.4	8,831.0	0.00	0.00	0.00
14,900.0	90.00	90.25	7,092.0	-2,289.00	1,750.9	8,783.4	8,930.2	0.00	0.00	0.00
15,000.0	90.00	90.25	7,092.0	-2,289.00	1,750.4	8,883.4	9,029.4	0.00	0.00	0.00
15,100.0	90.00	90.25	7,092.0	-2,289.00	1,750.0	8,983.4	9,128.6	0.00	0.00	0.00
15,200.0	90.00	90.25	7,092.0	-2,289.00	1,749.6	9,083.4	9,227.9	0.00	0.00	0.00
15,300.0	90.00	90.25	7,092.0	-2,289.00	1,749.2	9,183.4	9,327.1	0.00	0.00	0.00
15,400.0	90.00	90.25	7,092.0	-2,289.00	1,748.7	9,283.4	9,426.3	0.00	0.00	0.00
15,500.0	90.00	90.25	7,092.0	-2,289.00	1,748.3	9,383.4	9,525.5	0.00	0.00	0.00
15,600.0	90.00	90.25	7,092.0	-2,289.00	1,747.9	9,483.4	9,624.8	0.00	0.00	0.00
15,700.0	90.00	90.25	7,092.0	-2,289.00	1,747.4	9,583.4	9,724.0	0.00	0.00	0.00
15,800.0	90.00	90.25	7,092.0	-2,289.00	1,747.0	9,683.4	9,823.2	0.00	0.00	0.00
15,900.0	90.00	90.25	7,092.0	-2,289.00	1,746.6	9,783.4	9,922.4	0.00	0.00	0.00
16,000.0	90.00	90.25	7,092.0	-2,289.00	1,746.1	9,883.4	10,021.6	0.00	0.00	0.00
16,100.0	90.00	90.25	7,092.0	-2,289.00	1,745.7	9,983.4	10,120.9	0.00	0.00	0.00
16,200.0	90.00	90.25	7,092.0	-2,289.00	1,745.3	10,083.4	10,220.1	0.00	0.00	0.00
16,300.0	90.00	90.25	7,092.0	-2,289.00	1,744.9	10,183.4	10,319.3	0.00	0.00	0.00
16,400.0	90.00	90.25	7,092.0	-2,289.00	1,744.4	10,283.4	10,418.5	0.00	0.00	0.00
16,500.0	90.00	90.25	7,092.0	-2,289.00	1,744.0	10,383.4	10,517.8	0.00	0.00	0.00
16,600.0	90.00	90.25	7,092.0	-2,289.00	1,743.6	10,483.4	10,617.0	0.00	0.00	0.00
16,700.0	90.00	90.25	7,092.0	-2,289.00	1,743.1	10,583.4	10,716.2	0.00	0.00	0.00
16,800.0	90.00	90.25	7,092.0	-2,289.00	1,742.7	10,683.4	10,815.4	0.00	0.00	0.00
16,900.0	90.00	90.25	7,092.0	-2,289.00	1,742.3	10,783.4	10,914.6	0.00	0.00	0.00
17,000.0	90.00	90.25	7,092.0	-2,289.00	1,741.8	10,883.4	11,013.9	0.00	0.00	0.00
17,100.0	90.00	90.25	7,092.0	-2,289.00	1,741.4	10,983.4	11,113.1	0.00	0.00	0.00
17,200.0	90.00	90.25	7,092.0	-2,289.00	1,741.0	11,083.4	11,212.3	0.00	0.00	0.00
17,300.0	90.00	90.25	7,092.0	-2,289.00	1,740.6	11,183.4	11,311.5	0.00	0.00	0.00
17,400.0	90.00	90.25	7,092.0	-2,289.00	1,740.1	11,283.4	11,410.8	0.00	0.00	0.00
17,500.0	90.00	90.25	7,092.0	-2,289.00	1,739.7	11,383.4	11,510.0	0.00	0.00	0.00
17,600.0	90.00	90.25	7,092.0	-2,289.00	1,739.3	11,483.4	11,609.2	0.00	0.00	0.00
17,700.0	90.00	90.25	7,092.0	-2,289.00	1,738.8	11,583.4	11,708.4	0.00	0.00	0.00
17,800.0	90.00	90.25	7,092.0	-2,289.00	1,738.4	11,683.4	11,807.6	0.00	0.00	0.00
17,900.0	90.00	90.25	7,092.0	-2,289.00	1,738.0	11,783.4	11,906.9	0.00	0.00	0.00
18,000.0	90.00	90.25	7,092.0	-2,289.00	1,737.6	11,883.4	12,006.1	0.00	0.00	0.00
18,100.0	90.00	90.25	7,092.0	-2,289.00	1,737.1	11,983.4	12,105.3	0.00	0.00	0.00
18,200.0	90.00	90.25	7,092.0	-2,289.00	1,736.7	12,083.4	12,204.5	0.00	0.00	0.00
18,300.0	90.00	90.25	7,092.0	-2,289.00	1,736.3	12,183.4	12,303.8	0.00	0.00	0.00
18,400.0	90.00	90.25	7,092.0	-2,289.00	1,735.8	12,283.4	12,403.0	0.00	0.00	0.00
18,500.0	90.00	90.25	7,092.0	-2,289.00	1,735.4	12,383.4	12,502.2	0.00	0.00	0.00
18,600.0	90.00	90.25	7,092.0	-2,289.00	1,735.0	12,483.4	12,601.4	0.00	0.00	0.00
18,700.0	90.00	90.25	7,092.0	-2,289.00	1,734.5	12,583.4	12,700.6	0.00	0.00	0.00
18,800.0	90.00	90.25	7,092.0	-2,289.00	1,734.1	12,683.4	12,799.9	0.00	0.00	0.00
18,900.0	90.00	90.25	7,092.0	-2,289.00	1,733.7	12,783.4	12,899.1	0.00	0.00	0.00
19,000.0	90.00	90.25	7,092.0	-2,289.00	1,733.3	12,883.4	12,998.3	0.00	0.00	0.00
19,100.0	90.00	90.25	7,092.0	-2,289.00	1,732.8	12,983.4	13,097.5	0.00	0.00	0.00
19,200.0	90.00	90.25	7,092.0	-2,289.00	1,732.4	13,083.4	13,196.8	0.00	0.00	0.00
19,300.0	90.00	90.25	7,092.0	-2,289.00	1,732.0	13,183.4	13,296.0	0.00	0.00	0.00
19,400.0	90.00	90.25	7,092.0	-2,289.00	1,731.5	13,283.4	13,395.2	0.00	0.00	0.00
19,500.0	90.00	90.25	7,092.0	-2,289.00	1,731.1	13,383.4	13,494.4	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 1-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4803.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4803.0usft (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 1-9-11	<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)
19,600.0	90.00	90.25	7,092.0	-2,289.00	1,730.7	13,483.4	13,593.6	0.00	0.00	0.00
19,700.0	90.00	90.25	7,092.0	-2,289.00	1,730.3	13,583.4	13,692.9	0.00	0.00	0.00
19,800.0	90.00	90.25	7,092.0	-2,289.00	1,729.8	13,683.4	13,792.1	0.00	0.00	0.00
19,900.0	90.00	90.25	7,092.0	-2,289.00	1,729.4	13,783.4	13,891.3	0.00	0.00	0.00
20,000.0	90.00	90.25	7,092.0	-2,289.00	1,729.0	13,883.4	13,990.5	0.00	0.00	0.00
20,100.0	90.00	90.25	7,092.0	-2,289.00	1,728.5	13,983.4	14,089.8	0.00	0.00	0.00
20,200.0	90.00	90.25	7,092.0	-2,289.00	1,728.1	14,083.4	14,189.0	0.00	0.00	0.00
20,300.0	90.00	90.25	7,092.0	-2,289.00	1,727.7	14,183.4	14,288.2	0.00	0.00	0.00
<b>BHL - TC-COUNTRY CLUB WEST 1-9-11</b>										
<b>20,381.2</b>	<b>90.00</b>	<b>90.25</b>	<b>7,092.0</b>	<b>-2,289.00</b>	<b>1,727.3</b>	<b>14,264.6</b>	<b>14,368.8</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,831.1	3,680.0	PARKMAN				
4,602.6	4,410.0	SUSSEX				
5,036.0	4,820.0	SHANNON				
7,320.3	6,940.0	SHARON SPRINGS				
7,371.0	6,972.0	NIOBRARA				
7,753.2	7,092.0	NIO B TARGET				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.0	400.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,345.0	1,328.0	129.5	84.2	EOB TO 18.9° INC
6,957.6	6,638.0	1,653.3	1,075.4	START BUILD & TURN
7,756.5	7,092.0	1,781.6	1,640.0	LANDING PNT - TC-COUNTRY CLUB WEST 1-9-11
20,381.2	7,092.0	1,727.3	14,264.6	BHL - TC-COUNTRY CLUB WEST 1-9-11