

# **EXTRACTION OIL & GAS**

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

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

**TC-COUNTRY CLUB WEST C3-9-11**

**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 C3-9-11  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

ANNOTATIONS										FORMATION TOP DETAILS		
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation		TVDPath	MDPath	Formation
900.0	900.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		3680.0	3738.3	PARKMAN
1524.9	1530.0	12.60	59.81	34.7	59.6	61.1	69.0	EOB TO 12.6° INC		4410.0	4486.3	SUSSEX
6832.8	6968.9	12.60	59.82	631.4	1085.5	1112.2	1255.8	START BUILD & TURN		4820.0	4906.4	SHANNON
7295.0	7760.5	90.00	90.25	681.3	1648.5	1676.8	1823.4	LANDING PNT - TC-COUNTRY CLUB WEST C3-9-11		6940.0	7081.6	SHARON SPRINGS
7295.0	20394.1	90.00	90.25	627.1	14281.9	14295.7	14457.0	BHL - TC-COUNTRY CLUB WEST C3-9-11		6972.0	7116.8	NIOBRARA
										7092.0	7261.0	NIO B TARGET
										7260.0	7558.5	FORT HAYS
										7285.0	7652.9	CODELL

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-COUNTRY CLUB WEST C3-9-11	7295.0	681.3	1648.4	40.416380	-104.792760
BHL - TC-COUNTRY CLUB WEST C3-9-11	7295.0	627.1	14281.9	40.416220	-104.747390

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

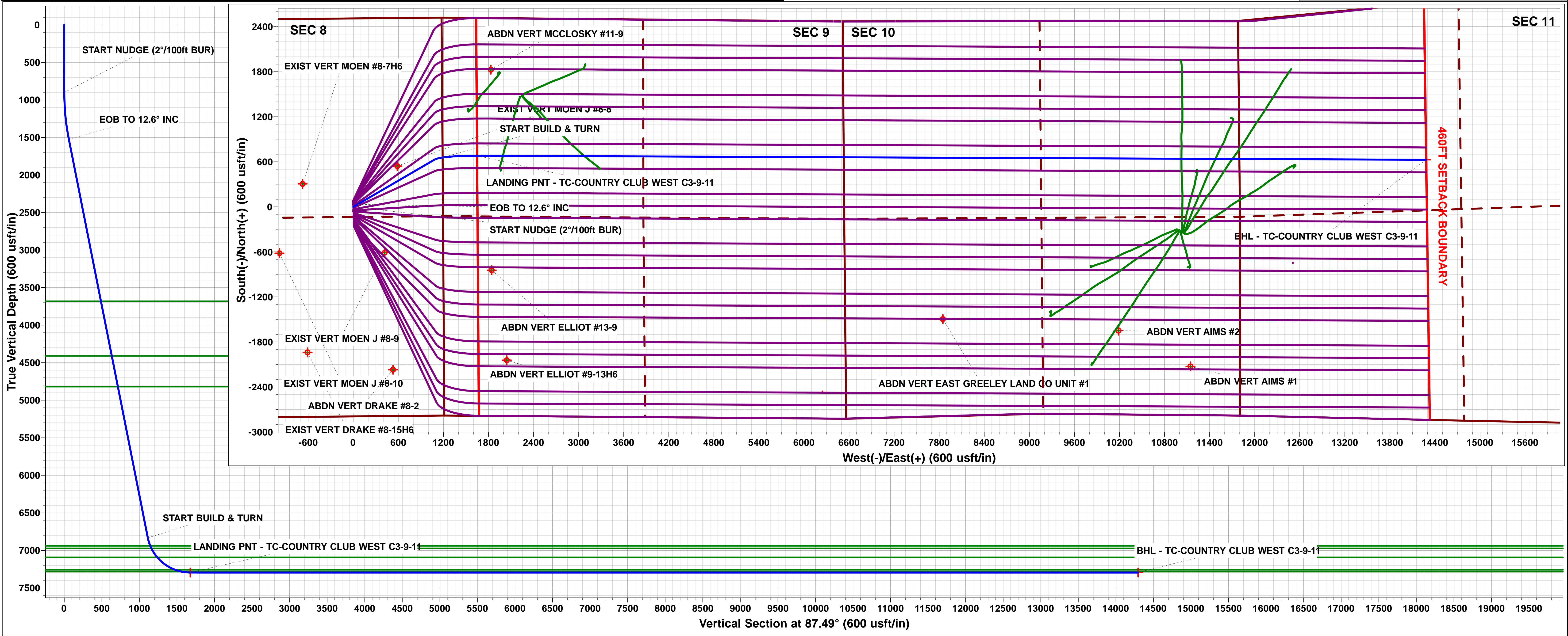
South(-)/North(+) (150 usft/in)

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

T M

Azimuths to True North  
Magnetic North: 8.43°

Magnetic Field  
Strength: 52613.6snT  
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 C3-9-11
<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 C3-9-11	<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 C3-9-11					
Well Position	+N/-S	255.0 usft	Northing:	1,394,618.57 usfi	Latitude:	40.414510
	+E/-W	-5.6 usft	Easting:	3,195,281.04 usfi	Longitude:	-104.798680
Position Uncertainty		0.0 usft	Wellhead Elevation:	usfi	Ground Level:	4,788.0 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>
	7,295.0	0.0	0.0	87.49

<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	
900.0	0.00	0.00	900.0	-3,904.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,530.0	12.60	59.81	1,524.9	-3,279.1	34.7	59.6	2.00	2.00	0.00	59.81	
1,530.0	12.60	59.82	1,525.0	-3,279.0	34.7	59.6	10.00	9.50	14.24	18.10	
6,968.9	12.60	59.82	6,832.8	2,028.8	631.4	1,085.5	0.00	0.00	0.00	0.00	
7,760.5	90.00	90.25	7,295.0	2,491.0	681.3	1,648.4	10.00	9.78	3.84	31.04	LANDING PNT - TC
20,394.1	90.00	90.25	7,295.0	2,491.0	627.1	14,281.9	0.00	0.00	0.00	0.00	BHL - TC-COUNTR

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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 C3-9-11	<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
800.0	0.00	0.00	800.0	4,004.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
900.0	0.00	0.00	900.0	3,904.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	2.00	59.81	1,000.0	3,804.02	0.9	1.5	1.5	2.00	2.00	0.00
1,100.0	4.00	59.81	1,099.8	3,704.16	3.5	6.0	6.2	2.00	2.00	0.00
1,200.0	6.00	59.81	1,199.5	3,604.55	7.9	13.6	13.9	2.00	2.00	0.00
1,300.0	8.00	59.81	1,298.7	3,505.30	14.0	24.1	24.7	2.00	2.00	0.00
1,400.0	10.00	59.81	1,397.5	3,406.53	21.9	37.6	38.5	2.00	2.00	0.00
1,500.0	12.00	59.81	1,495.6	3,308.38	31.5	54.1	55.4	2.00	2.00	0.00
<b>EOB TO 12.6° INC</b>										
1,530.0	12.60	59.81	1,524.9	3,279.07	34.7	59.6	61.1	2.00	2.00	0.00
1,600.0	12.60	59.82	1,593.2	3,210.75	42.4	72.8	74.6	0.01	0.00	0.01
1,700.0	12.60	59.82	1,690.8	3,113.16	53.3	91.7	94.0	0.00	0.00	0.00
1,800.0	12.60	59.82	1,788.4	3,015.57	64.3	110.6	113.3	0.00	0.00	0.00
1,900.0	12.60	59.82	1,886.0	2,917.98	75.3	129.4	132.6	0.00	0.00	0.00
2,000.0	12.60	59.82	1,983.6	2,820.39	86.3	148.3	151.9	0.00	0.00	0.00
2,100.0	12.60	59.82	2,081.2	2,722.80	97.2	167.1	171.3	0.00	0.00	0.00
2,200.0	12.60	59.82	2,178.8	2,625.21	108.2	186.0	190.6	0.00	0.00	0.00
2,300.0	12.60	59.82	2,276.4	2,527.62	119.2	204.9	209.9	0.00	0.00	0.00
2,400.0	12.60	59.82	2,374.0	2,430.03	130.1	223.7	229.2	0.00	0.00	0.00
2,500.0	12.60	59.82	2,471.6	2,332.44	141.1	242.6	248.5	0.00	0.00	0.00
2,600.0	12.60	59.82	2,569.2	2,234.85	152.1	261.5	267.9	0.00	0.00	0.00
2,700.0	12.60	59.82	2,666.7	2,137.26	163.1	280.3	287.2	0.00	0.00	0.00
2,800.0	12.60	59.82	2,764.3	2,039.67	174.0	299.2	306.5	0.00	0.00	0.00
2,900.0	12.60	59.82	2,861.9	1,942.08	185.0	318.0	325.8	0.00	0.00	0.00
3,000.0	12.60	59.82	2,959.5	1,844.49	196.0	336.9	345.2	0.00	0.00	0.00
3,100.0	12.60	59.82	3,057.1	1,746.90	206.9	355.8	364.5	0.00	0.00	0.00
3,200.0	12.60	59.82	3,154.7	1,649.31	217.9	374.6	383.8	0.00	0.00	0.00
3,300.0	12.60	59.82	3,252.3	1,551.72	228.9	393.5	403.1	0.00	0.00	0.00
3,400.0	12.60	59.82	3,349.9	1,454.13	239.9	412.3	422.5	0.00	0.00	0.00
3,500.0	12.60	59.82	3,447.5	1,356.54	250.8	431.2	441.8	0.00	0.00	0.00
3,600.0	12.60	59.82	3,545.1	1,258.95	261.8	450.1	461.1	0.00	0.00	0.00
3,700.0	12.60	59.82	3,642.6	1,161.35	272.8	468.9	480.4	0.00	0.00	0.00
<b>PARKMAN</b>										
3,738.3	12.60	59.82	3,680.0	1,124.00	277.0	476.2	487.8	0.00	0.00	0.00
3,800.0	12.60	59.82	3,740.2	1,063.76	283.7	487.8	499.8	0.00	0.00	0.00
3,900.0	12.60	59.82	3,837.8	966.17	294.7	506.7	519.1	0.00	0.00	0.00
4,000.0	12.60	59.82	3,935.4	868.58	305.7	525.5	538.4	0.00	0.00	0.00
4,100.0	12.60	59.82	4,033.0	770.99	316.6	544.4	557.7	0.00	0.00	0.00
4,200.0	12.60	59.82	4,130.6	673.40	327.6	563.2	577.1	0.00	0.00	0.00
4,300.0	12.60	59.82	4,228.2	575.81	338.6	582.1	596.4	0.00	0.00	0.00
4,400.0	12.60	59.82	4,325.8	478.22	349.6	601.0	615.7	0.00	0.00	0.00
<b>SUSSEX</b>										
4,486.3	12.60	59.82	4,410.0	394.00	359.0	617.2	632.4	0.00	0.00	0.00
4,500.0	12.60	59.82	4,423.4	380.63	360.5	619.8	635.0	0.00	0.00	0.00
4,600.0	12.60	59.82	4,521.0	283.04	371.5	638.7	654.4	0.00	0.00	0.00



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<b>Well:</b>	TC-COUNTRY CLUB WEST C3-9-11	<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	12.60	59.82	4,618.5	185.45	382.5	657.5	673.7	0.00	0.00	0.00
4,800.0	12.60	59.82	4,716.1	87.86	393.4	676.4	693.0	0.00	0.00	0.00
4,900.0	12.60	59.82	4,813.7	-9.73	404.4	695.3	712.3	0.00	0.00	0.00
<b>SHANNON</b>										
<b>4,906.4</b>	<b>12.60</b>	<b>59.82</b>	<b>4,820.0</b>	<b>-16.00</b>	<b>405.1</b>	<b>696.5</b>	<b>713.6</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,000.0	12.60	59.82	4,911.3	-107.32	415.4	714.1	731.7	0.00	0.00	0.00
5,100.0	12.60	59.82	5,008.9	-204.91	426.4	733.0	751.0	0.00	0.00	0.00
5,200.0	12.60	59.82	5,106.5	-302.50	437.3	751.9	770.3	0.00	0.00	0.00
5,300.0	12.60	59.82	5,204.1	-400.09	448.3	770.7	789.6	0.00	0.00	0.00
5,400.0	12.60	59.82	5,301.7	-497.68	459.3	789.6	809.0	0.00	0.00	0.00
5,500.0	12.60	59.82	5,399.3	-595.27	470.2	808.4	828.3	0.00	0.00	0.00
5,600.0	12.60	59.82	5,496.9	-692.86	481.2	827.3	847.6	0.00	0.00	0.00
5,700.0	12.60	59.82	5,594.5	-790.45	492.2	846.2	866.9	0.00	0.00	0.00
5,800.0	12.60	59.82	5,692.0	-888.04	503.2	865.0	886.3	0.00	0.00	0.00
5,900.0	12.60	59.82	5,789.6	-985.63	514.1	883.9	905.6	0.00	0.00	0.00
6,000.0	12.60	59.82	5,887.2	-1,083.22	525.1	902.7	924.9	0.00	0.00	0.00
6,100.0	12.60	59.82	5,984.8	-1,180.81	536.1	921.6	944.2	0.00	0.00	0.00
6,200.0	12.60	59.82	6,082.4	-1,278.40	547.0	940.5	963.6	0.00	0.00	0.00
6,300.0	12.60	59.82	6,180.0	-1,375.99	558.0	959.3	982.9	0.00	0.00	0.00
6,400.0	12.60	59.82	6,277.6	-1,473.58	569.0	978.2	1,002.2	0.00	0.00	0.00
6,500.0	12.60	59.82	6,375.2	-1,571.17	580.0	997.1	1,021.5	0.00	0.00	0.00
6,600.0	12.60	59.82	6,472.8	-1,668.77	590.9	1,015.9	1,040.9	0.00	0.00	0.00
6,700.0	12.60	59.82	6,570.4	-1,766.36	601.9	1,034.8	1,060.2	0.00	0.00	0.00
6,800.0	12.60	59.82	6,667.9	-1,863.95	612.9	1,053.6	1,079.5	0.00	0.00	0.00
6,900.0	12.60	59.82	6,765.5	-1,961.54	623.8	1,072.5	1,098.8	0.00	0.00	0.00
<b>START BUILD &amp; TURN</b>										
<b>6,968.9</b>	<b>12.60</b>	<b>59.82</b>	<b>6,832.8</b>	<b>-2,028.78</b>	<b>631.4</b>	<b>1,085.5</b>	<b>1,112.2</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,000.0	15.35	65.88	6,863.0	-2,058.95	634.8	1,092.2	1,119.0	9.99	8.83	19.50
<b>SHARON SPRINGS</b>										
<b>7,081.6</b>	<b>22.99</b>	<b>74.77</b>	<b>6,940.0</b>	<b>-2,136.00</b>	<b>643.4</b>	<b>1,117.5</b>	<b>1,144.6</b>	<b>10.00</b>	<b>9.37</b>	<b>10.89</b>
7,100.0	24.76	76.03	6,956.8	-2,152.81	645.3	1,124.7	1,151.9	10.00	9.61	6.88
<b>NIOBRARA</b>										
<b>7,116.8</b>	<b>26.38</b>	<b>77.05</b>	<b>6,972.0</b>	<b>-2,168.00</b>	<b>647.0</b>	<b>1,131.7</b>	<b>1,159.0</b>	<b>10.00</b>	<b>9.65</b>	<b>6.05</b>
7,200.0	34.49	80.76	7,043.6	-2,239.65	654.9	1,173.1	1,200.7	10.00	9.75	4.46
<b>NIO B TARGET</b>										
<b>7,261.0</b>	<b>40.48</b>	<b>82.62</b>	<b>7,092.0</b>	<b>-2,288.00</b>	<b>660.2</b>	<b>1,209.8</b>	<b>1,237.5</b>	<b>10.00</b>	<b>9.83</b>	<b>3.06</b>
7,300.0	44.33	83.59	7,120.8	-2,316.82	663.4	1,235.9	1,263.8	10.00	9.86	2.48
7,400.0	54.22	85.56	7,186.0	-2,381.99	670.4	1,311.2	1,339.4	10.00	9.89	1.98
7,500.0	64.13	87.10	7,237.2	-2,433.17	675.9	1,396.8	1,425.1	10.00	9.91	1.53
<b>FORT HAYS</b>										
<b>7,558.5</b>	<b>69.94</b>	<b>87.88</b>	<b>7,260.0</b>	<b>-2,456.00</b>	<b>678.2</b>	<b>1,450.6</b>	<b>1,479.0</b>	<b>10.00</b>	<b>9.92</b>	<b>1.33</b>
7,600.0	74.06	88.39	7,272.8	-2,468.82	679.5	1,490.1	1,518.4	10.00	9.93	1.24
<b>CODELL</b>										
<b>7,652.9</b>	<b>79.31</b>	<b>89.02</b>	<b>7,285.0</b>	<b>-2,481.00</b>	<b>680.7</b>	<b>1,541.5</b>	<b>1,569.9</b>	<b>10.00</b>	<b>9.93</b>	<b>1.19</b>
7,700.0	83.99	89.56	7,291.8	-2,487.83	681.2	1,588.1	1,616.4	10.00	9.94	1.15
<b>LANDING PNT - TC-COUNTRY CLUB WEST C3-9-11</b>										
<b>7,760.5</b>	<b>90.00</b>	<b>90.25</b>	<b>7,295.0</b>	<b>-2,491.00</b>	<b>681.3</b>	<b>1,648.5</b>	<b>1,676.8</b>	<b>10.00</b>	<b>9.93</b>	<b>1.13</b>
7,800.0	90.00	90.25	7,295.0	-2,491.00	681.2	1,688.0	1,716.2	0.00	0.00	0.00
7,900.0	90.00	90.25	7,295.0	-2,491.00	680.7	1,788.0	1,816.1	0.00	0.00	0.00
8,000.0	90.00	90.25	7,295.0	-2,491.00	680.3	1,888.0	1,916.0	0.00	0.00	0.00
8,100.0	90.00	90.25	7,295.0	-2,491.00	679.9	1,988.0	2,015.9	0.00	0.00	0.00
8,200.0	90.00	90.25	7,295.0	-2,491.00	679.4	2,088.0	2,115.8	0.00	0.00	0.00
8,300.0	90.00	90.25	7,295.0	-2,491.00	679.0	2,188.0	2,215.6	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 C3-9-11
<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 C3-9-11	<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)
8,400.0	90.00	90.25	7,295.0	-2,491.00	678.6	2,288.0	2,315.5	0.00	0.00	0.00
8,500.0	90.00	90.25	7,295.0	-2,491.00	678.2	2,388.0	2,415.4	0.00	0.00	0.00
8,600.0	90.00	90.25	7,295.0	-2,491.00	677.7	2,488.0	2,515.3	0.00	0.00	0.00
8,700.0	90.00	90.25	7,295.0	-2,491.00	677.3	2,588.0	2,615.2	0.00	0.00	0.00
8,800.0	90.00	90.25	7,295.0	-2,491.00	676.9	2,688.0	2,715.1	0.00	0.00	0.00
8,900.0	90.00	90.25	7,295.0	-2,491.00	676.4	2,788.0	2,815.0	0.00	0.00	0.00
9,000.0	90.00	90.25	7,295.0	-2,491.00	676.0	2,888.0	2,914.8	0.00	0.00	0.00
9,100.0	90.00	90.25	7,295.0	-2,491.00	675.6	2,988.0	3,014.7	0.00	0.00	0.00
9,200.0	90.00	90.25	7,295.0	-2,491.00	675.1	3,088.0	3,114.6	0.00	0.00	0.00
9,300.0	90.00	90.25	7,295.0	-2,491.00	674.7	3,188.0	3,214.5	0.00	0.00	0.00
9,400.0	90.00	90.25	7,295.0	-2,491.00	674.3	3,288.0	3,314.4	0.00	0.00	0.00
9,500.0	90.00	90.25	7,295.0	-2,491.00	673.9	3,388.0	3,414.3	0.00	0.00	0.00
9,600.0	90.00	90.25	7,295.0	-2,491.00	673.4	3,488.0	3,514.1	0.00	0.00	0.00
9,700.0	90.00	90.25	7,295.0	-2,491.00	673.0	3,588.0	3,614.0	0.00	0.00	0.00
9,800.0	90.00	90.25	7,295.0	-2,491.00	672.6	3,688.0	3,713.9	0.00	0.00	0.00
9,900.0	90.00	90.25	7,295.0	-2,491.00	672.1	3,788.0	3,813.8	0.00	0.00	0.00
10,000.0	90.00	90.25	7,295.0	-2,491.00	671.7	3,888.0	3,913.7	0.00	0.00	0.00
10,100.0	90.00	90.25	7,295.0	-2,491.00	671.3	3,988.0	4,013.6	0.00	0.00	0.00
10,200.0	90.00	90.25	7,295.0	-2,491.00	670.9	4,088.0	4,113.4	0.00	0.00	0.00
10,300.0	90.00	90.25	7,295.0	-2,491.00	670.4	4,187.9	4,213.3	0.00	0.00	0.00
10,400.0	90.00	90.25	7,295.0	-2,491.00	670.0	4,287.9	4,313.2	0.00	0.00	0.00
10,500.0	90.00	90.25	7,295.0	-2,491.00	669.6	4,387.9	4,413.1	0.00	0.00	0.00
10,600.0	90.00	90.25	7,295.0	-2,491.00	669.1	4,487.9	4,513.0	0.00	0.00	0.00
10,700.0	90.00	90.25	7,295.0	-2,491.00	668.7	4,587.9	4,612.9	0.00	0.00	0.00
10,800.0	90.00	90.25	7,295.0	-2,491.00	668.3	4,687.9	4,712.7	0.00	0.00	0.00
10,900.0	90.00	90.25	7,295.0	-2,491.00	667.9	4,787.9	4,812.6	0.00	0.00	0.00
11,000.0	90.00	90.25	7,295.0	-2,491.00	667.4	4,887.9	4,912.5	0.00	0.00	0.00
11,100.0	90.00	90.25	7,295.0	-2,491.00	667.0	4,987.9	5,012.4	0.00	0.00	0.00
11,200.0	90.00	90.25	7,295.0	-2,491.00	666.6	5,087.9	5,112.3	0.00	0.00	0.00
11,300.0	90.00	90.25	7,295.0	-2,491.00	666.1	5,187.9	5,212.2	0.00	0.00	0.00
11,400.0	90.00	90.25	7,295.0	-2,491.00	665.7	5,287.9	5,312.1	0.00	0.00	0.00
11,500.0	90.00	90.25	7,295.0	-2,491.00	665.3	5,387.9	5,411.9	0.00	0.00	0.00
11,600.0	90.00	90.25	7,295.0	-2,491.00	664.9	5,487.9	5,511.8	0.00	0.00	0.00
11,700.0	90.00	90.25	7,295.0	-2,491.00	664.4	5,587.9	5,611.7	0.00	0.00	0.00
11,800.0	90.00	90.25	7,295.0	-2,491.00	664.0	5,687.9	5,711.6	0.00	0.00	0.00
11,900.0	90.00	90.25	7,295.0	-2,491.00	663.6	5,787.9	5,811.5	0.00	0.00	0.00
12,000.0	90.00	90.25	7,295.0	-2,491.00	663.1	5,887.9	5,911.4	0.00	0.00	0.00
12,100.0	90.00	90.25	7,295.0	-2,491.00	662.7	5,987.9	6,011.2	0.00	0.00	0.00
12,200.0	90.00	90.25	7,295.0	-2,491.00	662.3	6,087.9	6,111.1	0.00	0.00	0.00
12,300.0	90.00	90.25	7,295.0	-2,491.00	661.8	6,187.9	6,211.0	0.00	0.00	0.00
12,400.0	90.00	90.25	7,295.0	-2,491.00	661.4	6,287.9	6,310.9	0.00	0.00	0.00
12,500.0	90.00	90.25	7,295.0	-2,491.00	661.0	6,387.9	6,410.8	0.00	0.00	0.00
12,600.0	90.00	90.25	7,295.0	-2,491.00	660.6	6,487.9	6,510.7	0.00	0.00	0.00
12,700.0	90.00	90.25	7,295.0	-2,491.00	660.1	6,587.9	6,610.5	0.00	0.00	0.00
12,800.0	90.00	90.25	7,295.0	-2,491.00	659.7	6,687.9	6,710.4	0.00	0.00	0.00
12,900.0	90.00	90.25	7,295.0	-2,491.00	659.3	6,787.9	6,810.3	0.00	0.00	0.00
13,000.0	90.00	90.25	7,295.0	-2,491.00	658.8	6,887.9	6,910.2	0.00	0.00	0.00
13,100.0	90.00	90.25	7,295.0	-2,491.00	658.4	6,987.9	7,010.1	0.00	0.00	0.00
13,200.0	90.00	90.25	7,295.0	-2,491.00	658.0	7,087.9	7,110.0	0.00	0.00	0.00
13,300.0	90.00	90.25	7,295.0	-2,491.00	657.6	7,187.9	7,209.8	0.00	0.00	0.00
13,400.0	90.00	90.25	7,295.0	-2,491.00	657.1	7,287.9	7,309.7	0.00	0.00	0.00
13,500.0	90.00	90.25	7,295.0	-2,491.00	656.7	7,387.9	7,409.6	0.00	0.00	0.00
13,600.0	90.00	90.25	7,295.0	-2,491.00	656.3	7,487.9	7,509.5	0.00	0.00	0.00
13,700.0	90.00	90.25	7,295.0	-2,491.00	655.8	7,587.9	7,609.4	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 C3-9-11
<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 C3-9-11	<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)
13,800.0	90.00	90.25	7,295.0	-2,491.00	655.4	7,687.9	7,709.3	0.00	0.00	0.00
13,900.0	90.00	90.25	7,295.0	-2,491.00	655.0	7,787.9	7,809.2	0.00	0.00	0.00
14,000.0	90.00	90.25	7,295.0	-2,491.00	654.6	7,887.9	7,909.0	0.00	0.00	0.00
14,100.0	90.00	90.25	7,295.0	-2,491.00	654.1	7,987.9	8,008.9	0.00	0.00	0.00
14,200.0	90.00	90.25	7,295.0	-2,491.00	653.7	8,087.9	8,108.8	0.00	0.00	0.00
14,300.0	90.00	90.25	7,295.0	-2,491.00	653.3	8,187.9	8,208.7	0.00	0.00	0.00
14,400.0	90.00	90.25	7,295.0	-2,491.00	652.8	8,287.9	8,308.6	0.00	0.00	0.00
14,500.0	90.00	90.25	7,295.0	-2,491.00	652.4	8,387.9	8,408.5	0.00	0.00	0.00
14,600.0	90.00	90.25	7,295.0	-2,491.00	652.0	8,487.9	8,508.3	0.00	0.00	0.00
14,700.0	90.00	90.25	7,295.0	-2,491.00	651.5	8,587.9	8,608.2	0.00	0.00	0.00
14,800.0	90.00	90.25	7,295.0	-2,491.00	651.1	8,687.9	8,708.1	0.00	0.00	0.00
14,900.0	90.00	90.25	7,295.0	-2,491.00	650.7	8,787.9	8,808.0	0.00	0.00	0.00
15,000.0	90.00	90.25	7,295.0	-2,491.00	650.3	8,887.9	8,907.9	0.00	0.00	0.00
15,100.0	90.00	90.25	7,295.0	-2,491.00	649.8	8,987.9	9,007.8	0.00	0.00	0.00
15,200.0	90.00	90.25	7,295.0	-2,491.00	649.4	9,087.9	9,107.6	0.00	0.00	0.00
15,300.0	90.00	90.25	7,295.0	-2,491.00	649.0	9,187.9	9,207.5	0.00	0.00	0.00
15,400.0	90.00	90.25	7,295.0	-2,491.00	648.5	9,287.9	9,307.4	0.00	0.00	0.00
15,500.0	90.00	90.25	7,295.0	-2,491.00	648.1	9,387.9	9,407.3	0.00	0.00	0.00
15,600.0	90.00	90.25	7,295.0	-2,491.00	647.7	9,487.9	9,507.2	0.00	0.00	0.00
15,700.0	90.00	90.25	7,295.0	-2,491.00	647.3	9,587.9	9,607.1	0.00	0.00	0.00
15,800.0	90.00	90.25	7,295.0	-2,491.00	646.8	9,687.9	9,706.9	0.00	0.00	0.00
15,900.0	90.00	90.25	7,295.0	-2,491.00	646.4	9,787.9	9,806.8	0.00	0.00	0.00
16,000.0	90.00	90.25	7,295.0	-2,491.00	646.0	9,887.9	9,906.7	0.00	0.00	0.00
16,100.0	90.00	90.25	7,295.0	-2,491.00	645.5	9,987.9	10,006.6	0.00	0.00	0.00
16,200.0	90.00	90.25	7,295.0	-2,491.00	645.1	10,087.9	10,106.5	0.00	0.00	0.00
16,300.0	90.00	90.25	7,295.0	-2,491.00	644.7	10,187.9	10,206.4	0.00	0.00	0.00
16,400.0	90.00	90.25	7,295.0	-2,491.00	644.3	10,287.9	10,306.3	0.00	0.00	0.00
16,500.0	90.00	90.25	7,295.0	-2,491.00	643.8	10,387.9	10,406.1	0.00	0.00	0.00
16,600.0	90.00	90.25	7,295.0	-2,491.00	643.4	10,487.9	10,506.0	0.00	0.00	0.00
16,700.0	90.00	90.25	7,295.0	-2,491.00	643.0	10,587.9	10,605.9	0.00	0.00	0.00
16,800.0	90.00	90.25	7,295.0	-2,491.00	642.5	10,687.9	10,705.8	0.00	0.00	0.00
16,900.0	90.00	90.25	7,295.0	-2,491.00	642.1	10,787.9	10,805.7	0.00	0.00	0.00
17,000.0	90.00	90.25	7,295.0	-2,491.00	641.7	10,887.9	10,905.6	0.00	0.00	0.00
17,100.0	90.00	90.25	7,295.0	-2,491.00	641.2	10,987.9	11,005.4	0.00	0.00	0.00
17,200.0	90.00	90.25	7,295.0	-2,491.00	640.8	11,087.9	11,105.3	0.00	0.00	0.00
17,300.0	90.00	90.25	7,295.0	-2,491.00	640.4	11,187.9	11,205.2	0.00	0.00	0.00
17,400.0	90.00	90.25	7,295.0	-2,491.00	640.0	11,287.9	11,305.1	0.00	0.00	0.00
17,500.0	90.00	90.25	7,295.0	-2,491.00	639.5	11,387.9	11,405.0	0.00	0.00	0.00
17,600.0	90.00	90.25	7,295.0	-2,491.00	639.1	11,487.9	11,504.9	0.00	0.00	0.00
17,700.0	90.00	90.25	7,295.0	-2,491.00	638.7	11,587.9	11,604.7	0.00	0.00	0.00
17,800.0	90.00	90.25	7,295.0	-2,491.00	638.2	11,687.9	11,704.6	0.00	0.00	0.00
17,900.0	90.00	90.25	7,295.0	-2,491.00	637.8	11,787.9	11,804.5	0.00	0.00	0.00
18,000.0	90.00	90.25	7,295.0	-2,491.00	637.4	11,887.9	11,904.4	0.00	0.00	0.00
18,100.0	90.00	90.25	7,295.0	-2,491.00	637.0	11,987.9	12,004.3	0.00	0.00	0.00
18,200.0	90.00	90.25	7,295.0	-2,491.00	636.5	12,087.9	12,104.2	0.00	0.00	0.00
18,300.0	90.00	90.25	7,295.0	-2,491.00	636.1	12,187.9	12,204.0	0.00	0.00	0.00
18,400.0	90.00	90.25	7,295.0	-2,491.00	635.7	12,287.9	12,303.9	0.00	0.00	0.00
18,500.0	90.00	90.25	7,295.0	-2,491.00	635.2	12,387.9	12,403.8	0.00	0.00	0.00
18,600.0	90.00	90.25	7,295.0	-2,491.00	634.8	12,487.9	12,503.7	0.00	0.00	0.00
18,700.0	90.00	90.25	7,295.0	-2,491.00	634.4	12,587.9	12,603.6	0.00	0.00	0.00
18,800.0	90.00	90.25	7,295.0	-2,491.00	634.0	12,687.9	12,703.5	0.00	0.00	0.00
18,900.0	90.00	90.25	7,295.0	-2,491.00	633.5	12,787.9	12,803.4	0.00	0.00	0.00
19,000.0	90.00	90.25	7,295.0	-2,491.00	633.1	12,887.9	12,903.2	0.00	0.00	0.00
19,100.0	90.00	90.25	7,295.0	-2,491.00	632.7	12,987.9	13,003.1	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 C3-9-11
<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 C3-9-11	<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)
19,200.0	90.00	90.25	7,295.0	-2,491.00	632.2	13,087.9	13,103.0	0.00	0.00	0.00
19,300.0	90.00	90.25	7,295.0	-2,491.00	631.8	13,187.9	13,202.9	0.00	0.00	0.00
19,400.0	90.00	90.25	7,295.0	-2,491.00	631.4	13,287.9	13,302.8	0.00	0.00	0.00
19,500.0	90.00	90.25	7,295.0	-2,491.00	630.9	13,387.9	13,402.7	0.00	0.00	0.00
19,600.0	90.00	90.25	7,295.0	-2,491.00	630.5	13,487.9	13,502.5	0.00	0.00	0.00
19,700.0	90.00	90.25	7,295.0	-2,491.00	630.1	13,587.9	13,602.4	0.00	0.00	0.00
19,800.0	90.00	90.25	7,295.0	-2,491.00	629.7	13,687.9	13,702.3	0.00	0.00	0.00
19,900.0	90.00	90.25	7,295.0	-2,491.00	629.2	13,787.9	13,802.2	0.00	0.00	0.00
20,000.0	90.00	90.25	7,295.0	-2,491.00	628.8	13,887.9	13,902.1	0.00	0.00	0.00
20,100.0	90.00	90.25	7,295.0	-2,491.00	628.4	13,987.9	14,002.0	0.00	0.00	0.00
20,200.0	90.00	90.25	7,295.0	-2,491.00	627.9	14,087.9	14,101.8	0.00	0.00	0.00
20,300.0	90.00	90.25	7,295.0	-2,491.00	627.5	14,187.9	14,201.7	0.00	0.00	0.00
<b>BHL - TC-COUNTRY CLUB WEST C3-9-11</b>										
<b>20,394.1</b>	<b>90.00</b>	<b>90.25</b>	<b>7,295.0</b>	<b>-2,491.00</b>	<b>627.1</b>	<b>14,281.9</b>	<b>14,295.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,738.3	3,680.0	PARKMAN			
4,486.3	4,410.0	SUSSEX			
4,906.4	4,820.0	SHANNON			
7,081.6	6,940.0	SHARON SPRINGS			
7,116.8	6,972.0	NIOBRARA			
7,261.0	7,092.0	NIO B TARGET			
7,558.5	7,260.0	FORT HAYS			
7,652.9	7,285.0	CODELL			

## Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.0	900.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,530.0	1,524.9	34.7	59.6	EOB TO 12.6° INC
6,968.9	6,832.8	631.4	1,085.5	START BUILD & TURN
7,760.5	7,295.0	681.3	1,648.5	LANDING PNT - TC-COUNTRY CLUB WEST C3-9-11
20,394.1	7,295.0	627.1	14,281.9	BHL - TC-COUNTRY CLUB WEST C3-9-11