

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

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

TC-MOISER HILL 2-9-11

ORIGINAL WELLBORE

01 July, 2016

Plan: PROPOSAL #2





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE SE SEC. 8 T5N R66W 6th P.M.
Well: TC-MOISER HILL 2-9-11
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS										FORMATION TOP DETAILS		
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation		TVDPath	MDPath	Formation
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		3680.0	3919.1	PARKMAN
1210.2	1240.0	22.80	25.26	202.4	95.5	127.8	223.8	EOB TO 22.8° INC		4410.0	4711.0	SUSSEX
6643.5	7133.8	22.80	25.27	2267.7	1070.3	1432.0	2507.6	START BUILD & TURN		4820.0	5155.8	SHANNON
7092.0	7940.5	90.00	90.53	2433.7	1637.2	2018.6	3118.8	LANDING PNT - TC-MOISER HILL 2-9-11		6940.0	7497.8	SHARON SPRINGS
7092.0	20562.1	90.00	89.76	2401.3	14258.6	14459.4	15740.4	BHL - TC-MOISER HILL 2-9-11 (P2)		6972.0	7549.3	NIOBRARA
										7092.0	7940.5	NIO B TARGET

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-MOISER HILL 2-9-11	7092.0	2433.7	1637.2	40.421410	-104.792810
IP #1 - TC-MOISER HILL 2-9-11	7092.0	2413.1	3861.6	40.421353	-104.784821
IP #2 - TC-MOISER HILL 2-9-11	7092.0	2388.1	6519.8	40.421283	-104.775274
IP #3 - TC-MOISER HILL 2-9-11	7092.0	2394.0	9138.9	40.421297	-104.765867
IP #4 - TC-MOISER HILL 2-9-11	7092.0	2390.8	11782.5	40.421285	-104.756373
BHL - TC-MOISER HILL 2-9-11 (P2)	7092.0	2401.3	14258.6	40.421310	-104.747480

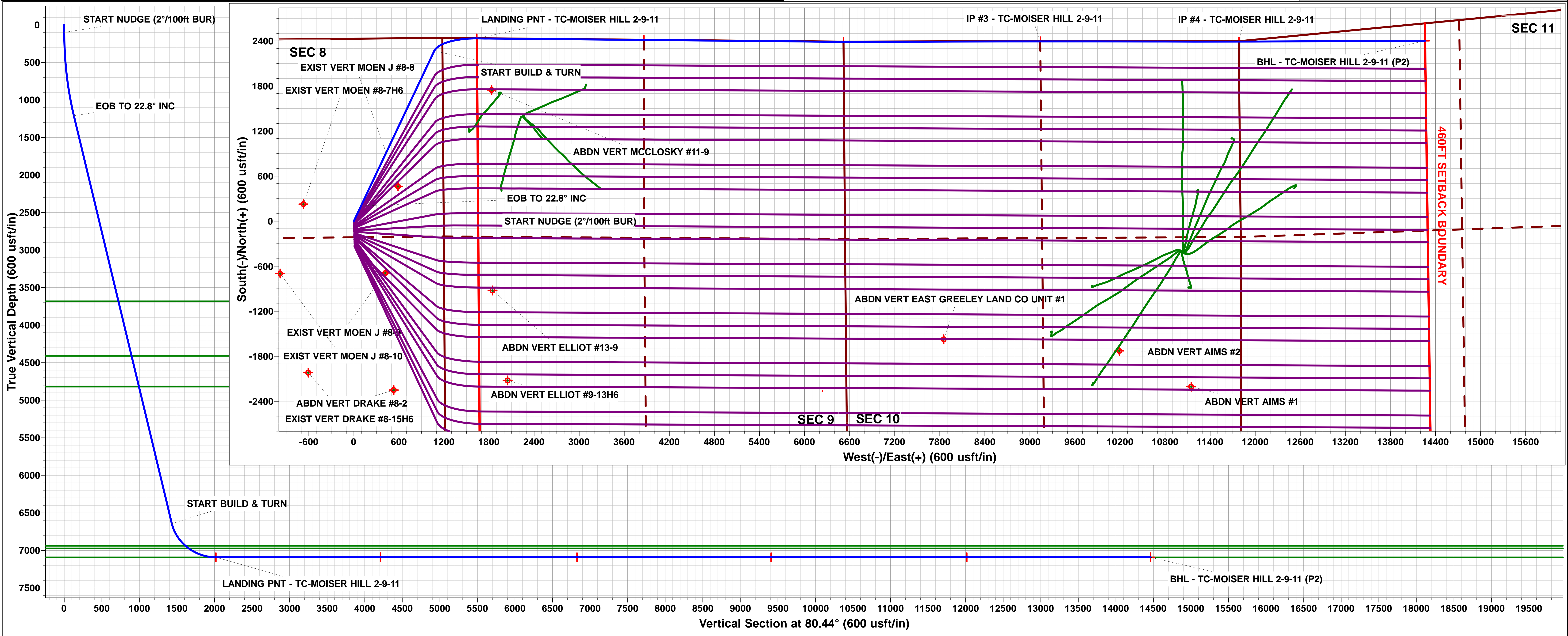
South(-)/North(+) (150 usft/in)

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

Azimuths to True North
Magnetic North: 8.33°

Magnetic Field
Strength: 52506.3snT
Dip Angle: 66.89°
Date: 01/07/2016
Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-MOISER HILL 2-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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

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

Well	TC-MOISER HILL 2-9-11		
Well Position	+N/-S	335.2 usft	Northing:
	+E/-W	-8.4 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Latitude:
			40.414730
			Longitude:
			-104.798690
			Ground Level:
			4,787.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	01/07/2016	8.33	66.89	52,506

Design	PROPOSAL #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	80.44

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	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	
100.0	0.00	0.00	100.0	-4,703.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,240.0	22.80	25.26	1,210.2	-3,592.8	202.4	95.5	2.00	2.00	0.00	25.26	
1,240.0	22.80	25.27	1,210.2	-3,592.8	202.5	95.5	10.00	-7.14	18.03	135.63	
7,133.8	22.80	25.27	6,643.5	1,840.5	2,267.7	1,070.3	0.00	0.00	0.00	0.00	
7,940.5	90.00	90.53	7,092.0	2,289.0	2,433.7	1,637.2	10.00	8.33	8.09	66.99	LANDING PNT - TC
10,165.0	90.00	90.53	7,092.0	2,289.0	2,413.1	3,861.6	0.00	0.00	0.00	0.00	IP #1 - TC-MOISER
10,165.7	90.00	90.54	7,092.0	2,289.0	2,413.1	3,862.3	2.00	0.00	2.00	90.00	
12,789.7	90.00	90.54	7,092.0	2,289.0	2,388.2	6,486.2	0.00	0.00	0.00	0.00	
12,823.3	90.00	89.87	7,092.0	2,289.0	2,388.1	6,519.8	2.00	0.00	-2.00	-90.00	IP #2 - TC-MOISER
12,823.3	90.00	89.87	7,092.0	2,289.0	2,388.1	6,519.8	2.00	0.00	-2.00	-90.00	
15,432.5	90.00	89.87	7,092.0	2,289.0	2,394.0	9,129.0	0.00	0.00	0.00	0.00	
15,442.4	90.00	90.07	7,092.0	2,289.0	2,394.0	9,138.9	2.00	0.00	2.00	90.00	IP #3 - TC-MOISER
18,086.0	90.00	90.07	7,092.0	2,289.0	2,390.8	11,782.5	0.00	0.00	0.00	0.00	IP #4 - TC-MOISER
18,101.7	90.00	89.76	7,092.0	2,289.0	2,390.8	11,798.2	2.00	0.00	-2.00	-90.00	
20,562.1	90.00	89.76	7,092.0	2,289.0	2,401.3	14,258.6	0.00	0.00	0.00	0.00	BHL - TC-MOISER

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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
START NUDGE (2°/100ft BUR)										
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	2.00	25.26	200.0	4,603.02	1.6	0.7	1.0	2.00	2.00	0.00
300.0	4.00	25.26	299.8	4,503.16	6.3	3.0	4.0	2.00	2.00	0.00
400.0	6.00	25.26	399.5	4,403.55	14.2	6.7	9.0	2.00	2.00	0.00
500.0	8.00	25.26	498.7	4,304.30	25.2	11.9	15.9	2.00	2.00	0.00
600.0	10.00	25.26	597.5	4,205.53	39.4	18.6	24.9	2.00	2.00	0.00
700.0	12.00	25.26	695.6	4,107.38	56.6	26.7	35.7	2.00	2.00	0.00
800.0	14.00	25.26	793.1	4,009.94	77.0	36.3	48.6	2.00	2.00	0.00
900.0	16.00	25.26	889.6	3,913.36	100.4	47.4	63.4	2.00	2.00	0.00
1,000.0	18.00	25.26	985.3	3,817.73	126.8	59.8	80.1	2.00	2.00	0.00
1,100.0	20.00	25.26	1,079.8	3,723.18	156.2	73.7	98.6	2.00	2.00	0.00
1,200.0	22.00	25.26	1,173.2	3,629.83	188.7	89.0	119.1	2.00	2.00	0.00
EOB TO 22.8° INC										
1,240.0	22.80	25.26	1,210.2	3,592.85	202.4	95.5	127.8	2.00	2.00	0.00
1,300.0	22.80	25.27	1,265.5	3,537.54	223.5	105.4	141.1	0.01	0.00	0.01
1,400.0	22.80	25.27	1,357.7	3,445.35	258.5	122.0	163.2	0.00	0.00	0.00
1,500.0	22.80	25.27	1,449.8	3,353.16	293.5	138.5	185.3	0.00	0.00	0.00
1,600.0	22.80	25.27	1,542.0	3,260.97	328.6	155.1	207.5	0.00	0.00	0.00
1,700.0	22.80	25.27	1,634.2	3,168.79	363.6	171.6	229.6	0.00	0.00	0.00
1,800.0	22.80	25.27	1,726.4	3,076.60	398.7	188.1	251.7	0.00	0.00	0.00
1,900.0	22.80	25.27	1,818.6	2,984.41	433.7	204.7	273.9	0.00	0.00	0.00
2,000.0	22.80	25.27	1,910.8	2,892.22	468.8	221.2	296.0	0.00	0.00	0.00
2,100.0	22.80	25.27	2,003.0	2,800.03	503.8	237.8	318.1	0.00	0.00	0.00
2,200.0	22.80	25.27	2,095.2	2,707.85	538.8	254.3	340.2	0.00	0.00	0.00
2,300.0	22.80	25.27	2,187.3	2,615.66	573.9	270.8	362.4	0.00	0.00	0.00
2,400.0	22.80	25.27	2,279.5	2,523.47	608.9	287.4	384.5	0.00	0.00	0.00
2,500.0	22.80	25.27	2,371.7	2,431.28	644.0	303.9	406.6	0.00	0.00	0.00
2,600.0	22.80	25.27	2,463.9	2,339.09	679.0	320.4	428.8	0.00	0.00	0.00
2,700.0	22.80	25.27	2,556.1	2,246.91	714.0	337.0	450.9	0.00	0.00	0.00
2,800.0	22.80	25.27	2,648.3	2,154.72	749.1	353.5	473.0	0.00	0.00	0.00
2,900.0	22.80	25.27	2,740.5	2,062.53	784.1	370.1	495.1	0.00	0.00	0.00
3,000.0	22.80	25.27	2,832.7	1,970.34	819.2	386.6	517.3	0.00	0.00	0.00
3,100.0	22.80	25.27	2,924.8	1,878.16	854.2	403.1	539.4	0.00	0.00	0.00
3,200.0	22.80	25.27	3,017.0	1,785.97	889.2	419.7	561.5	0.00	0.00	0.00
3,300.0	22.80	25.27	3,109.2	1,693.78	924.3	436.2	583.7	0.00	0.00	0.00
3,400.0	22.80	25.27	3,201.4	1,601.59	959.3	452.7	605.8	0.00	0.00	0.00
3,500.0	22.80	25.27	3,293.6	1,509.40	994.4	469.3	627.9	0.00	0.00	0.00
3,600.0	22.80	25.27	3,385.8	1,417.22	1,029.4	485.8	650.0	0.00	0.00	0.00
3,700.0	22.80	25.27	3,478.0	1,325.03	1,064.5	502.4	672.2	0.00	0.00	0.00
3,800.0	22.80	25.27	3,570.2	1,232.84	1,099.5	518.9	694.3	0.00	0.00	0.00
3,900.0	22.80	25.27	3,662.3	1,140.65	1,134.5	535.4	716.4	0.00	0.00	0.00
PARKMAN										
3,919.1	22.80	25.27	3,680.0	1,123.00	1,141.2	538.6	720.7	0.00	0.00	0.00
4,000.0	22.80	25.27	3,754.5	1,048.46	1,169.6	552.0	738.5	0.00	0.00	0.00
4,100.0	22.80	25.27	3,846.7	956.28	1,204.6	568.5	760.7	0.00	0.00	0.00
4,200.0	22.80	25.27	3,938.9	864.09	1,239.7	585.1	782.8	0.00	0.00	0.00
4,300.0	22.80	25.27	4,031.1	771.90	1,274.7	601.6	804.9	0.00	0.00	0.00
4,400.0	22.80	25.27	4,123.3	679.71	1,309.7	618.1	827.1	0.00	0.00	0.00
4,500.0	22.80	25.27	4,215.5	587.53	1,344.8	634.7	849.2	0.00	0.00	0.00
4,600.0	22.80	25.27	4,307.7	495.34	1,379.8	651.2	871.3	0.00	0.00	0.00
4,700.0	22.80	25.27	4,399.9	403.15	1,414.9	667.7	893.4	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-MOISER HILL 2-9-11
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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
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Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
SUSSEX										
4,711.0	22.80	25.27	4,410.0	393.00	1,418.7	669.6	895.9	0.00	0.00	0.00
4,800.0	22.80	25.27	4,492.0	310.96	1,449.9	684.3	915.6	0.00	0.00	0.00
4,900.0	22.80	25.27	4,584.2	218.77	1,484.9	700.8	937.7	0.00	0.00	0.00
5,000.0	22.80	25.27	4,676.4	126.59	1,520.0	717.4	959.8	0.00	0.00	0.00
5,100.0	22.80	25.27	4,768.6	34.40	1,555.0	733.9	982.0	0.00	0.00	0.00
SHANNON										
5,155.8	22.80	25.27	4,820.0	-17.00	1,574.6	743.1	994.3	0.00	0.00	0.00
5,200.0	22.80	25.27	4,860.8	-57.79	1,590.1	750.4	1,004.1	0.00	0.00	0.00
5,300.0	22.80	25.27	4,953.0	-149.98	1,625.1	767.0	1,026.2	0.00	0.00	0.00
5,400.0	22.80	25.27	5,045.2	-242.17	1,660.2	783.5	1,048.3	0.00	0.00	0.00
5,500.0	22.80	25.27	5,137.4	-334.35	1,695.2	800.1	1,070.5	0.00	0.00	0.00
5,600.0	22.80	25.27	5,229.5	-426.54	1,730.2	816.6	1,092.6	0.00	0.00	0.00
5,700.0	22.80	25.27	5,321.7	-518.73	1,765.3	833.1	1,114.7	0.00	0.00	0.00
5,800.0	22.80	25.27	5,413.9	-610.92	1,800.3	849.7	1,136.9	0.00	0.00	0.00
5,900.0	22.80	25.27	5,506.1	-703.10	1,835.4	866.2	1,159.0	0.00	0.00	0.00
6,000.0	22.80	25.27	5,598.3	-795.29	1,870.4	882.7	1,181.1	0.00	0.00	0.00
6,100.0	22.80	25.27	5,690.5	-887.48	1,905.4	899.3	1,203.2	0.00	0.00	0.00
6,200.0	22.80	25.27	5,782.7	-979.67	1,940.5	915.8	1,225.4	0.00	0.00	0.00
6,300.0	22.80	25.27	5,874.9	-1,071.86	1,975.5	932.4	1,247.5	0.00	0.00	0.00
6,400.0	22.80	25.27	5,967.0	-1,164.04	2,010.6	948.9	1,269.6	0.00	0.00	0.00
6,500.0	22.80	25.27	6,059.2	-1,256.23	2,045.6	965.4	1,291.7	0.00	0.00	0.00
6,600.0	22.80	25.27	6,151.4	-1,348.42	2,080.6	982.0	1,313.9	0.00	0.00	0.00
6,700.0	22.80	25.27	6,243.6	-1,440.61	2,115.7	998.5	1,336.0	0.00	0.00	0.00
6,800.0	22.80	25.27	6,335.8	-1,532.80	2,150.7	1,015.0	1,358.1	0.00	0.00	0.00
6,900.0	22.80	25.27	6,428.0	-1,624.98	2,185.8	1,031.6	1,380.3	0.00	0.00	0.00
7,000.0	22.80	25.27	6,520.2	-1,717.17	2,220.8	1,048.1	1,402.4	0.00	0.00	0.00
7,100.0	22.80	25.27	6,612.4	-1,809.36	2,255.9	1,064.7	1,424.5	0.00	0.00	0.00
START BUILD & TURN										
7,133.8	22.80	25.27	6,643.5	-1,840.52	2,267.7	1,070.3	1,432.0	0.00	0.00	0.00
7,200.0	26.07	39.24	6,703.8	-1,900.83	2,290.6	1,084.9	1,450.3	10.00	4.94	21.11
7,300.0	32.86	54.30	6,791.0	-1,987.97	2,323.5	1,121.0	1,491.3	10.00	6.79	15.06
7,400.0	40.86	64.34	6,871.0	-2,067.99	2,353.6	1,172.6	1,547.2	10.00	8.01	10.05
SHARON SPRINGS										
7,497.8	49.30	71.36	6,940.0	-2,137.00	2,379.3	1,236.7	1,614.7	10.00	8.63	7.17
7,500.0	49.49	71.50	6,941.5	-2,138.46	2,379.9	1,238.3	1,616.4	10.00	8.83	6.19
NIOBRARA										
7,549.3	53.88	74.35	6,972.0	-2,169.00	2,391.2	1,275.3	1,654.7	10.00	8.91	5.80
7,600.0	58.46	76.98	7,000.2	-2,197.24	2,401.6	1,316.1	1,696.7	10.00	9.03	5.18
7,700.0	67.62	81.49	7,045.5	-2,242.54	2,418.1	1,403.6	1,785.6	10.00	9.16	4.51
7,800.0	76.89	85.43	7,076.0	-2,272.99	2,428.8	1,498.1	1,880.6	10.00	9.27	3.94
7,900.0	86.22	89.08	7,090.7	-2,287.66	2,433.5	1,596.7	1,978.7	10.00	9.33	3.65
LANDING PNT - TC-MOISER HILL 2-9-11 - NIO B TARGET										
7,940.5	90.00	90.53	7,092.0	-2,289.00	2,433.7	1,637.2	2,018.6	10.00	9.34	3.57
8,000.0	90.00	90.53	7,092.0	-2,289.00	2,433.1	1,696.7	2,077.2	0.00	0.00	0.00
8,100.0	90.00	90.53	7,092.0	-2,289.00	2,432.2	1,796.7	2,175.7	0.00	0.00	0.00
8,200.0	90.00	90.53	7,092.0	-2,289.00	2,431.3	1,896.7	2,274.1	0.00	0.00	0.00
8,300.0	90.00	90.53	7,092.0	-2,289.00	2,430.3	1,996.7	2,372.6	0.00	0.00	0.00
8,400.0	90.00	90.53	7,092.0	-2,289.00	2,429.4	2,096.7	2,471.0	0.00	0.00	0.00
8,500.0	90.00	90.53	7,092.0	-2,289.00	2,428.5	2,196.7	2,569.5	0.00	0.00	0.00
8,600.0	90.00	90.53	7,092.0	-2,289.00	2,427.6	2,296.7	2,667.9	0.00	0.00	0.00
8,700.0	90.00	90.53	7,092.0	-2,289.00	2,426.6	2,396.7	2,766.4	0.00	0.00	0.00
8,800.0	90.00	90.53	7,092.0	-2,289.00	2,425.7	2,496.7	2,864.8	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-MOISER HILL 2-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
8,900.0	90.00	90.53	7,092.0	-2,289.00	2,424.8	2,596.7	2,963.3	0.00	0.00	0.00
9,000.0	90.00	90.53	7,092.0	-2,289.00	2,423.9	2,696.7	3,061.8	0.00	0.00	0.00
9,100.0	90.00	90.53	7,092.0	-2,289.00	2,422.9	2,796.7	3,160.2	0.00	0.00	0.00
9,200.0	90.00	90.53	7,092.0	-2,289.00	2,422.0	2,896.7	3,258.7	0.00	0.00	0.00
9,300.0	90.00	90.53	7,092.0	-2,289.00	2,421.1	2,996.6	3,357.1	0.00	0.00	0.00
9,400.0	90.00	90.53	7,092.0	-2,289.00	2,420.2	3,096.6	3,455.6	0.00	0.00	0.00
9,500.0	90.00	90.53	7,092.0	-2,289.00	2,419.2	3,196.6	3,554.0	0.00	0.00	0.00
9,600.0	90.00	90.53	7,092.0	-2,289.00	2,418.3	3,296.6	3,652.5	0.00	0.00	0.00
9,700.0	90.00	90.53	7,092.0	-2,289.00	2,417.4	3,396.6	3,750.9	0.00	0.00	0.00
9,800.0	90.00	90.53	7,092.0	-2,289.00	2,416.5	3,496.6	3,849.4	0.00	0.00	0.00
9,900.0	90.00	90.53	7,092.0	-2,289.00	2,415.6	3,596.6	3,947.8	0.00	0.00	0.00
10,000.0	90.00	90.53	7,092.0	-2,289.00	2,414.6	3,696.6	4,046.3	0.00	0.00	0.00
10,100.0	90.00	90.53	7,092.0	-2,289.00	2,413.7	3,796.6	4,144.7	0.00	0.00	0.00
10,165.0	90.00	90.53	7,092.0	-2,289.00	2,413.1	3,861.6	4,208.7	0.00	0.00	0.00
10,165.7	90.00	90.54	7,092.0	-2,289.00	2,413.1	3,862.3	4,209.4	2.00	0.00	2.00
10,200.0	90.00	90.54	7,092.0	-2,289.00	2,412.8	3,896.6	4,243.2	0.00	0.00	0.00
10,300.0	90.00	90.54	7,092.0	-2,289.00	2,411.8	3,996.6	4,341.6	0.00	0.00	0.00
10,400.0	90.00	90.54	7,092.0	-2,289.00	2,410.9	4,096.6	4,440.1	0.00	0.00	0.00
10,500.0	90.00	90.54	7,092.0	-2,289.00	2,409.9	4,196.6	4,538.5	0.00	0.00	0.00
10,600.0	90.00	90.54	7,092.0	-2,289.00	2,409.0	4,296.6	4,637.0	0.00	0.00	0.00
10,700.0	90.00	90.54	7,092.0	-2,289.00	2,408.0	4,396.6	4,735.4	0.00	0.00	0.00
10,800.0	90.00	90.54	7,092.0	-2,289.00	2,407.1	4,496.6	4,833.9	0.00	0.00	0.00
10,900.0	90.00	90.54	7,092.0	-2,289.00	2,406.1	4,596.6	4,932.3	0.00	0.00	0.00
11,000.0	90.00	90.54	7,092.0	-2,289.00	2,405.2	4,696.6	5,030.8	0.00	0.00	0.00
11,100.0	90.00	90.54	7,092.0	-2,289.00	2,404.2	4,796.6	5,129.2	0.00	0.00	0.00
11,200.0	90.00	90.54	7,092.0	-2,289.00	2,403.3	4,896.6	5,227.7	0.00	0.00	0.00
11,300.0	90.00	90.54	7,092.0	-2,289.00	2,402.3	4,996.6	5,326.1	0.00	0.00	0.00
11,400.0	90.00	90.54	7,092.0	-2,289.00	2,401.4	5,096.6	5,424.6	0.00	0.00	0.00
11,500.0	90.00	90.54	7,092.0	-2,289.00	2,400.4	5,196.6	5,523.0	0.00	0.00	0.00
11,600.0	90.00	90.54	7,092.0	-2,289.00	2,399.5	5,296.5	5,621.5	0.00	0.00	0.00
11,700.0	90.00	90.54	7,092.0	-2,289.00	2,398.6	5,396.5	5,719.9	0.00	0.00	0.00
11,800.0	90.00	90.54	7,092.0	-2,289.00	2,397.6	5,496.5	5,818.4	0.00	0.00	0.00
11,900.0	90.00	90.54	7,092.0	-2,289.00	2,396.7	5,596.5	5,916.8	0.00	0.00	0.00
12,000.0	90.00	90.54	7,092.0	-2,289.00	2,395.7	5,696.5	6,015.3	0.00	0.00	0.00
12,100.0	90.00	90.54	7,092.0	-2,289.00	2,394.8	5,796.5	6,113.7	0.00	0.00	0.00
12,200.0	90.00	90.54	7,092.0	-2,289.00	2,393.8	5,896.5	6,212.2	0.00	0.00	0.00
12,300.0	90.00	90.54	7,092.0	-2,289.00	2,392.9	5,996.5	6,310.6	0.00	0.00	0.00
12,400.0	90.00	90.54	7,092.0	-2,289.00	2,391.9	6,096.5	6,409.1	0.00	0.00	0.00
12,500.0	90.00	90.54	7,092.0	-2,289.00	2,391.0	6,196.5	6,507.5	0.00	0.00	0.00
12,600.0	90.00	90.54	7,092.0	-2,289.00	2,390.0	6,296.5	6,606.0	0.00	0.00	0.00
12,700.0	90.00	90.54	7,092.0	-2,289.00	2,389.1	6,396.5	6,704.4	0.00	0.00	0.00
12,789.7	90.00	90.54	7,092.0	-2,289.00	2,388.2	6,486.2	6,792.7	0.00	0.00	0.00
12,800.0	90.00	90.34	7,092.0	-2,289.00	2,388.1	6,496.5	6,802.9	2.00	0.00	-2.00
12,823.3	90.00	89.87	7,092.0	-2,289.00	2,388.1	6,519.8	6,825.9	2.00	0.00	-2.00
12,900.0	90.00	89.87	7,092.0	-2,289.00	2,388.3	6,596.5	6,901.5	0.00	0.00	0.00
13,000.0	90.00	89.87	7,092.0	-2,289.00	2,388.5	6,696.5	7,000.2	0.00	0.00	0.00
13,100.0	90.00	89.87	7,092.0	-2,289.00	2,388.7	6,796.5	7,098.8	0.00	0.00	0.00
13,200.0	90.00	89.87	7,092.0	-2,289.00	2,389.0	6,896.5	7,197.5	0.00	0.00	0.00
13,300.0	90.00	89.87	7,092.0	-2,289.00	2,389.2	6,996.5	7,296.1	0.00	0.00	0.00
13,400.0	90.00	89.87	7,092.0	-2,289.00	2,389.4	7,096.5	7,394.8	0.00	0.00	0.00
13,500.0	90.00	89.87	7,092.0	-2,289.00	2,389.6	7,196.5	7,493.4	0.00	0.00	0.00
13,600.0	90.00	89.87	7,092.0	-2,289.00	2,389.9	7,296.5	7,592.1	0.00	0.00	0.00
13,700.0	90.00	89.87	7,092.0	-2,289.00	2,390.1	7,396.5	7,690.7	0.00	0.00	0.00
13,800.0	90.00	89.87	7,092.0	-2,289.00	2,390.3	7,496.5	7,789.4	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-MOISER HILL 2-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
13,900.0	90.00	89.87	7,092.0	-2,289.00	2,390.5	7,596.5	7,888.0	0.00	0.00	0.00
14,000.0	90.00	89.87	7,092.0	-2,289.00	2,390.8	7,696.5	7,986.7	0.00	0.00	0.00
14,100.0	90.00	89.87	7,092.0	-2,289.00	2,391.0	7,796.5	8,085.3	0.00	0.00	0.00
14,200.0	90.00	89.87	7,092.0	-2,289.00	2,391.2	7,896.5	8,184.0	0.00	0.00	0.00
14,300.0	90.00	89.87	7,092.0	-2,289.00	2,391.4	7,996.5	8,282.6	0.00	0.00	0.00
14,400.0	90.00	89.87	7,092.0	-2,289.00	2,391.7	8,096.5	8,381.2	0.00	0.00	0.00
14,500.0	90.00	89.87	7,092.0	-2,289.00	2,391.9	8,196.5	8,479.9	0.00	0.00	0.00
14,600.0	90.00	89.87	7,092.0	-2,289.00	2,392.1	8,296.5	8,578.5	0.00	0.00	0.00
14,700.0	90.00	89.87	7,092.0	-2,289.00	2,392.3	8,396.5	8,677.2	0.00	0.00	0.00
14,800.0	90.00	89.87	7,092.0	-2,289.00	2,392.6	8,496.5	8,775.8	0.00	0.00	0.00
14,900.0	90.00	89.87	7,092.0	-2,289.00	2,392.8	8,596.5	8,874.5	0.00	0.00	0.00
15,000.0	90.00	89.87	7,092.0	-2,289.00	2,393.0	8,696.5	8,973.1	0.00	0.00	0.00
15,100.0	90.00	89.87	7,092.0	-2,289.00	2,393.2	8,796.5	9,071.8	0.00	0.00	0.00
15,200.0	90.00	89.87	7,092.0	-2,289.00	2,393.5	8,896.5	9,170.4	0.00	0.00	0.00
15,300.0	90.00	89.87	7,092.0	-2,289.00	2,393.7	8,996.5	9,269.1	0.00	0.00	0.00
15,400.0	90.00	89.87	7,092.0	-2,289.00	2,393.9	9,096.5	9,367.7	0.00	0.00	0.00
15,432.5	90.00	89.87	7,092.0	-2,289.00	2,394.0	9,129.0	9,399.8	0.00	0.00	0.00
15,442.4	90.00	90.07	7,092.0	-2,289.00	2,394.0	9,138.9	9,409.6	2.00	0.00	2.00
15,500.0	90.00	90.07	7,092.0	-2,289.00	2,393.9	9,196.5	9,466.3	0.00	0.00	0.00
15,600.0	90.00	90.07	7,092.0	-2,289.00	2,393.8	9,296.5	9,564.9	0.00	0.00	0.00
15,700.0	90.00	90.07	7,092.0	-2,289.00	2,393.7	9,396.5	9,663.5	0.00	0.00	0.00
15,800.0	90.00	90.07	7,092.0	-2,289.00	2,393.6	9,496.5	9,762.1	0.00	0.00	0.00
15,900.0	90.00	90.07	7,092.0	-2,289.00	2,393.4	9,596.5	9,860.7	0.00	0.00	0.00
16,000.0	90.00	90.07	7,092.0	-2,289.00	2,393.3	9,696.5	9,959.3	0.00	0.00	0.00
16,100.0	90.00	90.07	7,092.0	-2,289.00	2,393.2	9,796.5	10,057.9	0.00	0.00	0.00
16,200.0	90.00	90.07	7,092.0	-2,289.00	2,393.1	9,896.5	10,156.5	0.00	0.00	0.00
16,300.0	90.00	90.07	7,092.0	-2,289.00	2,393.0	9,996.5	10,255.1	0.00	0.00	0.00
16,400.0	90.00	90.07	7,092.0	-2,289.00	2,392.8	10,096.5	10,353.7	0.00	0.00	0.00
16,500.0	90.00	90.07	7,092.0	-2,289.00	2,392.7	10,196.5	10,452.3	0.00	0.00	0.00
16,600.0	90.00	90.07	7,092.0	-2,289.00	2,392.6	10,296.5	10,550.8	0.00	0.00	0.00
16,700.0	90.00	90.07	7,092.0	-2,289.00	2,392.5	10,396.5	10,649.4	0.00	0.00	0.00
16,800.0	90.00	90.07	7,092.0	-2,289.00	2,392.4	10,496.5	10,748.0	0.00	0.00	0.00
16,900.0	90.00	90.07	7,092.0	-2,289.00	2,392.2	10,596.5	10,846.6	0.00	0.00	0.00
17,000.0	90.00	90.07	7,092.0	-2,289.00	2,392.1	10,696.5	10,945.2	0.00	0.00	0.00
17,100.0	90.00	90.07	7,092.0	-2,289.00	2,392.0	10,796.5	11,043.8	0.00	0.00	0.00
17,200.0	90.00	90.07	7,092.0	-2,289.00	2,391.9	10,896.5	11,142.4	0.00	0.00	0.00
17,300.0	90.00	90.07	7,092.0	-2,289.00	2,391.8	10,996.5	11,241.0	0.00	0.00	0.00
17,400.0	90.00	90.07	7,092.0	-2,289.00	2,391.6	11,096.5	11,339.6	0.00	0.00	0.00
17,500.0	90.00	90.07	7,092.0	-2,289.00	2,391.5	11,196.5	11,438.2	0.00	0.00	0.00
17,600.0	90.00	90.07	7,092.0	-2,289.00	2,391.4	11,296.5	11,536.8	0.00	0.00	0.00
17,700.0	90.00	90.07	7,092.0	-2,289.00	2,391.3	11,396.5	11,635.4	0.00	0.00	0.00
17,800.0	90.00	90.07	7,092.0	-2,289.00	2,391.1	11,496.5	11,733.9	0.00	0.00	0.00
17,900.0	90.00	90.07	7,092.0	-2,289.00	2,391.0	11,596.5	11,832.5	0.00	0.00	0.00
18,000.0	90.00	90.07	7,092.0	-2,289.00	2,390.9	11,696.5	11,931.1	0.00	0.00	0.00
18,086.0	90.00	90.07	7,092.0	-2,289.00	2,390.8	11,782.5	12,015.9	0.00	0.00	0.00
18,100.0	90.00	89.79	7,092.0	-2,289.00	2,390.8	11,796.5	12,029.7	2.00	0.00	-2.00
18,101.7	90.00	89.76	7,092.0	-2,289.00	2,390.8	11,798.2	12,031.4	2.00	0.00	-2.00
18,200.0	90.00	89.76	7,092.0	-2,289.00	2,391.2	11,896.5	12,128.4	0.00	0.00	0.00
18,300.0	90.00	89.76	7,092.0	-2,289.00	2,391.7	11,996.5	12,227.1	0.00	0.00	0.00
18,400.0	90.00	89.76	7,092.0	-2,289.00	2,392.1	12,096.5	12,325.8	0.00	0.00	0.00
18,500.0	90.00	89.76	7,092.0	-2,289.00	2,392.5	12,196.5	12,424.4	0.00	0.00	0.00
18,600.0	90.00	89.76	7,092.0	-2,289.00	2,392.9	12,296.5	12,523.1	0.00	0.00	0.00
18,700.0	90.00	89.76	7,092.0	-2,289.00	2,393.4	12,396.5	12,621.8	0.00	0.00	0.00
18,800.0	90.00	89.76	7,092.0	-2,289.00	2,393.8	12,496.5	12,720.5	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well TC-MOISER HILL 2-9-11
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4803.0usft (Original Well Elev)
Site:	NE SE SEC. 8 T5N R66W 6th P.M.	North Reference:	True
Well:	TC-MOISER HILL 2-9-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
18,900.0	90.00	89.76	7,092.0	-2,289.00	2,394.2	12,596.5	12,819.2	0.00	0.00	0.00
19,000.0	90.00	89.76	7,092.0	-2,289.00	2,394.6	12,696.5	12,917.9	0.00	0.00	0.00
19,100.0	90.00	89.76	7,092.0	-2,289.00	2,395.1	12,796.5	13,016.5	0.00	0.00	0.00
19,200.0	90.00	89.76	7,092.0	-2,289.00	2,395.5	12,896.5	13,115.2	0.00	0.00	0.00
19,300.0	90.00	89.76	7,092.0	-2,289.00	2,395.9	12,996.5	13,213.9	0.00	0.00	0.00
19,400.0	90.00	89.76	7,092.0	-2,289.00	2,396.4	13,096.5	13,312.6	0.00	0.00	0.00
19,500.0	90.00	89.76	7,092.0	-2,289.00	2,396.8	13,196.5	13,411.3	0.00	0.00	0.00
19,600.0	90.00	89.76	7,092.0	-2,289.00	2,397.2	13,296.5	13,509.9	0.00	0.00	0.00
19,700.0	90.00	89.76	7,092.0	-2,289.00	2,397.6	13,396.5	13,608.6	0.00	0.00	0.00
19,800.0	90.00	89.76	7,092.0	-2,289.00	2,398.1	13,496.5	13,707.3	0.00	0.00	0.00
19,900.0	90.00	89.76	7,092.0	-2,289.00	2,398.5	13,596.5	13,806.0	0.00	0.00	0.00
20,000.0	90.00	89.76	7,092.0	-2,289.00	2,398.9	13,696.5	13,904.7	0.00	0.00	0.00
20,100.0	90.00	89.76	7,092.0	-2,289.00	2,399.3	13,796.5	14,003.3	0.00	0.00	0.00
20,200.0	90.00	89.76	7,092.0	-2,289.00	2,399.8	13,896.5	14,102.0	0.00	0.00	0.00
20,300.0	90.00	89.76	7,092.0	-2,289.00	2,400.2	13,996.5	14,200.7	0.00	0.00	0.00
20,400.0	90.00	89.76	7,092.0	-2,289.00	2,400.6	14,096.5	14,299.4	0.00	0.00	0.00
20,500.0	90.00	89.76	7,092.0	-2,289.00	2,401.0	14,196.5	14,398.1	0.00	0.00	0.00
BHL - TC-MOISER HILL 2-9-11 (P2)										
20,562.1	90.00	89.76	7,092.0	-2,289.00	2,401.3	14,258.6	14,459.4	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,919.1	3,680.0	PARKMAN			
4,711.0	4,410.0	SUSSEX			
5,155.8	4,820.0	SHANNON			
7,497.8	6,940.0	SHARON SPRINGS			
7,549.3	6,972.0	NIOBRARA			
7,940.5	7,092.0	NIO B TARGET			

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.0	100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,240.0	1,210.2	202.4	95.5	EOB TO 22.8° INC
7,133.8	6,643.5	2,267.7	1,070.3	START BUILD & TURN
7,940.5	7,092.0	2,433.7	1,637.2	LANDING PNT - TC-MOISER HILL 2-9-11
20,562.1	7,092.0	2,401.3	14,258.6	BHL - TC-MOISER HILL 2-9-11 (P2)