

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 9 T5N R65W 6th P.M.

MT-MAPLEWOOD 5-8-7

ORIGINAL WELLBORE

20 June, 2015

Plan: PROPOSAL #2

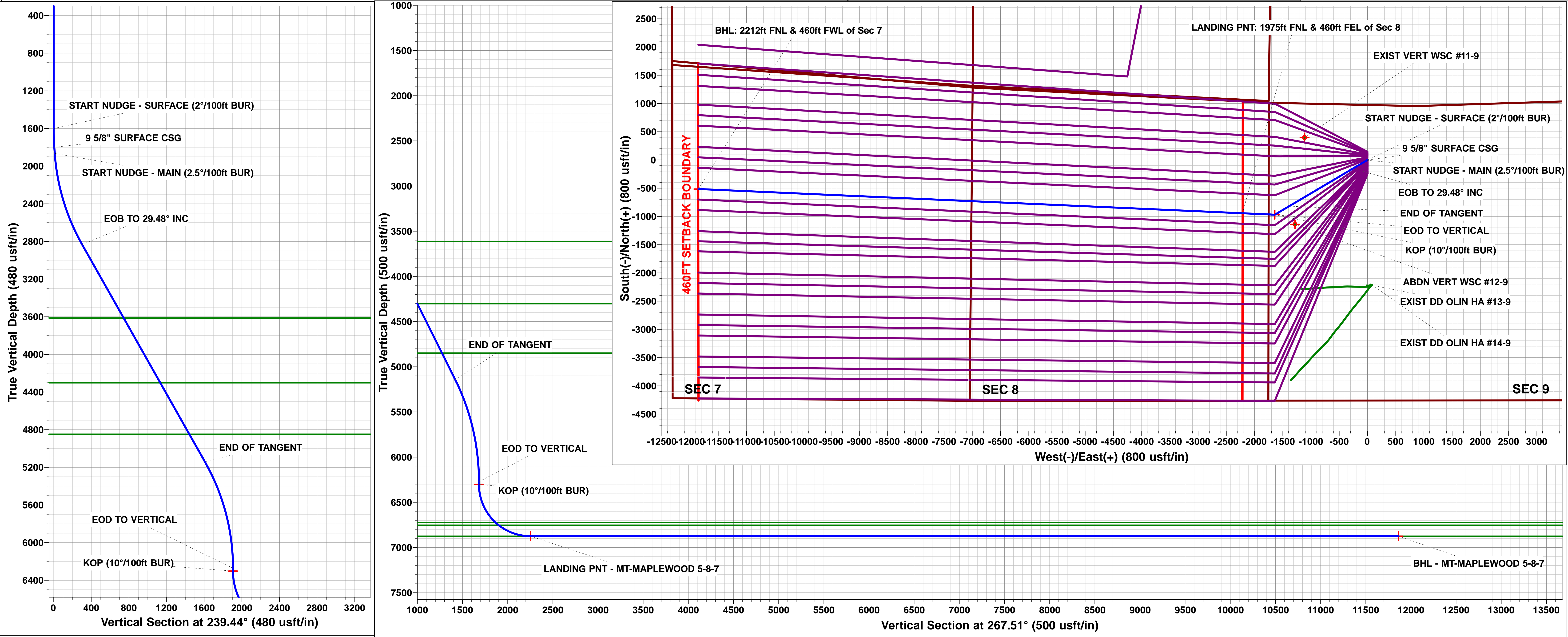
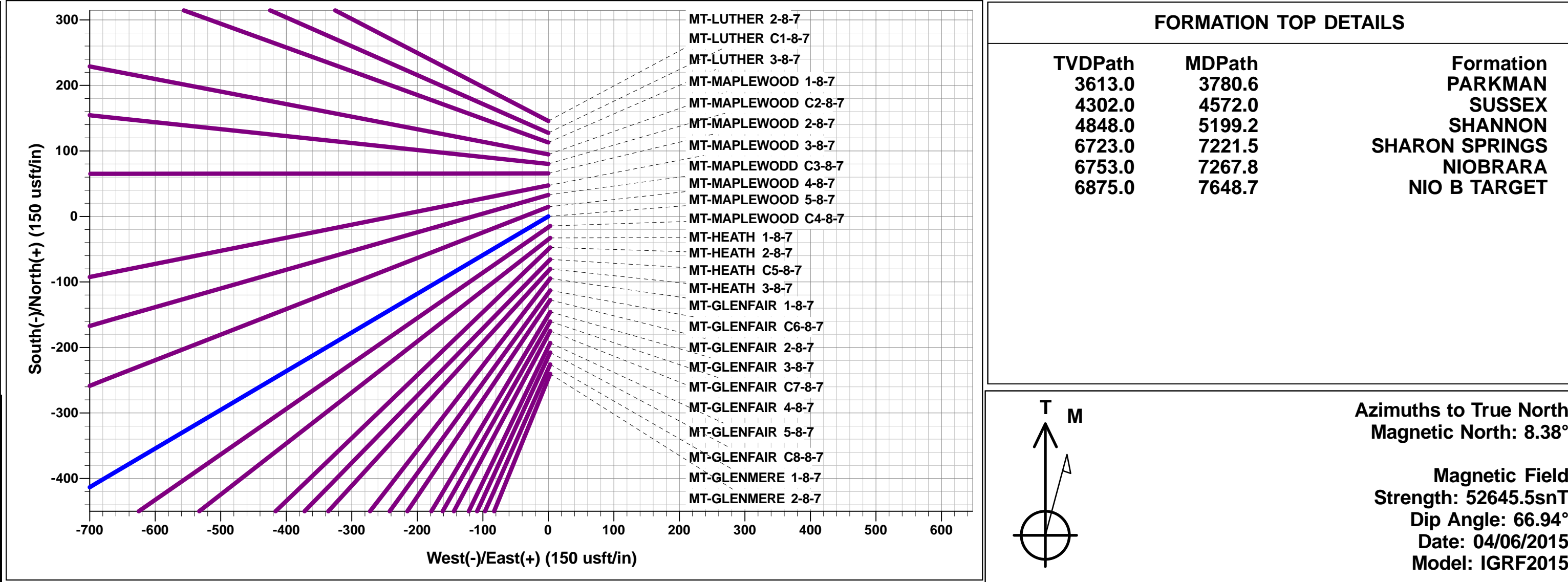




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 9 T5N R65W 6th P.M.
Well: MT-MAPLEWOOD 5-8-7
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS								
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 972ft FNL & 1753ft FWL of Sec 9
1600.0	1600.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE - SURFACE (2"/100ft BUR)
1800.0	1800.2	4.00	239.44	-3.6	-6.0	6.2	7.0	9 5/8" SURFACE CSG
1864.9	1865.2	4.00	239.44	-5.9	-9.9	10.2	11.5	START NUDGE - MAIN (2.5"/100ft BUR)
2832.7	2884.2	29.48	239.44	-153.9	-260.6	267.0	302.6	EOB TO 29.48° INC
5144.2	5539.5	29.48	239.44	-818.2	-1385.8	1420.0	1609.3	END OF TANGENT
6272.0	6718.6	0.00	239.44	-969.0	-1641.3	1681.8	1906.0	EOD TO VERTICAL
6302.0	6748.6	0.00	0.00	-969.0	-1641.3	1681.8	1906.0	KOP (10°/100ft BUR)
6875.0	7648.7	90.00	272.55	-943.5	-2213.7	2252.6	2479.0	LANDING PNT: 1975ft FNL & 460ft FEL of Sec 8
6875.0	17295.4	90.00	272.54	-514.5	-11850.9	11862.1	12125.7	BHL: 2212ft FNL & 460ft FWL of Sec 7

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - MT-MAPLEWOOD 5-8-7	6302.0	-969.0	-1641.3	40.415500	-104.677564	
LANDING PNT - MT-MAPLEWOOD 5-8-7	6875.0	-943.5	-2213.7	40.415570	-104.679620	
BHL - MT-MAPLEWOOD 5-8-7	6875.0	-514.5	-11850.9	40.416740	-104.714230	



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-MAPLEWOOD 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-MAPLEWOOD 5-8-7	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 NW SEC. 9 T5N R65W 6th P.M.		
Site Position:		Northing:	1,396,398.95 usft
From:	Lat/Long	Easting:	3,230,631.97 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.418560
		Longitude:	-104.671670
		Grid Convergence:	0.54 °

Well	MT-MAPLEWOOD 5-8-7		
Well Position	+N/-S	-145.7 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	04/06/2015	8.38	66.94	52,646

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	267.51

Plan Sections											
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	-4,651.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	-3,051.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.2	4.00	239.44	1,800.0	-2,851.0	-3.6	-6.0	2.00	2.00	0.00	239.44	
1,865.2	4.00	239.44	1,864.8	-2,786.2	-5.9	-9.9	0.00	0.00	0.00	0.00	
2,884.2	29.48	239.44	2,832.6	-1,818.4	-153.9	-260.6	2.50	2.50	0.00	0.00	
5,539.5	29.48	239.44	5,144.2	493.2	-818.2	-1,385.8	0.00	0.00	0.00	0.00	
6,718.6	0.00	0.00	6,272.0	1,621.0	-969.0	-1,641.3	2.50	-2.50	0.00	180.00	
6,748.6	0.00	0.00	6,302.0	1,651.0	-969.0	-1,641.3	0.00	0.00	0.00	0.00	KOP - MT-MAPLEV
7,648.7	90.00	272.55	6,875.0	2,224.0	-943.5	-2,213.7	10.00	10.00	-9.72	272.55	LANDING PNT - M
17,295.4	90.00	272.54	6,875.0	2,224.0	-514.5	-11,850.9	0.00	0.00	0.00	-94.33	BHL - MT-MAPLEV

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-MAPLEWOOD 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-MAPLEWOOD 5-8-7	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)
SHL: 972ft FNL & 1753ft FWL of Sec 9										
0.0	0.00	0.00	0.0	4,651.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,551.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,451.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,351.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,251.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,151.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,051.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,951.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,851.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,751.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,651.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,551.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,451.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,351.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,251.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,151.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE - SURFACE (2°/100ft BUR)										
1,600.0	0.00	0.00	1,600.0	3,051.00	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	2.00	239.44	1,700.0	2,951.02	-0.9	-1.5	1.5	2.00	2.00	0.00
1,800.0	4.00	239.44	1,799.8	2,851.16	-3.5	-6.0	6.2	2.00	2.00	0.00
9 5/8" SURFACE CSG										
1,800.2	4.00	239.44	1,800.0	2,851.00	-3.6	-6.0	6.2	2.00	2.00	0.00
START NUDGE - MAIN (2.5°/100ft BUR)										
1,865.2	4.00	239.44	1,864.9	2,786.12	-5.9	-9.9	10.2	0.00	0.00	0.00
1,900.0	4.87	239.44	1,899.6	2,751.43	-7.2	-12.2	12.6	2.50	2.50	0.00
2,000.0	7.37	239.44	1,999.0	2,652.00	-12.7	-21.4	22.0	2.50	2.50	0.00
2,100.0	9.87	239.44	2,097.9	2,553.14	-20.3	-34.3	35.2	2.50	2.50	0.00
2,200.0	12.37	239.44	2,196.0	2,455.03	-30.1	-51.0	52.2	2.50	2.50	0.00
2,300.0	14.87	239.44	2,293.1	2,357.85	-42.1	-71.2	73.0	2.50	2.50	0.00
2,400.0	17.37	239.44	2,389.2	2,261.79	-56.2	-95.2	97.5	2.50	2.50	0.00
2,500.0	19.87	239.44	2,484.0	2,167.04	-72.4	-122.7	125.7	2.50	2.50	0.00
2,600.0	22.37	239.44	2,577.2	2,073.76	-90.7	-153.7	157.5	2.50	2.50	0.00
2,700.0	24.87	239.44	2,668.8	1,982.15	-111.1	-188.2	192.8	2.50	2.50	0.00
2,800.0	27.37	239.44	2,758.6	1,892.38	-133.5	-226.1	231.7	2.50	2.50	0.00
EOB TO 29.48° INC										
2,884.2	29.48	239.44	2,832.7	1,818.33	-153.9	-260.6	267.0	2.50	2.50	0.00
2,900.0	29.48	239.44	2,846.4	1,804.58	-157.8	-267.3	273.9	0.00	0.00	0.00
3,000.0	29.48	239.44	2,933.5	1,717.52	-182.8	-309.7	317.3	0.00	0.00	0.00
3,100.0	29.48	239.44	3,020.5	1,630.47	-207.9	-352.1	360.7	0.00	0.00	0.00
3,200.0	29.48	239.44	3,107.6	1,543.41	-232.9	-394.4	404.2	0.00	0.00	0.00
3,300.0	29.48	239.44	3,194.6	1,456.36	-257.9	-436.8	447.6	0.00	0.00	0.00
3,400.0	29.48	239.44	3,281.7	1,369.31	-282.9	-479.2	491.0	0.00	0.00	0.00
3,500.0	29.48	239.44	3,368.7	1,282.25	-307.9	-521.6	534.4	0.00	0.00	0.00
3,600.0	29.48	239.44	3,455.8	1,195.20	-332.9	-563.9	577.9	0.00	0.00	0.00
3,700.0	29.48	239.44	3,542.9	1,108.14	-358.0	-606.3	621.3	0.00	0.00	0.00
PARKMAN										
3,780.6	29.48	239.44	3,613.0	1,038.00	-378.1	-640.5	656.3	0.00	0.00	0.00
3,800.0	29.48	239.44	3,629.9	1,021.09	-383.0	-648.7	664.7	0.00	0.00	0.00
3,900.0	29.48	239.44	3,717.0	934.04	-408.0	-691.1	708.1	0.00	0.00	0.00
4,000.0	29.48	239.44	3,804.0	846.98	-433.0	-733.4	751.5	0.00	0.00	0.00
4,100.0	29.48	239.44	3,891.1	759.93	-458.0	-775.8	795.0	0.00	0.00	0.00
4,200.0	29.48	239.44	3,978.1	672.87	-483.0	-818.2	838.4	0.00	0.00	0.00

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Well:	MT-MAPLEWOOD 5-8-7	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)
4,300.0	29.48	239.44	4,065.2	585.82	-508.1	-860.6	881.8	0.00	0.00	0.00
4,400.0	29.48	239.44	4,152.2	498.76	-533.1	-902.9	925.2	0.00	0.00	0.00
4,500.0	29.48	239.44	4,239.3	411.71	-558.1	-945.3	968.6	0.00	0.00	0.00
SUSSEX										
4,572.0	29.48	239.44	4,302.0	349.00	-576.1	-975.8	999.9	0.00	0.00	0.00
4,600.0	29.48	239.44	4,326.3	324.66	-583.1	-987.7	1,012.1	0.00	0.00	0.00
4,700.0	29.48	239.44	4,413.4	237.60	-608.1	-1,030.1	1,055.5	0.00	0.00	0.00
4,800.0	29.48	239.44	4,500.5	150.55	-633.2	-1,072.4	1,098.9	0.00	0.00	0.00
4,900.0	29.48	239.44	4,587.5	63.49	-658.2	-1,114.8	1,142.3	0.00	0.00	0.00
5,000.0	29.48	239.44	4,674.6	-23.56	-683.2	-1,157.2	1,185.7	0.00	0.00	0.00
5,100.0	29.48	239.44	4,761.6	-110.61	-708.2	-1,199.6	1,229.2	0.00	0.00	0.00
SHANNON										
5,199.2	29.48	239.44	4,848.0	-197.00	-733.0	-1,241.6	1,272.2	0.00	0.00	0.00
5,200.0	29.48	239.44	4,848.7	-197.67	-733.2	-1,241.9	1,272.6	0.00	0.00	0.00
5,300.0	29.48	239.44	4,935.7	-284.72	-758.2	-1,284.3	1,316.0	0.00	0.00	0.00
5,400.0	29.48	239.44	5,022.8	-371.78	-783.3	-1,326.7	1,359.4	0.00	0.00	0.00
5,500.0	29.48	239.44	5,109.8	-458.83	-808.3	-1,369.1	1,402.8	0.00	0.00	0.00
END OF TANGENT										
5,539.5	29.48	239.44	5,144.2	-493.22	-818.2	-1,385.8	1,420.0	0.00	0.00	0.00
5,600.0	27.97	239.44	5,197.3	-546.27	-832.9	-1,410.9	1,445.6	2.50	-2.50	0.00
5,700.0	25.47	239.44	5,286.6	-635.59	-855.8	-1,449.6	1,485.3	2.50	-2.50	0.00
5,800.0	22.97	239.44	5,377.8	-726.78	-876.6	-1,484.9	1,521.5	2.50	-2.50	0.00
5,900.0	20.47	239.44	5,470.7	-819.68	-895.5	-1,516.7	1,554.1	2.50	-2.50	0.00
6,000.0	17.97	239.44	5,565.1	-914.10	-912.2	-1,545.1	1,583.2	2.50	-2.50	0.00
6,100.0	15.47	239.44	5,660.9	-1,009.87	-926.8	-1,569.8	1,608.6	2.50	-2.50	0.00
6,200.0	12.97	239.44	5,757.8	-1,106.80	-939.3	-1,591.0	1,630.2	2.50	-2.50	0.00
6,300.0	10.47	239.44	5,855.7	-1,204.71	-949.6	-1,608.5	1,648.1	2.50	-2.50	0.00
6,400.0	7.97	239.44	5,954.4	-1,303.41	-957.8	-1,622.3	1,662.3	2.50	-2.50	0.00
6,500.0	5.47	239.44	6,053.7	-1,402.72	-963.7	-1,632.3	1,672.6	2.50	-2.50	0.00
6,600.0	2.97	239.44	6,153.4	-1,502.44	-967.4	-1,638.7	1,679.1	2.50	-2.50	0.00
6,700.0	0.47	239.44	6,253.4	-1,602.38	-969.0	-1,641.2	1,681.7	2.50	-2.50	0.00
EOD TO VERTICAL										
6,718.6	0.00	239.44	6,272.0	-1,620.98	-969.0	-1,641.3	1,681.8	2.50	-2.50	0.00
KOP (10°/100ft BUR)										
6,748.6	0.00	0.00	6,302.0	-1,650.98	-969.0	-1,641.3	1,681.8	0.00	0.00	0.00
6,800.0	5.14	272.55	6,353.3	-1,702.32	-968.9	-1,643.6	1,684.1	10.00	10.00	0.00
6,900.0	15.14	272.55	6,451.6	-1,800.63	-968.1	-1,661.2	1,701.6	10.00	10.00	0.00
7,000.0	25.14	272.55	6,545.4	-1,894.40	-966.6	-1,695.5	1,735.8	10.00	10.00	0.00
7,100.0	35.14	272.55	6,631.8	-1,980.77	-964.3	-1,745.6	1,785.8	10.00	10.00	0.00
7,200.0	45.14	272.55	6,708.1	-2,057.13	-961.5	-1,809.9	1,849.9	10.00	10.00	0.00
SHARON SPRINGS										
7,221.5	47.28	272.55	6,723.0	-2,072.00	-960.8	-1,825.4	1,865.4	10.00	10.00	0.00
NIOBRARA										
7,267.8	51.91	272.55	6,753.0	-2,102.00	-959.2	-1,860.6	1,900.5	10.00	10.00	0.00
7,300.0	55.13	272.55	6,772.1	-2,121.14	-958.1	-1,886.5	1,926.3	10.00	10.00	0.00
7,400.0	65.13	272.55	6,821.9	-2,170.88	-954.2	-1,973.0	2,012.5	10.00	10.00	0.00
7,500.0	75.13	272.55	6,855.8	-2,204.82	-950.0	-2,066.9	2,106.1	10.00	10.00	0.00
7,600.0	85.13	272.55	6,872.9	-2,221.93	-945.6	-2,165.2	2,204.1	10.00	10.00	0.00
LANDING PNT: 1975ft FNL & 460ft FEL of Sec 8 - NIO B TARGET										
7,648.7	90.00	272.55	6,875.0	-2,224.00	-943.5	-2,213.7	2,252.6	10.00	10.00	0.00
7,700.0	90.00	272.55	6,875.0	-2,224.00	-941.2	-2,265.0	2,303.7	0.00	0.00	0.00
7,800.0	90.00	272.55	6,875.0	-2,224.00	-936.7	-2,364.9	2,403.3	0.00	0.00	0.00
7,900.0	90.00	272.55	6,875.0	-2,224.00	-932.3	-2,464.8	2,502.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-MAPLEWOOD 5-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-MAPLEWOOD 5-8-7	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)
8,000.0	90.00	272.55	6,875.0	-2,224.00	-927.8	-2,564.7	2,602.5	0.00	0.00	0.00
8,100.0	90.00	272.55	6,875.0	-2,224.00	-923.3	-2,664.6	2,702.1	0.00	0.00	0.00
8,200.0	90.00	272.55	6,875.0	-2,224.00	-918.9	-2,764.5	2,801.8	0.00	0.00	0.00
8,300.0	90.00	272.55	6,875.0	-2,224.00	-914.4	-2,864.4	2,901.4	0.00	0.00	0.00
8,400.0	90.00	272.55	6,875.0	-2,223.99	-910.0	-2,964.3	3,001.0	0.00	0.00	0.00
8,500.0	90.00	272.55	6,875.0	-2,223.99	-905.5	-3,064.2	3,100.6	0.00	0.00	0.00
8,600.0	90.00	272.55	6,875.0	-2,223.99	-901.1	-3,164.1	3,200.2	0.00	0.00	0.00
8,700.0	90.00	272.55	6,875.0	-2,223.99	-896.6	-3,264.0	3,299.8	0.00	0.00	0.00
8,800.0	90.00	272.55	6,875.0	-2,223.99	-892.2	-3,363.9	3,399.4	0.00	0.00	0.00
8,900.0	90.00	272.55	6,875.0	-2,223.99	-887.7	-3,463.8	3,499.0	0.00	0.00	0.00
9,000.0	90.00	272.55	6,875.0	-2,223.99	-883.2	-3,563.7	3,598.7	0.00	0.00	0.00
9,100.0	90.00	272.55	6,875.0	-2,223.99	-878.8	-3,663.6	3,698.3	0.00	0.00	0.00
9,200.0	90.00	272.55	6,875.0	-2,223.99	-874.3	-3,763.5	3,797.9	0.00	0.00	0.00
9,300.0	90.00	272.55	6,875.0	-2,223.99	-869.9	-3,863.4	3,897.5	0.00	0.00	0.00
9,400.0	90.00	272.55	6,875.0	-2,223.99	-865.4	-3,963.3	3,997.1	0.00	0.00	0.00
9,500.0	90.00	272.55	6,875.0	-2,223.99	-861.0	-4,063.2	4,096.7	0.00	0.00	0.00
9,600.0	90.00	272.55	6,875.0	-2,223.99	-856.5	-4,163.1	4,196.3	0.00	0.00	0.00
9,700.0	90.00	272.55	6,875.0	-2,223.99	-852.1	-4,263.0	4,296.0	0.00	0.00	0.00
9,800.0	90.00	272.55	6,875.0	-2,223.99	-847.6	-4,362.9	4,395.6	0.00	0.00	0.00
9,900.0	90.00	272.55	6,875.0	-2,223.99	-843.2	-4,462.8	4,495.2	0.00	0.00	0.00
10,000.0	90.00	272.55	6,875.0	-2,223.99	-838.7	-4,562.7	4,594.8	0.00	0.00	0.00
10,100.0	90.00	272.55	6,875.0	-2,223.99	-834.3	-4,662.6	4,694.4	0.00	0.00	0.00
10,200.0	90.00	272.55	6,875.0	-2,223.99	-829.8	-4,762.5	4,794.0	0.00	0.00	0.00
10,300.0	90.00	272.55	6,875.0	-2,223.99	-825.4	-4,862.4	4,893.6	0.00	0.00	0.00
10,400.0	90.00	272.55	6,875.0	-2,223.99	-820.9	-4,962.3	4,993.3	0.00	0.00	0.00
10,500.0	90.00	272.55	6,875.0	-2,223.98	-816.5	-5,062.2	5,092.9	0.00	0.00	0.00
10,600.0	90.00	272.55	6,875.0	-2,223.98	-812.0	-5,162.1	5,192.5	0.00	0.00	0.00
10,700.0	90.00	272.55	6,875.0	-2,223.98	-807.6	-5,262.0	5,292.1	0.00	0.00	0.00
10,800.0	90.00	272.55	6,875.0	-2,223.98	-803.1	-5,361.9	5,391.7	0.00	0.00	0.00
10,900.0	90.00	272.55	6,875.0	-2,223.98	-798.7	-5,461.8	5,491.3	0.00	0.00	0.00
11,000.0	90.00	272.55	6,875.0	-2,223.98	-794.2	-5,561.7	5,590.9	0.00	0.00	0.00
11,100.0	90.00	272.55	6,875.0	-2,223.98	-789.8	-5,661.6	5,690.5	0.00	0.00	0.00
11,200.0	90.00	272.55	6,875.0	-2,223.98	-785.3	-5,761.5	5,790.2	0.00	0.00	0.00
11,300.0	90.00	272.55	6,875.0	-2,223.98	-780.9	-5,861.4	5,889.8	0.00	0.00	0.00
11,400.0	90.00	272.55	6,875.0	-2,223.98	-776.4	-5,961.3	5,989.4	0.00	0.00	0.00
11,500.0	90.00	272.55	6,875.0	-2,223.98	-772.0	-6,061.2	6,089.0	0.00	0.00	0.00
11,600.0	90.00	272.55	6,875.0	-2,223.98	-767.5	-6,161.1	6,188.6	0.00	0.00	0.00
11,700.0	90.00	272.55	6,875.0	-2,223.98	-763.1	-6,261.0	6,288.2	0.00	0.00	0.00
11,800.0	90.00	272.55	6,875.0	-2,223.98	-758.6	-6,360.9	6,387.8	0.00	0.00	0.00
11,900.0	90.00	272.55	6,875.0	-2,223.98	-754.2	-6,460.8	6,487.5	0.00	0.00	0.00
12,000.0	90.00	272.55	6,875.0	-2,223.98	-749.7	-6,560.7	6,587.1	0.00	0.00	0.00
12,100.0	90.00	272.55	6,875.0	-2,223.98	-745.3	-6,660.6	6,686.7	0.00	0.00	0.00
12,200.0	90.00	272.55	6,875.0	-2,223.98	-740.8	-6,760.5	6,786.3	0.00	0.00	0.00
12,300.0	90.00	272.55	6,875.0	-2,223.98	-736.4	-6,860.4	6,885.9	0.00	0.00	0.00
12,400.0	90.00	272.55	6,875.0	-2,223.98	-731.9	-6,960.3	6,985.5	0.00	0.00	0.00
12,500.0	90.00	272.55	6,875.0	-2,223.98	-727.5	-7,060.2	7,085.1	0.00	0.00	0.00
12,600.0	90.00	272.55	6,875.0	-2,223.98	-723.0	-7,160.1	7,184.8	0.00	0.00	0.00
12,700.0	90.00	272.55	6,875.0	-2,223.98	-718.6	-7,260.0	7,284.4	0.00	0.00	0.00
12,800.0	90.00	272.55	6,875.0	-2,223.98	-714.1	-7,359.9	7,384.0	0.00	0.00	0.00
12,900.0	90.00	272.55	6,875.0	-2,223.98	-709.7	-7,459.8	7,483.6	0.00	0.00	0.00
13,000.0	90.00	272.55	6,875.0	-2,223.98	-705.2	-7,559.7	7,583.2	0.00	0.00	0.00
13,100.0	90.00	272.55	6,875.0	-2,223.98	-700.8	-7,659.6	7,682.8	0.00	0.00	0.00
13,200.0	90.00	272.55	6,875.0	-2,223.98	-696.4	-7,759.5	7,782.4	0.00	0.00	0.00
13,300.0	90.00	272.55	6,875.0	-2,223.98	-691.9	-7,859.4	7,882.1	0.00	0.00	0.00

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (SAV 802)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (SAV 802)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-MAPLEWOOD 5-8-7	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)
13,400.0	90.00	272.55	6,875.0	-2,223.98	-687.5	-7,959.3	7,981.7	0.00	0.00	0.00
13,500.0	90.00	272.55	6,875.0	-2,223.98	-683.0	-8,059.2	8,081.3	0.00	0.00	0.00
13,600.0	90.00	272.55	6,875.0	-2,223.98	-678.6	-8,159.2	8,180.9	0.00	0.00	0.00
13,700.0	90.00	272.55	6,875.0	-2,223.98	-674.1	-8,259.1	8,280.5	0.00	0.00	0.00
13,800.0	90.00	272.55	6,875.0	-2,223.98	-669.7	-8,359.0	8,380.1	0.00	0.00	0.00
13,900.0	90.00	272.55	6,875.0	-2,223.98	-665.2	-8,458.9	8,479.7	0.00	0.00	0.00
14,000.0	90.00	272.55	6,875.0	-2,223.98	-660.8	-8,558.8	8,579.4	0.00	0.00	0.00
14,100.0	90.00	272.55	6,875.0	-2,223.98	-656.4	-8,658.7	8,679.0	0.00	0.00	0.00
14,200.0	90.00	272.55	6,875.0	-2,223.98	-651.9	-8,758.6	8,778.6	0.00	0.00	0.00
14,300.0	90.00	272.55	6,875.0	-2,223.98	-647.5	-8,858.5	8,878.2	0.00	0.00	0.00
14,400.0	90.00	272.55	6,875.0	-2,223.98	-643.0	-8,958.4	8,977.8	0.00	0.00	0.00
14,500.0	90.00	272.55	6,875.0	-2,223.99	-638.6	-9,058.3	9,077.4	0.00	0.00	0.00
14,600.0	90.00	272.55	6,875.0	-2,223.99	-634.1	-9,158.2	9,177.0	0.00	0.00	0.00
14,700.0	90.00	272.55	6,875.0	-2,223.99	-629.7	-9,258.1	9,276.7	0.00	0.00	0.00
14,800.0	90.00	272.55	6,875.0	-2,223.99	-625.3	-9,358.0	9,376.3	0.00	0.00	0.00
14,900.0	90.00	272.55	6,875.0	-2,223.99	-620.8	-9,457.9	9,475.9	0.00	0.00	0.00
15,000.0	90.00	272.55	6,875.0	-2,223.99	-616.4	-9,557.8	9,575.5	0.00	0.00	0.00
15,100.0	90.00	272.55	6,875.0	-2,223.99	-611.9	-9,657.7	9,675.1	0.00	0.00	0.00
15,200.0	90.00	272.55	6,875.0	-2,223.99	-607.5	-9,757.6	9,774.7	0.00	0.00	0.00
15,300.0	90.00	272.55	6,875.0	-2,223.99	-603.0	-9,857.5	9,874.4	0.00	0.00	0.00
15,400.0	90.00	272.55	6,875.0	-2,223.99	-598.6	-9,957.4	9,974.0	0.00	0.00	0.00
15,500.0	90.00	272.55	6,875.0	-2,223.99	-594.2	-10,057.3	10,073.6	0.00	0.00	0.00
15,600.0	90.00	272.55	6,875.0	-2,223.99	-589.7	-10,157.2	10,173.2	0.00	0.00	0.00
15,700.0	90.00	272.54	6,875.0	-2,223.99	-585.3	-10,257.1	10,272.8	0.00	0.00	0.00
15,800.0	90.00	272.54	6,875.0	-2,223.99	-580.8	-10,357.0	10,372.4	0.00	0.00	0.00
15,900.0	90.00	272.54	6,875.0	-2,223.99	-576.4	-10,456.9	10,472.0	0.00	0.00	0.00
16,000.0	90.00	272.54	6,875.0	-2,223.99	-572.0	-10,556.8	10,571.7	0.00	0.00	0.00
16,100.0	90.00	272.54	6,875.0	-2,223.99	-567.5	-10,656.7	10,671.3	0.00	0.00	0.00
16,200.0	90.00	272.54	6,875.0	-2,223.99	-563.1	-10,756.6	10,770.9	0.00	0.00	0.00
16,300.0	90.00	272.54	6,875.0	-2,223.99	-558.6	-10,856.5	10,870.5	0.00	0.00	0.00
16,400.0	90.00	272.54	6,875.0	-2,223.99	-554.2	-10,956.4	10,970.1	0.00	0.00	0.00
16,500.0	90.00	272.54	6,875.0	-2,223.99	-549.8	-11,056.3	11,069.7	0.00	0.00	0.00
16,600.0	90.00	272.54	6,875.0	-2,224.00	-545.3	-11,156.2	11,169.3	0.00	0.00	0.00
16,700.0	90.00	272.54	6,875.0	-2,224.00	-540.9	-11,256.1	11,269.0	0.00	0.00	0.00
16,800.0	90.00	272.54	6,875.0	-2,224.00	-536.5	-11,356.0	11,368.6	0.00	0.00	0.00
16,900.0	90.00	272.54	6,875.0	-2,224.00	-532.0	-11,455.9	11,468.2	0.00	0.00	0.00
17,000.0	90.00	272.54	6,875.0	-2,224.00	-527.6	-11,555.8	11,567.8	0.00	0.00	0.00
17,100.0	90.00	272.54	6,875.0	-2,224.00	-523.1	-11,655.7	11,667.4	0.00	0.00	0.00
17,200.0	90.00	272.54	6,875.0	-2,224.00	-518.7	-11,755.6	11,767.0	0.00	0.00	0.00
BHL: 2212ft FNL & 460ft FWL of Sec 7										
17,295.4	90.00	272.54	6,875.0	-2,224.00	-514.5	-11,850.9	11,862.1	0.00	0.00	0.00

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Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-MAPLEWOOD 5-8-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,780.6	3,613.0	PARKMAN				
4,572.0	4,302.0	SUSSEX				
5,199.2	4,848.0	SHANNON				
7,221.5	6,723.0	SHARON SPRINGS				
7,267.8	6,753.0	NIOBRARA				
7,648.7	6,875.0	NIO B TARGET				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 972ft FNL & 1753ft FWL of Sec 9
1,600.0	1,600.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1,800.2	1,800.0	-3.6	-6.0	9 5/8" SURFACE CSG
1,865.2	1,864.9	-5.9	-9.9	START NUDGE - MAIN (2.5°/100ft BUR)
2,884.2	2,832.7	-153.9	-260.6	EOB TO 29.48° INC
5,539.5	5,144.2	-818.2	-1,385.8	END OF TANGENT
6,718.6	6,272.0	-969.0	-1,641.3	EOD TO VERTICAL
6,748.6	6,302.0	-969.0	-1,641.3	KOP (10°/100ft BUR)
7,648.7	6,875.0	-943.5	-2,213.7	LANDING PNT: 1975ft FNL & 460ft FEL of Sec 8
17,295.4	6,875.0	-514.5	-11,850.9	BHL: 2212ft FNL & 460ft FWL of Sec 7