

# **EXTRACTION OIL & GAS**

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

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

**MT-MAPLEWOOD 3-8-7**

**ORIGINAL WELLBORE**

**20 June, 2015**

**Plan: PROPOSAL #2**

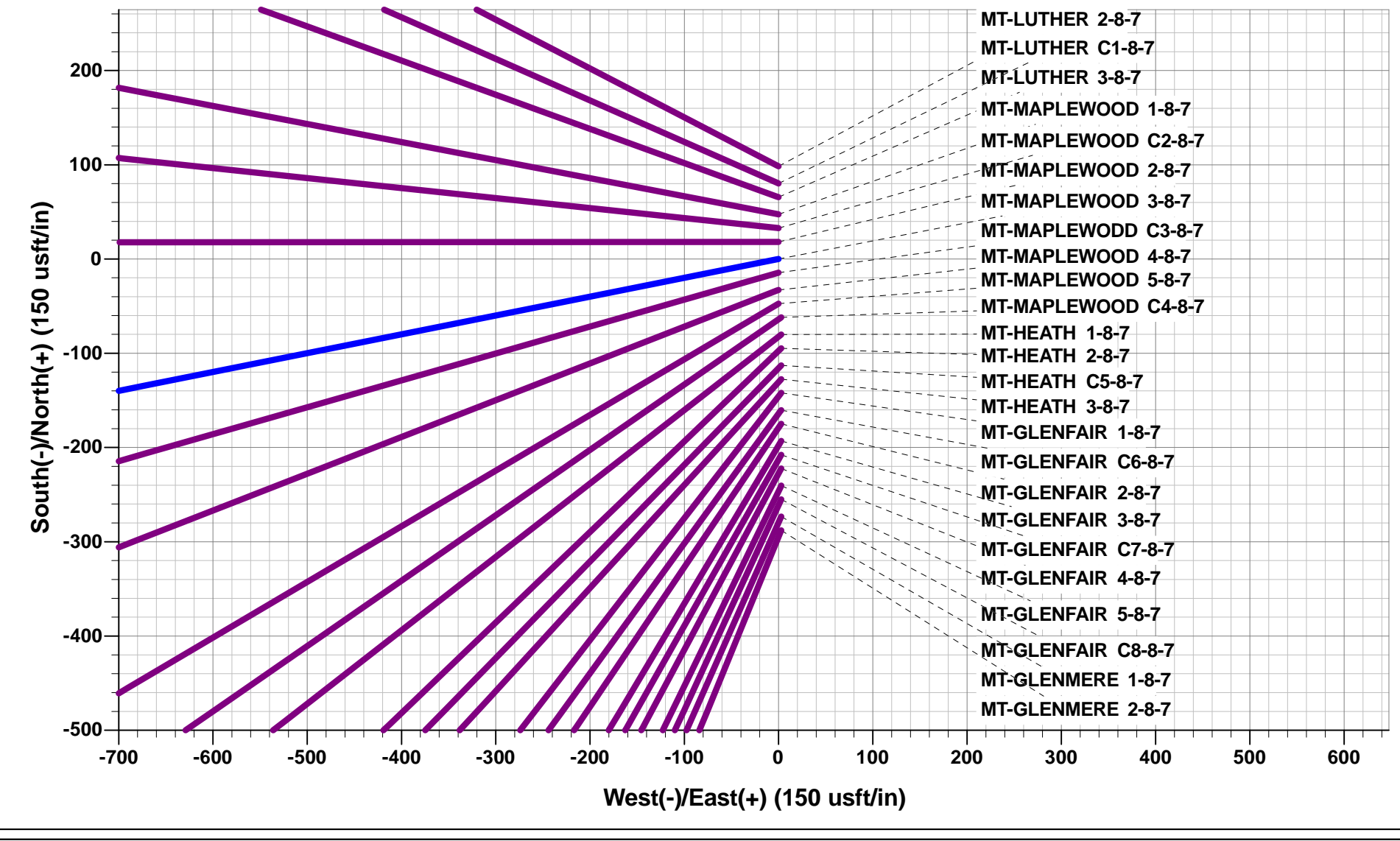




Project: WELD COUNTY, COLORADO (NAD 83)  
Site: NE NW SEC. 9 T5N R65W 6th P.M.  
Well: MT-MAPLEWOOD 3-8-7  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

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: 924ft FNL & 1752ft FWL of Sec 9
1800.0	1800.0	0.00	0.00	0.0	0.0	0.0	0.0	9 5/8" SURFACE CSG
2000.0	2000.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2.5°/100ft BUR)
3081.3	3126.1	28.15	258.70	-53.1	-265.9	265.0	271.1	EOB TO 28.15° INC
5190.8	5518.6	28.15	258.70	-274.2	-1372.8	1368.4	1399.9	END OF TANGENT
6272.1	6644.7	0.00	0.00	-327.3	-1638.7	1633.4	1671.1	EOD TO VERTICAL
6302.1	6674.7	0.00	0.00	-327.3	-1638.7	1633.4	1671.1	KOP (10°/100ft BUR)
6875.0	7574.6	90.00	272.87	-298.6	-2210.9	2206.0	2244.0	LANDING PNT: 1283ft FNL & 460ft FEL of Sec 8
6875.0	17226.4	90.00	272.88	185.0	-11850.6	11852.0	11895.8	BHL: 1468ft FNL & 460ft FWL of Sec 7

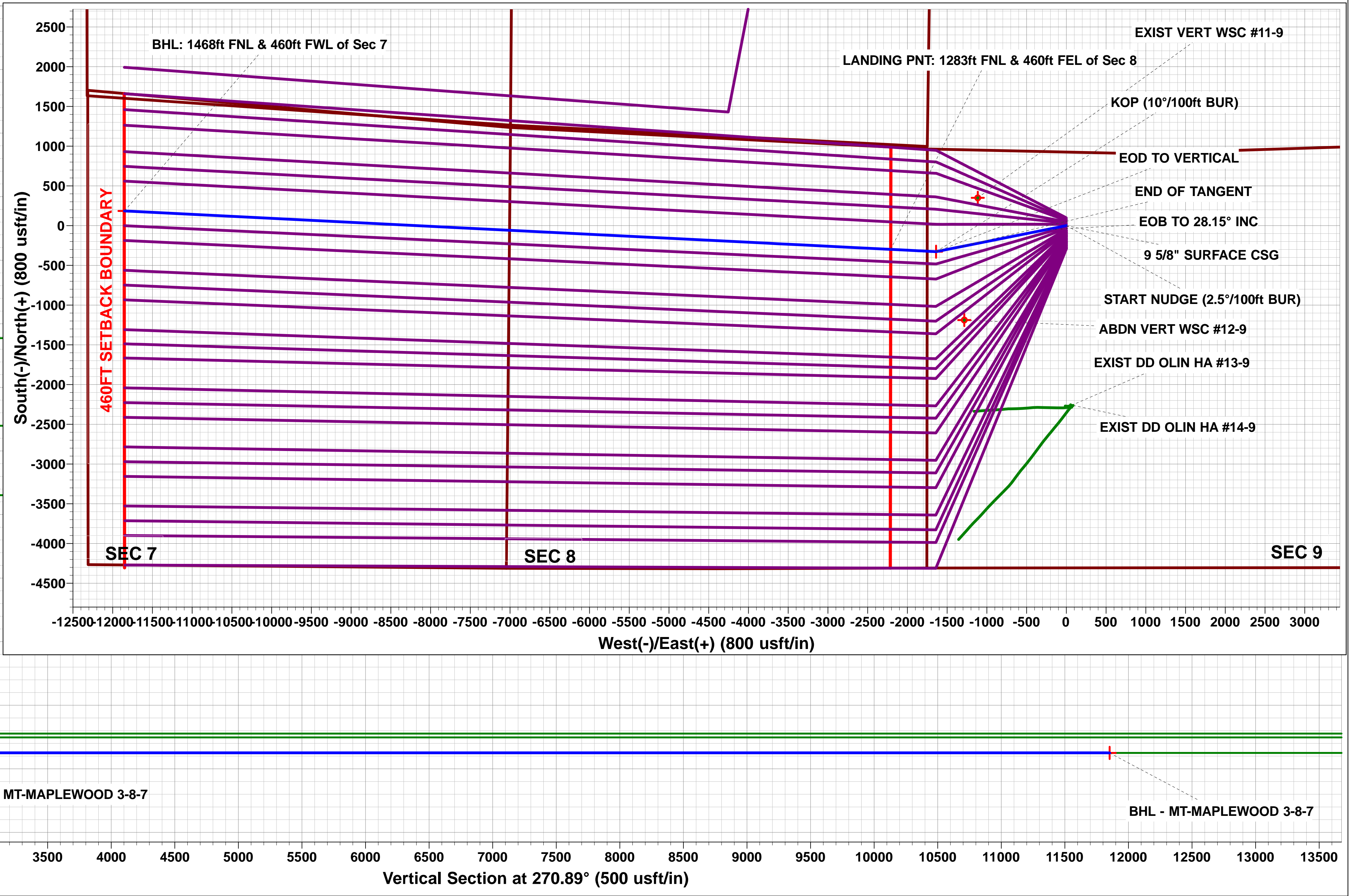
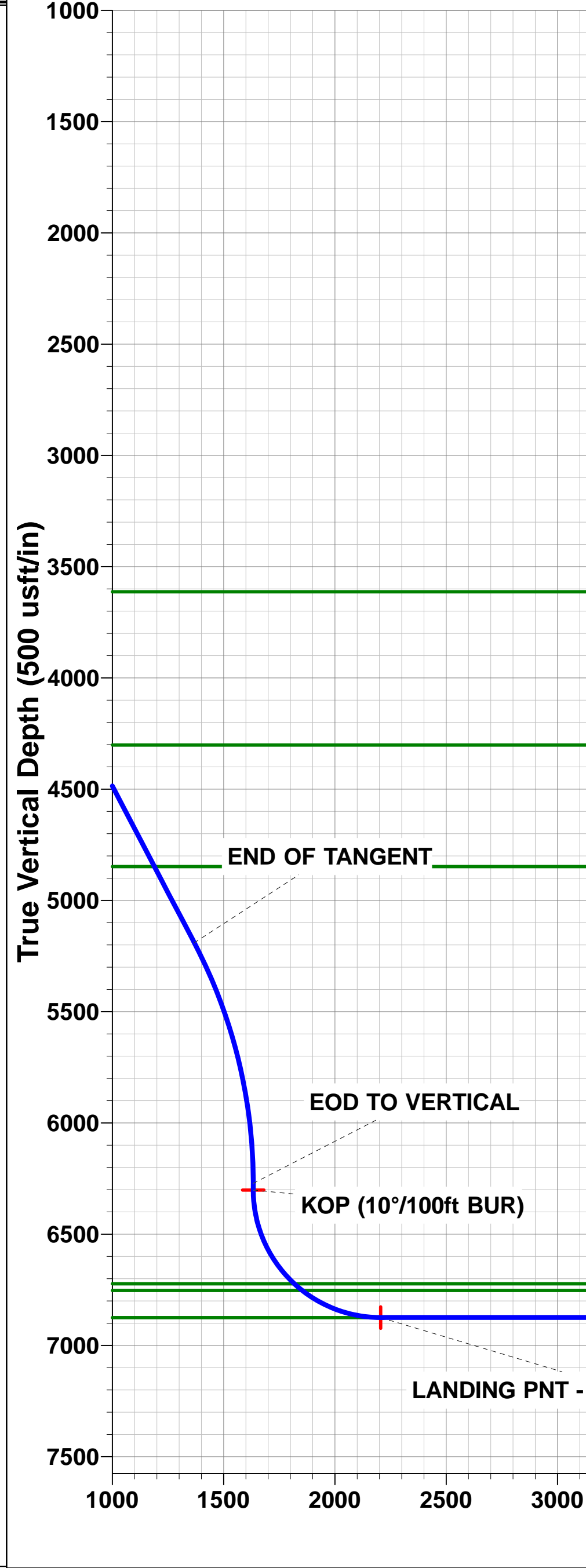
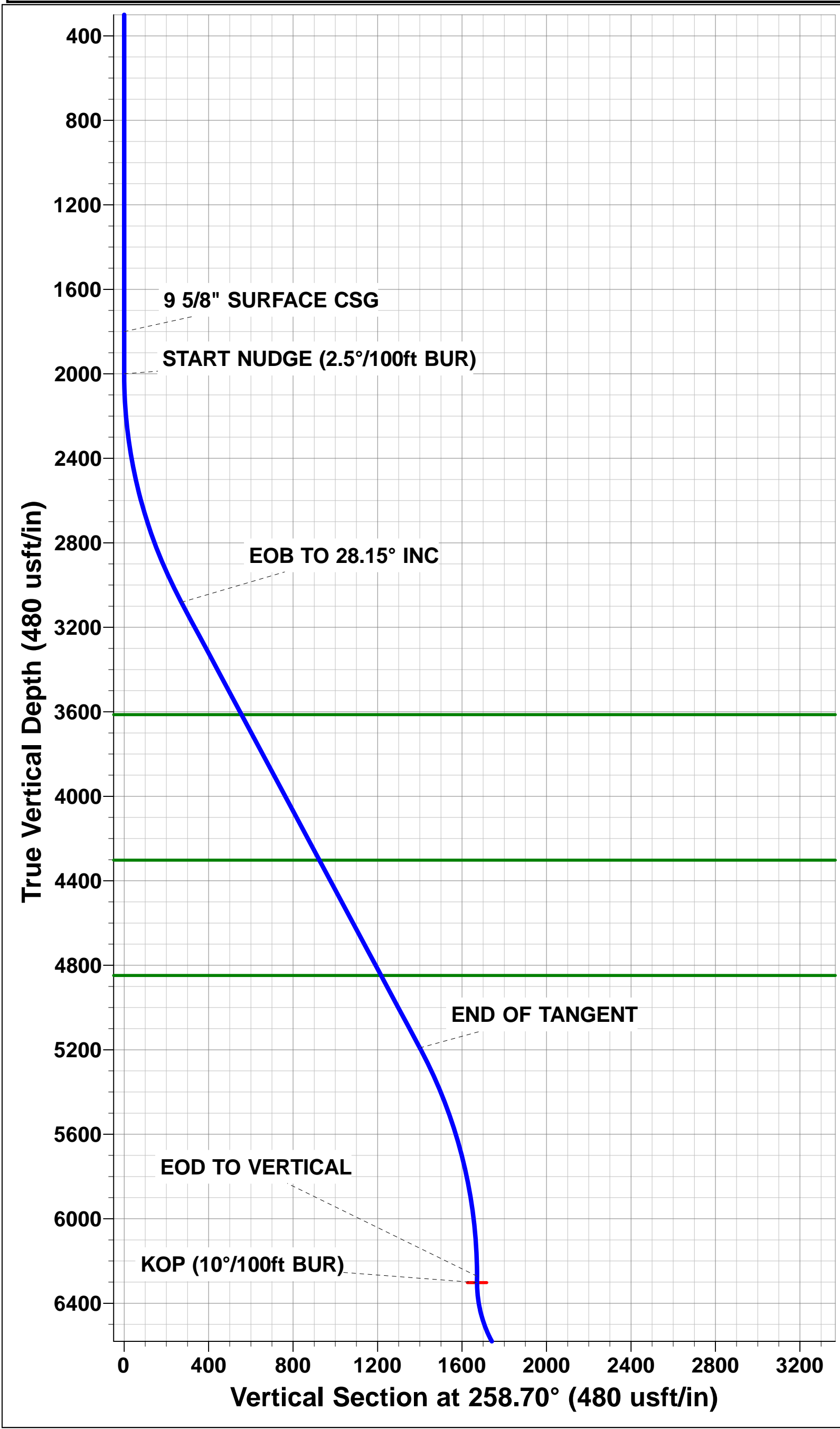
WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - MT-MAPLEWOOD 3-8-7	6302.1	-327.3	-1638.7	40.417391	-104.677555	
LANDING PNT - MT-MAPLEWOOD 3-8-7	6875.0	-298.6	-2210.9	40.417470	-104.679610	
BHL - MT-MAPLEWOOD 3-8-7	6875.0	185.0	-11850.6	40.418790	-104.714230	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3613.0	3729.1	PARKMAN
4302.0	4510.5	SUSSEX
4848.0	5129.8	SHANNON
6723.0	7147.4	SHARON SPRINGS
6753.0	7193.7	NIOBRARA
6875.0	7574.6	NIO B TARGET

Azimuths to True North  
Magnetic North: 8.38°

Magnetic Field  
Strength: 52645.6snT  
Dip Angle: 66.94°  
Date: 04/06/2015  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

<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

Site		NE NW SEC. 9 T5N R65W 6th P.M.			
Site Position:		Northing:	1,396,398.95 usft	Latitude:	40.418560
From:	Lat/Long	Easting:	3,230,631.97 usft	Longitude:	-104.671670
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000 ft	Grid Convergence:	0.54 °

Well	MT-MAPLEWOOD 3-8-7					
Well Position	+N/-S	-98.4 usft	Northing:	1,396,300.59 usfi	Latitude:	40.418290
	+E/-W	0.0 usft	Easting:	3,230,632.89 usfi	Longitude:	-104.671670
Position Uncertainty		0.0 usft	Wellhead Elevation:	usfi	Ground Level:	4,635.0 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	04/06/2015	8.38	66.94	52,646

<b>Design</b>	PROPOSAL #2			
<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>
	0.0	0.0	0.0	270.89

<b>Plan Sections</b>											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,651.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	-2,651.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,126.1	28.15	258.70	3,081.3	-1,569.7	-53.1	-265.9	2.50	2.50	0.00	258.70	
5,518.6	28.15	258.70	5,190.8	539.8	-274.2	-1,372.8	0.00	0.00	0.00	0.00	
6,644.7	0.00	0.00	6,272.1	1,621.1	-327.3	-1,638.7	2.50	-2.50	0.00	180.00	
6,674.7	0.00	0.00	6,302.1	1,651.1	-327.3	-1,638.7	0.00	0.00	0.00	0.00	KOP - MT-MAPLEV
7,574.6	90.00	272.87	6,875.0	2,224.0	-298.6	-2,210.9	10.00	10.00	-9.68	272.87	LANDING PNT - M
17,226.4	90.00	272.88	6,875.0	2,224.0	185.0	-11,850.6	0.00	0.00	0.00	99.62	BHL - MT-MAPLEV

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
<b>SHL: 924ft FNL &amp; 1752ft FWL of Sec 9</b>										
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
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	0.00	0.00	1,700.0	2,951.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>9 5/8" SURFACE CSG</b>										
1,800.0	0.00	0.00	1,800.0	2,851.00	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	2,751.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2.5°/100ft BUR)</b>										
2,000.0	0.00	0.00	2,000.0	2,651.00	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	2.50	258.70	2,100.0	2,551.03	-0.4	-2.1	2.1	2.50	2.50	0.00
2,200.0	5.00	258.70	2,199.7	2,451.25	-1.7	-8.6	8.5	2.50	2.50	0.00
2,300.0	7.50	258.70	2,299.1	2,351.86	-3.8	-19.2	19.2	2.50	2.50	0.00
2,400.0	10.00	258.70	2,398.0	2,253.03	-6.8	-34.1	34.0	2.50	2.50	0.00
2,500.0	12.50	258.70	2,496.0	2,154.96	-10.6	-53.3	53.1	2.50	2.50	0.00
2,600.0	15.00	258.70	2,593.2	2,057.83	-15.3	-76.6	76.3	2.50	2.50	0.00
2,700.0	17.50	258.70	2,689.2	1,961.83	-20.8	-104.0	103.7	2.50	2.50	0.00
2,800.0	20.00	258.70	2,783.9	1,867.15	-27.1	-135.5	135.1	2.50	2.50	0.00
2,900.0	22.50	258.70	2,877.0	1,773.95	-34.2	-171.1	170.5	2.50	2.50	0.00
3,000.0	25.00	258.70	2,968.6	1,682.43	-42.1	-210.6	209.9	2.50	2.50	0.00
3,100.0	27.50	258.70	3,058.2	1,592.75	-50.7	-253.9	253.1	2.50	2.50	0.00
<b>EOB TO 28.15° INC</b>										
3,126.1	28.15	258.70	3,081.3	1,569.67	-53.1	-265.9	265.0	2.50	2.50	0.00
3,200.0	28.15	258.70	3,146.5	1,504.51	-59.9	-300.1	299.1	0.00	0.00	0.00
3,300.0	28.15	258.70	3,234.7	1,416.34	-69.2	-346.3	345.2	0.00	0.00	0.00
3,400.0	28.15	258.70	3,322.8	1,328.17	-78.4	-392.6	391.3	0.00	0.00	0.00
3,500.0	28.15	258.70	3,411.0	1,240.00	-87.7	-438.9	437.5	0.00	0.00	0.00
3,600.0	28.15	258.70	3,499.2	1,151.83	-96.9	-485.1	483.6	0.00	0.00	0.00
3,700.0	28.15	258.70	3,587.3	1,063.66	-106.1	-531.4	529.7	0.00	0.00	0.00
<b>PARKMAN</b>										
3,729.1	28.15	258.70	3,613.0	1,038.00	-108.8	-544.9	543.1	0.00	0.00	0.00
3,800.0	28.15	258.70	3,675.5	975.49	-115.4	-577.7	575.8	0.00	0.00	0.00
3,900.0	28.15	258.70	3,763.7	887.32	-124.6	-623.9	621.9	0.00	0.00	0.00
4,000.0	28.15	258.70	3,851.8	799.15	-133.9	-670.2	668.0	0.00	0.00	0.00
4,100.0	28.15	258.70	3,940.0	710.98	-143.1	-716.5	714.2	0.00	0.00	0.00
4,200.0	28.15	258.70	4,028.2	622.81	-152.3	-762.7	760.3	0.00	0.00	0.00
4,300.0	28.15	258.70	4,116.4	534.64	-161.6	-809.0	806.4	0.00	0.00	0.00
4,400.0	28.15	258.70	4,204.5	446.47	-170.8	-855.3	852.5	0.00	0.00	0.00
4,500.0	28.15	258.70	4,292.7	358.30	-180.1	-901.6	898.6	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
<b>SUSSEX</b>										
4,510.5	28.15	258.70	4,302.0	349.00	-181.0	-906.4	903.5	0.00	0.00	0.00
4,600.0	28.15	258.70	4,380.9	270.13	-189.3	-947.8	944.7	0.00	0.00	0.00
4,700.0	28.15	258.70	4,469.0	181.96	-198.5	-994.1	990.9	0.00	0.00	0.00
4,800.0	28.15	258.70	4,557.2	93.79	-207.8	-1,040.4	1,037.0	0.00	0.00	0.00
4,900.0	28.15	258.70	4,645.4	5.62	-217.0	-1,086.6	1,083.1	0.00	0.00	0.00
5,000.0	28.15	258.70	4,733.5	-82.55	-226.3	-1,132.9	1,129.2	0.00	0.00	0.00
5,100.0	28.15	258.70	4,821.7	-170.72	-235.5	-1,179.2	1,175.3	0.00	0.00	0.00
<b>SHANNON</b>										
5,129.8	28.15	258.70	4,848.0	-197.00	-238.3	-1,192.9	1,189.1	0.00	0.00	0.00
5,200.0	28.15	258.70	4,909.9	-258.89	-244.8	-1,225.4	1,221.5	0.00	0.00	0.00
5,300.0	28.15	258.70	4,998.1	-347.06	-254.0	-1,271.7	1,267.6	0.00	0.00	0.00
5,400.0	28.15	258.70	5,086.2	-435.23	-263.2	-1,318.0	1,313.7	0.00	0.00	0.00
5,500.0	28.15	258.70	5,174.4	-523.40	-272.5	-1,364.2	1,359.8	0.00	0.00	0.00
<b>END OF TANGENT</b>										
5,518.6	28.15	258.70	5,190.8	-539.80	-274.2	-1,372.8	1,368.4	0.00	0.00	0.00
5,600.0	26.12	258.70	5,263.2	-612.23	-281.5	-1,409.2	1,404.7	2.50	-2.50	0.00
5,700.0	23.62	258.70	5,354.0	-702.96	-289.7	-1,450.5	1,445.8	2.50	-2.50	0.00
5,800.0	21.12	258.70	5,446.4	-795.43	-297.2	-1,487.8	1,483.0	2.50	-2.50	0.00
5,900.0	18.62	258.70	5,540.5	-889.47	-303.8	-1,521.1	1,516.2	2.50	-2.50	0.00
6,000.0	16.12	258.70	5,635.9	-984.90	-309.7	-1,550.4	1,545.3	2.50	-2.50	0.00
6,100.0	13.62	258.70	5,732.5	-1,081.55	-314.7	-1,575.5	1,570.4	2.50	-2.50	0.00
6,200.0	11.12	258.70	5,830.2	-1,179.22	-318.9	-1,596.5	1,591.4	2.50	-2.50	0.00
6,300.0	8.62	258.70	5,928.7	-1,277.73	-322.2	-1,613.3	1,608.1	2.50	-2.50	0.00
6,400.0	6.12	258.70	6,027.9	-1,376.90	-324.7	-1,625.9	1,620.6	2.50	-2.50	0.00
6,500.0	3.62	258.70	6,127.5	-1,476.53	-326.4	-1,634.2	1,628.9	2.50	-2.50	0.00
6,600.0	1.12	258.70	6,227.4	-1,576.44	-327.2	-1,638.3	1,633.0	2.50	-2.50	0.00
<b>EOD TO VERTICAL</b>										
6,644.7	0.00	0.00	6,272.1	-1,621.13	-327.3	-1,638.7	1,633.4	2.50	-2.50	0.00
<b>KOP (10°/100ft BUR)</b>										
6,674.7	0.00	0.00	6,302.1	-1,651.13	-327.3	-1,638.7	1,633.4	0.00	0.00	0.00
6,700.0	2.53	272.87	6,327.4	-1,676.42	-327.3	-1,639.3	1,634.0	10.01	10.01	0.00
6,800.0	12.53	272.87	6,426.4	-1,775.44	-326.6	-1,652.3	1,647.0	10.00	10.00	0.00
6,900.0	22.54	272.87	6,521.7	-1,870.67	-325.1	-1,682.4	1,677.1	10.00	10.00	0.00
7,000.0	32.54	272.87	6,610.2	-1,959.23	-322.8	-1,728.5	1,723.3	10.00	10.00	0.00
7,100.0	42.54	272.87	6,689.4	-2,038.42	-319.8	-1,789.3	1,784.1	10.00	10.00	0.00
<b>SHARON SPRINGS</b>										
7,147.4	47.28	272.87	6,723.0	-2,072.00	-318.1	-1,822.7	1,817.5	10.00	10.00	0.00
<b>NIORARA</b>										
7,193.7	51.91	272.87	6,753.0	-2,102.00	-316.3	-1,857.9	1,852.7	10.00	10.00	0.00
7,200.0	52.54	272.87	6,756.8	-2,105.85	-316.1	-1,862.9	1,857.7	10.00	10.00	0.00
7,300.0	62.54	272.87	6,810.5	-2,159.45	-311.8	-1,947.0	1,941.9	10.00	10.00	0.00
7,400.0	72.54	272.87	6,848.6	-2,197.61	-307.2	-2,039.2	2,034.2	10.00	10.00	0.00
7,500.0	82.54	272.87	6,870.2	-2,219.15	-302.3	-2,136.6	2,131.6	10.00	10.00	0.00
<b>LANDING PNT: 1283ft FNL &amp; 460ft FEL of Sec 8 - NIO B TARGET</b>										
7,574.6	90.00	272.87	6,875.0	-2,224.00	-298.6	-2,210.9	2,206.0	10.00	10.00	0.00
7,600.0	90.00	272.87	6,875.0	-2,224.00	-297.4	-2,236.3	2,231.4	0.00	0.00	0.00
7,700.0	90.00	272.87	6,875.0	-2,224.00	-292.3	-2,336.1	2,331.3	0.00	0.00	0.00
7,800.0	90.00	272.87	6,875.0	-2,224.00	-287.3	-2,436.0	2,431.2	0.00	0.00	0.00
7,900.0	90.00	272.87	6,875.0	-2,224.00	-282.3	-2,535.9	2,531.2	0.00	0.00	0.00
8,000.0	90.00	272.87	6,875.0	-2,224.00	-277.3	-2,635.8	2,631.1	0.00	0.00	0.00
8,100.0	90.00	272.87	6,875.0	-2,223.99	-272.3	-2,735.6	2,731.1	0.00	0.00	0.00
8,200.0	90.00	272.87	6,875.0	-2,223.99	-267.3	-2,835.5	2,831.0	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
8,300.0	90.00	272.87	6,875.0	-2,223.99	-262.3	-2,935.4	2,930.9	0.00	0.00	0.00
8,400.0	90.00	272.87	6,875.0	-2,223.99	-257.3	-3,035.3	3,030.9	0.00	0.00	0.00
8,500.0	90.00	272.87	6,875.0	-2,223.99	-252.3	-3,135.1	3,130.8	0.00	0.00	0.00
8,600.0	90.00	272.87	6,875.0	-2,223.99	-247.3	-3,235.0	3,230.8	0.00	0.00	0.00
8,700.0	90.00	272.87	6,875.0	-2,223.99	-242.3	-3,334.9	3,330.7	0.00	0.00	0.00
8,800.0	90.00	272.87	6,875.0	-2,223.99	-237.3	-3,434.8	3,430.6	0.00	0.00	0.00
8,900.0	90.00	272.87	6,875.0	-2,223.99	-232.3	-3,534.6	3,530.6	0.00	0.00	0.00
9,000.0	90.00	272.87	6,875.0	-2,223.99	-227.3	-3,634.5	3,630.5	0.00	0.00	0.00
9,100.0	90.00	272.87	6,875.0	-2,223.99	-222.3	-3,734.4	3,730.5	0.00	0.00	0.00
9,200.0	90.00	272.87	6,875.0	-2,223.99	-217.3	-3,834.3	3,830.4	0.00	0.00	0.00
9,300.0	90.00	272.87	6,875.0	-2,223.98	-212.3	-3,934.1	3,930.3	0.00	0.00	0.00
9,400.0	90.00	272.87	6,875.0	-2,223.98	-207.3	-4,034.0	4,030.3	0.00	0.00	0.00
9,500.0	90.00	272.87	6,875.0	-2,223.98	-202.2	-4,133.9	4,130.2	0.00	0.00	0.00
9,600.0	90.00	272.87	6,875.0	-2,223.98	-197.2	-4,233.8	4,230.2	0.00	0.00	0.00
9,700.0	90.00	272.87	6,875.0	-2,223.98	-192.2	-4,333.6	4,330.1	0.00	0.00	0.00
9,800.0	90.00	272.87	6,875.0	-2,223.98	-187.2	-4,433.5	4,430.1	0.00	0.00	0.00
9,900.0	90.00	272.87	6,875.0	-2,223.98	-182.2	-4,533.4	4,530.0	0.00	0.00	0.00
10,000.0	90.00	272.87	6,875.0	-2,223.98	-177.2	-4,633.3	4,629.9	0.00	0.00	0.00
10,100.0	90.00	272.87	6,875.0	-2,223.98	-172.2	-4,733.1	4,729.9	0.00	0.00	0.00
10,200.0	90.00	272.87	6,875.0	-2,223.98	-167.2	-4,833.0	4,829.8	0.00	0.00	0.00
10,300.0	90.00	272.87	6,875.0	-2,223.98	-162.2	-4,932.9	4,929.8	0.00	0.00	0.00
10,400.0	90.00	272.87	6,875.0	-2,223.98	-157.2	-5,032.8	5,029.7	0.00	0.00	0.00
10,500.0	90.00	272.87	6,875.0	-2,223.98	-152.2	-5,132.6	5,129.6	0.00	0.00	0.00
10,600.0	90.00	272.87	6,875.0	-2,223.98	-147.2	-5,232.5	5,229.6	0.00	0.00	0.00
10,700.0	90.00	272.87	6,875.0	-2,223.98	-142.2	-5,332.4	5,329.5	0.00	0.00	0.00
10,800.0	90.00	272.87	6,875.0	-2,223.98	-137.1	-5,432.3	5,429.5	0.00	0.00	0.00
10,900.0	90.00	272.87	6,875.0	-2,223.98	-132.1	-5,532.1	5,529.4	0.00	0.00	0.00
11,000.0	90.00	272.87	6,875.0	-2,223.98	-127.1	-5,632.0	5,629.3	0.00	0.00	0.00
11,100.0	90.00	272.87	6,875.0	-2,223.98	-122.1	-5,731.9	5,729.3	0.00	0.00	0.00
11,200.0	90.00	272.87	6,875.0	-2,223.98	-117.1	-5,831.8	5,829.2	0.00	0.00	0.00
11,300.0	90.00	272.87	6,875.0	-2,223.98	-112.1	-5,931.6	5,929.2	0.00	0.00	0.00
11,400.0	90.00	272.87	6,875.0	-2,223.97	-107.1	-6,031.5	6,029.1	0.00	0.00	0.00
11,500.0	90.00	272.87	6,875.0	-2,223.97	-102.1	-6,131.4	6,129.0	0.00	0.00	0.00
11,600.0	90.00	272.87	6,875.0	-2,223.97	-97.1	-6,231.3	6,229.0	0.00	0.00	0.00
11,700.0	90.00	272.87	6,875.0	-2,223.97	-92.1	-6,331.1	6,328.9	0.00	0.00	0.00
11,800.0	90.00	272.87	6,875.0	-2,223.97	-87.0	-6,431.0	6,428.9	0.00	0.00	0.00
11,900.0	90.00	272.87	6,875.0	-2,223.97	-82.0	-6,530.9	6,528.8	0.00	0.00	0.00
12,000.0	90.00	272.87	6,875.0	-2,223.97	-77.0	-6,630.8	6,628.7	0.00	0.00	0.00
12,100.0	90.00	272.87	6,875.0	-2,223.97	-72.0	-6,730.6	6,728.7	0.00	0.00	0.00
12,200.0	90.00	272.87	6,875.0	-2,223.97	-67.0	-6,830.5	6,828.6	0.00	0.00	0.00
12,300.0	90.00	272.87	6,875.0	-2,223.97	-62.0	-6,930.4	6,928.6	0.00	0.00	0.00
12,400.0	90.00	272.87	6,875.0	-2,223.97	-57.0	-7,030.3	7,028.5	0.00	0.00	0.00
12,500.0	90.00	272.87	6,875.0	-2,223.97	-52.0	-7,130.1	7,128.4	0.00	0.00	0.00
12,600.0	90.00	272.87	6,875.0	-2,223.97	-47.0	-7,230.0	7,228.4	0.00	0.00	0.00
12,700.0	90.00	272.87	6,875.0	-2,223.97	-42.0	-7,329.9	7,328.3	0.00	0.00	0.00
12,800.0	90.00	272.87	6,875.0	-2,223.97	-36.9	-7,429.7	7,428.3	0.00	0.00	0.00
12,900.0	90.00	272.87	6,875.0	-2,223.97	-31.9	-7,529.6	7,528.2	0.00	0.00	0.00
13,000.0	90.00	272.87	6,875.0	-2,223.97	-26.9	-7,629.5	7,628.1	0.00	0.00	0.00
13,100.0	90.00	272.87	6,875.0	-2,223.97	-21.9	-7,729.4	7,728.1	0.00	0.00	0.00
13,200.0	90.00	272.87	6,875.0	-2,223.97	-16.9	-7,829.2	7,828.0	0.00	0.00	0.00
13,300.0	90.00	272.87	6,875.0	-2,223.97	-11.9	-7,929.1	7,928.0	0.00	0.00	0.00
13,400.0	90.00	272.87	6,875.0	-2,223.97	-6.9	-8,029.0	8,027.9	0.00	0.00	0.00
13,500.0	90.00	272.87	6,875.0	-2,223.98	-1.9	-8,128.9	8,127.8	0.00	0.00	0.00
13,600.0	90.00	272.87	6,875.0	-2,223.98	3.2	-8,228.7	8,227.8	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
13,700.0	90.00	272.87	6,875.0	-2,223.98	8.2	-8,328.6	8,327.7	0.00	0.00	0.00
13,800.0	90.00	272.87	6,875.0	-2,223.98	13.2	-8,428.5	8,427.7	0.00	0.00	0.00
13,900.0	90.00	272.87	6,875.0	-2,223.98	18.2	-8,528.4	8,527.6	0.00	0.00	0.00
14,000.0	90.00	272.87	6,875.0	-2,223.98	23.2	-8,628.2	8,627.6	0.00	0.00	0.00
14,100.0	90.00	272.87	6,875.0	-2,223.98	28.2	-8,728.1	8,727.5	0.00	0.00	0.00
14,200.0	90.00	272.87	6,875.0	-2,223.98	33.2	-8,828.0	8,827.4	0.00	0.00	0.00
14,300.0	90.00	272.87	6,875.0	-2,223.98	38.2	-8,927.9	8,927.4	0.00	0.00	0.00
14,400.0	90.00	272.87	6,875.0	-2,223.98	43.3	-9,027.7	9,027.3	0.00	0.00	0.00
14,500.0	90.00	272.87	6,875.0	-2,223.98	48.3	-9,127.6	9,127.3	0.00	0.00	0.00
14,600.0	90.00	272.87	6,875.0	-2,223.98	53.3	-9,227.5	9,227.2	0.00	0.00	0.00
14,700.0	90.00	272.87	6,875.0	-2,223.98	58.3	-9,327.4	9,327.1	0.00	0.00	0.00
14,800.0	90.00	272.87	6,875.0	-2,223.98	63.3	-9,427.2	9,427.1	0.00	0.00	0.00
14,900.0	90.00	272.87	6,875.0	-2,223.98	68.3	-9,527.1	9,527.0	0.00	0.00	0.00
15,000.0	90.00	272.87	6,875.0	-2,223.98	73.3	-9,627.0	9,627.0	0.00	0.00	0.00
15,100.0	90.00	272.87	6,875.0	-2,223.98	78.4	-9,726.9	9,726.9	0.00	0.00	0.00
15,200.0	90.00	272.87	6,875.0	-2,223.98	83.4	-9,826.7	9,826.8	0.00	0.00	0.00
15,300.0	90.00	272.87	6,875.0	-2,223.98	88.4	-9,926.6	9,926.8	0.00	0.00	0.00
15,400.0	90.00	272.87	6,875.0	-2,223.98	93.4	-10,026.5	10,026.7	0.00	0.00	0.00
15,500.0	90.00	272.87	6,875.0	-2,223.98	98.4	-10,126.4	10,126.7	0.00	0.00	0.00
15,600.0	90.00	272.87	6,875.0	-2,223.99	103.4	-10,226.2	10,226.6	0.00	0.00	0.00
15,700.0	90.00	272.87	6,875.0	-2,223.99	108.4	-10,326.1	10,326.5	0.00	0.00	0.00
15,800.0	90.00	272.87	6,875.0	-2,223.99	113.5	-10,426.0	10,426.5	0.00	0.00	0.00
15,900.0	90.00	272.87	6,875.0	-2,223.99	118.5	-10,525.9	10,526.4	0.00	0.00	0.00
16,000.0	90.00	272.87	6,875.0	-2,223.99	123.5	-10,625.7	10,626.4	0.00	0.00	0.00
16,100.0	90.00	272.88	6,875.0	-2,223.99	128.5	-10,725.6	10,726.3	0.00	0.00	0.00
16,200.0	90.00	272.88	6,875.0	-2,223.99	133.5	-10,825.5	10,826.2	0.00	0.00	0.00
16,300.0	90.00	272.88	6,875.0	-2,223.99	138.5	-10,925.3	10,926.2	0.00	0.00	0.00
16,400.0	90.00	272.88	6,875.0	-2,223.99	143.6	-11,025.2	11,026.1	0.00	0.00	0.00
16,500.0	90.00	272.88	6,875.0	-2,223.99	148.6	-11,125.1	11,126.1	0.00	0.00	0.00
16,600.0	90.00	272.88	6,875.0	-2,223.99	153.6	-11,225.0	11,226.0	0.00	0.00	0.00
16,700.0	90.00	272.88	6,875.0	-2,223.99	158.6	-11,324.8	11,325.9	0.00	0.00	0.00
16,800.0	90.00	272.88	6,875.0	-2,224.00	163.6	-11,424.7	11,425.9	0.00	0.00	0.00
16,900.0	90.00	272.88	6,875.0	-2,224.00	168.6	-11,524.6	11,525.8	0.00	0.00	0.00
17,000.0	90.00	272.88	6,875.0	-2,224.00	173.7	-11,624.5	11,625.8	0.00	0.00	0.00
17,100.0	90.00	272.88	6,875.0	-2,224.00	178.7	-11,724.3	11,725.7	0.00	0.00	0.00
17,200.0	90.00	272.88	6,875.0	-2,224.00	183.7	-11,824.2	11,825.6	0.00	0.00	0.00
<b>BHL: 1468ft FNL &amp; 460ft FWL of Sec 7</b>										
<b>17,226.4</b>	<b>90.00</b>	<b>272.88</b>	<b>6,875.0</b>	<b>-2,224.00</b>	<b>185.0</b>	<b>-11,850.6</b>	<b>11,852.0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,729.1	3,613.0	PARKMAN				
4,510.5	4,302.0	SUSSEX				
5,129.8	4,848.0	SHANNON				
7,147.4	6,723.0	SHARON SPRINGS				
7,193.7	6,753.0	NIOBRARA				
7,574.6	6,875.0	NIO B TARGET				

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-MAPLEWOOD 3-8-7
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4651.0usft (SAV 802)
<b>Site:</b>	NE NW SEC. 9 T5N R65W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	MT-MAPLEWOOD 3-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

## Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 924ft FNL & 1752ft FWL of Sec 9
1,800.0	1,800.0	0.0	0.0	9 5/8" SURFACE CSG
2,000.0	2,000.0	0.0	0.0	START NUDGE (2.5°/100ft BUR)
3,126.1	3,081.3	-53.1	-265.9	EOB TO 28.15° INC
5,518.6	5,190.8	-274.2	-1,372.8	END OF TANGENT
6,644.7	6,272.1	-327.3	-1,638.7	EOD TO VERTICAL
6,674.7	6,302.1	-327.3	-1,638.7	KOP (10°/100ft BUR)
7,574.6	6,875.0	-298.6	-2,210.9	LANDING PNT: 1283ft FNL & 460ft FEL of Sec 8
17,226.4	6,875.0	185.0	-11,850.6	BHL: 1468ft FNL & 460ft FWL of Sec 7