

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

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

MT-GLENMERE 2-8-7

ORIGINAL WELLBORE

20 June, 2015

Plan: PROPOSAL #2

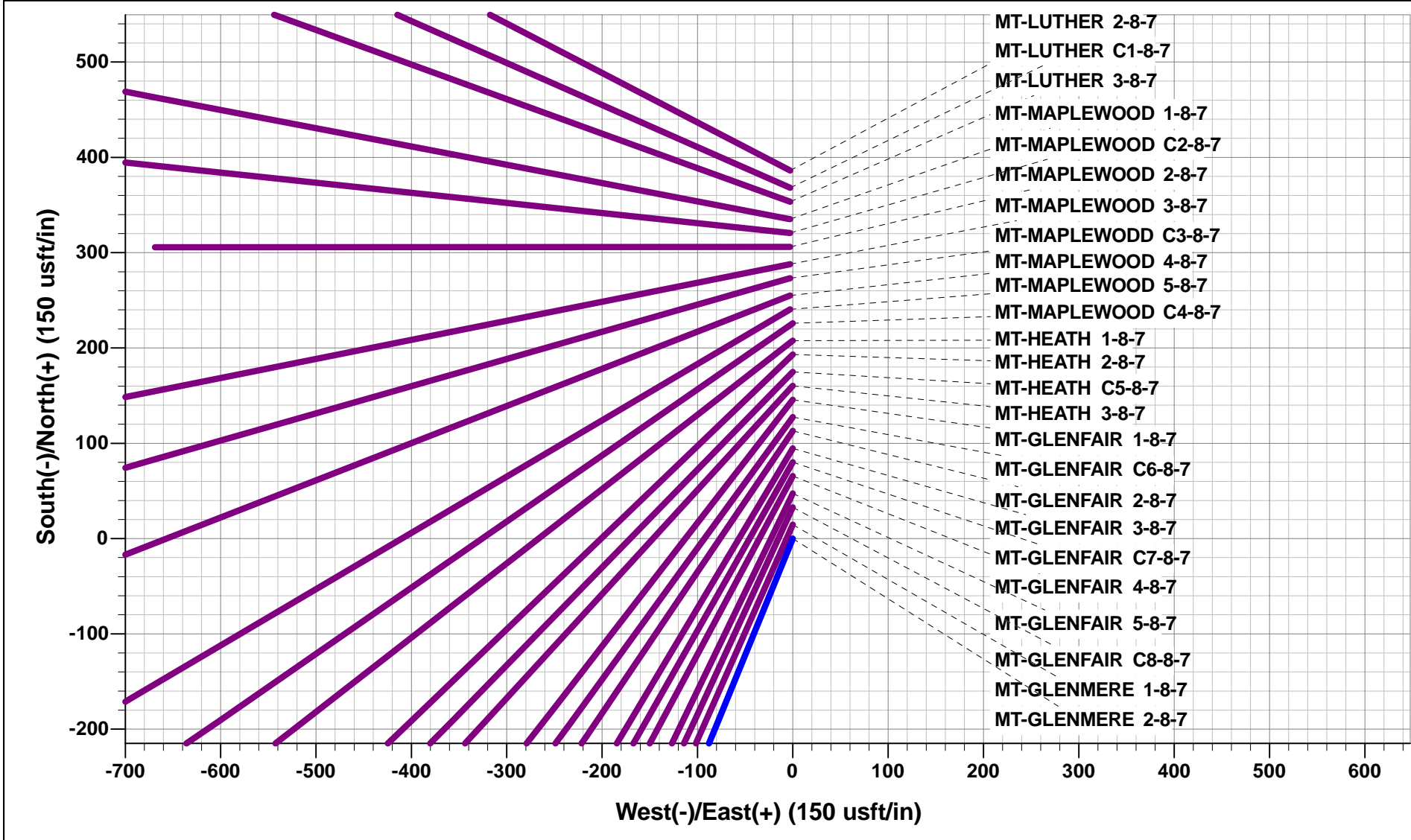




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 9 T5N R65W 6th P.M.
Well: MT-GLENMERE 2-8-7
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

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: 1212ft FNL & 1756ft FWL of Sec 9	
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)	
1800.0	1920.0	36.40	202.22	-517.4	-211.4	365.2	558.9	9 5/8" SURFACE CSG	
1852.3	1985.0	36.40	202.22	-553.1	-226.0	390.4	597.5	START NUDGE - MAIN (4°/100ft BUR)	
2006.7	2188.0	44.52	202.22	-675.0	-275.7	476.4	729.1	EOB TO 44.52° INC	
5267.7	6761.6	44.52	202.22	-3643.7	-1488.4	2571.8	3935.9	END OF TANGENT	
6272.0	7874.6	0.00	0.00	-4024.2	-1643.8	2840.4	4347.0	EOD TO VERTICAL	
6302.0	7904.6	0.00	0.00	-4024.2	-1643.8	2840.4	4347.0	KOP (10°/100ft BUR)	
6875.0	8804.7	90.00	270.23	-4021.9	-2216.9	3382.9	4920.1	LANDING PNT: 0ft FSL & 460ft FEL of Sec 8	
6875.0	18435.1	90.00	270.24	-3982.7	-11847.1	12498.7	14550.4	BHL: 0ft FSL & 460ft FWL of Sec 7	

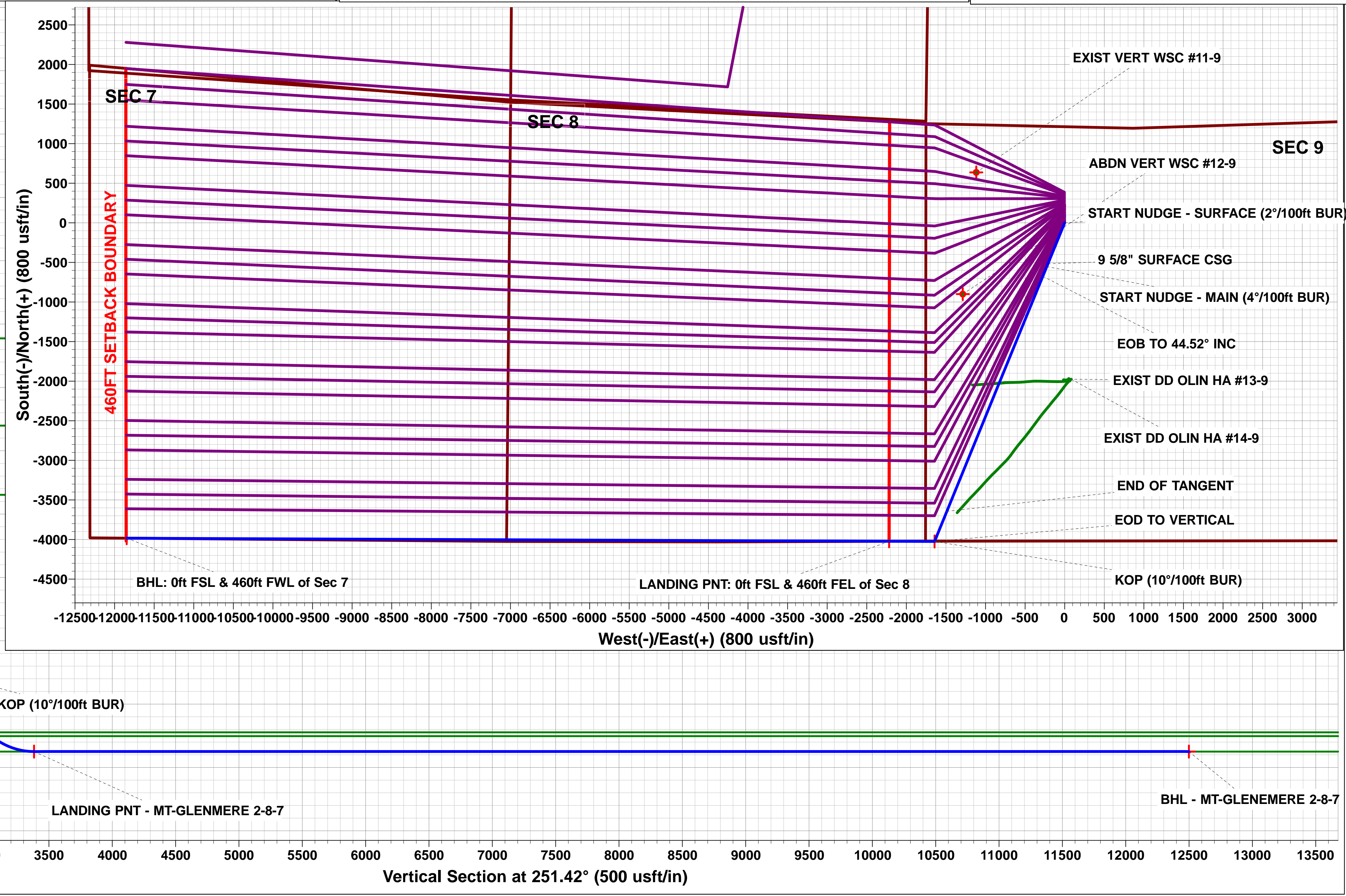
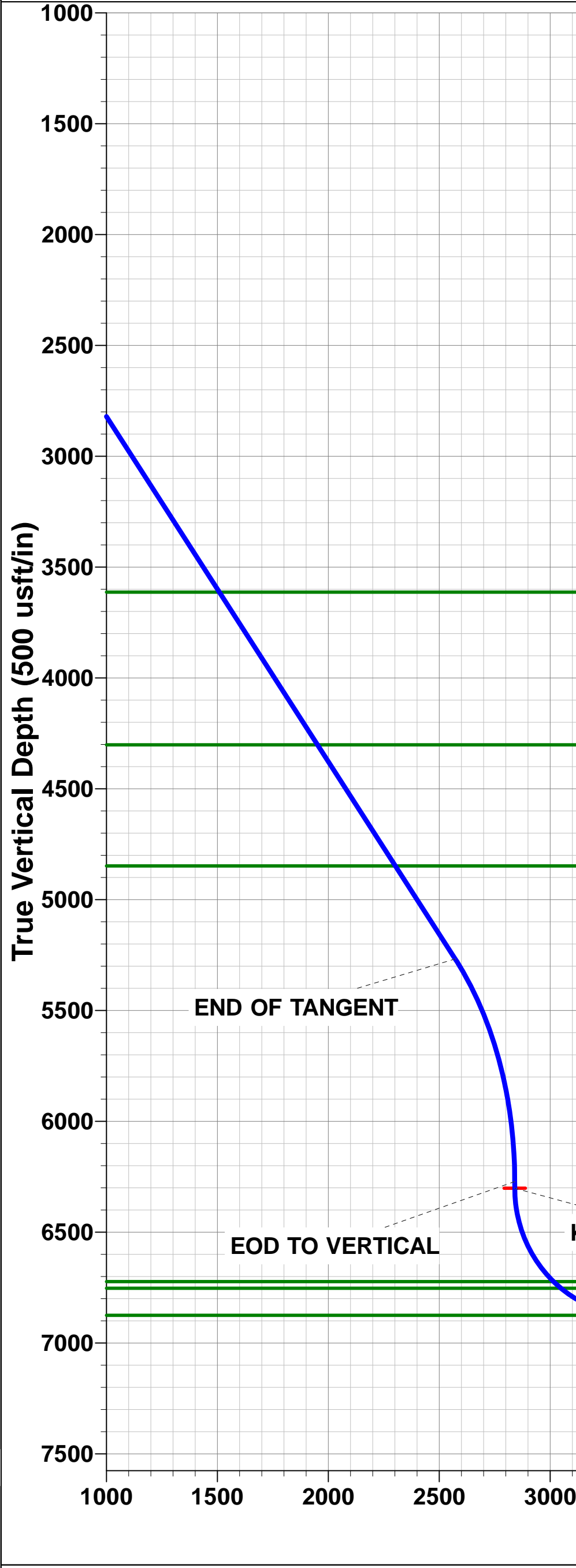
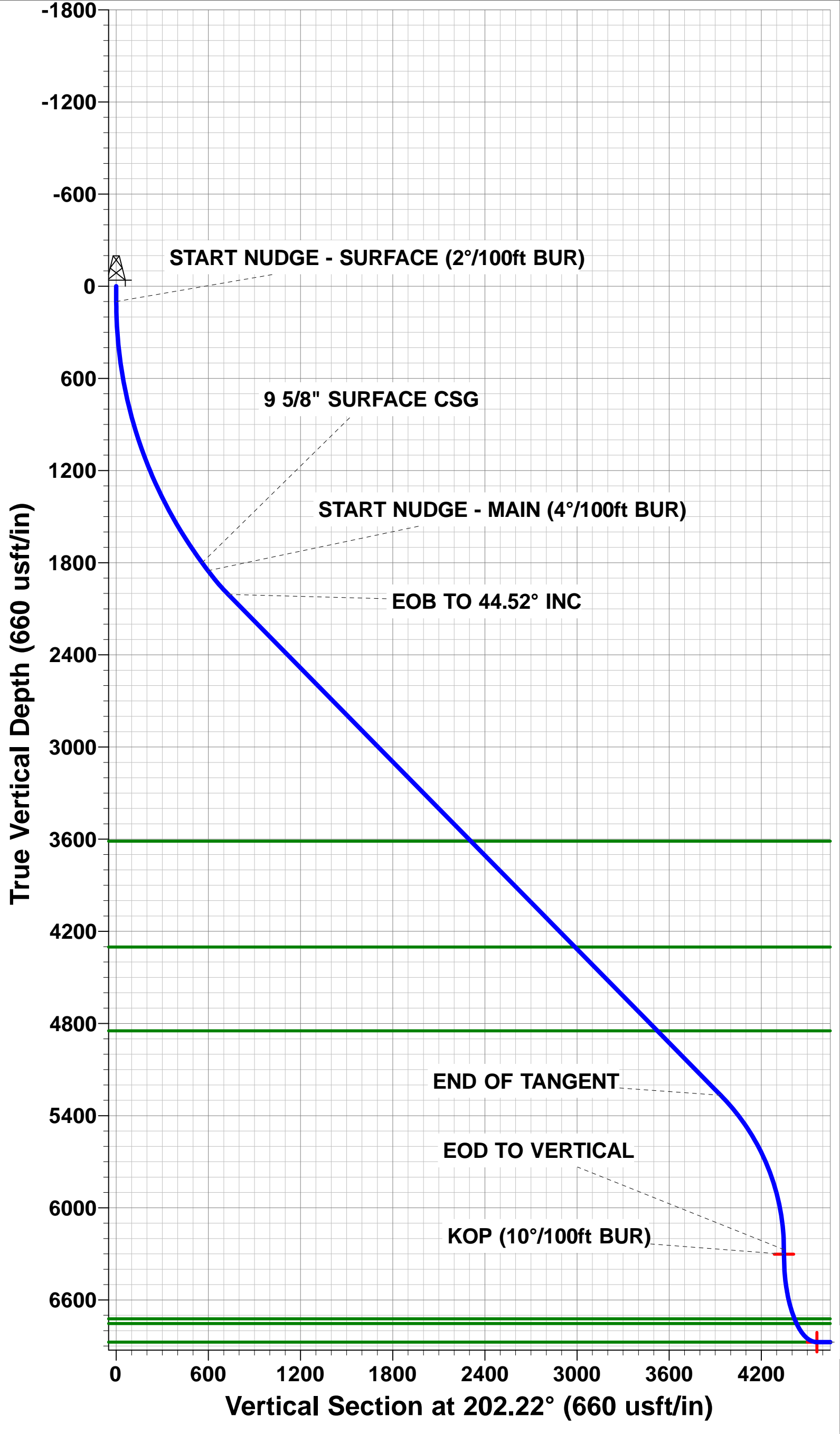
WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - MT-GLENMERE 2-8-7	6302.0	-4024.2	-1643.8	40.406454	-104.677562
LANDING PNT - MT-GLENMERE 2-8-7	6875.0	-4021.9	-2216.8	40.406460	-104.679620
BHL - MT-GLENMERE 2-8-7	6875.0	-3982.7	-11847.1	40.406560	-104.714200



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3613.0	4440.9	PARKMAN
4302.0	5407.2	SUSSEX
4848.0	6173.0	SHANNON
6723.0	8377.4	SHARON SPRINGS
6753.0	8423.7	NIOBRARA
6875.0	8804.6	NIO B TARGET

Azimuths to True North
Magnetic North: 8.38°

Magnetic Field
Strength: 52645.2snT
Dip Angle: 66.93°
Date: 04/06/2015
Model: IGRF2015



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENMERE 2-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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	Latitude:	40.418560
From:	Lat/Long	Easting:	3,230,631.97 usft	Longitude:	-104.671670
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.54 °

Well	MT-GLENMERE 2-8-7					
Well Position	+N/-S	-386.2 usft	Northing:	1,396,012.83 usft	Latitude:	40.417500
	+E/-W	2.8 usft	Easting:	3,230,638.36 usft	Longitude:	-104.671660
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,635.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	04/06/2015	8.38	66.93	52,645

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	251.42

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	
100.0	0.00	0.00	100.0	-4,551.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,920.0	36.40	202.22	1,800.0	-2,851.0	-517.4	-211.4	2.00	2.00	0.00	202.22	
1,985.0	36.40	202.22	1,852.3	-2,798.7	-553.1	-226.0	0.00	0.00	0.00	0.00	
2,188.0	44.52	202.22	2,006.6	-2,644.4	-675.0	-275.7	4.00	4.00	0.00	0.00	
6,761.6	44.52	202.22	5,267.7	616.7	-3,643.6	-1,488.4	0.00	0.00	0.00	0.00	
7,874.6	0.00	0.00	6,272.0	1,621.0	-4,024.2	-1,643.8	4.00	-4.00	0.00	180.00	
7,904.6	0.00	0.00	6,302.0	1,651.0	-4,024.2	-1,643.8	0.00	0.00	0.00	0.00	KOP - MT-GLENME
8,804.7	90.00	270.23	6,875.0	2,224.0	-4,021.9	-2,216.8	10.00	10.00	-9.97	270.23	LANDING PNT - M
18,435.1	90.00	270.24	6,875.0	2,224.0	-3,982.7	-11,847.1	0.00	0.00	0.00	128.24	BHL - MT-GLENEN

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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: 1212ft FNL & 1756ft 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
START NUDGE - SURFACE (2°/100ft BUR)										
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	2.00	202.22	200.0	4,451.02	-1.6	-0.7	1.1	2.00	2.00	0.00
300.0	4.00	202.22	299.8	4,351.16	-6.5	-2.6	4.6	2.00	2.00	0.00
400.0	6.00	202.22	399.5	4,251.55	-14.5	-5.9	10.3	2.00	2.00	0.00
500.0	8.00	202.22	498.7	4,152.30	-25.8	-10.5	18.2	2.00	2.00	0.00
600.0	10.00	202.22	597.5	4,053.53	-40.3	-16.5	28.4	2.00	2.00	0.00
700.0	12.00	202.22	695.6	3,955.38	-58.0	-23.7	40.9	2.00	2.00	0.00
800.0	14.00	202.22	793.1	3,857.94	-78.8	-32.2	55.6	2.00	2.00	0.00
900.0	16.00	202.22	889.6	3,761.36	-102.7	-42.0	72.5	2.00	2.00	0.00
1,000.0	18.00	202.22	985.3	3,665.73	-129.8	-53.0	91.6	2.00	2.00	0.00
1,100.0	20.00	202.22	1,079.8	3,571.18	-159.9	-65.3	112.9	2.00	2.00	0.00
1,200.0	22.00	202.22	1,173.2	3,477.83	-193.1	-78.9	136.3	2.00	2.00	0.00
1,300.0	24.00	202.22	1,265.2	3,385.79	-229.3	-93.7	161.8	2.00	2.00	0.00
1,400.0	26.00	202.22	1,355.8	3,295.16	-268.4	-109.6	189.5	2.00	2.00	0.00
1,500.0	28.00	202.22	1,444.9	3,206.06	-310.4	-126.8	219.1	2.00	2.00	0.00
1,600.0	30.00	202.22	1,532.4	3,118.61	-355.3	-145.1	250.8	2.00	2.00	0.00
1,700.0	32.00	202.22	1,618.1	3,032.89	-403.0	-164.6	284.4	2.00	2.00	0.00
1,800.0	34.00	202.22	1,702.0	2,949.03	-453.4	-185.2	320.0	2.00	2.00	0.00
1,900.0	36.00	202.22	1,783.9	2,867.12	-506.5	-206.9	357.5	2.00	2.00	0.00
9 5/8" SURFACE CSG										
1,920.0	36.40	202.22	1,800.0	2,851.00	-517.4	-211.4	365.2	2.00	2.00	0.00
START NUDGE - MAIN (4°/100ft BUR)										
1,985.0	36.40	202.22	1,852.3	2,798.66	-553.1	-226.0	390.4	0.00	0.00	0.00
2,000.0	37.00	202.22	1,864.4	2,786.64	-561.4	-229.3	396.3	4.01	4.01	0.00
2,100.0	41.00	202.22	1,942.1	2,708.94	-619.7	-253.1	437.4	4.00	4.00	0.00
EOB TO 44.52° INC										
2,188.0	44.52	202.22	2,006.7	2,644.34	-675.0	-275.7	476.4	4.00	4.00	0.00
2,200.0	44.52	202.22	2,015.2	2,635.78	-682.8	-278.9	481.9	0.00	0.00	0.00
2,300.0	44.52	202.22	2,086.5	2,564.48	-747.7	-305.4	527.8	0.00	0.00	0.00
2,400.0	44.52	202.22	2,157.8	2,493.18	-812.6	-331.9	573.6	0.00	0.00	0.00
2,500.0	44.52	202.22	2,229.1	2,421.88	-877.5	-358.5	619.4	0.00	0.00	0.00
2,600.0	44.52	202.22	2,300.4	2,350.58	-942.4	-385.0	665.2	0.00	0.00	0.00
2,700.0	44.52	202.22	2,371.7	2,279.28	-1,007.3	-411.5	711.0	0.00	0.00	0.00
2,800.0	44.52	202.22	2,443.0	2,207.97	-1,072.2	-438.0	756.8	0.00	0.00	0.00
2,900.0	44.52	202.22	2,514.3	2,136.67	-1,137.1	-464.5	802.6	0.00	0.00	0.00
3,000.0	44.52	202.22	2,585.6	2,065.37	-1,202.0	-491.0	848.5	0.00	0.00	0.00
3,100.0	44.52	202.22	2,656.9	1,994.07	-1,267.0	-517.5	894.3	0.00	0.00	0.00
3,200.0	44.52	202.22	2,728.2	1,922.77	-1,331.9	-544.0	940.1	0.00	0.00	0.00
3,300.0	44.52	202.22	2,799.5	1,851.47	-1,396.8	-570.6	985.9	0.00	0.00	0.00
3,400.0	44.52	202.22	2,870.8	1,780.17	-1,461.7	-597.1	1,031.7	0.00	0.00	0.00
3,500.0	44.52	202.22	2,942.1	1,708.87	-1,526.6	-623.6	1,077.5	0.00	0.00	0.00
3,600.0	44.52	202.22	3,013.4	1,637.57	-1,591.5	-650.1	1,123.3	0.00	0.00	0.00
3,700.0	44.52	202.22	3,084.7	1,566.26	-1,656.4	-676.6	1,169.2	0.00	0.00	0.00
3,800.0	44.52	202.22	3,156.0	1,494.96	-1,721.3	-703.1	1,215.0	0.00	0.00	0.00
3,900.0	44.52	202.22	3,227.3	1,423.66	-1,786.2	-729.6	1,260.8	0.00	0.00	0.00
4,000.0	44.52	202.22	3,298.6	1,352.36	-1,851.1	-756.2	1,306.6	0.00	0.00	0.00
4,100.0	44.52	202.22	3,369.9	1,281.06	-1,916.0	-782.7	1,352.4	0.00	0.00	0.00
4,200.0	44.52	202.22	3,441.2	1,209.76	-1,981.0	-809.2	1,398.2	0.00	0.00	0.00
4,300.0	44.52	202.22	3,512.5	1,138.46	-2,045.9	-835.7	1,444.1	0.00	0.00	0.00
4,400.0	44.52	202.22	3,583.8	1,067.16	-2,110.8	-862.2	1,489.9	0.00	0.00	0.00

Planning Report



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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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)
PARKMAN										
4,440.9	44.52	202.22	3,613.0	1,038.00	-2,137.3	-873.1	1,508.6	0.00	0.00	0.00
4,500.0	44.52	202.22	3,655.1	995.85	-2,175.7	-888.7	1,535.7	0.00	0.00	0.00
4,600.0	44.52	202.22	3,726.4	924.55	-2,240.6	-915.2	1,581.5	0.00	0.00	0.00
4,700.0	44.52	202.22	3,797.7	853.25	-2,305.5	-941.8	1,627.3	0.00	0.00	0.00
4,800.0	44.52	202.22	3,869.0	781.95	-2,370.4	-968.3	1,673.1	0.00	0.00	0.00
4,900.0	44.52	202.22	3,940.3	710.65	-2,435.3	-994.8	1,718.9	0.00	0.00	0.00
5,000.0	44.52	202.22	4,011.7	639.35	-2,500.2	-1,021.3	1,764.8	0.00	0.00	0.00
5,100.0	44.52	202.22	4,083.0	568.05	-2,565.1	-1,047.8	1,810.6	0.00	0.00	0.00
5,200.0	44.52	202.22	4,154.3	496.75	-2,630.0	-1,074.3	1,856.4	0.00	0.00	0.00
5,300.0	44.52	202.22	4,225.6	425.45	-2,695.0	-1,100.8	1,902.2	0.00	0.00	0.00
5,400.0	44.52	202.22	4,296.9	354.14	-2,759.9	-1,127.3	1,948.0	0.00	0.00	0.00
SUSSEX										
5,407.2	44.52	202.22	4,302.0	349.00	-2,764.5	-1,129.3	1,951.3	0.00	0.00	0.00
5,500.0	44.52	202.22	4,368.2	282.84	-2,824.8	-1,153.9	1,993.8	0.00	0.00	0.00
5,600.0	44.52	202.22	4,439.5	211.54	-2,889.7	-1,180.4	2,039.6	0.00	0.00	0.00
5,700.0	44.52	202.22	4,510.8	140.24	-2,954.6	-1,206.9	2,085.5	0.00	0.00	0.00
5,800.0	44.52	202.22	4,582.1	68.94	-3,019.5	-1,233.4	2,131.3	0.00	0.00	0.00
5,900.0	44.52	202.22	4,653.4	-2.36	-3,084.4	-1,259.9	2,177.1	0.00	0.00	0.00
6,000.0	44.52	202.22	4,724.7	-73.66	-3,149.3	-1,286.4	2,222.9	0.00	0.00	0.00
6,100.0	44.52	202.22	4,796.0	-144.96	-3,214.2	-1,312.9	2,268.7	0.00	0.00	0.00
SHANNON										
6,173.0	44.52	202.22	4,848.0	-197.00	-3,261.6	-1,332.3	2,302.2	0.00	0.00	0.00
6,200.0	44.52	202.22	4,867.3	-216.26	-3,279.1	-1,339.5	2,314.5	0.00	0.00	0.00
6,300.0	44.52	202.22	4,938.6	-287.57	-3,344.0	-1,366.0	2,360.4	0.00	0.00	0.00
6,400.0	44.52	202.22	5,009.9	-358.87	-3,408.9	-1,392.5	2,406.2	0.00	0.00	0.00
6,500.0	44.52	202.22	5,081.2	-430.17	-3,473.9	-1,419.0	2,452.0	0.00	0.00	0.00
6,600.0	44.52	202.22	5,152.5	-501.47	-3,538.8	-1,445.5	2,497.8	0.00	0.00	0.00
6,700.0	44.52	202.22	5,223.8	-572.77	-3,603.7	-1,472.0	2,543.6	0.00	0.00	0.00
END OF TANGENT										
6,761.6	44.52	202.22	5,267.7	-616.69	-3,643.7	-1,488.4	2,571.8	0.00	0.00	0.00
6,800.0	42.98	202.22	5,295.4	-644.43	-3,668.2	-1,498.4	2,589.2	4.00	-4.00	0.00
6,900.0	38.98	202.22	5,370.9	-719.91	-3,728.9	-1,523.2	2,632.0	4.00	-4.00	0.00
7,000.0	34.98	202.22	5,450.8	-799.77	-3,784.6	-1,545.9	2,671.3	4.00	-4.00	0.00
7,100.0	30.98	202.22	5,534.6	-883.64	-3,835.0	-1,566.5	2,706.9	4.00	-4.00	0.00
7,200.0	26.98	202.22	5,622.1	-971.10	-3,879.9	-1,584.8	2,738.5	4.00	-4.00	0.00
7,300.0	22.98	202.22	5,712.7	-1,061.72	-3,918.9	-1,600.8	2,766.1	4.00	-4.00	0.00
7,400.0	18.98	202.22	5,806.1	-1,155.07	-3,952.1	-1,614.3	2,789.5	4.00	-4.00	0.00
7,500.0	14.98	202.22	5,901.7	-1,250.69	-3,979.1	-1,625.4	2,808.6	4.00	-4.00	0.00
7,600.0	10.98	202.22	5,999.1	-1,348.12	-3,999.9	-1,633.9	2,823.3	4.00	-4.00	0.00
7,700.0	6.98	202.22	6,097.9	-1,446.87	-4,014.4	-1,639.8	2,833.5	4.00	-4.00	0.00
7,800.0	2.98	202.22	6,197.5	-1,546.47	-4,022.4	-1,643.1	2,839.2	4.00	-4.00	0.00
EOD TO VERTICAL										
7,874.6	0.00	0.00	6,272.0	-1,621.04	-4,024.2	-1,643.8	2,840.4	4.00	-4.00	0.00
7,900.0	0.00	0.00	6,297.4	-1,646.44	-4,024.2	-1,643.8	2,840.4	0.00	0.00	0.00
KOP (10°/100ft BUR)										
7,904.6	0.00	0.00	6,302.0	-1,651.04	-4,024.2	-1,643.8	2,840.4	0.00	0.00	0.00
8,000.0	9.54	270.23	6,397.0	-1,746.00	-4,024.2	-1,651.7	2,847.9	10.00	10.00	0.00
8,100.0	19.54	270.23	6,493.7	-1,842.67	-4,024.1	-1,676.8	2,871.7	10.00	10.00	0.00
8,200.0	29.54	270.23	6,584.5	-1,933.52	-4,023.9	-1,718.3	2,910.9	10.00	10.00	0.00
8,300.0	39.54	270.23	6,666.8	-2,015.79	-4,023.7	-1,774.9	2,964.5	10.00	10.00	0.00
SHARON SPRINGS										
8,377.4	47.28	270.23	6,723.0	-2,072.00	-4,023.5	-1,828.1	3,014.9	10.00	10.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENMERE 2-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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)
8,400.0	49.54	270.23	6,738.0	-2,086.97	-4,023.4	-1,845.0	3,030.9	10.00	10.00	0.00
NIORARA										
8,423.7	51.91	270.23	6,753.0	-2,102.00	-4,023.3	-1,863.3	3,048.3	10.00	10.00	0.00
8,500.0	59.54	270.23	6,795.9	-2,144.91	-4,023.1	-1,926.3	3,107.9	10.00	10.00	0.00
8,600.0	69.54	270.23	6,838.8	-2,187.85	-4,022.7	-2,016.5	3,193.2	10.00	10.00	0.00
8,700.0	79.54	270.23	6,865.5	-2,214.47	-4,022.3	-2,112.7	3,284.3	10.00	10.00	0.00
8,800.0	89.54	270.23	6,875.0	-2,223.98	-4,021.9	-2,212.2	3,378.4	10.00	10.00	0.00
NIO B TARGET										
8,804.6	90.00	270.23	6,875.0	-2,224.00	-4,021.9	-2,216.8	3,382.8	10.00	10.00	0.00
LANDING PNT: 0ft FSL & 460ft FEL of Sec 8										
8,804.7	90.00	270.23	6,875.0	-2,224.00	-4,021.9	-2,216.9	3,382.9	4.70	4.70	0.00
8,900.0	90.00	270.23	6,875.0	-2,224.00	-4,021.5	-2,312.2	3,473.1	0.00	0.00	0.00
9,000.0	90.00	270.23	6,875.0	-2,223.99	-4,021.1	-2,412.2	3,567.8	0.00	0.00	0.00
9,100.0	90.00	270.23	6,875.0	-2,223.99	-4,020.7	-2,512.2	3,662.4	0.00	0.00	0.00
9,200.0	90.00	270.23	6,875.0	-2,223.99	-4,020.3	-2,612.2	3,757.1	0.00	0.00	0.00
9,300.0	90.00	270.23	6,875.0	-2,223.98	-4,019.9	-2,712.2	3,851.7	0.00	0.00	0.00
9,400.0	90.00	270.23	6,875.0	-2,223.98	-4,019.5	-2,812.2	3,946.4	0.00	0.00	0.00
9,500.0	90.00	270.23	6,875.0	-2,223.98	-4,019.1	-2,912.2	4,041.0	0.00	0.00	0.00
9,600.0	90.00	270.23	6,875.0	-2,223.97	-4,018.7	-3,012.2	4,135.7	0.00	0.00	0.00
9,700.0	90.00	270.23	6,875.0	-2,223.97	-4,018.3	-3,112.2	4,230.4	0.00	0.00	0.00
9,800.0	90.00	270.23	6,875.0	-2,223.97	-4,017.9	-3,212.2	4,325.0	0.00	0.00	0.00
9,900.0	90.00	270.23	6,875.0	-2,223.96	-4,017.5	-3,312.2	4,419.7	0.00	0.00	0.00
10,000.0	90.00	270.23	6,875.0	-2,223.96	-4,017.1	-3,412.2	4,514.3	0.00	0.00	0.00
10,100.0	90.00	270.23	6,875.0	-2,223.96	-4,016.7	-3,512.2	4,609.0	0.00	0.00	0.00
10,200.0	90.00	270.23	6,875.0	-2,223.95	-4,016.3	-3,612.2	4,703.7	0.00	0.00	0.00
10,300.0	90.00	270.23	6,875.0	-2,223.95	-4,015.9	-3,712.2	4,798.3	0.00	0.00	0.00
10,400.0	90.00	270.23	6,874.9	-2,223.95	-4,015.5	-3,812.2	4,893.0	0.00	0.00	0.00
10,500.0	90.00	270.23	6,874.9	-2,223.95	-4,015.1	-3,912.2	4,987.6	0.00	0.00	0.00
10,600.0	90.00	270.23	6,874.9	-2,223.94	-4,014.7	-4,012.2	5,082.3	0.00	0.00	0.00
10,700.0	90.00	270.23	6,874.9	-2,223.94	-4,014.3	-4,112.2	5,176.9	0.00	0.00	0.00
10,800.0	90.00	270.23	6,874.9	-2,223.94	-4,013.9	-4,212.2	5,271.6	0.00	0.00	0.00
10,900.0	90.00	270.23	6,874.9	-2,223.94	-4,013.5	-4,312.2	5,366.3	0.00	0.00	0.00
11,000.0	90.00	270.23	6,874.9	-2,223.93	-4,013.1	-4,412.1	5,460.9	0.00	0.00	0.00
11,100.0	90.00	270.23	6,874.9	-2,223.93	-4,012.6	-4,512.1	5,555.6	0.00	0.00	0.00
11,200.0	90.00	270.23	6,874.9	-2,223.93	-4,012.2	-4,612.1	5,650.2	0.00	0.00	0.00
11,300.0	90.00	270.23	6,874.9	-2,223.93	-4,011.8	-4,712.1	5,744.9	0.00	0.00	0.00
11,400.0	90.00	270.23	6,874.9	-2,223.93	-4,011.4	-4,812.1	5,839.5	0.00	0.00	0.00
11,500.0	90.00	270.23	6,874.9	-2,223.93	-4,011.0	-4,912.1	5,934.2	0.00	0.00	0.00
11,600.0	90.00	270.23	6,874.9	-2,223.92	-4,010.6	-5,012.1	6,028.9	0.00	0.00	0.00
11,700.0	90.00	270.23	6,874.9	-2,223.92	-4,010.2	-5,112.1	6,123.5	0.00	0.00	0.00
11,800.0	90.00	270.23	6,874.9	-2,223.92	-4,009.8	-5,212.1	6,218.2	0.00	0.00	0.00
11,900.0	90.00	270.23	6,874.9	-2,223.92	-4,009.4	-5,312.1	6,312.8	0.00	0.00	0.00
12,000.0	90.00	270.23	6,874.9	-2,223.92	-4,009.0	-5,412.1	6,407.5	0.00	0.00	0.00
12,100.0	90.00	270.23	6,874.9	-2,223.92	-4,008.6	-5,512.1	6,502.1	0.00	0.00	0.00
12,200.0	90.00	270.23	6,874.9	-2,223.92	-4,008.2	-5,612.1	6,596.8	0.00	0.00	0.00
12,300.0	90.00	270.23	6,874.9	-2,223.91	-4,007.8	-5,712.1	6,691.5	0.00	0.00	0.00
12,400.0	90.00	270.23	6,874.9	-2,223.91	-4,007.4	-5,812.1	6,786.1	0.00	0.00	0.00
12,500.0	90.00	270.23	6,874.9	-2,223.91	-4,007.0	-5,912.1	6,880.8	0.00	0.00	0.00
12,600.0	90.00	270.23	6,874.9	-2,223.91	-4,006.6	-6,012.1	6,975.4	0.00	0.00	0.00
12,700.0	90.00	270.23	6,874.9	-2,223.91	-4,006.2	-6,112.1	7,070.1	0.00	0.00	0.00
12,800.0	90.00	270.23	6,874.9	-2,223.91	-4,005.8	-6,212.1	7,164.7	0.00	0.00	0.00
12,900.0	90.00	270.23	6,874.9	-2,223.91	-4,005.4	-6,312.1	7,259.4	0.00	0.00	0.00
13,000.0	90.00	270.23	6,874.9	-2,223.91	-4,004.9	-6,412.1	7,354.1	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENMERE 2-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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)
13,100.0	90.00	270.23	6,874.9	-2,223.91	-4,004.5	-6,512.1	7,448.7	0.00	0.00	0.00
13,200.0	90.00	270.23	6,874.9	-2,223.91	-4,004.1	-6,612.1	7,543.4	0.00	0.00	0.00
13,300.0	90.00	270.23	6,874.9	-2,223.91	-4,003.7	-6,712.1	7,638.0	0.00	0.00	0.00
13,400.0	90.00	270.23	6,874.9	-2,223.91	-4,003.3	-6,812.1	7,732.7	0.00	0.00	0.00
13,500.0	90.00	270.23	6,874.9	-2,223.91	-4,002.9	-6,912.1	7,827.3	0.00	0.00	0.00
13,600.0	90.00	270.23	6,874.9	-2,223.91	-4,002.5	-7,012.1	7,922.0	0.00	0.00	0.00
13,700.0	90.00	270.23	6,874.9	-2,223.91	-4,002.1	-7,112.1	8,016.7	0.00	0.00	0.00
13,800.0	90.00	270.23	6,874.9	-2,223.91	-4,001.7	-7,212.1	8,111.3	0.00	0.00	0.00
13,900.0	90.00	270.23	6,874.9	-2,223.91	-4,001.3	-7,312.1	8,206.0	0.00	0.00	0.00
14,000.0	90.00	270.23	6,874.9	-2,223.91	-4,000.9	-7,412.1	8,300.6	0.00	0.00	0.00
14,100.0	90.00	270.23	6,874.9	-2,223.91	-4,000.5	-7,512.1	8,395.3	0.00	0.00	0.00
14,200.0	90.00	270.23	6,874.9	-2,223.91	-4,000.1	-7,612.1	8,489.9	0.00	0.00	0.00
14,300.0	90.00	270.23	6,874.9	-2,223.91	-3,999.7	-7,712.1	8,584.6	0.00	0.00	0.00
14,400.0	90.00	270.23	6,874.9	-2,223.91	-3,999.3	-7,812.1	8,679.3	0.00	0.00	0.00
14,500.0	90.00	270.23	6,874.9	-2,223.91	-3,998.8	-7,912.1	8,773.9	0.00	0.00	0.00
14,600.0	90.00	270.23	6,874.9	-2,223.91	-3,998.4	-8,012.1	8,868.6	0.00	0.00	0.00
14,700.0	90.00	270.23	6,874.9	-2,223.91	-3,998.0	-8,112.1	8,963.2	0.00	0.00	0.00
14,800.0	90.00	270.23	6,874.9	-2,223.91	-3,997.6	-8,212.1	9,057.9	0.00	0.00	0.00
14,900.0	90.00	270.23	6,874.9	-2,223.91	-3,997.2	-8,312.1	9,152.5	0.00	0.00	0.00
15,000.0	90.00	270.23	6,874.9	-2,223.91	-3,996.8	-8,412.1	9,247.2	0.00	0.00	0.00
15,100.0	90.00	270.23	6,874.9	-2,223.92	-3,996.4	-8,512.1	9,341.9	0.00	0.00	0.00
15,200.0	90.00	270.23	6,874.9	-2,223.92	-3,996.0	-8,612.1	9,436.5	0.00	0.00	0.00
15,300.0	90.00	270.23	6,874.9	-2,223.92	-3,995.6	-8,712.1	9,531.2	0.00	0.00	0.00
15,400.0	90.00	270.23	6,874.9	-2,223.92	-3,995.2	-8,812.1	9,625.8	0.00	0.00	0.00
15,500.0	90.00	270.23	6,874.9	-2,223.92	-3,994.8	-8,912.1	9,720.5	0.00	0.00	0.00
15,600.0	90.00	270.23	6,874.9	-2,223.92	-3,994.4	-9,012.1	9,815.1	0.00	0.00	0.00
15,700.0	90.00	270.23	6,874.9	-2,223.92	-3,993.9	-9,112.1	9,909.8	0.00	0.00	0.00
15,800.0	90.00	270.23	6,874.9	-2,223.93	-3,993.5	-9,212.1	10,004.4	0.00	0.00	0.00
15,900.0	90.00	270.23	6,874.9	-2,223.93	-3,993.1	-9,312.1	10,099.1	0.00	0.00	0.00
16,000.0	90.00	270.23	6,874.9	-2,223.93	-3,992.7	-9,412.1	10,193.8	0.00	0.00	0.00
16,100.0	90.00	270.23	6,874.9	-2,223.93	-3,992.3	-9,512.1	10,288.4	0.00	0.00	0.00
16,200.0	90.00	270.23	6,874.9	-2,223.93	-3,991.9	-9,612.1	10,383.1	0.00	0.00	0.00
16,300.0	90.00	270.23	6,874.9	-2,223.94	-3,991.5	-9,712.1	10,477.7	0.00	0.00	0.00
16,400.0	90.00	270.23	6,874.9	-2,223.94	-3,991.1	-9,812.1	10,572.4	0.00	0.00	0.00
16,500.0	90.00	270.23	6,874.9	-2,223.94	-3,990.7	-9,912.1	10,667.0	0.00	0.00	0.00
16,600.0	90.00	270.23	6,874.9	-2,223.94	-3,990.3	-10,012.1	10,761.7	0.00	0.00	0.00
16,700.0	90.00	270.23	6,874.9	-2,223.95	-3,989.9	-10,112.1	10,856.4	0.00	0.00	0.00
16,800.0	90.00	270.23	6,874.9	-2,223.95	-3,989.4	-10,212.1	10,951.0	0.00	0.00	0.00
16,900.0	90.00	270.23	6,875.0	-2,223.95	-3,989.0	-10,312.1	11,045.7	0.00	0.00	0.00
17,000.0	90.00	270.24	6,875.0	-2,223.95	-3,988.6	-10,412.1	11,140.3	0.00	0.00	0.00
17,100.0	90.00	270.24	6,875.0	-2,223.96	-3,988.2	-10,512.1	11,235.0	0.00	0.00	0.00
17,200.0	90.00	270.24	6,875.0	-2,223.96	-3,987.8	-10,612.1	11,329.6	0.00	0.00	0.00
17,300.0	90.00	270.24	6,875.0	-2,223.96	-3,987.4	-10,712.1	11,424.3	0.00	0.00	0.00
17,400.0	90.00	270.24	6,875.0	-2,223.96	-3,987.0	-10,812.1	11,518.9	0.00	0.00	0.00
17,500.0	90.00	270.24	6,875.0	-2,223.97	-3,986.6	-10,912.1	11,613.6	0.00	0.00	0.00
17,600.0	90.00	270.24	6,875.0	-2,223.97	-3,986.2	-11,012.1	11,708.3	0.00	0.00	0.00
17,700.0	90.00	270.24	6,875.0	-2,223.97	-3,985.7	-11,112.1	11,802.9	0.00	0.00	0.00
17,800.0	90.00	270.24	6,875.0	-2,223.98	-3,985.3	-11,212.1	11,897.6	0.00	0.00	0.00
17,900.0	90.00	270.24	6,875.0	-2,223.98	-3,984.9	-11,312.1	11,992.2	0.00	0.00	0.00
18,000.0	90.00	270.24	6,875.0	-2,223.98	-3,984.5	-11,412.1	12,086.9	0.00	0.00	0.00
18,100.0	90.00	270.24	6,875.0	-2,223.99	-3,984.1	-11,512.1	12,181.5	0.00	0.00	0.00
18,200.0	90.00	270.24	6,875.0	-2,223.99	-3,983.7	-11,612.1	12,276.2	0.00	0.00	0.00
18,300.0	90.00	270.24	6,875.0	-2,223.99	-3,983.3	-11,712.1	12,370.8	0.00	0.00	0.00
18,400.0	90.00	270.24	6,875.0	-2,224.00	-3,982.9	-11,812.1	12,465.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MT-GLENMERE 2-8-7
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4651.0usft (Original Well Elev)
Site:	NE NW SEC. 9 T5N R65W 6th P.M.	North Reference:	True
Well:	MT-GLENMERE 2-8-7	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)
BHL: 0ft FSL & 460ft FWL of Sec 7										
18,435.1	90.00	270.24	6,875.0	-2,224.00	-3,982.7	-11,847.1	12,498.7	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,440.9	3,613.0	PARKMAN			
5,407.2	4,302.0	SUSSEX			
6,173.0	4,848.0	SHANNON			
8,377.4	6,723.0	SHARON SPRINGS			
8,423.7	6,753.0	NIOBRARA			
8,804.6	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: 1212ft FNL & 1756ft FWL of Sec 9
100.0	100.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1,920.0	1,800.0	-517.4	-211.4	9 5/8" SURFACE CSG
1,985.0	1,852.3	-553.1	-226.0	START NUDGE - MAIN (4°/100ft BUR)
2,188.0	2,006.7	-675.0	-275.7	EOB TO 44.52° INC
6,761.6	5,267.7	-3,643.7	-1,488.4	END OF TANGENT
7,874.6	6,272.0	-4,024.2	-1,643.8	EOD TO VERTICAL
7,904.6	6,302.0	-4,024.2	-1,643.8	KOP (10°/100ft BUR)
8,804.7	6,875.0	-4,021.9	-2,216.9	LANDING PNT: 0ft FSL & 460ft FEL of Sec 8
18,435.1	6,875.0	-3,982.7	-11,847.1	BHL: 0ft FSL & 460ft FWL of Sec 7