

# **EXTRACTION OIL & GAS**

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

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

**MT-GLENFAIR C6-8-7**

**ORIGINAL WELLBORE**

**22 June, 2015**

**Plan: PROPOSAL #2**

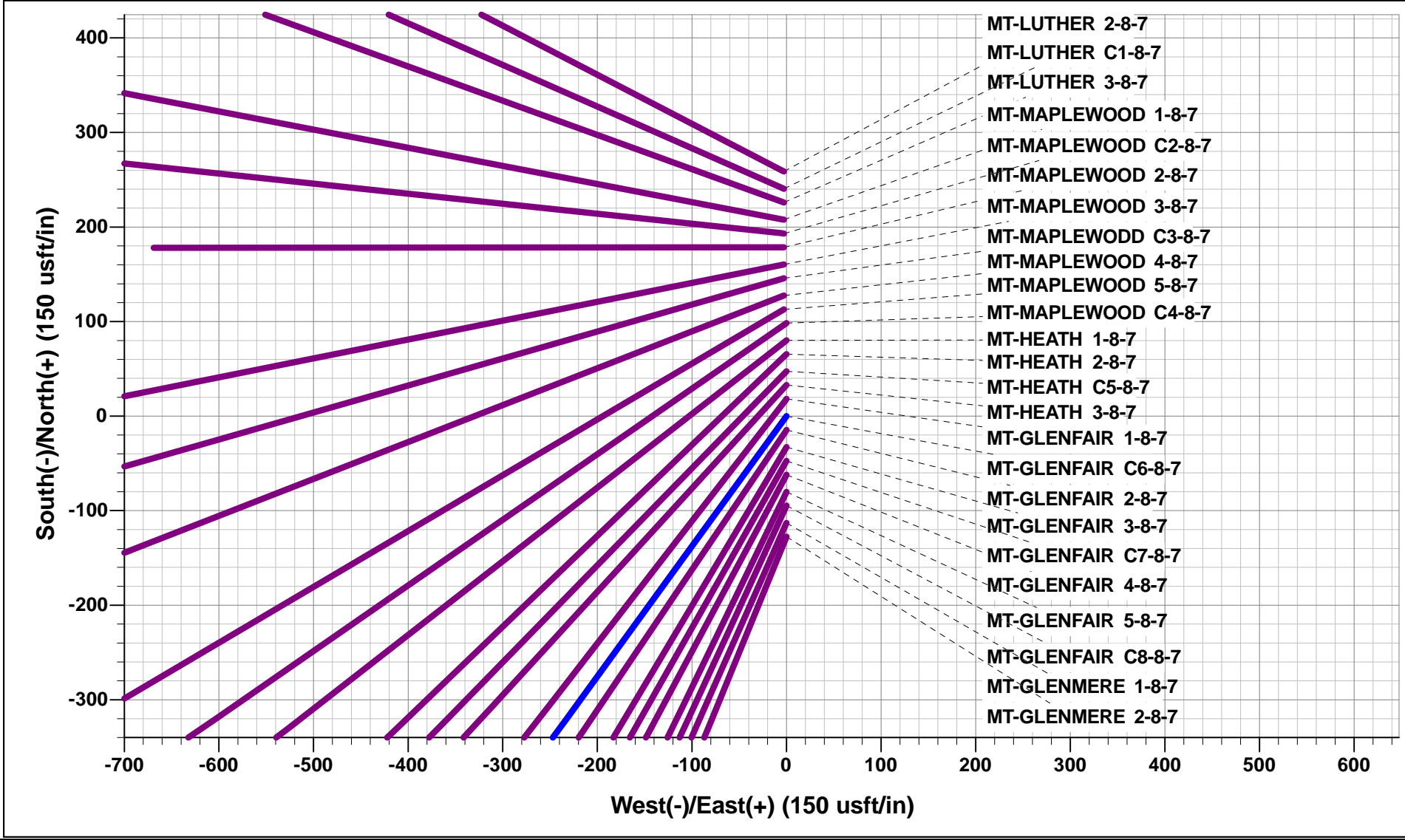




Project: WELD COUNTY, COLORADO (NAD 83)  
Site: NE NW SEC. 9 T5N R65W 6th P.M.  
Well: MT-GLENFAIR C6-8-7  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

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: 1084ft FNL & 1754ft FWL of Sec 9
900.0	900.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1800.0	1815.5	18.31	216.00	-117.3	-85.3	104.1	145.0	9 5/8" SURFACE CSG
1861.7	1880.5	18.31	216.00	-133.9	-97.3	118.8	165.5	START NUDGE - MAIN (3°/100ft BUR)
2334.8	2409.7	34.19	216.00	-322.6	-234.4	286.3	398.8	EOB TO 34.19° INC
5378.8	6089.5	34.19	216.00	-1995.3	-1449.7	1770.9	2466.4	END OF TANGENT
6451.9	7229.0	0.00	216.00	-2262.3	-1643.7	2007.9	2796.4	EOD TO VERTICAL
6481.9	7259.0	0.00	0.00	-2262.3	-1643.7	2007.9	2796.4	KOP (10°/100ft BUR)
7055.0	8159.2	90.00	271.10	-2251.3	-2216.7	2570.4	3369.4	LANDING PNT:1898ft FSL & 460ft FWL of Sec 8
7055.0	17796.1	90.00	271.10	-2066.4	-11851.7	12030.5	13006.3	BHL: 2047ft FSL & 460ft FWL of Sec 7

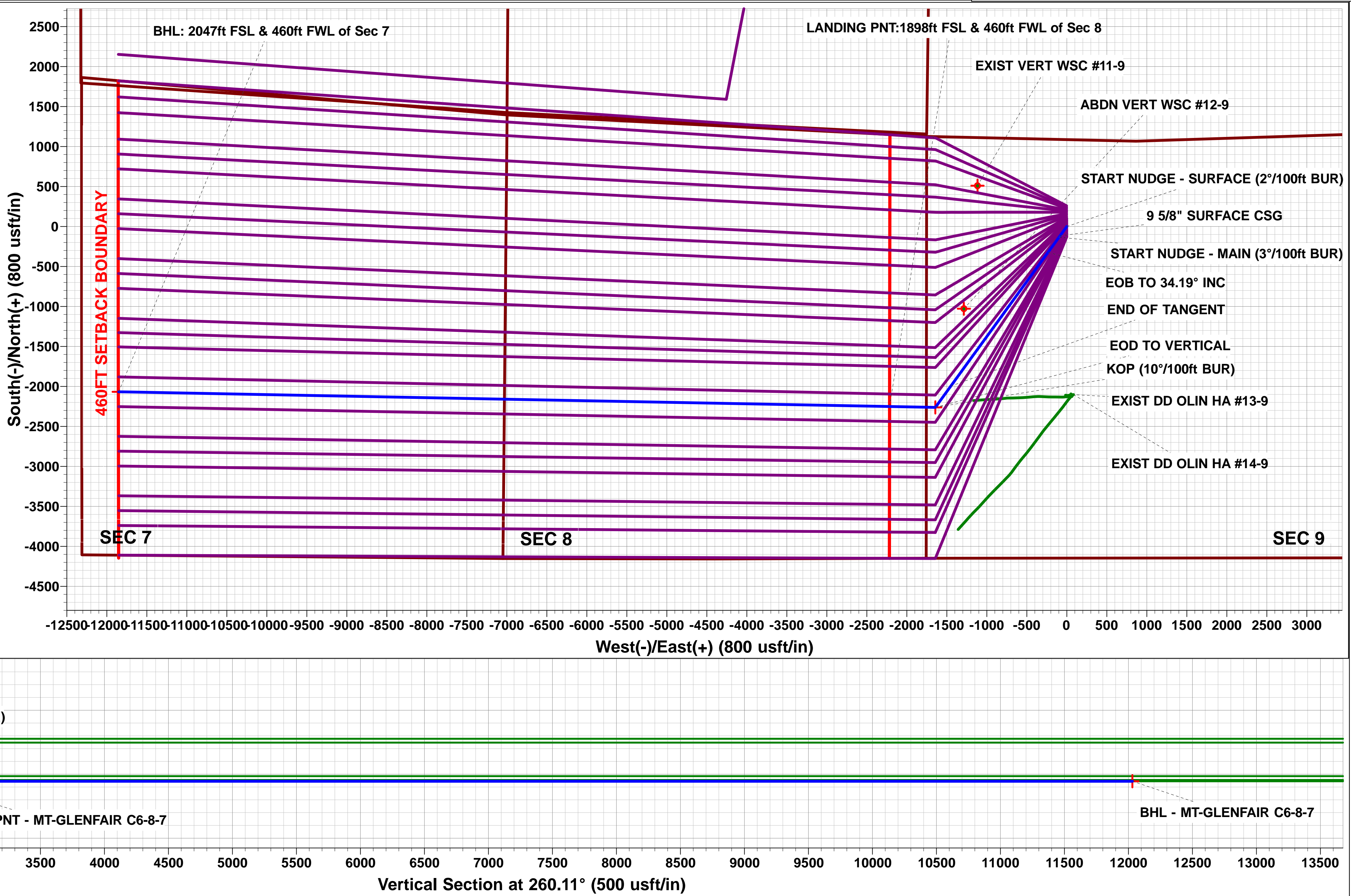
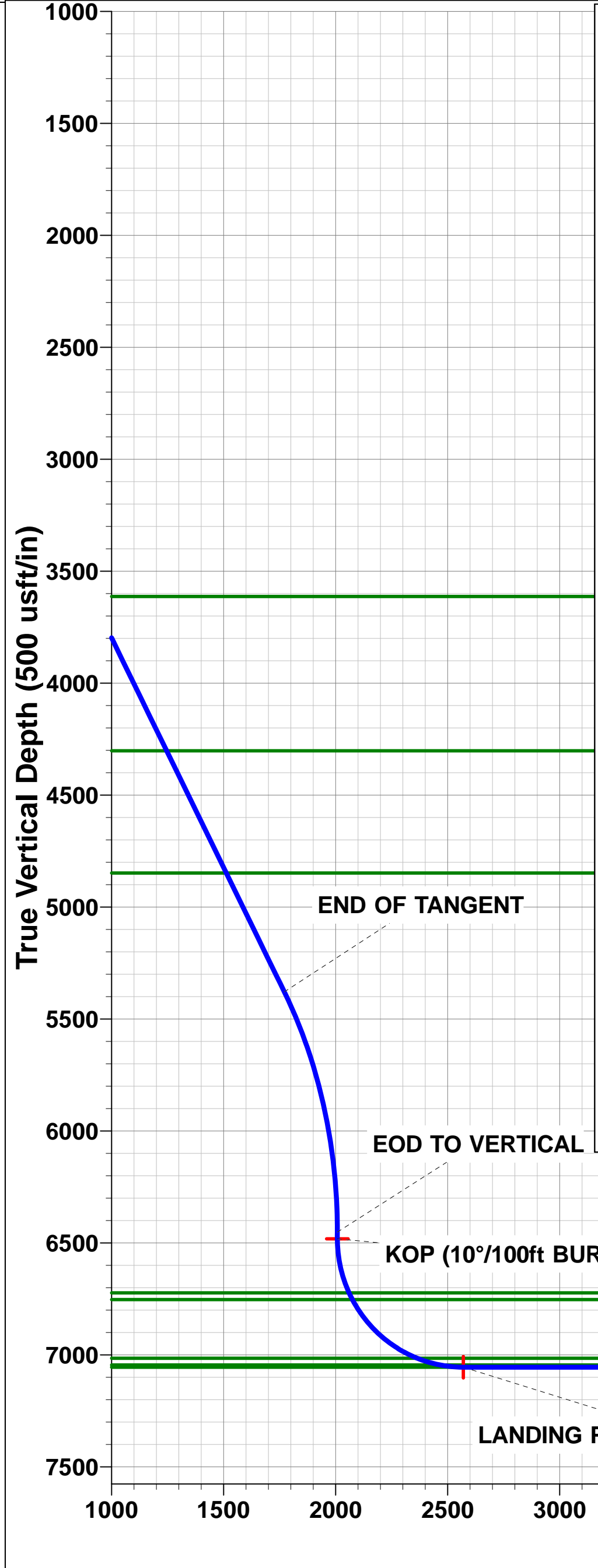
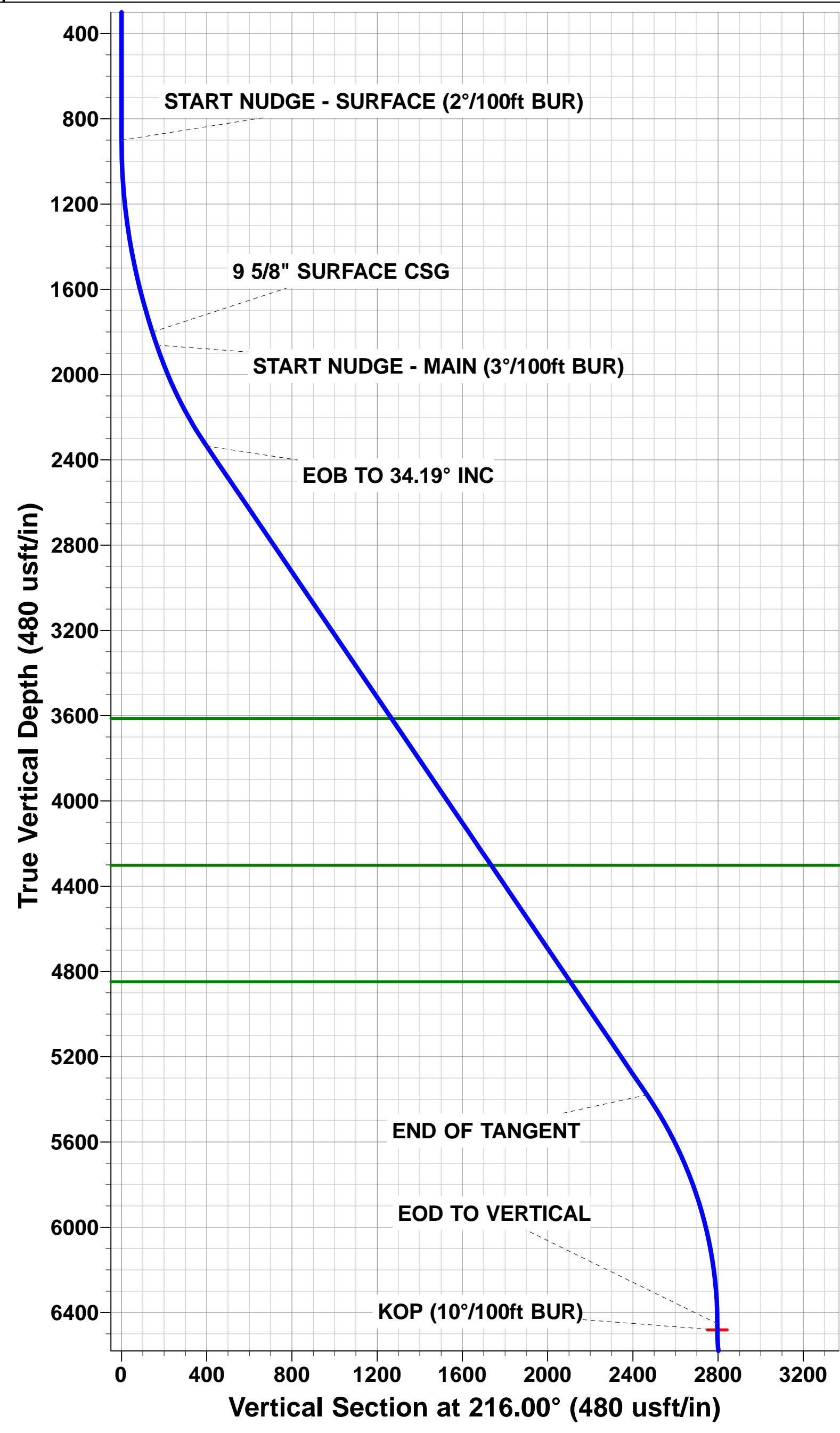
WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
KOP - MT-GLENFAIR C6-8-7	6481.9	-2262.3	-1643.7	40.411640	-104.677563	
LANDING PNT - MT-GLENFAIR C6-8-7	7055.0	-2251.3	-2216.6	40.411670	-104.679620	
BHL - MT-GLENFAIR C6-8-7	7055.0	-2066.4	-11851.7	40.412170	-104.714220	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3613.0	3954.9	PARKMAN
4302.0	4787.8	SUSSEX
4848.0	5447.8	SHANNON
6723.0	7507.9	SHARON SPRINGS
6753.0	7541.4	NIOBRARA
7015.0	7943.9	FORT HAYS
7045.0	8052.0	CODELL
7055.0	8159.2	CODELL TARGET

Azimuths to True North  
Magnetic North: 8.38°

Magnetic Field  
Strength: 52645.4snT  
Dip Angle: 66.93°  
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-GLENFAIR C6-8-7
<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-GLENFAIR C6-8-7	<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

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

<b>Well</b>	MT-GLENFAIR C6-8-7		
<b>Well Position</b>	<b>+N/-S</b>	-258.7 usft	<b>Northing:</b>
	<b>+E/-W</b>	2.8 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	40.417850
		<b>Longitude:</b>	-104.671660
		<b>Ground Level:</b>	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	66.93	52,645

<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	260.11

<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	
900.0	0.00	0.00	900.0	-3,751.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,815.5	18.31	216.00	1,800.0	-2,851.0	-117.3	-85.3	2.00	2.00	0.00	216.00	
1,880.5	18.31	216.00	1,861.7	-2,789.3	-133.9	-97.3	0.00	0.00	0.00	0.00	
2,409.7	34.19	216.00	2,334.8	-2,316.2	-322.6	-234.4	3.00	3.00	0.00	0.00	
6,089.5	34.19	216.00	5,378.8	727.8	-1,995.3	-1,449.7	0.00	0.00	0.00	0.00	
7,229.0	0.00	0.00	6,451.9	1,800.9	-2,262.3	-1,643.7	3.00	-3.00	0.00	180.00	
7,259.0	0.00	0.00	6,481.9	1,830.9	-2,262.3	-1,643.7	0.00	0.00	0.00	0.00	KOP - MT-GLENFA
8,159.2	90.00	271.10	7,055.0	2,404.0	-2,251.3	-2,216.6	10.00	10.00	-9.88	271.10	LANDING PNT - M
17,796.1	90.00	271.10	7,055.0	2,404.0	-2,066.4	-11,851.7	0.00	0.00	0.00	37.62	BHL - MT-GLENFA

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-GLENFAIR C6-8-7
<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-GLENFAIR C6-8-7	<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: 1084ft FNL &amp; 1754ft 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
<b>START NUDGE - SURFACE (2°/100ft BUR)</b>										
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	2.00	216.00	1,000.0	3,651.02	-1.4	-1.0	1.3	2.00	2.00	0.00
1,100.0	4.00	216.00	1,099.8	3,551.16	-5.6	-4.1	5.0	2.00	2.00	0.00
1,200.0	6.00	216.00	1,199.5	3,451.55	-12.7	-9.2	11.3	2.00	2.00	0.00
1,300.0	8.00	216.00	1,298.7	3,352.30	-22.6	-16.4	20.0	2.00	2.00	0.00
1,400.0	10.00	216.00	1,397.5	3,253.53	-35.2	-25.6	31.2	2.00	2.00	0.00
1,500.0	12.00	216.00	1,495.6	3,155.38	-50.6	-36.8	44.9	2.00	2.00	0.00
1,600.0	14.00	216.00	1,593.1	3,057.94	-68.8	-50.0	61.1	2.00	2.00	0.00
1,700.0	16.00	216.00	1,689.6	2,961.36	-89.8	-65.2	79.7	2.00	2.00	0.00
1,800.0	18.00	216.00	1,785.3	2,865.73	-113.4	-82.4	100.7	2.00	2.00	0.00
<b>9 5/8" SURFACE CSG</b>										
1,815.5	18.31	216.00	1,800.0	2,851.00	-117.3	-85.3	104.1	2.00	2.00	0.00
<b>START NUDGE - MAIN (3°/100ft BUR)</b>										
1,880.5	18.31	216.00	1,861.7	2,789.29	-133.9	-97.3	118.8	0.00	0.00	0.00
1,900.0	18.89	216.00	1,880.2	2,770.81	-138.9	-100.9	123.3	3.00	3.00	0.00
2,000.0	21.89	216.00	1,973.9	2,677.09	-167.1	-121.4	148.3	3.00	3.00	0.00
2,100.0	24.89	216.00	2,065.7	2,585.32	-199.2	-144.7	176.8	3.00	3.00	0.00
2,200.0	27.89	216.00	2,155.2	2,495.76	-235.2	-170.9	208.7	3.00	3.00	0.00
2,300.0	30.89	216.00	2,242.4	2,408.64	-274.9	-199.7	244.0	3.00	3.00	0.00
2,400.0	33.89	216.00	2,326.8	2,324.22	-318.2	-231.2	282.4	3.00	3.00	0.00
<b>EOB TO 34.19° INC</b>										
2,409.7	34.19	216.00	2,334.8	2,316.18	-322.6	-234.4	286.3	3.00	3.00	0.00
2,500.0	34.19	216.00	2,409.5	2,241.48	-363.6	-264.2	322.7	0.00	0.00	0.00
2,600.0	34.19	216.00	2,492.2	2,158.76	-409.1	-297.2	363.1	0.00	0.00	0.00
2,700.0	34.19	216.00	2,575.0	2,076.04	-454.6	-330.3	403.4	0.00	0.00	0.00
2,800.0	34.19	216.00	2,657.7	1,993.32	-500.0	-363.3	443.8	0.00	0.00	0.00
2,900.0	34.19	216.00	2,740.4	1,910.60	-545.5	-396.3	484.1	0.00	0.00	0.00
3,000.0	34.19	216.00	2,823.1	1,827.87	-590.9	-429.3	524.5	0.00	0.00	0.00
3,100.0	34.19	216.00	2,905.8	1,745.15	-636.4	-462.4	564.8	0.00	0.00	0.00
3,200.0	34.19	216.00	2,988.6	1,662.43	-681.8	-495.4	605.2	0.00	0.00	0.00
3,300.0	34.19	216.00	3,071.3	1,579.71	-727.3	-528.4	645.5	0.00	0.00	0.00
3,400.0	34.19	216.00	3,154.0	1,496.99	-772.8	-561.5	685.8	0.00	0.00	0.00
3,500.0	34.19	216.00	3,236.7	1,414.27	-818.2	-594.5	726.2	0.00	0.00	0.00
3,600.0	34.19	216.00	3,319.5	1,331.55	-863.7	-627.5	766.5	0.00	0.00	0.00
3,700.0	34.19	216.00	3,402.2	1,248.83	-909.1	-660.5	806.9	0.00	0.00	0.00
3,800.0	34.19	216.00	3,484.9	1,166.10	-954.6	-693.6	847.2	0.00	0.00	0.00
3,900.0	34.19	216.00	3,567.6	1,083.38	-1,000.1	-726.6	887.6	0.00	0.00	0.00
<b>PARKMAN</b>										
3,954.9	34.19	216.00	3,613.0	1,038.00	-1,025.0	-744.7	909.7	0.00	0.00	0.00
4,000.0	34.19	216.00	3,650.3	1,000.66	-1,045.5	-759.6	927.9	0.00	0.00	0.00
4,100.0	34.19	216.00	3,733.1	917.94	-1,091.0	-792.7	968.3	0.00	0.00	0.00
4,200.0	34.19	216.00	3,815.8	835.22	-1,136.4	-825.7	1,008.6	0.00	0.00	0.00



# Planning Report



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<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-GLENFAIR C6-8-7	<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)
4,300.0	34.19	216.00	3,898.5	752.50	-1,181.9	-858.7	1,049.0	0.00	0.00	0.00
4,400.0	34.19	216.00	3,981.2	669.78	-1,227.3	-891.7	1,089.3	0.00	0.00	0.00
4,500.0	34.19	216.00	4,063.9	587.06	-1,272.8	-924.8	1,129.6	0.00	0.00	0.00
4,600.0	34.19	216.00	4,146.7	504.34	-1,318.3	-957.8	1,170.0	0.00	0.00	0.00
4,700.0	34.19	216.00	4,229.4	421.61	-1,363.7	-990.8	1,210.3	0.00	0.00	0.00
<b>SUSSEX</b>										
<b>4,787.8</b>	<b>34.19</b>	<b>216.00</b>	<b>4,302.0</b>	<b>349.00</b>	<b>-1,403.6</b>	<b>-1,019.8</b>	<b>1,245.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,800.0	34.19	216.00	4,312.1	338.89	-1,409.2	-1,023.8	1,250.7	0.00	0.00	0.00
4,900.0	34.19	216.00	4,394.8	256.17	-1,454.6	-1,056.9	1,291.0	0.00	0.00	0.00
5,000.0	34.19	216.00	4,477.5	173.45	-1,500.1	-1,089.9	1,331.4	0.00	0.00	0.00
5,100.0	34.19	216.00	4,560.3	90.73	-1,545.5	-1,122.9	1,371.7	0.00	0.00	0.00
5,200.0	34.19	216.00	4,643.0	8.01	-1,591.0	-1,156.0	1,412.1	0.00	0.00	0.00
5,300.0	34.19	216.00	4,725.7	-74.71	-1,636.5	-1,189.0	1,452.4	0.00	0.00	0.00
5,400.0	34.19	216.00	4,808.4	-157.43	-1,681.9	-1,222.0	1,492.7	0.00	0.00	0.00
<b>SHANNON</b>										
<b>5,447.8</b>	<b>34.19</b>	<b>216.00</b>	<b>4,848.0</b>	<b>-197.00</b>	<b>-1,703.7</b>	<b>-1,237.8</b>	<b>1,512.0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,500.0	34.19	216.00	4,891.2	-240.16	-1,727.4	-1,255.0	1,533.1	0.00	0.00	0.00
5,600.0	34.19	216.00	4,973.9	-322.88	-1,772.8	-1,288.1	1,573.4	0.00	0.00	0.00
5,700.0	34.19	216.00	5,056.6	-405.60	-1,818.3	-1,321.1	1,613.8	0.00	0.00	0.00
5,800.0	34.19	216.00	5,139.3	-488.32	-1,863.7	-1,354.1	1,654.1	0.00	0.00	0.00
5,900.0	34.19	216.00	5,222.0	-571.04	-1,909.2	-1,387.2	1,694.5	0.00	0.00	0.00
6,000.0	34.19	216.00	5,304.8	-653.76	-1,954.7	-1,420.2	1,734.8	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>6,089.5</b>	<b>34.19</b>	<b>216.00</b>	<b>5,378.8</b>	<b>-727.80</b>	<b>-1,995.3</b>	<b>-1,449.7</b>	<b>1,770.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,100.0	33.87	216.00	5,387.5	-736.50	-2,000.1	-1,453.2	1,775.1	3.01	-3.01	0.00
6,200.0	30.87	216.00	5,471.9	-820.95	-2,043.4	-1,484.7	1,813.6	3.00	-3.00	0.00
6,300.0	27.87	216.00	5,559.1	-908.09	-2,083.1	-1,513.5	1,848.8	3.00	-3.00	0.00
6,400.0	24.87	216.00	5,648.7	-997.67	-2,119.0	-1,539.6	1,880.7	3.00	-3.00	0.00
6,500.0	21.87	216.00	5,740.5	-1,089.46	-2,151.1	-1,562.9	1,909.2	3.00	-3.00	0.00
6,600.0	18.87	216.00	5,834.2	-1,183.19	-2,179.3	-1,583.4	1,934.2	3.00	-3.00	0.00
6,700.0	15.87	216.00	5,929.6	-1,278.62	-2,203.4	-1,600.9	1,955.6	3.00	-3.00	0.00
6,800.0	12.87	216.00	6,026.5	-1,375.48	-2,223.5	-1,615.5	1,973.4	3.00	-3.00	0.00
6,900.0	9.87	216.00	6,124.5	-1,473.51	-2,239.4	-1,627.1	1,987.6	3.00	-3.00	0.00
7,000.0	6.87	216.00	6,223.4	-1,572.43	-2,251.2	-1,635.6	1,998.0	3.00	-3.00	0.00
7,100.0	3.87	216.00	6,323.0	-1,671.98	-2,258.8	-1,641.1	2,004.7	3.00	-3.00	0.00
7,200.0	0.87	216.00	6,422.9	-1,771.88	-2,262.1	-1,643.6	2,007.7	3.00	-3.00	0.00
<b>EOD TO VERTICAL</b>										
<b>7,229.0</b>	<b>0.00</b>	<b>216.00</b>	<b>6,451.9</b>	<b>-1,800.88</b>	<b>-2,262.3</b>	<b>-1,643.7</b>	<b>2,007.9</b>	<b>3.00</b>	<b>-3.00</b>	<b>0.00</b>
<b>KOP (10°/100ft BUR)</b>										
<b>7,259.0</b>	<b>0.00</b>	<b>0.00</b>	<b>6,481.9</b>	<b>-1,830.88</b>	<b>-2,262.3</b>	<b>-1,643.7</b>	<b>2,007.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,300.0	4.10	271.10	6,522.8	-1,871.85	-2,262.3	-1,645.2	2,009.3	9.99	9.99	0.00
7,400.0	14.09	271.10	6,621.5	-1,970.46	-2,262.0	-1,660.9	2,024.8	10.00	10.00	0.00
7,500.0	24.09	271.10	6,715.8	-2,064.84	-2,261.3	-1,693.6	2,056.9	10.00	10.00	0.00
<b>SHARON SPRINGS</b>										
<b>7,507.9</b>	<b>24.88</b>	<b>271.10</b>	<b>6,723.0</b>	<b>-2,072.00</b>	<b>-2,261.3</b>	<b>-1,696.9</b>	<b>2,060.1</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
<b>NIOBRARA</b>										
<b>7,541.4</b>	<b>28.23</b>	<b>271.10</b>	<b>6,753.0</b>	<b>-2,102.00</b>	<b>-2,261.0</b>	<b>-1,711.9</b>	<b>2,074.8</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,600.0	34.09	271.10	6,803.1	-2,152.12	-2,260.4	-1,742.2	2,104.5	10.00	10.00	0.00
7,700.0	44.09	271.10	6,880.6	-2,229.63	-2,259.2	-1,805.1	2,166.4	10.00	10.00	0.00
7,800.0	54.08	271.10	6,946.0	-2,295.04	-2,257.8	-1,880.6	2,240.4	10.00	10.00	0.00
7,900.0	64.08	271.10	6,997.4	-2,346.36	-2,256.1	-1,966.2	2,324.6	10.00	10.00	0.00
<b>FORT HAYS</b>										
<b>7,943.9</b>	<b>68.47</b>	<b>271.10</b>	<b>7,015.0</b>	<b>-2,364.00</b>	<b>-2,255.4</b>	<b>-2,006.4</b>	<b>2,364.0</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-GLENFAIR C6-8-7
<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-GLENFAIR C6-8-7	<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)
8,000.0	74.08	271.10	7,033.0	-2,382.02	-2,254.3	-2,059.5	2,416.1	10.00	10.00	0.00
<b>CODELL</b>										
<b>8,052.0</b>	<b>79.28</b>	<b>271.10</b>	<b>7,045.0</b>	<b>-2,394.00</b>	<b>-2,253.4</b>	<b>-2,110.1</b>	<b>2,465.8</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
8,100.0	84.08	271.10	7,051.9	-2,400.94	-2,252.5	-2,157.6	2,512.4	10.00	10.00	0.00
<b>LANDING PNT:1898ft FSL &amp; 460ft FWL of Sec 8 - CODELL TARGET</b>										
<b>8,159.2</b>	<b>90.00</b>	<b>271.10</b>	<b>7,055.0</b>	<b>-2,404.00</b>	<b>-2,251.3</b>	<b>-2,216.6</b>	<b>2,570.4</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
8,200.0	90.00	271.10	7,055.0	-2,404.00	-2,250.6	-2,257.4	2,610.5	0.00	0.00	0.00
8,300.0	90.00	271.10	7,055.0	-2,404.01	-2,248.6	-2,357.4	2,708.6	0.00	0.00	0.00
8,400.0	90.00	271.10	7,055.0	-2,404.02	-2,246.7	-2,457.4	2,806.8	0.00	0.00	0.00
8,500.0	90.00	271.10	7,055.0	-2,404.03	-2,244.8	-2,557.4	2,905.0	0.00	0.00	0.00
8,600.0	90.00	271.10	7,055.0	-2,404.04	-2,242.9	-2,657.4	3,003.1	0.00	0.00	0.00
8,700.0	90.00	271.10	7,055.0	-2,404.04	-2,241.0	-2,757.4	3,101.3	0.00	0.00	0.00
8,800.0	90.00	271.10	7,055.1	-2,404.05	-2,239.1	-2,857.3	3,199.5	0.00	0.00	0.00
8,900.0	90.00	271.10	7,055.1	-2,404.06	-2,237.2	-2,957.3	3,297.6	0.00	0.00	0.00
9,000.0	90.00	271.10	7,055.1	-2,404.06	-2,235.3	-3,057.3	3,395.8	0.00	0.00	0.00
9,100.0	90.00	271.10	7,055.1	-2,404.07	-2,233.3	-3,157.3	3,494.0	0.00	0.00	0.00
9,200.0	90.00	271.10	7,055.1	-2,404.08	-2,231.4	-3,257.3	3,592.1	0.00	0.00	0.00
9,300.0	90.00	271.10	7,055.1	-2,404.08	-2,229.5	-3,357.2	3,690.3	0.00	0.00	0.00
9,400.0	90.00	271.10	7,055.1	-2,404.09	-2,227.6	-3,457.2	3,788.5	0.00	0.00	0.00
9,500.0	90.00	271.10	7,055.1	-2,404.10	-2,225.7	-3,557.2	3,886.6	0.00	0.00	0.00
9,600.0	90.00	271.10	7,055.1	-2,404.10	-2,223.8	-3,657.2	3,984.8	0.00	0.00	0.00
9,700.0	90.00	271.10	7,055.1	-2,404.11	-2,221.9	-3,757.2	4,083.0	0.00	0.00	0.00
9,800.0	90.00	271.10	7,055.1	-2,404.11	-2,219.9	-3,857.2	4,181.1	0.00	0.00	0.00
9,900.0	90.00	271.10	7,055.1	-2,404.12	-2,218.0	-3,957.1	4,279.3	0.00	0.00	0.00
10,000.0	90.00	271.10	7,055.1	-2,404.13	-2,216.1	-4,057.1	4,377.5	0.00	0.00	0.00
10,100.0	90.00	271.10	7,055.1	-2,404.13	-2,214.2	-4,157.1	4,475.6	0.00	0.00	0.00
10,200.0	90.00	271.10	7,055.1	-2,404.14	-2,212.3	-4,257.1	4,573.8	0.00	0.00	0.00
10,300.0	90.00	271.10	7,055.1	-2,404.14	-2,210.4	-4,357.1	4,672.0	0.00	0.00	0.00
10,400.0	90.00	271.10	7,055.1	-2,404.14	-2,208.5	-4,457.0	4,770.1	0.00	0.00	0.00
10,500.0	90.00	271.10	7,055.1	-2,404.15	-2,206.5	-4,557.0	4,868.3	0.00	0.00	0.00
10,600.0	90.00	271.10	7,055.2	-2,404.15	-2,204.6	-4,657.0	4,966.5	0.00	0.00	0.00
10,700.0	90.00	271.10	7,055.2	-2,404.16	-2,202.7	-4,757.0	5,064.6	0.00	0.00	0.00
10,800.0	90.00	271.10	7,055.2	-2,404.16	-2,200.8	-4,857.0	5,162.8	0.00	0.00	0.00
10,900.0	90.00	271.10	7,055.2	-2,404.16	-2,198.9	-4,956.9	5,261.0	0.00	0.00	0.00
11,000.0	90.00	271.10	7,055.2	-2,404.17	-2,197.0	-5,056.9	5,359.1	0.00	0.00	0.00
11,100.0	90.00	271.10	7,055.2	-2,404.17	-2,195.0	-5,156.9	5,457.3	0.00	0.00	0.00
11,200.0	90.00	271.10	7,055.2	-2,404.17	-2,193.1	-5,256.9	5,555.5	0.00	0.00	0.00
11,300.0	90.00	271.10	7,055.2	-2,404.18	-2,191.2	-5,356.9	5,653.6	0.00	0.00	0.00
11,400.0	90.00	271.10	7,055.2	-2,404.18	-2,189.3	-5,456.9	5,751.8	0.00	0.00	0.00
11,500.0	90.00	271.10	7,055.2	-2,404.18	-2,187.4	-5,556.8	5,850.0	0.00	0.00	0.00
11,600.0	90.00	271.10	7,055.2	-2,404.19	-2,185.5	-5,656.8	5,948.1	0.00	0.00	0.00
11,700.0	90.00	271.10	7,055.2	-2,404.19	-2,183.6	-5,756.8	6,046.3	0.00	0.00	0.00
11,800.0	90.00	271.10	7,055.2	-2,404.19	-2,181.6	-5,856.8	6,144.5	0.00	0.00	0.00
11,900.0	90.00	271.10	7,055.2	-2,404.19	-2,179.7	-5,956.8	6,242.6	0.00	0.00	0.00
12,000.0	90.00	271.10	7,055.2	-2,404.19	-2,177.8	-6,056.7	6,340.8	0.00	0.00	0.00
12,100.0	90.00	271.10	7,055.2	-2,404.20	-2,175.9	-6,156.7	6,439.0	0.00	0.00	0.00
12,200.0	90.00	271.10	7,055.2	-2,404.20	-2,174.0	-6,256.7	6,537.1	0.00	0.00	0.00
12,300.0	90.00	271.10	7,055.2	-2,404.20	-2,172.0	-6,356.7	6,635.3	0.00	0.00	0.00
12,400.0	90.00	271.10	7,055.2	-2,404.20	-2,170.1	-6,456.7	6,733.5	0.00	0.00	0.00
12,500.0	90.00	271.10	7,055.2	-2,404.20	-2,168.2	-6,556.7	6,831.6	0.00	0.00	0.00
12,600.0	90.00	271.10	7,055.2	-2,404.20	-2,166.3	-6,656.6	6,929.8	0.00	0.00	0.00
12,700.0	90.00	271.10	7,055.2	-2,404.20	-2,164.4	-6,756.6	7,028.0	0.00	0.00	0.00
12,800.0	90.00	271.10	7,055.2	-2,404.20	-2,162.5	-6,856.6	7,126.1	0.00	0.00	0.00
12,900.0	90.00	271.10	7,055.2	-2,404.20	-2,160.5	-6,956.6	7,224.3	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-GLENFAIR C6-8-7
<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-GLENFAIR C6-8-7	<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)
13,000.0	90.00	271.10	7,055.2	-2,404.20	-2,158.6	-7,056.6	7,322.5	0.00	0.00	0.00
13,100.0	90.00	271.10	7,055.2	-2,404.20	-2,156.7	-7,156.5	7,420.6	0.00	0.00	0.00
13,200.0	90.00	271.10	7,055.2	-2,404.20	-2,154.8	-7,256.5	7,518.8	0.00	0.00	0.00
13,300.0	90.00	271.10	7,055.2	-2,404.20	-2,152.9	-7,356.5	7,617.0	0.00	0.00	0.00
13,400.0	90.00	271.10	7,055.2	-2,404.20	-2,150.9	-7,456.5	7,715.1	0.00	0.00	0.00
13,500.0	90.00	271.10	7,055.2	-2,404.20	-2,149.0	-7,556.5	7,813.3	0.00	0.00	0.00
13,600.0	90.00	271.10	7,055.2	-2,404.20	-2,147.1	-7,656.5	7,911.5	0.00	0.00	0.00
13,700.0	90.00	271.10	7,055.2	-2,404.20	-2,145.2	-7,756.4	8,009.6	0.00	0.00	0.00
13,800.0	90.00	271.10	7,055.2	-2,404.20	-2,143.3	-7,856.4	8,107.8	0.00	0.00	0.00
13,900.0	90.00	271.10	7,055.2	-2,404.20	-2,141.3	-7,956.4	8,206.0	0.00	0.00	0.00
14,000.0	90.00	271.10	7,055.2	-2,404.19	-2,139.4	-8,056.4	8,304.1	0.00	0.00	0.00
14,100.0	90.00	271.10	7,055.2	-2,404.19	-2,137.5	-8,156.4	8,402.3	0.00	0.00	0.00
14,200.0	90.00	271.10	7,055.2	-2,404.19	-2,135.6	-8,256.3	8,500.5	0.00	0.00	0.00
14,300.0	90.00	271.10	7,055.2	-2,404.19	-2,133.7	-8,356.3	8,598.6	0.00	0.00	0.00
14,400.0	90.00	271.10	7,055.2	-2,404.18	-2,131.7	-8,456.3	8,696.8	0.00	0.00	0.00
14,500.0	90.00	271.10	7,055.2	-2,404.18	-2,129.8	-8,556.3	8,795.0	0.00	0.00	0.00
14,600.0	90.00	271.10	7,055.2	-2,404.18	-2,127.9	-8,656.3	8,893.1	0.00	0.00	0.00
14,700.0	90.00	271.10	7,055.2	-2,404.18	-2,126.0	-8,756.3	8,991.3	0.00	0.00	0.00
14,800.0	90.00	271.10	7,055.2	-2,404.17	-2,124.1	-8,856.2	9,089.5	0.00	0.00	0.00
14,900.0	90.00	271.10	7,055.2	-2,404.17	-2,122.1	-8,956.2	9,187.6	0.00	0.00	0.00
15,000.0	90.00	271.10	7,055.2	-2,404.17	-2,120.2	-9,056.2	9,285.8	0.00	0.00	0.00
15,100.0	90.00	271.10	7,055.2	-2,404.16	-2,118.3	-9,156.2	9,383.9	0.00	0.00	0.00
15,200.0	90.00	271.10	7,055.2	-2,404.16	-2,116.4	-9,256.2	9,482.1	0.00	0.00	0.00
15,300.0	90.00	271.10	7,055.2	-2,404.16	-2,114.5	-9,356.1	9,580.3	0.00	0.00	0.00
15,400.0	90.00	271.10	7,055.2	-2,404.15	-2,112.5	-9,456.1	9,678.4	0.00	0.00	0.00
15,500.0	90.00	271.10	7,055.1	-2,404.15	-2,110.6	-9,556.1	9,776.6	0.00	0.00	0.00
15,600.0	90.00	271.10	7,055.1	-2,404.14	-2,108.7	-9,656.1	9,874.8	0.00	0.00	0.00
15,700.0	90.00	271.10	7,055.1	-2,404.14	-2,106.8	-9,756.1	9,972.9	0.00	0.00	0.00
15,800.0	90.00	271.10	7,055.1	-2,404.13	-2,104.8	-9,856.0	10,071.1	0.00	0.00	0.00
15,900.0	90.00	271.10	7,055.1	-2,404.13	-2,102.9	-9,956.0	10,169.3	0.00	0.00	0.00
16,000.0	90.00	271.10	7,055.1	-2,404.12	-2,101.0	-10,056.0	10,267.4	0.00	0.00	0.00
16,100.0	90.00	271.10	7,055.1	-2,404.12	-2,099.1	-10,156.0	10,365.6	0.00	0.00	0.00
16,200.0	90.00	271.10	7,055.1	-2,404.11	-2,097.2	-10,256.0	10,463.8	0.00	0.00	0.00
16,300.0	90.00	271.10	7,055.1	-2,404.11	-2,095.2	-10,356.0	10,561.9	0.00	0.00	0.00
16,400.0	90.00	271.10	7,055.1	-2,404.10	-2,093.3	-10,455.9	10,660.1	0.00	0.00	0.00
16,500.0	90.00	271.10	7,055.1	-2,404.09	-2,091.4	-10,555.9	10,758.3	0.00	0.00	0.00
16,600.0	90.00	271.10	7,055.1	-2,404.09	-2,089.5	-10,655.9	10,856.4	0.00	0.00	0.00
16,700.0	90.00	271.10	7,055.1	-2,404.08	-2,087.5	-10,755.9	10,954.6	0.00	0.00	0.00
16,800.0	90.00	271.10	7,055.1	-2,404.08	-2,085.6	-10,855.9	11,052.8	0.00	0.00	0.00
16,900.0	90.00	271.10	7,055.1	-2,404.07	-2,083.7	-10,955.8	11,150.9	0.00	0.00	0.00
17,000.0	90.00	271.10	7,055.1	-2,404.06	-2,081.8	-11,055.8	11,249.1	0.00	0.00	0.00
17,100.0	90.00	271.10	7,055.1	-2,404.05	-2,079.8	-11,155.8	11,347.3	0.00	0.00	0.00
17,200.0	90.00	271.10	7,055.0	-2,404.05	-2,077.9	-11,255.8	11,445.4	0.00	0.00	0.00
17,300.0	90.00	271.10	7,055.0	-2,404.04	-2,076.0	-11,355.8	11,543.6	0.00	0.00	0.00
17,400.0	90.00	271.10	7,055.0	-2,404.03	-2,074.1	-11,455.8	11,641.7	0.00	0.00	0.00
17,500.0	90.00	271.10	7,055.0	-2,404.02	-2,072.1	-11,555.7	11,739.9	0.00	0.00	0.00
17,600.0	90.00	271.10	7,055.0	-2,404.02	-2,070.2	-11,655.7	11,838.1	0.00	0.00	0.00
17,700.0	90.00	271.10	7,055.0	-2,404.01	-2,068.3	-11,755.7	11,936.2	0.00	0.00	0.00
<b>BHL: 2047ft FSL &amp; 460ft FWL of Sec 7</b>										
<b>17,796.1</b>	<b>90.00</b>	<b>271.10</b>	<b>7,055.0</b>	<b>-2,404.00</b>	<b>-2,066.4</b>	<b>-11,851.7</b>	<b>12,030.5</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MT-GLENFAIR C6-8-7
<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-GLENFAIR C6-8-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #2		

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,954.9	3,613.0	PARKMAN				
4,787.8	4,302.0	SUSSEX				
5,447.8	4,848.0	SHANNON				
7,507.9	6,723.0	SHARON SPRINGS				
7,541.4	6,753.0	NIOBRARA				
7,943.9	7,015.0	FORT HAYS				
8,052.0	7,045.0	CODELL				
8,159.2	7,055.0	CODELL 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: 1084ft FNL & 1754ft FWL of Sec 9
900.0	900.0	0.0	0.0	START NUDGE - SURFACE (2°/100ft BUR)
1,815.5	1,800.0	-117.3	-85.3	9 5/8" SURFACE CSG
1,880.5	1,861.7	-133.9	-97.3	START NUDGE - MAIN (3°/100ft BUR)
2,409.7	2,334.8	-322.6	-234.4	EOB TO 34.19° INC
6,089.5	5,378.8	-1,995.3	-1,449.7	END OF TANGENT
7,229.0	6,451.9	-2,262.3	-1,643.7	EOD TO VERTICAL
7,259.0	6,481.9	-2,262.3	-1,643.7	KOP (10°/100ft BUR)
8,159.2	7,055.0	-2,251.3	-2,216.7	LANDING PNT:1898ft FSL & 460ft FWL of Sec 8
17,796.1	7,055.0	-2,066.4	-11,851.7	BHL: 2047ft FSL & 460ft FWL of Sec 7