

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NW NW SEC. 22 T4N R68W 6th P.M.

MLD 8

ORIGINAL WELLBORE

07 July, 2017

Plan: PROPOSAL #4

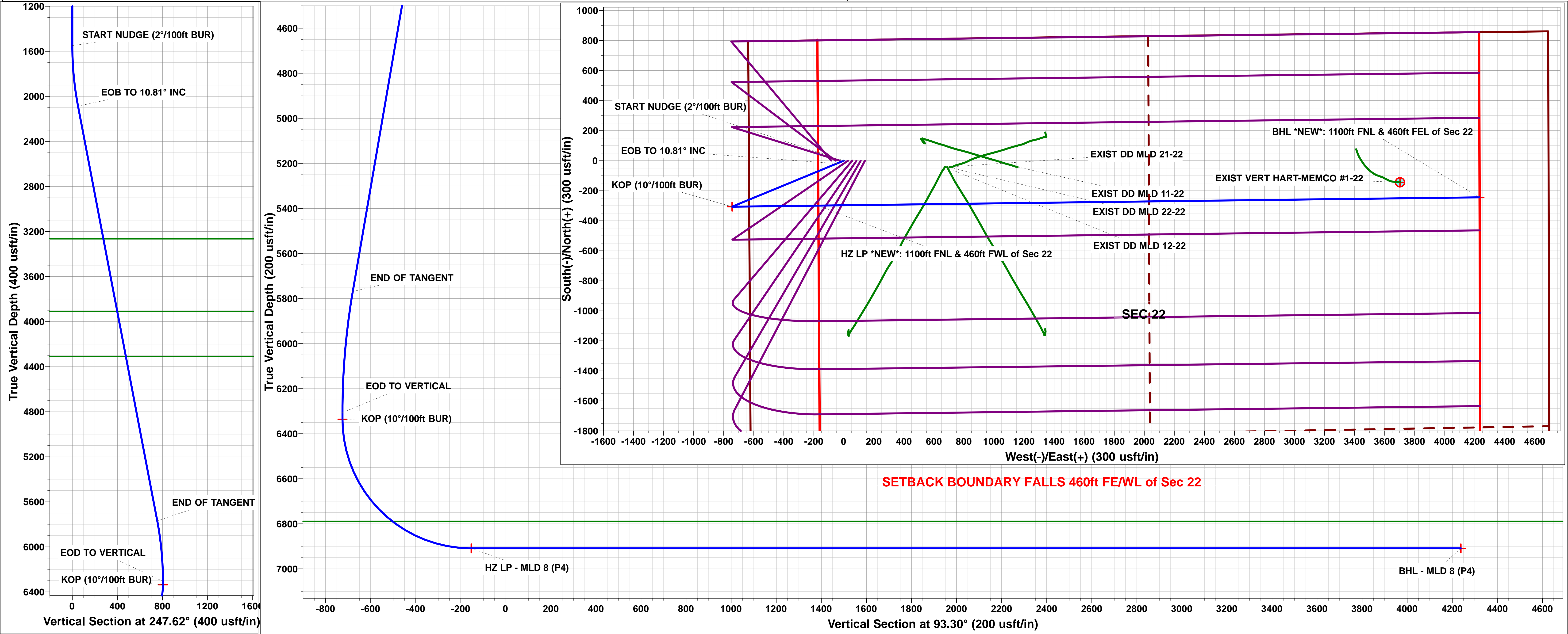
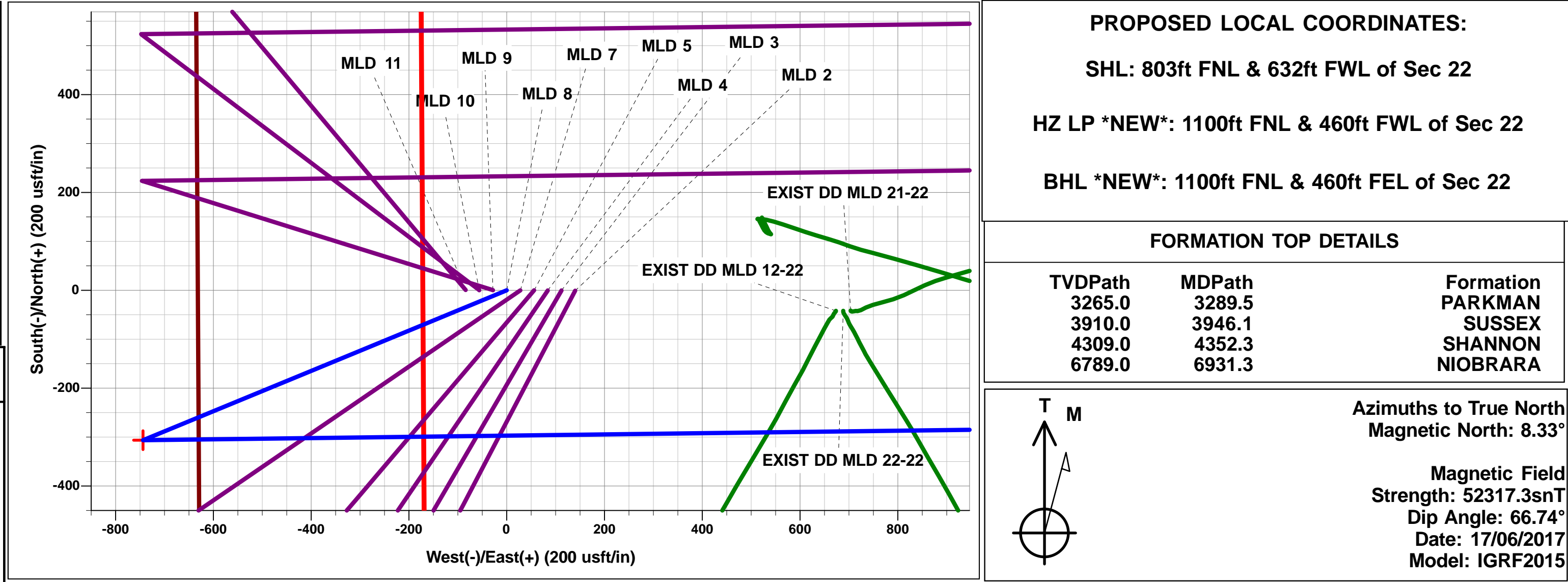




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NW NW SEC. 22 T4N R68W 6th P.M.
Well: MLD 8
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #4

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: 803ft FNL & 632ft FWL of Sec 22
1550.0	1550.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
2087.2	2090.4	10.81	247.62	-19.4	-47.0	-45.8	50.8	EOB TO 10.81° INC
5768.9	5838.6	10.81	247.62	-287.0	-696.9	-679.2	753.7	END OF TANGENT
6306.1	6379.0	0.00	0.00	-306.3	-743.9	-725.0	804.5	EOD TO VERTICAL
6336.1	6409.0	0.00	0.00	-306.3	-743.9	-725.0	804.5	KOP (10°/100ft BUR)
6909.0	7308.9	90.00	89.28	-299.1	-171.0	-153.5	1377.4	HZ LP *NEW*: 1100ft FNL & 460ft FWL of Sec 22
6909.0	11711.4	90.00	89.29	-244.1	4231.1	4238.2	5779.9	BHL *NEW*: 1100ft FNL & 460ft FEL of Sec 22

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - MLD 8 (P4)	6336.1	-306.3	-743.9	40.303129	-104.999234
HZ LP - MLD 8 (P4)	6909.0	-299.1	-171.0	40.303149	-104.997180
BHL - MLD 8 (P4)	6909.0	-244.1	4231.2	40.303299	-104.981397



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MLD 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Site:	NW NW SEC. 22 T4N R68W 6th P.M.	North Reference:	True
Well:	MLD 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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	NW NW SEC. 22 T4N R68W 6th P.M.		
Site Position:		Northing:	1,350,393.79 usft
From:	Lat/Long	Easting:	3,140,798.83 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.294131
		Longitude:	-104.995243
		Grid Convergence:	0.33 °

Well	MLD 8		
Well Position	+N/-S	3,584.4 usft	Northing:
	+E/-W	-369.3 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	17/06/2017	8.33	66.74	52,317

Design	PROPOSAL #4			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	6,909.0	0.0	0.0	93.30

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	-4,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,550.0	0.00	0.00	1,550.0	-3,350.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,090.4	10.81	247.62	2,087.2	-2,812.8	-19.4	-47.0	2.00	2.00	0.00	247.62	
5,838.6	10.81	247.62	5,768.9	868.9	-287.0	-696.9	0.00	0.00	0.00	0.00	
6,379.0	0.00	0.00	6,306.1	1,406.1	-306.3	-743.9	2.00	-2.00	0.00	180.00	
6,409.0	0.00	0.00	6,336.1	1,436.1	-306.3	-743.9	0.00	0.00	0.00	0.00	KOP - MLD 8 (P4)
7,308.9	90.00	89.28	6,909.0	2,009.0	-299.1	-171.0	10.00	10.00	9.92	89.28	HZ LP - MLD 8 (P4)
11,711.4	90.00	89.29	6,909.0	2,009.0	-244.1	4,231.2	0.00	0.00	0.00	132.69	BHL - MLD 8 (P4)

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MLD 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Site:	NW NW SEC. 22 T4N R6W 6th P.M.	North Reference:	True
Well:	MLD 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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: 803ft FNL & 632ft FWL of Sec 22										
0.0	0.00	0.00	0.0	4,900.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,800.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,700.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,600.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,500.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,400.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,300.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,200.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	4,100.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	4,000.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,900.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,800.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,700.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,600.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,500.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,400.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,550.0	0.00	0.00	1,550.0	3,350.00	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	1.00	247.62	1,600.0	3,300.00	-0.2	-0.4	-0.4	2.00	2.00	0.00
1,700.0	3.00	247.62	1,699.9	3,200.07	-1.5	-3.6	-3.5	2.00	2.00	0.00
1,800.0	5.00	247.62	1,799.7	3,100.32	-4.2	-10.1	-9.8	2.00	2.00	0.00
1,900.0	7.00	247.62	1,899.1	3,000.87	-8.1	-19.7	-19.2	2.00	2.00	0.00
2,000.0	9.00	247.62	1,998.2	2,901.85	-13.4	-32.6	-31.8	2.00	2.00	0.00
EOB TO 10.81° INC										
2,090.4	10.81	247.62	2,087.2	2,812.80	-19.4	-47.0	-45.8	2.00	2.00	0.00
2,100.0	10.81	247.62	2,096.6	2,803.37	-20.0	-48.7	-47.4	0.00	0.00	0.00
2,200.0	10.81	247.62	2,194.9	2,705.14	-27.2	-66.0	-64.3	0.00	0.00	0.00
2,300.0	10.81	247.62	2,293.1	2,606.92	-34.3	-83.3	-81.2	0.00	0.00	0.00
2,400.0	10.81	247.62	2,391.3	2,508.69	-41.5	-100.7	-98.1	0.00	0.00	0.00
2,500.0	10.81	247.62	2,489.5	2,410.46	-48.6	-118.0	-115.0	0.00	0.00	0.00
2,600.0	10.81	247.62	2,587.8	2,312.24	-55.7	-135.3	-131.9	0.00	0.00	0.00
2,700.0	10.81	247.62	2,686.0	2,214.01	-62.9	-152.7	-148.8	0.00	0.00	0.00
2,800.0	10.81	247.62	2,784.2	2,115.79	-70.0	-170.0	-165.7	0.00	0.00	0.00
2,900.0	10.81	247.62	2,882.4	2,017.56	-77.2	-187.4	-182.6	0.00	0.00	0.00
3,000.0	10.81	247.62	2,980.7	1,919.33	-84.3	-204.7	-199.5	0.00	0.00	0.00
3,100.0	10.81	247.62	3,078.9	1,821.11	-91.4	-222.0	-216.4	0.00	0.00	0.00
3,200.0	10.81	247.62	3,177.1	1,722.88	-98.6	-239.4	-233.3	0.00	0.00	0.00
PARKMAN										
3,289.5	10.81	247.62	3,265.0	1,635.00	-105.0	-254.9	-248.4	0.00	0.00	0.00
3,300.0	10.81	247.62	3,275.3	1,624.66	-105.7	-256.7	-250.2	0.00	0.00	0.00
3,400.0	10.81	247.62	3,373.6	1,526.43	-112.9	-274.1	-267.1	0.00	0.00	0.00
3,500.0	10.81	247.62	3,471.8	1,428.20	-120.0	-291.4	-284.0	0.00	0.00	0.00
3,600.0	10.81	247.62	3,570.0	1,329.98	-127.1	-308.7	-300.9	0.00	0.00	0.00
3,700.0	10.81	247.62	3,668.2	1,231.75	-134.3	-326.1	-317.8	0.00	0.00	0.00
3,800.0	10.81	247.62	3,766.5	1,133.52	-141.4	-343.4	-334.7	0.00	0.00	0.00
3,900.0	10.81	247.62	3,864.7	1,035.30	-148.6	-360.8	-351.6	0.00	0.00	0.00
SUSSEX										
3,946.1	10.81	247.62	3,910.0	990.00	-151.9	-368.7	-359.4	0.00	0.00	0.00
4,000.0	10.81	247.62	3,962.9	937.07	-155.7	-378.1	-368.5	0.00	0.00	0.00
4,100.0	10.81	247.62	4,061.2	838.85	-162.8	-395.4	-385.4	0.00	0.00	0.00
4,200.0	10.81	247.62	4,159.4	740.62	-170.0	-412.8	-402.3	0.00	0.00	0.00
4,300.0	10.81	247.62	4,257.6	642.39	-177.1	-430.1	-419.2	0.00	0.00	0.00

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Well:	MLD 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
SHANNON										
4,352.3	10.81	247.62	4,309.0	591.00	-180.9	-439.2	-428.0	0.00	0.00	0.00
4,400.0	10.81	247.62	4,355.8	544.17	-184.3	-447.4	-436.1	0.00	0.00	0.00
4,500.0	10.81	247.62	4,454.1	445.94	-191.4	-464.8	-453.0	0.00	0.00	0.00
4,600.0	10.81	247.62	4,552.3	347.72	-198.5	-482.1	-469.9	0.00	0.00	0.00
4,700.0	10.81	247.62	4,650.5	249.49	-205.7	-499.5	-486.8	0.00	0.00	0.00
4,800.0	10.81	247.62	4,748.7	151.26	-212.8	-516.8	-503.7	0.00	0.00	0.00
4,900.0	10.81	247.62	4,847.0	53.04	-220.0	-534.1	-520.6	0.00	0.00	0.00
5,000.0	10.81	247.62	4,945.2	-45.19	-227.1	-551.5	-537.5	0.00	0.00	0.00
5,100.0	10.81	247.62	5,043.4	-143.42	-234.2	-568.8	-554.4	0.00	0.00	0.00
5,200.0	10.81	247.62	5,141.6	-241.64	-241.4	-586.2	-571.3	0.00	0.00	0.00
5,300.0	10.81	247.62	5,239.9	-339.87	-248.5	-603.5	-588.2	0.00	0.00	0.00
5,400.0	10.81	247.62	5,338.1	-438.09	-255.7	-620.8	-605.1	0.00	0.00	0.00
5,500.0	10.81	247.62	5,436.3	-536.32	-262.8	-638.2	-622.0	0.00	0.00	0.00
5,600.0	10.81	247.62	5,534.5	-634.55	-269.9	-655.5	-638.9	0.00	0.00	0.00
5,700.0	10.81	247.62	5,632.8	-732.77	-277.1	-672.9	-655.8	0.00	0.00	0.00
5,800.0	10.81	247.62	5,731.0	-831.00	-284.2	-690.2	-672.7	0.00	0.00	0.00
END OF TANGENT										
5,838.6	10.81	247.62	5,768.9	-868.91	-287.0	-696.9	-679.2	0.00	0.00	0.00
5,900.0	9.58	247.62	5,829.3	-929.34	-291.1	-706.9	-689.0	2.00	-2.00	0.00
6,000.0	7.58	247.62	5,928.2	-1,028.22	-296.8	-720.7	-702.4	2.00	-2.00	0.00
6,100.0	5.58	247.62	6,027.6	-1,127.56	-301.2	-731.3	-712.8	2.00	-2.00	0.00
6,200.0	3.58	247.62	6,127.2	-1,227.23	-304.2	-738.7	-720.0	2.00	-2.00	0.00
6,300.0	1.58	247.62	6,227.1	-1,327.13	-305.9	-742.9	-724.0	2.00	-2.00	0.00
EOD TO VERTICAL										
6,379.0	0.00	0.00	6,306.1	-1,406.12	-306.3	-743.9	-725.0	2.00	-2.00	0.00
6,400.0	0.00	0.00	6,327.1	-1,427.12	-306.3	-743.9	-725.0	0.00	0.00	0.00
KOP (10°/100ft BUR)										
6,409.0	0.00	0.00	6,336.1	-1,436.12	-306.3	-743.9	-725.0	0.00	0.00	0.00
6,500.0	9.10	89.28	6,426.7	-1,526.73	-306.2	-736.7	-717.8	10.00	10.00	0.00
6,600.0	19.10	89.28	6,523.6	-1,623.60	-305.9	-712.3	-693.5	10.00	10.00	0.00
6,700.0	29.10	89.28	6,614.8	-1,714.76	-305.4	-671.5	-652.8	10.00	10.00	0.00
6,800.0	39.11	89.28	6,697.5	-1,797.46	-304.7	-615.5	-597.0	10.00	10.00	0.00
6,900.0	49.11	89.28	6,769.2	-1,869.17	-303.8	-546.0	-527.6	10.00	10.00	0.00
NIOBRARA										
6,931.3	52.24	89.28	6,789.0	-1,889.00	-303.5	-521.8	-503.5	10.00	10.00	0.00
7,000.0	59.11	89.28	6,827.7	-1,927.72	-302.8	-465.1	-446.9	10.00	10.00	0.00
7,100.0	69.11	89.28	6,871.3	-1,971.34	-301.7	-375.3	-357.3	10.00	10.00	0.00
7,200.0	79.11	89.28	6,898.7	-1,998.68	-300.5	-279.2	-261.5	10.00	10.00	0.00
7,300.0	89.11	89.28	6,908.9	-2,008.93	-299.2	-179.9	-162.4	10.00	10.00	0.00
HZ LP *NEW*: 1100ft FNL & 460ft FWL of Sec 22										
7,308.9	90.00	89.28	6,909.0	-2,009.00	-299.1	-171.0	-153.5	10.00	10.00	0.00
7,400.0	90.00	89.28	6,909.0	-2,008.99	-298.0	-79.9	-62.6	0.00	0.00	0.00
7,500.0	90.00	89.28	6,909.0	-2,008.99	-296.7	20.1	37.1	0.00	0.00	0.00
7,600.0	90.00	89.28	6,909.0	-2,008.98	-295.5	120.1	136.9	0.00	0.00	0.00
7,700.0	90.00	89.28	6,909.0	-2,008.98	-294.2	220.1	236.6	0.00	0.00	0.00
7,800.0	90.00	89.28	6,909.0	-2,008.97	-293.0	320.1	336.4	0.00	0.00	0.00
7,900.0	90.00	89.28	6,909.0	-2,008.97	-291.7	420.0	436.1	0.00	0.00	0.00
8,000.0	90.00	89.28	6,909.0	-2,008.96	-290.5	520.0	535.9	0.00	0.00	0.00
8,100.0	90.00	89.28	6,909.0	-2,008.96	-289.2	620.0	635.7	0.00	0.00	0.00
8,200.0	90.00	89.28	6,909.0	-2,008.95	-288.0	720.0	735.4	0.00	0.00	0.00
8,300.0	90.00	89.28	6,908.9	-2,008.95	-286.7	820.0	835.2	0.00	0.00	0.00
8,400.0	90.00	89.28	6,908.9	-2,008.94	-285.4	920.0	934.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MLD 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Site:	NW NW SEC. 22 T4N R6W 6th P.M.	North Reference:	True
Well:	MLD 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
8,500.0	90.00	89.28	6,908.9	-2,008.94	-284.2	1,020.0	1,034.7	0.00	0.00	0.00
8,600.0	90.00	89.28	6,908.9	-2,008.94	-282.9	1,120.0	1,134.4	0.00	0.00	0.00
8,700.0	90.00	89.28	6,908.9	-2,008.94	-281.7	1,220.0	1,234.2	0.00	0.00	0.00
8,800.0	90.00	89.28	6,908.9	-2,008.93	-280.4	1,320.0	1,333.9	0.00	0.00	0.00
8,900.0	90.00	89.28	6,908.9	-2,008.93	-279.2	1,420.0	1,433.7	0.00	0.00	0.00
9,000.0	90.00	89.28	6,908.9	-2,008.93	-277.9	1,520.0	1,533.4	0.00	0.00	0.00
9,100.0	90.00	89.28	6,908.9	-2,008.93	-276.7	1,619.9	1,633.2	0.00	0.00	0.00
9,200.0	90.00	89.28	6,908.9	-2,008.93	-275.4	1,719.9	1,733.0	0.00	0.00	0.00
9,300.0	90.00	89.28	6,908.9	-2,008.93	-274.2	1,819.9	1,832.7	0.00	0.00	0.00
9,400.0	90.00	89.28	6,908.9	-2,008.93	-272.9	1,919.9	1,932.5	0.00	0.00	0.00
9,500.0	90.00	89.28	6,908.9	-2,008.92	-271.7	2,019.9	2,032.2	0.00	0.00	0.00
9,600.0	90.00	89.28	6,908.9	-2,008.93	-270.4	2,119.9	2,132.0	0.00	0.00	0.00
9,700.0	90.00	89.28	6,908.9	-2,008.93	-269.2	2,219.9	2,231.7	0.00	0.00	0.00
9,800.0	90.00	89.28	6,908.9	-2,008.93	-267.9	2,319.9	2,331.5	0.00	0.00	0.00
9,900.0	90.00	89.29	6,908.9	-2,008.93	-266.7	2,419.9	2,431.2	0.00	0.00	0.00
10,000.0	90.00	89.29	6,908.9	-2,008.93	-265.4	2,519.9	2,531.0	0.00	0.00	0.00
10,100.0	90.00	89.29	6,908.9	-2,008.93	-264.2	2,619.9	2,630.7	0.00	0.00	0.00
10,200.0	90.00	89.29	6,908.9	-2,008.93	-262.9	2,719.9	2,730.5	0.00	0.00	0.00
10,300.0	90.00	89.29	6,908.9	-2,008.93	-261.7	2,819.9	2,830.2	0.00	0.00	0.00
10,400.0	90.00	89.29	6,908.9	-2,008.94	-260.5	2,919.8	2,930.0	0.00	0.00	0.00
10,500.0	90.00	89.29	6,908.9	-2,008.94	-259.2	3,019.8	3,029.8	0.00	0.00	0.00
10,600.0	90.00	89.29	6,908.9	-2,008.94	-258.0	3,119.8	3,129.5	0.00	0.00	0.00
10,700.0	90.00	89.29	6,908.9	-2,008.95	-256.7	3,219.8	3,229.3	0.00	0.00	0.00
10,800.0	90.00	89.29	6,909.0	-2,008.95	-255.5	3,319.8	3,329.0	0.00	0.00	0.00
10,900.0	90.00	89.29	6,909.0	-2,008.95	-254.2	3,419.8	3,428.8	0.00	0.00	0.00
11,000.0	90.00	89.29	6,909.0	-2,008.96	-253.0	3,519.8	3,528.5	0.00	0.00	0.00
11,100.0	90.00	89.29	6,909.0	-2,008.96	-251.7	3,619.8	3,628.3	0.00	0.00	0.00
11,200.0	90.00	89.29	6,909.0	-2,008.97	-250.5	3,719.8	3,728.0	0.00	0.00	0.00
11,300.0	90.00	89.29	6,909.0	-2,008.97	-249.3	3,819.8	3,827.8	0.00	0.00	0.00
11,400.0	90.00	89.29	6,909.0	-2,008.98	-248.0	3,919.8	3,927.5	0.00	0.00	0.00
11,500.0	90.00	89.29	6,909.0	-2,008.99	-246.8	4,019.8	4,027.3	0.00	0.00	0.00
11,600.0	90.00	89.29	6,909.0	-2,008.99	-245.5	4,119.8	4,127.1	0.00	0.00	0.00
11,700.0	90.00	89.29	6,909.0	-2,009.00	-244.3	4,219.7	4,226.8	0.00	0.00	0.00
BHL *NEW*: 1100ft FNL & 460ft FEL of Sec 22										
11,711.4	90.00	89.29	6,909.0	-2,009.00	-244.1	4,231.1	4,238.2	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,289.5	3,265.0	PARKMAN		0.00	
3,946.1	3,910.0	SUSSEX		0.00	
4,352.3	4,309.0	SHANNON		0.00	
6,931.3	6,789.0	NIOBRARA		0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well MLD 8
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4900.0usft (Original Well Elev)
Site:	NW NW SEC. 22 T4N R68W 6th P.M.	North Reference:	True
Well:	MLD 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 803ft FNL & 632ft FWL of Sec 22
1,550.0	1,550.0	0.0	0.0	START NUDGE (2°/100ft BUR)
2,090.4	2,087.2	-19.4	-47.0	EOB TO 10.81° INC
5,838.6	5,768.9	-287.0	-696.9	END OF TANGENT
6,379.0	6,306.1	-306.3	-743.9	EOD TO VERTICAL
6,409.0	6,336.1	-306.3	-743.9	KOP (10°/100ft BUR)
7,308.9	6,909.0	-299.1	-171.0	HZ LP *NEW*: 1100ft FNL & 460ft FWL of Sec 22
11,711.4	6,909.0	-244.1	4,231.1	BHL *NEW*: 1100ft FNL & 460ft FEL of Sec 22