

EXTRACTION OIL & GAS

Weld County

Sec 32-T6N-R67W

MILKSHAKE 31W-20-6N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

31 October, 2017



Project: Weld County
Site: Sec 32-T6N-R67W
Well: MILKSHAKE 31W-20-6N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.38°

Magnetic Field
Strength: 52482.0nT
Dip Angle: 66.88°
Date: 9/10/2016
Model: IGRF2015

WELL DETAILS: MILKSHAKE 31W-20-6N

+N/-S	+E/-W	Northing	Ground Level: Easting	4948.00 Latitude	Longitude	Slot
0.00	0.00	1403265.66	3160251.60	40° 26' 20.177 N	104° 55' 27.397 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
3	1621.51	20.43	349.72	1600.00	177.31	-32.16	2.00	349.72	74.87	
4	1686.51	20.43	349.72	1660.91	199.63	-36.21	0.00	0.00	84.30	
5	1880.22	24.27	351.00	1840.04	272.25	-48.47	2.00	7.83	114.09	
6	7124.84	24.27	351.00	6620.98	2401.78	-385.66	0.00	0.00	965.83	
7	7987.14	90.00	270.21	7110.00	2621.53	-956.59	10.00	-81.60	1573.31	MILKSHAKE 31W-6I
8	17471.52	90.00	270.21	7110.00	2655.78	-10440.91	0.00	0.00	10773.39	MILKSHAKE 31W-6I

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1621.51	20.43	349.72	1600.00	177.31	-32.16	74.87	180.20	HOLD 20.43° INC
1686.51	20.43	349.72	1660.91	199.63	-36.21	84.30	202.89	DROP 2°/100'
1880.22	24.27	351.00	1840.04	272.25	-48.47	114.09	276.54	HOLD VERTICAL
7124.84	24.27	351.00	6620.98	2401.78	-385.66	965.83	2432.60	KOP, BUILD 10°/100'
7987.14	90.00	270.21	7110.00	2621.53	-956.59	1573.31	3078.90	LP @ 90° INC, 270.21° AZM HOLD
17471.52	90.00	270.21	7110.00	2655.78	-10440.91	10773.39	12563.29	TD at 17471.52' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
MILKSHAKE 31W-6N LP	7110.00	2621.53	-956.59	1405880.92	3159278.01	40° 26' 46.082 N	104° 55' 39.770 W	Point
- plan hits target center								
MILKSHAKE 31W-6N PBHL	7110.00	2655.78	-10440.91	1405853.59	3149793.66	40° 26' 46.399 N	104° 57' 42.448 W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3590.00	3799.90	PARKMAN
4210.00	4480.03	SUSSEX
4675.00	4990.13	SHANNON
6945.00	7519.32	SHARON SPRINGS
6985.00	7582.83	NIOBRARA
7100.00	7874.96	NIO B

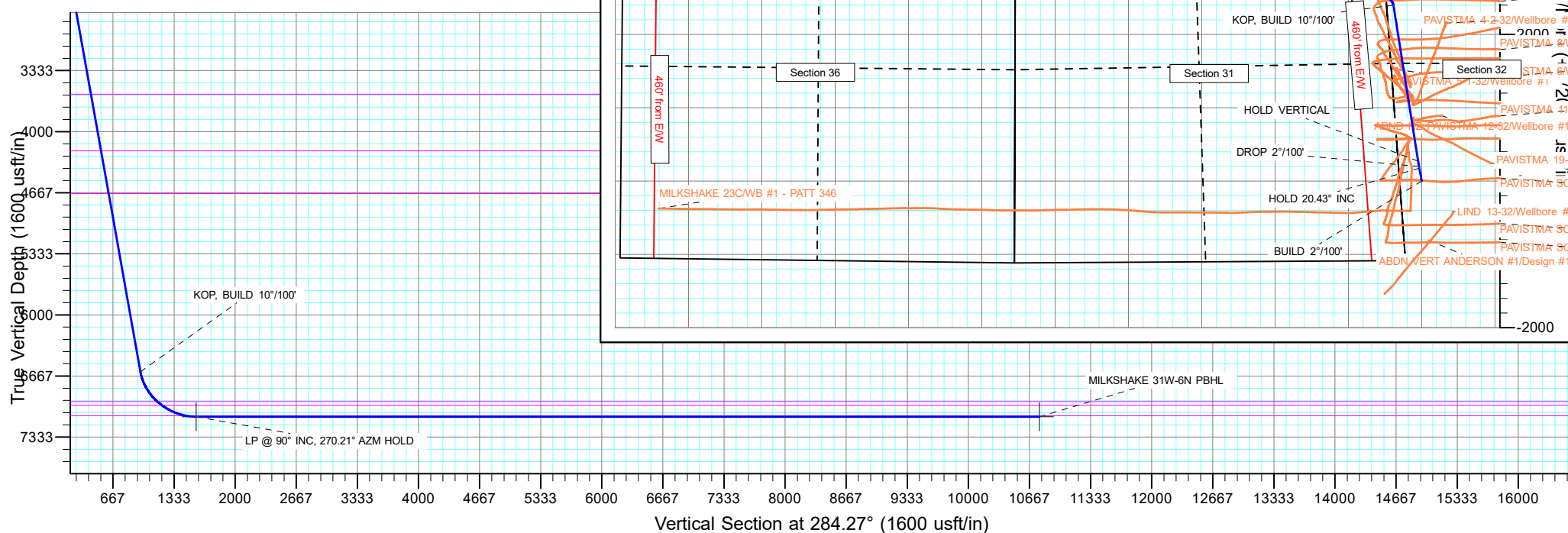
PROJECT DETAILS: Weld County

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SHL:
1082' FSL, 300' FWL
Sec 32-T6N-R67W

LP:
1665' FNL, 460' FEL
Sec 31-T6N-R67W

BHL:
1530' FNL, 460' FWL
Sec 36-T6N-R67W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well MILKSHAKE 31W-20-6N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4973.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Project	Weld County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 32-T6N-R67W			
Site Position:		Northing:	1,403,778.12 usft	Latitude:	40° 26' 25.253 N
From:	Lat/Long	Easting:	3,160,062.89 usft	Longitude:	104° 55' 29.795 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.37 °

Well	MILKSHAKE 31W-20-6N					
Well Position	+N/-S	-513.67 usft	Northing:	1,403,265.66 usft	Latitude:	40° 26' 20.177 N
	+E/-W	185.38 usft	Easting:	3,160,251.60 usft	Longitude:	104° 55' 27.397 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,948.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/10/2016	8.38	66.88	52,482.04365832

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	284.27

Plan Survey Tool Program	Date	10/31/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,470.71	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,621.51	20.43	349.72	1,600.00	177.31	-32.16	2.00	2.00	0.00	349.72	
1,686.51	20.43	349.72	1,660.91	199.63	-36.21	0.00	0.00	0.00	0.00	
1,880.22	24.27	351.00	1,840.04	272.25	-48.47	2.00	1.98	0.66	7.83	
7,124.84	24.27	351.00	6,620.98	2,401.78	-385.66	0.00	0.00	0.00	0.00	
7,987.14	90.00	270.21	7,110.00	2,621.53	-956.59	10.00	7.62	-9.37	-81.60	MILKSHAKE 31W-6N
17,471.52	90.00	270.21	7,110.00	2,655.78	-10,440.91	0.00	0.00	0.00	0.00	MILKSHAKE 31W-6N

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Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
BUILD 2°/100'									
700.00	2.00	349.72	699.98	1.72	-0.31	0.73	2.00	2.00	0.00
800.00	4.00	349.72	799.84	6.87	-1.25	2.90	2.00	2.00	0.00
900.00	6.00	349.72	899.45	15.44	-2.80	6.52	2.00	2.00	0.00
1,000.00	8.00	349.72	998.70	27.43	-4.98	11.58	2.00	2.00	0.00
1,100.00	10.00	349.72	1,097.47	42.82	-7.77	18.08	2.00	2.00	0.00
1,200.00	12.00	349.72	1,195.62	61.60	-11.17	26.01	2.00	2.00	0.00
1,300.00	14.00	349.72	1,293.06	83.73	-15.19	35.36	2.00	2.00	0.00
1,400.00	16.00	349.72	1,389.64	109.20	-19.80	46.11	2.00	2.00	0.00
1,500.00	18.00	349.72	1,485.27	137.96	-25.02	58.26	2.00	2.00	0.00
1,600.00	20.00	349.72	1,579.82	169.99	-30.83	71.79	2.00	2.00	0.00
1,621.51	20.43	349.72	1,600.00	177.31	-32.16	74.87	2.00	2.00	0.00
HOLD 20.43° INC									
1,686.51	20.43	349.72	1,660.91	199.63	-36.21	84.30	0.00	0.00	0.00
DROP 2°/100'									
1,700.00	20.70	349.82	1,673.54	204.30	-37.05	86.27	2.00	1.98	0.77
1,800.00	22.68	350.52	1,766.46	240.71	-43.35	101.35	2.00	1.98	0.70
1,880.22	24.27	351.00	1,840.04	272.25	-48.47	114.09	2.00	1.99	0.60
HOLD VERTICAL									
1,900.00	24.27	351.00	1,858.07	280.29	-49.74	117.30	0.00	0.00	0.00
2,000.00	24.27	351.00	1,949.23	320.89	-56.17	133.54	0.00	0.00	0.00
2,100.00	24.27	351.00	2,040.38	361.49	-62.60	149.78	0.00	0.00	0.00
2,200.00	24.27	351.00	2,131.54	402.10	-69.03	166.02	0.00	0.00	0.00
2,300.00	24.27	351.00	2,222.70	442.70	-75.46	182.26	0.00	0.00	0.00
2,400.00	24.27	351.00	2,313.86	483.31	-81.89	198.50	0.00	0.00	0.00
2,500.00	24.27	351.00	2,405.02	523.91	-88.32	214.74	0.00	0.00	0.00
2,600.00	24.27	351.00	2,496.18	564.51	-94.75	230.98	0.00	0.00	0.00
2,700.00	24.27	351.00	2,587.34	605.12	-101.18	247.22	0.00	0.00	0.00
2,800.00	24.27	351.00	2,678.50	645.72	-107.61	263.47	0.00	0.00	0.00
2,900.00	24.27	351.00	2,769.66	686.32	-114.04	279.71	0.00	0.00	0.00
3,000.00	24.27	351.00	2,860.82	726.93	-120.47	295.95	0.00	0.00	0.00
3,100.00	24.27	351.00	2,951.98	767.53	-126.89	312.19	0.00	0.00	0.00
3,200.00	24.27	351.00	3,043.13	808.14	-133.32	328.43	0.00	0.00	0.00
3,300.00	24.27	351.00	3,134.29	848.74	-139.75	344.67	0.00	0.00	0.00
3,400.00	24.27	351.00	3,225.45	889.34	-146.18	360.91	0.00	0.00	0.00
3,500.00	24.27	351.00	3,316.61	929.95	-152.61	377.15	0.00	0.00	0.00
3,600.00	24.27	351.00	3,407.77	970.55	-159.04	393.39	0.00	0.00	0.00
3,700.00	24.27	351.00	3,498.93	1,011.16	-165.47	409.63	0.00	0.00	0.00
3,799.90	24.27	351.00	3,590.00	1,051.72	-171.89	425.85	0.00	0.00	0.00
PARKMAN									
3,800.00	24.27	351.00	3,590.09	1,051.76	-171.90	425.87	0.00	0.00	0.00
3,900.00	24.27	351.00	3,681.25	1,092.36	-178.33	442.11	0.00	0.00	0.00
4,000.00	24.27	351.00	3,772.41	1,132.97	-184.76	458.35	0.00	0.00	0.00
4,100.00	24.27	351.00	3,863.57	1,173.57	-191.19	474.59	0.00	0.00	0.00
4,200.00	24.27	351.00	3,954.73	1,214.18	-197.62	490.83	0.00	0.00	0.00
4,300.00	24.27	351.00	4,045.88	1,254.78	-204.05	507.07	0.00	0.00	0.00

Planning Report

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Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,400.00	24.27	351.00	4,137.04	1,295.38	-210.47	523.31	0.00	0.00	0.00
4,480.03	24.27	351.00	4,210.00	1,327.88	-215.62	536.31	0.00	0.00	0.00
SUSSEX									
4,500.00	24.27	351.00	4,228.20	1,335.99	-216.90	539.55	0.00	0.00	0.00
4,600.00	24.27	351.00	4,319.36	1,376.59	-223.33	555.79	0.00	0.00	0.00
4,700.00	24.27	351.00	4,410.52	1,417.20	-229.76	572.03	0.00	0.00	0.00
4,800.00	24.27	351.00	4,501.68	1,457.80	-236.19	588.27	0.00	0.00	0.00
4,900.00	24.27	351.00	4,592.84	1,498.40	-242.62	604.51	0.00	0.00	0.00
4,990.13	24.27	351.00	4,675.00	1,535.00	-248.42	619.15	0.00	0.00	0.00
SHANNON									
5,000.00	24.27	351.00	4,684.00	1,539.01	-249.05	620.75	0.00	0.00	0.00
5,100.00	24.27	351.00	4,775.16	1,579.61	-255.48	636.99	0.00	0.00	0.00
5,200.00	24.27	351.00	4,866.32	1,620.22	-261.91	653.23	0.00	0.00	0.00
5,300.00	24.27	351.00	4,957.48	1,660.82	-268.34	669.47	0.00	0.00	0.00
5,400.00	24.27	351.00	5,048.63	1,701.42	-274.77	685.71	0.00	0.00	0.00
5,500.00	24.27	351.00	5,139.79	1,742.03	-281.20	701.95	0.00	0.00	0.00
5,600.00	24.27	351.00	5,230.95	1,782.63	-287.63	718.19	0.00	0.00	0.00
5,700.00	24.27	351.00	5,322.11	1,823.24	-294.05	734.43	0.00	0.00	0.00
5,800.00	24.27	351.00	5,413.27	1,863.84	-300.48	750.67	0.00	0.00	0.00
5,900.00	24.27	351.00	5,504.43	1,904.44	-306.91	766.91	0.00	0.00	0.00
6,000.00	24.27	351.00	5,595.59	1,945.05	-313.34	783.15	0.00	0.00	0.00
6,100.00	24.27	351.00	5,686.75	1,985.65	-319.77	799.39	0.00	0.00	0.00
6,200.00	24.27	351.00	5,777.91	2,026.26	-326.20	815.63	0.00	0.00	0.00
6,300.00	24.27	351.00	5,869.07	2,066.86	-332.63	831.87	0.00	0.00	0.00
6,400.00	24.27	351.00	5,960.23	2,107.46	-339.06	848.11	0.00	0.00	0.00
6,500.00	24.27	351.00	6,051.38	2,148.07	-345.49	864.35	0.00	0.00	0.00
6,600.00	24.27	351.00	6,142.54	2,188.67	-351.92	880.59	0.00	0.00	0.00
6,700.00	24.27	351.00	6,233.70	2,229.28	-358.35	896.83	0.00	0.00	0.00
6,800.00	24.27	351.00	6,324.86	2,269.88	-364.78	913.07	0.00	0.00	0.00
6,900.00	24.27	351.00	6,416.02	2,310.48	-371.21	929.31	0.00	0.00	0.00
7,000.00	24.27	351.00	6,507.18	2,351.09	-377.63	945.55	0.00	0.00	0.00
7,100.00	24.27	351.00	6,598.34	2,391.69	-384.06	961.79	0.00	0.00	0.00
7,124.84	24.27	351.00	6,620.98	2,401.78	-385.66	965.83	0.00	0.00	0.00
KOP, BUILD 10°/100'									
7,150.00	24.76	345.05	6,643.88	2,411.98	-387.83	970.44	10.00	1.93	-23.66
7,200.00	26.38	334.07	6,689.01	2,432.10	-395.39	982.73	10.00	3.23	-21.96
7,250.00	28.73	324.51	6,733.36	2,451.88	-407.23	999.08	10.00	4.71	-19.11
7,300.00	31.65	316.44	6,776.59	2,471.18	-423.26	1,019.38	10.00	5.85	-16.16
7,350.00	35.01	309.67	6,818.37	2,489.86	-443.35	1,043.45	10.00	6.70	-13.52
7,400.00	38.67	304.00	6,858.39	2,507.76	-467.36	1,071.13	10.00	7.34	-11.35
7,450.00	42.57	299.19	6,896.34	2,524.75	-495.09	1,102.20	10.00	7.80	-9.62
7,500.00	46.65	295.06	6,931.94	2,540.71	-526.34	1,136.42	10.00	8.15	-8.26
7,519.32	48.26	293.61	6,945.00	2,546.57	-539.31	1,150.43	10.00	8.34	-7.49
SHARON SPRINGS									
7,550.00	50.85	291.45	6,964.90	2,555.51	-560.88	1,173.54	10.00	8.45	-7.03
7,582.83	53.67	289.32	6,985.00	2,564.55	-585.21	1,199.35	10.00	8.58	-6.51
NIOBRARA									
7,600.00	55.15	288.26	6,994.99	2,569.04	-598.43	1,213.27	10.00	8.66	-6.15
7,650.00	59.53	285.39	7,021.97	2,581.20	-638.72	1,255.30	10.00	8.75	-5.74
7,700.00	63.97	282.77	7,045.63	2,591.89	-681.43	1,299.33	10.00	8.87	-5.25
7,750.00	68.44	280.34	7,065.80	2,601.03	-726.24	1,345.01	10.00	8.96	-4.86
7,800.00	72.96	278.05	7,082.33	2,608.55	-772.81	1,392.00	10.00	9.02	-4.57
7,850.00	77.49	275.87	7,095.08	2,614.40	-820.78	1,439.94	10.00	9.07	-4.35

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well MILKSHAKE 31W-20-6N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4973.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,874.96	79.76	274.82	7,100.00	2,616.68	-845.14	1,464.11	10.00	9.10	-4.23	
NIO B										
7,900.00	82.04	273.77	7,103.96	2,618.53	-869.80	1,488.46	10.00	9.11	-4.17	
7,950.00	86.61	271.72	7,108.90	2,620.91	-919.48	1,537.19	10.00	9.13	-4.11	
7,987.14	90.00	270.21	7,110.00	2,621.53	-956.59	1,573.31	10.00	9.13	-4.07	
LP @ 90° INC, 270.21° AZM HOLD										
8,000.00	90.00	270.21	7,110.00	2,621.58	-969.45	1,585.79	0.00	0.00	0.00	
8,100.00	90.00	270.21	7,110.00	2,621.94	-1,069.45	1,682.79	0.00	0.00	0.00	
8,200.00	90.00	270.21	7,110.00	2,622.30	-1,169.45	1,779.79	0.00	0.00	0.00	
8,300.00	90.00	270.21	7,110.00	2,622.66	-1,269.45	1,876.79	0.00	0.00	0.00	
8,400.00	90.00	270.21	7,110.00	2,623.02	-1,369.45	1,973.80	0.00	0.00	0.00	
8,500.00	90.00	270.21	7,110.00	2,623.38	-1,469.45	2,070.80	0.00	0.00	0.00	
8,600.00	90.00	270.21	7,110.00	2,623.74	-1,569.45	2,167.80	0.00	0.00	0.00	
8,700.00	90.00	270.21	7,110.00	2,624.11	-1,669.45	2,264.80	0.00	0.00	0.00	
8,800.00	90.00	270.21	7,110.00	2,624.47	-1,769.45	2,361.81	0.00	0.00	0.00	
8,900.00	90.00	270.21	7,110.00	2,624.83	-1,869.45	2,458.81	0.00	0.00	0.00	
9,000.00	90.00	270.21	7,110.00	2,625.19	-1,969.45	2,555.81	0.00	0.00	0.00	
9,100.00	90.00	270.21	7,110.00	2,625.55	-2,069.44	2,652.81	0.00	0.00	0.00	
9,200.00	90.00	270.21	7,110.00	2,625.91	-2,169.44	2,749.82	0.00	0.00	0.00	
9,300.00	90.00	270.21	7,110.00	2,626.27	-2,269.44	2,846.82	0.00	0.00	0.00	
9,400.00	90.00	270.21	7,110.00	2,626.63	-2,369.44	2,943.82	0.00	0.00	0.00	
9,500.00	90.00	270.21	7,110.00	2,626.99	-2,469.44	3,040.82	0.00	0.00	0.00	
9,600.00	90.00	270.21	7,110.00	2,627.35	-2,569.44	3,137.82	0.00	0.00	0.00	
9,700.00	90.00	270.21	7,110.00	2,627.72	-2,669.44	3,234.83	0.00	0.00	0.00	
9,800.00	90.00	270.21	7,110.00	2,628.08	-2,769.44	3,331.83	0.00	0.00	0.00	
9,900.00	90.00	270.21	7,110.00	2,628.44	-2,869.44	3,428.83	0.00	0.00	0.00	
10,000.00	90.00	270.21	7,110.00	2,628.80	-2,969.44	3,525.83	0.00	0.00	0.00	
10,100.00	90.00	270.21	7,110.00	2,629.16	-3,069.44	3,622.84	0.00	0.00	0.00	
10,200.00	90.00	270.21	7,110.00	2,629.52	-3,169.44	3,719.84	0.00	0.00	0.00	
10,300.00	90.00	270.21	7,110.00	2,629.88	-3,269.44	3,816.84	0.00	0.00	0.00	
10,400.00	90.00	270.21	7,110.00	2,630.24	-3,369.44	3,913.84	0.00	0.00	0.00	
10,500.00	90.00	270.21	7,110.00	2,630.60	-3,469.44	4,010.85	0.00	0.00	0.00	
10,600.00	90.00	270.21	7,110.00	2,630.96	-3,569.43	4,107.85	0.00	0.00	0.00	
10,700.00	90.00	270.21	7,110.00	2,631.33	-3,669.43	4,204.85	0.00	0.00	0.00	
10,800.00	90.00	270.21	7,110.00	2,631.69	-3,769.43	4,301.85	0.00	0.00	0.00	
10,900.00	90.00	270.21	7,110.00	2,632.05	-3,869.43	4,398.85	0.00	0.00	0.00	
11,000.00	90.00	270.21	7,110.00	2,632.41	-3,969.43	4,495.86	0.00	0.00	0.00	
11,100.00	90.00	270.21	7,110.00	2,632.77	-4,069.43	4,592.86	0.00	0.00	0.00	
11,200.00	90.00	270.21	7,110.00	2,633.13	-4,169.43	4,689.86	0.00	0.00	0.00	
11,300.00	90.00	270.21	7,110.00	2,633.49	-4,269.43	4,786.86	0.00	0.00	0.00	
11,400.00	90.00	270.21	7,110.00	2,633.85	-4,369.43	4,883.87	0.00	0.00	0.00	
11,500.00	90.00	270.21	7,110.00	2,634.21	-4,469.43	4,980.87	0.00	0.00	0.00	
11,600.00	90.00	270.21	7,110.00	2,634.57	-4,569.43	5,077.87	0.00	0.00	0.00	
11,700.00	90.00	270.21	7,110.00	2,634.94	-4,669.43	5,174.87	0.00	0.00	0.00	
11,800.00	90.00	270.21	7,110.00	2,635.30	-4,769.43	5,271.88	0.00	0.00	0.00	
11,900.00	90.00	270.21	7,110.00	2,635.66	-4,869.43	5,368.88	0.00	0.00	0.00	
12,000.00	90.00	270.21	7,110.00	2,636.02	-4,969.43	5,465.88	0.00	0.00	0.00	
12,100.00	90.00	270.21	7,110.00	2,636.38	-5,069.43	5,562.88	0.00	0.00	0.00	
12,200.00	90.00	270.21	7,110.00	2,636.74	-5,169.42	5,659.88	0.00	0.00	0.00	
12,300.00	90.00	270.21	7,110.00	2,637.10	-5,269.42	5,756.89	0.00	0.00	0.00	
12,400.00	90.00	270.21	7,110.00	2,637.46	-5,369.42	5,853.89	0.00	0.00	0.00	
12,500.00	90.00	270.21	7,110.00	2,637.82	-5,469.42	5,950.89	0.00	0.00	0.00	
12,600.00	90.00	270.21	7,110.00	2,638.18	-5,569.42	6,047.89	0.00	0.00	0.00	
12,700.00	90.00	270.21	7,110.00	2,638.55	-5,669.42	6,144.90	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well MILKSHAKE 31W-20-6N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4973.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,800.00	90.00	270.21	7,110.00	2,638.91	-5,769.42	6,241.90	0.00	0.00	0.00
12,900.00	90.00	270.21	7,110.00	2,639.27	-5,869.42	6,338.90	0.00	0.00	0.00
13,000.00	90.00	270.21	7,110.00	2,639.63	-5,969.42	6,435.90	0.00	0.00	0.00
13,100.00	90.00	270.21	7,110.00	2,639.99	-6,069.42	6,532.91	0.00	0.00	0.00
13,200.00	90.00	270.21	7,110.00	2,640.35	-6,169.42	6,629.91	0.00	0.00	0.00
13,300.00	90.00	270.21	7,110.00	2,640.71	-6,269.42	6,726.91	0.00	0.00	0.00
13,400.00	90.00	270.21	7,110.00	2,641.07	-6,369.42	6,823.91	0.00	0.00	0.00
13,500.00	90.00	270.21	7,110.00	2,641.43	-6,469.42	6,920.91	0.00	0.00	0.00
13,600.00	90.00	270.21	7,110.00	2,641.79	-6,569.42	7,017.92	0.00	0.00	0.00
13,700.00	90.00	270.21	7,110.00	2,642.16	-6,669.41	7,114.92	0.00	0.00	0.00
13,800.00	90.00	270.21	7,110.00	2,642.52	-6,769.41	7,211.92	0.00	0.00	0.00
13,900.00	90.00	270.21	7,110.00	2,642.88	-6,869.41	7,308.92	0.00	0.00	0.00
14,000.00	90.00	270.21	7,110.00	2,643.24	-6,969.41	7,405.93	0.00	0.00	0.00
14,100.00	90.00	270.21	7,110.00	2,643.60	-7,069.41	7,502.93	0.00	0.00	0.00
14,200.00	90.00	270.21	7,110.00	2,643.96	-7,169.41	7,599.93	0.00	0.00	0.00
14,300.00	90.00	270.21	7,110.00	2,644.32	-7,269.41	7,696.93	0.00	0.00	0.00
14,400.00	90.00	270.21	7,110.00	2,644.68	-7,369.41	7,793.94	0.00	0.00	0.00
14,500.00	90.00	270.21	7,110.00	2,645.04	-7,469.41	7,890.94	0.00	0.00	0.00
14,600.00	90.00	270.21	7,110.00	2,645.40	-7,569.41	7,987.94	0.00	0.00	0.00
14,700.00	90.00	270.21	7,110.00	2,645.77	-7,669.41	8,084.94	0.00	0.00	0.00
14,800.00	90.00	270.21	7,110.00	2,646.13	-7,769.41	8,181.94	0.00	0.00	0.00
14,900.00	90.00	270.21	7,110.00	2,646.49	-7,869.41	8,278.95	0.00	0.00	0.00
15,000.00	90.00	270.21	7,110.00	2,646.85	-7,969.41	8,375.95	0.00	0.00	0.00
15,100.00	90.00	270.21	7,110.00	2,647.21	-8,069.41	8,472.95	0.00	0.00	0.00
15,200.00	90.00	270.21	7,110.00	2,647.57	-8,169.40	8,569.95	0.00	0.00	0.00
15,300.00	90.00	270.21	7,110.00	2,647.93	-8,269.40	8,666.96	0.00	0.00	0.00
15,400.00	90.00	270.21	7,110.00	2,648.29	-8,369.40	8,763.96	0.00	0.00	0.00
15,500.00	90.00	270.21	7,110.00	2,648.65	-8,469.40	8,860.96	0.00	0.00	0.00
15,600.00	90.00	270.21	7,110.00	2,649.01	-8,569.40	8,957.96	0.00	0.00	0.00
15,700.00	90.00	270.21	7,110.00	2,649.38	-8,669.40	9,054.97	0.00	0.00	0.00
15,800.00	90.00	270.21	7,110.00	2,649.74	-8,769.40	9,151.97	0.00	0.00	0.00
15,900.00	90.00	270.21	7,110.00	2,650.10	-8,869.40	9,248.97	0.00	0.00	0.00
16,000.00	90.00	270.21	7,110.00	2,650.46	-8,969.40	9,345.97	0.00	0.00	0.00
16,100.00	90.00	270.21	7,110.00	2,650.82	-9,069.40	9,442.97	0.00	0.00	0.00
16,200.00	90.00	270.21	7,110.00	2,651.18	-9,169.40	9,539.98	0.00	0.00	0.00
16,300.00	90.00	270.21	7,110.00	2,651.54	-9,269.40	9,636.98	0.00	0.00	0.00
16,400.00	90.00	270.21	7,110.00	2,651.90	-9,369.40	9,733.98	0.00	0.00	0.00
16,500.00	90.00	270.21	7,110.00	2,652.26	-9,469.40	9,830.98	0.00	0.00	0.00
16,600.00	90.00	270.21	7,110.00	2,652.62	-9,569.40	9,927.99	0.00	0.00	0.00
16,700.00	90.00	270.21	7,110.00	2,652.99	-9,669.40	10,024.99	0.00	0.00	0.00
16,800.00	90.00	270.21	7,110.00	2,653.35	-9,769.39	10,121.99	0.00	0.00	0.00
16,900.00	90.00	270.21	7,110.00	2,653.71	-9,869.39	10,218.99	0.00	0.00	0.00
17,000.00	90.00	270.21	7,110.00	2,654.07	-9,969.39	10,316.00	0.00	0.00	0.00
17,100.00	90.00	270.21	7,110.00	2,654.43	-10,069.39	10,413.00	0.00	0.00	0.00
17,200.00	90.00	270.21	7,110.00	2,654.79	-10,169.39	10,510.00	0.00	0.00	0.00
17,300.00	90.00	270.21	7,110.00	2,655.15	-10,269.39	10,607.00	0.00	0.00	0.00
17,400.00	90.00	270.21	7,110.00	2,655.51	-10,369.39	10,704.00	0.00	0.00	0.00
17,471.52	90.00	270.21	7,110.00	2,655.78	-10,440.91	10,773.39	0.00	0.00	0.00
TD at 17471.52' MD									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well MILKSHAKE 31W-20-6N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 4973.00usft
Project:	Weld County	MD Reference:	KB 25' @ 4973.00usft
Site:	Sec 32-T6N-R67W	North Reference:	True
Well:	MILKSHAKE 31W-20-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
MILKSHAKE 31W-6N PI - plan hits target center - Point	0.00	0.00	7,110.00	2,655.78	-10,440.91	1,405,853.60	3,149,793.66	40° 26' 46.399 N	104° 57' 42.448 W
MILKSHAKE 31W-6N LI - plan hits target center - Point	0.00	0.00	7,110.00	2,621.53	-956.59	1,405,880.92	3,159,278.01	40° 26' 46.082 N	104° 55' 39.770 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,799.90	3,590.00	PARKMAN				
4,480.03	4,210.00	SUSSEX				
4,990.13	4,675.00	SHANNON				
7,519.32	6,945.00	SHARON SPRINGS				
7,582.83	6,985.00	NIOBRARA				
7,874.96	7,100.00	NIO B				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
600.00	600.00	0.00	0.00	BUILD 2°/100'
1,621.51	1,600.00	177.31	-32.16	HOLD 20.43° INC
1,686.51	1,660.91	199.63	-36.21	DROP 2°/100'
1,880.22	1,840.04	272.25	-48.47	HOLD VERTICAL
7,124.84	6,620.98	2,401.78	-385.66	KOP, BUILD 10°/100'
7,987.14	7,110.00	2,621.53	-956.59	LP @ 90° INC, 270.21° AZM HOLD
17,471.52	7,110.00	2,655.78	-10,440.91	TD at 17471.52' MD