

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 17-T7N-R67W**

**WALT 17W-20-11N**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**16 August, 2018**



Project: WELD COUNTY  
Site: Sec 17-T7N-R67W  
Well: WALT 17W-20-11N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL 1



Azimuths to True North  
Magnetic North: 8.18°  
Magnetic Field  
Strength: 52332.9nT  
Dip Angle: 66.94°  
Date: 8/15/2018  
Model: IGRF2015

#### WELL DETAILS: WALT 17W-20-11N

+N/-S	+E/-W	Northing	Easting	5107.00	Latitude	Longitude	Slot
0.00	0.00	1453030.05	3164157.37	40° 34'	31.674° N	104° 54'	32.594° 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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1350.93	21.02	167.46	1327.51	-186.06	41.38	2.00	167.46	7.14	
4	6401.74	21.02	167.46	6042.26	-1954.43	434.70	0.00	74.95	74.95	
5	7340.93	90.00	268.45	6615.00	-2185.87	-130.85	10.00	100.27	680.70	WALT 17W-11N - LP
6	16501.42	90.00	268.45	6615.00	-2434.03	-9287.98	0.00	9601.62	9601.62	WALT 17W-11N - P

#### ANNOTATIONS

+N/-S	+E/-W	VSect	Departure	Annotation
0.00	0.00	0.00	0.00	Start Build 2.00
-186.06	41.38	7.14	190.61	Start 5050.81 hold at 1350.93 MD
-1954.43	434.70	74.95	2002.19	Start DLS 10.00 TFO 100.27
-2185.87	-130.85	680.70	2660.61	Start 9160.49 hold at 7340.93 MD
-2434.03	-9287.98	9601.62	11821.10	TD at 16501.42

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT 17W-11N - LP	6615.00	-2185.87	-130.85	1450843.37	3164041.09	40° 34'	10.074° N	Point
WALT 17W-11N - PBHL	6615.00	-2434.03	-9287.98	1450534.18	3154885.82	40° 34'	7.604° N	Point

#### FORMATION TOP DETAILS

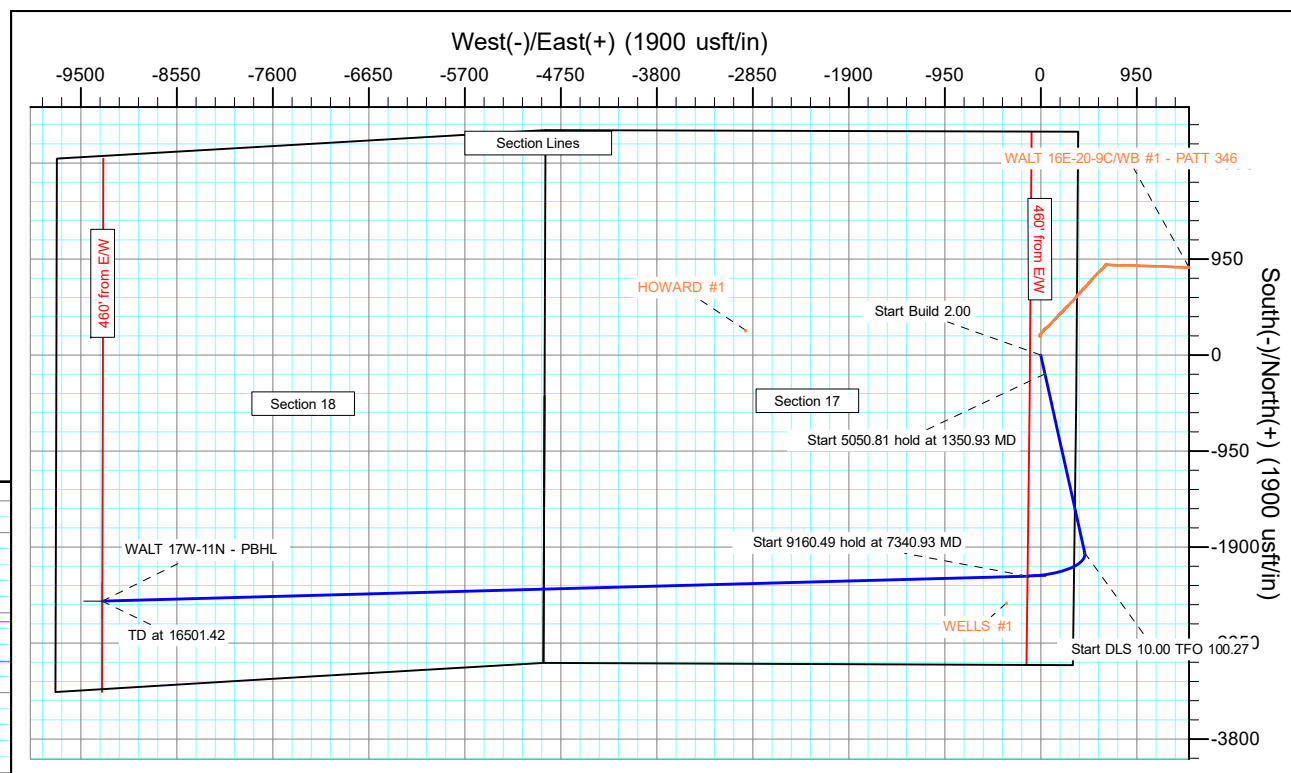
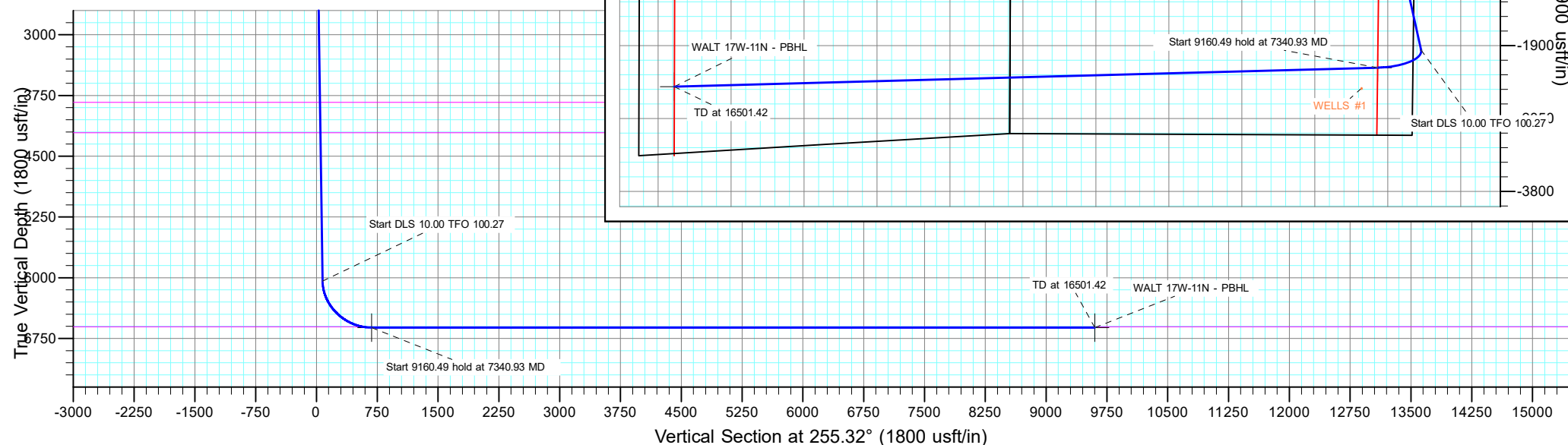
TVDPath	MDPath	Formation
3835.00	4037.14	SUSSEX
4210.00	4438.87	SHANNON
6605.00	7230.09	NIOBRARA

#### 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:  
2213' FNL, 354' FEL  
Sec 17-T7N-R67W  
LP:  
881' FSL, 460' FEL  
Sec 17-T7N-R67W  
BHL:  
870' FSL, 460' FWL  
Sec 18-T7N-R67W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-11N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5136.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<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		

Site		Sec 17-T7N-R67W			
Site Position:		Northing:	1,455,244.22 usft	Latitude:	40° 34' 53.530 N
From:	Lat/Long	Easting:	3,164,511.50 usft	Longitude:	104° 54' 27.814 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	WALT 17W-20-11N					
Well Position	+N/-S	-2,211.75 usft	Northing:	1,453,030.06 usft	Latitude:	40° 34' 31.674 N
	+E/-W	-368.90 usft	Easting:	3,164,157.37 usft	Longitude:	104° 54' 32.594 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,107.00 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	8/15/2018	8.18	66.94	52,332.93740267

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	255.32

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/16/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,501.42	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG
			OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	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	
1,350.93	21.02	167.46	1,327.51	-186.06	41.38	2.00	2.00	0.00	167.46	
6,401.74	21.02	167.46	6,042.27	-1,954.43	434.70	0.00	0.00	0.00	0.00	
7,340.93	90.00	268.45	6,615.00	-2,185.87	-130.85	10.00	7.34	10.75	100.27	WALT 17W-11N - LP
16,501.42	90.00	268.45	6,615.00	-2,434.03	-9,287.98	0.00	0.00	0.00	0.00	WALT 17W-11N - PB

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-11N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5136.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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
Start Build 2.00									
400.00	2.00	167.46	399.98	-1.70	0.38	0.07	2.00	2.00	0.00
500.00	4.00	167.46	499.84	-6.81	1.52	0.26	2.00	2.00	0.00
600.00	6.00	167.46	599.45	-15.32	3.41	0.59	2.00	2.00	0.00
700.00	8.00	167.46	698.70	-27.21	6.05	1.04	2.00	2.00	0.00
800.00	10.00	167.46	797.47	-42.48	9.45	1.63	2.00	2.00	0.00
900.00	12.00	167.46	895.62	-61.11	13.59	2.34	2.00	2.00	0.00
1,000.00	14.00	167.46	993.06	-83.07	18.48	3.19	2.00	2.00	0.00
1,100.00	16.00	167.46	1,089.64	-108.33	24.09	4.15	2.00	2.00	0.00
1,200.00	18.00	167.46	1,185.27	-136.87	30.44	5.25	2.00	2.00	0.00
1,300.00	20.00	167.46	1,279.82	-168.65	37.51	6.47	2.00	2.00	0.00
1,350.93	21.02	167.46	1,327.51	-186.06	41.38	7.14	2.00	2.00	0.00
Start 5050.81 hold at 1350.93 MD									
1,400.00	21.02	167.46	1,373.32	-203.25	45.21	7.79	0.00	0.00	0.00
1,500.00	21.02	167.46	1,466.67	-238.26	52.99	9.14	0.00	0.00	0.00
1,600.00	21.02	167.46	1,560.01	-273.27	60.78	10.48	0.00	0.00	0.00
1,700.00	21.02	167.46	1,653.36	-308.28	68.57	11.82	0.00	0.00	0.00
1,800.00	21.02	167.46	1,746.71	-343.29	76.35	13.16	0.00	0.00	0.00
1,900.00	21.02	167.46	1,840.05	-378.30	84.14	14.51	0.00	0.00	0.00
2,000.00	21.02	167.46	1,933.40	-413.31	91.93	15.85	0.00	0.00	0.00
2,100.00	21.02	167.46	2,026.75	-448.33	99.72	17.19	0.00	0.00	0.00
2,200.00	21.02	167.46	2,120.09	-483.34	107.50	18.53	0.00	0.00	0.00
2,300.00	21.02	167.46	2,213.44	-518.35	115.29	19.88	0.00	0.00	0.00
2,400.00	21.02	167.46	2,306.79	-553.36	123.08	21.22	0.00	0.00	0.00
2,500.00	21.02	167.46	2,400.13	-588.37	130.87	22.56	0.00	0.00	0.00
2,600.00	21.02	167.46	2,493.48	-623.38	138.65	23.91	0.00	0.00	0.00
2,700.00	21.02	167.46	2,586.83	-658.39	146.44	25.25	0.00	0.00	0.00
2,800.00	21.02	167.46	2,680.17	-693.41	154.23	26.59	0.00	0.00	0.00
2,900.00	21.02	167.46	2,773.52	-728.42	162.01	27.93	0.00	0.00	0.00
3,000.00	21.02	167.46	2,866.86	-763.43	169.80	29.28	0.00	0.00	0.00
3,100.00	21.02	167.46	2,960.21	-798.44	177.59	30.62	0.00	0.00	0.00
3,200.00	21.02	167.46	3,053.56	-833.45	185.38	31.96	0.00	0.00	0.00
3,300.00	21.02	167.46	3,146.90	-868.46	193.16	33.30	0.00	0.00	0.00
3,400.00	21.02	167.46	3,240.25	-903.47	200.95	34.65	0.00	0.00	0.00
3,500.00	21.02	167.46	3,333.60	-938.49	208.74	35.99	0.00	0.00	0.00
3,600.00	21.02	167.46	3,426.94	-973.50	216.53	37.33	0.00	0.00	0.00
3,700.00	21.02	167.46	3,520.29	-1,008.51	224.31	38.67	0.00	0.00	0.00
3,800.00	21.02	167.46	3,613.64	-1,043.52	232.10	40.02	0.00	0.00	0.00
3,900.00	21.02	167.46	3,706.98	-1,078.53	239.89	41.36	0.00	0.00	0.00
4,000.00	21.02	167.46	3,800.33	-1,113.54	247.67	42.70	0.00	0.00	0.00
4,037.14	21.02	167.46	3,835.00	-1,126.55	250.57	43.20	0.00	0.00	0.00
SUSSEX									
4,100.00	21.02	167.46	3,893.68	-1,148.56	255.46	44.04	0.00	0.00	0.00
4,200.00	21.02	167.46	3,987.02	-1,183.57	263.25	45.39	0.00	0.00	0.00
4,300.00	21.02	167.46	4,080.37	-1,218.58	271.04	46.73	0.00	0.00	0.00
4,400.00	21.02	167.46	4,173.71	-1,253.59	278.82	48.07	0.00	0.00	0.00
4,438.87	21.02	167.46	4,210.00	-1,267.20	281.85	48.59	0.00	0.00	0.00
SHANNON									
4,500.00	21.02	167.46	4,267.06	-1,288.60	286.61	49.42	0.00	0.00	0.00

# Planning Report

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<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
4,600.00	21.02	167.46	4,360.41	-1,323.61	294.40	50.76	0.00	0.00	0.00
4,700.00	21.02	167.46	4,453.75	-1,358.62	302.19	52.10	0.00	0.00	0.00
4,800.00	21.02	167.46	4,547.10	-1,393.64	309.97	53.44	0.00	0.00	0.00
4,900.00	21.02	167.46	4,640.45	-1,428.65	317.76	54.79	0.00	0.00	0.00
5,000.00	21.02	167.46	4,733.79	-1,463.66	325.55	56.13	0.00	0.00	0.00
5,100.00	21.02	167.46	4,827.14	-1,498.67	333.33	57.47	0.00	0.00	0.00
5,200.00	21.02	167.46	4,920.49	-1,533.68	341.12	58.81	0.00	0.00	0.00
5,300.00	21.02	167.46	5,013.83	-1,568.69	348.91	60.16	0.00	0.00	0.00
5,400.00	21.02	167.46	5,107.18	-1,603.70	356.70	61.50	0.00	0.00	0.00
5,500.00	21.02	167.46	5,200.53	-1,638.72	364.48	62.84	0.00	0.00	0.00
5,600.00	21.02	167.46	5,293.87	-1,673.73	372.27	64.18	0.00	0.00	0.00
5,700.00	21.02	167.46	5,387.22	-1,708.74	380.06	65.53	0.00	0.00	0.00
5,800.00	21.02	167.46	5,480.56	-1,743.75	387.84	66.87	0.00	0.00	0.00
5,900.00	21.02	167.46	5,573.91	-1,778.76	395.63	68.21	0.00	0.00	0.00
6,000.00	21.02	167.46	5,667.26	-1,813.77	403.42	69.55	0.00	0.00	0.00
6,100.00	21.02	167.46	5,760.60	-1,848.78	411.21	70.90	0.00	0.00	0.00
6,200.00	21.02	167.46	5,853.95	-1,883.80	418.99	72.24	0.00	0.00	0.00
6,300.00	21.02	167.46	5,947.30	-1,918.81	426.78	73.58	0.00	0.00	0.00
6,401.74	21.02	167.46	6,042.27	-1,954.43	434.70	74.95	0.00	0.00	0.00
Start DLS 10.00 TFO 100.27									
6,450.00	20.69	181.01	6,087.39	-1,971.41	436.43	77.58	10.00	-0.69	28.08
6,500.00	21.46	194.79	6,134.08	-1,989.09	433.94	84.47	10.00	1.55	27.54
6,550.00	23.26	207.08	6,180.34	-2,006.73	427.11	95.55	10.00	3.60	24.59
6,600.00	25.86	217.37	6,225.84	-2,024.20	415.99	110.74	10.00	5.22	20.57
6,650.00	29.07	225.71	6,270.21	-2,041.36	400.67	129.91	10.00	6.40	16.69
6,700.00	32.69	232.45	6,313.13	-2,058.08	381.25	152.93	10.00	7.24	13.46
6,750.00	36.60	237.93	6,354.27	-2,074.24	357.91	179.61	10.00	7.83	10.96
6,800.00	40.72	242.46	6,393.31	-2,089.70	330.79	209.76	10.00	8.24	9.07
6,850.00	45.00	246.29	6,429.96	-2,104.36	300.13	243.14	10.00	8.54	7.65
6,900.00	49.38	249.57	6,463.93	-2,118.10	266.14	279.50	10.00	8.76	6.57
6,950.00	53.84	252.45	6,494.98	-2,130.82	229.09	318.56	10.00	8.93	5.75
7,000.00	58.37	255.01	6,522.86	-2,142.42	189.26	360.03	10.00	9.05	5.13
7,050.00	62.94	257.34	6,547.36	-2,152.81	146.95	403.60	10.00	9.14	4.65
7,100.00	67.55	259.48	6,568.30	-2,161.92	102.48	448.92	10.00	9.21	4.28
7,150.00	72.18	261.48	6,585.51	-2,169.67	56.20	495.65	10.00	9.27	4.01
7,200.00	76.83	263.38	6,598.86	-2,176.00	8.45	543.45	10.00	9.30	3.80
7,230.09	79.64	264.49	6,605.00	-2,179.11	-20.84	572.57	10.00	9.33	3.68
NIOBRARA									
7,250.00	81.50	265.21	6,608.26	-2,180.87	-40.40	591.94	10.00	9.34	3.63
7,300.00	86.17	267.00	6,613.63	-2,184.24	-89.98	640.75	10.00	9.35	3.57
7,340.93	90.00	268.45	6,615.00	-2,185.87	-130.85	680.70	10.00	9.36	3.53
Start 9160.49 hold at 7340.93 MD									
7,400.00	90.00	268.45	6,615.00	-2,187.47	-189.90	738.22	0.00	0.00	0.00
7,500.00	90.00	268.45	6,615.00	-2,190.17	-289.86	835.61	0.00	0.00	0.00
7,600.00	90.00	268.45	6,615.00	-2,192.88	-389.82	932.99	0.00	0.00	0.00
7,700.00	90.00	268.45	6,615.00	-2,195.59	-489.79	1,030.37	0.00	0.00	0.00
7,800.00	90.00	268.45	6,615.00	-2,198.30	-589.75	1,127.76	0.00	0.00	0.00
7,900.00	90.00	268.45	6,615.00	-2,201.01	-689.71	1,225.14	0.00	0.00	0.00
8,000.00	90.00	268.45	6,615.00	-2,203.72	-789.68	1,322.53	0.00	0.00	0.00
8,100.00	90.00	268.45	6,615.00	-2,206.43	-889.64	1,419.91	0.00	0.00	0.00
8,200.00	90.00	268.45	6,615.00	-2,209.14	-989.60	1,517.30	0.00	0.00	0.00
8,300.00	90.00	268.45	6,615.00	-2,211.85	-1,089.57	1,614.68	0.00	0.00	0.00
8,400.00	90.00	268.45	6,615.00	-2,214.56	-1,189.53	1,712.07	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-11N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5136.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)	
8,500.00	90.00	268.45	6,615.00	-2,217.27	-1,289.49	1,809.45	0.00	0.00	0.00	
8,600.00	90.00	268.45	6,615.00	-2,219.97	-1,389.46	1,906.84	0.00	0.00	0.00	
8,700.00	90.00	268.45	6,615.00	-2,222.68	-1,489.42	2,004.22	0.00	0.00	0.00	
8,800.00	90.00	268.45	6,615.00	-2,225.39	-1,589.38	2,101.61	0.00	0.00	0.00	
8,900.00	90.00	268.45	6,615.00	-2,228.10	-1,689.35	2,198.99	0.00	0.00	0.00	
9,000.00	90.00	268.45	6,615.00	-2,230.81	-1,789.31	2,296.38	0.00	0.00	0.00	
9,100.00	90.00	268.45	6,615.00	-2,233.52	-1,889.27	2,393.76	0.00	0.00	0.00	
9,200.00	90.00	268.45	6,615.00	-2,236.23	-1,989.24	2,491.15	0.00	0.00	0.00	
9,300.00	90.00	268.45	6,615.00	-2,238.94	-2,089.20	2,588.53	0.00	0.00	0.00	
9,400.00	90.00	268.45	6,615.00	-2,241.65	-2,189.16	2,685.92	0.00	0.00	0.00	
9,500.00	90.00	268.45	6,615.00	-2,244.36	-2,289.12	2,783.30	0.00	0.00	0.00	
9,600.00	90.00	268.45	6,615.00	-2,247.07	-2,389.09	2,880.68	0.00	0.00	0.00	
9,700.00	90.00	268.45	6,615.00	-2,249.78	-2,489.05	2,978.07	0.00	0.00	0.00	
9,800.00	90.00	268.45	6,615.00	-2,252.48	-2,589.01	3,075.45	0.00	0.00	0.00	
9,900.00	90.00	268.45	6,615.00	-2,255.19	-2,688.98	3,172.84	0.00	0.00	0.00	
10,000.00	90.00	268.45	6,615.00	-2,257.90	-2,788.94	3,270.22	0.00	0.00	0.00	
10,100.00	90.00	268.45	6,615.00	-2,260.61	-2,888.90	3,367.61	0.00	0.00	0.00	
10,200.00	90.00	268.45	6,615.00	-2,263.32	-2,988.87	3,464.99	0.00	0.00	0.00	
10,300.00	90.00	268.45	6,615.00	-2,266.03	-3,088.83	3,562.38	0.00	0.00	0.00	
10,400.00	90.00	268.45	6,615.00	-2,268.74	-3,188.79	3,659.76	0.00	0.00	0.00	
10,500.00	90.00	268.45	6,615.00	-2,271.45	-3,288.76	3,757.15	0.00	0.00	0.00	
10,600.00	90.00	268.45	6,615.00	-2,274.16	-3,388.72	3,854.53	0.00	0.00	0.00	
10,700.00	90.00	268.45	6,615.00	-2,276.87	-3,488.68	3,951.92	0.00	0.00	0.00	
10,800.00	90.00	268.45	6,615.00	-2,279.58	-3,588.65	4,049.30	0.00	0.00	0.00	
10,900.00	90.00	268.45	6,615.00	-2,282.28	-3,688.61	4,146.69	0.00	0.00	0.00	
11,000.00	90.00	268.45	6,615.00	-2,284.99	-3,788.57	4,244.07	0.00	0.00	0.00	
11,100.00	90.00	268.45	6,615.00	-2,287.70	-3,888.54	4,341.46	0.00	0.00	0.00	
11,200.00	90.00	268.45	6,615.00	-2,290.41	-3,988.50	4,438.84	0.00	0.00	0.00	
11,300.00	90.00	268.45	6,615.00	-2,293.12	-4,088.46	4,536.23	0.00	0.00	0.00	
11,400.00	90.00	268.45	6,615.00	-2,295.83	-4,188.43	4,633.61	0.00	0.00	0.00	
11,500.00	90.00	268.45	6,615.00	-2,298.54	-4,288.39	4,730.99	0.00	0.00	0.00	
11,600.00	90.00	268.45	6,615.00	-2,301.25	-4,388.35	4,828.38	0.00	0.00	0.00	
11,700.00	90.00	268.45	6,615.00	-2,303.96	-4,488.32	4,925.76	0.00	0.00	0.00	
11,800.00	90.00	268.45	6,615.00	-2,306.67	-4,588.28	5,023.15	0.00	0.00	0.00	
11,900.00	90.00	268.45	6,615.00	-2,309.38	-4,688.24	5,120.53	0.00	0.00	0.00	
12,000.00	90.00	268.45	6,615.00	-2,312.08	-4,788.21	5,217.92	0.00	0.00	0.00	
12,100.00	90.00	268.45	6,615.00	-2,314.79	-4,888.17	5,315.30	0.00	0.00	0.00	
12,200.00	90.00	268.45	6,615.00	-2,317.50	-4,988.13	5,412.69	0.00	0.00	0.00	
12,300.00	90.00	268.45	6,615.00	-2,320.21	-5,088.10	5,510.07	0.00	0.00	0.00	
12,400.00	90.00	268.45	6,615.00	-2,322.92	-5,188.06	5,607.46	0.00	0.00	0.00	
12,500.00	90.00	268.45	6,615.00	-2,325.63	-5,288.02	5,704.84	0.00	0.00	0.00	
12,600.00	90.00	268.45	6,615.00	-2,328.34	-5,387.99	5,802.23	0.00	0.00	0.00	
12,700.00	90.00	268.45	6,615.00	-2,331.05	-5,487.95	5,899.61	0.00	0.00	0.00	
12,800.00	90.00	268.45	6,615.00	-2,333.76	-5,587.91	5,997.00	0.00	0.00	0.00	
12,900.00	90.00	268.45	6,615.00	-2,336.47	-5,687.88	6,094.38	0.00	0.00	0.00	
13,000.00	90.00	268.45	6,615.00	-2,339.18	-5,787.84	6,191.77	0.00	0.00	0.00	
13,100.00	90.00	268.45	6,615.00	-2,341.88	-5,887.80	6,289.15	0.00	0.00	0.00	
13,200.00	90.00	268.45	6,615.00	-2,344.59	-5,987.77	6,386.54	0.00	0.00	0.00	
13,300.00	90.00	268.45	6,615.00	-2,347.30	-6,087.73	6,483.92	0.00	0.00	0.00	
13,400.00	90.00	268.45	6,615.00	-2,350.01	-6,187.69	6,581.30	0.00	0.00	0.00	
13,500.00	90.00	268.45	6,615.00	-2,352.72	-6,287.66	6,678.69	0.00	0.00	0.00	
13,600.00	90.00	268.45	6,615.00	-2,355.43	-6,387.62	6,776.07	0.00	0.00	0.00	
13,700.00	90.00	268.45	6,615.00	-2,358.14	-6,487.58	6,873.46	0.00	0.00	0.00	
13,800.00	90.00	268.45	6,615.00	-2,360.85	-6,587.55	6,970.84	0.00	0.00	0.00	

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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5136.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)	
13,900.00	90.00	268.45	6,615.00	-2,363.56	-6,687.51	7,068.23	0.00	0.00	0.00	
14,000.00	90.00	268.45	6,615.00	-2,366.27	-6,787.47	7,165.61	0.00	0.00	0.00	
14,100.00	90.00	268.45	6,615.00	-2,368.98	-6,887.44	7,263.00	0.00	0.00	0.00	
14,200.00	90.00	268.45	6,615.00	-2,371.68	-6,987.40	7,360.38	0.00	0.00	0.00	
14,300.00	90.00	268.45	6,615.00	-2,374.39	-7,087.36	7,457.77	0.00	0.00	0.00	
14,400.00	90.00	268.45	6,615.00	-2,377.10	-7,187.33	7,555.15	0.00	0.00	0.00	
14,500.00	90.00	268.45	6,615.00	-2,379.81	-7,287.29	7,652.54	0.00	0.00	0.00	
14,600.00	90.00	268.45	6,615.00	-2,382.52	-7,387.25	7,749.92	0.00	0.00	0.00	
14,700.00	90.00	268.45	6,615.00	-2,385.23	-7,487.22	7,847.31	0.00	0.00	0.00	
14,800.00	90.00	268.45	6,615.00	-2,387.94	-7,587.18	7,944.69	0.00	0.00	0.00	
14,900.00	90.00	268.45	6,615.00	-2,390.65	-7,687.14	8,042.08	0.00	0.00	0.00	
15,000.00	90.00	268.45	6,615.00	-2,393.36	-7,787.11	8,139.46	0.00	0.00	0.00	
15,100.00	90.00	268.45	6,615.00	-2,396.07	-7,887.07	8,236.85	0.00	0.00	0.00	
15,200.00	90.00	268.45	6,615.00	-2,398.78	-7,987.03	8,334.23	0.00	0.00	0.00	
15,300.00	90.00	268.45	6,615.00	-2,401.49	-8,087.00	8,431.61	0.00	0.00	0.00	
15,400.00	90.00	268.45	6,615.00	-2,404.19	-8,186.96	8,529.00	0.00	0.00	0.00	
15,500.00	90.00	268.45	6,615.00	-2,406.90	-8,286.92	8,626.38	0.00	0.00	0.00	
15,600.00	90.00	268.45	6,615.00	-2,409.61	-8,386.89	8,723.77	0.00	0.00	0.00	
15,700.00	90.00	268.45	6,615.00	-2,412.32	-8,486.85	8,821.15	0.00	0.00	0.00	
15,800.00	90.00	268.45	6,615.00	-2,415.03	-8,586.81	8,918.54	0.00	0.00	0.00	
15,900.00	90.00	268.45	6,615.00	-2,417.74	-8,686.78	9,015.92	0.00	0.00	0.00	
16,000.00	90.00	268.45	6,615.00	-2,420.45	-8,786.74	9,113.31	0.00	0.00	0.00	
16,100.00	90.00	268.45	6,615.00	-2,423.16	-8,886.70	9,210.69	0.00	0.00	0.00	
16,200.00	90.00	268.45	6,615.00	-2,425.87	-8,986.67	9,308.08	0.00	0.00	0.00	
16,300.00	90.00	268.45	6,615.00	-2,428.58	-9,086.63	9,405.46	0.00	0.00	0.00	
16,400.00	90.00	268.45	6,615.00	-2,431.29	-9,186.59	9,502.85	0.00	0.00	0.00	
16,501.42	90.00	268.45	6,615.00	-2,434.03	-9,287.98	9,601.62	0.00	0.00	0.00	
TD at 16501.42										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
WALT 17W-11N - LP	0.00	0.00	6,615.00	-2,185.87	-130.85	1,450,843.37	3,164,041.09	40° 34' 10.074 N		104° 54' 34.290 W
- plan hits target center										
- Point										
WALT 17W-11N - PBHL	0.00	0.00	6,615.00	-2,434.03	-9,287.98	1,450,534.18	3,154,885.82	40° 34' 7.604 N		104° 56' 32.950 W
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,037.14	3,835.00	SUSSEX				
4,438.87	4,210.00	SHANNON				
7,230.09	6,605.00	NIOBRARA				

## Planning Report

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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5136.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5136.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-11N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,350.93	1,327.51	-186.06	41.38	Start 5050.81 hold at 1350.93 MD
6,401.74	6,042.27	-1,954.43	434.70	Start DLS 10.00 TFO 100.27
7,340.93	6,615.00	-2,185.87	-130.85	Start 9160.49 hold at 7340.93 MD
16,501.42	6,615.00	-2,434.03	-9,287.98	TD at 16501.42