

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 17-T7N-R67W**

**WALT 17W-20-7C**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**16 August, 2018**



Project: WELD COUNTY  
Site: Sec 17-T7N-R67W  
Well: WALT 17W-20-7C  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL 1



Azimuths to True North  
Magnetic North: 8.18°

Magnetic Field  
Strength: 52333.1snT  
Dip Angle: 66.94°  
Date: 8/15/2018  
Model: IGRF2015

#### WELL DETAILS: WALT 17W-20-7C

+N/-S	+E/-W	Northing	Easting	5105.00	Latitude	Longitude	Slot
0.00	0.00	1453141.91	3164157.74	40° 34'	32.779 N	104° 54' 32.580 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	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
3	1045.09	6.90	135.57	1044.26	-14.83	14.53	2.00	135.57	-13.23	
4	6326.71	6.90	135.57	6287.60	-468.09	458.81	0.00	0.00	-417.83	
5	7273.62	90.00	268.47	6905.00	-538.09	-110.56	10.00	132.69	155.41	WALT 17W-7C - LP
6	16450.04	90.00	268.47	6905.00	-783.34	-9283.70	0.00	0.00	9316.69	WALT 17W-7C - PB

#### ANNOTATIONS

+N/-S	+E/-W	Vsect	Departure	Annotation
0.00	0.00	0.00	0.00	Start Build 2.00
-14.83	14.53	-13.23	20.76	Start 5281.62 hold at 1045.09 MD
-468.09	458.81	-417.83	655.45	Start DLS 10.00 TFO 132.69
-538.09	-110.56	155.41	1241.04	Start 9176.42 hold at 7273.62 MD
-783.34	-9283.70	9316.69	10417.46	TD at 16450.04

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT 17W-7C - LP	6905.00	-538.09	-110.56	1452603.10	3164050.77	40° 34' 27.462 N	104° 54' 34.013 W	Point
- plan hits target center								
WALT 17W-7C - PBHL	6905.00	-783.34	-9283.70	1452296.72	3154879.47	40° 34' 25.021 N	104° 56' 32.888 W	Point
- plan hits target center								

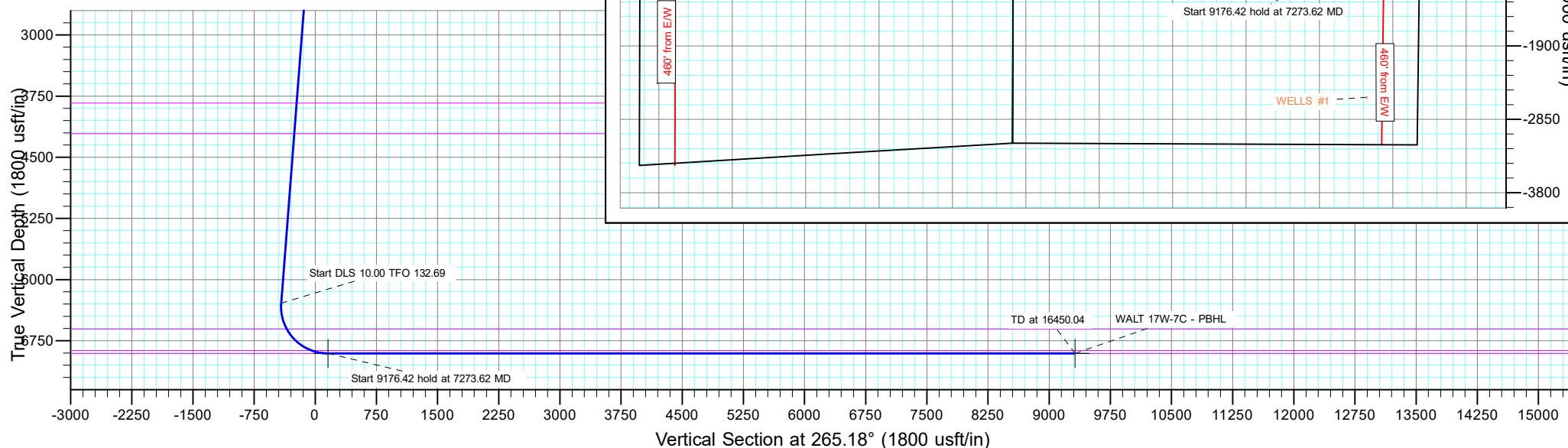
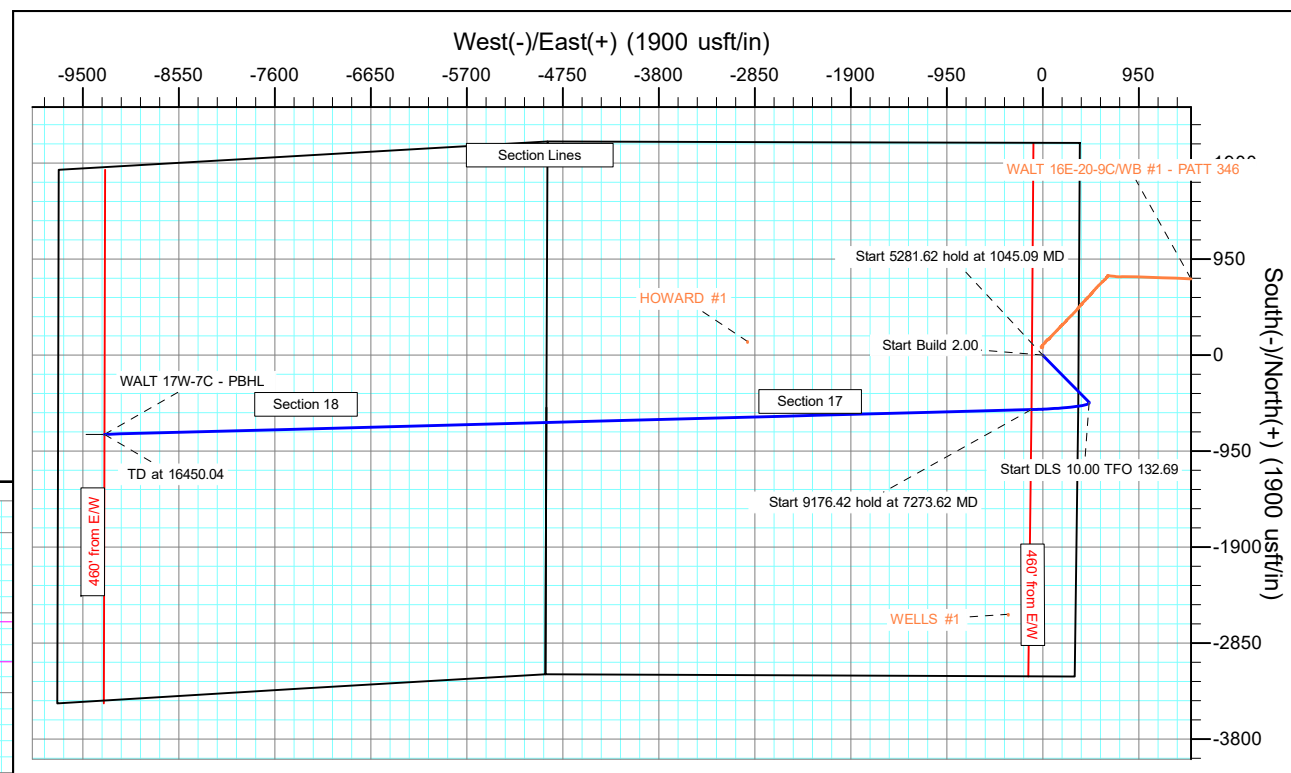
#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3835.00	3856.21	SUSSEX
4210.00	4233.94	SHANNON
6605.00	6656.79	NIOBRARA
6870.00	7071.93	FORT HAYS
6905.00	7273.62	CODELL

#### 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:  
2101' FNL, 353' FEL  
Sec 17-T7N-R67W  
LP:  
2640' FNL, 460' FEL  
Sec 17-T7N-R67W  
BHL:  
2630' FSL, 460' FWL  
Sec 18-T7N-R67W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<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-20-7C					
Well Position	+N/-S	-2,099.90 usft	Northing:	1,453,141.91 usft	Latitude:	40° 34' 32.779 N
	+E/-W	-367.79 usft	Easting:	3,164,157.74 usft	Longitude:	104° 54' 32.580 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,105.00 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	52,333.11227167

<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	265.18

<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	16,450.04	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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,045.09	6.90	135.57	1,044.26	-14.83	14.53	2.00	2.00	0.00	135.57	
6,326.71	6.90	135.57	6,287.60	-468.09	458.81	0.00	0.00	0.00	0.00	
7,273.62	90.00	268.47	6,905.00	-538.09	-110.56	10.00	8.78	14.03	132.69	WALT 17W-7C - LP
16,450.04	90.00	268.47	6,905.00	-783.34	-9,283.70	0.00	0.00	0.00	0.00	WALT 17W-7C - PBH

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<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
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
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
800.00	2.00	135.57	799.98	-1.25	1.22	-1.11	2.00	2.00	0.00
900.00	4.00	135.57	899.84	-4.98	4.88	-4.45	2.00	2.00	0.00
1,000.00	6.00	135.57	999.45	-11.21	10.99	-10.00	2.00	2.00	0.00
1,045.09	6.90	135.57	1,044.26	-14.83	14.53	-13.23	2.00	2.00	0.00
Start 5281.62 hold at 1045.09 MD									
1,100.00	6.90	135.57	1,098.77	-19.54	19.15	-17.44	0.00	0.00	0.00
1,200.00	6.90	135.57	1,198.04	-28.12	27.56	-25.10	0.00	0.00	0.00
1,300.00	6.90	135.57	1,297.32	-36.70	35.97	-32.76	0.00	0.00	0.00
1,400.00	6.90	135.57	1,396.59	-45.28	44.39	-40.42	0.00	0.00	0.00
1,500.00	6.90	135.57	1,495.87	-53.87	52.80	-48.08	0.00	0.00	0.00
1,600.00	6.90	135.57	1,595.14	-62.45	61.21	-55.74	0.00	0.00	0.00
1,700.00	6.90	135.57	1,694.42	-71.03	69.62	-63.40	0.00	0.00	0.00
1,800.00	6.90	135.57	1,793.70	-79.61	78.03	-71.06	0.00	0.00	0.00
1,900.00	6.90	135.57	1,892.97	-88.19	86.44	-78.72	0.00	0.00	0.00
2,000.00	6.90	135.57	1,992.25	-96.78	94.86	-86.38	0.00	0.00	0.00
2,100.00	6.90	135.57	2,091.52	-105.36	103.27	-94.04	0.00	0.00	0.00
2,200.00	6.90	135.57	2,190.80	-113.94	111.68	-101.70	0.00	0.00	0.00
2,300.00	6.90	135.57	2,290.07	-122.52	120.09	-109.36	0.00	0.00	0.00
2,400.00	6.90	135.57	2,389.35	-131.10	128.50	-117.02	0.00	0.00	0.00
2,500.00	6.90	135.57	2,488.62	-139.69	136.91	-124.69	0.00	0.00	0.00
2,600.00	6.90	135.57	2,587.90	-148.27	145.33	-132.35	0.00	0.00	0.00
2,700.00	6.90	135.57	2,687.17	-156.85	153.74	-140.01	0.00	0.00	0.00
2,800.00	6.90	135.57	2,786.45	-165.43	162.15	-147.67	0.00	0.00	0.00
2,900.00	6.90	135.57	2,885.72	-174.01	170.56	-155.33	0.00	0.00	0.00
3,000.00	6.90	135.57	2,985.00	-182.60	178.97	-162.99	0.00	0.00	0.00
3,100.00	6.90	135.57	3,084.27	-191.18	187.39	-170.65	0.00	0.00	0.00
3,200.00	6.90	135.57	3,183.55	-199.76	195.80	-178.31	0.00	0.00	0.00
3,300.00	6.90	135.57	3,282.83	-208.34	204.21	-185.97	0.00	0.00	0.00
3,400.00	6.90	135.57	3,382.10	-216.92	212.62	-193.63	0.00	0.00	0.00
3,500.00	6.90	135.57	3,481.38	-225.51	221.03	-201.29	0.00	0.00	0.00
3,600.00	6.90	135.57	3,580.65	-234.09	229.44	-208.95	0.00	0.00	0.00
3,700.00	6.90	135.57	3,679.93	-242.67	237.86	-216.61	0.00	0.00	0.00
3,800.00	6.90	135.57	3,779.20	-251.25	246.27	-224.27	0.00	0.00	0.00
3,856.21	6.90	135.57	3,835.00	-256.07	251.00	-228.58	0.00	0.00	0.00
SUSSEX									
3,900.00	6.90	135.57	3,878.48	-259.83	254.68	-231.93	0.00	0.00	0.00
4,000.00	6.90	135.57	3,977.75	-268.41	263.09	-239.59	0.00	0.00	0.00
4,100.00	6.90	135.57	4,077.03	-277.00	271.50	-247.25	0.00	0.00	0.00
4,200.00	6.90	135.57	4,176.30	-285.58	279.91	-254.91	0.00	0.00	0.00
4,233.94	6.90	135.57	4,210.00	-288.49	282.77	-257.51	0.00	0.00	0.00
SHANNON									
4,300.00	6.90	135.57	4,275.58	-294.16	288.33	-262.57	0.00	0.00	0.00
4,400.00	6.90	135.57	4,374.85	-302.74	296.74	-270.23	0.00	0.00	0.00
4,500.00	6.90	135.57	4,474.13	-311.32	305.15	-277.89	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<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	6.90	135.57	4,573.41	-319.91	313.56	-285.55	0.00	0.00	0.00
4,700.00	6.90	135.57	4,672.68	-328.49	321.97	-293.21	0.00	0.00	0.00
4,800.00	6.90	135.57	4,771.96	-337.07	330.38	-300.87	0.00	0.00	0.00
4,900.00	6.90	135.57	4,871.23	-345.65	338.80	-308.53	0.00	0.00	0.00
5,000.00	6.90	135.57	4,970.51	-354.23	347.21	-316.19	0.00	0.00	0.00
5,100.00	6.90	135.57	5,069.78	-362.82	355.62	-323.86	0.00	0.00	0.00
5,200.00	6.90	135.57	5,169.06	-371.40	364.03	-331.52	0.00	0.00	0.00
5,300.00	6.90	135.57	5,268.33	-379.98	372.44	-339.18	0.00	0.00	0.00
5,400.00	6.90	135.57	5,367.61	-388.56	380.86	-346.84	0.00	0.00	0.00
5,500.00	6.90	135.57	5,466.88	-397.14	389.27	-354.50	0.00	0.00	0.00
5,600.00	6.90	135.57	5,566.16	-405.73	397.68	-362.16	0.00	0.00	0.00
5,700.00	6.90	135.57	5,665.43	-414.31	406.09	-369.82	0.00	0.00	0.00
5,800.00	6.90	135.57	5,764.71	-422.89	414.50	-377.48	0.00	0.00	0.00
5,900.00	6.90	135.57	5,863.98	-431.47	422.91	-385.14	0.00	0.00	0.00
6,000.00	6.90	135.57	5,963.26	-440.05	431.33	-392.80	0.00	0.00	0.00
6,100.00	6.90	135.57	6,062.54	-448.64	439.74	-400.46	0.00	0.00	0.00
6,200.00	6.90	135.57	6,161.81	-457.22	448.15	-408.12	0.00	0.00	0.00
6,300.00	6.90	135.57	6,261.09	-465.80	456.56	-415.78	0.00	0.00	0.00
6,326.71	6.90	135.57	6,287.60	-468.09	458.81	-417.83	0.00	0.00	0.00
Start DLS 10.00 TFO 132.69									
6,350.00	5.59	153.43	6,310.76	-470.11	460.29	-419.14	10.00	-5.63	76.68
6,400.00	5.71	206.01	6,360.54	-474.52	460.29	-418.77	10.00	0.24	105.15
6,450.00	9.16	235.09	6,410.13	-479.04	455.94	-414.04	10.00	6.89	58.17
6,500.00	13.60	246.97	6,459.14	-483.62	447.26	-405.01	10.00	8.89	23.74
6,550.00	18.33	252.94	6,507.21	-488.23	434.32	-391.74	10.00	9.46	11.95
6,600.00	23.17	256.51	6,553.95	-492.83	417.23	-374.32	10.00	9.68	7.14
6,650.00	28.06	258.89	6,599.02	-497.40	396.11	-352.89	10.00	9.79	4.77
6,656.79	28.73	259.16	6,605.00	-498.01	392.94	-349.68	10.00	9.83	3.91
NIOBRARA									
6,700.00	32.99	260.62	6,642.08	-501.88	371.13	-327.62	10.00	9.85	3.37
6,750.00	37.93	261.93	6,682.80	-506.26	342.47	-298.69	10.00	9.88	2.64
6,800.00	42.88	262.99	6,720.86	-510.50	310.35	-266.33	10.00	9.91	2.11
6,850.00	47.84	263.86	6,755.98	-514.56	275.02	-230.78	10.00	9.92	1.75
6,900.00	52.81	264.61	6,787.90	-518.41	236.74	-192.31	10.00	9.93	1.49
6,950.00	57.78	265.26	6,816.36	-522.03	195.81	-151.22	10.00	9.94	1.31
7,000.00	62.75	265.85	6,841.15	-525.39	152.53	-107.82	10.00	9.95	1.17
7,050.00	67.73	266.39	6,862.08	-528.45	107.25	-62.44	10.00	9.95	1.07
7,071.93	69.91	266.61	6,870.00	-529.70	86.84	-42.00	10.00	9.96	1.02
FORT HAYS									
7,100.00	72.71	266.89	6,879.00	-531.21	60.29	-15.42	10.00	9.96	0.98
7,150.00	77.69	267.36	6,891.77	-533.63	12.03	32.88	10.00	9.96	0.95
7,200.00	82.67	267.81	6,900.29	-535.71	-37.18	82.09	10.00	9.96	0.91
7,250.00	87.65	268.26	6,904.52	-537.41	-86.95	131.83	10.00	9.96	0.89
7,273.62	90.00	268.47	6,905.00	-538.09	-110.56	155.41	10.00	9.96	0.88
Start 9176.42 hold at 7273.62 MD - CODELL									
7,300.00	90.00	268.47	6,905.00	-538.79	-136.93	181.74	0.00	0.00	0.00
7,400.00	90.00	268.47	6,905.00	-541.46	-236.89	281.58	0.00	0.00	0.00
7,500.00	90.00	268.47	6,905.00	-544.14	-336.86	381.41	0.00	0.00	0.00
7,600.00	90.00	268.47	6,905.00	-546.81	-436.82	481.25	0.00	0.00	0.00
7,700.00	90.00	268.47	6,905.00	-549.48	-536.79	581.08	0.00	0.00	0.00
7,800.00	90.00	268.47	6,905.00	-552.15	-636.75	680.92	0.00	0.00	0.00
7,900.00	90.00	268.47	6,905.00	-554.83	-736.71	780.75	0.00	0.00	0.00
8,000.00	90.00	268.47	6,905.00	-557.50	-836.68	880.59	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<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)	
8,100.00	90.00	268.47	6,905.00	-560.17	-936.64	980.42	0.00	0.00	0.00	
8,200.00	90.00	268.47	6,905.00	-562.84	-1,036.61	1,080.26	0.00	0.00	0.00	
8,300.00	90.00	268.47	6,905.00	-565.52	-1,136.57	1,180.09	0.00	0.00	0.00	
8,400.00	90.00	268.47	6,905.00	-568.19	-1,236.54	1,279.93	0.00	0.00	0.00	
8,500.00	90.00	268.47	6,905.00	-570.86	-1,336.50	1,379.76	0.00	0.00	0.00	
8,600.00	90.00	268.47	6,905.00	-573.53	-1,436.46	1,479.60	0.00	0.00	0.00	
8,700.00	90.00	268.47	6,905.00	-576.21	-1,536.43	1,579.43	0.00	0.00	0.00	
8,800.00	90.00	268.47	6,905.00	-578.88	-1,636.39	1,679.27	0.00	0.00	0.00	
8,900.00	90.00	268.47	6,905.00	-581.55	-1,736.36	1,779.10	0.00	0.00	0.00	
9,000.00	90.00	268.47	6,905.00	-584.23	-1,836.32	1,878.94	0.00	0.00	0.00	
9,100.00	90.00	268.47	6,905.00	-586.90	-1,936.28	1,978.77	0.00	0.00	0.00	
9,200.00	90.00	268.47	6,905.00	-589.57	-2,036.25	2,078.61	0.00	0.00	0.00	
9,300.00	90.00	268.47	6,905.00	-592.24	-2,136.21	2,178.44	0.00	0.00	0.00	
9,400.00	90.00	268.47	6,905.00	-594.92	-2,236.18	2,278.28	0.00	0.00	0.00	
9,500.00	90.00	268.47	6,905.00	-597.59	-2,336.14	2,378.11	0.00	0.00	0.00	
9,600.00	90.00	268.47	6,905.00	-600.26	-2,436.11	2,477.95	0.00	0.00	0.00	
9,700.00	90.00	268.47	6,905.00	-602.93	-2,536.07	2,577.78	0.00	0.00	0.00	
9,800.00	90.00	268.47	6,905.00	-605.61	-2,636.03	2,677.62	0.00	0.00	0.00	
9,900.00	90.00	268.47	6,905.00	-608.28	-2,736.00	2,777.45	0.00	0.00	0.00	
10,000.00	90.00	268.47	6,905.00	-610.95	-2,835.96	2,877.29	0.00	0.00	0.00	
10,100.00	90.00	268.47	6,905.00	-613.62	-2,935.93	2,977.12	0.00	0.00	0.00	
10,200.00	90.00	268.47	6,905.00	-616.30	-3,035.89	3,076.96	0.00	0.00	0.00	
10,300.00	90.00	268.47	6,905.00	-618.97	-3,135.86	3,176.80	0.00	0.00	0.00	
10,400.00	90.00	268.47	6,905.00	-621.64	-3,235.82	3,276.63	0.00	0.00	0.00	
10,500.00	90.00	268.47	6,905.00	-624.32	-3,335.78	3,376.47	0.00	0.00	0.00	
10,600.00	90.00	268.47	6,905.00	-626.99	-3,435.75	3,476.30	0.00	0.00	0.00	
10,700.00	90.00	268.47	6,905.00	-629.66	-3,535.71	3,576.14	0.00	0.00	0.00	
10,800.00	90.00	268.47	6,905.00	-632.33	-3,635.68	3,675.97	0.00	0.00	0.00	
10,900.00	90.00	268.47	6,905.00	-635.01	-3,735.64	3,775.81	0.00	0.00	0.00	
11,000.00	90.00	268.47	6,905.00	-637.68	-3,835.61	3,875.64	0.00	0.00	0.00	
11,100.00	90.00	268.47	6,905.00	-640.35	-3,935.57	3,975.48	0.00	0.00	0.00	
11,200.00	90.00	268.47	6,905.00	-643.02	-4,035.53	4,075.31	0.00	0.00	0.00	
11,300.00	90.00	268.47	6,905.00	-645.70	-4,135.50	4,175.15	0.00	0.00	0.00	
11,400.00	90.00	268.47	6,905.00	-648.37	-4,235.46	4,274.98	0.00	0.00	0.00	
11,500.00	90.00	268.47	6,905.00	-651.04	-4,335.43	4,374.82	0.00	0.00	0.00	
11,600.00	90.00	268.47	6,905.00	-653.71	-4,435.39	4,474.65	0.00	0.00	0.00	
11,700.00	90.00	268.47	6,905.00	-656.39	-4,535.36	4,574.49	0.00	0.00	0.00	
11,800.00	90.00	268.47	6,905.00	-659.06	-4,635.32	4,674.32	0.00	0.00	0.00	
11,900.00	90.00	268.47	6,905.00	-661.73	-4,735.28	4,774.16	0.00	0.00	0.00	
12,000.00	90.00	268.47	6,905.00	-664.41	-4,835.25	4,873.99	0.00	0.00	0.00	
12,100.00	90.00	268.47	6,905.00	-667.08	-4,935.21	4,973.83	0.00	0.00	0.00	
12,200.00	90.00	268.47	6,905.00	-669.75	-5,035.18	5,073.66	0.00	0.00	0.00	
12,300.00	90.00	268.47	6,905.00	-672.42	-5,135.14	5,173.50	0.00	0.00	0.00	
12,400.00	90.00	268.47	6,905.00	-675.10	-5,235.11	5,273.33	0.00	0.00	0.00	
12,500.00	90.00	268.47	6,905.00	-677.77	-5,335.07	5,373.17	0.00	0.00	0.00	
12,600.00	90.00	268.47	6,905.00	-680.44	-5,435.03	5,473.00	0.00	0.00	0.00	
12,700.00	90.00	268.47	6,905.00	-683.11	-5,535.00	5,572.84	0.00	0.00	0.00	
12,800.00	90.00	268.47	6,905.00	-685.79	-5,634.96	5,672.67	0.00	0.00	0.00	
12,900.00	90.00	268.47	6,905.00	-688.46	-5,734.93	5,772.51	0.00	0.00	0.00	
13,000.00	90.00	268.47	6,905.00	-691.13	-5,834.89	5,872.34	0.00	0.00	0.00	
13,100.00	90.00	268.47	6,905.00	-693.80	-5,934.86	5,972.18	0.00	0.00	0.00	
13,200.00	90.00	268.47	6,905.00	-696.48	-6,034.82	6,072.01	0.00	0.00	0.00	
13,300.00	90.00	268.47	6,905.00	-699.15	-6,134.78	6,171.85	0.00	0.00	0.00	
13,400.00	90.00	268.47	6,905.00	-701.82	-6,234.75	6,271.68	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<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)	
13,500.00	90.00	268.47	6,905.00	-704.50	-6,334.71	6,371.52	0.00	0.00	0.00	
13,600.00	90.00	268.47	6,905.00	-707.17	-6,434.68	6,471.35	0.00	0.00	0.00	
13,700.00	90.00	268.47	6,905.00	-709.84	-6,534.64	6,571.19	0.00	0.00	0.00	
13,800.00	90.00	268.47	6,905.00	-712.51	-6,634.61	6,671.02	0.00	0.00	0.00	
13,900.00	90.00	268.47	6,905.00	-715.19	-6,734.57	6,770.86	0.00	0.00	0.00	
14,000.00	90.00	268.47	6,905.00	-717.86	-6,834.53	6,870.69	0.00	0.00	0.00	
14,100.00	90.00	268.47	6,905.00	-720.53	-6,934.50	6,970.53	0.00	0.00	0.00	
14,200.00	90.00	268.47	6,905.00	-723.20	-7,034.46	7,070.36	0.00	0.00	0.00	
14,300.00	90.00	268.47	6,905.00	-725.88	-7,134.43	7,170.20	0.00	0.00	0.00	
14,400.00	90.00	268.47	6,905.00	-728.55	-7,234.39	7,270.03	0.00	0.00	0.00	
14,500.00	90.00	268.47	6,905.00	-731.22	-7,334.36	7,369.87	0.00	0.00	0.00	
14,600.00	90.00	268.47	6,905.00	-733.89	-7,434.32	7,469.70	0.00	0.00	0.00	
14,700.00	90.00	268.47	6,905.00	-736.57	-7,534.28	7,569.54	0.00	0.00	0.00	
14,800.00	90.00	268.47	6,905.00	-739.24	-7,634.25	7,669.37	0.00	0.00	0.00	
14,900.00	90.00	268.47	6,905.00	-741.91	-7,734.21	7,769.21	0.00	0.00	0.00	
15,000.00	90.00	268.47	6,905.00	-744.59	-7,834.18	7,869.04	0.00	0.00	0.00	
15,100.00	90.00	268.47	6,905.00	-747.26	-7,934.14	7,968.88	0.00	0.00	0.00	
15,200.00	90.00	268.47	6,905.00	-749.93	-8,034.11	8,068.71	0.00	0.00	0.00	
15,300.00	90.00	268.47	6,905.00	-752.60	-8,134.07	8,168.55	0.00	0.00	0.00	
15,400.00	90.00	268.47	6,905.00	-755.28	-8,234.03	8,268.38	0.00	0.00	0.00	
15,500.00	90.00	268.47	6,905.00	-757.95	-8,334.00	8,368.22	0.00	0.00	0.00	
15,600.00	90.00	268.47	6,905.00	-760.62	-8,433.96	8,468.05	0.00	0.00	0.00	
15,700.00	90.00	268.47	6,905.00	-763.29	-8,533.93	8,567.89	0.00	0.00	0.00	
15,800.00	90.00	268.47	6,905.00	-765.97	-8,633.89	8,667.72	0.00	0.00	0.00	
15,900.00	90.00	268.47	6,905.00	-768.64	-8,733.86	8,767.56	0.00	0.00	0.00	
16,000.00	90.00	268.47	6,905.00	-771.31	-8,833.82	8,867.39	0.00	0.00	0.00	
16,100.00	90.00	268.47	6,905.00	-773.98	-8,933.78	8,967.23	0.00	0.00	0.00	
16,200.00	90.00	268.47	6,905.00	-776.66	-9,033.75	9,067.06	0.00	0.00	0.00	
16,300.00	90.00	268.47	6,905.00	-779.33	-9,133.71	9,166.90	0.00	0.00	0.00	
16,400.00	90.00	268.47	6,905.00	-782.00	-9,233.68	9,266.73	0.00	0.00	0.00	
16,450.04	90.00	268.47	6,905.00	-783.34	-9,283.70	9,316.69	0.00	0.00	0.00	
TD at 16450.04										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
WALT 17W-7C - PBHL - hit/miss target - Shape - Point	0.00	0.00	6,905.00	-783.34	-9,283.70	1,452,296.72	3,154,879.47	40° 34' 25.021 N		104° 56' 32.888 W
WALT 17W-7C - LP - plan hits target center - Point	0.00	0.00	6,905.00	-538.09	-110.56	1,452,603.10	3,164,050.77	40° 34' 27.462 N		104° 54' 34.013 W

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-7C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5134.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5134.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-7C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,856.21	3,835.00	SUSSEX			
4,233.94	4,210.00	SHANNON			
6,656.79	6,605.00	NIOBRARA			
7,071.93	6,870.00	FORT HAYS			
7,273.62	6,905.00	CODELL			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
700.00	700.00	0.00	0.00	Start Build 2.00
1,045.09	1,044.26	-14.83	14.53	Start 5281.62 hold at 1045.09 MD
6,326.71	6,287.60	-468.09	458.81	Start DLS 10.00 TFO 132.69
7,273.62	6,905.00	-538.09	-110.56	Start 9176.42 hold at 7273.62 MD
16,450.04	6,905.00	-783.34	-9,283.70	TD at 16450.04