

EXTRACTION OIL & GAS

WELD COUNTY

SEC 17-T7N-R67W

WALT WEST 17W-20-07N

OWB

Plan: PROPOSAL 1

Standard Planning Report

20 August, 2021



Project: WELD COUNTY
Site: SEC 17-T7N-R67W
Well: WALT WEST 17W-20-07N
Wellbore: OWB
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.22°

Magnetic Field
Strength: 52337.1nT
Dip Angle: 66.89°
Date: 8/15/2018
Model: IGRF2020

WELL DETAILS: WALT WEST 17W-20-07N

+N/-S	+E/-W	Northing	Easting	5105.00	Latitude	Longitude	Slot
0.00	0.00	1453030.05	3164157.37		40.575465°N	104.909054°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	1010.07	10.20	153.18	1007.38	-40.42	20.43	2.00	153.18	-14.84	
4	6408.75	10.20	153.18	6320.72	-893.75	451.77	0.00	0.00	-328.04	
5	7352.12	90.00	268.46	6929.00	-1008.04	-116.68	10.00	114.93	250.59	WALT WEST 17W-20-07N-LP
616523.23		90.00	268.46	6929.00	-1254.39	-9284.48	0.00	0.00	9368.83	WALT WEST 17W-20-07N-PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
1010.07	10.20	153.18	1007.38	-40.42	20.43	-14.84	45.29	Start 5398.68 hold at 1010.07 MD
6408.75	10.20	153.18	6320.72	-893.75	451.77	-328.04	1001.44	Start DLS 10.00 TFO 114.93
7352.12	90.00	268.46	6929.00	-1008.04	-116.68	250.59	1602.28	Start 9171.11 hold at 7352.12 MD
16523.23	90.00	268.46	6929.00	-1254.39	-9284.48	9368.83	10773.39	TD at 16523.23

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT WEST 17W-20-07N-LP	6929.00	-1008.04	-116.68	1452021.25	3164047.42	40.572698°N	104.909474°W	Point
- plan hits target center								
WALT WEST 17W-20-07N-PBHL	6929.00	-1254.39	-9284.48	1451713.82	3154881.46	40.572017°N	104.942475°W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
794.00	794.52	Fox Hills Base:
3454.00	3495.99	Parkman:
3974.00	4024.34	Sussex:
4554.00	4613.66	Shannon:
6897.00	7158.45	Sharon Springs (Confining Zone):
6919.00	7244.21	Niobrara:

PROJECT DETAILS: WELD COUNTY

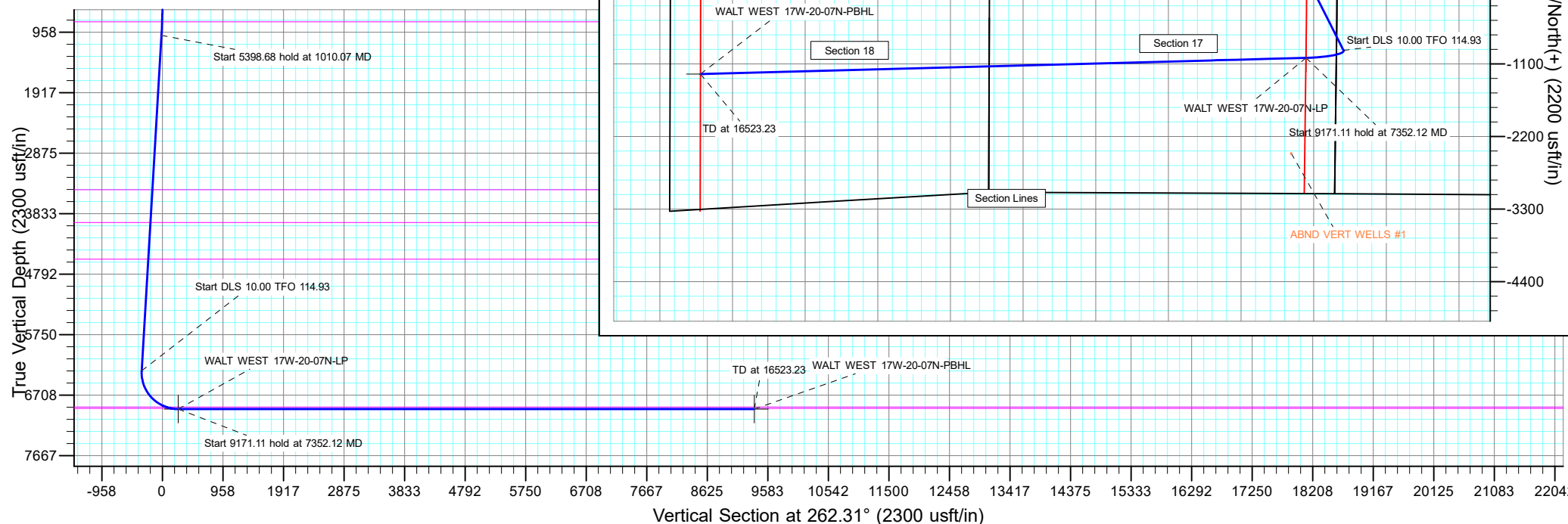
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

SHL:
2213' FNL, 354' FEL
Sec 17-T7N-R67W

LP:
2059' FSL, 460' FEL
Sec 17-T7N-R67W

BHL:
2048' FSL, 460' FWL
Sec 18-T7N-R67W



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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 17-T7N-R67W				
Site Position:		Northing:	1,455,244.22	usft	Latitude:	40.581536°N
From:	Lat/Long	Easting:	3,164,511.50	usft	Longitude:	104.907726°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well		WALT WEST 17W-20-07N				
Well Position	+N/-S	0.00 usft	Northing:	1,453,030.06 usft	Latitude:	40.575465°N
	+E/-W	0.00 usft	Easting:	3,164,157.37 usft	Longitude:	104.909054°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,105.00 usft
Grid Convergence:		0.38 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/15/2018	8.22	66.89	52,337.06176688

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	262.31	

Plan Survey Tool Program	Date	8/20/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	16,523.23 PROPOSAL 1 (OWB)	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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,010.07	10.20	153.18	1,007.38	-40.42	20.43	2.00	2.00	0.00	153.18	
6,408.75	10.20	153.18	6,320.72	-893.75	451.77	0.00	0.00	0.00	0.00	
7,352.12	90.00	268.46	6,929.00	-1,008.04	-116.68	10.00	8.46	12.22	114.93	WALT WEST 17W-20
16,523.23	90.00	268.46	6,929.00	-1,254.39	-9,284.48	0.00	0.00	0.00	0.00	WALT WEST 17W-20

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	153.18	599.98	-1.56	0.79	-0.57	2.00	2.00	0.00
700.00	4.00	153.18	699.84	-6.23	3.15	-2.29	2.00	2.00	0.00
794.52	5.89	153.18	794.00	-13.50	6.82	-4.95	2.00	2.00	0.00
Fox Hills Base:									
800.00	6.00	153.18	799.45	-14.01	7.08	-5.14	2.00	2.00	0.00
900.00	8.00	153.18	898.70	-24.88	12.58	-9.13	2.00	2.00	0.00
1,000.00	10.00	153.18	997.47	-38.84	19.63	-14.26	2.00	2.00	0.00
1,010.07	10.20	153.18	1,007.38	-40.42	20.43	-14.84	2.00	2.00	0.00
Start 5398.68 hold at 1010.07 MD									
1,100.00	10.20	153.18	1,095.89	-54.63	27.62	-20.05	0.00	0.00	0.00
1,200.00	10.20	153.18	1,194.31	-70.44	35.61	-25.85	0.00	0.00	0.00
1,300.00	10.20	153.18	1,292.73	-86.25	43.60	-31.66	0.00	0.00	0.00
1,400.00	10.20	153.18	1,391.15	-102.05	51.59	-37.46	0.00	0.00	0.00
1,500.00	10.20	153.18	1,489.56	-117.86	59.58	-43.26	0.00	0.00	0.00
1,600.00	10.20	153.18	1,587.98	-133.66	67.57	-49.06	0.00	0.00	0.00
1,700.00	10.20	153.18	1,686.40	-149.47	75.55	-54.86	0.00	0.00	0.00
1,800.00	10.20	153.18	1,784.82	-165.28	83.54	-60.66	0.00	0.00	0.00
1,900.00	10.20	153.18	1,883.24	-181.08	91.53	-66.47	0.00	0.00	0.00
2,000.00	10.20	153.18	1,981.66	-196.89	99.52	-72.27	0.00	0.00	0.00
2,100.00	10.20	153.18	2,080.08	-212.70	107.51	-78.07	0.00	0.00	0.00
2,200.00	10.20	153.18	2,178.50	-228.50	115.50	-83.87	0.00	0.00	0.00
2,300.00	10.20	153.18	2,276.92	-244.31	123.49	-89.67	0.00	0.00	0.00
2,400.00	10.20	153.18	2,375.34	-260.12	131.48	-95.47	0.00	0.00	0.00
2,500.00	10.20	153.18	2,473.76	-275.92	139.47	-101.27	0.00	0.00	0.00
2,600.00	10.20	153.18	2,572.17	-291.73	147.46	-107.08	0.00	0.00	0.00
2,700.00	10.20	153.18	2,670.59	-307.53	155.45	-112.88	0.00	0.00	0.00
2,800.00	10.20	153.18	2,769.01	-323.34	163.44	-118.68	0.00	0.00	0.00
2,900.00	10.20	153.18	2,867.43	-339.15	171.43	-124.48	0.00	0.00	0.00
3,000.00	10.20	153.18	2,965.85	-354.95	179.42	-130.28	0.00	0.00	0.00
3,100.00	10.20	153.18	3,064.27	-370.76	187.41	-136.08	0.00	0.00	0.00
3,200.00	10.20	153.18	3,162.69	-386.57	195.40	-141.89	0.00	0.00	0.00
3,300.00	10.20	153.18	3,261.11	-402.37	203.39	-147.69	0.00	0.00	0.00
3,400.00	10.20	153.18	3,359.53	-418.18	211.38	-153.49	0.00	0.00	0.00
3,495.99	10.20	153.18	3,454.00	-433.35	219.05	-159.06	0.00	0.00	0.00
Parkman:									
3,500.00	10.20	153.18	3,457.95	-433.98	219.37	-159.29	0.00	0.00	0.00
3,600.00	10.20	153.18	3,556.37	-449.79	227.36	-165.09	0.00	0.00	0.00
3,700.00	10.20	153.18	3,654.78	-465.60	235.35	-170.89	0.00	0.00	0.00
3,800.00	10.20	153.18	3,753.20	-481.40	243.34	-176.69	0.00	0.00	0.00
3,900.00	10.20	153.18	3,851.62	-497.21	251.33	-182.50	0.00	0.00	0.00
4,000.00	10.20	153.18	3,950.04	-513.02	259.32	-188.30	0.00	0.00	0.00
4,024.34	10.20	153.18	3,974.00	-516.86	261.27	-189.71	0.00	0.00	0.00
Sussex:									
4,100.00	10.20	153.18	4,048.46	-528.82	267.31	-194.10	0.00	0.00	0.00
4,200.00	10.20	153.18	4,146.88	-544.63	275.30	-199.90	0.00	0.00	0.00
4,300.00	10.20	153.18	4,245.30	-560.43	283.29	-205.70	0.00	0.00	0.00
4,400.00	10.20	153.18	4,343.72	-576.24	291.28	-211.50	0.00	0.00	0.00
4,500.00	10.20	153.18	4,442.14	-592.05	299.27	-217.31	0.00	0.00	0.00
4,600.00	10.20	153.18	4,540.56	-607.85	307.26	-223.11	0.00	0.00	0.00
4,613.66	10.20	153.18	4,554.00	-610.01	308.35	-223.90	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
Shannon:									
4,700.00	10.20	153.18	4,638.98	-623.66	315.25	-228.91	0.00	0.00	0.00
4,800.00	10.20	153.18	4,737.40	-639.47	323.24	-234.71	0.00	0.00	0.00
4,900.00	10.20	153.18	4,835.81	-655.27	331.23	-240.51	0.00	0.00	0.00
5,000.00	10.20	153.18	4,934.23	-671.08	339.22	-246.31	0.00	0.00	0.00
5,100.00	10.20	153.18	5,032.65	-686.89	347.21	-252.11	0.00	0.00	0.00
5,200.00	10.20	153.18	5,131.07	-702.69	355.20	-257.92	0.00	0.00	0.00
5,300.00	10.20	153.18	5,229.49	-718.50	363.19	-263.72	0.00	0.00	0.00
5,400.00	10.20	153.18	5,327.91	-734.30	371.18	-269.52	0.00	0.00	0.00
5,500.00	10.20	153.18	5,426.33	-750.11	379.17	-275.32	0.00	0.00	0.00
5,600.00	10.20	153.18	5,524.75	-765.92	387.16	-281.12	0.00	0.00	0.00
5,700.00	10.20	153.18	5,623.17	-781.72	395.15	-286.92	0.00	0.00	0.00
5,800.00	10.20	153.18	5,721.59	-797.53	403.14	-292.73	0.00	0.00	0.00
5,900.00	10.20	153.18	5,820.01	-813.34	411.13	-298.53	0.00	0.00	0.00
6,000.00	10.20	153.18	5,918.42	-829.14	419.12	-304.33	0.00	0.00	0.00
6,100.00	10.20	153.18	6,016.84	-844.95	427.11	-310.13	0.00	0.00	0.00
6,200.00	10.20	153.18	6,115.26	-860.75	435.10	-315.93	0.00	0.00	0.00
6,300.00	10.20	153.18	6,213.68	-876.56	443.09	-321.73	0.00	0.00	0.00
6,408.75	10.20	153.18	6,320.72	-893.75	451.77	-328.04	0.00	0.00	0.00
Start DLS 10.00 TFO 114.93									
6,450.00	9.24	177.14	6,361.39	-900.32	453.59	-328.96	10.00	-2.32	58.08
6,500.00	10.40	206.00	6,410.68	-908.39	451.81	-326.12	10.00	2.31	57.73
6,550.00	13.43	225.51	6,459.62	-916.53	445.69	-318.96	10.00	6.06	39.01
6,600.00	17.38	237.14	6,507.82	-924.65	435.26	-307.54	10.00	7.91	23.27
6,650.00	21.76	244.40	6,554.93	-932.71	420.62	-291.95	10.00	8.76	14.52
6,700.00	26.35	249.28	6,600.58	-940.65	401.87	-272.31	10.00	9.18	9.76
6,750.00	31.06	252.79	6,644.42	-948.40	379.15	-248.76	10.00	9.42	7.01
6,800.00	35.84	255.44	6,686.13	-955.90	352.64	-221.48	10.00	9.56	5.31
6,850.00	40.67	257.54	6,725.38	-963.10	322.55	-190.69	10.00	9.66	4.20
6,900.00	45.53	259.27	6,761.88	-969.94	289.09	-156.62	10.00	9.72	3.45
6,950.00	50.41	260.73	6,795.34	-976.37	252.52	-119.52	10.00	9.76	2.92
7,000.00	55.31	261.99	6,825.52	-982.34	213.12	-79.68	10.00	9.79	2.53
7,050.00	60.22	263.12	6,852.18	-987.80	171.20	-37.40	10.00	9.82	2.25
7,100.00	65.14	264.14	6,875.13	-992.73	127.06	7.00	10.00	9.84	2.04
7,150.00	70.06	265.08	6,894.18	-997.06	81.05	53.17	10.00	9.85	1.88
7,158.45	70.89	265.23	6,897.00	-997.74	73.12	61.13	10.00	9.85	1.81
Sharon Springs (Confining Zone):									
7,200.00	74.99	265.96	6,909.18	-1,000.78	33.52	100.77	10.00	9.86	1.76
7,244.21	79.35	266.71	6,919.00	-1,003.54	-9.49	143.77	10.00	9.86	1.69
Niobrara:									
7,250.00	79.92	266.80	6,920.04	-1,003.86	-15.17	149.44	10.00	9.87	1.66
7,300.00	84.86	267.62	6,926.66	-1,006.27	-64.66	198.80	10.00	9.87	1.64
7,352.12	90.00	268.46	6,929.00	-1,008.04	-116.68	250.59	10.00	9.87	1.61
Start 9171.11 hold at 7352.12 MD									
7,400.00	90.00	268.46	6,929.00	-1,009.33	-164.54	298.20	0.00	0.00	0.00
7,500.00	90.00	268.46	6,929.00	-1,012.02	-264.50	397.62	0.00	0.00	0.00
7,600.00	90.00	268.46	6,929.00	-1,014.70	-364.47	497.04	0.00	0.00	0.00
7,700.00	90.00	268.46	6,929.00	-1,017.39	-464.43	596.47	0.00	0.00	0.00
7,800.00	90.00	268.46	6,929.00	-1,020.07	-564.39	695.89	0.00	0.00	0.00
7,900.00	90.00	268.46	6,929.00	-1,022.76	-664.36	795.31	0.00	0.00	0.00
8,000.00	90.00	268.46	6,929.00	-1,025.45	-764.32	894.74	0.00	0.00	0.00
8,100.00	90.00	268.46	6,929.00	-1,028.13	-864.29	994.16	0.00	0.00	0.00
8,200.00	90.00	268.46	6,929.00	-1,030.82	-964.25	1,093.58	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)	
8,300.00	90.00	268.46	6,929.00	-1,033.51	-1,064.21	1,193.01	0.00	0.00	0.00	
8,400.00	90.00	268.46	6,929.00	-1,036.19	-1,164.18	1,292.43	0.00	0.00	0.00	
8,500.00	90.00	268.46	6,929.00	-1,038.88	-1,264.14	1,391.85	0.00	0.00	0.00	
8,600.00	90.00	268.46	6,929.00	-1,041.56	-1,364.11	1,491.28	0.00	0.00	0.00	
8,700.00	90.00	268.46	6,929.00	-1,044.25	-1,464.07	1,590.70	0.00	0.00	0.00	
8,800.00	90.00	268.46	6,929.00	-1,046.94	-1,564.03	1,690.12	0.00	0.00	0.00	
8,900.00	90.00	268.46	6,929.00	-1,049.62	-1,664.00	1,789.55	0.00	0.00	0.00	
9,000.00	90.00	268.46	6,929.00	-1,052.31	-1,763.96	1,888.97	0.00	0.00	0.00	
9,100.00	90.00	268.46	6,929.00	-1,054.99	-1,863.92	1,988.40	0.00	0.00	0.00	
9,200.00	90.00	268.46	6,929.00	-1,057.68	-1,963.89	2,087.82	0.00	0.00	0.00	
9,300.00	90.00	268.46	6,929.00	-1,060.37	-2,063.85	2,187.24	0.00	0.00	0.00	
9,400.00	90.00	268.46	6,929.00	-1,063.05	-2,163.82	2,286.67	0.00	0.00	0.00	
9,500.00	90.00	268.46	6,929.00	-1,065.74	-2,263.78	2,386.09	0.00	0.00	0.00	
9,600.00	90.00	268.46	6,929.00	-1,068.43	-2,363.74	2,485.51	0.00	0.00	0.00	
9,700.00	90.00	268.46	6,929.00	-1,071.11	-2,463.71	2,584.94	0.00	0.00	0.00	
9,800.00	90.00	268.46	6,929.00	-1,073.80	-2,563.67	2,684.36	0.00	0.00	0.00	
9,900.00	90.00	268.46	6,929.00	-1,076.48	-2,663.64	2,783.78	0.00	0.00	0.00	
10,000.00	90.00	268.46	6,929.00	-1,079.17	-2,763.60	2,883.21	0.00	0.00	0.00	
10,100.00	90.00	268.46	6,929.00	-1,081.86	-2,863.56	2,982.63	0.00	0.00	0.00	
10,200.00	90.00	268.46	6,929.00	-1,084.54	-2,963.53	3,082.05	0.00	0.00	0.00	
10,300.00	90.00	268.46	6,929.00	-1,087.23	-3,063.49	3,181.48	0.00	0.00	0.00	
10,400.00	90.00	268.46	6,929.00	-1,089.91	-3,163.46	3,280.90	0.00	0.00	0.00	
10,500.00	90.00	268.46	6,929.00	-1,092.60	-3,263.42	3,380.32	0.00	0.00	0.00	
10,600.00	90.00	268.46	6,929.00	-1,095.29	-3,363.38	3,479.75	0.00	0.00	0.00	
10,700.00	90.00	268.46	6,929.00	-1,097.97	-3,463.35	3,579.17	0.00	0.00	0.00	
10,800.00	90.00	268.46	6,929.00	-1,100.66	-3,563.31	3,678.60	0.00	0.00	0.00	
10,900.00	90.00	268.46	6,929.00	-1,103.34	-3,663.28	3,778.02	0.00	0.00	0.00	
11,000.00	90.00	268.46	6,929.00	-1,106.03	-3,763.24	3,877.44	0.00	0.00	0.00	
11,100.00	90.00	268.46	6,929.00	-1,108.72	-3,863.20	3,976.87	0.00	0.00	0.00	
11,200.00	90.00	268.46	6,929.00	-1,111.40	-3,963.17	4,076.29	0.00	0.00	0.00	
11,300.00	90.00	268.46	6,929.00	-1,114.09	-4,063.13	4,175.71	0.00	0.00	0.00	
11,400.00	90.00	268.46	6,929.00	-1,116.78	-4,163.09	4,275.14	0.00	0.00	0.00	
11,500.00	90.00	268.46	6,929.00	-1,119.46	-4,263.06	4,374.56	0.00	0.00	0.00	
11,600.00	90.00	268.46	6,929.00	-1,122.15	-4,363.02	4,473.98	0.00	0.00	0.00	
11,700.00	90.00	268.46	6,929.00	-1,124.83	-4,462.99	4,573.41	0.00	0.00	0.00	
11,800.00	90.00	268.46	6,929.00	-1,127.52	-4,562.95	4,672.83	0.00	0.00	0.00	
11,900.00	90.00	268.46	6,929.00	-1,130.21	-4,662.91	4,772.25	0.00	0.00	0.00	
12,000.00	90.00	268.46	6,929.00	-1,132.89	-4,762.88	4,871.68	0.00	0.00	0.00	
12,100.00	90.00	268.46	6,929.00	-1,135.58	-4,862.84	4,971.10	0.00	0.00	0.00	
12,200.00	90.00	268.46	6,929.00	-1,138.26	-4,962.81	5,070.52	0.00	0.00	0.00	
12,300.00	90.00	268.46	6,929.00	-1,140.95	-5,062.77	5,169.95	0.00	0.00	0.00	
12,400.00	90.00	268.46	6,929.00	-1,143.64	-5,162.73	5,269.37	0.00	0.00	0.00	
12,500.00	90.00	268.46	6,929.00	-1,146.32	-5,262.70	5,368.79	0.00	0.00	0.00	
12,600.00	90.00	268.46	6,929.00	-1,149.01	-5,362.66	5,468.22	0.00	0.00	0.00	
12,700.00	90.00	268.46	6,929.00	-1,151.69	-5,462.63	5,567.64	0.00	0.00	0.00	
12,800.00	90.00	268.46	6,929.00	-1,154.38	-5,562.59	5,667.07	0.00	0.00	0.00	
12,900.00	90.00	268.46	6,929.00	-1,157.07	-5,662.55	5,766.49	0.00	0.00	0.00	
13,000.00	90.00	268.46	6,929.00	-1,159.75	-5,762.52	5,865.91	0.00	0.00	0.00	
13,100.00	90.00	268.46	6,929.00	-1,162.44	-5,862.48	5,965.34	0.00	0.00	0.00	
13,200.00	90.00	268.46	6,929.00	-1,165.13	-5,962.45	6,064.76	0.00	0.00	0.00	
13,300.00	90.00	268.46	6,929.00	-1,167.81	-6,062.41	6,164.18	0.00	0.00	0.00	
13,400.00	90.00	268.46	6,929.00	-1,170.50	-6,162.37	6,263.61	0.00	0.00	0.00	
13,500.00	90.00	268.46	6,929.00	-1,173.18	-6,262.34	6,363.03	0.00	0.00	0.00	
13,600.00	90.00	268.46	6,929.00	-1,175.87	-6,362.30	6,462.45	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)	
13,700.00	90.00	268.46	6,929.00	-1,178.56	-6,462.26	6,561.88	0.00	0.00	0.00	
13,800.00	90.00	268.46	6,929.00	-1,181.24	-6,562.23	6,661.30	0.00	0.00	0.00	
13,900.00	90.00	268.46	6,929.00	-1,183.93	-6,662.19	6,760.72	0.00	0.00	0.00	
14,000.00	90.00	268.46	6,929.00	-1,186.61	-6,762.16	6,860.15	0.00	0.00	0.00	
14,100.00	90.00	268.46	6,929.00	-1,189.30	-6,862.12	6,959.57	0.00	0.00	0.00	
14,200.00	90.00	268.46	6,929.00	-1,191.99	-6,962.08	7,058.99	0.00	0.00	0.00	
14,300.00	90.00	268.46	6,929.00	-1,194.67	-7,062.05	7,158.42	0.00	0.00	0.00	
14,400.00	90.00	268.46	6,929.00	-1,197.36	-7,162.01	7,257.84	0.00	0.00	0.00	
14,500.00	90.00	268.46	6,929.00	-1,200.05	-7,261.98	7,357.26	0.00	0.00	0.00	
14,600.00	90.00	268.46	6,929.00	-1,202.73	-7,361.94	7,456.69	0.00	0.00	0.00	
14,700.00	90.00	268.46	6,929.00	-1,205.42	-7,461.90	7,556.11	0.00	0.00	0.00	
14,800.00	90.00	268.46	6,929.00	-1,208.10	-7,561.87	7,655.54	0.00	0.00	0.00	
14,900.00	90.00	268.46	6,929.00	-1,210.79	-7,661.83	7,754.96	0.00	0.00	0.00	
15,000.00	90.00	268.46	6,929.00	-1,213.48	-7,761.80	7,854.38	0.00	0.00	0.00	
15,100.00	90.00	268.46	6,929.00	-1,216.16	-7,861.76	7,953.81	0.00	0.00	0.00	
15,200.00	90.00	268.46	6,929.00	-1,218.85	-7,961.72	8,053.23	0.00	0.00	0.00	
15,300.00	90.00	268.46	6,929.00	-1,221.53	-8,061.69	8,152.65	0.00	0.00	0.00	
15,400.00	90.00	268.46	6,929.00	-1,224.22	-8,161.65	8,252.08	0.00	0.00	0.00	
15,500.00	90.00	268.46	6,929.00	-1,226.91	-8,261.62	8,351.50	0.00	0.00	0.00	
15,600.00	90.00	268.46	6,929.00	-1,229.59	-8,361.58	8,450.92	0.00	0.00	0.00	
15,700.00	90.00	268.46	6,929.00	-1,232.28	-8,461.54	8,550.35	0.00	0.00	0.00	
15,800.00	90.00	268.46	6,929.00	-1,234.96	-8,561.51	8,649.77	0.00	0.00	0.00	
15,900.00	90.00	268.46	6,929.00	-1,237.65	-8,661.47	8,749.19	0.00	0.00	0.00	
16,000.00	90.00	268.46	6,929.00	-1,240.34	-8,761.44	8,848.62	0.00	0.00	0.00	
16,100.00	90.00	268.46	6,929.00	-1,243.02	-8,861.40	8,948.04	0.00	0.00	0.00	
16,200.00	90.00	268.46	6,929.00	-1,245.71	-8,961.36	9,047.46	0.00	0.00	0.00	
16,300.00	90.00	268.46	6,929.00	-1,248.40	-9,061.33	9,146.89	0.00	0.00	0.00	
16,400.00	90.00	268.46	6,929.00	-1,251.08	-9,161.29	9,246.31	0.00	0.00	0.00	
16,500.00	90.00	268.46	6,929.00	-1,253.77	-9,261.25	9,345.74	0.00	0.00	0.00	
16,523.23	90.00	268.46	6,929.00	-1,254.39	-9,284.48	9,368.83	0.00	0.00	0.00	
TD at 16523.23										

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 WEST 17W-20-07	0.00	0.00	6,929.00	-1,254.39	-9,284.48	1,451,713.82	3,154,881.46	40.572017°N	104.942475°W
- plan hits target center									
- Point									
WALT WEST 17W-20-07	0.00	0.00	6,929.00	-1,008.04	-116.68	1,452,021.26	3,164,047.42	40.572698°N	104.909474°W
- plan hits target center									
- Point									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WALT WEST 17W-20-07N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	SEC 17-T7N-R67W	North Reference:	True
Well:	WALT WEST 17W-20-07N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
794.52	794.00	Fox Hills Base:				
3,495.99	3,454.00	Parkman:				
4,024.34	3,974.00	Sussex:				
4,613.66	4,554.00	Shannon:				
7,158.45	6,897.00	Sharon Springs (Confining Zone):				
7,244.21	6,919.00	Niobrara:				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
1,010.07	1,007.38	-40.42	20.43	Start 5398.68 hold at 1010.07 MD	
6,408.75	6,320.72	-893.75	451.77	Start DLS 10.00 TFO 114.93	
7,352.12	6,929.00	-1,008.04	-116.68	Start 9171.11 hold at 7352.12 MD	
16,523.23	6,929.00	-1,254.39	-9,284.48	TD at 16523.23	