

EXTRACTION OIL & GAS

Weld County

Sec 7-T4N-R68W

TROTT 7W-20-4N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

26 February, 2018



Project: Weld County
Site: Sec 7-T4N-R68W
Well: TROTT 7W-20-4N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.37°
Magnetic Field
Strength: 52345.2nT
Dip Angle: 66.76°
Date: 4/4/2017
Model: IGRF2015

WELL DETAILS: TROTT 7W-20-4N

+N/-S	+E/-W	Northing	Easting	5033.00	Latitude	Longitude	Slot
0.00	0.00	1361363.20	3128299.94	40° 19' 27.944 N	105° 2' 23.446 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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	1228.25	20.57	59.13	1206.32	93.67	156.70	2.00	59.13	-149.48	
4	4554.59	20.57	59.13	4320.68	693.21	1159.61	0.00	0.00	-1106.17	
5	5582.85	0.00	0.00	5327.00	786.88	1316.31	2.00	180.00	-1255.64	
6	5612.85	0.00	0.00	5357.00	786.88	1316.31	0.00	0.00	-1255.64	
7	6512.95	90.00	269.35	5930.00	780.34	743.31	10.00	269.35	-684.64	TROTT 4 - LP REV 2
8	16414.53	90.00	269.35	5930.00	667.27	-9157.62	0.00	-175.01	9181.90	TROTT 4 - PBHL REV 2

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	Start Build 2.00
1228.25	20.57	59.13	1206.32	93.67	156.70	-149.48	182.56	Start 3326.34 hold at 1228.25 MD
4554.59	20.57	59.13	4320.68	693.21	1159.61	-1106.17	1351.01	Start Drop -2.00
5582.85	0.00	0.00	5327.00	786.88	1316.31	-1255.64	1533.57	Start 30.00 hold at 5582.85 MD
5612.85	0.00	0.00	5357.00	786.88	1316.31	-1255.64	1533.57	Start DLS 10.00 TFO 269.35
6512.95	90.00	269.35	5930.00	780.34	743.31	-684.64	2106.61	Start DLS 0.00 TFO 178.18
16414.53	90.00	269.35	5930.00	667.27	-9157.62	9181.90	12008.19	TD at 16414.53

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	40° 19'	Latitude	105° 2'	Longitude	Shape
TROTT 4 - LP REV 2	5930.00	780.34	743.31	1362147.39	3129039.19	40° 19' 35.656 N	105° 2' 13.848 W			Point
TROTT 4 - PBHL REV 2	5930.00	667.27	-9157.62	1361982.95	3119138.98	40° 19' 34.522 N	105° 4' 21.688 W			Point
- plan hits target center										

FORMATION TOP DETAILS

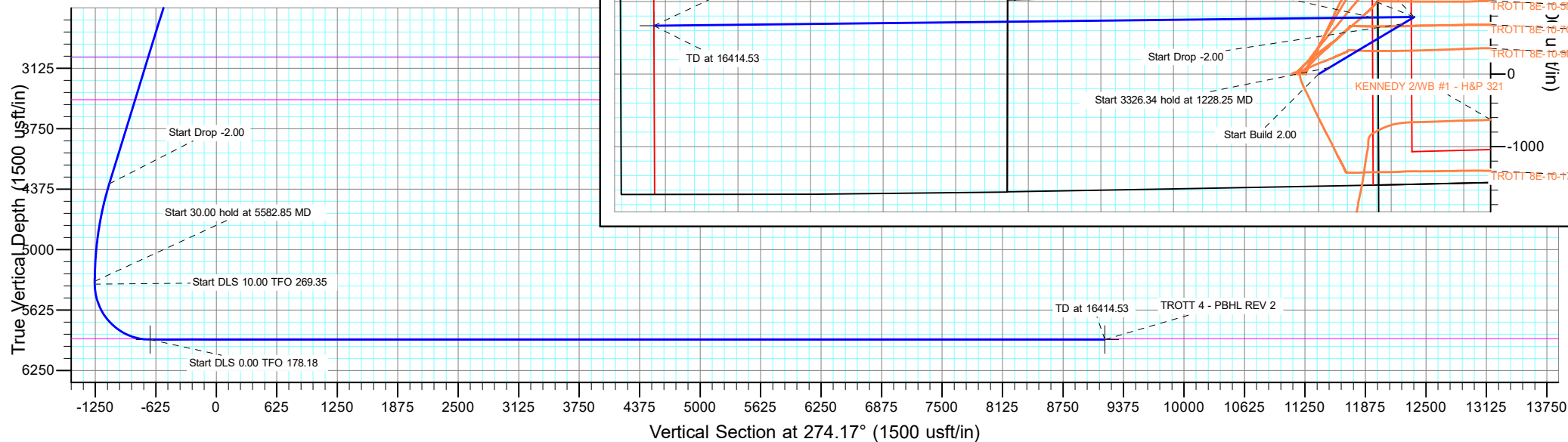
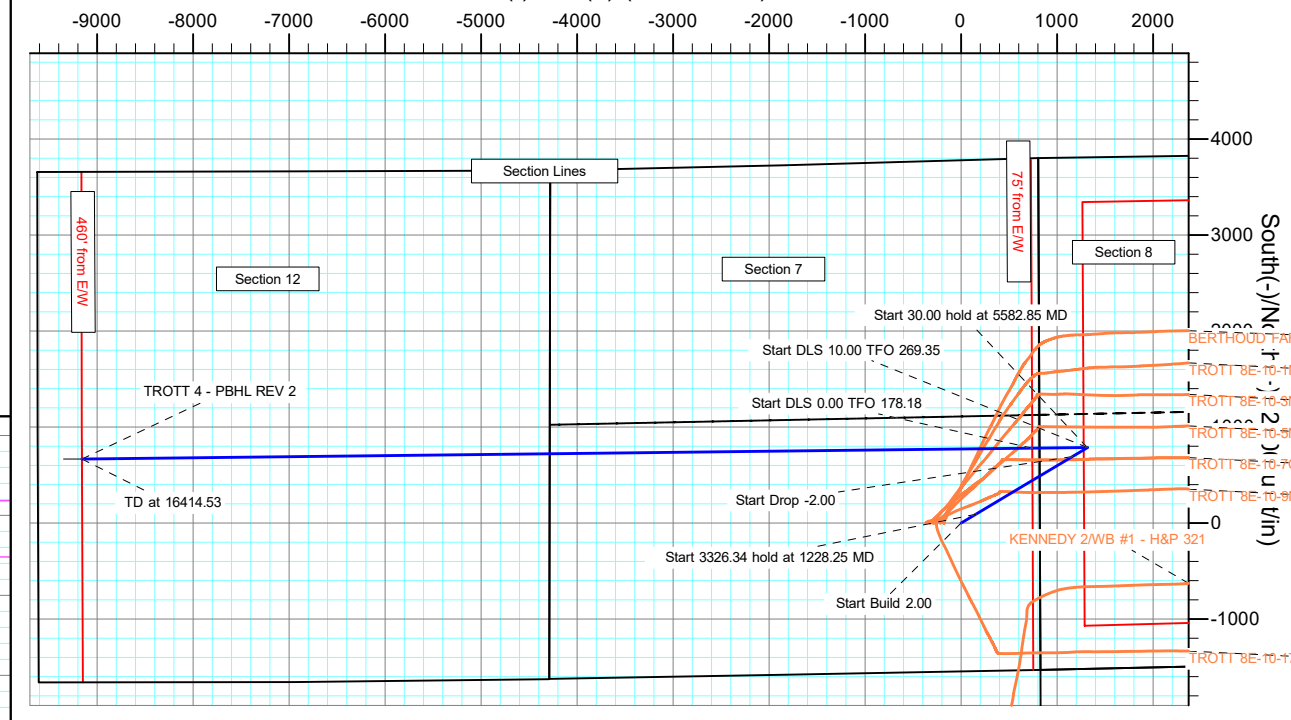
TVDPath	MDPath	Formation
2410.00	2513.86	PARKMAN
3010.00	3154.70	SUSSEX
3450.00	3624.65	SHANNON
5920.00	6405.71	NIOBRARA

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:
1544' FSL, 822' FEL
Sec 7-T4N-R68W
LP*
2310' FSL, 75' FEL
Sec 7-T4N-R68W
BHL:
2327' FSL, 460' FWL
Sec 12-T4N-R69W

West(-)/East(+) (2000 usft/in)



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 7W-20-4N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	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 7-T4N-R68W			
Site Position:		Northing:	1,359,838.99 usft	Latitude:	40° 19' 12.839 N
From:	Lat/Long	Easting:	3,129,136.57 usft	Longitude:	105° 2' 12.746 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.30

Well	TROTT 7W-20-4N					
Well Position	+N/-S	1,528.56 usft	Northing:	1,361,363.20 usft	Latitude:	40° 19' 27.944 N
	+E/-W	-828.66 usft	Easting:	3,128,299.94 usft	Longitude:	105° 2' 23.446 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,033.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/4/2017	8.37	66.76	52,345.17116310

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	274.17

Plan Survey Tool Program	Date	2/22/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,414.53	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,228.25	20.57	59.13	1,206.32	93.67	156.70	2.00	2.00	0.00	59.13	
4,554.59	20.57	59.13	4,320.68	693.21	1,159.61	0.00	0.00	0.00	0.00	
5,582.85	0.00	0.00	5,327.00	786.88	1,316.31	2.00	-2.00	0.00	180.00	
5,612.85	0.00	0.00	5,357.00	786.88	1,316.31	0.00	0.00	0.00	0.00	
6,512.95	90.00	269.35	5,930.00	780.34	743.31	10.00	10.00	-10.07	269.35	TROTT 4 - LP REV 2
16,414.53	90.00	269.35	5,930.00	667.27	-9,157.62	0.00	0.00	0.00	-175.01	TROTT 4 - PBHL REV 1

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 7W-20-4N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	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
Start Build 2.00									
300.00	2.00	59.13	299.98	0.90	1.50	-1.43	2.00	2.00	0.00
400.00	4.00	59.13	399.84	3.58	5.99	-5.71	2.00	2.00	0.00
500.00	6.00	59.13	499.45	8.05	13.47	-12.85	2.00	2.00	0.00
600.00	8.00	59.13	598.70	14.31	23.93	-22.83	2.00	2.00	0.00
700.00	10.00	59.13	697.47	22.33	37.36	-35.64	2.00	2.00	0.00
800.00	12.00	59.13	795.62	32.12	53.73	-51.26	2.00	2.00	0.00
900.00	14.00	59.13	893.06	43.66	73.04	-69.67	2.00	2.00	0.00
1,000.00	16.00	59.13	989.64	56.94	95.25	-90.86	2.00	2.00	0.00
1,100.00	18.00	59.13	1,085.27	71.94	120.35	-114.80	2.00	2.00	0.00
1,200.00	20.00	59.13	1,179.82	88.65	148.29	-141.46	2.00	2.00	0.00
1,228.25	20.57	59.13	1,206.32	93.67	156.70	-149.48	2.00	2.00	0.00
Start 3326.34 hold at 1228.25 MD									
1,300.00	20.57	59.13	1,273.49	106.60	178.33	-170.11	0.00	0.00	0.00
1,400.00	20.57	59.13	1,367.12	124.63	208.48	-198.87	0.00	0.00	0.00
1,500.00	20.57	59.13	1,460.75	142.65	238.63	-227.63	0.00	0.00	0.00
1,600.00	20.57	59.13	1,554.37	160.68	268.78	-256.39	0.00	0.00	0.00
1,700.00	20.57	59.13	1,648.00	178.70	298.93	-285.16	0.00	0.00	0.00
1,800.00	20.57	59.13	1,741.63	196.72	329.08	-313.92	0.00	0.00	0.00
1,900.00	20.57	59.13	1,835.26	214.75	359.23	-342.68	0.00	0.00	0.00
2,000.00	20.57	59.13	1,928.88	232.77	389.38	-371.44	0.00	0.00	0.00
2,100.00	20.57	59.13	2,022.51	250.80	419.54	-400.20	0.00	0.00	0.00
2,200.00	20.57	59.13	2,116.14	268.82	449.69	-428.96	0.00	0.00	0.00
2,300.00	20.57	59.13	2,209.76	286.84	479.84	-457.72	0.00	0.00	0.00
2,400.00	20.57	59.13	2,303.39	304.87	509.99	-486.48	0.00	0.00	0.00
2,500.00	20.57	59.13	2,397.02	322.89	540.14	-515.24	0.00	0.00	0.00
2,513.86	20.57	59.13	2,410.00	325.39	544.32	-519.23	0.00	0.00	0.00
PARKMAN									
2,600.00	20.57	59.13	2,490.65	340.91	570.29	-544.01	0.00	0.00	0.00
2,700.00	20.57	59.13	2,584.27	358.94	600.44	-572.77	0.00	0.00	0.00
2,800.00	20.57	59.13	2,677.90	376.96	630.59	-601.53	0.00	0.00	0.00
2,900.00	20.57	59.13	2,771.53	394.99	660.74	-630.29	0.00	0.00	0.00
3,000.00	20.57	59.13	2,865.16	413.01	690.89	-659.05	0.00	0.00	0.00
3,100.00	20.57	59.13	2,958.78	431.03	721.04	-687.81	0.00	0.00	0.00
3,154.70	20.57	59.13	3,010.00	440.89	737.53	-703.54	0.00	0.00	0.00
SUSSEX									
3,200.00	20.57	59.13	3,052.41	449.06	751.19	-716.57	0.00	0.00	0.00
3,300.00	20.57	59.13	3,146.04	467.08	781.34	-745.33	0.00	0.00	0.00
3,400.00	20.57	59.13	3,239.67	485.10	811.49	-774.09	0.00	0.00	0.00
3,500.00	20.57	59.13	3,333.29	503.13	841.64	-802.86	0.00	0.00	0.00
3,600.00	20.57	59.13	3,426.92	521.15	871.80	-831.62	0.00	0.00	0.00
3,624.65	20.57	59.13	3,450.00	525.60	879.23	-838.71	0.00	0.00	0.00
SHANNON									
3,700.00	20.57	59.13	3,520.55	539.18	901.95	-860.38	0.00	0.00	0.00
3,800.00	20.57	59.13	3,614.18	557.20	932.10	-889.14	0.00	0.00	0.00
3,900.00	20.57	59.13	3,707.80	575.22	962.25	-917.90	0.00	0.00	0.00
4,000.00	20.57	59.13	3,801.43	593.25	992.40	-946.66	0.00	0.00	0.00
4,100.00	20.57	59.13	3,895.06	611.27	1,022.55	-975.42	0.00	0.00	0.00
4,200.00	20.57	59.13	3,988.68	629.30	1,052.70	-1,004.18	0.00	0.00	0.00
4,300.00	20.57	59.13	4,082.31	647.32	1,082.85	-1,032.94	0.00	0.00	0.00

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	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	20.57	59.13	4,175.94	665.34	1,113.00	-1,061.71	0.00	0.00	0.00	
4,500.00	20.57	59.13	4,269.57	683.37	1,143.15	-1,090.47	0.00	0.00	0.00	
4,554.59	20.57	59.13	4,320.68	693.21	1,159.61	-1,106.17	0.00	0.00	0.00	
Start Drop -2.00										
4,600.00	19.66	59.13	4,363.32	701.22	1,173.01	-1,118.95	2.00	-2.00	0.00	
4,700.00	17.66	59.13	4,458.06	717.63	1,200.47	-1,145.14	2.00	-2.00	0.00	
4,800.00	15.66	59.13	4,553.86	732.34	1,225.07	-1,168.61	2.00	-2.00	0.00	
4,900.00	13.66	59.13	4,650.60	745.32	1,246.79	-1,189.33	2.00	-2.00	0.00	
5,000.00	11.66	59.13	4,748.16	756.56	1,265.59	-1,207.27	2.00	-2.00	0.00	
5,100.00	9.66	59.13	4,846.43	766.05	1,281.47	-1,222.41	2.00	-2.00	0.00	
5,200.00	7.66	59.13	4,945.29	773.77	1,294.38	-1,234.73	2.00	-2.00	0.00	
5,300.00	5.66	59.13	5,044.61	779.72	1,304.33	-1,244.22	2.00	-2.00	0.00	
5,400.00	3.66	59.13	5,144.28	783.89	1,311.30	-1,250.87	2.00	-2.00	0.00	
5,500.00	1.66	59.13	5,244.16	786.27	1,315.28	-1,254.66	2.00	-2.00	0.00	
5,582.85	0.00	0.00	5,327.00	786.88	1,316.31	-1,255.64	2.00	-2.00	-71.37	
Start 30.00 hold at 5582.85 MD										
5,600.00	0.00	0.00	5,344.15	786.88	1,316.31	-1,255.64	0.00	0.00	0.00	
5,612.85	0.00	0.00	5,357.00	786.88	1,316.31	-1,255.64	0.00	0.00	0.00	
Start DLS 10.00 TFO 269.35										
5,650.00	3.71	269.35	5,394.12	786.87	1,315.11	-1,254.45	10.00	10.00	0.00	
5,700.00	8.71	269.35	5,443.82	786.80	1,309.70	-1,249.05	10.00	10.00	0.00	
5,750.00	13.71	269.35	5,492.85	786.69	1,299.98	-1,239.37	10.00	10.00	0.00	
5,800.00	18.71	269.35	5,540.84	786.53	1,286.02	-1,225.46	10.00	10.00	0.00	
5,850.00	23.71	269.35	5,587.44	786.33	1,267.93	-1,207.44	10.00	10.00	0.00	
5,900.00	28.71	269.35	5,632.28	786.08	1,245.86	-1,185.44	10.00	10.00	0.00	
5,950.00	33.71	269.35	5,675.03	785.78	1,219.96	-1,159.63	10.00	10.00	0.00	
6,000.00	38.71	269.35	5,715.36	785.44	1,190.43	-1,130.20	10.00	10.00	0.00	
6,050.00	43.71	269.35	5,752.96	785.07	1,157.50	-1,097.39	10.00	10.00	0.00	
6,100.00	48.71	269.35	5,787.55	784.66	1,121.42	-1,061.43	10.00	10.00	0.00	
6,150.00	53.71	269.35	5,818.86	784.21	1,082.46	-1,022.61	10.00	10.00	0.00	
6,200.00	58.71	269.35	5,846.66	783.74	1,040.92	-981.21	10.00	10.00	0.00	
6,250.00	63.71	269.35	5,870.73	783.24	997.12	-937.56	10.00	10.00	0.00	
6,300.00	68.71	269.35	5,890.90	782.71	951.38	-891.99	10.00	10.00	0.00	
6,350.00	73.71	269.35	5,907.00	782.17	904.07	-844.83	10.00	10.00	0.00	
6,400.00	78.71	269.35	5,918.91	781.62	855.53	-796.46	10.00	10.00	0.00	
6,405.71	79.28	269.35	5,920.00	781.56	849.92	-790.88	10.00	10.00	0.00	
NIOBRARA										
6,450.00	83.71	269.35	5,926.55	781.06	806.13	-747.24	10.00	10.00	0.00	
6,500.00	88.71	269.35	5,929.85	780.49	756.26	-697.54	10.00	10.00	0.00	
6,512.95	90.00	269.35	5,930.00	780.34	743.31	-684.64	10.00	10.00	0.00	
Start DLS 0.00 TFO 178.18										
6,600.00	90.00	269.35	5,929.99	779.35	656.27	-597.90	0.00	0.00	0.00	
6,700.00	90.00	269.35	5,929.99	778.20	556.27	-498.25	0.00	0.00	0.00	
6,800.00	90.00	269.35	5,929.98	777.06	456.28	-398.60	0.00	0.00	0.00	
6,900.00	90.00	269.35	5,929.98	775.92	356.29	-298.96	0.00	0.00	0.00	
7,000.00	90.00	269.35	5,929.97	774.78	256.29	-199.31	0.00	0.00	0.00	
7,100.00	90.00	269.35	5,929.97	773.64	156.30	-99.67	0.00	0.00	0.00	
7,200.00	90.00	269.35	5,929.96	772.50	56.31	-0.02	0.00	0.00	0.00	
7,300.00	90.00	269.35	5,929.96	771.36	-43.69	99.63	0.00	0.00	0.00	
7,400.00	90.00	269.35	5,929.95	770.21	-143.68	199.27	0.00	0.00	0.00	
7,500.00	90.00	269.35	5,929.95	769.07	-243.67	298.92	0.00	0.00	0.00	
7,600.00	90.00	269.35	5,929.94	767.93	-343.67	398.57	0.00	0.00	0.00	
7,700.00	90.00	269.35	5,929.94	766.79	-443.66	498.21	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 7W-20-4N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	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)
7,800.00	90.00	269.35	5,929.93	765.65	-543.65	597.86	0.00	0.00	0.00
7,900.00	90.00	269.35	5,929.93	764.51	-643.65	697.50	0.00	0.00	0.00
8,000.00	90.00	269.35	5,929.92	763.37	-743.64	797.15	0.00	0.00	0.00
8,100.00	90.00	269.35	5,929.92	762.22	-843.63	896.80	0.00	0.00	0.00
8,200.00	90.00	269.35	5,929.92	761.08	-943.63	996.44	0.00	0.00	0.00
8,300.00	90.00	269.35	5,929.91	759.94	-1,043.62	1,096.09	0.00	0.00	0.00
8,400.00	90.00	269.35	5,929.91	758.80	-1,143.61	1,195.73	0.00	0.00	0.00
8,500.00	90.00	269.35	5,929.90	757.66	-1,243.61	1,295.38	0.00	0.00	0.00
8,600.00	90.00	269.35	5,929.90	756.52	-1,343.60	1,395.03	0.00	0.00	0.00
8,700.00	90.00	269.35	5,929.90	755.37	-1,443.59	1,494.67	0.00	0.00	0.00
8,800.00	90.00	269.35	5,929.89	754.23	-1,543.59	1,594.32	0.00	0.00	0.00
8,900.00	90.00	269.35	5,929.89	753.09	-1,643.58	1,693.96	0.00	0.00	0.00
9,000.00	90.00	269.35	5,929.89	751.95	-1,743.58	1,793.61	0.00	0.00	0.00
9,100.00	90.00	269.35	5,929.89	750.81	-1,843.57	1,893.26	0.00	0.00	0.00
9,200.00	90.00	269.35	5,929.88	749.67	-1,943.56	1,992.90	0.00	0.00	0.00
9,300.00	90.00	269.35	5,929.88	748.52	-2,043.56	2,092.55	0.00	0.00	0.00
9,400.00	90.00	269.35	5,929.88	747.38	-2,143.55	2,192.20	0.00	0.00	0.00
9,500.00	90.00	269.35	5,929.87	746.24	-2,243.54	2,291.84	0.00	0.00	0.00
9,600.00	90.00	269.35	5,929.87	745.10	-2,343.54	2,391.49	0.00	0.00	0.00
9,700.00	90.00	269.35	5,929.87	743.96	-2,443.53	2,491.13	0.00	0.00	0.00
9,800.00	90.00	269.35	5,929.87	742.82	-2,543.52	2,590.78	0.00	0.00	0.00
9,900.00	90.00	269.35	5,929.87	741.67	-2,643.52	2,690.43	0.00	0.00	0.00
10,000.00	90.00	269.35	5,929.86	740.53	-2,743.51	2,790.07	0.00	0.00	0.00
10,100.00	90.00	269.35	5,929.86	739.39	-2,843.50	2,889.72	0.00	0.00	0.00
10,200.00	90.00	269.35	5,929.86	738.25	-2,943.50	2,989.36	0.00	0.00	0.00
10,300.00	90.00	269.35	5,929.86	737.11	-3,043.49	3,089.01	0.00	0.00	0.00
10,400.00	90.00	269.35	5,929.86	735.97	-3,143.48	3,188.66	0.00	0.00	0.00
10,500.00	90.00	269.35	5,929.86	734.82	-3,243.48	3,288.30	0.00	0.00	0.00
10,600.00	90.00	269.35	5,929.86	733.68	-3,343.47	3,387.95	0.00	0.00	0.00
10,700.00	90.00	269.35	5,929.85	732.54	-3,443.46	3,487.59	0.00	0.00	0.00
10,800.00	90.00	269.35	5,929.85	731.40	-3,543.46	3,587.24	0.00	0.00	0.00
10,900.00	90.00	269.35	5,929.85	730.26	-3,643.45	3,686.89	0.00	0.00	0.00
11,000.00	90.00	269.35	5,929.85	729.11	-3,743.44	3,786.53	0.00	0.00	0.00
11,100.00	90.00	269.35	5,929.85	727.97	-3,843.44	3,886.18	0.00	0.00	0.00
11,200.00	90.00	269.35	5,929.85	726.83	-3,943.43	3,985.83	0.00	0.00	0.00
11,300.00	90.00	269.35	5,929.85	725.69	-4,043.43	4,085.47	0.00	0.00	0.00
11,400.00	90.00	269.35	5,929.85	724.55	-4,143.42	4,185.12	0.00	0.00	0.00
11,500.00	90.00	269.35	5,929.85	723.40	-4,243.41	4,284.76	0.00	0.00	0.00
11,600.00	90.00	269.35	5,929.85	722.26	-4,343.41	4,384.41	0.00	0.00	0.00
11,700.00	90.00	269.35	5,929.85	721.12	-4,443.40	4,484.06	0.00	0.00	0.00
11,800.00	90.00	269.35	5,929.85	719.98	-4,543.39	4,583.70	0.00	0.00	0.00
11,900.00	90.00	269.35	5,929.85	718.84	-4,643.39	4,683.35	0.00	0.00	0.00
12,000.00	90.00	269.35	5,929.85	717.70	-4,743.38	4,782.99	0.00	0.00	0.00
12,100.00	90.00	269.35	5,929.85	716.55	-4,843.37	4,882.64	0.00	0.00	0.00
12,200.00	90.00	269.35	5,929.85	715.41	-4,943.37	4,982.29	0.00	0.00	0.00
12,300.00	90.00	269.35	5,929.86	714.27	-5,043.36	5,081.93	0.00	0.00	0.00
12,400.00	90.00	269.35	5,929.86	713.13	-5,143.35	5,181.58	0.00	0.00	0.00
12,500.00	90.00	269.35	5,929.86	711.99	-5,243.35	5,281.22	0.00	0.00	0.00
12,600.00	90.00	269.35	5,929.86	710.84	-5,343.34	5,380.87	0.00	0.00	0.00
12,700.00	90.00	269.35	5,929.86	709.70	-5,443.33	5,480.52	0.00	0.00	0.00
12,800.00	90.00	269.35	5,929.86	708.56	-5,543.33	5,580.16	0.00	0.00	0.00
12,900.00	90.00	269.35	5,929.86	707.42	-5,643.32	5,679.81	0.00	0.00	0.00
13,000.00	90.00	269.35	5,929.87	706.28	-5,743.31	5,779.46	0.00	0.00	0.00
13,100.00	90.00	269.35	5,929.87	705.13	-5,843.31	5,879.10	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 7W-20-4N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	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)	
13,200.00	90.00	269.35	5,929.87	703.99	-5,943.30	5,978.75	0.00	0.00	0.00	
13,300.00	90.00	269.35	5,929.87	702.85	-6,043.29	6,078.39	0.00	0.00	0.00	
13,400.00	90.00	269.35	5,929.87	701.71	-6,143.29	6,178.04	0.00	0.00	0.00	
13,500.00	90.00	269.35	5,929.88	700.56	-6,243.28	6,277.69	0.00	0.00	0.00	
13,600.00	90.00	269.35	5,929.88	699.42	-6,343.28	6,377.33	0.00	0.00	0.00	
13,700.00	90.00	269.35	5,929.88	698.28	-6,443.27	6,476.98	0.00	0.00	0.00	
13,800.00	90.00	269.35	5,929.88	697.14	-6,543.26	6,576.62	0.00	0.00	0.00	
13,900.00	90.00	269.35	5,929.89	696.00	-6,643.26	6,676.27	0.00	0.00	0.00	
14,000.00	90.00	269.35	5,929.89	694.85	-6,743.25	6,775.92	0.00	0.00	0.00	
14,100.00	90.00	269.35	5,929.89	693.71	-6,843.24	6,875.56	0.00	0.00	0.00	
14,200.00	90.00	269.35	5,929.90	692.57	-6,943.24	6,975.21	0.00	0.00	0.00	
14,300.00	90.00	269.35	5,929.90	691.43	-7,043.23	7,074.85	0.00	0.00	0.00	
14,400.00	90.00	269.35	5,929.90	690.29	-7,143.22	7,174.50	0.00	0.00	0.00	
14,500.00	90.00	269.35	5,929.91	689.14	-7,243.22	7,274.15	0.00	0.00	0.00	
14,600.00	90.00	269.35	5,929.91	688.00	-7,343.21	7,373.79	0.00	0.00	0.00	
14,700.00	90.00	269.35	5,929.91	686.86	-7,443.20	7,473.44	0.00	0.00	0.00	
14,800.00	90.00	269.35	5,929.92	685.72	-7,543.20	7,573.08	0.00	0.00	0.00	
14,900.00	90.00	269.35	5,929.92	684.57	-7,643.19	7,672.73	0.00	0.00	0.00	
15,000.00	90.00	269.35	5,929.93	683.43	-7,743.18	7,772.38	0.00	0.00	0.00	
15,100.00	90.00	269.35	5,929.93	682.29	-7,843.18	7,872.02	0.00	0.00	0.00	
15,200.00	90.00	269.35	5,929.94	681.15	-7,943.17	7,971.67	0.00	0.00	0.00	
15,300.00	90.00	269.35	5,929.94	680.00	-8,043.16	8,071.31	0.00	0.00	0.00	
15,400.00	90.00	269.35	5,929.95	678.86	-8,143.16	8,170.96	0.00	0.00	0.00	
15,500.00	90.00	269.35	5,929.95	677.72	-8,243.15	8,270.61	0.00	0.00	0.00	
15,600.00	90.00	269.35	5,929.96	676.58	-8,343.14	8,370.25	0.00	0.00	0.00	
15,700.00	90.00	269.35	5,929.96	675.44	-8,443.14	8,469.90	0.00	0.00	0.00	
15,800.00	90.00	269.35	5,929.97	674.29	-8,543.13	8,569.55	0.00	0.00	0.00	
15,900.00	90.00	269.35	5,929.97	673.15	-8,643.13	8,669.19	0.00	0.00	0.00	
16,000.00	90.00	269.35	5,929.98	672.01	-8,743.12	8,768.84	0.00	0.00	0.00	
16,100.00	90.00	269.35	5,929.98	670.87	-8,843.11	8,868.48	0.00	0.00	0.00	
16,200.00	90.00	269.35	5,929.99	669.72	-8,943.11	8,968.13	0.00	0.00	0.00	
16,300.00	90.00	269.35	5,929.99	668.58	-9,043.10	9,067.78	0.00	0.00	0.00	
16,400.00	90.00	269.35	5,930.00	667.44	-9,143.09	9,167.42	0.00	0.00	0.00	
16,414.53	90.00	269.35	5,930.00	667.27	-9,157.62	9,181.90	0.00	0.00	0.00	
TD at 16414.53										

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										
TROTT 4 - PBHL REV 2	0.00	0.00	5,930.00	667.27	-9,157.62	1,361,982.95	3,119,138.98	40° 19' 34.522 N		105° 4' 21.688 W
- plan hits target center										
- Point										
TROTT 4 - LP REV 2	0.00	0.00	5,930.00	780.34	743.31	1,362,147.39	3,129,039.19	40° 19' 35.656 N		105° 2' 13.848 W
- plan hits target center										
- Point										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well TROTT 7W-20-4N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5058.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5058.00usft
Site:	Sec 7-T4N-R68W	North Reference:	True
Well:	TROTT 7W-20-4N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,513.86	2,410.00	PARKMAN			
3,154.70	3,010.00	SUSSEX			
3,624.65	3,450.00	SHANNON			
6,405.71	5,920.00	NIOBRARA			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Start Build 2.00
1,228.25	1,206.32	93.67	156.70	Start 3326.34 hold at 1228.25 MD
4,554.59	4,320.68	693.21	1,159.61	Start Drop -2.00
5,582.85	5,327.00	786.88	1,316.31	Start 30.00 hold at 5582.85 MD
5,612.85	5,357.00	786.88	1,316.31	Start DLS 10.00 TFO 269.35
6,512.95	5,930.00	780.34	743.31	Start DLS 0.00 TFO 178.18
16,414.53	5,930.00	667.27	-9,157.62	TD at 16414.53