

EXTRACTION OIL & GAS

Weld County

Sec 28-T1N-R68W

COYOTE TRAILS 34S-20-8C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

10 August, 2017



Project: Weld County
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 34S-20-8C
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1

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



Azimuths to True North
Magnetic North: 8.31°

Magnetic Field
Strength: 52202.3snT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 34S-20-8C

	+N/-S	+E/-W	Northing	Easting	5244.00	Latitude	Longitude	Slot
	0.00	0.00	1249743.73	3138125.86		40° 1' 4.364 N	105° 0' 24.595 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	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
3	1823.78	18.48	121.88	1807.85	-77.97	125.39	2.00	121.88	95.29	
4	6757.36	18.48	121.88	6487.15	-903.60	1453.06	0.00	0.00	1104.28	
5	7681.13	0.00	0.00	7395.00	-981.57	1578.45	2.00	180.00	1199.57	
6	7781.13	0.00	0.00	7495.00	-981.57	1578.45	0.00	0.00	1199.57	
7	8681.21	90.00	179.66	8068.00	-1554.57	1581.87	10.00	179.66	1767.05	CT 34S-20-8C LP
8	18343.05	90.00	179.66	8068.00	-11216.24	1639.85	0.00	0.00	11335.48	CT 34S-20-8C PBHL

FORMATION TOP DETAILS

TVDPth	MDPath	Formation
4440.00	4598.96	PARKMAN
4910.00	5094.50	SUSSEX
7610.00	7896.92	SHARON SPRINGS
7650.00	7938.09	NIOBRARA
7797.00	8099.22	NIO B
8048.00	8529.36	FORT HAYS
8068.00	8681.21	CODELL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1823.78	18.48	121.88	1807.85	-77.97	125.39	95.29	147.65	HOLD 18.48° INC
6757.36	18.48	121.88	6487.15	-903.60	1453.06	1104.28	1711.11	DROP 2°/100'
7681.13	0.00	0.00	7395.00	-981.57	1578.45	1199.57	1858.76	HOLD VERTICAL
7781.13	0.00	0.00	7495.00	-981.57	1578.45	1199.57	1858.76	KOP, BUILD 10°/100'
8681.21	90.00	179.66	8068.00	-1554.57	1581.87	1767.05	2431.77	LP @ 90° INC, 179.66° AZM HOLD
18343.05	90.00	179.66	8067.78	-11216.24	1639.61	11335.45	12093.61	TD at 18343.05' MD

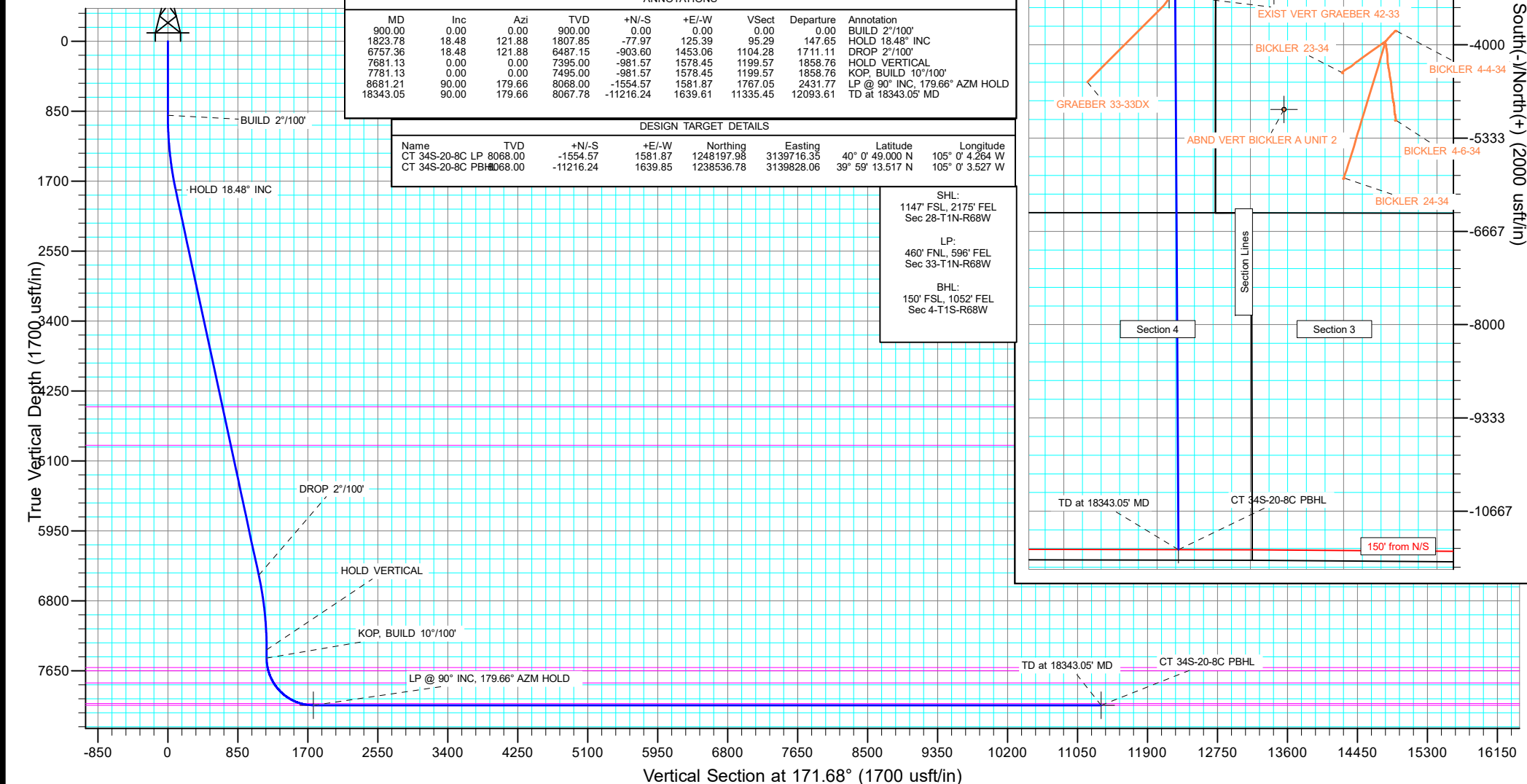
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CT 34S-20-8C LP	8068.00	-1554.57	1581.87	1248197.98	3139716.35	40° 0' 49.000 N	105° 0' 4.264 W
CT 34S-20-8C PBHL	8068.00	-11216.24	1639.85	1238536.78	3139828.06	39° 59' 13.517 N	105° 0' 3.527 W

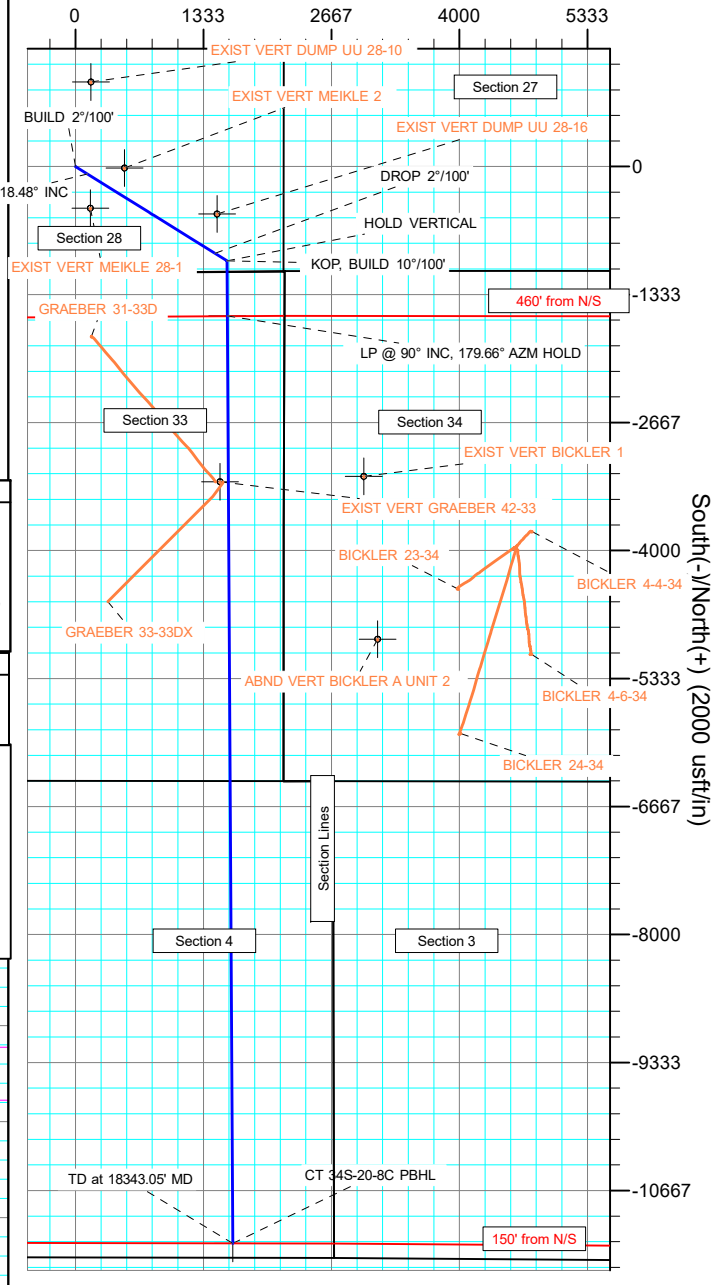
SHL:
1147' FSL, 2175' FEL
Sec 28-T1N-R68W

LP:
460' FNL, 596' FEL
Sec 33-T1N-R68W

BHL:
150' FSL, 1052' FEL
Sec 4-T1S-R68W



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



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-8C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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 28-T1N-R68W			
Site Position:		Northing:	1,248,660.21 usft	Latitude:	40° 0' 53.536 N
From:	Lat/Long	Easting:	3,140,299.83 usft	Longitude:	104° 59' 56.731 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	COYOTE TRAILS 34S-20-8C					
Well Position	+N/-S	1,095.78 usft	Northing:	1,249,743.73 usft	Latitude:	40° 1' 4.364 N
	+E/-W	-2,167.81 usft	Easting:	3,138,125.86 usft	Longitude:	105° 0' 24.595 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,244.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/29/2017	8.31	66.51	52,202.32177601

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	171.68

Plan Survey Tool Program	Date	8/10/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,343.05	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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,823.78	18.48	121.88	1,807.85	-77.97	125.39	2.00	2.00	0.00	121.88	
6,757.36	18.48	121.88	6,487.15	-903.60	1,453.06	0.00	0.00	0.00	0.00	
7,681.13	0.00	0.00	7,395.00	-981.57	1,578.45	2.00	-2.00	0.00	180.00	
7,781.13	0.00	0.00	7,495.00	-981.57	1,578.45	0.00	0.00	0.00	0.00	
8,681.21	90.00	179.66	8,068.00	-1,554.57	1,581.87	10.00	10.00	19.96	179.66	CT 34S-20-8C LP
18,343.05	90.00	179.66	8,068.00	-11,216.24	1,639.85	0.00	0.00	0.00	0.00	CT 34S-20-8C PBHL

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
BUILD 2°/100'									
1,000.00	2.00	121.88	999.98	-0.92	1.48	1.13	2.00	2.00	0.00
1,100.00	4.00	121.88	1,099.84	-3.69	5.93	4.50	2.00	2.00	0.00
1,200.00	6.00	121.88	1,199.45	-8.29	13.33	10.13	2.00	2.00	0.00
1,300.00	8.00	121.88	1,298.70	-14.72	23.68	17.99	2.00	2.00	0.00
1,400.00	10.00	121.88	1,397.47	-22.98	36.96	28.09	2.00	2.00	0.00
1,500.00	12.00	121.88	1,495.62	-33.06	53.16	40.40	2.00	2.00	0.00
1,600.00	14.00	121.88	1,593.06	-44.94	72.26	54.92	2.00	2.00	0.00
1,700.00	16.00	121.88	1,689.64	-58.60	94.24	71.62	2.00	2.00	0.00
1,800.00	18.00	121.88	1,785.27	-74.04	119.07	90.49	2.00	2.00	0.00
1,823.78	18.48	121.88	1,807.85	-77.97	125.39	95.29	2.00	2.00	0.00
HOLD 18.48° INC									
1,900.00	18.48	121.88	1,880.15	-90.73	145.90	110.88	0.00	0.00	0.00
2,000.00	18.48	121.88	1,974.99	-107.46	172.81	131.33	0.00	0.00	0.00
2,100.00	18.48	121.88	2,069.84	-124.20	199.72	151.78	0.00	0.00	0.00
2,200.00	18.48	121.88	2,164.68	-140.93	226.63	172.23	0.00	0.00	0.00
2,300.00	18.48	121.88	2,259.53	-157.67	253.54	192.69	0.00	0.00	0.00
2,400.00	18.48	121.88	2,354.37	-174.40	280.45	213.14	0.00	0.00	0.00
2,500.00	18.48	121.88	2,449.22	-191.14	307.37	233.59	0.00	0.00	0.00
2,600.00	18.48	121.88	2,544.07	-207.87	334.28	254.04	0.00	0.00	0.00
2,700.00	18.48	121.88	2,638.91	-224.61	361.19	274.49	0.00	0.00	0.00
2,800.00	18.48	121.88	2,733.76	-241.34	388.10	294.94	0.00	0.00	0.00
2,900.00	18.48	121.88	2,828.60	-258.08	415.01	315.39	0.00	0.00	0.00
3,000.00	18.48	121.88	2,923.45	-274.81	441.92	335.85	0.00	0.00	0.00
3,100.00	18.48	121.88	3,018.30	-291.55	468.83	356.30	0.00	0.00	0.00
3,200.00	18.48	121.88	3,113.14	-308.28	495.74	376.75	0.00	0.00	0.00
3,300.00	18.48	121.88	3,207.99	-325.02	522.65	397.20	0.00	0.00	0.00
3,400.00	18.48	121.88	3,302.83	-341.75	549.56	417.65	0.00	0.00	0.00
3,500.00	18.48	121.88	3,397.68	-358.49	576.48	438.10	0.00	0.00	0.00
3,600.00	18.48	121.88	3,492.53	-375.22	603.39	458.56	0.00	0.00	0.00
3,700.00	18.48	121.88	3,587.37	-391.95	630.30	479.01	0.00	0.00	0.00
3,800.00	18.48	121.88	3,682.22	-408.69	657.21	499.46	0.00	0.00	0.00
3,900.00	18.48	121.88	3,777.06	-425.42	684.12	519.91	0.00	0.00	0.00
4,000.00	18.48	121.88	3,871.91	-442.16	711.03	540.36	0.00	0.00	0.00
4,100.00	18.48	121.88	3,966.76	-458.89	737.94	560.81	0.00	0.00	0.00
4,200.00	18.48	121.88	4,061.60	-475.63	764.85	581.26	0.00	0.00	0.00
4,300.00	18.48	121.88	4,156.45	-492.36	791.76	601.72	0.00	0.00	0.00
4,400.00	18.48	121.88	4,251.29	-509.10	818.67	622.17	0.00	0.00	0.00
4,500.00	18.48	121.88	4,346.14	-525.83	845.59	642.62	0.00	0.00	0.00
4,598.96	18.48	121.88	4,440.00	-542.39	872.22	662.86	0.00	0.00	0.00
PARKMAN									
4,600.00	18.48	121.88	4,440.98	-542.57	872.50	663.07	0.00	0.00	0.00
4,700.00	18.48	121.88	4,535.83	-559.30	899.41	683.52	0.00	0.00	0.00

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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)
4,800.00	18.48	121.88	4,630.68	-576.04	926.32	703.97	0.00	0.00	0.00
4,900.00	18.48	121.88	4,725.52	-592.77	953.23	724.43	0.00	0.00	0.00
5,000.00	18.48	121.88	4,820.37	-609.51	980.14	744.88	0.00	0.00	0.00
5,094.50	18.48	121.88	4,910.00	-625.32	1,005.57	764.20	0.00	0.00	0.00
SUSSEX									
5,100.00	18.48	121.88	4,915.21	-626.24	1,007.05	765.33	0.00	0.00	0.00
5,200.00	18.48	121.88	5,010.06	-642.98	1,033.96	785.78	0.00	0.00	0.00
5,300.00	18.48	121.88	5,104.91	-659.71	1,060.87	806.23	0.00	0.00	0.00
5,400.00	18.48	121.88	5,199.75	-676.45	1,087.78	826.68	0.00	0.00	0.00
5,500.00	18.48	121.88	5,294.60	-693.18	1,114.70	847.13	0.00	0.00	0.00
5,600.00	18.48	121.88	5,389.44	-709.92	1,141.61	867.59	0.00	0.00	0.00
5,700.00	18.48	121.88	5,484.29	-726.65	1,168.52	888.04	0.00	0.00	0.00
5,800.00	18.48	121.88	5,579.14	-743.39	1,195.43	908.49	0.00	0.00	0.00
5,900.00	18.48	121.88	5,673.98	-760.12	1,222.34	928.94	0.00	0.00	0.00
6,000.00	18.48	121.88	5,768.83	-776.86	1,249.25	949.39	0.00	0.00	0.00
6,100.00	18.48	121.88	5,863.67	-793.59	1,276.16	969.84	0.00	0.00	0.00
6,200.00	18.48	121.88	5,958.52	-810.32	1,303.07	990.30	0.00	0.00	0.00
6,300.00	18.48	121.88	6,053.37	-827.06	1,329.98	1,010.75	0.00	0.00	0.00
6,400.00	18.48	121.88	6,148.21	-843.79	1,356.89	1,031.20	0.00	0.00	0.00
6,500.00	18.48	121.88	6,243.06	-860.53	1,383.81	1,051.65	0.00	0.00	0.00
6,600.00	18.48	121.88	6,337.90	-877.26	1,410.72	1,072.10	0.00	0.00	0.00
6,700.00	18.48	121.88	6,432.75	-894.00	1,437.63	1,092.55	0.00	0.00	0.00
6,757.36	18.48	121.88	6,487.15	-903.60	1,453.06	1,104.28	0.00	0.00	0.00
DROP 2°/100'									
6,800.00	17.62	121.88	6,527.69	-910.57	1,464.28	1,112.81	2.00	-2.00	0.00
6,900.00	15.62	121.88	6,623.51	-925.68	1,488.57	1,131.27	2.00	-2.00	0.00
7,000.00	13.62	121.88	6,720.27	-939.01	1,510.01	1,147.56	2.00	-2.00	0.00
7,100.00	11.62	121.88	6,817.84	-950.55	1,528.57	1,161.67	2.00	-2.00	0.00
7,200.00	9.62	121.88	6,916.13	-960.28	1,544.22	1,173.56	2.00	-2.00	0.00
7,300.00	7.62	121.88	7,014.99	-968.20	1,556.95	1,183.24	2.00	-2.00	0.00
7,400.00	5.62	121.88	7,114.32	-974.29	1,566.75	1,190.68	2.00	-2.00	0.00
7,500.00	3.62	121.88	7,213.99	-978.55	1,573.59	1,195.88	2.00	-2.00	0.00
7,600.00	1.62	121.88	7,313.88	-980.96	1,577.47	1,198.83	2.00	-2.00	0.00
7,681.13	0.00	0.00	7,395.00	-981.57	1,578.45	1,199.57	2.00	-2.00	0.00
HOLD VERTICAL									
7,700.00	0.00	0.00	7,413.87	-981.57	1,578.45	1,199.57	0.00	0.00	0.00
7,781.13	0.00	0.00	7,495.00	-981.57	1,578.45	1,199.57	0.00	0.00	0.00
KOP, BUILD 10°/100'									
7,800.00	1.89	179.66	7,513.86	-981.88	1,578.45	1,199.88	10.00	10.00	0.00
7,850.00	6.89	179.66	7,563.70	-985.70	1,578.47	1,203.67	10.00	10.00	0.00
7,896.92	11.58	179.66	7,610.00	-993.23	1,578.52	1,211.12	10.00	10.00	0.00
SHARON SPRINGS									
7,900.00	11.89	179.66	7,613.02	-993.85	1,578.52	1,211.74	10.00	10.00	0.00
7,938.09	15.69	179.66	7,650.00	-1,002.93	1,578.58	1,220.73	10.00	10.00	0.00
NIOBRARA									
7,950.00	16.89	179.66	7,661.43	-1,006.27	1,578.60	1,224.04	10.00	10.00	0.00
8,000.00	21.89	179.66	7,708.58	-1,022.86	1,578.70	1,240.47	10.00	10.00	0.00
8,050.00	26.88	179.66	7,754.11	-1,043.50	1,578.82	1,260.91	10.00	10.00	0.00
8,099.22	31.81	179.66	7,797.00	-1,067.61	1,578.96	1,284.79	10.00	10.00	0.00
NIO B									
8,100.00	31.88	179.66	7,797.66	-1,068.02	1,578.97	1,285.19	10.00	10.00	0.00
8,150.00	36.88	179.66	7,838.91	-1,096.25	1,579.14	1,313.15	10.00	10.00	0.00
8,200.00	41.88	179.66	7,877.55	-1,127.97	1,579.32	1,344.56	10.00	10.00	0.00

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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)	
8,250.00	46.88	179.66	7,913.27	-1,162.93	1,579.53	1,379.18	10.00	10.00	0.00	
8,300.00	51.88	179.66	7,945.81	-1,200.87	1,579.76	1,416.76	10.00	10.00	0.00	
8,350.00	56.88	179.66	7,974.92	-1,241.50	1,580.00	1,457.00	10.00	10.00	0.00	
8,400.00	61.88	179.66	8,000.37	-1,284.52	1,580.26	1,499.60	10.00	10.00	0.00	
8,450.00	66.88	179.66	8,021.99	-1,329.59	1,580.53	1,544.23	10.00	10.00	0.00	
8,500.00	71.88	179.66	8,039.59	-1,376.37	1,580.81	1,590.56	10.00	10.00	0.00	
8,529.36	74.82	179.66	8,048.00	-1,404.50	1,580.98	1,618.42	10.00	10.00	0.00	
FORT HAYS										
8,550.00	76.88	179.66	8,053.05	-1,424.51	1,581.10	1,638.23	10.00	10.00	0.00	
8,600.00	81.88	179.66	8,062.26	-1,473.63	1,581.39	1,686.89	10.00	10.00	0.00	
8,650.00	86.88	179.66	8,067.15	-1,523.38	1,581.69	1,736.15	10.00	10.00	0.00	
8,681.21	90.00	179.66	8,068.00	-1,554.57	1,581.87	1,767.05	10.00	10.00	0.00	
LP @ 90° INC, 179.66° AZM HOLD - CODELL										
8,700.00	90.00	179.66	8,068.00	-1,573.36	1,581.99	1,785.65	0.00	0.00	0.00	
8,800.00	90.00	179.66	8,068.00	-1,673.36	1,582.58	1,884.68	0.00	0.00	0.00	
8,900.00	90.00	179.66	8,068.00	-1,773.36	1,583.18	1,983.72	0.00	0.00	0.00	
9,000.00	90.00	179.66	8,067.99	-1,873.35	1,583.78	2,082.75	0.00	0.00	0.00	
9,100.00	90.00	179.66	8,067.99	-1,973.35	1,584.38	2,181.78	0.00	0.00	0.00	
9,200.00	90.00	179.66	8,067.99	-2,073.35	1,584.97	2,280.82	0.00	0.00	0.00	
9,300.00	90.00	179.66	8,067.99	-2,173.35	1,585.57	2,379.85	0.00	0.00	0.00	
9,400.00	90.00	179.66	8,067.98	-2,273.35	1,586.17	2,478.88	0.00	0.00	0.00	
9,500.00	90.00	179.66	8,067.98	-2,373.35	1,586.77	2,577.91	0.00	0.00	0.00	
9,600.00	90.00	179.66	8,067.98	-2,473.34	1,587.36	2,676.95	0.00	0.00	0.00	
9,700.00	90.00	179.66	8,067.98	-2,573.34	1,587.96	2,775.98	0.00	0.00	0.00	
9,800.00	90.00	179.66	8,067.97	-2,673.34	1,588.56	2,875.01	0.00	0.00	0.00	
9,900.00	90.00	179.66	8,067.97	-2,773.34	1,589.16	2,974.05	0.00	0.00	0.00	
10,000.00	90.00	179.66	8,067.97	-2,873.34	1,589.75	3,073.08	0.00	0.00	0.00	
10,100.00	90.00	179.66	8,067.97	-2,973.33	1,590.35	3,172.11	0.00	0.00	0.00	
10,200.00	90.00	179.66	8,067.97	-3,073.33	1,590.95	3,271.14	0.00	0.00	0.00	
10,300.00	90.00	179.66	8,067.96	-3,173.33	1,591.55	3,370.18	0.00	0.00	0.00	
10,400.00	90.00	179.66	8,067.96	-3,273.33	1,592.14	3,469.21	0.00	0.00	0.00	
10,500.00	90.00	179.66	8,067.96	-3,373.33	1,592.74	3,568.24	0.00	0.00	0.00	
10,600.00	90.00	179.66	8,067.96	-3,473.33	1,593.34	3,667.28	0.00	0.00	0.00	
10,700.00	90.00	179.66	8,067.95	-3,573.32	1,593.94	3,766.31	0.00	0.00	0.00	
10,800.00	90.00	179.66	8,067.95	-3,673.32	1,594.53	3,865.34	0.00	0.00	0.00	
10,900.00	90.00	179.66	8,067.95	-3,773.32	1,595.13	3,964.38	0.00	0.00	0.00	
11,000.00	90.00	179.66	8,067.95	-3,873.32	1,595.73	4,063.41	0.00	0.00	0.00	
11,100.00	90.00	179.66	8,067.94	-3,973.32	1,596.33	4,162.44	0.00	0.00	0.00	
11,200.00	90.00	179.66	8,067.94	-4,073.32	1,596.93	4,261.47	0.00	0.00	0.00	
11,300.00	90.00	179.66	8,067.94	-4,173.31	1,597.52	4,360.51	0.00	0.00	0.00	
11,400.00	90.00	179.66	8,067.94	-4,273.31	1,598.12	4,459.54	0.00	0.00	0.00	
11,500.00	90.00	179.66	8,067.94	-4,373.31	1,598.72	4,558.57	0.00	0.00	0.00	
11,600.00	90.00	179.66	8,067.93	-4,473.31	1,599.32	4,657.61	0.00	0.00	0.00	
11,700.00	90.00	179.66	8,067.93	-4,573.31	1,599.91	4,756.64	0.00	0.00	0.00	
11,800.00	90.00	179.66	8,067.93	-4,673.30	1,600.51	4,855.67	0.00	0.00	0.00	
11,900.00	90.00	179.66	8,067.93	-4,773.30	1,601.11	4,954.70	0.00	0.00	0.00	
12,000.00	90.00	179.66	8,067.92	-4,873.30	1,601.71	5,053.74	0.00	0.00	0.00	
12,100.00	90.00	179.66	8,067.92	-4,973.30	1,602.30	5,152.77	0.00	0.00	0.00	
12,200.00	90.00	179.66	8,067.92	-5,073.30	1,602.90	5,251.80	0.00	0.00	0.00	
12,300.00	90.00	179.66	8,067.92	-5,173.30	1,603.50	5,350.84	0.00	0.00	0.00	
12,400.00	90.00	179.66	8,067.92	-5,273.29	1,604.10	5,449.87	0.00	0.00	0.00	
12,500.00	90.00	179.66	8,067.91	-5,373.29	1,604.69	5,548.90	0.00	0.00	0.00	
12,600.00	90.00	179.66	8,067.91	-5,473.29	1,605.29	5,647.93	0.00	0.00	0.00	
12,700.00	90.00	179.66	8,067.91	-5,573.29	1,605.89	5,746.97	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-8C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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	179.66	8,067.91	-5,673.29	1,606.49	5,846.00	0.00	0.00	0.00
12,900.00	90.00	179.66	8,067.90	-5,773.28	1,607.08	5,945.03	0.00	0.00	0.00
13,000.00	90.00	179.66	8,067.90	-5,873.28	1,607.68	6,044.07	0.00	0.00	0.00
13,100.00	90.00	179.66	8,067.90	-5,973.28	1,608.28	6,143.10	0.00	0.00	0.00
13,200.00	90.00	179.66	8,067.90	-6,073.28	1,608.88	6,242.13	0.00	0.00	0.00
13,300.00	90.00	179.66	8,067.89	-6,173.28	1,609.47	6,341.17	0.00	0.00	0.00
13,400.00	90.00	179.66	8,067.89	-6,273.28	1,610.07	6,440.20	0.00	0.00	0.00
13,500.00	90.00	179.66	8,067.89	-6,373.27	1,610.67	6,539.23	0.00	0.00	0.00
13,600.00	90.00	179.66	8,067.89	-6,473.27	1,611.27	6,638.26	0.00	0.00	0.00
13,700.00	90.00	179.66	8,067.89	-6,573.27	1,611.86	6,737.30	0.00	0.00	0.00
13,800.00	90.00	179.66	8,067.88	-6,673.27	1,612.46	6,836.33	0.00	0.00	0.00
13,900.00	90.00	179.66	8,067.88	-6,773.27	1,613.06	6,935.36	0.00	0.00	0.00
14,000.00	90.00	179.66	8,067.88	-6,873.27	1,613.66	7,034.40	0.00	0.00	0.00
14,100.00	90.00	179.66	8,067.88	-6,973.26	1,614.25	7,133.43	0.00	0.00	0.00
14,200.00	90.00	179.66	8,067.87	-7,073.26	1,614.85	7,232.46	0.00	0.00	0.00
14,300.00	90.00	179.66	8,067.87	-7,173.26	1,615.45	7,331.49	0.00	0.00	0.00
14,400.00	90.00	179.66	8,067.87	-7,273.26	1,616.05	7,430.53	0.00	0.00	0.00
14,500.00	90.00	179.66	8,067.87	-7,373.26	1,616.64	7,529.56	0.00	0.00	0.00
14,600.00	90.00	179.66	8,067.86	-7,473.25	1,617.24	7,628.59	0.00	0.00	0.00
14,700.00	90.00	179.66	8,067.86	-7,573.25	1,617.84	7,727.63	0.00	0.00	0.00
14,800.00	90.00	179.66	8,067.86	-7,673.25	1,618.44	7,826.66	0.00	0.00	0.00
14,900.00	90.00	179.66	8,067.86	-7,773.25	1,619.03	7,925.69	0.00	0.00	0.00
15,000.00	90.00	179.66	8,067.86	-7,873.25	1,619.63	8,024.72	0.00	0.00	0.00
15,100.00	90.00	179.66	8,067.85	-7,973.25	1,620.23	8,123.76	0.00	0.00	0.00
15,200.00	90.00	179.66	8,067.85	-8,073.24	1,620.83	8,222.79	0.00	0.00	0.00
15,300.00	90.00	179.66	8,067.85	-8,173.24	1,621.42	8,321.82	0.00	0.00	0.00
15,400.00	90.00	179.66	8,067.85	-8,273.24	1,622.02	8,420.86	0.00	0.00	0.00
15,500.00	90.00	179.66	8,067.84	-8,373.24	1,622.62	8,519.89	0.00	0.00	0.00
15,600.00	90.00	179.66	8,067.84	-8,473.24	1,623.22	8,618.92	0.00	0.00	0.00
15,700.00	90.00	179.66	8,067.84	-8,573.23	1,623.81	8,717.96	0.00	0.00	0.00
15,800.00	90.00	179.66	8,067.84	-8,673.23	1,624.41	8,816.99	0.00	0.00	0.00
15,900.00	90.00	179.66	8,067.84	-8,773.23	1,625.01	8,916.02	0.00	0.00	0.00
16,000.00	90.00	179.66	8,067.83	-8,873.23	1,625.61	9,015.05	0.00	0.00	0.00
16,100.00	90.00	179.66	8,067.83	-8,973.23	1,626.20	9,114.09	0.00	0.00	0.00
16,200.00	90.00	179.66	8,067.83	-9,073.23	1,626.80	9,213.12	0.00	0.00	0.00
16,300.00	90.00	179.66	8,067.83	-9,173.22	1,627.40	9,312.15	0.00	0.00	0.00
16,400.00	90.00	179.66	8,067.82	-9,273.22	1,628.00	9,411.19	0.00	0.00	0.00
16,500.00	90.00	179.66	8,067.82	-9,373.22	1,628.60	9,510.22	0.00	0.00	0.00
16,600.00	90.00	179.66	8,067.82	-9,473.22	1,629.19	9,609.25	0.00	0.00	0.00
16,700.00	90.00	179.66	8,067.82	-9,573.22	1,629.79	9,708.28	0.00	0.00	0.00
16,800.00	90.00	179.66	8,067.81	-9,673.22	1,630.39	9,807.32	0.00	0.00	0.00
16,900.00	90.00	179.66	8,067.81	-9,773.21	1,630.99	9,906.35	0.00	0.00	0.00
17,000.00	90.00	179.66	8,067.81	-9,873.21	1,631.58	10,005.38	0.00	0.00	0.00
17,100.00	90.00	179.66	8,067.81	-9,973.21	1,632.18	10,104.42	0.00	0.00	0.00
17,200.00	90.00	179.66	8,067.81	-10,073.21	1,632.78	10,203.45	0.00	0.00	0.00
17,300.00	90.00	179.66	8,067.80	-10,173.21	1,633.38	10,302.48	0.00	0.00	0.00
17,400.00	90.00	179.66	8,067.80	-10,273.20	1,633.97	10,401.51	0.00	0.00	0.00
17,500.00	90.00	179.66	8,067.80	-10,373.20	1,634.57	10,500.55	0.00	0.00	0.00
17,600.00	90.00	179.66	8,067.80	-10,473.20	1,635.17	10,599.58	0.00	0.00	0.00
17,700.00	90.00	179.66	8,067.79	-10,573.20	1,635.77	10,698.61	0.00	0.00	0.00
17,800.00	90.00	179.66	8,067.79	-10,673.20	1,636.36	10,797.65	0.00	0.00	0.00
17,900.00	90.00	179.66	8,067.79	-10,773.20	1,636.96	10,896.68	0.00	0.00	0.00
18,000.00	90.00	179.66	8,067.79	-10,873.19	1,637.56	10,995.71	0.00	0.00	0.00
18,100.00	90.00	179.66	8,067.78	-10,973.19	1,638.16	11,094.75	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 34S-20-8C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5269.00usft
Project:	Weld County	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 34S-20-8C	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)
18,200.00	90.00	179.66	8,067.78	-11,073.19	1,638.75	11,193.78	0.00	0.00	0.00
18,300.00	90.00	179.66	8,067.78	-11,173.19	1,639.35	11,292.81	0.00	0.00	0.00
18,343.05	90.00	179.66	8,068.00	-11,216.24	1,639.85	11,335.48	0.00	0.00	0.00
TD at 18343.05' MD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 34S-20-8C LP - plan hits target center - Point	0.00	0.00	8,068.00	-1,554.57	1,581.87	1,248,197.98	3,139,716.35	40° 0' 49.000 N	105° 0' 4.264 W
CT 34S-20-8C PBHL - plan hits target center - Point	0.00	0.00	8,068.00	-11,216.24	1,639.85	1,238,536.78	3,139,828.06	39° 59' 13.517 N	105° 0' 3.527 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,598.96	4,440.00	PARKMAN				
5,094.50	4,910.00	SUSSEX				
7,896.92	7,610.00	SHARON SPRINGS				
7,938.09	7,650.00	NIOBRARA				
8,099.22	7,797.00	NIO B				
8,529.36	8,048.00	FORT HAYS				
8,681.21	8,068.00	CODELL				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	900.00	0.00	0.00	BUILD 2°/100'
1,823.78	1,807.85	-77.97	125.39	HOLD 18.48° INC
6,757.36	6,487.15	-903.60	1,453.06	DROP 2°/100'
7,681.13	7,395.00	-981.57	1,578.45	HOLD VERTICAL
7,781.13	7,495.00	-981.57	1,578.45	KOP, BUILD 10°/100'
8,681.21	8,068.00	-1,554.57	1,581.87	LP @ 90° INC, 179.66° AZM HOLD
18,343.05	8,068.00	-11,216.24	1,639.85	TD at 18343.05' MD