

# **EXTRACTION OIL & GAS**

**Weld County**

**Sec 28-T1N-R68W**

**COYOTE TRAILS 33S-20-5C**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**10 August, 2017**



Project: Weld County  
Site: Sec 28-T1N-R68W  
Well: COYOTE TRAILS 33S-20-5C  
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: 8.30°

Magnetic Field  
Strength: 52159.9snT  
Dip Angle: 66.51°  
Date: 6/29/2017  
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 33S-20-5C

+N/-S	+E/-W	Northing	Easting	5244.00	Latitude	Longitude	Slot
+N/-S	+E/-W	1249743.73	3138035.88		40° 1' 4.369 N	105° 0' 25.752 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	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	
3	1846.33	12.93	141.15	1840.86	-56.54	45.54	2.00	141.15	59.86	
4	6887.36	12.93	141.15	6754.14	-934.76	752.96	0.00	0.00	989.56	
5	7533.69	0.00	0.00	7395.00	-991.30	798.50	2.00	180.00	1049.42	
6	7633.69	0.00	0.00	7495.00	-991.30	798.50	0.00	0.00	1049.42	
7	8533.77	90.00	179.66	8068.00	-1564.30	801.90	10.00	179.66	1621.00	CT 33S-20-5C LP
8	18184.63	90.00	179.66	8068.00	-11214.99	859.54	0.00	-113.17	11247.88	CT 33S-20-5C PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	4513.05	PARKMAN
4910.00	4995.27	SUSSEX
7610.00	7749.48	SHARON SPRINGS
7650.00	7790.65	NIOBRARA
7797.00	7951.78	NIO B
8048.00	8381.92	FORT HAYS
8068.00	8533.77	CODELL

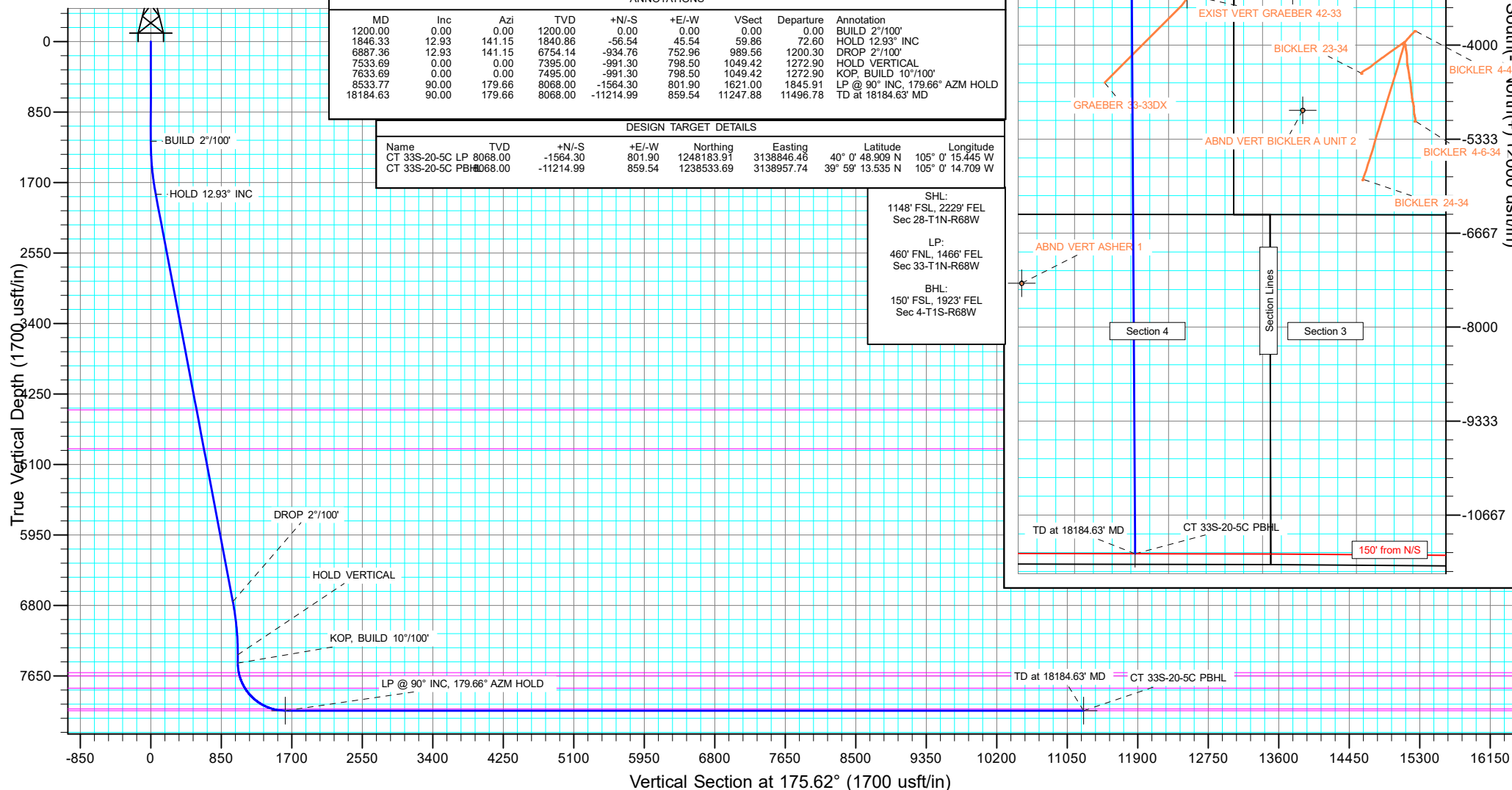
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	BUILD 2°/100'
1846.33	12.93	141.15	1840.86	-56.54	45.54	59.86	72.60	HOLD 12.93° INC
6887.36	12.93	141.15	6754.14	-934.76	752.96	989.56	1200.30	DROP 2°/100'
7533.69	0.00	0.00	7395.00	-991.30	798.50	1049.42	1272.90	HOLD VERTICAL
7633.69	0.00	0.00	7495.00	-991.30	798.50	1049.42	1272.90	KOP, BUILD 10°/100'
8533.77	90.00	179.66	8068.00	-1564.30	801.90	1621.00	1845.91	LP @ 90° INC, 179.66° AZM HOLD
18184.63	90.00	179.66	8068.00	-11214.99	859.54	11247.88	11496.78	TD at 18184.63' MD

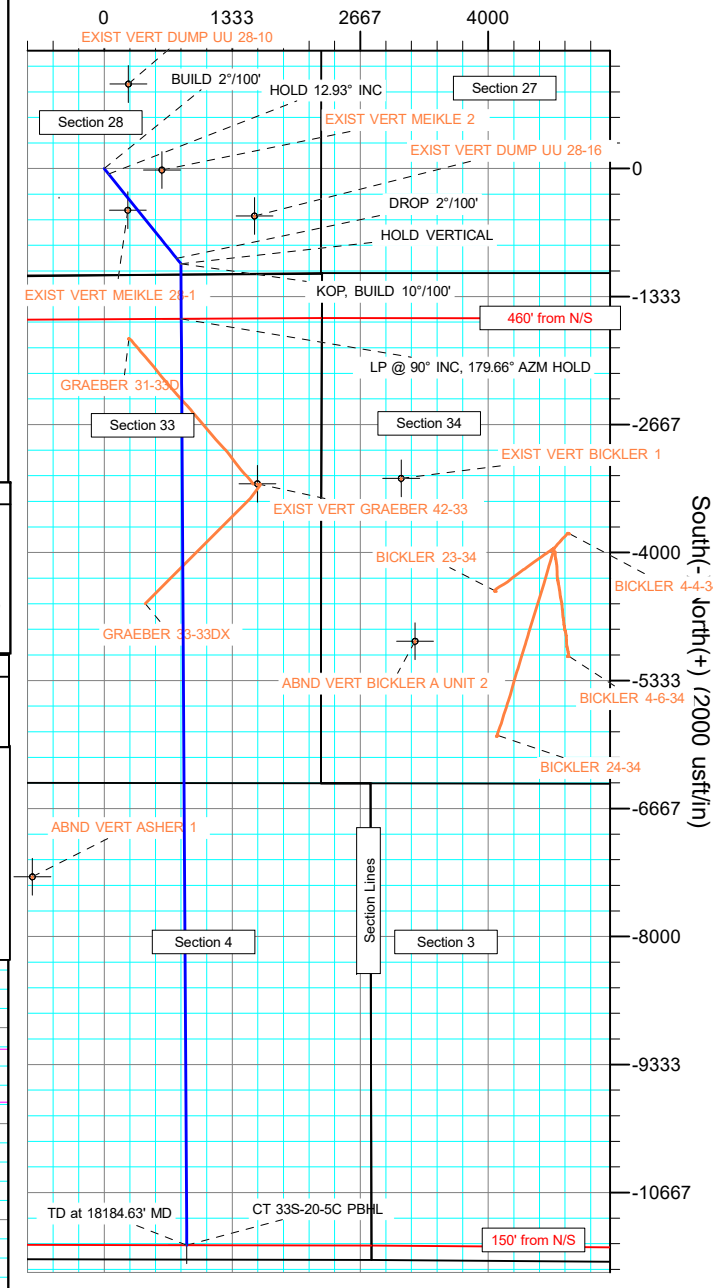
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CT 33S-20-5C LP	8068.00	-1564.30	801.90	1248183.91	3138846.46	40° 0' 48.909 N	105° 0' 15.445 W
CT 33S-20-5C PBHL	8068.00	-11214.99	859.54	1238533.69	3138957.74	39° 59' 13.535 N	105° 0' 14.709 W

SHL:  
1148' FSL, 2229' FEL  
Sec 28-T1N-R68W  
  
LP:  
460' FNL, 1466' FEL  
Sec 33-T1N-R68W  
  
BHL:  
150' FSL, 1923' FEL  
Sec 4-T1S-R68W



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



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33S-20-5C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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 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 33S-20-5C					
Well Position	+N/-S	1,096.29 usft	Northing:	1,249,743.73 usft	Latitude:	40° 1' 4.369 N
	+E/-W	-2,257.79 usft	Easting:	3,138,035.88 usft	Longitude:	105° 0' 25.752 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,244.00 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	6/29/2017	8.30	66.51	52,159.93646847

<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	175.62

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/10/2017		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,184.63	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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,846.33	12.93	141.15	1,840.86	-56.54	45.54	2.00	2.00	0.00	141.15	
6,887.36	12.93	141.15	6,754.14	-934.76	752.96	0.00	0.00	0.00	0.00	
7,533.69	0.00	0.00	7,395.00	-991.30	798.50	2.00	-2.00	0.00	180.00	
7,633.69	0.00	0.00	7,495.00	-991.30	798.50	0.00	0.00	0.00	0.00	
8,533.77	90.00	179.66	8,068.00	-1,564.30	801.90	10.00	10.00	19.96	179.66	CT 33S-20-5C LP
18,184.63	90.00	179.66	8,068.00	-11,214.99	859.54	0.00	0.00	0.00	-113.17	CT 33S-20-5C PBHL

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33S-20-5C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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
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
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>BUILD 2°/100'</b>									
1,300.00	2.00	141.15	1,299.98	-1.36	1.09	1.44	2.00	2.00	0.00
1,400.00	4.00	141.15	1,399.84	-5.43	4.38	5.75	2.00	2.00	0.00
1,500.00	6.00	141.15	1,499.45	-12.22	9.84	12.94	2.00	2.00	0.00
1,600.00	8.00	141.15	1,598.70	-21.71	17.49	22.99	2.00	2.00	0.00
1,700.00	10.00	141.15	1,697.47	-33.89	27.30	35.88	2.00	2.00	0.00
1,800.00	12.00	141.15	1,795.62	-48.75	39.27	51.61	2.00	2.00	0.00
1,846.33	12.93	141.15	1,840.86	-56.54	45.54	59.86	2.00	2.00	0.00
<b>HOLD 12.93° INC</b>									
1,900.00	12.93	141.15	1,893.17	-65.89	53.07	69.75	0.00	0.00	0.00
2,000.00	12.93	141.15	1,990.64	-83.31	67.11	88.20	0.00	0.00	0.00
2,100.00	12.93	141.15	2,088.10	-100.73	81.14	106.64	0.00	0.00	0.00
2,200.00	12.93	141.15	2,185.57	-118.15	95.17	125.08	0.00	0.00	0.00
2,300.00	12.93	141.15	2,283.03	-135.58	109.21	143.52	0.00	0.00	0.00
2,400.00	12.93	141.15	2,380.50	-153.00	123.24	161.97	0.00	0.00	0.00
2,500.00	12.93	141.15	2,477.97	-170.42	137.27	180.41	0.00	0.00	0.00
2,600.00	12.93	141.15	2,575.43	-187.84	151.31	198.85	0.00	0.00	0.00
2,700.00	12.93	141.15	2,672.90	-205.26	165.34	217.30	0.00	0.00	0.00
2,800.00	12.93	141.15	2,770.36	-222.68	179.37	235.74	0.00	0.00	0.00
2,900.00	12.93	141.15	2,867.83	-240.10	193.41	254.18	0.00	0.00	0.00
3,000.00	12.93	141.15	2,965.29	-257.53	207.44	272.62	0.00	0.00	0.00
3,100.00	12.93	141.15	3,062.76	-274.95	221.47	291.07	0.00	0.00	0.00
3,200.00	12.93	141.15	3,160.23	-292.37	235.51	309.51	0.00	0.00	0.00
3,300.00	12.93	141.15	3,257.69	-309.79	249.54	327.95	0.00	0.00	0.00
3,400.00	12.93	141.15	3,355.16	-327.21	263.57	346.40	0.00	0.00	0.00
3,500.00	12.93	141.15	3,452.62	-344.63	277.60	364.84	0.00	0.00	0.00
3,600.00	12.93	141.15	3,550.09	-362.05	291.64	383.28	0.00	0.00	0.00
3,700.00	12.93	141.15	3,647.55	-379.48	305.67	401.72	0.00	0.00	0.00
3,800.00	12.93	141.15	3,745.02	-396.90	319.70	420.17	0.00	0.00	0.00
3,900.00	12.93	141.15	3,842.49	-414.32	333.74	438.61	0.00	0.00	0.00
4,000.00	12.93	141.15	3,939.95	-431.74	347.77	457.05	0.00	0.00	0.00
4,100.00	12.93	141.15	4,037.42	-449.16	361.80	475.50	0.00	0.00	0.00
4,200.00	12.93	141.15	4,134.88	-466.58	375.84	493.94	0.00	0.00	0.00
4,300.00	12.93	141.15	4,232.35	-484.00	389.87	512.38	0.00	0.00	0.00
4,400.00	12.93	141.15	4,329.81	-501.43	403.90	530.82	0.00	0.00	0.00
4,500.00	12.93	141.15	4,427.28	-518.85	417.94	549.27	0.00	0.00	0.00
4,513.05	12.93	141.15	4,440.00	-521.12	419.77	551.67	0.00	0.00	0.00
<b>PARKMAN</b>									
4,600.00	12.93	141.15	4,524.75	-536.27	431.97	567.71	0.00	0.00	0.00
4,700.00	12.93	141.15	4,622.21	-553.69	446.00	586.15	0.00	0.00	0.00

# Planning Report

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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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)
4,800.00	12.93	141.15	4,719.68	-571.11	460.03	604.60	0.00	0.00	0.00
4,900.00	12.93	141.15	4,817.14	-588.53	474.07	623.04	0.00	0.00	0.00
4,995.27	12.93	141.15	4,910.00	-605.13	487.44	640.61	0.00	0.00	0.00
<b>SUSSEX</b>									
5,000.00	12.93	141.15	4,914.61	-605.95	488.10	641.48	0.00	0.00	0.00
5,100.00	12.93	141.15	5,012.07	-623.38	502.13	659.92	0.00	0.00	0.00
5,200.00	12.93	141.15	5,109.54	-640.80	516.17	678.37	0.00	0.00	0.00
5,300.00	12.93	141.15	5,207.01	-658.22	530.20	696.81	0.00	0.00	0.00
5,400.00	12.93	141.15	5,304.47	-675.64	544.23	715.25	0.00	0.00	0.00
5,500.00	12.93	141.15	5,401.94	-693.06	558.27	733.70	0.00	0.00	0.00
5,600.00	12.93	141.15	5,499.40	-710.48	572.30	752.14	0.00	0.00	0.00
5,700.00	12.93	141.15	5,596.87	-727.90	586.33	770.58	0.00	0.00	0.00
5,800.00	12.93	141.15	5,694.33	-745.33	600.37	789.02	0.00	0.00	0.00
5,900.00	12.93	141.15	5,791.80	-762.75	614.40	807.47	0.00	0.00	0.00
6,000.00	12.93	141.15	5,889.27	-780.17	628.43	825.91	0.00	0.00	0.00
6,100.00	12.93	141.15	5,986.73	-797.59	642.47	844.35	0.00	0.00	0.00
6,200.00	12.93	141.15	6,084.20	-815.01	656.50	862.79	0.00	0.00	0.00
6,300.00	12.93	141.15	6,181.66	-832.43	670.53	881.24	0.00	0.00	0.00
6,400.00	12.93	141.15	6,279.13	-849.85	684.56	899.68	0.00	0.00	0.00
6,500.00	12.93	141.15	6,376.59	-867.28	698.60	918.12	0.00	0.00	0.00
6,600.00	12.93	141.15	6,474.06	-884.70	712.63	936.57	0.00	0.00	0.00
6,700.00	12.93	141.15	6,571.53	-902.12	726.66	955.01	0.00	0.00	0.00
6,800.00	12.93	141.15	6,668.99	-919.54	740.70	973.45	0.00	0.00	0.00
6,887.36	12.93	141.15	6,754.14	-934.76	752.96	989.56	0.00	0.00	0.00
<b>DROP 2°/100'</b>									
6,900.00	12.67	141.15	6,766.46	-936.94	754.71	991.87	2.00	-2.00	0.00
7,000.00	10.67	141.15	6,864.39	-952.70	767.41	1,008.55	2.00	-2.00	0.00
7,100.00	8.67	141.15	6,962.96	-965.78	777.95	1,022.41	2.00	-2.00	0.00
7,200.00	6.67	141.15	7,062.06	-976.18	786.32	1,033.41	2.00	-2.00	0.00
7,300.00	4.67	141.15	7,161.57	-983.88	792.52	1,041.56	2.00	-2.00	0.00
7,400.00	2.67	141.15	7,261.36	-988.87	796.54	1,046.85	2.00	-2.00	0.00
7,500.00	0.67	141.15	7,361.31	-991.15	798.38	1,049.26	2.00	-2.00	0.00
7,533.69	0.00	0.00	7,395.00	-991.30	798.50	1,049.42	2.00	-2.00	0.00
<b>HOLD VERTICAL</b>									
7,600.00	0.00	0.00	7,461.31	-991.30	798.50	1,049.42	0.00	0.00	0.00
7,633.69	0.00	0.00	7,495.00	-991.30	798.50	1,049.42	0.00	0.00	0.00
<b>KOP, BUILD 10°/100'</b>									
7,650.00	1.63	179.66	7,511.31	-991.53	798.50	1,049.65	10.00	10.00	0.00
7,700.00	6.63	179.66	7,561.16	-995.13	798.52	1,053.24	10.00	10.00	0.00
7,749.48	11.58	179.66	7,610.00	-1,002.96	798.57	1,061.05	10.00	10.00	0.00
<b>SHARON SPRINGS</b>									
7,750.00	11.63	179.66	7,610.51	-1,003.06	798.57	1,061.15	10.00	10.00	0.00
7,790.65	15.69	179.66	7,650.00	-1,012.66	798.63	1,070.73	10.00	10.00	0.00
<b>NIOBRARA</b>									
7,800.00	16.63	179.66	7,658.98	-1,015.27	798.64	1,073.32	10.00	10.00	0.00
7,850.00	21.63	179.66	7,706.21	-1,031.64	798.74	1,089.66	10.00	10.00	0.00
7,900.00	26.63	179.66	7,751.82	-1,052.08	798.86	1,110.05	10.00	10.00	0.00
7,950.00	31.63	179.66	7,795.49	-1,076.41	799.00	1,134.32	10.00	10.00	0.00
7,951.78	31.81	179.66	7,797.00	-1,077.34	799.01	1,135.25	10.00	10.00	0.00
<b>NIO B</b>									
8,000.00	36.63	179.66	7,836.86	-1,104.45	799.17	1,162.29	10.00	10.00	0.00
8,050.00	41.63	179.66	7,875.64	-1,135.99	799.36	1,193.75	10.00	10.00	0.00
8,100.00	46.63	179.66	7,911.52	-1,170.79	799.56	1,228.47	10.00	10.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33S-20-5C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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)	
8,150.00	51.63	179.66	7,944.22	-1,208.59	799.79	1,266.17	10.00	10.00	0.00	
8,200.00	56.63	179.66	7,973.51	-1,249.09	800.03	1,306.57	10.00	10.00	0.00	
8,250.00	61.63	179.66	7,999.16	-1,291.99	800.28	1,349.37	10.00	10.00	0.00	
8,300.00	66.63	179.66	8,020.98	-1,336.97	800.55	1,394.23	10.00	10.00	0.00	
8,350.00	71.63	179.66	8,038.79	-1,383.67	800.83	1,440.82	10.00	10.00	0.00	
8,381.92	74.82	179.66	8,048.00	-1,414.23	801.01	1,471.30	10.00	10.00	0.00	
FORT HAYS										
8,400.00	76.63	179.66	8,052.46	-1,431.74	801.11	1,488.78	10.00	10.00	0.00	
8,450.00	81.62	179.66	8,061.89	-1,480.83	801.40	1,537.74	10.00	10.00	0.00	
8,500.00	86.62	179.66	8,067.01	-1,530.55	801.70	1,587.34	10.00	10.00	0.00	
8,533.77	90.00	179.66	8,068.00	-1,564.30	801.90	1,621.00	10.00	10.00	0.00	
LP @ 90° INC, 179.66° AZM HOLD - CODELL										
8,600.00	90.00	179.66	8,068.00	-1,630.53	802.29	1,687.07	0.00	0.00	0.00	
8,700.00	90.00	179.66	8,068.00	-1,730.53	802.88	1,786.82	0.00	0.00	0.00	
8,800.00	90.00	179.66	8,068.00	-1,830.53	803.48	1,886.57	0.00	0.00	0.00	
8,900.00	90.00	179.66	8,067.99	-1,930.52	804.07	1,986.32	0.00	0.00	0.00	
9,000.00	90.00	179.66	8,067.99	-2,030.52	804.66	2,086.07	0.00	0.00	0.00	
9,100.00	90.00	179.66	8,067.99	-2,130.52	805.26	2,185.83	0.00	0.00	0.00	
9,200.00	90.00	179.66	8,067.99	-2,230.52	805.85	2,285.58	0.00	0.00	0.00	
9,300.00	90.00	179.66	8,067.99	-2,330.52	806.44	2,385.33	0.00	0.00	0.00	
9,400.00	90.00	179.66	8,067.99	-2,430.52	807.04	2,485.08	0.00	0.00	0.00	
9,500.00	90.00	179.66	8,067.98	-2,530.51	807.63	2,584.83	0.00	0.00	0.00	
9,600.00	90.00	179.66	8,067.98	-2,630.51	808.22	2,684.58	0.00	0.00	0.00	
9,700.00	90.00	179.66	8,067.98	-2,730.51	808.82	2,784.33	0.00	0.00	0.00	
9,800.00	90.00	179.66	8,067.98	-2,830.51	809.41	2,884.08	0.00	0.00	0.00	
9,900.00	90.00	179.66	8,067.98	-2,930.51	810.01	2,983.83	0.00	0.00	0.00	
10,000.00	90.00	179.66	8,067.98	-3,030.51	810.60	3,083.59	0.00	0.00	0.00	
10,100.00	90.00	179.66	8,067.98	-3,130.50	811.20	3,183.34	0.00	0.00	0.00	
10,200.00	90.00	179.66	8,067.97	-3,230.50	811.79	3,283.09	0.00	0.00	0.00	
10,300.00	90.00	179.66	8,067.97	-3,330.50	812.38	3,382.84	0.00	0.00	0.00	
10,400.00	90.00	179.66	8,067.97	-3,430.50	812.98	3,482.59	0.00	0.00	0.00	
10,500.00	90.00	179.66	8,067.97	-3,530.50	813.57	3,582.34	0.00	0.00	0.00	
10,600.00	90.00	179.66	8,067.97	-3,630.49	814.17	3,682.09	0.00	0.00	0.00	
10,700.00	90.00	179.66	8,067.97	-3,730.49	814.76	3,781.85	0.00	0.00	0.00	
10,800.00	90.00	179.66	8,067.97	-3,830.49	815.36	3,881.60	0.00	0.00	0.00	
10,900.00	90.00	179.66	8,067.97	-3,930.49	815.95	3,981.35	0.00	0.00	0.00	
11,000.00	90.00	179.66	8,067.97	-4,030.49	816.55	4,081.10	0.00	0.00	0.00	
11,100.00	90.00	179.66	8,067.97	-4,130.49	817.14	4,180.85	0.00	0.00	0.00	
11,200.00	90.00	179.66	8,067.96	-4,230.48	817.74	4,280.60	0.00	0.00	0.00	
11,300.00	90.00	179.66	8,067.96	-4,330.48	818.33	4,380.35	0.00	0.00	0.00	
11,400.00	90.00	179.66	8,067.96	-4,430.48	818.93	4,480.10	0.00	0.00	0.00	
11,500.00	90.00	179.66	8,067.96	-4,530.48	819.52	4,579.86	0.00	0.00	0.00	
11,600.00	90.00	179.66	8,067.96	-4,630.48	820.12	4,679.61	0.00	0.00	0.00	
11,700.00	90.00	179.66	8,067.96	-4,730.48	820.72	4,779.36	0.00	0.00	0.00	
11,800.00	90.00	179.66	8,067.96	-4,830.47	821.31	4,879.11	0.00	0.00	0.00	
11,900.00	90.00	179.66	8,067.96	-4,930.47	821.91	4,978.86	0.00	0.00	0.00	
12,000.00	90.00	179.66	8,067.96	-5,030.47	822.50	5,078.61	0.00	0.00	0.00	
12,100.00	90.00	179.66	8,067.96	-5,130.47	823.10	5,178.36	0.00	0.00	0.00	
12,200.00	90.00	179.66	8,067.96	-5,230.47	823.70	5,278.12	0.00	0.00	0.00	
12,300.00	90.00	179.66	8,067.96	-5,330.46	824.29	5,377.87	0.00	0.00	0.00	
12,400.00	90.00	179.66	8,067.96	-5,430.46	824.89	5,477.62	0.00	0.00	0.00	
12,500.00	90.00	179.66	8,067.96	-5,530.46	825.49	5,577.37	0.00	0.00	0.00	
12,600.00	90.00	179.66	8,067.96	-5,630.46	826.08	5,677.12	0.00	0.00	0.00	
12,700.00	90.00	179.66	8,067.96	-5,730.46	826.68	5,776.87	0.00	0.00	0.00	

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33S-20-5C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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)
12,800.00	90.00	179.66	8,067.96	-5,830.46	827.28	5,876.62	0.00	0.00	0.00
12,900.00	90.00	179.66	8,067.96	-5,930.45	827.87	5,976.38	0.00	0.00	0.00
13,000.00	90.00	179.66	8,067.96	-6,030.45	828.47	6,076.13	0.00	0.00	0.00
13,100.00	90.00	179.66	8,067.96	-6,130.45	829.07	6,175.88	0.00	0.00	0.00
13,200.00	90.00	179.66	8,067.96	-6,230.45	829.66	6,275.63	0.00	0.00	0.00
13,300.00	90.00	179.66	8,067.96	-6,330.45	830.26	6,375.38	0.00	0.00	0.00
13,400.00	90.00	179.66	8,067.96	-6,430.45	830.86	6,475.13	0.00	0.00	0.00
13,500.00	90.00	179.66	8,067.96	-6,530.44	831.45	6,574.88	0.00	0.00	0.00
13,600.00	90.00	179.66	8,067.96	-6,630.44	832.05	6,674.64	0.00	0.00	0.00
13,700.00	90.00	179.66	8,067.96	-6,730.44	832.65	6,774.39	0.00	0.00	0.00
13,800.00	90.00	179.66	8,067.96	-6,830.44	833.25	6,874.14	0.00	0.00	0.00
13,900.00	90.00	179.66	8,067.96	-6,930.44	833.85	6,973.89	0.00	0.00	0.00
14,000.00	90.00	179.66	8,067.96	-7,030.43	834.44	7,073.64	0.00	0.00	0.00
14,100.00	90.00	179.66	8,067.96	-7,130.43	835.04	7,173.39	0.00	0.00	0.00
14,200.00	90.00	179.66	8,067.96	-7,230.43	835.64	7,273.14	0.00	0.00	0.00
14,300.00	90.00	179.66	8,067.96	-7,330.43	836.24	7,372.90	0.00	0.00	0.00
14,400.00	90.00	179.66	8,067.96	-7,430.43	836.83	7,472.65	0.00	0.00	0.00
14,500.00	90.00	179.66	8,067.96	-7,530.43	837.43	7,572.40	0.00	0.00	0.00
14,600.00	90.00	179.66	8,067.96	-7,630.42	838.03	7,672.15	0.00	0.00	0.00
14,700.00	90.00	179.66	8,067.96	-7,730.42	838.63	7,771.90	0.00	0.00	0.00
14,800.00	90.00	179.66	8,067.96	-7,830.42	839.23	7,871.65	0.00	0.00	0.00
14,900.00	90.00	179.66	8,067.96	-7,930.42	839.83	7,971.41	0.00	0.00	0.00
15,000.00	90.00	179.66	8,067.96	-8,030.42	840.43	8,071.16	0.00	0.00	0.00
15,100.00	90.00	179.66	8,067.96	-8,130.41	841.02	8,170.91	0.00	0.00	0.00
15,200.00	90.00	179.66	8,067.96	-8,230.41	841.62	8,270.66	0.00	0.00	0.00
15,300.00	90.00	179.66	8,067.96	-8,330.41	842.22	8,370.41	0.00	0.00	0.00
15,400.00	90.00	179.66	8,067.96	-8,430.41	842.82	8,470.16	0.00	0.00	0.00
15,500.00	90.00	179.66	8,067.96	-8,530.41	843.42	8,569.92	0.00	0.00	0.00
15,600.00	90.00	179.66	8,067.96	-8,630.41	844.02	8,669.67	0.00	0.00	0.00
15,700.00	90.00	179.66	8,067.97	-8,730.40	844.62	8,769.42	0.00	0.00	0.00
15,800.00	90.00	179.66	8,067.97	-8,830.40	845.22	8,869.17	0.00	0.00	0.00
15,900.00	90.00	179.66	8,067.97	-8,930.40	845.82	8,968.92	0.00	0.00	0.00
16,000.00	90.00	179.66	8,067.97	-9,030.40	846.42	9,068.67	0.00	0.00	0.00
16,100.00	90.00	179.66	8,067.97	-9,130.40	847.02	9,168.43	0.00	0.00	0.00
16,200.00	90.00	179.66	8,067.97	-9,230.39	847.62	9,268.18	0.00	0.00	0.00
16,300.00	90.00	179.66	8,067.97	-9,330.39	848.22	9,367.93	0.00	0.00	0.00
16,400.00	90.00	179.66	8,067.97	-9,430.39	848.82	9,467.68	0.00	0.00	0.00
16,500.00	90.00	179.66	8,067.97	-9,530.39	849.42	9,567.43	0.00	0.00	0.00
16,600.00	90.00	179.66	8,067.98	-9,630.39	850.02	9,667.18	0.00	0.00	0.00
16,700.00	90.00	179.66	8,067.98	-9,730.39	850.62	9,766.94	0.00	0.00	0.00
16,800.00	90.00	179.66	8,067.98	-9,830.38	851.22	9,866.69	0.00	0.00	0.00
16,900.00	90.00	179.66	8,067.98	-9,930.38	851.82	9,966.44	0.00	0.00	0.00
17,000.00	90.00	179.66	8,067.98	-10,030.38	852.42	10,066.19	0.00	0.00	0.00
17,100.00	90.00	179.66	8,067.98	-10,130.38	853.02	10,165.94	0.00	0.00	0.00
17,200.00	90.00	179.66	8,067.98	-10,230.38	853.62	10,265.69	0.00	0.00	0.00
17,300.00	90.00	179.66	8,067.99	-10,330.38	854.22	10,365.45	0.00	0.00	0.00
17,400.00	90.00	179.66	8,067.99	-10,430.37	854.82	10,465.20	0.00	0.00	0.00
17,500.00	90.00	179.66	8,067.99	-10,530.37	855.42	10,564.95	0.00	0.00	0.00
17,600.00	90.00	179.66	8,067.99	-10,630.37	856.02	10,664.70	0.00	0.00	0.00
17,700.00	90.00	179.66	8,067.99	-10,730.37	856.62	10,764.45	0.00	0.00	0.00
17,800.00	90.00	179.66	8,067.99	-10,830.37	857.23	10,864.20	0.00	0.00	0.00
17,900.00	90.00	179.66	8,068.00	-10,930.36	857.83	10,963.96	0.00	0.00	0.00
18,000.00	90.00	179.66	8,068.00	-11,030.36	858.43	11,063.71	0.00	0.00	0.00
18,100.00	90.00	179.66	8,068.00	-11,130.36	859.03	11,163.46	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33S-20-5C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5269.00usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5269.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33S-20-5C	<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)
18,184.63	90.00	179.66	8,068.00	-11,214.99	859.54	11,247.88	0.00	0.00	0.00
TD at 18184.63' MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33S-20-5C PBHL - plan hits target center - Point	0.00	0.00	8,068.00	-11,214.99	859.54	1,238,533.69	3,138,957.74	39° 59' 13.535 N	105° 0' 14.709 W
CT 33S-20-5C LP - plan hits target center - Point	0.00	0.00	8,068.00	-1,564.30	801.90	1,248,183.91	3,138,846.46	40° 0' 48.909 N	105° 0' 15.445 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,513.05	4,440.00	PARKMAN				
4,995.27	4,910.00	SUSSEX				
7,749.48	7,610.00	SHARON SPRINGS				
7,790.65	7,650.00	NIOBRARA				
7,951.78	7,797.00	NIO B				
8,381.92	8,048.00	FORT HAYS				
8,533.77	8,068.00	CODELL				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,200.00	1,200.00	0.00	0.00	BUILD 2°/100'
1,846.33	1,840.86	-56.54	45.54	HOLD 12.93° INC
6,887.36	6,754.14	-934.76	752.96	DROP 2°/100'
7,533.69	7,395.00	-991.30	798.50	HOLD VERTICAL
7,633.69	7,495.00	-991.30	798.50	KOP, BUILD 10°/100'
8,533.77	8,068.00	-1,564.30	801.90	LP @ 90° INC, 179.66° AZM HOLD
18,184.63	8,068.00	-11,214.99	859.54	TD at 18184.63' MD