

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-10N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

07 June, 2018



Project: WELD COUNTY
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 33W-15-10N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.30°
Magnetic Field
Strength: 52160.0nT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

WELL DETAILS: COYOTE TRAILS 33W-15-10N

				5244.00				
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		Slot
	0.00	0.00	1249778.57	3137963.77	40° 1' 4.717 N	105° 0' 26.676 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	2098.36	37.97	179.02	1962.45	-606.21	10.36	2.00	179.02	264.83	
4	6511.44	37.97	179.02	5441.55	-3320.79	56.74	0.00	0.00	1450.71	
5	8409.80	0.00	0.00	7204.00	-3927.00	67.10	2.00	180.00	1715.54	
6	8439.80	0.00	0.00	7234.00	-3927.00	67.10	0.00	0.00	1715.54	
7	9339.87	90.00	269.90	7807.00	-3927.95	-505.90	10.00	269.90	2227.07	CT 33W-10N LP
8	16608.55	90.00	269.90	7807.00	-3940.58	-7774.57	0.00	-96.31	8716.20	CT 33W-10N PBHL

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
	2098.36	37.97	179.02	1962.45	-606.21	10.36	264.83	606.30	Start 4413.08 hold at 2098.36 MD
	6511.44	37.97	179.02	5441.55	-3320.79	56.74	1450.71	3321.28	Start Drop -2.00
	8409.80	0.00	0.00	7204.00	-3927.00	67.10	1715.54	3927.57	Start 30.00 hold at 8409.80 MD
	8439.80	0.00	0.00	7234.00	-3927.00	67.10	1715.54	3927.57	Start DLS 10.00 TFO 269.90
	9339.87	90.00	269.90	7807.00	-3927.95	-505.90	2227.07	4500.58	Start DLS 0.00 TFO -96.31
	16608.55	90.00	269.90	7807.00	-3940.58	-7774.57	8716.20	11769.25	TD at 16608.55

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-10N LP	7807.00	-3927.95	-505.90	1245847.87	3137479.69	40° 0' 25.898 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-10N PBHL	7807.00	-3940.58	-7774.57	1245794.86	3130211.21	40° 0' 25.762 N	105° 2' 6.590 W	Point
- plan hits target center								

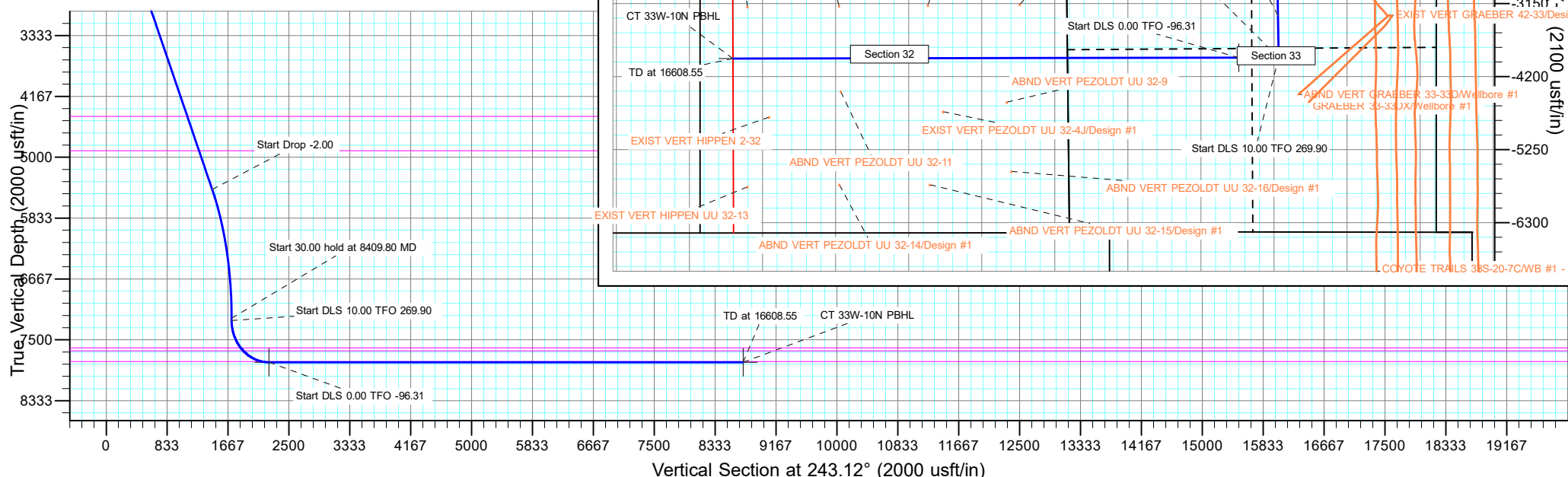
FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4440.00	5241.02	PARKMAN
4910.00	5837.19	SUSSEX
7610.00	8849.94	SHARON SPRINGS
7650.00	8905.36	NIOBRARA
7797.00	9232.66	NIO B

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:
1149' FSL, 2337' FEL
Sec 28-T1N-R68W
LP:
2514' FNL, 2463' FWL
Sec 33-T1N-R68W
BHL:
2509' FSL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-10N
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 33W-15-10N	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 33W-15-10N					
Well Position	+N/-S	1,131.53 usft	Northing:	1,249,778.57 usft	Latitude:	40° 1' 4.717 N
	+E/-W	-2,329.70 usft	Easting:	3,137,963.77 usft	Longitude:	105° 0' 26.676 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	8.30	66.51	52,159.95958881

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	243.12

Plan Survey Tool Program	Date	6/7/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,608.55	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	
2,098.36	37.97	179.02	1,962.45	-606.21	10.36	2.00	2.00	0.00	179.02	
6,511.44	37.97	179.02	5,441.55	-3,320.79	56.74	0.00	0.00	0.00	0.00	
8,409.80	0.00	0.00	7,204.00	-3,927.00	67.10	2.00	-2.00	0.00	180.00	
8,439.80	0.00	0.00	7,234.00	-3,927.00	67.10	0.00	0.00	0.00	0.00	
9,339.87	90.00	269.90	7,807.00	-3,927.95	-505.90	10.00	10.00	-10.01	269.90	CT 33W-10N LP
16,608.55	90.00	269.90	7,807.00	-3,940.58	-7,774.57	0.00	0.00	0.00	-96.31	CT 33W-10N PBHL

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 33W-15-10N	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	179.02	299.98	-1.74	0.03	0.76	2.00	2.00	0.00
400.00	4.00	179.02	399.84	-6.98	0.12	3.05	2.00	2.00	0.00
500.00	6.00	179.02	499.45	-15.69	0.27	6.85	2.00	2.00	0.00
600.00	8.00	179.02	598.70	-27.88	0.48	12.18	2.00	2.00	0.00
700.00	10.00	179.02	697.47	-43.52	0.74	19.01	2.00	2.00	0.00
800.00	12.00	179.02	795.62	-62.59	1.07	27.34	2.00	2.00	0.00
900.00	14.00	179.02	893.06	-85.08	1.45	37.17	2.00	2.00	0.00
1,000.00	16.00	179.02	989.64	-110.96	1.90	48.47	2.00	2.00	0.00
1,100.00	18.00	179.02	1,085.27	-140.19	2.40	61.24	2.00	2.00	0.00
1,200.00	20.00	179.02	1,179.82	-172.74	2.95	75.46	2.00	2.00	0.00
1,300.00	22.00	179.02	1,273.17	-208.57	3.56	91.12	2.00	2.00	0.00
1,400.00	24.00	179.02	1,365.21	-247.64	4.23	108.18	2.00	2.00	0.00
1,500.00	26.00	179.02	1,455.84	-289.89	4.95	126.64	2.00	2.00	0.00
1,600.00	28.00	179.02	1,544.94	-335.28	5.73	146.47	2.00	2.00	0.00
1,700.00	30.00	179.02	1,632.39	-383.75	6.56	167.65	2.00	2.00	0.00
1,800.00	32.00	179.02	1,718.11	-435.25	7.44	190.14	2.00	2.00	0.00
1,900.00	34.00	179.02	1,801.97	-489.70	8.37	213.93	2.00	2.00	0.00
2,000.00	36.00	179.02	1,883.88	-547.05	9.35	238.98	2.00	2.00	0.00
2,098.36	37.97	179.02	1,962.45	-606.21	10.36	264.83	2.00	2.00	0.00
Start 4413.08 hold at 2098.36 MD									
2,100.00	37.97	179.02	1,963.74	-607.22	10.38	265.27	0.00	0.00	0.00
2,200.00	37.97	179.02	2,042.58	-668.73	11.43	292.14	0.00	0.00	0.00
2,300.00	37.97	179.02	2,121.41	-730.24	12.48	319.01	0.00	0.00	0.00
2,400.00	37.97	179.02	2,200.25	-791.75	13.53	345.88	0.00	0.00	0.00
2,500.00	37.97	179.02	2,279.08	-853.27	14.58	372.76	0.00	0.00	0.00
2,600.00	37.97	179.02	2,357.92	-914.78	15.63	399.63	0.00	0.00	0.00
2,700.00	37.97	179.02	2,436.76	-976.29	16.68	426.50	0.00	0.00	0.00
2,800.00	37.97	179.02	2,515.59	-1,037.80	17.73	453.37	0.00	0.00	0.00
2,900.00	37.97	179.02	2,594.43	-1,099.31	18.78	480.24	0.00	0.00	0.00
3,000.00	37.97	179.02	2,673.27	-1,160.83	19.83	507.12	0.00	0.00	0.00
3,100.00	37.97	179.02	2,752.10	-1,222.34	20.89	533.99	0.00	0.00	0.00
3,200.00	37.97	179.02	2,830.94	-1,283.85	21.94	560.86	0.00	0.00	0.00
3,300.00	37.97	179.02	2,909.77	-1,345.36	22.99	587.73	0.00	0.00	0.00
3,400.00	37.97	179.02	2,988.61	-1,406.88	24.04	614.60	0.00	0.00	0.00
3,500.00	37.97	179.02	3,067.45	-1,468.39	25.09	641.48	0.00	0.00	0.00
3,600.00	37.97	179.02	3,146.28	-1,529.90	26.14	668.35	0.00	0.00	0.00
3,700.00	37.97	179.02	3,225.12	-1,591.41	27.19	695.22	0.00	0.00	0.00
3,800.00	37.97	179.02	3,303.96	-1,652.92	28.24	722.09	0.00	0.00	0.00
3,900.00	37.97	179.02	3,382.79	-1,714.44	29.29	748.97	0.00	0.00	0.00
4,000.00	37.97	179.02	3,461.63	-1,775.95	30.35	775.84	0.00	0.00	0.00
4,100.00	37.97	179.02	3,540.46	-1,837.46	31.40	802.71	0.00	0.00	0.00
4,200.00	37.97	179.02	3,619.30	-1,898.97	32.45	829.58	0.00	0.00	0.00
4,300.00	37.97	179.02	3,698.14	-1,960.49	33.50	856.45	0.00	0.00	0.00
4,400.00	37.97	179.02	3,776.97	-2,022.00	34.55	883.33	0.00	0.00	0.00
4,500.00	37.97	179.02	3,855.81	-2,083.51	35.60	910.20	0.00	0.00	0.00
4,600.00	37.97	179.02	3,934.64	-2,145.02	36.65	937.07	0.00	0.00	0.00
4,700.00	37.97	179.02	4,013.48	-2,206.53	37.70	963.94	0.00	0.00	0.00
4,800.00	37.97	179.02	4,092.32	-2,268.05	38.75	990.81	0.00	0.00	0.00
4,900.00	37.97	179.02	4,171.15	-2,329.56	39.80	1,017.69	0.00	0.00	0.00

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Well:	COYOTE TRAILS 33W-15-10N	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)	
5,000.00	37.97	179.02	4,249.99	-2,391.07	40.86	1,044.56	0.00	0.00	0.00	
5,100.00	37.97	179.02	4,328.83	-2,452.58	41.91	1,071.43	0.00	0.00	0.00	
5,200.00	37.97	179.02	4,407.66	-2,514.10	42.96	1,098.30	0.00	0.00	0.00	
5,241.02	37.97	179.02	4,440.00	-2,539.33	43.39	1,109.33	0.00	0.00	0.00	
PARKMAN										
5,300.00	37.97	179.02	4,486.50	-2,575.61	44.01	1,125.17	0.00	0.00	0.00	
5,400.00	37.97	179.02	4,565.33	-2,637.12	45.06	1,152.05	0.00	0.00	0.00	
5,500.00	37.97	179.02	4,644.17	-2,698.63	46.11	1,178.92	0.00	0.00	0.00	
5,600.00	37.97	179.02	4,723.01	-2,760.14	47.16	1,205.79	0.00	0.00	0.00	
5,700.00	37.97	179.02	4,801.84	-2,821.66	48.21	1,232.66	0.00	0.00	0.00	
5,800.00	37.97	179.02	4,880.68	-2,883.17	49.26	1,259.54	0.00	0.00	0.00	
5,837.19	37.97	179.02	4,910.00	-2,906.05	49.66	1,269.53	0.00	0.00	0.00	
SUSSEX										
5,900.00	37.97	179.02	4,959.52	-2,944.68	50.32	1,286.41	0.00	0.00	0.00	
6,000.00	37.97	179.02	5,038.35	-3,006.19	51.37	1,313.28	0.00	0.00	0.00	
6,100.00	37.97	179.02	5,117.19	-3,067.70	52.42	1,340.15	0.00	0.00	0.00	
6,200.00	37.97	179.02	5,196.02	-3,129.22	53.47	1,367.02	0.00	0.00	0.00	
6,300.00	37.97	179.02	5,274.86	-3,190.73	54.52	1,393.90	0.00	0.00	0.00	
6,400.00	37.97	179.02	5,353.70	-3,252.24	55.57	1,420.77	0.00	0.00	0.00	
6,500.00	37.97	179.02	5,432.53	-3,313.75	56.62	1,447.64	0.00	0.00	0.00	
6,511.44	37.97	179.02	5,441.55	-3,320.79	56.74	1,450.71	0.00	0.00	0.00	
Start Drop -2.00										
6,600.00	36.20	179.02	5,512.20	-3,374.18	57.65	1,474.04	2.00	-2.00	0.00	
6,700.00	34.20	179.02	5,593.91	-3,431.80	58.64	1,499.21	2.00	-2.00	0.00	
6,800.00	32.20	179.02	5,677.59	-3,486.54	59.57	1,523.12	2.00	-2.00	0.00	
6,900.00	30.20	179.02	5,763.13	-3,538.33	60.46	1,545.75	2.00	-2.00	0.00	
7,000.00	28.20	179.02	5,850.42	-3,587.10	61.29	1,567.05	2.00	-2.00	0.00	
7,100.00	26.20	179.02	5,939.36	-3,632.80	62.07	1,587.02	2.00	-2.00	0.00	
7,200.00	24.20	179.02	6,029.84	-3,675.36	62.80	1,605.61	2.00	-2.00	0.00	
7,300.00	22.20	179.02	6,121.75	-3,714.74	63.47	1,622.81	2.00	-2.00	0.00	
7,400.00	20.20	179.02	6,214.98	-3,750.89	64.09	1,638.61	2.00	-2.00	0.00	
7,500.00	18.20	179.02	6,309.41	-3,783.76	64.65	1,652.97	2.00	-2.00	0.00	
7,600.00	16.20	179.02	6,404.94	-3,813.32	65.16	1,665.88	2.00	-2.00	0.00	
7,700.00	14.20	179.02	6,501.44	-3,839.53	65.61	1,677.33	2.00	-2.00	0.00	
7,800.00	12.20	179.02	6,598.79	-3,862.35	66.00	1,687.30	2.00	-2.00	0.00	
7,900.00	10.20	179.02	6,696.88	-3,881.77	66.33	1,695.78	2.00	-2.00	0.00	
8,000.00	8.20	179.02	6,795.59	-3,897.74	66.60	1,702.76	2.00	-2.00	0.00	
8,100.00	6.20	179.02	6,894.80	-3,910.27	66.81	1,708.23	2.00	-2.00	0.00	
8,200.00	4.20	179.02	6,994.39	-3,919.32	66.97	1,712.19	2.00	-2.00	0.00	
8,300.00	2.20	179.02	7,094.22	-3,924.90	67.06	1,714.62	2.00	-2.00	0.00	
8,409.80	0.00	0.00	7,204.00	-3,927.00	67.10	1,715.54	2.00	-2.00	-163.04	
Start 30.00 hold at 8409.80 MD										
8,439.80	0.00	0.00	7,234.00	-3,927.00	67.10	1,715.54	0.00	0.00	0.00	
Start DLS 10.00 TFO 269.90										
8,450.00	1.02	269.90	7,244.20	-3,927.00	67.01	1,715.62	10.00	10.00	0.00	
8,500.00	6.02	269.90	7,294.09	-3,927.01	63.94	1,718.36	10.00	10.00	0.00	
8,550.00	11.02	269.90	7,343.52	-3,927.02	56.54	1,724.97	10.00	10.00	0.00	
8,600.00	16.02	269.90	7,392.12	-3,927.04	44.85	1,735.40	10.00	10.00	0.00	
8,650.00	21.02	269.90	7,439.51	-3,927.06	28.98	1,749.58	10.00	10.00	0.00	
8,700.00	26.02	269.90	7,485.35	-3,927.10	9.03	1,767.38	10.00	10.00	0.00	
8,750.00	31.02	269.90	7,529.27	-3,927.14	-14.83	1,788.68	10.00	10.00	0.00	
8,800.00	36.02	269.90	7,570.94	-3,927.18	-42.43	1,813.32	10.00	10.00	0.00	
8,849.94	41.01	269.90	7,610.00	-3,927.23	-73.52	1,841.07	10.00	10.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-10N
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 33W-15-10N	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)	
SHARON SPRINGS										
8,850.00	41.02	269.90	7,610.05	-3,927.23	-73.56	1,841.11	10.00	10.00	0.00	
8,900.00	46.02	269.90	7,646.30	-3,927.29	-107.98	1,871.84	10.00	10.00	0.00	
8,905.36	46.55	269.90	7,650.00	-3,927.30	-111.85	1,875.30	10.00	10.00	0.00	
NIOBRARA										
8,950.00	51.02	269.90	7,679.41	-3,927.35	-145.42	1,905.27	10.00	10.00	0.00	
9,000.00	56.02	269.90	7,709.13	-3,927.42	-185.61	1,941.14	10.00	10.00	0.00	
9,050.00	61.02	269.90	7,735.23	-3,927.49	-228.24	1,979.19	10.00	10.00	0.00	
9,100.00	66.01	269.90	7,757.52	-3,927.57	-272.98	2,019.13	10.00	10.00	0.00	
9,150.00	71.01	269.90	7,775.83	-3,927.64	-319.49	2,060.65	10.00	10.00	0.00	
9,200.00	76.01	269.90	7,790.01	-3,927.72	-367.42	2,103.44	10.00	10.00	0.00	
9,232.66	79.28	269.90	7,797.00	-3,927.78	-399.32	2,131.92	10.00	10.00	0.00	
NIO B										
9,250.00	81.01	269.90	7,799.97	-3,927.80	-416.40	2,147.17	10.00	10.00	0.00	
9,300.00	86.01	269.90	7,805.61	-3,927.89	-466.06	2,191.51	10.00	10.00	0.00	
9,339.87	90.00	269.90	7,807.00	-3,927.95	-505.90	2,227.07	10.00	10.00	0.00	
Start DLS 0.00 TFO -96.31										
9,400.00	90.00	269.90	7,807.00	-3,928.05	-566.03	2,280.75	0.00	0.00	0.00	
9,500.00	90.00	269.90	7,807.00	-3,928.22	-666.03	2,370.02	0.00	0.00	0.00	
9,600.00	90.00	269.90	7,807.00	-3,928.39	-766.03	2,459.29	0.00	0.00	0.00	
9,700.00	90.00	269.90	7,807.00	-3,928.55	-866.03	2,548.56	0.00	0.00	0.00	
9,800.00	90.00	269.90	7,807.00	-3,928.72	-966.03	2,637.84	0.00	0.00	0.00	
9,900.00	90.00	269.90	7,807.00	-3,928.89	-1,066.03	2,727.11	0.00	0.00	0.00	
10,000.00	90.00	269.90	7,807.00	-3,929.05	-1,166.03	2,816.38	0.00	0.00	0.00	
10,100.00	90.00	269.90	7,806.99	-3,929.22	-1,266.03	2,905.65	0.00	0.00	0.00	
10,200.00	90.00	269.90	7,806.99	-3,929.39	-1,366.03	2,994.93	0.00	0.00	0.00	
10,300.00	90.00	269.90	7,806.99	-3,929.56	-1,466.03	3,084.20	0.00	0.00	0.00	
10,400.00	90.00	269.90	7,806.99	-3,929.73	-1,566.03	3,173.47	0.00	0.00	0.00	
10,500.00	90.00	269.90	7,806.99	-3,929.89	-1,666.03	3,262.75	0.00	0.00	0.00	
10,600.00	90.00	269.90	7,806.99	-3,930.06	-1,766.03	3,352.02	0.00	0.00	0.00	
10,700.00	90.00	269.90	7,806.99	-3,930.23	-1,866.03	3,441.29	0.00	0.00	0.00	
10,800.00	90.00	269.90	7,806.99	-3,930.40	-1,966.03	3,530.56	0.00	0.00	0.00	
10,900.00	90.00	269.90	7,806.99	-3,930.57	-2,066.03	3,619.84	0.00	0.00	0.00	
11,000.00	90.00	269.90	7,806.99	-3,930.74	-2,166.03	3,709.11	0.00	0.00	0.00	
11,100.00	90.00	269.90	7,806.99	-3,930.91	-2,266.03	3,798.38	0.00	0.00	0.00	
11,200.00	90.00	269.90	7,806.99	-3,931.08	-2,366.03	3,887.66	0.00	0.00	0.00	
11,300.00	90.00	269.90	7,806.99	-3,931.25	-2,466.03	3,976.93	0.00	0.00	0.00	
11,400.00	90.00	269.90	7,806.99	-3,931.42	-2,566.03	4,066.20	0.00	0.00	0.00	
11,500.00	90.00	269.90	7,806.99	-3,931.59	-2,666.03	4,155.48	0.00	0.00	0.00	
11,600.00	90.00	269.90	7,806.99	-3,931.76	-2,766.03	4,244.75	0.00	0.00	0.00	
11,700.00	90.00	269.90	7,806.99	-3,931.93	-2,866.03	4,334.03	0.00	0.00	0.00	
11,800.00	90.00	269.90	7,806.99	-3,932.10	-2,966.03	4,423.30	0.00	0.00	0.00	
11,900.00	90.00	269.90	7,806.99	-3,932.28	-3,066.03	4,512.57	0.00	0.00	0.00	
12,000.00	90.00	269.90	7,806.99	-3,932.45	-3,166.03	4,601.85	0.00	0.00	0.00	
12,100.00	90.00	269.90	7,806.99	-3,932.62	-3,266.03	4,691.12	0.00	0.00	0.00	
12,200.00	90.00	269.90	7,806.99	-3,932.79	-3,366.03	4,780.40	0.00	0.00	0.00	
12,300.00	90.00	269.90	7,806.99	-3,932.96	-3,466.03	4,869.67	0.00	0.00	0.00	
12,400.00	90.00	269.90	7,806.99	-3,933.14	-3,566.03	4,958.95	0.00	0.00	0.00	
12,500.00	90.00	269.90	7,806.99	-3,933.31	-3,666.03	5,048.22	0.00	0.00	0.00	
12,600.00	90.00	269.90	7,806.99	-3,933.48	-3,766.03	5,137.50	0.00	0.00	0.00	
12,700.00	90.00	269.90	7,806.99	-3,933.65	-3,866.03	5,226.77	0.00	0.00	0.00	
12,800.00	90.00	269.90	7,806.98	-3,933.83	-3,966.03	5,316.05	0.00	0.00	0.00	
12,900.00	90.00	269.90	7,806.98	-3,934.00	-4,066.03	5,405.32	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-10N
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 33W-15-10N	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)
13,000.00	90.00	269.90	7,806.98	-3,934.17	-4,166.03	5,494.60	0.00	0.00	0.00
13,100.00	90.00	269.90	7,806.98	-3,934.35	-4,266.02	5,583.87	0.00	0.00	0.00
13,200.00	90.00	269.90	7,806.98	-3,934.52	-4,366.02	5,673.15	0.00	0.00	0.00
13,300.00	90.00	269.90	7,806.99	-3,934.70	-4,466.02	5,762.42	0.00	0.00	0.00
13,400.00	90.00	269.90	7,806.99	-3,934.87	-4,566.02	5,851.70	0.00	0.00	0.00
13,500.00	90.00	269.90	7,806.99	-3,935.05	-4,666.02	5,940.97	0.00	0.00	0.00
13,600.00	90.00	269.90	7,806.99	-3,935.22	-4,766.02	6,030.25	0.00	0.00	0.00
13,700.00	90.00	269.90	7,806.99	-3,935.40	-4,866.02	6,119.53	0.00	0.00	0.00
13,800.00	90.00	269.90	7,806.99	-3,935.57	-4,966.02	6,208.80	0.00	0.00	0.00
13,900.00	90.00	269.90	7,806.99	-3,935.75	-5,066.02	6,298.08	0.00	0.00	0.00
14,000.00	90.00	269.90	7,806.99	-3,935.92	-5,166.02	6,387.35	0.00	0.00	0.00
14,100.00	90.00	269.90	7,806.99	-3,936.10	-5,266.02	6,476.63	0.00	0.00	0.00
14,200.00	90.00	269.90	7,806.99	-3,936.28	-5,366.02	6,565.91	0.00	0.00	0.00
14,300.00	90.00	269.90	7,806.99	-3,936.45	-5,466.02	6,655.18	0.00	0.00	0.00
14,400.00	90.00	269.90	7,806.99	-3,936.63	-5,566.02	6,744.46	0.00	0.00	0.00
14,500.00	90.00	269.90	7,806.99	-3,936.81	-5,666.02	6,833.74	0.00	0.00	0.00
14,600.00	90.00	269.90	7,806.99	-3,936.98	-5,766.02	6,923.01	0.00	0.00	0.00
14,700.00	90.00	269.90	7,806.99	-3,937.16	-5,866.02	7,012.29	0.00	0.00	0.00
14,800.00	90.00	269.90	7,806.99	-3,937.34	-5,966.02	7,101.57	0.00	0.00	0.00
14,900.00	90.00	269.90	7,806.99	-3,937.52	-6,066.02	7,190.84	0.00	0.00	0.00
15,000.00	90.00	269.90	7,806.99	-3,937.69	-6,166.02	7,280.12	0.00	0.00	0.00
15,100.00	90.00	269.90	7,806.99	-3,937.87	-6,266.02	7,369.40	0.00	0.00	0.00
15,200.00	90.00	269.90	7,806.99	-3,938.05	-6,366.02	7,458.67	0.00	0.00	0.00
15,300.00	90.00	269.90	7,806.99	-3,938.23	-6,466.02	7,547.95	0.00	0.00	0.00
15,400.00	90.00	269.90	7,806.99	-3,938.41	-6,566.02	7,637.23	0.00	0.00	0.00
15,500.00	90.00	269.90	7,806.99	-3,938.59	-6,666.02	7,726.51	0.00	0.00	0.00
15,600.00	90.00	269.90	7,806.99	-3,938.76	-6,766.02	7,815.78	0.00	0.00	0.00
15,700.00	90.00	269.90	7,806.99	-3,938.94	-6,866.02	7,905.06	0.00	0.00	0.00
15,800.00	90.00	269.90	7,806.99	-3,939.12	-6,966.02	7,994.34	0.00	0.00	0.00
15,900.00	90.00	269.90	7,806.99	-3,939.30	-7,066.02	8,083.62	0.00	0.00	0.00
16,000.00	90.00	269.90	7,807.00	-3,939.48	-7,166.02	8,172.90	0.00	0.00	0.00
16,100.00	90.00	269.90	7,807.00	-3,939.66	-7,266.02	8,262.17	0.00	0.00	0.00
16,200.00	90.00	269.90	7,807.00	-3,939.84	-7,366.02	8,351.45	0.00	0.00	0.00
16,300.00	90.00	269.90	7,807.00	-3,940.02	-7,466.02	8,440.73	0.00	0.00	0.00
16,400.00	90.00	269.90	7,807.00	-3,940.21	-7,566.02	8,530.01	0.00	0.00	0.00
16,500.00	90.00	269.90	7,807.00	-3,940.39	-7,666.02	8,619.29	0.00	0.00	0.00
16,608.55	90.00	269.90	7,807.00	-3,940.58	-7,774.57	8,716.20	0.00	0.00	0.00
TD at 16608.55									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33W-10N LP - hit/miss target - Shape - Point	0.00	0.00	7,807.00	-3,927.95	-505.90	1,245,847.87	3,137,479.69	40° 0' 25.898 N	105° 0' 33.178 W
CT 33W-10N PBHL - plan hits target center - Point	0.00	0.00	7,807.00	-3,940.58	-7,774.57	1,245,794.86	3,130,211.21	40° 0' 25.762 N	105° 2' 6.590 W

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-10N
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 33W-15-10N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,241.02	4,440.00	PARKMAN				
5,837.19	4,910.00	SUSSEX				
8,849.94	7,610.00	SHARON SPRINGS				
8,905.36	7,650.00	NIOBRARA				
9,232.66	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Start Build 2.00	
2,098.36	1,962.45	-606.21	10.36	Start 4413.08 hold at 2098.36 MD	
6,511.44	5,441.55	-3,320.79	56.74	Start Drop -2.00	
8,409.80	7,204.00	-3,927.00	67.10	Start 30.00 hold at 8409.80 MD	
8,439.80	7,234.00	-3,927.00	67.10	Start DLS 10.00 TFO 269.90	
9,339.87	7,807.00	-3,927.95	-505.90	Start DLS 0.00 TFO -96.31	
16,608.55	7,807.00	-3,940.58	-7,774.57	TD at 16608.55	