

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-9C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

07 June, 2018

WELL DETAILS: COYOTE TRAILS 33W-15-9C

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1249778.84	3137945.84	40° 1' 4.721 N	105° 0' 26.906 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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1993.57	33.87	178.66	1896.64	-486.05	11.36	2.00	178.66	196.69	
4	6777.12	33.87	178.66	5868.36	-3151.35	73.67	0.00	0.00	1275.28	
5	8470.69	0.00	0.00	7465.00	-3637.40	85.03	2.00	180.00	1471.97	
6	8500.69	0.00	0.00	7495.00	-3637.40	85.03	0.00	0.00	1471.97	
7	9400.76	90.00	269.90	8068.00	-3638.35	-487.97	10.00	269.90	1990.83	CT 33W-9C LP
8	16670.47	90.00	269.90	8068.00	-3650.99	-7757.67	0.00	-91.63	8573.86	CT 33W-9C PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	Start Build 2.00
1993.57	33.87	178.66	1896.64	-486.05	11.36	196.69	486.18	Start 4783.54 hold at 1993.57 MD
6777.12	33.87	178.66	5868.36	-3151.35	73.67	1275.28	3152.21	Start Drop -2.00
8470.69	0.00	0.00	7465.00	-3637.40	85.03	1471.97	3638.39	Start 30.00 hold at 8470.69 MD
8500.69	0.00	0.00	7495.00	-3637.40	85.03	1471.97	3638.39	Start DLS 10.00 TFO 269.90
9400.76	90.00	269.90	8068.00	-3638.35	-487.97	1990.83	4211.39	Start DLS 0.00 TFO -91.63
16670.47	90.00	269.90	8068.00	-3650.99	-7757.67	8573.86	11481.10	TD at 16670.47

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-9C LP	8068.00	-3638.35	-487.97	1246137.83	3137478.09	40° 0' 28.764 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-9C PBHL	8068.00	-3650.99	-7757.67	1246084.81	3130208.57	40° 0' 28.627 N	105° 2' 6.605 W	Point
- plan hits target center								

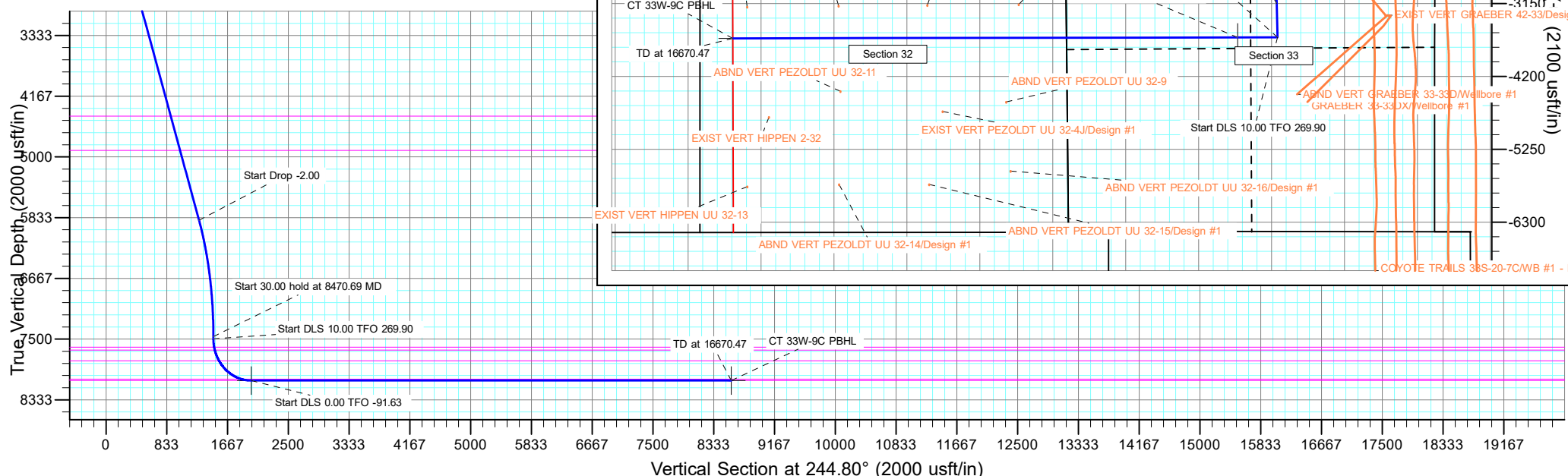
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4440.00	5056.80	PARKMAN
4910.00	5622.87	SUSSEX
7610.00	8616.48	SHARON SPRINGS
7650.00	8657.65	NIOBRARA
7797.00	8818.78	NIO B
8048.00	9248.92	FORT HAYS
8068.00	9400.76	CODELL

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:
1150' FSL, 2355' FEL
Sec 28-T1N-R68W
LP:
2484' FNL, 2466' FWL
Sec 33-T1N-R68W
BHL:
2483' FNL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-9C
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-15-9C	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-15-9C				
Well Position	+N/-S	1,131.90 usft	Northing:	1,249,778.83 usft	Latitude:	40° 1' 4.721 N
	+E/-W	-2,347.63 usft	Easting:	3,137,945.84 usft	Longitude:	105° 0' 26.906 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	52,159.95322570

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	244.80

Plan Survey Tool Program	Date	6/7/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,670.47	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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,993.57	33.87	178.66	1,896.64	-486.05	11.36	2.00	2.00	0.00	178.66	
6,777.12	33.87	178.66	5,868.36	-3,151.35	73.67	0.00	0.00	0.00	0.00	
8,470.69	0.00	0.00	7,465.00	-3,637.40	85.03	2.00	-2.00	0.00	180.00	
8,500.69	0.00	0.00	7,495.00	-3,637.40	85.03	0.00	0.00	0.00	0.00	
9,400.76	90.00	269.90	8,068.00	-3,638.35	-487.97	10.00	10.00	-10.01	269.90	CT 33W-9C LP
16,670.47	90.00	269.90	8,068.00	-3,650.99	-7,757.67	0.00	0.00	0.00	-91.63	CT 33W-9C PBHL

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Project:	WELD COUNTY	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-9C	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
Start Build 2.00									
400.00	2.00	178.66	399.98	-1.74	0.04	0.71	2.00	2.00	0.00
500.00	4.00	178.66	499.84	-6.98	0.16	2.82	2.00	2.00	0.00
600.00	6.00	178.66	599.45	-15.69	0.37	6.35	2.00	2.00	0.00
700.00	8.00	178.66	698.70	-27.87	0.65	11.28	2.00	2.00	0.00
800.00	10.00	178.66	797.47	-43.51	1.02	17.61	2.00	2.00	0.00
900.00	12.00	178.66	895.62	-62.59	1.46	25.33	2.00	2.00	0.00
1,000.00	14.00	178.66	993.06	-85.07	1.99	34.43	2.00	2.00	0.00
1,100.00	16.00	178.66	1,089.64	-110.95	2.59	44.90	2.00	2.00	0.00
1,200.00	18.00	178.66	1,185.27	-140.17	3.28	56.73	2.00	2.00	0.00
1,300.00	20.00	178.66	1,279.82	-172.72	4.04	69.90	2.00	2.00	0.00
1,400.00	22.00	178.66	1,373.17	-208.55	4.88	84.39	2.00	2.00	0.00
1,500.00	24.00	178.66	1,465.21	-247.61	5.79	100.20	2.00	2.00	0.00
1,600.00	26.00	178.66	1,555.84	-289.86	6.78	117.30	2.00	2.00	0.00
1,700.00	28.00	178.66	1,644.94	-335.24	7.84	135.66	2.00	2.00	0.00
1,800.00	30.00	178.66	1,732.39	-383.70	8.97	155.28	2.00	2.00	0.00
1,900.00	32.00	178.66	1,818.11	-435.19	10.17	176.11	2.00	2.00	0.00
1,993.57	33.87	178.66	1,896.64	-486.05	11.36	196.69	2.00	2.00	0.00
Start 4783.54 hold at 1993.57 MD									
2,000.00	33.87	178.66	1,901.97	-489.63	11.45	198.14	0.00	0.00	0.00
2,100.00	33.87	178.66	1,985.00	-545.35	12.75	220.69	0.00	0.00	0.00
2,200.00	33.87	178.66	2,068.03	-601.07	14.05	243.24	0.00	0.00	0.00
2,300.00	33.87	178.66	2,151.06	-656.79	15.35	265.79	0.00	0.00	0.00
2,400.00	33.87	178.66	2,234.09	-712.50	16.66	288.33	0.00	0.00	0.00
2,500.00	33.87	178.66	2,317.12	-768.22	17.96	310.88	0.00	0.00	0.00
2,600.00	33.87	178.66	2,400.15	-823.94	19.26	333.43	0.00	0.00	0.00
2,700.00	33.87	178.66	2,483.18	-879.66	20.56	355.98	0.00	0.00	0.00
2,800.00	33.87	178.66	2,566.20	-935.38	21.87	378.53	0.00	0.00	0.00
2,900.00	33.87	178.66	2,649.23	-991.09	23.17	401.07	0.00	0.00	0.00
3,000.00	33.87	178.66	2,732.26	-1,046.81	24.47	423.62	0.00	0.00	0.00
3,100.00	33.87	178.66	2,815.29	-1,102.53	25.77	446.17	0.00	0.00	0.00
3,200.00	33.87	178.66	2,898.32	-1,158.25	27.08	468.72	0.00	0.00	0.00
3,300.00	33.87	178.66	2,981.35	-1,213.97	28.38	491.26	0.00	0.00	0.00
3,400.00	33.87	178.66	3,064.38	-1,269.69	29.68	513.81	0.00	0.00	0.00
3,500.00	33.87	178.66	3,147.41	-1,325.40	30.98	536.36	0.00	0.00	0.00
3,600.00	33.87	178.66	3,230.44	-1,381.12	32.29	558.91	0.00	0.00	0.00
3,700.00	33.87	178.66	3,313.47	-1,436.84	33.59	581.46	0.00	0.00	0.00
3,800.00	33.87	178.66	3,396.49	-1,492.56	34.89	604.00	0.00	0.00	0.00
3,900.00	33.87	178.66	3,479.52	-1,548.28	36.19	626.55	0.00	0.00	0.00
4,000.00	33.87	178.66	3,562.55	-1,603.99	37.50	649.10	0.00	0.00	0.00
4,100.00	33.87	178.66	3,645.58	-1,659.71	38.80	671.65	0.00	0.00	0.00
4,200.00	33.87	178.66	3,728.61	-1,715.43	40.10	694.19	0.00	0.00	0.00
4,300.00	33.87	178.66	3,811.64	-1,771.15	41.40	716.74	0.00	0.00	0.00
4,400.00	33.87	178.66	3,894.67	-1,826.87	42.71	739.29	0.00	0.00	0.00
4,500.00	33.87	178.66	3,977.70	-1,882.58	44.01	761.84	0.00	0.00	0.00
4,600.00	33.87	178.66	4,060.73	-1,938.30	45.31	784.39	0.00	0.00	0.00
4,700.00	33.87	178.66	4,143.75	-1,994.02	46.61	806.93	0.00	0.00	0.00
4,800.00	33.87	178.66	4,226.78	-2,049.74	47.92	829.48	0.00	0.00	0.00
4,900.00	33.87	178.66	4,309.81	-2,105.46	49.22	852.03	0.00	0.00	0.00

Planning Report

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Project:	WELD COUNTY	MD Reference:	KB 25' @ 5269.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-9C	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	33.87	178.66	4,392.84	-2,161.17	50.52	874.58	0.00	0.00	0.00	
5,056.80	33.87	178.66	4,440.00	-2,192.82	51.26	887.38	0.00	0.00	0.00	
PARKMAN										
5,100.00	33.87	178.66	4,475.87	-2,216.89	51.82	897.12	0.00	0.00	0.00	
5,200.00	33.87	178.66	4,558.90	-2,272.61	53.13	919.67	0.00	0.00	0.00	
5,300.00	33.87	178.66	4,641.93	-2,328.33	54.43	942.22	0.00	0.00	0.00	
5,400.00	33.87	178.66	4,724.96	-2,384.05	55.73	964.77	0.00	0.00	0.00	
5,500.00	33.87	178.66	4,807.99	-2,439.76	57.03	987.32	0.00	0.00	0.00	
5,600.00	33.87	178.66	4,891.02	-2,495.48	58.34	1,009.86	0.00	0.00	0.00	
5,622.87	33.87	178.66	4,910.00	-2,508.22	58.63	1,015.02	0.00	0.00	0.00	
SUSSEX										
5,700.00	33.87	178.66	4,974.04	-2,551.20	59.64	1,032.41	0.00	0.00	0.00	
5,800.00	33.87	178.66	5,057.07	-2,606.92	60.94	1,054.96	0.00	0.00	0.00	
5,900.00	33.87	178.66	5,140.10	-2,662.64	62.24	1,077.51	0.00	0.00	0.00	
6,000.00	33.87	178.66	5,223.13	-2,718.35	63.55	1,100.05	0.00	0.00	0.00	
6,100.00	33.87	178.66	5,306.16	-2,774.07	64.85	1,122.60	0.00	0.00	0.00	
6,200.00	33.87	178.66	5,389.19	-2,829.79	66.15	1,145.15	0.00	0.00	0.00	
6,300.00	33.87	178.66	5,472.22	-2,885.51	67.45	1,167.70	0.00	0.00	0.00	
6,400.00	33.87	178.66	5,555.25	-2,941.23	68.76	1,190.25	0.00	0.00	0.00	
6,500.00	33.87	178.66	5,638.28	-2,996.94	70.06	1,212.79	0.00	0.00	0.00	
6,600.00	33.87	178.66	5,721.30	-3,052.66	71.36	1,235.34	0.00	0.00	0.00	
6,700.00	33.87	178.66	5,804.33	-3,108.38	72.66	1,257.89	0.00	0.00	0.00	
6,777.12	33.87	178.66	5,868.36	-3,151.35	73.67	1,275.28	0.00	0.00	0.00	
Start Drop -2.00										
6,800.00	33.41	178.66	5,887.41	-3,164.02	73.96	1,280.41	2.00	-2.00	0.00	
6,900.00	31.41	178.66	5,971.83	-3,217.61	75.22	1,302.09	2.00	-2.00	0.00	
7,000.00	29.41	178.66	6,058.06	-3,268.22	76.40	1,322.57	2.00	-2.00	0.00	
7,100.00	27.41	178.66	6,146.01	-3,315.78	77.51	1,341.82	2.00	-2.00	0.00	
7,200.00	25.41	178.66	6,235.57	-3,360.26	78.55	1,359.82	2.00	-2.00	0.00	
7,300.00	23.41	178.66	6,326.62	-3,401.57	79.52	1,376.54	2.00	-2.00	0.00	
7,400.00	21.41	178.66	6,419.06	-3,439.69	80.41	1,391.96	2.00	-2.00	0.00	
7,500.00	19.41	178.66	6,512.78	-3,474.56	81.22	1,406.07	2.00	-2.00	0.00	
7,600.00	17.41	178.66	6,607.65	-3,506.14	81.96	1,418.85	2.00	-2.00	0.00	
7,700.00	15.41	178.66	6,703.57	-3,534.39	82.62	1,430.28	2.00	-2.00	0.00	
7,800.00	13.41	178.66	6,800.42	-3,559.27	83.20	1,440.35	2.00	-2.00	0.00	
7,900.00	11.41	178.66	6,898.08	-3,580.76	83.71	1,449.05	2.00	-2.00	0.00	
8,000.00	9.41	178.66	6,996.42	-3,598.83	84.13	1,456.36	2.00	-2.00	0.00	
8,100.00	7.41	178.66	7,095.34	-3,613.46	84.47	1,462.28	2.00	-2.00	0.00	
8,200.00	5.41	178.66	7,194.71	-3,624.62	84.73	1,466.80	2.00	-2.00	0.00	
8,300.00	3.41	178.66	7,294.41	-3,632.32	84.91	1,469.91	2.00	-2.00	0.00	
8,400.00	1.41	178.66	7,394.32	-3,636.53	85.01	1,471.62	2.00	-2.00	0.00	
8,470.69	0.00	0.00	7,465.00	-3,637.40	85.03	1,471.97	2.00	-2.00	-252.74	
Start 30.00 hold at 8470.69 MD										
8,500.69	0.00	0.00	7,495.00	-3,637.40	85.03	1,471.97	0.00	0.00	0.00	
Start DLS 10.00 TFO 269.90										
8,550.00	4.93	269.90	7,544.25	-3,637.40	82.91	1,473.89	10.00	10.00	0.00	
8,600.00	9.93	269.90	7,593.81	-3,637.41	76.45	1,479.74	10.00	10.00	0.00	
8,616.48	11.58	269.90	7,610.00	-3,637.42	73.37	1,482.53	10.00	10.00	0.00	
SHARON SPRINGS										
8,650.00	14.93	269.90	7,642.63	-3,637.43	65.69	1,489.49	10.00	10.00	0.00	
8,657.65	15.69	269.90	7,650.00	-3,637.44	63.67	1,491.31	10.00	10.00	0.00	
NIOBRARA										
8,700.00	19.93	269.90	7,690.31	-3,637.46	50.71	1,503.04	10.00	10.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-9C
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-15-9C	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)
8,750.00	24.93	269.90	7,736.52	-3,637.49	31.64	1,520.31	10.00	10.00	0.00
8,800.00	29.93	269.90	7,780.88	-3,637.53	8.62	1,541.16	10.00	10.00	0.00
8,818.78	31.81	269.90	7,797.00	-3,637.54	-1.02	1,549.89	10.00	10.00	0.00
NIO B									
8,850.00	34.93	269.90	7,823.07	-3,637.57	-18.19	1,565.43	10.00	10.00	0.00
8,900.00	39.93	269.90	7,862.77	-3,637.62	-48.56	1,592.94	10.00	10.00	0.00
8,950.00	44.93	269.90	7,899.66	-3,637.68	-82.29	1,623.48	10.00	10.00	0.00
9,000.00	49.93	269.90	7,933.48	-3,637.74	-119.10	1,656.81	10.00	10.00	0.00
9,050.00	54.93	269.90	7,963.95	-3,637.81	-158.71	1,692.68	10.00	10.00	0.00
9,100.00	59.93	269.90	7,990.87	-3,637.88	-200.83	1,730.82	10.00	10.00	0.00
9,150.00	64.93	269.90	8,014.00	-3,637.95	-245.14	1,770.94	10.00	10.00	0.00
9,200.00	69.93	269.90	8,033.19	-3,638.03	-291.29	1,812.74	10.00	10.00	0.00
9,248.92	74.82	269.90	8,048.00	-3,638.10	-337.90	1,854.94	10.00	10.00	0.00
FORT HAYS									
9,250.00	74.93	269.90	8,048.28	-3,638.11	-338.95	1,855.89	10.00	10.00	0.00
9,300.00	79.93	269.90	8,059.16	-3,638.19	-387.73	1,900.06	10.00	10.00	0.00
9,350.00	84.92	269.90	8,065.75	-3,638.27	-437.28	1,944.93	10.00	10.00	0.00
9,400.76	90.00	269.90	8,068.00	-3,638.35	-487.97	1,990.83	10.00	10.00	0.00
Start DLS 0.00 TFO -91.63 - CODELL									
9,500.00	90.00	269.90	8,068.00	-3,638.52	-587.21	2,080.70	0.00	0.00	0.00
9,600.00	90.00	269.90	8,068.00	-3,638.69	-687.21	2,171.25	0.00	0.00	0.00
9,700.00	90.00	269.90	8,068.00	-3,638.85	-787.21	2,261.80	0.00	0.00	0.00
9,800.00	90.00	269.90	8,068.00	-3,639.02	-887.21	2,352.35	0.00	0.00	0.00
9,900.00	90.00	269.90	8,068.00	-3,639.19	-987.21	2,442.90	0.00	0.00	0.00
10,000.00	90.00	269.90	8,068.00	-3,639.36	-1,087.21	2,533.45	0.00	0.00	0.00
10,100.00	90.00	269.90	8,068.00	-3,639.52	-1,187.21	2,624.00	0.00	0.00	0.00
10,200.00	90.00	269.90	8,068.00	-3,639.69	-1,287.21	2,714.56	0.00	0.00	0.00
10,300.00	90.00	269.90	8,068.00	-3,639.86	-1,387.21	2,805.11	0.00	0.00	0.00
10,400.00	90.00	269.90	8,068.00	-3,640.03	-1,487.21	2,895.66	0.00	0.00	0.00
10,500.00	90.00	269.90	8,068.00	-3,640.20	-1,587.21	2,986.21	0.00	0.00	0.00
10,600.00	90.00	269.90	8,068.00	-3,640.37	-1,687.21	3,076.77	0.00	0.00	0.00
10,700.00	90.00	269.90	8,068.00	-3,640.54	-1,787.21	3,167.32	0.00	0.00	0.00
10,800.00	90.00	269.90	8,068.00	-3,640.71	-1,887.21	3,257.87	0.00	0.00	0.00
10,900.00	90.00	269.90	8,068.00	-3,640.87	-1,987.21	3,348.42	0.00	0.00	0.00
11,000.00	90.00	269.90	8,068.00	-3,641.04	-2,087.21	3,438.97	0.00	0.00	0.00
11,100.00	90.00	269.90	8,068.00	-3,641.21	-2,187.21	3,529.53	0.00	0.00	0.00
11,200.00	90.00	269.90	8,068.00	-3,641.38	-2,287.21	3,620.08	0.00	0.00	0.00
11,300.00	90.00	269.90	8,068.00	-3,641.55	-2,387.21	3,710.63	0.00	0.00	0.00
11,400.00	90.00	269.90	8,068.00	-3,641.73	-2,487.21	3,801.19	0.00	0.00	0.00
11,500.00	90.00	269.90	8,068.00	-3,641.90	-2,587.21	3,891.74	0.00	0.00	0.00
11,600.00	90.00	269.90	8,068.00	-3,642.07	-2,687.21	3,982.29	0.00	0.00	0.00
11,700.00	90.00	269.90	8,068.00	-3,642.24	-2,787.21	4,072.85	0.00	0.00	0.00
11,800.00	90.00	269.90	8,068.00	-3,642.41	-2,887.21	4,163.40	0.00	0.00	0.00
11,900.00	90.00	269.90	8,068.00	-3,642.58	-2,987.21	4,253.95	0.00	0.00	0.00
12,000.00	90.00	269.90	8,068.00	-3,642.75	-3,087.21	4,344.50	0.00	0.00	0.00
12,100.00	90.00	269.90	8,068.00	-3,642.92	-3,187.21	4,435.06	0.00	0.00	0.00
12,200.00	90.00	269.90	8,068.00	-3,643.10	-3,287.21	4,525.61	0.00	0.00	0.00
12,300.00	90.00	269.90	8,068.00	-3,643.27	-3,387.21	4,616.17	0.00	0.00	0.00
12,400.00	90.00	269.90	8,068.00	-3,643.44	-3,487.21	4,706.72	0.00	0.00	0.00
12,500.00	90.00	269.90	8,068.00	-3,643.61	-3,587.21	4,797.27	0.00	0.00	0.00
12,600.00	90.00	269.90	8,068.00	-3,643.79	-3,687.21	4,887.83	0.00	0.00	0.00
12,700.00	90.00	269.90	8,068.00	-3,643.96	-3,787.21	4,978.38	0.00	0.00	0.00
12,800.00	90.00	269.90	8,068.00	-3,644.13	-3,887.21	5,068.94	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-9C
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-15-9C	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)	
12,900.00	90.00	269.90	8,068.00	-3,644.31	-3,987.21	5,159.49	0.00	0.00	0.00	
13,000.00	90.00	269.90	8,068.00	-3,644.48	-4,087.21	5,250.04	0.00	0.00	0.00	
13,100.00	90.00	269.90	8,068.00	-3,644.65	-4,187.21	5,340.60	0.00	0.00	0.00	
13,200.00	90.00	269.90	8,068.00	-3,644.83	-4,287.21	5,431.15	0.00	0.00	0.00	
13,300.00	90.00	269.90	8,068.00	-3,645.00	-4,387.21	5,521.71	0.00	0.00	0.00	
13,400.00	90.00	269.90	8,068.00	-3,645.18	-4,487.21	5,612.26	0.00	0.00	0.00	
13,500.00	90.00	269.90	8,068.00	-3,645.35	-4,587.21	5,702.82	0.00	0.00	0.00	
13,600.00	90.00	269.90	8,068.00	-3,645.53	-4,687.21	5,793.37	0.00	0.00	0.00	
13,700.00	90.00	269.90	8,068.00	-3,645.70	-4,787.21	5,883.93	0.00	0.00	0.00	
13,800.00	90.00	269.90	8,068.00	-3,645.88	-4,887.21	5,974.48	0.00	0.00	0.00	
13,900.00	90.00	269.90	8,068.00	-3,646.05	-4,987.21	6,065.04	0.00	0.00	0.00	
14,000.00	90.00	269.90	8,068.00	-3,646.23	-5,087.21	6,155.59	0.00	0.00	0.00	
14,100.00	90.00	269.90	8,068.00	-3,646.40	-5,187.21	6,246.15	0.00	0.00	0.00	
14,200.00	90.00	269.90	8,068.00	-3,646.58	-5,287.21	6,336.70	0.00	0.00	0.00	
14,300.00	90.00	269.90	8,068.00	-3,646.76	-5,387.21	6,427.26	0.00	0.00	0.00	
14,400.00	90.00	269.90	8,068.00	-3,646.93	-5,487.21	6,517.81	0.00	0.00	0.00	
14,500.00	90.00	269.90	8,068.00	-3,647.11	-5,587.21	6,608.37	0.00	0.00	0.00	
14,600.00	90.00	269.90	8,068.00	-3,647.29	-5,687.20	6,698.92	0.00	0.00	0.00	
14,700.00	90.00	269.90	8,068.00	-3,647.46	-5,787.20	6,789.48	0.00	0.00	0.00	
14,800.00	90.00	269.90	8,068.00	-3,647.64	-5,887.20	6,880.03	0.00	0.00	0.00	
14,900.00	90.00	269.90	8,068.00	-3,647.82	-5,987.20	6,970.59	0.00	0.00	0.00	
15,000.00	90.00	269.90	8,068.00	-3,647.99	-6,087.20	7,061.15	0.00	0.00	0.00	
15,100.00	90.00	269.90	8,068.00	-3,648.17	-6,187.20	7,151.70	0.00	0.00	0.00	
15,200.00	90.00	269.90	8,068.00	-3,648.35	-6,287.20	7,242.26	0.00	0.00	0.00	
15,300.00	90.00	269.90	8,068.00	-3,648.53	-6,387.20	7,332.81	0.00	0.00	0.00	
15,400.00	90.00	269.90	8,068.00	-3,648.71	-6,487.20	7,423.37	0.00	0.00	0.00	
15,500.00	90.00	269.90	8,068.00	-3,648.89	-6,587.20	7,513.93	0.00	0.00	0.00	
15,600.00	90.00	269.90	8,068.00	-3,649.06	-6,687.20	7,604.48	0.00	0.00	0.00	
15,700.00	90.00	269.90	8,068.00	-3,649.24	-6,787.20	7,695.04	0.00	0.00	0.00	
15,800.00	90.00	269.90	8,068.00	-3,649.42	-6,887.20	7,785.60	0.00	0.00	0.00	
15,900.00	90.00	269.90	8,068.00	-3,649.60	-6,987.20	7,876.15	0.00	0.00	0.00	
16,000.00	90.00	269.90	8,068.00	-3,649.78	-7,087.20	7,966.71	0.00	0.00	0.00	
16,100.00	90.00	269.90	8,068.00	-3,649.96	-7,187.20	8,057.27	0.00	0.00	0.00	
16,200.00	90.00	269.90	8,068.00	-3,650.14	-7,287.20	8,147.82	0.00	0.00	0.00	
16,300.00	90.00	269.90	8,068.00	-3,650.32	-7,387.20	8,238.38	0.00	0.00	0.00	
16,400.00	90.00	269.90	8,068.00	-3,650.50	-7,487.20	8,328.94	0.00	0.00	0.00	
16,500.00	90.00	269.90	8,068.00	-3,650.68	-7,587.20	8,419.49	0.00	0.00	0.00	
16,600.00	90.00	269.90	8,068.00	-3,650.86	-7,687.20	8,510.05	0.00	0.00	0.00	
16,670.47	90.00	269.90	8,068.00	-3,650.99	-7,757.67	8,573.86	0.00	0.00	0.00	
TD at 16670.47										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-9C
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-15-9C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
CT 33W-9C LP	0.00	0.00	8,068.00	-3,638.35	-487.97	1,246,137.83	3,137,478.09	40° 0' 28.764 N	105° 0' 33.178 W
- plan hits target center									
- Point									
CT 33W-9C PBHL	0.00	0.00	8,068.00	-3,650.99	-7,757.67	1,246,084.81	3,130,208.57	40° 0' 28.627 N	105° 2' 6.605 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,056.80	4,440.00	PARKMAN				
5,622.87	4,910.00	SUSSEX				
8,616.48	7,610.00	SHARON SPRINGS				
8,657.65	7,650.00	NIOBRARA				
8,818.78	7,797.00	NIO B				
9,248.92	8,048.00	FORT HAYS				
9,400.76	8,068.00	CODELL				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,993.57	1,896.64	-486.05	11.36	Start 4783.54 hold at 1993.57 MD
6,777.12	5,868.36	-3,151.35	73.67	Start Drop -2.00
8,470.69	7,465.00	-3,637.40	85.03	Start 30.00 hold at 8470.69 MD
8,500.69	7,495.00	-3,637.40	85.03	Start DLS 10.00 TFO 269.90
9,400.76	8,068.00	-3,638.35	-487.97	Start DLS 0.00 TFO -91.63
16,670.47	8,068.00	-3,650.99	-7,757.67	TD at 16670.47