

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-2N

ORIGINAL WELLBORE

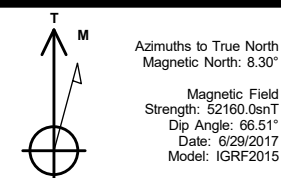
Plan: PROPOSAL 1

Standard Planning Report

07 June, 2018



Project: WELD COUNTY
Site: Sec 28-T1N-R68W
Well: COYOTE TRAILS 33W-15-2N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



WELL DETAILS: COYOTE TRAILS 33W-15-2N

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
	0.00	0.00	1249828.91	3137910.00	40° 1' 5.217 N	105° 0' 27.364 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	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1871.54	17.43	175.86	1858.15	-131.21	9.49	2.00	175.86	18.62	
4	6575.22	17.43	175.86	6345.85	-1536.54	111.15	0.00	0.00	218.06	
5	7446.76	0.00	0.00	7204.00	-1667.75	120.64	2.00	180.00	236.68	
6	7476.76	0.00	0.00	7234.00	-1667.75	120.64	0.00	0.00	236.68	
7	8376.82	90.00	269.90	7807.00	-1668.72	-452.36	10.00	269.90	796.78	CT 33W-2N LP
8	15652.38	90.00	269.90	7807.00	-1681.37	-7727.91	0.00	0.00	7908.70	CT 33W-2N PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	Start Build 2.00
1871.54	17.43	175.86	1858.15	-131.21	9.49	18.62	131.55	Start 4703.69 hold at 1871.54 MD
6575.22	17.43	175.86	6345.85	-1536.54	111.15	218.06	1540.56	Start Drop -2.00
7446.76	0.00	0.00	7204.00	-1667.75	120.64	236.68	1672.11	Start 30.00 hold at 7446.76 MD
7476.76	0.00	0.00	7234.00	-1667.75	120.64	236.68	1672.11	Start DLS 10.00 TFO 269.90
8376.82	90.00	269.90	7807.00	-1668.72	-452.36	796.78	2245.11	Start 7275.56 hold at 8376.82 MD
15652.38	90.00	269.90	7807.01	-1681.10	-7727.91	7908.64	9520.67	TD at 15652.38

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-2N LP	7807.00	-1668.72	-452.36	1248157.70	3137466.91	40° 0' 48.726 N	105° 0' 33.178 W	Point
- plan hits target center								
CT 33W-2N PBHL	7807.00	-1681.37	-7727.91	1248104.65	3130191.54	40° 0' 48.589 N	105° 2' 6.688 W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4440.00	4577.65	PARKMAN
4910.00	5070.27	SUSSEX
7610.00	7886.89	SHARON SPRINGS
7650.00	7942.32	NIOBRARA
7797.00	8269.62	NIO B

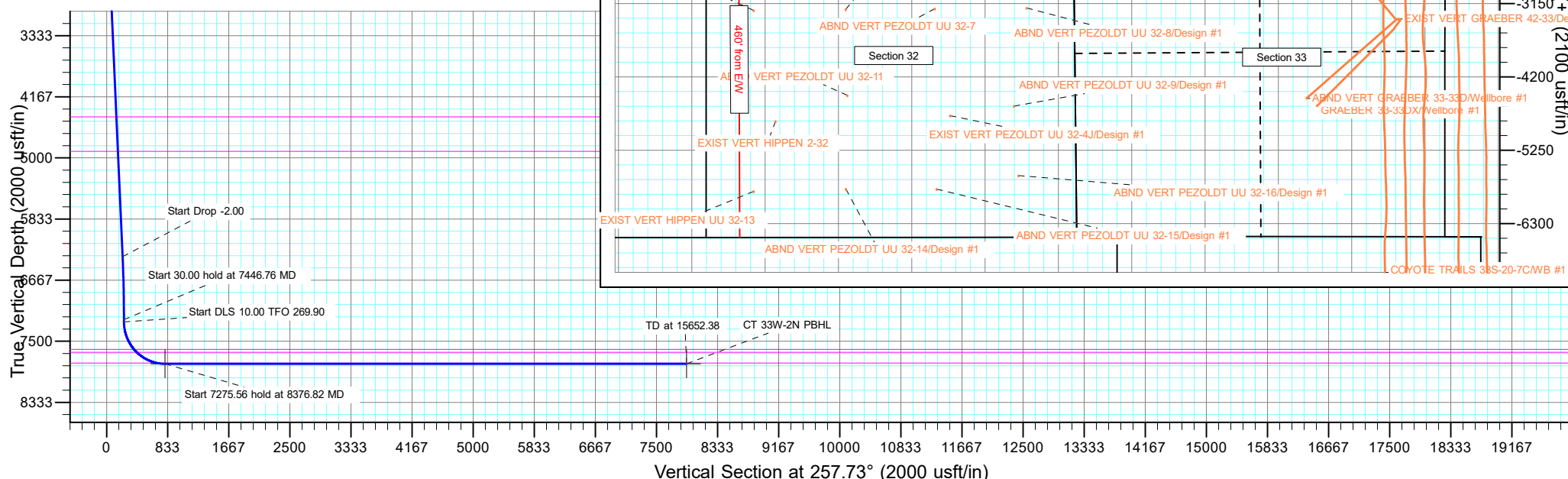
PROJECT DETAILS: WELD COUNTY

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SHL:
1200' FSL, 2391' FEL
Sec 28-T1N-R68W

LP:
464' FNL, 2488' FWL
Sec 33-T1N-R68W

BHL:
462' FNL, 460' FWL
Sec 32-T1N-R68W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	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-15-2N					
Well Position	+N/-S	1,182.17 usft	Northing:	1,249,828.91 usft	Latitude:	40° 1' 5.217 N
	+E/-W	-2,383.19 usft	Easting:	3,137,910.00 usft	Longitude:	105° 0' 27.364 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	52,160.01195223

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	257.73

Plan Survey Tool Program	Date	6/7/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,652.38	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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,871.54	17.43	175.86	1,858.15	-131.21	9.49	2.00	2.00	0.00	175.86	
6,575.22	17.43	175.86	6,345.85	-1,536.54	111.15	0.00	0.00	0.00	0.00	
7,446.76	0.00	0.00	7,204.00	-1,667.75	120.64	2.00	-2.00	0.00	180.00	
7,476.76	0.00	0.00	7,234.00	-1,667.75	120.64	0.00	0.00	0.00	0.00	
8,376.82	90.00	269.90	7,807.00	-1,668.72	-452.36	10.00	10.00	-10.01	269.90	CT 33W-2N LP
15,652.38	90.00	269.90	7,807.00	-1,681.37	-7,727.91	0.00	0.00	0.00	0.00	CT 33W-2N PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	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
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	2.00	175.86	1,099.98	-1.74	0.13	0.25	2.00	2.00	0.00
1,200.00	4.00	175.86	1,199.84	-6.96	0.50	0.99	2.00	2.00	0.00
1,300.00	6.00	175.86	1,299.45	-15.65	1.13	2.22	2.00	2.00	0.00
1,400.00	8.00	175.86	1,398.70	-27.81	2.01	3.95	2.00	2.00	0.00
1,500.00	10.00	175.86	1,497.47	-43.41	3.14	6.16	2.00	2.00	0.00
1,600.00	12.00	175.86	1,595.62	-62.44	4.52	8.86	2.00	2.00	0.00
1,700.00	14.00	175.86	1,693.06	-84.87	6.14	12.04	2.00	2.00	0.00
1,800.00	16.00	175.86	1,789.64	-110.69	8.01	15.71	2.00	2.00	0.00
1,871.54	17.43	175.86	1,858.15	-131.21	9.49	18.62	2.00	2.00	0.00
Start 4703.69 hold at 1871.54 MD									
1,900.00	17.43	175.86	1,885.31	-139.71	10.11	19.83	0.00	0.00	0.00
2,000.00	17.43	175.86	1,980.72	-169.59	12.27	24.07	0.00	0.00	0.00
2,100.00	17.43	175.86	2,076.13	-199.47	14.43	28.31	0.00	0.00	0.00
2,200.00	17.43	175.86	2,171.54	-229.34	16.59	32.55	0.00	0.00	0.00
2,300.00	17.43	175.86	2,266.94	-259.22	18.75	36.79	0.00	0.00	0.00
2,400.00	17.43	175.86	2,362.35	-289.10	20.91	41.03	0.00	0.00	0.00
2,500.00	17.43	175.86	2,457.76	-318.98	23.07	45.27	0.00	0.00	0.00
2,600.00	17.43	175.86	2,553.17	-348.85	25.24	49.51	0.00	0.00	0.00
2,700.00	17.43	175.86	2,648.57	-378.73	27.40	53.75	0.00	0.00	0.00
2,800.00	17.43	175.86	2,743.98	-408.61	29.56	57.99	0.00	0.00	0.00
2,900.00	17.43	175.86	2,839.39	-438.49	31.72	62.23	0.00	0.00	0.00
3,000.00	17.43	175.86	2,934.80	-468.36	33.88	66.47	0.00	0.00	0.00
3,100.00	17.43	175.86	3,030.21	-498.24	36.04	70.71	0.00	0.00	0.00
3,200.00	17.43	175.86	3,125.61	-528.12	38.20	74.95	0.00	0.00	0.00
3,300.00	17.43	175.86	3,221.02	-557.99	40.36	79.19	0.00	0.00	0.00
3,400.00	17.43	175.86	3,316.43	-587.87	42.52	83.43	0.00	0.00	0.00
3,500.00	17.43	175.86	3,411.84	-617.75	44.69	87.67	0.00	0.00	0.00
3,600.00	17.43	175.86	3,507.25	-647.63	46.85	91.91	0.00	0.00	0.00
3,700.00	17.43	175.86	3,602.65	-677.50	49.01	96.15	0.00	0.00	0.00
3,800.00	17.43	175.86	3,698.06	-707.38	51.17	100.39	0.00	0.00	0.00
3,900.00	17.43	175.86	3,793.47	-737.26	53.33	104.63	0.00	0.00	0.00
4,000.00	17.43	175.86	3,888.88	-767.14	55.49	108.87	0.00	0.00	0.00
4,100.00	17.43	175.86	3,984.29	-797.01	57.65	113.11	0.00	0.00	0.00
4,200.00	17.43	175.86	4,079.69	-826.89	59.81	117.35	0.00	0.00	0.00
4,300.00	17.43	175.86	4,175.10	-856.77	61.98	121.59	0.00	0.00	0.00
4,400.00	17.43	175.86	4,270.51	-886.64	64.14	125.83	0.00	0.00	0.00
4,500.00	17.43	175.86	4,365.92	-916.52	66.30	130.07	0.00	0.00	0.00
4,577.65	17.43	175.86	4,440.00	-939.72	67.98	133.36	0.00	0.00	0.00
PARKMAN									
4,600.00	17.43	175.86	4,461.33	-946.40	68.46	134.31	0.00	0.00	0.00
4,700.00	17.43	175.86	4,556.73	-976.28	70.62	138.55	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	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	17.43	175.86	4,652.14	-1,006.15	72.78	142.79	0.00	0.00	0.00
4,900.00	17.43	175.86	4,747.55	-1,036.03	74.94	147.03	0.00	0.00	0.00
5,000.00	17.43	175.86	4,842.96	-1,065.91	77.10	151.27	0.00	0.00	0.00
5,070.27	17.43	175.86	4,910.00	-1,086.90	78.62	154.25	0.00	0.00	0.00
SUSSEX									
5,100.00	17.43	175.86	4,938.37	-1,095.79	79.27	155.51	0.00	0.00	0.00
5,200.00	17.43	175.86	5,033.77	-1,125.66	81.43	159.75	0.00	0.00	0.00
5,300.00	17.43	175.86	5,129.18	-1,155.54	83.59	163.99	0.00	0.00	0.00
5,400.00	17.43	175.86	5,224.59	-1,185.42	85.75	168.23	0.00	0.00	0.00
5,500.00	17.43	175.86	5,320.00	-1,215.29	87.91	172.47	0.00	0.00	0.00
5,600.00	17.43	175.86	5,415.41	-1,245.17	90.07	176.71	0.00	0.00	0.00
5,700.00	17.43	175.86	5,510.81	-1,275.05	92.23	180.95	0.00	0.00	0.00
5,800.00	17.43	175.86	5,606.22	-1,304.93	94.39	185.19	0.00	0.00	0.00
5,900.00	17.43	175.86	5,701.63	-1,334.80	96.56	189.43	0.00	0.00	0.00
6,000.00	17.43	175.86	5,797.04	-1,364.68	98.72	193.67	0.00	0.00	0.00
6,100.00	17.43	175.86	5,892.45	-1,394.56	100.88	197.91	0.00	0.00	0.00
6,200.00	17.43	175.86	5,987.85	-1,424.43	103.04	202.15	0.00	0.00	0.00
6,300.00	17.43	175.86	6,083.26	-1,454.31	105.20	206.39	0.00	0.00	0.00
6,400.00	17.43	175.86	6,178.67	-1,484.19	107.36	210.63	0.00	0.00	0.00
6,500.00	17.43	175.86	6,274.08	-1,514.07	109.52	214.87	0.00	0.00	0.00
6,575.22	17.43	175.86	6,345.85	-1,536.54	111.15	218.06	0.00	0.00	0.00
Start Drop -2.00									
6,600.00	16.94	175.86	6,369.52	-1,543.84	111.68	219.09	2.00	-2.00	0.00
6,700.00	14.94	175.86	6,465.67	-1,571.22	113.66	222.98	2.00	-2.00	0.00
6,800.00	12.94	175.86	6,562.72	-1,595.24	115.40	226.39	2.00	-2.00	0.00
6,900.00	10.94	175.86	6,660.55	-1,615.87	116.89	229.31	2.00	-2.00	0.00
7,000.00	8.94	175.86	6,759.05	-1,633.08	118.13	231.76	2.00	-2.00	0.00
7,100.00	6.94	175.86	6,858.09	-1,646.84	119.13	233.71	2.00	-2.00	0.00
7,200.00	4.94	175.86	6,957.55	-1,657.16	119.87	235.17	2.00	-2.00	0.00
7,300.00	2.94	175.86	7,057.31	-1,664.00	120.37	236.15	2.00	-2.00	0.00
7,400.00	0.94	175.86	7,157.24	-1,667.37	120.61	236.62	2.00	-2.00	0.00
7,446.76	0.00	0.00	7,204.00	-1,667.75	120.64	236.68	2.00	-2.00	-376.11
Start 30.00 hold at 7446.76 MD									
7,476.76	0.00	0.00	7,234.00	-1,667.75	120.64	236.68	0.00	0.00	0.00
Start DLS 10.00 TFO 269.90									
7,500.00	2.32	269.90	7,257.24	-1,667.75	120.17	237.14	10.00	10.00	0.00
7,550.00	7.32	269.90	7,307.04	-1,667.76	115.97	241.25	10.00	10.00	0.00
7,600.00	12.32	269.90	7,356.29	-1,667.77	107.44	249.58	10.00	10.00	0.00
7,650.00	17.32	269.90	7,404.61	-1,667.79	94.65	262.08	10.00	10.00	0.00
7,700.00	22.32	269.90	7,451.64	-1,667.82	77.70	278.65	10.00	10.00	0.00
7,750.00	27.32	269.90	7,497.00	-1,667.86	56.72	299.16	10.00	10.00	0.00
7,800.00	32.32	269.90	7,540.37	-1,667.90	31.86	323.46	10.00	10.00	0.00
7,850.00	37.32	269.90	7,581.40	-1,667.95	3.32	351.36	10.00	10.00	0.00
7,886.89	41.01	269.90	7,610.00	-1,667.99	-19.98	374.13	10.00	10.00	0.00
SHARON SPRINGS									
7,900.00	42.32	269.90	7,619.79	-1,668.00	-28.69	382.65	10.00	10.00	0.00
7,942.32	46.55	269.90	7,650.00	-1,668.05	-58.31	411.60	10.00	10.00	0.00
NIORARA									
7,950.00	47.32	269.90	7,655.25	-1,668.06	-63.93	417.09	10.00	10.00	0.00
8,000.00	52.32	269.90	7,687.50	-1,668.13	-102.12	454.42	10.00	10.00	0.00
8,050.00	57.32	269.90	7,716.29	-1,668.20	-142.97	494.36	10.00	10.00	0.00
8,100.00	62.32	269.90	7,741.42	-1,668.27	-186.18	536.59	10.00	10.00	0.00
8,150.00	67.32	269.90	7,762.69	-1,668.35	-231.41	580.81	10.00	10.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	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)	
8,200.00	72.32	269.90	7,779.93	-1,668.43	-278.33	626.67	10.00	10.00	0.00	
8,250.00	77.32	269.90	7,793.02	-1,668.51	-326.57	673.82	10.00	10.00	0.00	
8,269.62	79.28	269.90	7,797.00	-1,668.54	-345.78	692.60	10.00	10.00	0.00	
NIO B										
8,300.00	82.32	269.90	7,801.86	-1,668.59	-375.76	721.91	10.00	10.00	0.00	
8,350.00	87.32	269.90	7,806.37	-1,668.68	-425.54	770.57	10.00	10.00	0.00	
8,376.82	90.00	269.90	7,807.00	-1,668.72	-452.36	796.78	10.00	10.00	0.00	
Start 7275.56 hold at 8376.82 MD										
8,400.00	90.00	269.90	7,807.00	-1,668.76	-475.53	819.44	0.00	0.00	0.00	
8,500.00	90.00	269.90	7,807.00	-1,668.93	-575.53	917.19	0.00	0.00	0.00	
8,600.00	90.00	269.90	7,807.00	-1,669.10	-675.53	1,014.94	0.00	0.00	0.00	
8,700.00	90.00	269.90	7,807.00	-1,669.27	-775.53	1,112.69	0.00	0.00	0.00	
8,800.00	90.00	269.90	7,807.00	-1,669.44	-875.53	1,210.44	0.00	0.00	0.00	
8,900.00	90.00	269.90	7,807.00	-1,669.61	-975.53	1,308.19	0.00	0.00	0.00	
9,000.00	90.00	269.90	7,807.00	-1,669.78	-1,075.53	1,405.94	0.00	0.00	0.00	
9,100.00	90.00	269.90	7,807.00	-1,669.95	-1,175.53	1,503.69	0.00	0.00	0.00	
9,200.00	90.00	269.90	7,807.00	-1,670.12	-1,275.53	1,601.44	0.00	0.00	0.00	
9,300.00	90.00	269.90	7,807.00	-1,670.29	-1,375.53	1,699.19	0.00	0.00	0.00	
9,400.00	90.00	269.90	7,807.00	-1,670.46	-1,475.53	1,796.94	0.00	0.00	0.00	
9,500.00	90.00	269.90	7,807.00	-1,670.63	-1,575.53	1,894.69	0.00	0.00	0.00	
9,600.00	90.00	269.90	7,807.00	-1,670.80	-1,675.53	1,992.44	0.00	0.00	0.00	
9,700.00	90.00	269.90	7,807.00	-1,670.97	-1,775.53	2,090.19	0.00	0.00	0.00	
9,800.00	90.00	269.90	7,807.00	-1,671.14	-1,875.53	2,187.94	0.00	0.00	0.00	
9,900.00	90.00	269.90	7,807.00	-1,671.31	-1,975.53	2,285.69	0.00	0.00	0.00	
10,000.00	90.00	269.90	7,807.00	-1,671.48	-2,075.53	2,383.44	0.00	0.00	0.00	
10,100.00	90.00	269.90	7,807.00	-1,671.66	-2,175.53	2,481.19	0.00	0.00	0.00	
10,200.00	90.00	269.90	7,807.00	-1,671.83	-2,275.53	2,578.94	0.00	0.00	0.00	
10,300.00	90.00	269.90	7,807.00	-1,672.00	-2,375.53	2,676.69	0.00	0.00	0.00	
10,400.00	90.00	269.90	7,807.00	-1,672.17	-2,475.53	2,774.44	0.00	0.00	0.00	
10,500.00	90.00	269.90	7,807.00	-1,672.34	-2,575.53	2,872.19	0.00	0.00	0.00	
10,600.00	90.00	269.90	7,807.00	-1,672.51	-2,675.53	2,969.94	0.00	0.00	0.00	
10,700.00	90.00	269.90	7,807.00	-1,672.68	-2,775.53	3,067.69	0.00	0.00	0.00	
10,800.00	90.00	269.90	7,807.00	-1,672.85	-2,875.53	3,165.44	0.00	0.00	0.00	
10,900.00	90.00	269.90	7,807.00	-1,673.02	-2,975.53	3,263.19	0.00	0.00	0.00	
11,000.00	90.00	269.90	7,807.00	-1,673.19	-3,075.53	3,360.94	0.00	0.00	0.00	
11,100.00	90.00	269.90	7,807.00	-1,673.36	-3,175.53	3,458.69	0.00	0.00	0.00	
11,200.00	90.00	269.90	7,807.00	-1,673.53	-3,275.53	3,556.44	0.00	0.00	0.00	
11,300.00	90.00	269.90	7,807.00	-1,673.70	-3,375.53	3,654.19	0.00	0.00	0.00	
11,400.00	90.00	269.90	7,807.01	-1,673.87	-3,475.53	3,751.94	0.00	0.00	0.00	
11,500.00	90.00	269.90	7,807.01	-1,674.04	-3,575.53	3,849.69	0.00	0.00	0.00	
11,600.00	90.00	269.90	7,807.01	-1,674.21	-3,675.53	3,947.44	0.00	0.00	0.00	
11,700.00	90.00	269.90	7,807.01	-1,674.38	-3,775.53	4,045.19	0.00	0.00	0.00	
11,800.00	90.00	269.90	7,807.01	-1,674.55	-3,875.53	4,142.94	0.00	0.00	0.00	
11,900.00	90.00	269.90	7,807.01	-1,674.72	-3,975.53	4,240.69	0.00	0.00	0.00	
12,000.00	90.00	269.90	7,807.01	-1,674.89	-4,075.53	4,338.44	0.00	0.00	0.00	
12,100.00	90.00	269.90	7,807.01	-1,675.06	-4,175.53	4,436.19	0.00	0.00	0.00	
12,200.00	90.00	269.90	7,807.01	-1,675.23	-4,275.53	4,533.94	0.00	0.00	0.00	
12,300.00	90.00	269.90	7,807.01	-1,675.40	-4,375.53	4,631.69	0.00	0.00	0.00	
12,400.00	90.00	269.90	7,807.01	-1,675.57	-4,475.53	4,729.44	0.00	0.00	0.00	
12,500.00	90.00	269.90	7,807.01	-1,675.74	-4,575.53	4,827.19	0.00	0.00	0.00	
12,600.00	90.00	269.90	7,807.01	-1,675.91	-4,675.53	4,924.94	0.00	0.00	0.00	
12,700.00	90.00	269.90	7,807.01	-1,676.08	-4,775.53	5,022.69	0.00	0.00	0.00	
12,800.00	90.00	269.90	7,807.01	-1,676.25	-4,875.53	5,120.44	0.00	0.00	0.00	
12,900.00	90.00	269.90	7,807.01	-1,676.42	-4,975.53	5,218.19	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	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	7,807.01	-1,676.59	-5,075.53	5,315.94	0.00	0.00	0.00	
13,100.00	90.00	269.90	7,807.01	-1,676.76	-5,175.53	5,413.69	0.00	0.00	0.00	
13,200.00	90.00	269.90	7,807.01	-1,676.93	-5,275.53	5,511.44	0.00	0.00	0.00	
13,300.00	90.00	269.90	7,807.01	-1,677.10	-5,375.53	5,609.19	0.00	0.00	0.00	
13,400.00	90.00	269.90	7,807.01	-1,677.27	-5,475.53	5,706.94	0.00	0.00	0.00	
13,500.00	90.00	269.90	7,807.01	-1,677.44	-5,575.53	5,804.69	0.00	0.00	0.00	
13,600.00	90.00	269.90	7,807.01	-1,677.61	-5,675.53	5,902.44	0.00	0.00	0.00	
13,700.00	90.00	269.90	7,807.01	-1,677.78	-5,775.53	6,000.19	0.00	0.00	0.00	
13,800.00	90.00	269.90	7,807.01	-1,677.95	-5,875.53	6,097.94	0.00	0.00	0.00	
13,900.00	90.00	269.90	7,807.01	-1,678.12	-5,975.53	6,195.69	0.00	0.00	0.00	
14,000.00	90.00	269.90	7,807.01	-1,678.29	-6,075.53	6,293.44	0.00	0.00	0.00	
14,100.00	90.00	269.90	7,807.01	-1,678.46	-6,175.53	6,391.19	0.00	0.00	0.00	
14,200.00	90.00	269.90	7,807.01	-1,678.63	-6,275.53	6,488.94	0.00	0.00	0.00	
14,300.00	90.00	269.90	7,807.01	-1,678.80	-6,375.53	6,586.69	0.00	0.00	0.00	
14,400.00	90.00	269.90	7,807.01	-1,678.97	-6,475.53	6,684.44	0.00	0.00	0.00	
14,500.00	90.00	269.90	7,807.01	-1,679.14	-6,575.53	6,782.19	0.00	0.00	0.00	
14,600.00	90.00	269.90	7,807.01	-1,679.31	-6,675.53	6,879.94	0.00	0.00	0.00	
14,700.00	90.00	269.90	7,807.01	-1,679.48	-6,775.53	6,977.69	0.00	0.00	0.00	
14,800.00	90.00	269.90	7,807.01	-1,679.65	-6,875.53	7,075.44	0.00	0.00	0.00	
14,900.00	90.00	269.90	7,807.01	-1,679.82	-6,975.53	7,173.19	0.00	0.00	0.00	
15,000.00	90.00	269.90	7,807.01	-1,679.99	-7,075.52	7,270.94	0.00	0.00	0.00	
15,100.00	90.00	269.90	7,807.01	-1,680.16	-7,175.52	7,368.69	0.00	0.00	0.00	
15,200.00	90.00	269.90	7,807.01	-1,680.33	-7,275.52	7,466.44	0.00	0.00	0.00	
15,300.00	90.00	269.90	7,807.01	-1,680.50	-7,375.52	7,564.19	0.00	0.00	0.00	
15,400.00	90.00	269.90	7,807.01	-1,680.67	-7,475.52	7,661.94	0.00	0.00	0.00	
15,500.00	90.00	269.90	7,807.01	-1,680.84	-7,575.52	7,759.69	0.00	0.00	0.00	
15,600.00	90.00	269.90	7,807.01	-1,681.01	-7,675.52	7,857.44	0.00	0.00	0.00	
15,652.38	90.00	269.90	7,807.01	-1,681.10	-7,727.91	7,908.64	0.00	0.00	0.00	
TD at 15652.38										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
CT 33W-2N PBHL	0.00	0.00	7,807.00	-1,681.37	-7,727.91	1,248,104.65	3,130,191.54	40° 0' 48.589 N	105° 2' 6.688 W	
- hit/miss target										
- Shape										
- Point										
- plan misses target center by 0.27usft at 15652.38usft MD (7807.01 TVD, -1681.10 N, -7727.91 E)										
CT 33W-2N LP	0.00	0.00	7,807.00	-1,668.72	-452.36	1,248,157.70	3,137,466.91	40° 0' 48.726 N	105° 0' 33.178 W	
- hit/miss target										
- Shape										
- Point										
- plan hits target center										

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2N
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-15-2N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,577.65	4,440.00	PARKMAN				
5,070.27	4,910.00	SUSSEX				
7,886.89	7,610.00	SHARON SPRINGS				
7,942.32	7,650.00	NIOBRARA				
8,269.62	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.00	1,000.00	0.00	0.00	Start Build 2.00	
1,871.54	1,858.15	-131.21	9.49	Start 4703.69 hold at 1871.54 MD	
6,575.22	6,345.85	-1,536.54	111.15	Start Drop -2.00	
7,446.76	7,204.00	-1,667.75	120.64	Start 30.00 hold at 7446.76 MD	
7,476.76	7,234.00	-1,667.75	120.64	Start DLS 10.00 TFO 269.90	
8,376.82	7,807.00	-1,668.72	-452.36	Start 7275.56 hold at 8376.82 MD	
15,652.38	7,807.01	-1,681.10	-7,727.91	TD at 15652.38	