

EXTRACTION OIL & GAS

WELD COUNTY

Sec 28-T1N-R68W

COYOTE TRAILS 33W-15-2C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

21 March, 2019



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



Azimuths to True North
Magnetic North: 8.30°
Magnetic Field
Strength: 52159.8nT
Dip Angle: 66.51°
Date: 6/29/2017
Model: IGRF2015

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

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
	0.00	0.00	1249858.63	3137882.94	40.018198°N	105.007697°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	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	
3	2317.06	18.34	175.03	2301.47	-144.99	12.60	2.00	175.03	19.06	
4	6807.21	18.34	175.03	6563.53	-1552.61	134.93	0.00	0.00	204.06	
5	7724.27	0.00	0.00	7465.00	-1697.60	147.53	2.00	180.00	223.11	
6	7754.27	0.00	0.00	7495.00	-1697.60	147.53	0.00	0.00	223.11	
7	8654.33	90.00	269.90	8068.00	-1698.60	-425.47	10.00	269.90	782.77	CT 33W-2C LP
8	15929.89	90.00	269.90	8068.00	-1711.25	-7701.02	0.00	0.00	7888.85	CT 33W-2C PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	Start Build 2.00
2317.06	18.34	175.03	2301.47	-144.99	12.60	19.06	145.53	Start 4490.15 hold at 2317.06 MD
6807.21	18.34	175.03	6563.53	-1552.61	134.93	204.06	1558.47	Start Drop -2.00
7724.27	0.00	0.00	7465.00	-1697.60	147.53	223.11	1704.00	Start 30.00 hold at 7724.27 MD
7754.27	0.00	0.00	7495.00	-1697.60	147.53	223.11	1704.00	Start DLS 10.00 TFO 269.90
8654.33	90.00	269.90	8068.00	-1698.60	-425.47	782.77	2277.00	Start 7275.56 hold at 8654.33 MD
15929.89	90.00	269.90	8068.00	-1711.24	-7701.02	7888.85	9552.56	TD at 15929.89

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-2C LP	8068.00	-1698.60	-425.47	1248157.70	3137466.91	40.013535°N	105.009216°W	Point
- plan hits target center								
CT 33W-2C PBHL	8068.00	-1711.25	-7701.02	1248104.65	3130191.54	40.013497°N	105.035191°W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4440.00	4570.03	PARKMAN
4910.00	5065.19	SUSSEX
7610.00	7870.05	SHARON SPRINGS
7650.00	7911.22	NIOBRARA
7797.00	8072.35	NIO B
8048.00	8502.49	FORT HAYS
8068.00	8654.33	CODELL

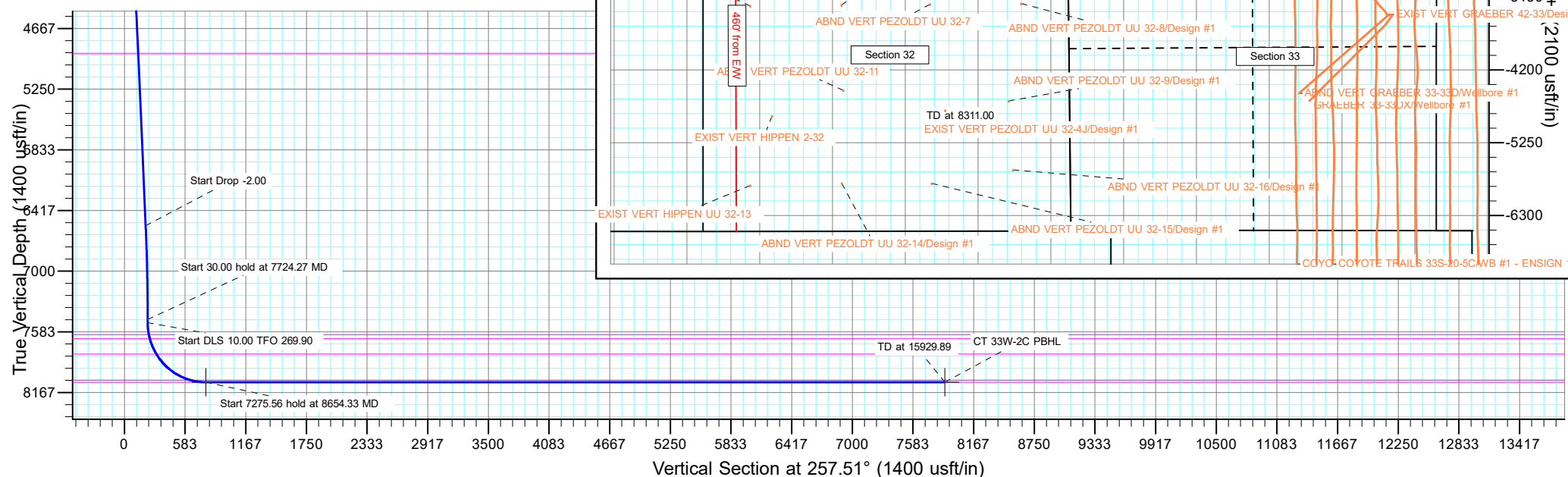
PROJECT DETAILS: WELD COUNTY

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

SHL:
1231' FSL, 2417' 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-15-2C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	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:	40.014871°N
From:	Lat/Long	Easting:	3,140,299.83 usft	Longitude:	104.999092°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	COYOTE TRAILS 33W-15-2C					
Well Position	+N/-S	1,212.05 usft	Northing:	1,249,858.63 usft	Latitude:	40.018198°N
	+E/-W	-2,410.08 usft	Easting:	3,137,882.94 usft	Longitude:	105.007697°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,273.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/29/2017	8.30	66.51	52,159.78756892

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	257.51

Plan Survey Tool Program	Date	3/21/2019			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	15,929.89	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	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,317.06	18.34	175.03	2,301.47	-144.99	12.60	2.00	2.00	0.00	175.03	
6,807.21	18.34	175.03	6,563.53	-1,552.61	134.93	0.00	0.00	0.00	0.00	
7,724.27	0.00	0.00	7,465.00	-1,697.60	147.53	2.00	-2.00	0.00	180.00	
7,754.27	0.00	0.00	7,495.00	-1,697.60	147.53	0.00	0.00	0.00	0.00	
8,654.33	90.00	269.90	8,068.00	-1,698.60	-425.47	10.00	10.00	-10.01	269.90	CT 33W-2C LP
15,929.89	90.00	269.90	8,068.00	-1,711.25	-7,701.02	0.00	0.00	0.00	0.00	CT 33W-2C PBHL

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	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
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
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,500.00	2.00	175.03	1,499.98	-1.74	0.15	0.23	2.00	2.00	0.00
1,600.00	4.00	175.03	1,599.84	-6.95	0.60	0.91	2.00	2.00	0.00
1,700.00	6.00	175.03	1,699.45	-15.63	1.36	2.05	2.00	2.00	0.00
1,800.00	8.00	175.03	1,798.70	-27.78	2.41	3.65	2.00	2.00	0.00
1,900.00	10.00	175.03	1,897.47	-43.36	3.77	5.70	2.00	2.00	0.00
2,000.00	12.00	175.03	1,995.62	-62.37	5.42	8.20	2.00	2.00	0.00
2,100.00	14.00	175.03	2,093.06	-84.78	7.37	11.14	2.00	2.00	0.00
2,200.00	16.00	175.03	2,189.64	-110.56	9.61	14.53	2.00	2.00	0.00
2,300.00	18.00	175.03	2,285.27	-139.69	12.14	18.36	2.00	2.00	0.00
2,317.06	18.34	175.03	2,301.47	-144.99	12.60	19.06	2.00	2.00	0.00
Start 4490.15 hold at 2317.06 MD									
2,400.00	18.34	175.03	2,380.20	-170.99	14.86	22.47	0.00	0.00	0.00
2,500.00	18.34	175.03	2,475.12	-202.34	17.58	26.59	0.00	0.00	0.00
2,600.00	18.34	175.03	2,570.04	-233.69	20.31	30.71	0.00	0.00	0.00
2,700.00	18.34	175.03	2,664.96	-265.04	23.03	34.83	0.00	0.00	0.00
2,800.00	18.34	175.03	2,759.88	-296.38	25.76	38.95	0.00	0.00	0.00
2,900.00	18.34	175.03	2,854.80	-327.73	28.48	43.07	0.00	0.00	0.00
3,000.00	18.34	175.03	2,949.72	-359.08	31.21	47.19	0.00	0.00	0.00
3,100.00	18.34	175.03	3,044.64	-390.43	33.93	51.31	0.00	0.00	0.00
3,200.00	18.34	175.03	3,139.56	-421.78	36.65	55.43	0.00	0.00	0.00
3,300.00	18.34	175.03	3,234.48	-453.13	39.38	59.55	0.00	0.00	0.00
3,400.00	18.34	175.03	3,329.40	-484.48	42.10	63.67	0.00	0.00	0.00
3,500.00	18.34	175.03	3,424.32	-515.83	44.83	67.79	0.00	0.00	0.00
3,600.00	18.34	175.03	3,519.24	-547.18	47.55	71.91	0.00	0.00	0.00
3,700.00	18.34	175.03	3,614.16	-578.53	50.28	76.04	0.00	0.00	0.00
3,800.00	18.34	175.03	3,709.08	-609.88	53.00	80.16	0.00	0.00	0.00
3,900.00	18.34	175.03	3,804.00	-641.23	55.73	84.28	0.00	0.00	0.00
4,000.00	18.34	175.03	3,898.92	-672.58	58.45	88.40	0.00	0.00	0.00
4,100.00	18.34	175.03	3,993.84	-703.92	61.17	92.52	0.00	0.00	0.00
4,200.00	18.34	175.03	4,088.76	-735.27	63.90	96.64	0.00	0.00	0.00
4,300.00	18.34	175.03	4,183.68	-766.62	66.62	100.76	0.00	0.00	0.00
4,400.00	18.34	175.03	4,278.60	-797.97	69.35	104.88	0.00	0.00	0.00
4,500.00	18.34	175.03	4,373.52	-829.32	72.07	109.00	0.00	0.00	0.00
4,570.03	18.34	175.03	4,440.00	-851.28	73.98	111.88	0.00	0.00	0.00
PARKMAN									
4,600.00	18.34	175.03	4,468.44	-860.67	74.80	113.12	0.00	0.00	0.00
4,700.00	18.34	175.03	4,563.36	-892.02	77.52	117.24	0.00	0.00	0.00

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,800.00	18.34	175.03	4,658.28	-923.37	80.25	121.36	0.00	0.00	0.00	
4,900.00	18.34	175.03	4,753.20	-954.72	82.97	125.48	0.00	0.00	0.00	
5,000.00	18.34	175.03	4,848.12	-986.07	85.69	129.60	0.00	0.00	0.00	
5,065.19	18.34	175.03	4,910.00	-1,006.50	87.47	132.28	0.00	0.00	0.00	
SUSSEX										
5,100.00	18.34	175.03	4,943.04	-1,017.42	88.42	133.72	0.00	0.00	0.00	
5,200.00	18.34	175.03	5,037.96	-1,048.77	91.14	137.84	0.00	0.00	0.00	
5,300.00	18.34	175.03	5,132.88	-1,080.12	93.87	141.96	0.00	0.00	0.00	
5,400.00	18.34	175.03	5,227.80	-1,111.47	96.59	146.08	0.00	0.00	0.00	
5,500.00	18.34	175.03	5,322.72	-1,142.81	99.32	150.20	0.00	0.00	0.00	
5,600.00	18.34	175.03	5,417.64	-1,174.16	102.04	154.32	0.00	0.00	0.00	
5,700.00	18.34	175.03	5,512.56	-1,205.51	104.77	158.44	0.00	0.00	0.00	
5,800.00	18.34	175.03	5,607.48	-1,236.86	107.49	162.56	0.00	0.00	0.00	
5,900.00	18.34	175.03	5,702.40	-1,268.21	110.21	166.68	0.00	0.00	0.00	
6,000.00	18.34	175.03	5,797.32	-1,299.56	112.94	170.80	0.00	0.00	0.00	
6,100.00	18.34	175.03	5,892.24	-1,330.91	115.66	174.92	0.00	0.00	0.00	
6,200.00	18.34	175.03	5,987.16	-1,362.26	118.39	179.04	0.00	0.00	0.00	
6,300.00	18.34	175.03	6,082.08	-1,393.61	121.11	183.16	0.00	0.00	0.00	
6,400.00	18.34	175.03	6,177.00	-1,424.96	123.84	187.28	0.00	0.00	0.00	
6,500.00	18.34	175.03	6,271.92	-1,456.31	126.56	191.40	0.00	0.00	0.00	
6,600.00	18.34	175.03	6,366.84	-1,487.66	129.28	195.52	0.00	0.00	0.00	
6,700.00	18.34	175.03	6,461.76	-1,519.01	132.01	199.64	0.00	0.00	0.00	
6,807.21	18.34	175.03	6,563.53	-1,552.61	134.93	204.06	0.00	0.00	0.00	
Start Drop -2.00										
6,900.00	16.49	175.03	6,652.06	-1,580.28	137.33	207.69	2.00	-2.00	0.00	
7,000.00	14.49	175.03	6,748.43	-1,606.88	139.65	211.19	2.00	-2.00	0.00	
7,100.00	12.49	175.03	6,845.66	-1,630.11	141.66	214.24	2.00	-2.00	0.00	
7,200.00	10.49	175.03	6,943.66	-1,649.94	143.39	216.85	2.00	-2.00	0.00	
7,300.00	8.49	175.03	7,042.28	-1,666.36	144.82	219.01	2.00	-2.00	0.00	
7,400.00	6.49	175.03	7,141.43	-1,679.34	145.94	220.71	2.00	-2.00	0.00	
7,500.00	4.49	175.03	7,240.96	-1,688.86	146.77	221.96	2.00	-2.00	0.00	
7,600.00	2.49	175.03	7,340.77	-1,694.92	147.30	222.76	2.00	-2.00	0.00	
7,700.00	0.49	175.03	7,440.74	-1,697.50	147.52	223.10	2.00	-2.00	0.00	
7,724.27	0.00	0.00	7,465.00	-1,697.60	147.53	223.11	2.00	-2.00	0.00	
Start 30.00 hold at 7724.27 MD										
7,754.27	0.00	0.00	7,495.00	-1,697.60	147.53	223.11	0.00	0.00	0.00	
Start DLS 10.00 TFO 269.90										
7,800.00	4.57	269.90	7,540.69	-1,697.60	145.71	224.89	10.00	10.00	0.00	
7,850.00	9.57	269.90	7,590.29	-1,697.61	139.55	230.91	10.00	10.00	0.00	
7,870.05	11.58	269.90	7,610.00	-1,697.62	135.87	234.50	10.00	10.00	0.00	
SHARON SPRINGS										
7,900.00	14.57	269.90	7,639.17	-1,697.63	129.10	241.12	10.00	10.00	0.00	
7,911.22	15.69	269.90	7,650.00	-1,697.64	126.17	243.98	10.00	10.00	0.00	
NIOBRARA										
7,950.00	19.57	269.90	7,686.95	-1,697.66	114.42	255.45	10.00	10.00	0.00	
8,000.00	24.57	269.90	7,733.27	-1,697.69	95.64	273.79	10.00	10.00	0.00	
8,050.00	29.57	269.90	7,777.78	-1,697.73	72.89	296.01	10.00	10.00	0.00	
8,072.35	31.81	269.90	7,797.00	-1,697.75	61.48	307.15	10.00	10.00	0.00	
NIO B										
8,100.00	34.57	269.90	7,820.14	-1,697.78	46.35	321.93	10.00	10.00	0.00	
8,150.00	39.57	269.90	7,860.02	-1,697.83	16.22	351.36	10.00	10.00	0.00	
8,200.00	44.57	269.90	7,897.12	-1,697.89	-17.27	384.07	10.00	10.00	0.00	
8,250.00	49.57	269.90	7,931.17	-1,697.95	-53.87	419.82	10.00	10.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	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)	
8,300.00	54.57	269.90	7,961.89	-1,698.02	-93.29	458.33	10.00	10.00	0.00	
8,350.00	59.57	269.90	7,989.06	-1,698.09	-135.25	499.30	10.00	10.00	0.00	
8,400.00	64.57	269.90	8,012.48	-1,698.17	-179.41	542.44	10.00	10.00	0.00	
8,450.00	69.57	269.90	8,031.95	-1,698.25	-225.44	587.40	10.00	10.00	0.00	
8,500.00	74.57	269.90	8,047.34	-1,698.33	-273.00	633.85	10.00	10.00	0.00	
8,502.49	74.82	269.90	8,048.00	-1,698.33	-275.40	636.19	10.00	10.00	0.00	
FORT HAYS										
8,550.00	79.57	269.90	8,058.53	-1,698.42	-321.71	681.43	10.00	10.00	0.00	
8,600.00	84.57	269.90	8,065.43	-1,698.50	-371.22	729.78	10.00	10.00	0.00	
8,654.33	90.00	269.90	8,068.00	-1,698.60	-425.47	782.77	10.00	10.00	0.00	
Start 7275.56 hold at 8654.33 MD - CODELL										
8,700.00	90.00	269.90	8,068.00	-1,698.67	-471.14	827.37	0.00	0.00	0.00	
8,800.00	90.00	269.90	8,068.00	-1,698.85	-571.14	925.04	0.00	0.00	0.00	
8,900.00	90.00	269.90	8,068.00	-1,699.02	-671.14	1,022.71	0.00	0.00	0.00	
9,000.00	90.00	269.90	8,068.00	-1,699.20	-771.14	1,120.38	0.00	0.00	0.00	
9,100.00	90.00	269.90	8,068.00	-1,699.37	-871.14	1,218.05	0.00	0.00	0.00	
9,200.00	90.00	269.90	8,068.00	-1,699.54	-971.14	1,315.72	0.00	0.00	0.00	
9,300.00	90.00	269.90	8,068.00	-1,699.72	-1,071.14	1,413.39	0.00	0.00	0.00	
9,400.00	90.00	269.90	8,068.00	-1,699.89	-1,171.14	1,511.07	0.00	0.00	0.00	
9,500.00	90.00	269.90	8,068.00	-1,700.06	-1,271.14	1,608.74	0.00	0.00	0.00	
9,600.00	90.00	269.90	8,068.00	-1,700.24	-1,371.14	1,706.41	0.00	0.00	0.00	
9,700.00	90.00	269.90	8,068.00	-1,700.41	-1,471.14	1,804.08	0.00	0.00	0.00	
9,800.00	90.00	269.90	8,068.00	-1,700.59	-1,571.14	1,901.75	0.00	0.00	0.00	
9,900.00	90.00	269.90	8,068.00	-1,700.76	-1,671.14	1,999.42	0.00	0.00	0.00	
10,000.00	90.00	269.90	8,068.00	-1,700.93	-1,771.14	2,097.09	0.00	0.00	0.00	
10,100.00	90.00	269.90	8,068.00	-1,701.11	-1,871.14	2,194.76	0.00	0.00	0.00	
10,200.00	90.00	269.90	8,068.00	-1,701.28	-1,971.14	2,292.43	0.00	0.00	0.00	
10,300.00	90.00	269.90	8,068.00	-1,701.45	-2,071.14	2,390.10	0.00	0.00	0.00	
10,400.00	90.00	269.90	8,068.00	-1,701.63	-2,171.14	2,487.77	0.00	0.00	0.00	
10,500.00	90.00	269.90	8,068.00	-1,701.80	-2,271.14	2,585.44	0.00	0.00	0.00	
10,600.00	90.00	269.90	8,068.00	-1,701.98	-2,371.13	2,683.11	0.00	0.00	0.00	
10,700.00	90.00	269.90	8,068.00	-1,702.15	-2,471.13	2,780.78	0.00	0.00	0.00	
10,800.00	90.00	269.90	8,068.00	-1,702.32	-2,571.13	2,878.45	0.00	0.00	0.00	
10,900.00	90.00	269.90	8,068.00	-1,702.50	-2,671.13	2,976.12	0.00	0.00	0.00	
11,000.00	90.00	269.90	8,068.00	-1,702.67	-2,771.13	3,073.80	0.00	0.00	0.00	
11,100.00	90.00	269.90	8,068.00	-1,702.84	-2,871.13	3,171.47	0.00	0.00	0.00	
11,200.00	90.00	269.90	8,068.00	-1,703.02	-2,971.13	3,269.14	0.00	0.00	0.00	
11,300.00	90.00	269.90	8,068.00	-1,703.19	-3,071.13	3,366.81	0.00	0.00	0.00	
11,400.00	90.00	269.90	8,068.00	-1,703.37	-3,171.13	3,464.48	0.00	0.00	0.00	
11,500.00	90.00	269.90	8,068.00	-1,703.54	-3,271.13	3,562.15	0.00	0.00	0.00	
11,600.00	90.00	269.90	8,068.00	-1,703.71	-3,371.13	3,659.82	0.00	0.00	0.00	
11,700.00	90.00	269.90	8,068.00	-1,703.89	-3,471.13	3,757.49	0.00	0.00	0.00	
11,800.00	90.00	269.90	8,068.00	-1,704.06	-3,571.13	3,855.16	0.00	0.00	0.00	
11,900.00	90.00	269.90	8,068.00	-1,704.23	-3,671.13	3,952.83	0.00	0.00	0.00	
12,000.00	90.00	269.90	8,068.00	-1,704.41	-3,771.13	4,050.50	0.00	0.00	0.00	
12,100.00	90.00	269.90	8,068.00	-1,704.58	-3,871.13	4,148.17	0.00	0.00	0.00	
12,200.00	90.00	269.90	8,068.00	-1,704.76	-3,971.13	4,245.84	0.00	0.00	0.00	
12,300.00	90.00	269.90	8,068.00	-1,704.93	-4,071.13	4,343.51	0.00	0.00	0.00	
12,400.00	90.00	269.90	8,068.00	-1,705.10	-4,171.13	4,441.18	0.00	0.00	0.00	
12,500.00	90.00	269.90	8,068.00	-1,705.28	-4,271.13	4,538.86	0.00	0.00	0.00	
12,600.00	90.00	269.90	8,068.00	-1,705.45	-4,371.13	4,636.53	0.00	0.00	0.00	
12,700.00	90.00	269.90	8,068.00	-1,705.62	-4,471.13	4,734.20	0.00	0.00	0.00	
12,800.00	90.00	269.90	8,068.00	-1,705.80	-4,571.13	4,831.87	0.00	0.00	0.00	
12,900.00	90.00	269.90	8,068.00	-1,705.97	-4,671.13	4,929.54	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	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	8,068.00	-1,706.15	-4,771.13	5,027.21	0.00	0.00	0.00	
13,100.00	90.00	269.90	8,068.00	-1,706.32	-4,871.13	5,124.88	0.00	0.00	0.00	
13,200.00	90.00	269.90	8,068.00	-1,706.49	-4,971.13	5,222.55	0.00	0.00	0.00	
13,300.00	90.00	269.90	8,068.00	-1,706.67	-5,071.13	5,320.22	0.00	0.00	0.00	
13,400.00	90.00	269.90	8,068.00	-1,706.84	-5,171.13	5,417.89	0.00	0.00	0.00	
13,500.00	90.00	269.90	8,068.00	-1,707.01	-5,271.13	5,515.56	0.00	0.00	0.00	
13,600.00	90.00	269.90	8,068.00	-1,707.19	-5,371.13	5,613.23	0.00	0.00	0.00	
13,700.00	90.00	269.90	8,068.00	-1,707.36	-5,471.13	5,710.90	0.00	0.00	0.00	
13,800.00	90.00	269.90	8,068.00	-1,707.53	-5,571.13	5,808.57	0.00	0.00	0.00	
13,900.00	90.00	269.90	8,068.00	-1,707.71	-5,671.13	5,906.24	0.00	0.00	0.00	
14,000.00	90.00	269.90	8,068.00	-1,707.88	-5,771.13	6,003.91	0.00	0.00	0.00	
14,100.00	90.00	269.90	8,068.00	-1,708.06	-5,871.13	6,101.59	0.00	0.00	0.00	
14,200.00	90.00	269.90	8,068.00	-1,708.23	-5,971.13	6,199.26	0.00	0.00	0.00	
14,300.00	90.00	269.90	8,068.00	-1,708.40	-6,071.13	6,296.93	0.00	0.00	0.00	
14,400.00	90.00	269.90	8,068.00	-1,708.58	-6,171.13	6,394.60	0.00	0.00	0.00	
14,500.00	90.00	269.90	8,068.00	-1,708.75	-6,271.13	6,492.27	0.00	0.00	0.00	
14,600.00	90.00	269.90	8,068.00	-1,708.92	-6,371.13	6,589.94	0.00	0.00	0.00	
14,700.00	90.00	269.90	8,068.00	-1,709.10	-6,471.13	6,687.61	0.00	0.00	0.00	
14,800.00	90.00	269.90	8,068.00	-1,709.27	-6,571.13	6,785.28	0.00	0.00	0.00	
14,900.00	90.00	269.90	8,068.00	-1,709.45	-6,671.13	6,882.95	0.00	0.00	0.00	
15,000.00	90.00	269.90	8,068.00	-1,709.62	-6,771.13	6,980.62	0.00	0.00	0.00	
15,100.00	90.00	269.90	8,068.00	-1,709.79	-6,871.13	7,078.29	0.00	0.00	0.00	
15,200.00	90.00	269.90	8,068.00	-1,709.97	-6,971.13	7,175.96	0.00	0.00	0.00	
15,300.00	90.00	269.90	8,068.00	-1,710.14	-7,071.13	7,273.63	0.00	0.00	0.00	
15,400.00	90.00	269.90	8,068.00	-1,710.31	-7,171.13	7,371.30	0.00	0.00	0.00	
15,500.00	90.00	269.90	8,068.00	-1,710.49	-7,271.13	7,468.97	0.00	0.00	0.00	
15,600.00	90.00	269.90	8,068.00	-1,710.66	-7,371.13	7,566.64	0.00	0.00	0.00	
15,700.00	90.00	269.90	8,068.00	-1,710.84	-7,471.13	7,664.32	0.00	0.00	0.00	
15,800.00	90.00	269.90	8,068.00	-1,711.01	-7,571.13	7,761.99	0.00	0.00	0.00	
15,900.00	90.00	269.90	8,068.00	-1,711.18	-7,671.13	7,859.66	0.00	0.00	0.00	
15,929.89	90.00	269.90	8,068.00	-1,711.24	-7,701.02	7,888.85	0.00	0.00	0.00	
TD at 15929.89										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33W-2C PBHL - hit/miss target - Shape	0.00	0.00	8,068.00	-1,711.25	-7,701.02	1,248,104.65	3,130,191.54	40.013497°N	105.035191°W
- plan misses target center by 0.01usft at 15929.89usft MD (8068.00 TVD, -1711.24 N, -7701.02 E)									
- Point									
CT 33W-2C LP - plan hits target center - Point	0.00	0.00	8,068.00	-1,698.60	-425.47	1,248,157.70	3,137,466.91	40.013535°N	105.009216°W

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well COYOTE TRAILS 33W-15-2C
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 28' @ 5301.00usft
Project:	WELD COUNTY	MD Reference:	KB 28' @ 5301.00usft
Site:	Sec 28-T1N-R68W	North Reference:	True
Well:	COYOTE TRAILS 33W-15-2C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,570.03	4,440.00	PARKMAN				
5,065.19	4,910.00	SUSSEX				
7,870.05	7,610.00	SHARON SPRINGS				
7,911.22	7,650.00	NIOBRARA				
8,072.35	7,797.00	NIO B				
8,502.49	8,048.00	FORT HAYS				
8,654.33	8,068.00	CODELL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,400.00	1,400.00	0.00	0.00	Start Build 2.00	
2,317.06	2,301.47	-144.99	12.60	Start 4490.15 hold at 2317.06 MD	
6,807.21	6,563.53	-1,552.61	134.93	Start Drop -2.00	
7,724.27	7,465.00	-1,697.60	147.53	Start 30.00 hold at 7724.27 MD	
7,754.27	7,495.00	-1,697.60	147.53	Start DLS 10.00 TFO 269.90	
8,654.33	8,068.00	-1,698.60	-425.47	Start 7275.56 hold at 8654.33 MD	
15,929.89	8,068.00	-1,711.24	-7,701.02	TD at 15929.89	