

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 28-T1N-R68W**

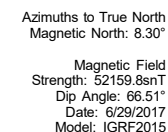
**COYOTE TRAILS 33W-15-8N**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**11 February, 2019**



Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CT 33W-8N LP	7839.00	-3428.17	-479.56	1246427.79	3137476.48	40.008786°N	105.009216°W	Point
- plan hits target center								
CT 33W-8N PBHL	7839.00	-3440.81	-7750.02	1246374.77	3130206.21	40.008748°N	105.035171°W	Point
- plan hits target center								

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

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<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:	40.014871°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-15-8N					
Well Position	+N/-S	1,211.68 usft	Northing:	1,249,858.57 usft	Latitude:	40.018197°N
	+E/-W	-2,356.02 usft	Easting:	3,137,937.00 usft	Longitude:	105.007504°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,273.00 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	52,159.80781494

<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	246.20

<b>Plan Survey Tool Program</b>	<b>Date</b>	2/11/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,398.52	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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,237.08	34.74	178.44	2,132.57	-510.51	13.92	2.00	2.00	0.00	178.44	
6,460.91	34.74	178.44	5,603.43	-2,916.69	79.52	0.00	0.00	0.00	0.00	
8,197.99	0.00	0.00	7,236.00	-3,427.20	93.44	2.00	-2.00	0.00	180.00	
8,227.99	0.00	0.00	7,266.00	-3,427.20	93.44	0.00	0.00	0.00	0.00	
9,128.06	90.00	269.90	7,839.00	-3,428.17	-479.56	10.00	10.00	-10.01	269.90	CT 33W-8N LP
16,398.52	90.00	269.90	7,839.00	-3,440.81	-7,750.02	0.00	0.00	0.00	0.00	CT 33W-8N PBHL

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<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
Start Build 2.00									
600.00	2.00	178.44	599.98	-1.74	0.05	0.66	2.00	2.00	0.00
700.00	4.00	178.44	699.84	-6.98	0.19	2.64	2.00	2.00	0.00
800.00	6.00	178.44	799.45	-15.69	0.43	5.94	2.00	2.00	0.00
900.00	8.00	178.44	898.70	-27.87	0.76	10.55	2.00	2.00	0.00
1,000.00	10.00	178.44	997.47	-43.51	1.19	16.47	2.00	2.00	0.00
1,100.00	12.00	178.44	1,095.62	-62.58	1.71	23.70	2.00	2.00	0.00
1,200.00	14.00	178.44	1,193.06	-85.07	2.32	32.21	2.00	2.00	0.00
1,300.00	16.00	178.44	1,289.64	-110.94	3.02	42.01	2.00	2.00	0.00
1,400.00	18.00	178.44	1,385.27	-140.16	3.82	53.07	2.00	2.00	0.00
1,500.00	20.00	178.44	1,479.82	-172.70	4.71	65.39	2.00	2.00	0.00
1,600.00	22.00	178.44	1,573.17	-208.53	5.69	78.96	2.00	2.00	0.00
1,700.00	24.00	178.44	1,665.21	-247.58	6.75	93.75	2.00	2.00	0.00
1,800.00	26.00	178.44	1,755.84	-289.83	7.90	109.74	2.00	2.00	0.00
1,900.00	28.00	178.44	1,844.94	-335.21	9.14	126.93	2.00	2.00	0.00
2,000.00	30.00	178.44	1,932.39	-383.67	10.46	145.28	2.00	2.00	0.00
2,100.00	32.00	178.44	2,018.11	-435.15	11.86	164.77	2.00	2.00	0.00
2,200.00	34.00	178.44	2,101.97	-489.59	13.35	185.38	2.00	2.00	0.00
2,237.08	34.74	178.44	2,132.57	-510.51	13.92	193.31	2.00	2.00	0.00
Start 4223.84 hold at 2237.08 MD									
2,300.00	34.74	178.44	2,184.28	-546.36	14.90	206.88	0.00	0.00	0.00
2,400.00	34.74	178.44	2,266.45	-603.33	16.45	228.45	0.00	0.00	0.00
2,500.00	34.74	178.44	2,348.62	-660.29	18.00	250.02	0.00	0.00	0.00
2,600.00	34.74	178.44	2,430.80	-717.26	19.56	271.59	0.00	0.00	0.00
2,700.00	34.74	178.44	2,512.97	-774.23	21.11	293.16	0.00	0.00	0.00
2,800.00	34.74	178.44	2,595.14	-831.19	22.66	314.73	0.00	0.00	0.00
2,900.00	34.74	178.44	2,677.32	-888.16	24.21	336.30	0.00	0.00	0.00
3,000.00	34.74	178.44	2,759.49	-945.12	25.77	357.87	0.00	0.00	0.00
3,100.00	34.74	178.44	2,841.66	-1,002.09	27.32	379.44	0.00	0.00	0.00
3,200.00	34.74	178.44	2,923.84	-1,059.06	28.87	401.01	0.00	0.00	0.00
3,300.00	34.74	178.44	3,006.01	-1,116.02	30.43	422.58	0.00	0.00	0.00
3,400.00	34.74	178.44	3,088.18	-1,172.99	31.98	444.15	0.00	0.00	0.00
3,500.00	34.74	178.44	3,170.35	-1,229.96	33.53	465.72	0.00	0.00	0.00
3,600.00	34.74	178.44	3,252.53	-1,286.92	35.09	487.29	0.00	0.00	0.00
3,700.00	34.74	178.44	3,334.70	-1,343.89	36.64	508.86	0.00	0.00	0.00
3,800.00	34.74	178.44	3,416.87	-1,400.86	38.19	530.44	0.00	0.00	0.00
3,900.00	34.74	178.44	3,499.05	-1,457.82	39.75	552.01	0.00	0.00	0.00
4,000.00	34.74	178.44	3,581.22	-1,514.79	41.30	573.58	0.00	0.00	0.00
4,100.00	34.74	178.44	3,663.39	-1,571.76	42.85	595.15	0.00	0.00	0.00
4,200.00	34.74	178.44	3,745.57	-1,628.72	44.41	616.72	0.00	0.00	0.00
4,300.00	34.74	178.44	3,827.74	-1,685.69	45.96	638.29	0.00	0.00	0.00
4,400.00	34.74	178.44	3,909.91	-1,742.66	47.51	659.86	0.00	0.00	0.00
4,500.00	34.74	178.44	3,992.08	-1,799.62	49.07	681.43	0.00	0.00	0.00
4,600.00	34.74	178.44	4,074.26	-1,856.59	50.62	703.00	0.00	0.00	0.00
4,700.00	34.74	178.44	4,156.43	-1,913.55	52.17	724.57	0.00	0.00	0.00
4,800.00	34.74	178.44	4,238.60	-1,970.52	53.72	746.14	0.00	0.00	0.00
4,900.00	34.74	178.44	4,320.78	-2,027.49	55.28	767.71	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<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)
5,000.00	34.74	178.44	4,402.95	-2,084.45	56.83	789.28	0.00	0.00	0.00
5,045.09	34.74	178.44	4,440.00	-2,110.14	57.53	799.01	0.00	0.00	0.00
<b>PARKMAN</b>									
5,100.00	34.74	178.44	4,485.12	-2,141.42	58.38	810.85	0.00	0.00	0.00
5,200.00	34.74	178.44	4,567.30	-2,198.39	59.94	832.42	0.00	0.00	0.00
5,300.00	34.74	178.44	4,649.47	-2,255.35	61.49	853.99	0.00	0.00	0.00
5,400.00	34.74	178.44	4,731.64	-2,312.32	63.04	875.56	0.00	0.00	0.00
5,500.00	34.74	178.44	4,813.82	-2,369.29	64.60	897.13	0.00	0.00	0.00
5,600.00	34.74	178.44	4,895.99	-2,426.25	66.15	918.70	0.00	0.00	0.00
5,617.05	34.74	178.44	4,910.00	-2,435.97	66.41	922.38	0.00	0.00	0.00
<b>SUSSEX</b>									
5,700.00	34.74	178.44	4,978.16	-2,483.22	67.70	940.27	0.00	0.00	0.00
5,800.00	34.74	178.44	5,060.33	-2,540.19	69.26	961.84	0.00	0.00	0.00
5,900.00	34.74	178.44	5,142.51	-2,597.15	70.81	983.41	0.00	0.00	0.00
6,000.00	34.74	178.44	5,224.68	-2,654.12	72.36	1,004.98	0.00	0.00	0.00
6,100.00	34.74	178.44	5,306.85	-2,711.09	73.92	1,026.55	0.00	0.00	0.00
6,200.00	34.74	178.44	5,389.03	-2,768.05	75.47	1,048.12	0.00	0.00	0.00
6,300.00	34.74	178.44	5,471.20	-2,825.02	77.02	1,069.69	0.00	0.00	0.00
6,400.00	34.74	178.44	5,553.37	-2,881.99	78.58	1,091.27	0.00	0.00	0.00
6,460.91	34.74	178.44	5,603.43	-2,916.69	79.52	1,104.40	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,500.00	33.96	178.44	5,635.70	-2,938.73	80.12	1,112.75	2.00	-2.00	0.00
6,600.00	31.96	178.44	5,719.60	-2,993.11	81.60	1,133.34	2.00	-2.00	0.00
6,700.00	29.96	178.44	5,805.35	-3,044.54	83.01	1,152.82	2.00	-2.00	0.00
6,800.00	27.96	178.44	5,892.84	-3,092.94	84.33	1,171.14	2.00	-2.00	0.00
6,900.00	25.96	178.44	5,981.97	-3,138.25	85.56	1,188.30	2.00	-2.00	0.00
7,000.00	23.96	178.44	6,072.62	-3,180.43	86.71	1,204.27	2.00	-2.00	0.00
7,100.00	21.96	178.44	6,164.69	-3,219.43	87.78	1,219.04	2.00	-2.00	0.00
7,200.00	19.96	178.44	6,258.07	-3,255.18	88.75	1,232.58	2.00	-2.00	0.00
7,300.00	17.96	178.44	6,352.64	-3,287.66	89.64	1,244.87	2.00	-2.00	0.00
7,400.00	15.96	178.44	6,448.29	-3,316.82	90.43	1,255.91	2.00	-2.00	0.00
7,500.00	13.96	178.44	6,544.89	-3,342.62	91.13	1,265.68	2.00	-2.00	0.00
7,600.00	11.96	178.44	6,642.34	-3,365.04	91.75	1,274.17	2.00	-2.00	0.00
7,700.00	9.96	178.44	6,740.51	-3,384.04	92.26	1,281.37	2.00	-2.00	0.00
7,800.00	7.96	178.44	6,839.29	-3,399.61	92.69	1,287.26	2.00	-2.00	0.00
7,900.00	5.96	178.44	6,938.55	-3,411.72	93.02	1,291.85	2.00	-2.00	0.00
8,000.00	3.96	178.44	7,038.17	-3,420.36	93.25	1,295.12	2.00	-2.00	0.00
8,100.00	1.96	178.44	7,138.03	-3,425.52	93.39	1,297.08	2.00	-2.00	0.00
8,197.99	0.00	0.00	7,236.00	-3,427.20	93.44	1,297.71	2.00	-2.00	0.00
<b>Start 30.00 hold at 8197.99 MD</b>									
8,200.00	0.00	0.00	7,238.01	-3,427.20	93.44	1,297.71	0.00	0.00	0.00
8,227.99	0.00	0.00	7,266.00	-3,427.20	93.44	1,297.71	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 269.90</b>									
8,250.00	2.20	269.90	7,288.00	-3,427.20	93.02	1,298.10	10.00	10.00	0.00
8,300.00	7.20	269.90	7,337.82	-3,427.21	88.92	1,301.85	10.00	10.00	0.00
8,350.00	12.20	269.90	7,387.09	-3,427.22	80.50	1,309.56	10.00	10.00	0.00
8,400.00	17.20	269.90	7,435.44	-3,427.24	67.82	1,321.17	10.00	10.00	0.00
8,450.00	22.20	269.90	7,482.50	-3,427.27	50.97	1,336.60	10.00	10.00	0.00
8,500.00	27.20	269.90	7,527.91	-3,427.31	30.08	1,355.72	10.00	10.00	0.00
8,550.00	32.20	269.90	7,571.33	-3,427.35	5.32	1,378.40	10.00	10.00	0.00
8,596.97	36.89	269.90	7,610.00	-3,427.39	-21.31	1,402.78	10.00	10.00	0.00
<b>SHARON SPRINGS</b>									
8,600.00	37.20	269.90	7,612.42	-3,427.40	-23.14	1,404.45	10.00	10.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<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)
8,648.81	42.08	269.90	7,650.00	-3,427.45	-54.27	1,432.96	10.00	10.00	0.00
<b>NIOBRARA</b>									
8,650.00	42.20	269.90	7,650.88	-3,427.45	-55.06	1,433.68	10.00	10.00	0.00
8,700.00	47.20	269.90	7,686.41	-3,427.51	-90.22	1,465.88	10.00	10.00	0.00
8,750.00	52.20	269.90	7,718.74	-3,427.58	-128.34	1,500.78	10.00	10.00	0.00
8,800.00	57.20	269.90	7,747.63	-3,427.65	-169.13	1,538.13	10.00	10.00	0.00
8,850.00	62.20	269.90	7,772.85	-3,427.72	-212.29	1,577.64	10.00	10.00	0.00
8,900.00	67.20	269.90	7,794.21	-3,427.80	-257.48	1,619.02	10.00	10.00	0.00
8,907.31	67.93	269.90	7,797.00	-3,427.81	-264.23	1,625.20	10.00	10.00	0.00
<b>NIO B</b>									
8,950.00	72.20	269.90	7,811.56	-3,427.88	-304.35	1,661.94	10.00	10.00	0.00
9,000.00	77.20	269.90	7,824.75	-3,427.96	-352.57	1,706.08	10.00	10.00	0.00
9,050.00	82.19	269.90	7,833.69	-3,428.04	-401.74	1,751.11	10.00	10.00	0.00
9,100.00	87.19	269.90	7,838.31	-3,428.13	-451.51	1,796.68	10.00	10.00	0.00
9,128.06	90.00	269.90	7,839.00	-3,428.17	-479.56	1,822.36	10.00	10.00	0.00
<b>Start 7270.46 hold at 9128.06 MD</b>									
9,200.00	90.00	269.90	7,839.00	-3,428.30	-551.50	1,888.23	0.00	0.00	0.00
9,300.00	90.00	269.90	7,839.00	-3,428.46	-651.50	1,979.80	0.00	0.00	0.00
9,400.00	90.00	269.90	7,839.00	-3,428.63	-751.50	2,071.36	0.00	0.00	0.00
9,500.00	90.00	269.90	7,839.00	-3,428.80	-851.50	2,162.92	0.00	0.00	0.00
9,600.00	90.00	269.90	7,839.00	-3,428.97	-951.50	2,254.48	0.00	0.00	0.00
9,700.00	90.00	269.90	7,839.00	-3,429.14	-1,051.50	2,346.04	0.00	0.00	0.00
9,800.00	90.00	269.90	7,839.00	-3,429.31	-1,151.50	2,437.61	0.00	0.00	0.00
9,900.00	90.00	269.90	7,839.00	-3,429.48	-1,251.50	2,529.17	0.00	0.00	0.00
10,000.00	90.00	269.90	7,839.00	-3,429.65	-1,351.50	2,620.73	0.00	0.00	0.00
10,100.00	90.00	269.90	7,839.00	-3,429.82	-1,451.50	2,712.29	0.00	0.00	0.00
10,200.00	90.00	269.90	7,839.00	-3,429.99	-1,551.50	2,803.86	0.00	0.00	0.00
10,300.00	90.00	269.90	7,839.00	-3,430.16	-1,651.50	2,895.42	0.00	0.00	0.00
10,400.00	90.00	269.90	7,839.00	-3,430.33	-1,751.50	2,986.98	0.00	0.00	0.00
10,500.00	90.00	269.90	7,839.00	-3,430.50	-1,851.50	3,078.54	0.00	0.00	0.00
10,600.00	90.00	269.90	7,839.00	-3,430.67	-1,951.50	3,170.10	0.00	0.00	0.00
10,700.00	90.00	269.90	7,838.99	-3,430.84	-2,051.50	3,261.67	0.00	0.00	0.00
10,800.00	90.00	269.90	7,838.99	-3,431.01	-2,151.50	3,353.23	0.00	0.00	0.00
10,900.00	90.00	269.90	7,838.99	-3,431.18	-2,251.50	3,444.79	0.00	0.00	0.00
11,000.00	90.00	269.90	7,838.99	-3,431.35	-2,351.50	3,536.35	0.00	0.00	0.00
11,100.00	90.00	269.90	7,838.99	-3,431.52	-2,451.50	3,627.91	0.00	0.00	0.00
11,200.00	90.00	269.90	7,838.99	-3,431.69	-2,551.50	3,719.48	0.00	0.00	0.00
11,300.00	90.00	269.90	7,838.99	-3,431.86	-2,651.50	3,811.04	0.00	0.00	0.00
11,400.00	90.00	269.90	7,838.99	-3,432.03	-2,751.50	3,902.60	0.00	0.00	0.00
11,500.00	90.00	269.90	7,838.99	-3,432.20	-2,851.50	3,994.16	0.00	0.00	0.00
11,600.00	90.00	269.90	7,838.99	-3,432.37	-2,951.50	4,085.73	0.00	0.00	0.00
11,700.00	90.00	269.90	7,838.99	-3,432.54	-3,051.50	4,177.29	0.00	0.00	0.00
11,800.00	90.00	269.90	7,838.99	-3,432.71	-3,151.50	4,268.85	0.00	0.00	0.00
11,900.00	90.00	269.90	7,838.99	-3,432.88	-3,251.50	4,360.41	0.00	0.00	0.00
12,000.00	90.00	269.90	7,838.99	-3,433.05	-3,351.50	4,451.97	0.00	0.00	0.00
12,100.00	90.00	269.90	7,838.99	-3,433.22	-3,451.50	4,543.54	0.00	0.00	0.00
12,200.00	90.00	269.90	7,838.99	-3,433.39	-3,551.50	4,635.10	0.00	0.00	0.00
12,300.00	90.00	269.90	7,838.99	-3,433.56	-3,651.50	4,726.66	0.00	0.00	0.00
12,400.00	90.00	269.90	7,838.99	-3,433.73	-3,751.50	4,818.22	0.00	0.00	0.00
12,500.00	90.00	269.90	7,838.99	-3,433.90	-3,851.50	4,909.79	0.00	0.00	0.00
12,600.00	90.00	269.90	7,838.99	-3,434.07	-3,951.50	5,001.35	0.00	0.00	0.00
12,700.00	90.00	269.90	7,838.99	-3,434.24	-4,051.50	5,092.91	0.00	0.00	0.00
12,800.00	90.00	269.90	7,838.99	-3,434.41	-4,151.50	5,184.47	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<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)
12,900.00	90.00	269.90	7,838.99	-3,434.58	-4,251.50	5,276.03	0.00	0.00	0.00
13,000.00	90.00	269.90	7,838.99	-3,434.75	-4,351.50	5,367.60	0.00	0.00	0.00
13,100.00	90.00	269.90	7,838.99	-3,434.92	-4,451.50	5,459.16	0.00	0.00	0.00
13,200.00	90.00	269.90	7,838.99	-3,435.09	-4,551.50	5,550.72	0.00	0.00	0.00
13,300.00	90.00	269.90	7,838.99	-3,435.26	-4,651.50	5,642.28	0.00	0.00	0.00
13,400.00	90.00	269.90	7,838.99	-3,435.43	-4,751.50	5,733.84	0.00	0.00	0.00
13,500.00	90.00	269.90	7,838.99	-3,435.60	-4,851.50	5,825.41	0.00	0.00	0.00
13,600.00	90.00	269.90	7,838.98	-3,435.77	-4,951.50	5,916.97	0.00	0.00	0.00
13,700.00	90.00	269.90	7,838.98	-3,435.94	-5,051.50	6,008.53	0.00	0.00	0.00
13,800.00	90.00	269.90	7,838.98	-3,436.11	-5,151.49	6,100.09	0.00	0.00	0.00
13,900.00	90.00	269.90	7,838.98	-3,436.28	-5,251.49	6,191.66	0.00	0.00	0.00
14,000.00	90.00	269.90	7,838.98	-3,436.45	-5,351.49	6,283.22	0.00	0.00	0.00
14,100.00	90.00	269.90	7,838.98	-3,436.62	-5,451.49	6,374.78	0.00	0.00	0.00
14,200.00	90.00	269.90	7,838.98	-3,436.79	-5,551.49	6,466.34	0.00	0.00	0.00
14,300.00	90.00	269.90	7,838.98	-3,436.95	-5,651.49	6,557.90	0.00	0.00	0.00
14,400.00	90.00	269.90	7,838.98	-3,437.12	-5,751.49	6,649.47	0.00	0.00	0.00
14,500.00	90.00	269.90	7,838.98	-3,437.29	-5,851.49	6,741.03	0.00	0.00	0.00
14,600.00	90.00	269.90	7,838.98	-3,437.46	-5,951.49	6,832.59	0.00	0.00	0.00
14,700.00	90.00	269.90	7,838.98	-3,437.63	-6,051.49	6,924.15	0.00	0.00	0.00
14,800.00	90.00	269.90	7,838.98	-3,437.80	-6,151.49	7,015.71	0.00	0.00	0.00
14,900.00	90.00	269.90	7,838.98	-3,437.97	-6,251.49	7,107.28	0.00	0.00	0.00
15,000.00	90.00	269.90	7,838.98	-3,438.14	-6,351.49	7,198.84	0.00	0.00	0.00
15,100.00	90.00	269.90	7,838.98	-3,438.31	-6,451.49	7,290.40	0.00	0.00	0.00
15,200.00	90.00	269.90	7,838.98	-3,438.48	-6,551.49	7,381.96	0.00	0.00	0.00
15,300.00	90.00	269.90	7,838.98	-3,438.65	-6,651.49	7,473.53	0.00	0.00	0.00
15,400.00	90.00	269.90	7,838.98	-3,438.82	-6,751.49	7,565.09	0.00	0.00	0.00
15,500.00	90.00	269.90	7,838.98	-3,438.99	-6,851.49	7,656.65	0.00	0.00	0.00
15,600.00	90.00	269.90	7,838.98	-3,439.16	-6,951.49	7,748.21	0.00	0.00	0.00
15,700.00	90.00	269.90	7,838.98	-3,439.33	-7,051.49	7,839.77	0.00	0.00	0.00
15,800.00	90.00	269.90	7,838.98	-3,439.50	-7,151.49	7,931.34	0.00	0.00	0.00
15,900.00	90.00	269.90	7,838.98	-3,439.67	-7,251.49	8,022.90	0.00	0.00	0.00
16,000.00	90.00	269.90	7,838.98	-3,439.84	-7,351.49	8,114.46	0.00	0.00	0.00
16,100.00	90.00	269.90	7,838.98	-3,440.01	-7,451.49	8,206.02	0.00	0.00	0.00
16,200.00	90.00	269.90	7,838.98	-3,440.18	-7,551.49	8,297.58	0.00	0.00	0.00
16,300.00	90.00	269.90	7,838.98	-3,440.35	-7,651.49	8,389.15	0.00	0.00	0.00
16,398.52	90.00	269.90	7,838.98	-3,440.52	-7,750.02	8,479.36	0.00	0.00	0.00
TD at 16398.52									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CT 33W-8N PBHL - hit/miss target - Shape - Point	0.00	0.00	7,839.00	-3,440.81	-7,750.02	1,246,374.77	3,130,206.21	40.008748°N	105.035171°W
- plan misses target center by 0.29usft at 16398.52usft MD (7838.97 TVD, -3440.52 N, -7750.02 E)									
CT 33W-8N LP - plan hits target center - Point	0.00	0.00	7,839.00	-3,428.17	-479.56	1,246,427.78	3,137,476.48	40.008786°N	105.009216°W

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well COYOTE TRAILS 33W-15-8N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 28' @ 5301.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 28' @ 5301.00usft
<b>Site:</b>	Sec 28-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COYOTE TRAILS 33W-15-8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,045.09	4,440.00	PARKMAN				
5,617.05	4,910.00	SUSSEX				
8,596.97	7,610.00	SHARON SPRINGS				
8,648.81	7,650.00	NIOBRARA				
8,907.31	7,797.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
2,237.08	2,132.57	-510.51	13.92	Start 4223.84 hold at 2237.08 MD	
6,460.91	5,603.43	-2,916.69	79.52	Start Drop -2.00	
8,197.99	7,236.00	-3,427.20	93.44	Start 30.00 hold at 8197.99 MD	
8,227.99	7,266.00	-3,427.20	93.44	Start DLS 10.00 TFO 269.90	
9,128.06	7,839.00	-3,428.17	-479.56	Start 7270.46 hold at 9128.06 MD	
16,398.52	7,838.98	-3,440.52	-7,750.02	TD at 16398.52	