

EXTRACTION OIL & GAS

WELD COUNTY

Sec 20-T7N-R67W

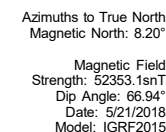
VIC 29W-20-1N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

22 May, 2018



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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 20-T7N-R67W			
Site Position:		Northing:	1,449,964.02 usft	Latitude:	40° 34' 1.355 N
From:	Lat/Long	Easting:	3,164,495.92 usft	Longitude:	104° 54' 28.472 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	VIC 29W-20-1N					
Well Position	+N/-S	-2,258.73 usft	Northing:	1,447,703.70 usft	Latitude:	40° 33' 39.035 N
	+E/-W	-244.79 usft	Easting:	3,164,266.22 usft	Longitude:	104° 54' 31.644 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,011.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/21/2018	8.20	66.94	52,353.10019266

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	248.37

Plan Survey Tool Program	Date	5/22/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,475.73	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	
2,181.17	39.62	175.38	2,026.99	-656.04	53.02	2.00	2.00	0.00	175.38	
5,539.00	39.62	175.38	4,613.36	-2,790.51	225.51	0.00	0.00	0.00	0.00	
7,520.18	0.00	0.00	6,440.35	-3,446.55	278.53	2.00	-2.00	0.00	180.00	
7,550.18	0.00	0.00	6,470.35	-3,446.55	278.53	0.00	0.00	0.00	0.00	
8,300.50	90.00	268.40	6,948.00	-3,459.85	-198.97	12.00	12.00	-12.21	268.40	VIC 29W-1N - LP
17,476.43	90.00	268.40	6,948.00	-3,715.64	-9,371.33	0.00	0.00	0.00	-160.23	VIC 29W-1N - PBHL

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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	175.38	299.98	-1.74	0.14	0.51	2.00	2.00	0.00
400.00	4.00	175.38	399.84	-6.96	0.56	2.04	2.00	2.00	0.00
500.00	6.00	175.38	499.45	-15.64	1.26	4.59	2.00	2.00	0.00
600.00	8.00	175.38	598.70	-27.79	2.25	8.15	2.00	2.00	0.00
700.00	10.00	175.38	697.47	-43.38	3.51	12.73	2.00	2.00	0.00
800.00	12.00	175.38	795.62	-62.40	5.04	18.31	2.00	2.00	0.00
900.00	14.00	175.38	893.06	-84.82	6.85	24.89	2.00	2.00	0.00
1,000.00	16.00	175.38	989.64	-110.62	8.94	32.46	2.00	2.00	0.00
1,100.00	18.00	175.38	1,085.27	-139.76	11.29	41.01	2.00	2.00	0.00
1,200.00	20.00	175.38	1,179.82	-172.21	13.92	50.53	2.00	2.00	0.00
1,300.00	22.00	175.38	1,273.17	-207.93	16.80	61.02	2.00	2.00	0.00
1,400.00	24.00	175.38	1,365.21	-246.87	19.95	72.44	2.00	2.00	0.00
1,500.00	26.00	175.38	1,455.84	-288.99	23.35	84.81	2.00	2.00	0.00
1,600.00	28.00	175.38	1,544.94	-334.24	27.01	98.08	2.00	2.00	0.00
1,700.00	30.00	175.38	1,632.39	-382.56	30.92	112.26	2.00	2.00	0.00
1,800.00	32.00	175.38	1,718.11	-433.90	35.06	127.33	2.00	2.00	0.00
1,900.00	34.00	175.38	1,801.97	-488.18	39.45	143.26	2.00	2.00	0.00
2,000.00	36.00	175.38	1,883.88	-545.35	44.07	160.03	2.00	2.00	0.00
2,100.00	38.00	175.38	1,963.74	-605.33	48.92	177.64	2.00	2.00	0.00
2,181.17	39.62	175.38	2,026.99	-656.04	53.02	192.52	2.00	2.00	0.00
Start 3357.83 hold at 2181.17 MD									
2,200.00	39.62	175.38	2,041.49	-668.01	53.98	196.03	0.00	0.00	0.00
2,300.00	39.62	175.38	2,118.51	-731.58	59.12	214.68	0.00	0.00	0.00
2,400.00	39.62	175.38	2,195.54	-795.14	64.26	233.34	0.00	0.00	0.00
2,500.00	39.62	175.38	2,272.57	-858.71	69.40	251.99	0.00	0.00	0.00
2,600.00	39.62	175.38	2,349.59	-922.28	74.53	270.64	0.00	0.00	0.00
2,700.00	39.62	175.38	2,426.62	-985.84	79.67	289.30	0.00	0.00	0.00
2,800.00	39.62	175.38	2,503.64	-1,049.41	84.81	307.95	0.00	0.00	0.00
2,900.00	39.62	175.38	2,580.67	-1,112.98	89.94	326.60	0.00	0.00	0.00
3,000.00	39.62	175.38	2,657.69	-1,176.54	95.08	345.26	0.00	0.00	0.00
3,100.00	39.62	175.38	2,734.72	-1,240.11	100.22	363.91	0.00	0.00	0.00
3,200.00	39.62	175.38	2,811.74	-1,303.68	105.36	382.57	0.00	0.00	0.00
3,300.00	39.62	175.38	2,888.77	-1,367.24	110.49	401.22	0.00	0.00	0.00
3,400.00	39.62	175.38	2,965.79	-1,430.81	115.63	419.87	0.00	0.00	0.00
3,500.00	39.62	175.38	3,042.82	-1,494.38	120.77	438.53	0.00	0.00	0.00
3,600.00	39.62	175.38	3,119.84	-1,557.94	125.90	457.18	0.00	0.00	0.00
3,700.00	39.62	175.38	3,196.87	-1,621.51	131.04	475.83	0.00	0.00	0.00
3,800.00	39.62	175.38	3,273.89	-1,685.08	136.18	494.49	0.00	0.00	0.00
3,900.00	39.62	175.38	3,350.92	-1,748.65	141.32	513.14	0.00	0.00	0.00
4,000.00	39.62	175.38	3,427.94	-1,812.21	146.45	531.80	0.00	0.00	0.00
4,077.97	39.62	175.38	3,488.00	-1,861.78	150.46	546.34	0.00	0.00	0.00
PARKMAN									
4,100.00	39.62	175.38	3,504.97	-1,875.78	151.59	550.45	0.00	0.00	0.00
4,200.00	39.62	175.38	3,581.99	-1,939.35	156.73	569.10	0.00	0.00	0.00
4,300.00	39.62	175.38	3,659.02	-2,002.91	161.86	587.76	0.00	0.00	0.00
4,400.00	39.62	175.38	3,736.04	-2,066.48	167.00	606.41	0.00	0.00	0.00
4,500.00	39.62	175.38	3,813.07	-2,130.05	172.14	625.07	0.00	0.00	0.00
4,600.00	39.62	175.38	3,890.09	-2,193.61	177.27	643.72	0.00	0.00	0.00
4,700.00	39.62	175.38	3,967.12	-2,257.18	182.41	662.37	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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	39.62	175.38	4,044.14	-2,320.75	187.55	681.03	0.00	0.00	0.00
4,900.00	39.62	175.38	4,121.17	-2,384.31	192.69	699.68	0.00	0.00	0.00
5,000.00	39.62	175.38	4,198.19	-2,447.88	197.82	718.33	0.00	0.00	0.00
5,028.31	39.62	175.38	4,220.00	-2,465.88	199.28	723.62	0.00	0.00	0.00
SUSSEX									
5,100.00	39.62	175.38	4,275.22	-2,511.45	202.96	736.99	0.00	0.00	0.00
5,200.00	39.62	175.38	4,352.24	-2,575.01	208.10	755.64	0.00	0.00	0.00
5,300.00	39.62	175.38	4,429.27	-2,638.58	213.23	774.30	0.00	0.00	0.00
5,400.00	39.62	175.38	4,506.29	-2,702.15	218.37	792.95	0.00	0.00	0.00
5,500.00	39.62	175.38	4,583.32	-2,765.71	223.51	811.60	0.00	0.00	0.00
5,513.87	39.62	175.38	4,594.00	-2,774.53	224.22	814.19	0.00	0.00	0.00
SHANNON									
5,539.00	39.62	175.38	4,613.36	-2,790.51	225.51	818.88	0.00	0.00	0.00
Start Drop -2.00									
5,600.00	38.40	175.38	4,660.75	-2,828.78	228.61	830.11	2.00	-2.00	0.00
5,700.00	36.40	175.38	4,740.19	-2,889.32	233.50	847.88	2.00	-2.00	0.00
5,800.00	34.40	175.38	4,821.69	-2,947.06	238.16	864.82	2.00	-2.00	0.00
5,900.00	32.40	175.38	4,905.17	-3,001.94	242.60	880.92	2.00	-2.00	0.00
6,000.00	30.40	175.38	4,990.52	-3,053.87	246.80	896.16	2.00	-2.00	0.00
6,100.00	28.40	175.38	5,077.63	-3,102.80	250.75	910.52	2.00	-2.00	0.00
6,200.00	26.40	175.38	5,166.41	-3,148.68	254.46	923.98	2.00	-2.00	0.00
6,300.00	24.40	175.38	5,256.73	-3,191.44	257.91	936.53	2.00	-2.00	0.00
6,400.00	22.40	175.38	5,348.50	-3,231.02	261.11	948.15	2.00	-2.00	0.00
6,500.00	20.40	175.38	5,441.60	-3,267.40	264.05	958.82	2.00	-2.00	0.00
6,600.00	18.40	175.38	5,535.91	-3,300.51	266.73	968.54	2.00	-2.00	0.00
6,700.00	16.40	175.38	5,631.33	-3,330.32	269.14	977.29	2.00	-2.00	0.00
6,800.00	14.40	175.38	5,727.73	-3,356.80	271.28	985.06	2.00	-2.00	0.00
6,900.00	12.40	175.38	5,825.01	-3,379.90	273.14	991.84	2.00	-2.00	0.00
7,000.00	10.40	175.38	5,923.03	-3,399.61	274.74	997.62	2.00	-2.00	0.00
7,100.00	8.40	175.38	6,021.68	-3,415.89	276.05	1,002.40	2.00	-2.00	0.00
7,200.00	6.40	175.38	6,120.84	-3,428.73	277.09	1,006.17	2.00	-2.00	0.00
7,300.00	4.40	175.38	6,220.39	-3,438.12	277.85	1,008.92	2.00	-2.00	0.00
7,400.00	2.40	175.38	6,320.21	-3,444.04	278.33	1,010.66	2.00	-2.00	0.00
7,500.00	0.40	175.38	6,420.17	-3,446.48	278.52	1,011.37	2.00	-2.00	0.00
7,520.18	0.00	0.00	6,440.35	-3,446.55	278.53	1,011.40	2.00	-2.00	0.00
Start 30.00 hold at 7520.18 MD									
7,550.18	0.00	0.00	6,470.35	-3,446.55	278.53	1,011.40	0.00	0.00	0.00
Start DLS 12.00 TFO 268.40									
7,575.00	2.98	268.40	6,495.16	-3,446.57	277.89	1,012.00	12.00	12.00	0.00
7,600.00	5.98	268.40	6,520.08	-3,446.62	275.93	1,013.83	12.00	12.00	0.00
7,625.00	8.98	268.40	6,544.87	-3,446.71	272.68	1,016.89	12.00	12.00	0.00
7,650.00	11.97	268.40	6,569.45	-3,446.84	268.14	1,021.16	12.00	12.00	0.00
7,675.00	14.97	268.40	6,593.76	-3,447.00	262.32	1,026.63	12.00	12.00	0.00
7,700.00	17.97	268.40	6,617.73	-3,447.20	255.23	1,033.29	12.00	12.00	0.00
7,725.00	20.97	268.40	6,641.30	-3,447.43	246.90	1,041.12	12.00	12.00	0.00
7,750.00	23.97	268.40	6,664.39	-3,447.70	237.35	1,050.09	12.00	12.00	0.00
7,775.00	26.97	268.40	6,686.96	-3,448.00	226.61	1,060.19	12.00	12.00	0.00
7,800.00	29.97	268.40	6,708.94	-3,448.33	214.70	1,071.39	12.00	12.00	0.00
7,825.00	32.97	268.40	6,730.26	-3,448.69	201.66	1,083.65	12.00	12.00	0.00
7,850.00	35.96	268.40	6,750.87	-3,449.09	187.51	1,096.94	12.00	12.00	0.00
7,875.00	38.96	268.40	6,770.71	-3,449.51	172.32	1,111.22	12.00	12.00	0.00
7,900.00	41.96	268.40	6,789.73	-3,449.96	156.10	1,126.46	12.00	12.00	0.00
7,911.25	43.31	268.40	6,798.00	-3,450.17	148.49	1,133.62	12.00	12.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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										
7,925.00	44.96	268.40	6,807.87	-3,450.44	138.91	1,142.62	12.00	12.00	0.00	
7,950.00	47.96	268.40	6,825.09	-3,450.94	120.80	1,159.64	12.00	12.00	0.00	
7,966.62	49.95	268.40	6,836.00	-3,451.29	108.27	1,171.41	12.00	12.00	0.00	
NIOBRARA										
7,975.00	50.96	268.40	6,841.34	-3,451.47	101.81	1,177.49	12.00	12.00	0.00	
8,000.00	53.96	268.40	6,856.57	-3,452.03	82.00	1,196.11	12.00	12.00	0.00	
8,025.00	56.96	268.40	6,870.74	-3,452.60	61.41	1,215.45	12.00	12.00	0.00	
8,050.00	59.96	268.40	6,883.82	-3,453.19	40.12	1,235.47	12.00	12.00	0.00	
8,075.00	62.95	268.40	6,895.77	-3,453.80	18.17	1,256.10	12.00	12.00	0.00	
8,100.00	65.95	268.40	6,906.55	-3,454.43	-4.38	1,277.29	12.00	12.00	0.00	
8,125.00	68.95	268.40	6,916.13	-3,455.08	-27.45	1,298.98	12.00	12.00	0.00	
8,150.00	71.95	268.40	6,924.50	-3,455.73	-51.00	1,321.11	12.00	12.00	0.00	
8,175.00	74.95	268.40	6,931.62	-3,456.40	-74.95	1,343.62	12.00	12.00	0.00	
8,200.00	77.95	268.40	6,937.47	-3,457.08	-99.24	1,366.45	12.00	12.00	0.00	
8,202.56	78.26	268.40	6,938.00	-3,457.15	-101.75	1,368.80	12.00	12.00	0.00	
NIO B										
8,225.00	80.95	268.40	6,942.05	-3,457.76	-123.81	1,389.54	12.00	12.00	0.00	
8,250.00	83.95	268.40	6,945.34	-3,458.45	-148.58	1,412.82	12.00	12.00	0.00	
8,275.00	86.94	268.40	6,947.32	-3,459.14	-173.49	1,436.23	12.00	12.00	0.00	
8,300.50	90.00	268.40	6,948.00	-3,459.85	-198.97	1,460.18	12.00	12.00	0.00	
Start DLS 0.00 TFO -160.23										
8,400.00	90.00	268.40	6,947.99	-3,462.62	-298.43	1,553.66	0.00	0.00	0.00	
8,500.00	90.00	268.40	6,947.99	-3,465.41	-398.39	1,647.61	0.00	0.00	0.00	
8,600.00	90.00	268.40	6,947.98	-3,468.20	-498.35	1,741.56	0.00	0.00	0.00	
8,700.00	90.00	268.40	6,947.97	-3,470.98	-598.31	1,835.51	0.00	0.00	0.00	
8,800.00	90.00	268.40	6,947.97	-3,473.77	-698.27	1,929.46	0.00	0.00	0.00	
8,900.00	90.00	268.40	6,947.96	-3,476.55	-798.23	2,023.41	0.00	0.00	0.00	
9,000.00	90.00	268.40	6,947.95	-3,479.34	-898.20	2,117.36	0.00	0.00	0.00	
9,100.00	90.00	268.40	6,947.95	-3,482.12	-998.16	2,211.31	0.00	0.00	0.00	
9,200.00	90.00	268.40	6,947.94	-3,484.91	-1,098.12	2,305.26	0.00	0.00	0.00	
9,300.00	90.00	268.40	6,947.94	-3,487.69	-1,198.08	2,399.21	0.00	0.00	0.00	
9,400.00	90.00	268.40	6,947.93	-3,490.48	-1,298.04	2,493.16	0.00	0.00	0.00	
9,500.00	90.00	268.40	6,947.93	-3,493.26	-1,398.00	2,587.11	0.00	0.00	0.00	
9,600.00	90.00	268.40	6,947.92	-3,496.05	-1,497.96	2,681.06	0.00	0.00	0.00	
9,700.00	90.00	268.40	6,947.92	-3,498.84	-1,597.92	2,775.01	0.00	0.00	0.00	
9,800.00	90.00	268.40	6,947.91	-3,501.62	-1,697.88	2,868.96	0.00	0.00	0.00	
9,900.00	90.00	268.40	6,947.91	-3,504.41	-1,797.85	2,962.91	0.00	0.00	0.00	
10,000.00	90.00	268.40	6,947.90	-3,507.19	-1,897.81	3,056.86	0.00	0.00	0.00	
10,100.00	90.00	268.40	6,947.90	-3,509.98	-1,997.77	3,150.82	0.00	0.00	0.00	
10,200.00	90.00	268.40	6,947.89	-3,512.77	-2,097.73	3,244.77	0.00	0.00	0.00	
10,300.00	90.00	268.40	6,947.89	-3,515.55	-2,197.69	3,338.72	0.00	0.00	0.00	
10,400.00	90.00	268.40	6,947.89	-3,518.34	-2,297.65	3,432.67	0.00	0.00	0.00	
10,500.00	90.00	268.40	6,947.88	-3,521.12	-2,397.61	3,526.62	0.00	0.00	0.00	
10,600.00	90.00	268.40	6,947.88	-3,523.91	-2,497.57	3,620.57	0.00	0.00	0.00	
10,700.00	90.00	268.40	6,947.88	-3,526.70	-2,597.54	3,714.52	0.00	0.00	0.00	
10,800.00	90.00	268.40	6,947.87	-3,529.48	-2,697.50	3,808.47	0.00	0.00	0.00	
10,900.00	90.00	268.40	6,947.87	-3,532.27	-2,797.46	3,902.42	0.00	0.00	0.00	
11,000.00	90.00	268.40	6,947.87	-3,535.06	-2,897.42	3,996.37	0.00	0.00	0.00	
11,100.00	90.00	268.40	6,947.86	-3,537.84	-2,997.38	4,090.32	0.00	0.00	0.00	
11,200.00	90.00	268.40	6,947.86	-3,540.63	-3,097.34	4,184.27	0.00	0.00	0.00	
11,300.00	90.00	268.40	6,947.86	-3,543.42	-3,197.30	4,278.22	0.00	0.00	0.00	
11,400.00	90.00	268.40	6,947.86	-3,546.20	-3,297.26	4,372.17	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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)	
11,500.00	90.00	268.40	6,947.85	-3,548.99	-3,397.22	4,466.12	0.00	0.00	0.00	
11,600.00	90.00	268.40	6,947.85	-3,551.78	-3,497.19	4,560.08	0.00	0.00	0.00	
11,700.00	90.00	268.40	6,947.85	-3,554.56	-3,597.15	4,654.03	0.00	0.00	0.00	
11,800.00	90.00	268.40	6,947.85	-3,557.35	-3,697.11	4,747.98	0.00	0.00	0.00	
11,900.00	90.00	268.40	6,947.85	-3,560.14	-3,797.07	4,841.93	0.00	0.00	0.00	
12,000.00	90.00	268.40	6,947.85	-3,562.92	-3,897.03	4,935.88	0.00	0.00	0.00	
12,100.00	90.00	268.40	6,947.84	-3,565.71	-3,996.99	5,029.83	0.00	0.00	0.00	
12,200.00	90.00	268.40	6,947.84	-3,568.50	-4,096.95	5,123.78	0.00	0.00	0.00	
12,300.00	90.00	268.40	6,947.84	-3,571.29	-4,196.91	5,217.73	0.00	0.00	0.00	
12,400.00	90.00	268.40	6,947.84	-3,574.07	-4,296.87	5,311.68	0.00	0.00	0.00	
12,500.00	90.00	268.40	6,947.84	-3,576.86	-4,396.84	5,405.63	0.00	0.00	0.00	
12,600.00	90.00	268.40	6,947.84	-3,579.65	-4,496.80	5,499.58	0.00	0.00	0.00	
12,700.00	90.00	268.40	6,947.84	-3,582.44	-4,596.76	5,593.54	0.00	0.00	0.00	
12,800.00	90.00	268.40	6,947.84	-3,585.22	-4,696.72	5,687.49	0.00	0.00	0.00	
12,900.00	90.00	268.40	6,947.84	-3,588.01	-4,796.68	5,781.44	0.00	0.00	0.00	
13,000.00	90.00	268.40	6,947.84	-3,590.80	-4,896.64	5,875.39	0.00	0.00	0.00	
13,100.00	90.00	268.40	6,947.84	-3,593.59	-4,996.60	5,969.34	0.00	0.00	0.00	
13,200.00	90.00	268.40	6,947.84	-3,596.37	-5,096.56	6,063.29	0.00	0.00	0.00	
13,300.00	90.00	268.40	6,947.84	-3,599.16	-5,196.53	6,157.24	0.00	0.00	0.00	
13,400.00	90.00	268.40	6,947.84	-3,601.95	-5,296.49	6,251.19	0.00	0.00	0.00	
13,500.00	90.00	268.40	6,947.84	-3,604.74	-5,396.45	6,345.14	0.00	0.00	0.00	
13,600.00	90.00	268.40	6,947.84	-3,607.52	-5,496.41	6,439.10	0.00	0.00	0.00	
13,700.00	90.00	268.40	6,947.84	-3,610.31	-5,596.37	6,533.05	0.00	0.00	0.00	
13,800.00	90.00	268.40	6,947.85	-3,613.10	-5,696.33	6,627.00	0.00	0.00	0.00	
13,900.00	90.00	268.40	6,947.85	-3,615.89	-5,796.29	6,720.95	0.00	0.00	0.00	
14,000.00	90.00	268.40	6,947.85	-3,618.68	-5,896.25	6,814.90	0.00	0.00	0.00	
14,100.00	90.00	268.40	6,947.85	-3,621.47	-5,996.21	6,908.85	0.00	0.00	0.00	
14,200.00	90.00	268.40	6,947.85	-3,624.25	-6,096.18	7,002.80	0.00	0.00	0.00	
14,300.00	90.00	268.40	6,947.85	-3,627.04	-6,196.14	7,096.75	0.00	0.00	0.00	
14,400.00	90.00	268.40	6,947.86	-3,629.83	-6,296.10	7,190.71	0.00	0.00	0.00	
14,500.00	90.00	268.40	6,947.86	-3,632.62	-6,396.06	7,284.66	0.00	0.00	0.00	
14,600.00	90.00	268.40	6,947.86	-3,635.41	-6,496.02	7,378.61	0.00	0.00	0.00	
14,700.00	90.00	268.40	6,947.86	-3,638.20	-6,595.98	7,472.56	0.00	0.00	0.00	
14,800.00	90.00	268.40	6,947.87	-3,640.98	-6,695.94	7,566.51	0.00	0.00	0.00	
14,900.00	90.00	268.40	6,947.87	-3,643.77	-6,795.90	7,660.46	0.00	0.00	0.00	
15,000.00	90.00	268.40	6,947.87	-3,646.56	-6,895.86	7,754.41	0.00	0.00	0.00	
15,100.00	90.00	268.40	6,947.88	-3,649.35	-6,995.83	7,848.37	0.00	0.00	0.00	
15,200.00	90.00	268.40	6,947.88	-3,652.14	-7,095.79	7,942.32	0.00	0.00	0.00	
15,300.00	90.00	268.40	6,947.88	-3,654.93	-7,195.75	8,036.27	0.00	0.00	0.00	
15,400.00	90.00	268.40	6,947.89	-3,657.72	-7,295.71	8,130.22	0.00	0.00	0.00	
15,500.00	90.00	268.40	6,947.89	-3,660.51	-7,395.67	8,224.17	0.00	0.00	0.00	
15,600.00	90.00	268.40	6,947.90	-3,663.30	-7,495.63	8,318.12	0.00	0.00	0.00	
15,700.00	90.00	268.40	6,947.90	-3,666.08	-7,595.59	8,412.08	0.00	0.00	0.00	
15,800.00	90.00	268.40	6,947.90	-3,668.87	-7,695.55	8,506.03	0.00	0.00	0.00	
15,900.00	90.00	268.40	6,947.91	-3,671.66	-7,795.51	8,599.98	0.00	0.00	0.00	
16,000.00	90.00	268.40	6,947.91	-3,674.45	-7,895.48	8,693.93	0.00	0.00	0.00	
16,100.00	90.00	268.40	6,947.92	-3,677.24	-7,995.44	8,787.88	0.00	0.00	0.00	
16,200.00	90.00	268.40	6,947.92	-3,680.03	-8,095.40	8,881.83	0.00	0.00	0.00	
16,300.00	90.00	268.40	6,947.93	-3,682.82	-8,195.36	8,975.79	0.00	0.00	0.00	
16,400.00	90.00	268.40	6,947.93	-3,685.61	-8,295.32	9,069.74	0.00	0.00	0.00	
16,500.00	90.00	268.40	6,947.94	-3,688.40	-8,395.28	9,163.69	0.00	0.00	0.00	
16,600.00	90.00	268.40	6,947.94	-3,691.19	-8,495.24	9,257.64	0.00	0.00	0.00	
16,700.00	90.00	268.40	6,947.95	-3,693.98	-8,595.20	9,351.59	0.00	0.00	0.00	
16,800.00	90.00	268.40	6,947.96	-3,696.77	-8,695.16	9,445.54	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well VIC 29W-20-1N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5040.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5040.00usft
Site:	Sec 20-T7N-R67W	North Reference:	True
Well:	VIC 29W-20-1N	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)
16,900.00	90.00	268.40	6,947.96	-3,699.56	-8,795.13	9,539.50	0.00	0.00	0.00
17,000.00	90.00	268.40	6,947.97	-3,702.35	-8,895.09	9,633.45	0.00	0.00	0.00
17,100.00	90.00	268.40	6,947.97	-3,705.14	-8,995.05	9,727.40	0.00	0.00	0.00
17,200.00	90.00	268.40	6,947.98	-3,707.93	-9,095.01	9,821.35	0.00	0.00	0.00
17,300.00	90.00	268.40	6,947.99	-3,710.72	-9,194.97	9,915.30	0.00	0.00	0.00
17,400.00	90.00	268.40	6,947.99	-3,713.51	-9,294.93	10,009.25	0.00	0.00	0.00
17,476.43	90.00	268.40	6,948.00	-3,715.64	-9,371.33	10,081.07	0.00	0.00	0.00
TD at 17476.43									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
VIC 29W-1N - PBHL	0.00	0.00	6,948.00	-3,715.64	-9,371.33	1,443,925.66	3,154,919.87	40° 33' 2.300 N	104° 56' 33.047 W
- plan hits target center									
- Point									
VIC 29W-1N - LP	0.00	0.00	6,948.00	-3,459.85	-198.97	1,444,242.60	3,164,090.33	40° 33' 4.846 N	104° 54' 34.222 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,077.97	3,488.00	PARKMAN				
5,028.31	4,220.00	SUSSEX				
5,513.87	4,594.00	SHANNON				
7,911.25	6,798.00	SHARON SPRINGS				
7,966.62	6,836.00	NIOBRARA				
8,202.56	6,938.00	NIO B				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Start Build 2.00
2,181.17	2,026.99	-656.04	53.02	Start 3357.83 hold at 2181.17 MD
5,539.00	4,613.36	-2,790.51	225.51	Start Drop -2.00
7,520.18	6,440.35	-3,446.55	278.53	Start 30.00 hold at 7520.18 MD
7,550.18	6,470.35	-3,446.55	278.53	Start DLS 12.00 TFO 268.40
8,300.50	6,948.00	-3,459.85	-198.97	Start DLS 0.00 TFO -160.23
17,476.43	6,948.00	-3,715.64	-9,371.33	TD at 17476.43