

EXTRACTION OIL & GAS

Broomfield County

Sec 10-T1S-R68W

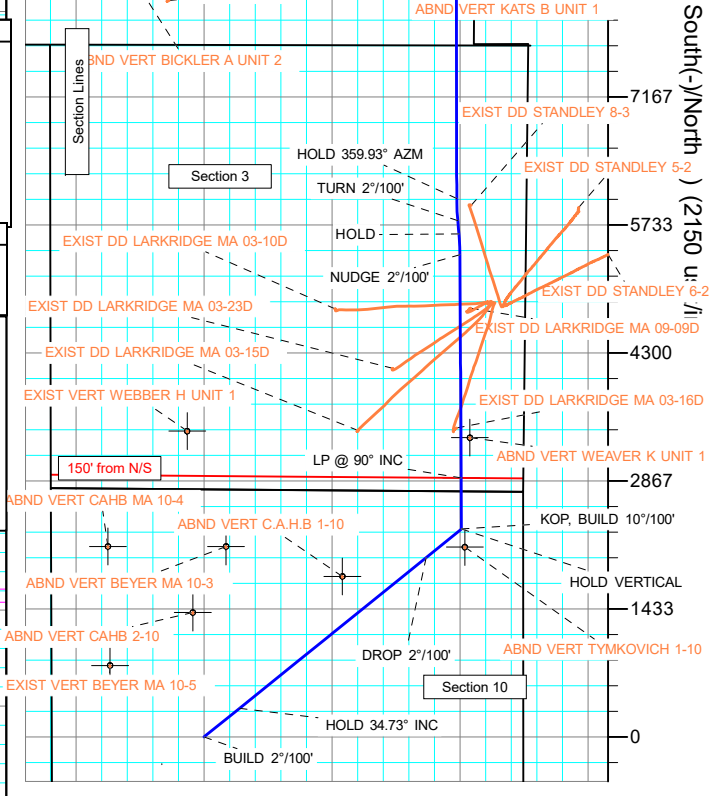
INTERCHANGE B N35-20-10N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

11 January, 2018



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well INTERCHANGE B N35-20-10N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5261.00usft
Project:	Broomfield County	MD Reference:	KB 25' @ 5261.00usft
Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Project	Broomfield 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 10-T1S-R68W			
Site Position:		Northing:	1,238,390.57 usft	Latitude:	39° 59' 12.013 N
From:	Lat/Long	Easting:	3,140,881.15 usft	Longitude:	104° 59' 50.008 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	INTERCHANGE B N35-20-10N					
Well Position	+N/-S	-2,786.03 usft	Northing:	1,235,614.33 usft	Latitude:	39° 58' 44.479 N
	+E/-W	1,718.00 usft	Easting:	3,142,614.92 usft	Longitude:	104° 59' 27.938 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,236.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/28/2017	8.25	66.47	52,094.06631760

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	12.61	

Plan Survey Tool Program	Date	1/11/2018			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	18,921.74	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG	
			OWSG MWD - Standard		

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Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

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	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,836.27	34.73	51.08	1,731.91	320.55	396.99	2.00	2.00	0.00	51.08	
6,548.80	34.73	51.08	5,605.09	2,006.97	2,485.61	0.00	0.00	0.00	0.00	
8,285.07	0.00	0.00	7,237.00	2,327.52	2,882.60	2.00	-2.00	0.00	180.00	
8,315.07	0.00	0.00	7,267.00	2,327.52	2,882.60	0.00	0.00	0.00	0.00	
9,215.15	90.00	359.65	7,840.00	2,900.52	2,879.13	10.00	10.00	-0.04	359.65	INTERCHANGE B N3
11,715.15	90.00	359.65	7,839.96	5,400.47	2,863.98	0.00	0.00	0.00	0.00	
11,947.78	90.00	355.00	7,839.96	5,632.79	2,853.13	2.00	0.00	-2.00	-90.01	
12,097.78	90.00	355.00	7,839.96	5,782.22	2,840.06	0.00	0.00	0.00	0.00	
12,344.05	90.00	359.93	7,839.96	6,028.17	2,829.16	2.00	0.00	2.00	90.00	INTERCHANGE B N3
18,921.74	90.00	359.93	7,840.00	12,605.86	2,820.58	0.00	0.00	0.00	0.00	INTERCHANGE B N3

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Project:	Broomfield County	MD Reference:	KB 25' @ 5261.00usft
Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	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
BUILD 2°/100'									
200.00	2.00	51.08	199.98	1.10	1.36	1.37	2.00	2.00	0.00
300.00	4.00	51.08	299.84	4.38	5.43	5.46	2.00	2.00	0.00
400.00	6.00	51.08	399.45	9.86	12.21	12.29	2.00	2.00	0.00
500.00	8.00	51.08	498.70	17.51	21.69	21.83	2.00	2.00	0.00
600.00	10.00	51.08	597.47	27.34	33.86	34.08	2.00	2.00	0.00
700.00	12.00	51.08	695.62	39.33	48.71	49.01	2.00	2.00	0.00
800.00	14.00	51.08	793.06	53.46	66.21	66.63	2.00	2.00	0.00
900.00	16.00	51.08	889.64	69.72	86.34	86.89	2.00	2.00	0.00
1,000.00	18.00	51.08	985.27	88.08	109.09	109.78	2.00	2.00	0.00
1,100.00	20.00	51.08	1,079.82	108.54	134.42	135.27	2.00	2.00	0.00
1,200.00	22.00	51.08	1,173.17	131.05	162.30	163.32	2.00	2.00	0.00
1,300.00	24.00	51.08	1,265.21	155.59	192.70	193.91	2.00	2.00	0.00
1,400.00	26.00	51.08	1,355.84	182.14	225.58	227.00	2.00	2.00	0.00
1,500.00	28.00	51.08	1,444.94	210.66	260.90	262.54	2.00	2.00	0.00
1,600.00	30.00	51.08	1,532.39	241.12	298.62	300.50	2.00	2.00	0.00
1,700.00	32.00	51.08	1,618.11	273.47	338.69	340.82	2.00	2.00	0.00
1,800.00	34.00	51.08	1,701.97	307.68	381.06	383.46	2.00	2.00	0.00
1,836.27	34.73	51.08	1,731.91	320.55	396.99	399.49	2.00	2.00	0.00
HOLD 34.73° INC									
1,900.00	34.73	51.08	1,784.29	343.35	425.23	427.91	0.00	0.00	0.00
2,000.00	34.73	51.08	1,866.48	379.14	469.56	472.51	0.00	0.00	0.00
2,100.00	34.73	51.08	1,948.67	414.92	513.88	517.11	0.00	0.00	0.00
2,200.00	34.73	51.08	2,030.86	450.71	558.20	561.71	0.00	0.00	0.00
2,300.00	34.73	51.08	2,113.04	486.50	602.52	606.31	0.00	0.00	0.00
2,400.00	34.73	51.08	2,195.23	522.28	646.84	650.91	0.00	0.00	0.00
2,500.00	34.73	51.08	2,277.42	558.07	691.16	695.51	0.00	0.00	0.00
2,600.00	34.73	51.08	2,359.61	593.85	735.48	740.11	0.00	0.00	0.00
2,700.00	34.73	51.08	2,441.80	629.64	779.80	784.71	0.00	0.00	0.00
2,800.00	34.73	51.08	2,523.99	665.43	824.12	829.31	0.00	0.00	0.00
2,900.00	34.73	51.08	2,606.18	701.21	868.44	873.91	0.00	0.00	0.00
3,000.00	34.73	51.08	2,688.37	737.00	912.76	918.51	0.00	0.00	0.00
3,100.00	34.73	51.08	2,770.56	772.78	957.08	963.11	0.00	0.00	0.00
3,200.00	34.73	51.08	2,852.75	808.57	1,001.40	1,007.71	0.00	0.00	0.00
3,300.00	34.73	51.08	2,934.93	844.36	1,045.72	1,052.31	0.00	0.00	0.00
3,400.00	34.73	51.08	3,017.12	880.14	1,090.04	1,096.91	0.00	0.00	0.00
3,500.00	34.73	51.08	3,099.31	915.93	1,134.36	1,141.51	0.00	0.00	0.00
3,600.00	34.73	51.08	3,181.50	951.71	1,178.69	1,186.11	0.00	0.00	0.00
3,700.00	34.73	51.08	3,263.69	987.50	1,223.01	1,230.71	0.00	0.00	0.00
3,800.00	34.73	51.08	3,345.88	1,023.29	1,267.33	1,275.31	0.00	0.00	0.00
3,900.00	34.73	51.08	3,428.07	1,059.07	1,311.65	1,319.91	0.00	0.00	0.00
4,000.00	34.73	51.08	3,510.26	1,094.86	1,355.97	1,364.51	0.00	0.00	0.00
4,100.00	34.73	51.08	3,592.45	1,130.65	1,400.29	1,409.11	0.00	0.00	0.00
4,200.00	34.73	51.08	3,674.64	1,166.43	1,444.61	1,453.71	0.00	0.00	0.00
4,300.00	34.73	51.08	3,756.83	1,202.22	1,488.93	1,498.31	0.00	0.00	0.00
4,400.00	34.73	51.08	3,839.01	1,238.00	1,533.25	1,542.91	0.00	0.00	0.00
4,500.00	34.73	51.08	3,921.20	1,273.79	1,577.57	1,587.50	0.00	0.00	0.00
4,600.00	34.73	51.08	4,003.39	1,309.58	1,621.89	1,632.10	0.00	0.00	0.00
4,700.00	34.73	51.08	4,085.58	1,345.36	1,666.21	1,676.70	0.00	0.00	0.00
4,800.00	34.73	51.08	4,167.77	1,381.15	1,710.53	1,721.30	0.00	0.00	0.00
4,900.00	34.73	51.08	4,249.96	1,416.93	1,754.85	1,765.90	0.00	0.00	0.00
5,000.00	34.73	51.08	4,332.15	1,452.72	1,799.17	1,810.50	0.00	0.00	0.00

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Well:	INTERCHANGE B N35-20-10N	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)	
5,100.00	34.73	51.08	4,414.34	1,488.51	1,843.49	1,855.10	0.00	0.00	0.00	
5,200.00	34.73	51.08	4,496.53	1,524.29	1,887.81	1,899.70	0.00	0.00	0.00	
5,300.00	34.73	51.08	4,578.72	1,560.08	1,932.14	1,944.30	0.00	0.00	0.00	
5,400.00	34.73	51.08	4,660.90	1,595.87	1,976.46	1,988.90	0.00	0.00	0.00	
5,500.00	34.73	51.08	4,743.09	1,631.65	2,020.78	2,033.50	0.00	0.00	0.00	
5,600.00	34.73	51.08	4,825.28	1,667.44	2,065.10	2,078.10	0.00	0.00	0.00	
5,700.00	34.73	51.08	4,907.47	1,703.22	2,109.42	2,122.70	0.00	0.00	0.00	
5,709.16	34.73	51.08	4,915.00	1,706.50	2,113.48	2,126.79	0.00	0.00	0.00	
PARKMAN										
5,800.00	34.73	51.08	4,989.66	1,739.01	2,153.74	2,167.30	0.00	0.00	0.00	
5,849.08	34.73	51.08	5,030.00	1,756.57	2,175.49	2,189.19	0.00	0.00	0.00	
SUSSEX										
5,900.00	34.73	51.08	5,071.85	1,774.80	2,198.06	2,211.90	0.00	0.00	0.00	
6,000.00	34.73	51.08	5,154.04	1,810.58	2,242.38	2,256.50	0.00	0.00	0.00	
6,100.00	34.73	51.08	5,236.23	1,846.37	2,286.70	2,301.10	0.00	0.00	0.00	
6,200.00	34.73	51.08	5,318.42	1,882.15	2,331.02	2,345.70	0.00	0.00	0.00	
6,300.00	34.73	51.08	5,400.61	1,917.94	2,375.34	2,390.30	0.00	0.00	0.00	
6,400.00	34.73	51.08	5,482.79	1,953.73	2,419.66	2,434.90	0.00	0.00	0.00	
6,500.00	34.73	51.08	5,564.98	1,989.51	2,463.98	2,479.50	0.00	0.00	0.00	
6,548.80	34.73	51.08	5,605.09	2,006.97	2,485.61	2,501.26	0.00	0.00	0.00	
DROP 2°/100'										
6,600.00	33.70	51.08	5,647.43	2,025.06	2,508.01	2,523.80	2.00	-2.00	0.00	
6,700.00	31.70	51.08	5,731.58	2,059.00	2,550.04	2,566.10	2.00	-2.00	0.00	
6,800.00	29.70	51.08	5,817.56	2,091.07	2,589.76	2,606.07	2.00	-2.00	0.00	
6,900.00	27.70	51.08	5,905.27	2,121.24	2,627.13	2,643.67	2.00	-2.00	0.00	
7,000.00	25.70	51.08	5,994.60	2,149.47	2,662.09	2,678.85	2.00	-2.00	0.00	
7,100.00	23.70	51.08	6,085.44	2,175.72	2,694.60	2,711.57	2.00	-2.00	0.00	
7,200.00	21.70	51.08	6,177.69	2,199.96	2,724.62	2,741.78	2.00	-2.00	0.00	
7,300.00	19.70	51.08	6,271.23	2,222.17	2,752.12	2,769.46	2.00	-2.00	0.00	
7,400.00	17.70	51.08	6,365.94	2,242.31	2,777.07	2,794.56	2.00	-2.00	0.00	
7,500.00	15.70	51.08	6,461.72	2,260.36	2,799.43	2,817.06	2.00	-2.00	0.00	
7,600.00	13.70	51.08	6,558.44	2,276.31	2,819.17	2,836.93	2.00	-2.00	0.00	
7,700.00	11.70	51.08	6,655.99	2,290.12	2,836.28	2,854.14	2.00	-2.00	0.00	
7,800.00	9.70	51.08	6,754.25	2,301.78	2,850.73	2,868.68	2.00	-2.00	0.00	
7,900.00	7.70	51.08	6,853.09	2,311.29	2,862.50	2,880.52	2.00	-2.00	0.00	
8,000.00	5.70	51.08	6,952.40	2,318.62	2,871.57	2,889.66	2.00	-2.00	0.00	
8,100.00	3.70	51.08	7,052.06	2,323.77	2,877.95	2,896.07	2.00	-2.00	0.00	
8,200.00	1.70	51.08	7,151.94	2,326.73	2,881.62	2,899.76	2.00	-2.00	0.00	
8,285.07	0.00	0.00	7,237.00	2,327.52	2,882.60	2,900.75	2.00	-2.00	0.00	
HOLD VERTICAL										
8,300.00	0.00	0.00	7,251.93	2,327.52	2,882.60	2,900.75	0.00	0.00	0.00	
8,315.07	0.00	0.00	7,267.00	2,327.52	2,882.60	2,900.75	0.00	0.00	0.00	
KOP, BUILD 10°/100'										
8,350.00	3.49	359.65	7,301.91	2,328.58	2,882.59	2,901.79	10.00	10.00	0.00	
8,400.00	8.49	359.65	7,351.62	2,333.80	2,882.56	2,906.88	10.00	10.00	0.00	
8,450.00	13.49	359.65	7,400.69	2,343.33	2,882.50	2,916.16	10.00	10.00	0.00	
8,500.00	18.49	359.65	7,448.74	2,357.10	2,882.42	2,929.58	10.00	10.00	0.00	
8,550.00	23.49	359.65	7,495.40	2,375.01	2,882.31	2,947.03	10.00	10.00	0.00	
8,600.00	28.49	359.65	7,540.33	2,396.91	2,882.18	2,968.38	10.00	10.00	0.00	
8,650.00	33.49	359.65	7,583.18	2,422.65	2,882.02	2,993.46	10.00	10.00	0.00	
8,700.00	38.49	359.65	7,623.63	2,452.02	2,881.85	3,022.09	10.00	10.00	0.00	
8,700.48	38.54	359.65	7,624.00	2,452.32	2,881.84	3,022.38	10.00	10.00	0.00	
SHANNON										

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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	43.49	359.65	7,661.35	2,484.81	2,881.65	3,054.04	10.00	10.00	0.00	
8,753.66	43.86	359.65	7,664.00	2,487.33	2,881.63	3,056.50	10.00	10.00	0.00	
NIOBRARA										
8,800.00	48.49	359.65	7,696.08	2,520.76	2,881.43	3,089.07	10.00	10.00	0.00	
8,850.00	53.49	359.65	7,727.55	2,559.60	2,881.19	3,126.92	10.00	10.00	0.00	
8,900.00	58.49	359.65	7,755.50	2,601.03	2,880.94	3,167.30	10.00	10.00	0.00	
8,950.00	63.49	359.65	7,779.75	2,644.74	2,880.68	3,209.90	10.00	10.00	0.00	
9,000.00	68.49	359.65	7,800.09	2,690.40	2,880.40	3,254.39	10.00	10.00	0.00	
9,050.00	73.49	359.65	7,816.37	2,737.65	2,880.11	3,300.45	10.00	10.00	0.00	
9,100.00	78.49	359.65	7,828.47	2,786.15	2,879.82	3,347.71	10.00	10.00	0.00	
9,107.93	79.28	359.65	7,830.00	2,793.93	2,879.77	3,355.29	10.00	10.00	0.00	
NIO B TARGET										
9,150.00	83.49	359.65	7,836.30	2,835.52	2,879.52	3,395.82	10.00	10.00	0.00	
9,200.00	88.49	359.65	7,839.80	2,885.38	2,879.22	3,444.41	10.00	10.00	0.00	
9,215.15	90.00	359.65	7,840.00	2,900.52	2,879.13	3,459.17	10.00	10.00	0.00	
LP @ 90° INC										
9,300.00	90.00	359.65	7,840.00	2,985.37	2,878.61	3,541.86	0.00	0.00	0.00	
9,400.00	90.00	359.65	7,840.00	3,085.37	2,878.01	3,639.32	0.00	0.00	0.00	
9,500.00	90.00	359.65	7,840.00	3,185.37	2,877.40	3,736.77	0.00	0.00	0.00	
9,600.00	90.00	359.65	7,839.99	3,285.37	2,876.80	3,834.22	0.00	0.00	0.00	
9,700.00	90.00	359.65	7,839.99	3,385.37	2,876.19	3,931.67	0.00	0.00	0.00	
9,800.00	90.00	359.65	7,839.99	3,485.36	2,875.58	4,029.13	0.00	0.00	0.00	
9,900.00	90.00	359.65	7,839.99	3,585.36	2,874.98	4,126.58	0.00	0.00	0.00	
10,000.00	90.00	359.65	7,839.99	3,685.36	2,874.37	4,224.03	0.00	0.00	0.00	
10,100.00	90.00	359.65	7,839.99	3,785.36	2,873.77	4,321.49	0.00	0.00	0.00	
10,200.00	90.00	359.65	7,839.98	3,885.36	2,873.16	4,418.94	0.00	0.00	0.00	
10,300.00	90.00	359.65	7,839.98	3,985.35	2,872.55	4,516.39	0.00	0.00	0.00	
10,400.00	90.00	359.65	7,839.98	4,085.35	2,871.95	4,613.85	0.00	0.00	0.00	
10,500.00	90.00	359.65	7,839.98	4,185.35	2,871.34	4,711.30	0.00	0.00	0.00	
10,600.00	90.00	359.65	7,839.98	4,285.35	2,870.74	4,808.75	0.00	0.00	0.00	
10,700.00	90.00	359.65	7,839.98	4,385.35	2,870.13	4,906.21	0.00	0.00	0.00	
10,800.00	90.00	359.65	7,839.97	4,485.35	2,869.52	5,003.66	0.00	0.00	0.00	
10,900.00	90.00	359.65	7,839.97	4,585.34	2,868.92	5,101.11	0.00	0.00	0.00	
11,000.00	90.00	359.65	7,839.97	4,685.34	2,868.31	5,198.57	0.00	0.00	0.00	
11,100.00	90.00	359.65	7,839.97	4,785.34	2,867.71	5,296.02	0.00	0.00	0.00	
11,200.00	90.00	359.65	7,839.97	4,885.34	2,867.10	5,393.47	0.00	0.00	0.00	
11,300.00	90.00	359.65	7,839.96	4,985.34	2,866.49	5,490.93	0.00	0.00	0.00	
11,400.00	90.00	359.65	7,839.96	5,085.33	2,865.89	5,588.38	0.00	0.00	0.00	
11,500.00	90.00	359.65	7,839.96	5,185.33	2,865.28	5,685.83	0.00	0.00	0.00	
11,600.00	90.00	359.65	7,839.96	5,285.33	2,864.68	5,783.28	0.00	0.00	0.00	
11,700.00	90.00	359.65	7,839.96	5,385.33	2,864.07	5,880.74	0.00	0.00	0.00	
11,715.15	90.00	359.65	7,839.96	5,400.47	2,863.98	5,895.50	0.00	0.00	0.00	
NUDGE 2°/100'										
11,800.00	90.00	357.96	7,839.96	5,485.31	2,862.21	5,977.90	2.00	0.00	-2.00	
11,900.00	90.00	355.96	7,839.96	5,585.16	2,856.90	6,074.18	2.00	0.00	-2.00	
11,947.78	90.00	355.00	7,839.96	5,632.79	2,853.13	6,119.84	2.00	0.00	-2.00	
HOLD										
12,000.00	90.00	355.00	7,839.96	5,684.81	2,848.58	6,169.61	0.00	0.00	0.00	
12,097.78	90.00	355.00	7,839.96	5,782.22	2,840.06	6,262.81	0.00	0.00	0.00	
TURN 2°/100'										
12,100.00	90.00	355.04	7,839.96	5,784.43	2,839.86	6,264.93	2.00	0.00	2.00	
12,200.00	90.00	357.04	7,839.96	5,884.19	2,832.96	6,360.77	2.00	0.00	2.00	
12,300.00	90.00	359.04	7,839.96	5,984.13	2,829.55	6,457.55	2.00	0.00	2.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well INTERCHANGE B N35-20-10N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5261.00usft
Project:	Broomfield County	MD Reference:	KB 25' @ 5261.00usft
Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	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)
12,344.05	90.00	359.93	7,839.96	6,028.17	2,829.16	6,500.45	2.00	0.00	2.00
HOLD 359.93° AZM									
12,400.00	90.00	359.93	7,839.96	6,084.12	2,829.08	6,555.03	0.00	0.00	0.00
12,500.00	90.00	359.93	7,839.96	6,184.12	2,828.95	6,652.59	0.00	0.00	0.00
12,600.00	90.00	359.93	7,839.96	6,284.12	2,828.82	6,750.15	0.00	0.00	0.00
12,700.00	90.00	359.93	7,839.96	6,384.12	2,828.69	6,847.71	0.00	0.00	0.00
12,800.00	90.00	359.93	7,839.96	6,484.12	2,828.56	6,945.27	0.00	0.00	0.00
12,900.00	90.00	359.93	7,839.96	6,584.12	2,828.43	7,042.83	0.00	0.00	0.00
13,000.00	90.00	359.93	7,839.96	6,684.12	2,828.30	7,140.39	0.00	0.00	0.00
13,100.00	90.00	359.93	7,839.96	6,784.12	2,828.17	7,237.94	0.00	0.00	0.00
13,200.00	90.00	359.93	7,839.96	6,884.12	2,828.04	7,335.50	0.00	0.00	0.00
13,300.00	90.00	359.93	7,839.96	6,984.12	2,827.91	7,433.06	0.00	0.00	0.00
13,400.00	90.00	359.93	7,839.96	7,084.12	2,827.78	7,530.62	0.00	0.00	0.00
13,500.00	90.00	359.93	7,839.96	7,184.12	2,827.65	7,628.18	0.00	0.00	0.00
13,600.00	90.00	359.93	7,839.96	7,284.12	2,827.52	7,725.74	0.00	0.00	0.00
13,700.00	90.00	359.93	7,839.96	7,384.12	2,827.39	7,823.30	0.00	0.00	0.00
13,800.00	90.00	359.93	7,839.96	7,484.12	2,827.26	7,920.86	0.00	0.00	0.00
13,900.00	90.00	359.93	7,839.96	7,584.12	2,827.13	8,018.41	0.00	0.00	0.00
14,000.00	90.00	359.93	7,839.96	7,684.12	2,827.00	8,115.97	0.00	0.00	0.00
14,100.00	90.00	359.93	7,839.96	7,784.12	2,826.87	8,213.53	0.00	0.00	0.00
14,200.00	90.00	359.93	7,839.96	7,884.12	2,826.74	8,311.09	0.00	0.00	0.00
14,300.00	90.00	359.93	7,839.96	7,984.12	2,826.61	8,408.65	0.00	0.00	0.00
14,400.00	90.00	359.93	7,839.96	8,084.12	2,826.48	8,506.21	0.00	0.00	0.00
14,500.00	90.00	359.93	7,839.96	8,184.12	2,826.35	8,603.77	0.00	0.00	0.00
14,600.00	90.00	359.93	7,839.96	8,284.12	2,826.22	8,701.33	0.00	0.00	0.00
14,700.00	90.00	359.93	7,839.96	8,384.12	2,826.09	8,798.88	0.00	0.00	0.00
14,800.00	90.00	359.93	7,839.96	8,484.12	2,825.96	8,896.44	0.00	0.00	0.00
14,900.00	90.00	359.93	7,839.96	8,584.12	2,825.82	8,994.00	0.00	0.00	0.00
15,000.00	90.00	359.93	7,839.96	8,684.12	2,825.69	9,091.56	0.00	0.00	0.00
15,100.00	90.00	359.93	7,839.96	8,784.12	2,825.56	9,189.12	0.00	0.00	0.00
15,200.00	90.00	359.93	7,839.96	8,884.12	2,825.43	9,286.68	0.00	0.00	0.00
15,300.00	90.00	359.93	7,839.96	8,984.12	2,825.30	9,384.24	0.00	0.00	0.00
15,400.00	90.00	359.93	7,839.96	9,084.12	2,825.17	9,481.80	0.00	0.00	0.00
15,500.00	90.00	359.93	7,839.96	9,184.12	2,825.04	9,579.35	0.00	0.00	0.00
15,600.00	90.00	359.93	7,839.96	9,284.12	2,824.91	9,676.91	0.00	0.00	0.00
15,700.00	90.00	359.93	7,839.96	9,384.12	2,824.78	9,774.47	0.00	0.00	0.00
15,800.00	90.00	359.93	7,839.96	9,484.12	2,824.65	9,872.03	0.00	0.00	0.00
15,900.00	90.00	359.93	7,839.96	9,584.12	2,824.52	9,969.59	0.00	0.00	0.00
16,000.00	90.00	359.93	7,839.96	9,684.12	2,824.39	10,067.15	0.00	0.00	0.00
16,100.00	90.00	359.93	7,839.96	9,784.12	2,824.26	10,164.71	0.00	0.00	0.00
16,200.00	90.00	359.93	7,839.96	9,884.12	2,824.13	10,262.26	0.00	0.00	0.00
16,300.00	90.00	359.93	7,839.96	9,984.12	2,824.00	10,359.82	0.00	0.00	0.00
16,400.00	90.00	359.93	7,839.96	10,084.12	2,823.87	10,457.38	0.00	0.00	0.00
16,500.00	90.00	359.93	7,839.96	10,184.12	2,823.74	10,554.94	0.00	0.00	0.00
16,600.00	90.00	359.93	7,839.96	10,284.12	2,823.61	10,652.50	0.00	0.00	0.00
16,700.00	90.00	359.93	7,839.96	10,384.12	2,823.48	10,750.06	0.00	0.00	0.00
16,800.00	90.00	359.93	7,839.96	10,484.12	2,823.35	10,847.62	0.00	0.00	0.00
16,900.00	90.00	359.93	7,839.96	10,584.12	2,823.22	10,945.18	0.00	0.00	0.00
17,000.00	90.00	359.93	7,839.96	10,684.12	2,823.09	11,042.73	0.00	0.00	0.00
17,100.00	90.00	359.93	7,839.96	10,784.12	2,822.96	11,140.29	0.00	0.00	0.00
17,200.00	90.00	359.93	7,839.96	10,884.12	2,822.83	11,237.85	0.00	0.00	0.00
17,300.00	90.00	359.93	7,839.96	10,984.12	2,822.70	11,335.41	0.00	0.00	0.00
17,400.00	90.00	359.93	7,839.96	11,084.12	2,822.57	11,432.97	0.00	0.00	0.00
17,500.00	90.00	359.93	7,839.96	11,184.12	2,822.44	11,530.53	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well INTERCHANGE B N35-20-10N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5261.00usft
Project:	Broomfield County	MD Reference:	KB 25' @ 5261.00usft
Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	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)	
17,600.00	90.00	359.93	7,839.96	11,284.12	2,822.31	11,628.09	0.00	0.00	0.00	
17,700.00	90.00	359.93	7,839.96	11,384.12	2,822.18	11,725.65	0.00	0.00	0.00	
17,800.00	90.00	359.93	7,839.96	11,484.12	2,822.05	11,823.20	0.00	0.00	0.00	
17,900.00	90.00	359.93	7,839.96	11,584.12	2,821.91	11,920.76	0.00	0.00	0.00	
18,000.00	90.00	359.93	7,839.96	11,684.12	2,821.78	12,018.32	0.00	0.00	0.00	
18,100.00	90.00	359.93	7,839.96	11,784.12	2,821.65	12,115.88	0.00	0.00	0.00	
18,200.00	90.00	359.93	7,839.96	11,884.12	2,821.52	12,213.44	0.00	0.00	0.00	
18,300.00	90.00	359.93	7,839.96	11,984.12	2,821.39	12,311.00	0.00	0.00	0.00	
18,400.00	90.00	359.93	7,839.96	12,084.12	2,821.26	12,408.56	0.00	0.00	0.00	
18,500.00	90.00	359.93	7,839.96	12,184.12	2,821.13	12,506.12	0.00	0.00	0.00	
18,600.00	90.00	359.93	7,839.96	12,284.12	2,821.00	12,603.67	0.00	0.00	0.00	
18,700.00	90.00	359.93	7,839.96	12,384.12	2,820.87	12,701.23	0.00	0.00	0.00	
18,800.00	90.00	359.93	7,839.96	12,484.12	2,820.74	12,798.79	0.00	0.00	0.00	
18,900.00	90.00	359.93	7,839.96	12,584.12	2,820.61	12,896.35	0.00	0.00	0.00	
18,921.74	90.00	359.93	7,840.00	12,605.86	2,820.58	12,917.56	0.00	0.00	0.00	
TD at 18921.74' MD										

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										
INTERCHANGE B N35	0.00	0.00	7,840.00	12,605.86	2,820.58	1,248,236.17	3,145,363.11	40° 0' 49.057 N	104° 58' 51.686 W	
- plan hits target center										
- Point										
INTERCHANGE B N35	0.00	0.00	7,840.00	2,900.52	2,879.13	1,238,531.32	3,145,477.35	39° 59' 13.142 N	104° 58' 50.948 W	
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,709.16	4,915.00	PARKMAN				
5,849.08	5,030.00	SUSSEX				
8,700.48	7,624.00	SHANNON				
8,753.66	7,664.00	NIOBRARA				
9,107.93	7,830.00	NIO B TARGET				

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well INTERCHANGE B N35-20-10N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5261.00usft
Project:	Broomfield County	MD Reference:	KB 25' @ 5261.00usft
Site:	Sec 10-T1S-R68W	North Reference:	True
Well:	INTERCHANGE B N35-20-10N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.00	100.00	0.00	0.00	BUILD 2°/100'
1,836.27	1,731.91	320.55	396.99	HOLD 34.73° INC
6,548.80	5,605.09	2,006.97	2,485.61	DROP 2°/100'
8,285.07	7,237.00	2,327.52	2,882.60	HOLD VERTICAL
8,315.07	7,267.00	2,327.52	2,882.60	KOP, BUILD 10°/100'
9,215.15	7,840.00	2,900.52	2,879.13	LP @ 90° INC
11,715.15	7,839.96	5,400.47	2,863.98	NUDGE 2°/100'
11,947.78	7,839.96	5,632.79	2,853.13	HOLD
12,097.78	7,839.96	5,782.22	2,840.06	TURN 2°/100'
12,344.05	7,839.96	6,028.17	2,829.16	HOLD 359.93° AZM
18,921.74	7,840.00	12,605.86	2,820.58	TD at 18921.74' MD