

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

SW NE SEC. 17 T8N R60W 6th P.M.

HUNT FED 8-60 17B-20-6

ORIGINAL WELLBORE

31 July, 2018

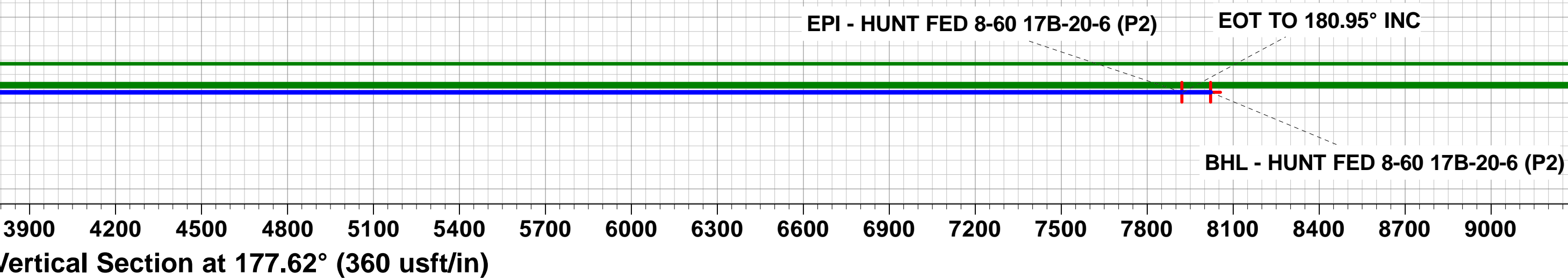
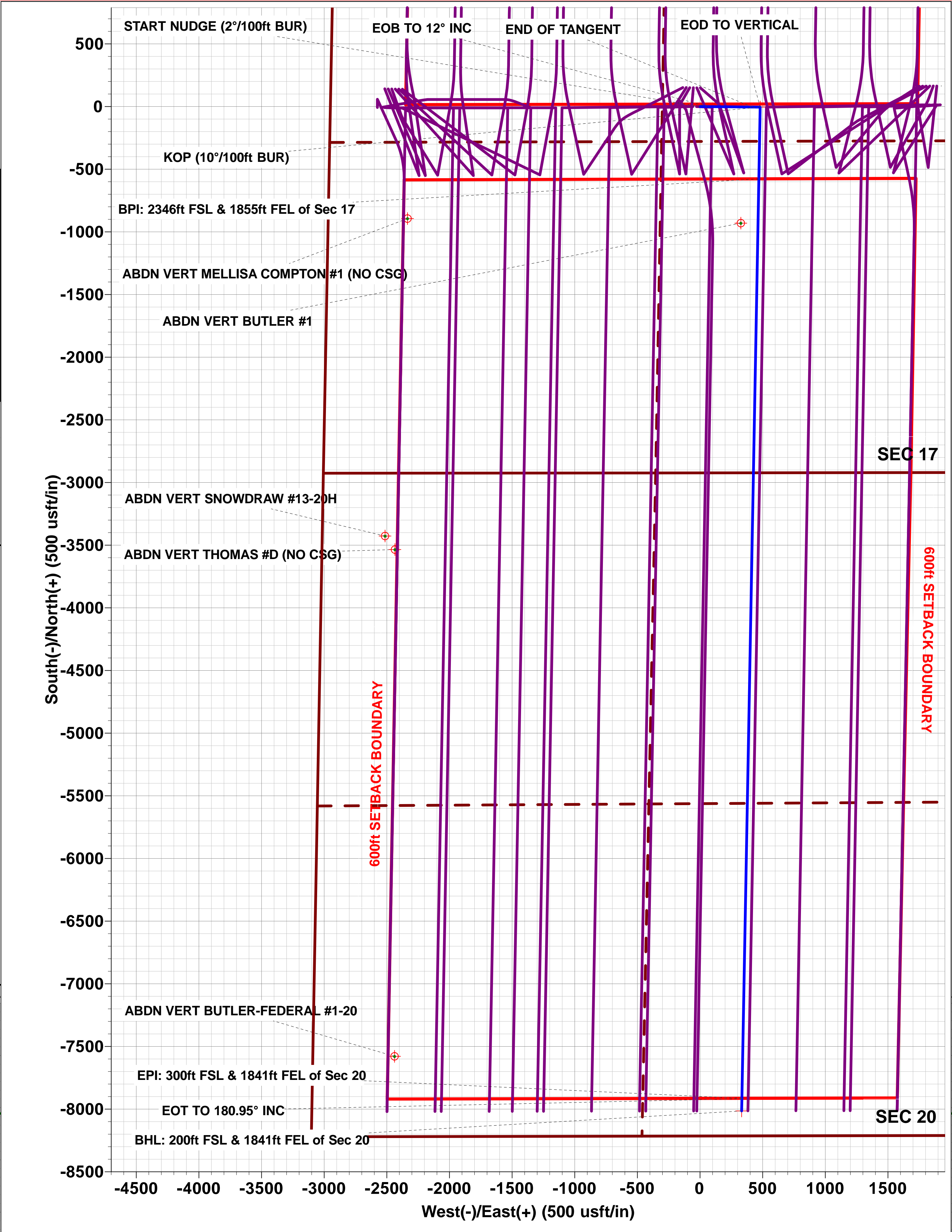
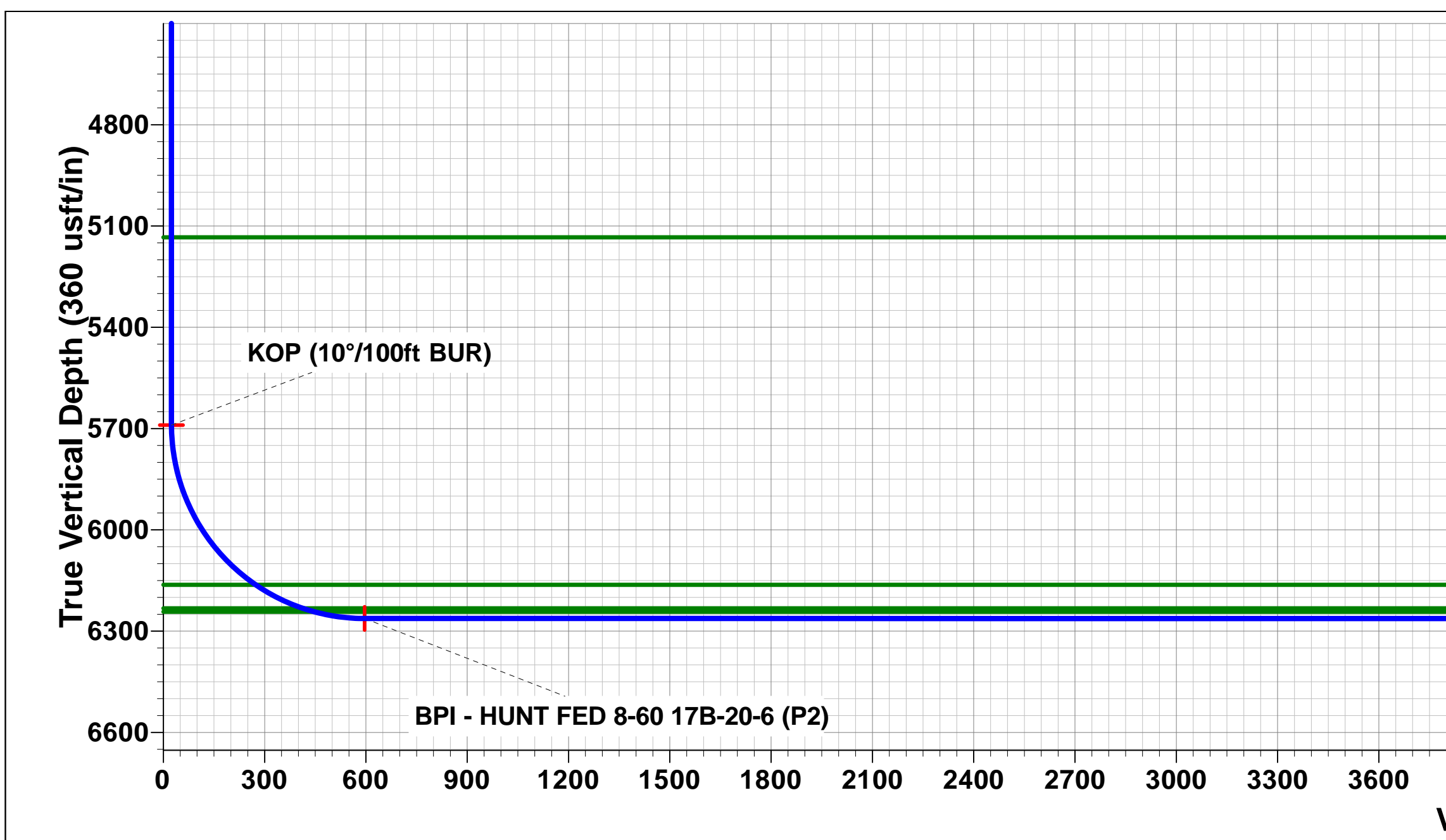
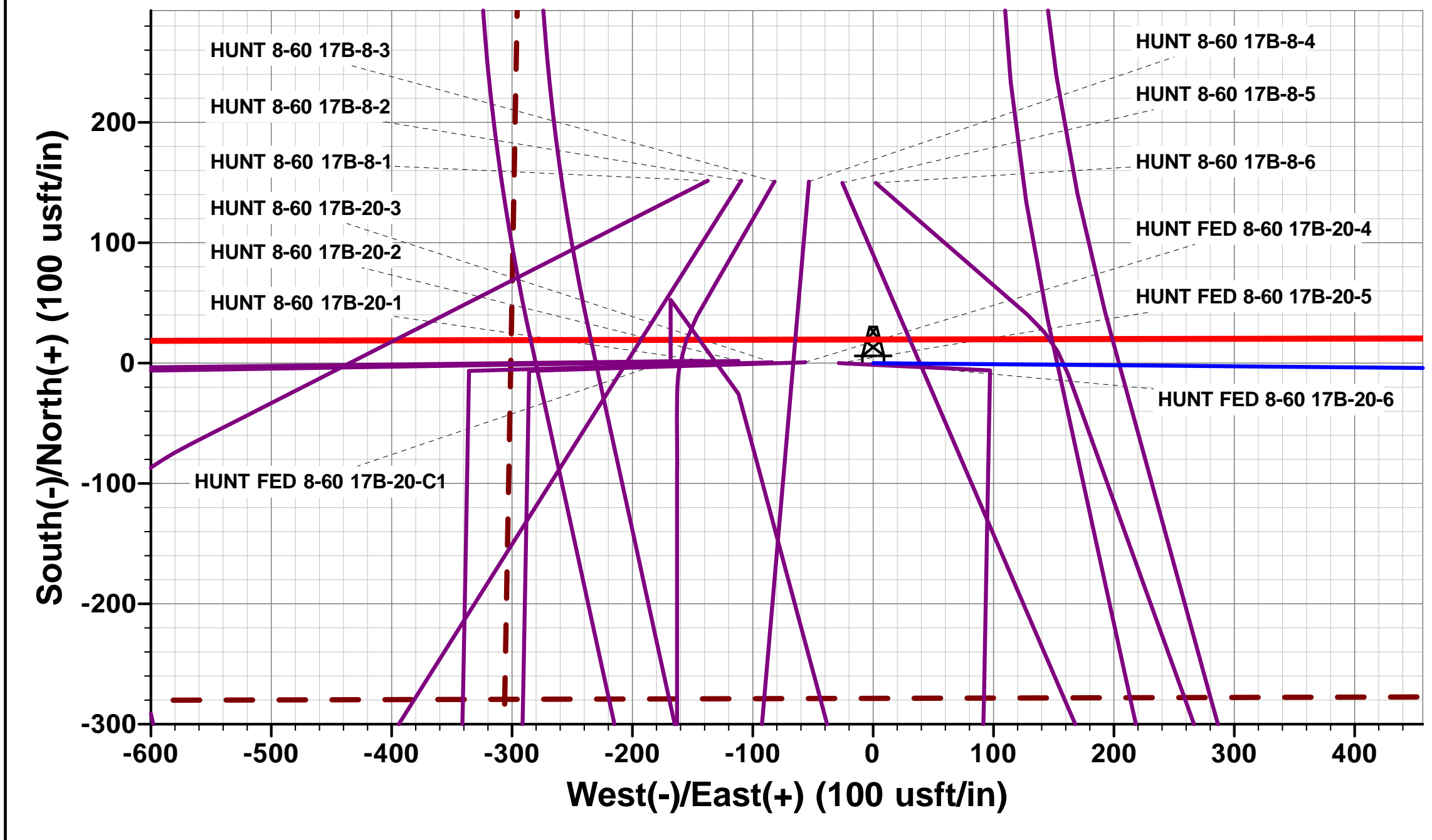
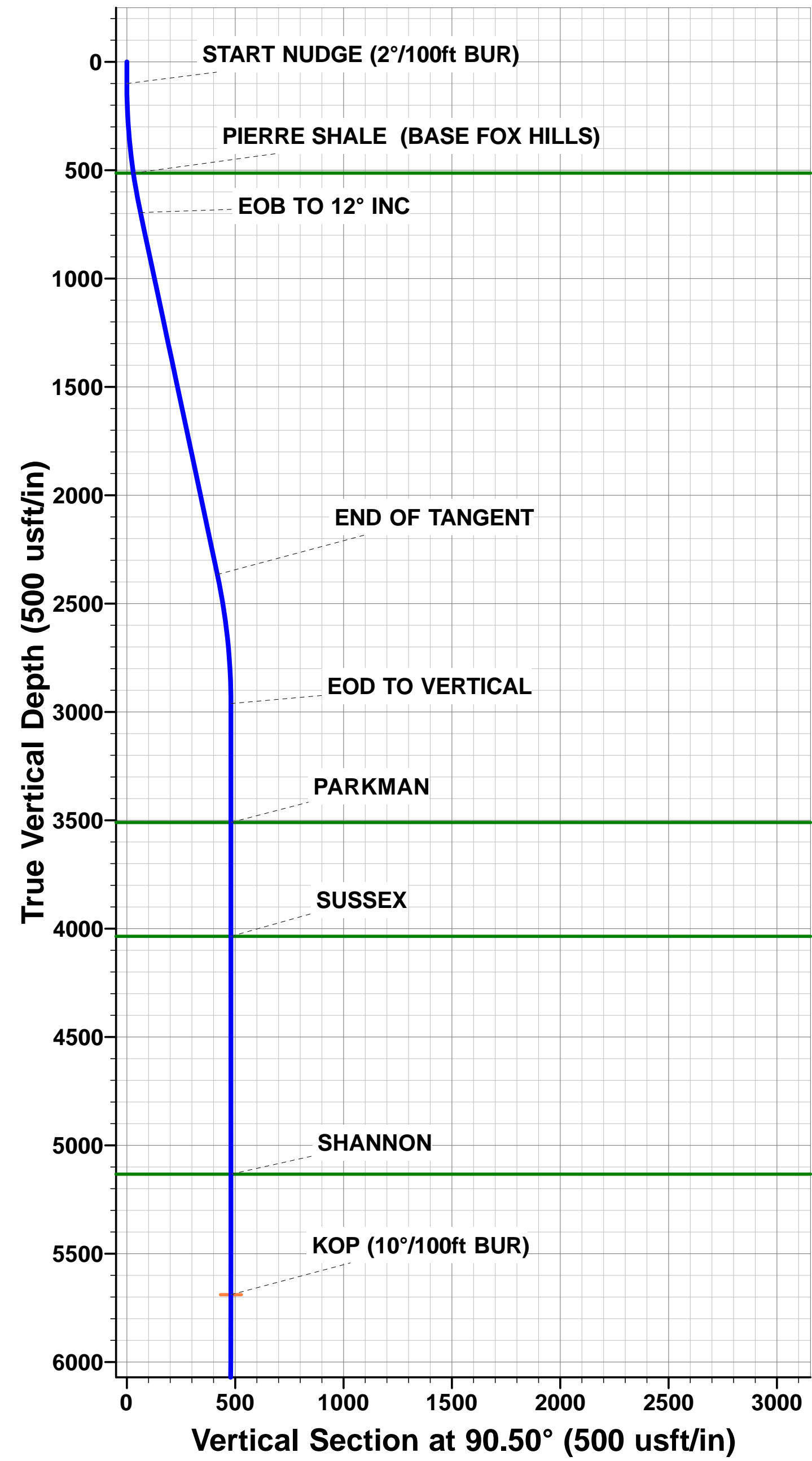
Plan: PROPOSAL #2





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW NE SEC. 17 T8N R60W 6th P.M.
Well: HUNT FED 8-60 17B-20-6
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS									PROPOSED LOCAL COORDINATES: SHL: 2366ft FNL & 2335ft FEL of Sec 17 SHL: 2366ft FNL & 2335ft FEL Sec 17 BPI: 2346ft FSL & 1855ft FEL Sec 17 EPI: 300ft FSL & 1841ft FEL Sec 20 BHL: 200ft FSL & 1841ft FEL of Sec 20
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 2366ft FNL & 2335ft FEL of Sec 17	
100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)	
695.62	700.00	12.00	90.50	-0.55	62.60	3.14	62.60	EOB TO 12° INC	
2366.35	2408.05	12.00	90.50	-3.66	417.71	20.97	417.73	END OF TANGENT	
2961.97	3008.05	0.00	0.00	-4.21	480.31	24.12	480.33	EOD TO VERTICAL	
5689.50	5735.58	0.00	0.00	-4.21	480.31	24.12	480.33	KOP (10°/100ft BUR)	
6262.50	6635.60	90.00	181.06	-577.07	469.71	596.04	1053.28	BPI: 2346ft FSL & 1855ft FEL of Sec 17	
6262.50	13973.67	90.00	181.06	-7913.88	334.14	7920.93	8391.35	EPI: 300ft FSL & 1841ft FEL of Sec 20	
6262.50	13977.25	90.00	180.95	-7917.46	334.08	7924.51	8394.93	EOT TO 180.95° INC	
6262.50	14073.87	90.00	180.95	-8014.07	332.47	8020.96	8491.55	BHL: 200ft FSL & 1841ft FEL of Sec 20	
WELLBORE TARGET DETAILS (LAT/LONG)									
Name					TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - HUNT FED 8-60 17B-20-6 (P2)					5689.50	-4.21	480.31	40.663055	-104.112416
BHL - HUNT FED 8-60 17B-20-6 (P2)					6262.50	-8014.07	332.47	40.641070	-104.112949
BPI - HUNT FED 8-60 17B-20-6 (P2)					6262.50	-577.07	469.71	40.661483	-104.112454
EPI - HUNT FED 8-60 17B-20-6 (P2)					6262.50	-7913.89	334.14	40.641345	-104.112943



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HUNT FED 8-60 17B-20-6
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Site:	SW NE SEC. 17 T8N R60W 6th P.M.	North Reference:	True
Well:	HUNT FED 8-60 17B-20-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		SW NE SEC. 17 T8N R60W 6th P.M.			
Site Position:		Northing:	1,487,551.70 usft	Latitude:	40.663483
From:	Lat/Long	Easting:	3,384,321.29 usft	Longitude:	-104.114642
Position Uncertainty:	0.00 usft	Slot Radius:	1.10000 ft	Grid Convergence:	0.90 °

Well	HUNT FED 8-60 17B-20-6					
Well Position	+N/-S	-151.58 usft	Northing:	1,487,402.29 usft	Latitude:	40.663067
	+E/-W	137.33 usft	Easting:	3,384,460.97 usft	Longitude:	-104.114147
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,938.50 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/08/2017	7.87	67.16	52,579

Design	PROPOSAL #2			
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	177.62

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.00	0.00	0.00	0.00	-4,963.50	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	-4,863.50	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	12.00	90.50	695.62	-4,267.88	-0.55	62.60	2.00	2.00	0.00	90.50	
2,408.05	12.00	90.50	2,366.35	-2,597.15	-3.66	417.71	0.00	0.00	0.00	0.00	
3,008.05	0.00	0.00	2,961.97	-2,001.53	-4.21	480.31	2.00	-2.00	0.00	180.00	
5,735.58	0.00	0.00	5,689.50	726.00	-4.21	480.31	0.00	0.00	0.00	0.00	KOP - HUNT FED 8
6,635.60	90.00	181.06	6,262.50	1,299.00	-577.07	469.71	10.00	10.00	-19.88	181.06	BPI - HUNT FED 8-
13,973.67	90.00	181.06	6,262.50	1,299.00	-7,913.89	334.14	0.00	0.00	0.00	-22.92	EPI - HUNT FED 8-
13,977.25	90.00	180.95	6,262.50	1,299.00	-7,917.47	334.08	3.00	-0.12	-3.00	-92.22	
14,073.87	90.00	180.95	6,262.50	1,299.00	-8,014.07	332.47	0.00	0.00	0.00	0.00	BHL - HUNT FED 8

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Site:	SW NE SEC. 17 T8N R60W 6th P.M.	North Reference:	True
Well:	HUNT FED 8-60 17B-20-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 2366ft FNL & 2335ft FEL of Sec 17										
0.00	0.00	0.00	0.00	4,963.50	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
100.00	0.00	0.00	100.00	4,863.50	0.00	0.00	0.00	0.00	0.00	0.00
200.00	2.00	90.50	199.98	4,763.52	-0.02	1.75	0.09	2.00	2.00	0.00
300.00	4.00	90.50	299.84	4,663.66	-0.06	6.98	0.35	2.00	2.00	0.00
400.00	6.00	90.50	399.45	4,564.05	-0.14	15.69	0.79	2.00	2.00	0.00
500.00	8.00	90.50	498.70	4,464.80	-0.24	27.88	1.40	2.00	2.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
514.95	8.30	90.50	513.50	4,450.00	-0.26	30.00	1.51	2.00	2.00	0.00
600.00	10.00	90.50	597.47	4,366.03	-0.38	43.52	2.19	2.00	2.00	0.00
EOB TO 12° INC										
700.00	12.00	90.50	695.62	4,267.88	-0.55	62.60	3.14	2.00	2.00	0.00
800.00	12.00	90.50	793.44	4,170.06	-0.73	83.39	4.19	0.00	0.00	0.00
900.00	12.00	90.50	891.25	4,072.25	-0.91	104.18	5.23	0.00	0.00	0.00
1,000.00	12.00	90.50	989.07	3,974.43	-1.10	124.97	6.27	0.00	0.00	0.00
1,100.00	12.00	90.50	1,086.88	3,876.62	-1.28	145.76	7.32	0.00	0.00	0.00
1,200.00	12.00	90.50	1,184.70	3,778.80	-1.46	166.55	8.36	0.00	0.00	0.00
1,300.00	12.00	90.50	1,282.51	3,680.99	-1.64	187.34	9.41	0.00	0.00	0.00
1,400.00	12.00	90.50	1,380.33	3,583.17	-1.82	208.13	10.45	0.00	0.00	0.00
1,500.00	12.00	90.50	1,478.14	3,485.36	-2.01	228.92	11.49	0.00	0.00	0.00
1,600.00	12.00	90.50	1,575.96	3,387.54	-2.19	249.71	12.54	0.00	0.00	0.00
1,700.00	12.00	90.50	1,673.77	3,289.73	-2.37	270.50	13.58	0.00	0.00	0.00
1,800.00	12.00	90.50	1,771.59	3,191.91	-2.55	291.29	14.63	0.00	0.00	0.00
1,900.00	12.00	90.50	1,869.40	3,094.10	-2.74	312.08	15.67	0.00	0.00	0.00
2,000.00	12.00	90.50	1,967.22	2,996.28	-2.92	332.87	16.71	0.00	0.00	0.00
2,100.00	12.00	90.50	2,065.03	2,898.47	-3.10	353.67	17.76	0.00	0.00	0.00
2,200.00	12.00	90.50	2,162.84	2,800.66	-3.28	374.46	18.80	0.00	0.00	0.00
2,300.00	12.00	90.50	2,260.66	2,702.84	-3.46	395.25	19.84	0.00	0.00	0.00
2,400.00	12.00	90.50	2,358.47	2,605.03	-3.65	416.04	20.89	0.00	0.00	0.00
END OF TANGENT										
2,408.05	12.00	90.50	2,366.35	2,597.15	-3.66	417.71	20.97	0.00	0.00	0.00
2,500.00	10.16	90.50	2,456.58	2,506.92	-3.82	435.38	21.86	2.00	-2.00	0.00
2,600.00	8.16	90.50	2,555.30	2,408.20	-3.96	451.30	22.66	2.00	-2.00	0.00
2,700.00	6.16	90.50	2,654.51	2,308.99	-4.06	463.76	23.28	2.00	-2.00	0.00
2,800.00	4.16	90.50	2,754.10	2,209.40	-4.14	472.76	23.74	2.00	-2.00	0.00
2,900.00	2.16	90.50	2,853.95	2,109.55	-4.19	478.27	24.01	2.00	-2.00	0.00
3,000.00	0.16	90.50	2,953.92	2,009.58	-4.21	480.30	24.11	2.00	-2.00	0.00
EOD TO VERTICAL										
3,008.05	0.00	0.00	2,961.97	2,001.53	-4.21	480.31	24.12	2.00	-2.00	0.00
3,100.00	0.00	0.00	3,053.92	1,909.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,200.00	0.00	0.00	3,153.92	1,809.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,300.00	0.00	0.00	3,253.92	1,709.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,400.00	0.00	0.00	3,353.92	1,609.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,500.00	0.00	0.00	3,453.92	1,509.58	-4.21	480.31	24.12	0.00	0.00	0.00
PARKMAN										
3,556.58	0.00	0.00	3,510.50	1,453.00	-4.21	480.31	24.12	0.00	0.00	0.00
3,600.00	0.00	0.00	3,553.92	1,409.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,700.00	0.00	0.00	3,653.92	1,309.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,800.00	0.00	0.00	3,753.92	1,209.58	-4.21	480.31	24.12	0.00	0.00	0.00
3,900.00	0.00	0.00	3,853.92	1,109.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,000.00	0.00	0.00	3,953.92	1,009.58	-4.21	480.31	24.12	0.00	0.00	0.00
SUSSEX										

Planning Report



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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,081.58	0.00	0.00	4,035.50	928.00	-4.21	480.31	24.12	0.00	0.00	0.00
4,100.00	0.00	0.00	4,053.92	909.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,200.00	0.00	0.00	4,153.92	809.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,300.00	0.00	0.00	4,253.92	709.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,400.00	0.00	0.00	4,353.92	609.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,500.00	0.00	0.00	4,453.92	509.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,600.00	0.00	0.00	4,553.92	409.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,700.00	0.00	0.00	4,653.92	309.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,800.00	0.00	0.00	4,753.92	209.58	-4.21	480.31	24.12	0.00	0.00	0.00
4,900.00	0.00	0.00	4,853.92	109.58	-4.21	480.31	24.12	0.00	0.00	0.00
5,000.00	0.00	0.00	4,953.92	9.58	-4.21	480.31	24.12	0.00	0.00	0.00
5,100.00	0.00	0.00	5,053.92	-90.42	-4.21	480.31	24.12	0.00	0.00	0.00
SHANNON										
5,179.58	0.00	0.00	5,133.50	-170.00	-4.21	480.31	24.12	0.00	0.00	0.00
5,200.00	0.00	0.00	5,153.92	-190.42	-4.21	480.31	24.12	0.00	0.00	0.00
5,300.00	0.00	0.00	5,253.92	-290.42	-4.21	480.31	24.12	0.00	0.00	0.00
5,400.00	0.00	0.00	5,353.92	-390.42	-4.21	480.31	24.12	0.00	0.00	0.00
5,500.00	0.00	0.00	5,453.92	-490.42	-4.21	480.31	24.12	0.00	0.00	0.00
5,600.00	0.00	0.00	5,553.92	-590.42	-4.21	480.31	24.12	0.00	0.00	0.00
5,700.00	0.00	0.00	5,653.92	-690.42	-4.21	480.31	24.12	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,735.58	0.00	0.00	5,689.50	-726.00	-4.21	480.31	24.12	0.00	0.00	0.00
5,800.00	6.44	181.06	5,753.79	-790.29	-7.83	480.24	27.73	10.00	10.00	0.00
5,900.00	16.44	181.06	5,851.67	-888.17	-27.63	479.88	47.50	10.00	10.00	0.00
6,000.00	26.44	181.06	5,944.64	-981.14	-64.14	479.20	83.94	10.00	10.00	0.00
6,100.00	36.44	181.06	6,029.85	-1,066.35	-116.22	478.24	135.94	10.00	10.00	0.00
6,200.00	46.44	181.06	6,104.72	-1,141.22	-182.31	477.01	201.92	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,291.99	55.64	181.06	6,162.50	-1,199.00	-253.75	475.69	273.25	10.00	10.00	0.00
6,300.00	56.44	181.06	6,166.97	-1,203.47	-260.39	475.57	279.88	10.00	10.00	0.00
6,400.00	66.44	181.06	6,214.72	-1,251.22	-348.09	473.95	367.44	10.00	10.00	0.00
NIOBRARA FORMATION										
6,449.41	71.38	181.06	6,232.50	-1,269.00	-394.17	473.09	413.44	10.00	10.00	0.00
NIOBRARA A CHALK										
6,483.81	74.82	181.06	6,242.50	-1,279.00	-427.07	472.48	446.29	10.00	10.00	0.00
6,500.00	76.44	181.06	6,246.52	-1,283.02	-442.75	472.19	461.95	10.00	10.00	0.00
6,600.00	86.44	181.06	6,261.39	-1,297.89	-541.50	470.37	560.53	10.00	10.00	0.00
BPI: 2346ft FSL & 1855ft FEL of Sec 17										
6,635.60	90.00	181.06	6,262.50	-1,299.00	-577.07	469.71	596.04	10.00	10.00	0.00
6,700.00	90.00	181.06	6,262.50	-1,299.00	-641.46	468.52	660.32	0.00	0.00	0.00
6,800.00	90.00	181.06	6,262.51	-1,299.01	-741.44	466.67	760.15	0.00	0.00	0.00
6,900.00	90.00	181.06	6,262.52	-1,299.02	-841.42	464.82	859.97	0.00	0.00	0.00
7,000.00	90.00	181.06	6,262.52	-1,299.02	-941.40	462.96	959.79	0.00	0.00	0.00
7,100.00	90.00	181.06	6,262.53	-1,299.03	-1,041.39	461.11	1,059.61	0.00	0.00	0.00
7,200.00	90.00	181.06	6,262.54	-1,299.04	-1,141.37	459.26	1,159.43	0.00	0.00	0.00
7,300.00	90.00	181.06	6,262.54	-1,299.04	-1,241.35	457.41	1,259.25	0.00	0.00	0.00
7,400.00	90.00	181.06	6,262.55	-1,299.05	-1,341.34	455.56	1,359.07	0.00	0.00	0.00
7,500.00	90.00	181.06	6,262.55	-1,299.05	-1,441.32	453.71	1,458.89	0.00	0.00	0.00
7,600.00	90.00	181.06	6,262.56	-1,299.06	-1,541.30	451.87	1,558.71	0.00	0.00	0.00
7,700.00	90.00	181.06	6,262.56	-1,299.06	-1,641.28	450.02	1,658.53	0.00	0.00	0.00
7,800.00	90.00	181.06	6,262.57	-1,299.07	-1,741.27	448.17	1,758.35	0.00	0.00	0.00
7,900.00	90.00	181.06	6,262.57	-1,299.07	-1,841.25	446.32	1,858.17	0.00	0.00	0.00
8,000.00	90.00	181.06	6,262.58	-1,299.08	-1,941.23	444.47	1,957.99	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HUNT FED 8-60 17B-20-6
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Site:	SW NE SEC. 17 T8N R60W 6th P.M.	North Reference:	True
Well:	HUNT FED 8-60 17B-20-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.00	90.00	181.06	6,262.58	-1,299.08	-2,041.22	442.62	2,057.81	0.00	0.00	0.00
8,200.00	90.00	181.06	6,262.59	-1,299.09	-2,141.20	440.77	2,157.63	0.00	0.00	0.00
8,300.00	90.00	181.06	6,262.59	-1,299.09	-2,241.18	438.92	2,257.45	0.00	0.00	0.00
8,400.00	90.00	181.06	6,262.60	-1,299.10	-2,341.16	437.07	2,357.27	0.00	0.00	0.00
8,500.00	90.00	181.06	6,262.60	-1,299.10	-2,441.15	435.22	2,457.09	0.00	0.00	0.00
8,600.00	90.00	181.06	6,262.60	-1,299.10	-2,541.13	433.37	2,556.91	0.00	0.00	0.00
8,700.00	90.00	181.06	6,262.61	-1,299.11	-2,641.11	431.52	2,656.73	0.00	0.00	0.00
8,800.00	90.00	181.06	6,262.61	-1,299.11	-2,741.10	429.67	2,756.55	0.00	0.00	0.00
8,900.00	90.00	181.06	6,262.61	-1,299.11	-2,841.08	427.83	2,856.37	0.00	0.00	0.00
9,000.00	90.00	181.06	6,262.61	-1,299.11	-2,941.06	425.98	2,956.19	0.00	0.00	0.00
9,100.00	90.00	181.06	6,262.62	-1,299.12	-3,041.05	424.13	3,056.01	0.00	0.00	0.00
9,200.00	90.00	181.06	6,262.62	-1,299.12	-3,141.03	422.28	3,155.83	0.00	0.00	0.00
9,300.00	90.00	181.06	6,262.62	-1,299.12	-3,241.01	420.43	3,255.65	0.00	0.00	0.00
9,400.00	90.00	181.06	6,262.62	-1,299.12	-3,340.99	418.58	3,355.47	0.00	0.00	0.00
9,500.00	90.00	181.06	6,262.62	-1,299.12	-3,440.98	416.74	3,455.29	0.00	0.00	0.00
9,600.00	90.00	181.06	6,262.63	-1,299.13	-3,540.96	414.89	3,555.11	0.00	0.00	0.00
9,700.00	90.00	181.06	6,262.63	-1,299.13	-3,640.94	413.04	3,654.93	0.00	0.00	0.00
9,800.00	90.00	181.06	6,262.63	-1,299.13	-3,740.93	411.19	3,754.75	0.00	0.00	0.00
9,900.00	90.00	181.06	6,262.63	-1,299.13	-3,840.91	409.34	3,854.58	0.00	0.00	0.00
10,000.00	90.00	181.06	6,262.63	-1,299.13	-3,940.89	407.50	3,954.40	0.00	0.00	0.00
10,100.00	90.00	181.06	6,262.63	-1,299.13	-4,040.87	405.65	4,054.22	0.00	0.00	0.00
10,200.00	90.00	181.06	6,262.63	-1,299.13	-4,140.86	403.80	4,154.04	0.00	0.00	0.00
10,300.00	90.00	181.06	6,262.63	-1,299.13	-4,240.84	401.95	4,253.86	0.00	0.00	0.00
10,400.00	90.00	181.06	6,262.63	-1,299.13	-4,340.82	400.11	4,353.68	0.00	0.00	0.00
10,500.00	90.00	181.06	6,262.63	-1,299.13	-4,440.81	398.26	4,453.50	0.00	0.00	0.00
10,600.00	90.00	181.06	6,262.63	-1,299.13	-4,540.79	396.41	4,553.32	0.00	0.00	0.00
10,700.00	90.00	181.06	6,262.63	-1,299.13	-4,640.77	394.56	4,653.14	0.00	0.00	0.00
10,800.00	90.00	181.06	6,262.63	-1,299.13	-4,740.76	392.72	4,752.96	0.00	0.00	0.00
10,900.00	90.00	181.06	6,262.63	-1,299.13	-4,840.74	390.87	4,852.78	0.00	0.00	0.00
11,000.00	90.00	181.06	6,262.63	-1,299.13	-4,940.72	389.02	4,952.60	0.00	0.00	0.00
11,100.00	90.00	181.06	6,262.62	-1,299.12	-5,040.70	387.18	5,052.42	0.00	0.00	0.00
11,200.00	90.00	181.06	6,262.62	-1,299.12	-5,140.69	385.33	5,152.24	0.00	0.00	0.00
11,300.00	90.00	181.06	6,262.62	-1,299.12	-5,240.67	383.48	5,252.06	0.00	0.00	0.00
11,400.00	90.00	181.06	6,262.62	-1,299.12	-5,340.65	381.64	5,351.88	0.00	0.00	0.00
11,500.00	90.00	181.06	6,262.62	-1,299.12	-5,440.64	379.79	5,451.70	0.00	0.00	0.00
11,600.00	90.00	181.06	6,262.61	-1,299.11	-5,540.62	377.94	5,551.52	0.00	0.00	0.00
11,700.00	90.00	181.06	6,262.61	-1,299.11	-5,640.60	376.10	5,651.34	0.00	0.00	0.00
11,800.00	90.00	181.06	6,262.61	-1,299.11	-5,740.58	374.25	5,751.16	0.00	0.00	0.00
11,900.00	90.00	181.06	6,262.61	-1,299.11	-5,840.57	372.40	5,850.98	0.00	0.00	0.00
12,000.00	90.00	181.06	6,262.60	-1,299.10	-5,940.55	370.56	5,950.80	0.00	0.00	0.00
12,100.00	90.00	181.06	6,262.60	-1,299.10	-6,040.53	368.71	6,050.63	0.00	0.00	0.00
12,200.00	90.00	181.06	6,262.60	-1,299.10	-6,140.52	366.87	6,150.45	0.00	0.00	0.00
12,300.00	90.00	181.06	6,262.59	-1,299.09	-6,240.50	365.02	6,250.27	0.00	0.00	0.00
12,400.00	90.00	181.06	6,262.59	-1,299.09	-6,340.48	363.17	6,350.09	0.00	0.00	0.00
12,500.00	90.00	181.06	6,262.58	-1,299.08	-6,440.47	361.33	6,449.91	0.00	0.00	0.00
12,600.00	90.00	181.06	6,262.58	-1,299.08	-6,540.45	359.48	6,549.73	0.00	0.00	0.00
12,700.00	90.00	181.06	6,262.58	-1,299.08	-6,640.43	357.64	6,649.55	0.00	0.00	0.00
12,800.00	90.00	181.06	6,262.57	-1,299.07	-6,740.41	355.79	6,749.37	0.00	0.00	0.00
12,900.00	90.00	181.06	6,262.57	-1,299.07	-6,840.40	353.95	6,849.19	0.00	0.00	0.00
13,000.00	90.00	181.06	6,262.56	-1,299.06	-6,940.38	352.10	6,949.01	0.00	0.00	0.00
13,100.00	90.00	181.06	6,262.55	-1,299.05	-7,040.36	350.26	7,048.83	0.00	0.00	0.00
13,200.00	90.00	181.06	6,262.55	-1,299.05	-7,140.35	348.41	7,148.65	0.00	0.00	0.00
13,300.00	90.00	181.06	6,262.54	-1,299.04	-7,240.33	346.57	7,248.47	0.00	0.00	0.00
13,400.00	90.00	181.06	6,262.54	-1,299.04	-7,340.31	344.72	7,348.29	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well HUNT FED 8-60 17B-20-6
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4963.50usft (Original Well Elev)
Site:	SW NE SEC. 17 T8N R60W 6th P.M.	North Reference:	True
Well:	HUNT FED 8-60 17B-20-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.00	90.00	181.06	6,262.53	-1,299.03	-7,440.30	342.88	7,448.11	0.00	0.00	0.00
13,600.00	90.00	181.06	6,262.53	-1,299.03	-7,540.28	341.03	7,547.93	0.00	0.00	0.00
13,700.00	90.00	181.06	6,262.52	-1,299.02	-7,640.26	339.19	7,647.75	0.00	0.00	0.00
13,800.00	90.00	181.06	6,262.51	-1,299.01	-7,740.24	337.34	7,747.57	0.00	0.00	0.00
13,900.00	90.00	181.06	6,262.51	-1,299.01	-7,840.23	335.50	7,847.40	0.00	0.00	0.00
EPI: 300ft FSL & 1841ft FEL of Sec 20										
13,973.67	90.00	181.06	6,262.50	-1,299.00	-7,913.88	334.14	7,920.93	0.00	0.00	0.00
EOT TO 180.95° INC										
13,977.25	90.00	180.95	6,262.50	-1,299.00	-7,917.46	334.08	7,924.51	3.00	-0.11	-3.00
14,000.00	90.00	180.95	6,262.50	-1,299.00	-7,940.21	333.70	7,947.22	0.00	0.00	0.00
BHL: 200ft FSL & 1841ft FEL of Sec 20										
14,073.87	90.00	180.95	6,262.50	-1,299.00	-8,014.07	332.47	8,020.96	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
514.95	513.50	PIERRE SHALE (BASE FOX HILLS				
3,556.58	3,510.50	PARKMAN				
4,081.58	4,035.50	SUSSEX				
5,179.58	5,133.50	SHANNON				
6,291.99	6,162.50	SHARON SPRINGS SHALE				
6,449.41	6,232.50	NIOBRARA FORMATION				
6,483.81	6,242.50	NIOBRARA A CHALK				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.00	0.00	0.00	0.00	SHL: 2366ft FNL & 2335ft FEL of Sec 17
100.00	100.00	0.00	0.00	START NUDGE (2°/100ft BUR)
700.00	695.62	-0.55	62.60	EOB TO 12° INC
2,408.05	2,366.35	-3.66	417.71	END OF TANGENT
3,008.05	2,961.97	-4.21	480.31	EOD TO VERTICAL
5,735.58	5,689.50	-4.21	480.31	KOP (10°/100ft BUR)
6,635.60	6,262.50	-577.07	469.71	BPI: 2346ft FSL & 1855ft FEL of Sec 17
13,973.67	6,262.50	-7,913.88	334.14	EPI: 300ft FSL & 1841ft FEL of Sec 20
13,977.25	6,262.50	-7,917.46	334.08	EOT TO 180.95° INC
14,073.87	6,262.50	-8,014.07	332.47	BHL: 200ft FSL & 1841ft FEL of Sec 20