

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

SW NE SEC. 13 T9N R60W 6th P.M.

ROHN FED 9-60 13-24-3

ORIGINAL WELLBORE

10 January, 2018

Plan: PROPOSAL #2





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW NE SEC. 13 T9N R60W 6th P.M.
Well: ROHN FED 9-60 13-24-3
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS									
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: 1994ft FNL & 1653ft FEL of Sec 13	
300.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2.5°/100ft BUR)	
1449.20	1503.79	30.09	251.58	-97.63	-293.11	168.17	308.94	EOB TO 30.09° INC	
4500.84	5030.90	30.09	251.58	-656.50	-1971.09	1130.87	2077.55	END OF TANGENT	
5650.04	6234.69	0.00	0.00	-754.13	-2264.21	1299.03	2386.50	EOD TO VERTICAL	
5750.04	6334.69	0.00	0.00	-754.13	-2264.21	1299.03	2386.50	KOP (10°/100ft BUR)	
6323.00	7234.69	90.00	179.37	-1327.05	-2257.91	1851.98	2959.45	BPI: 2080ft FSL & 1416ft FWL of Sec 13	
6323.00	14000.86	90.00	179.36	-8092.80	-2182.87	8381.66	9725.62	EPI: 600ft FSL & 1417ft FWL of Sec 24	
6323.00	14301.09	90.00	179.38	-8393.01	-2179.57	8671.40	10025.85	BHL: 300ft FSL & 1416ft FWL of Sec 24	

PROPOSED LOCAL COORDINATES:

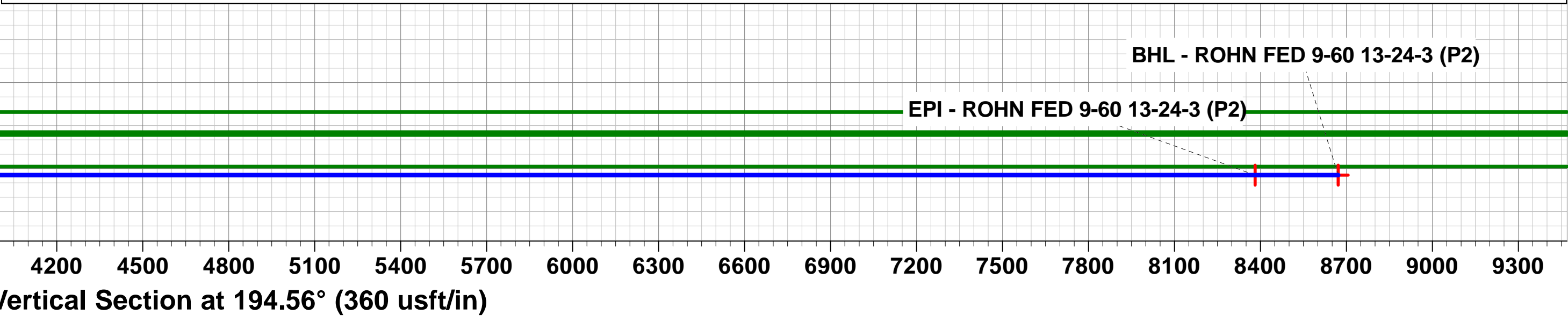
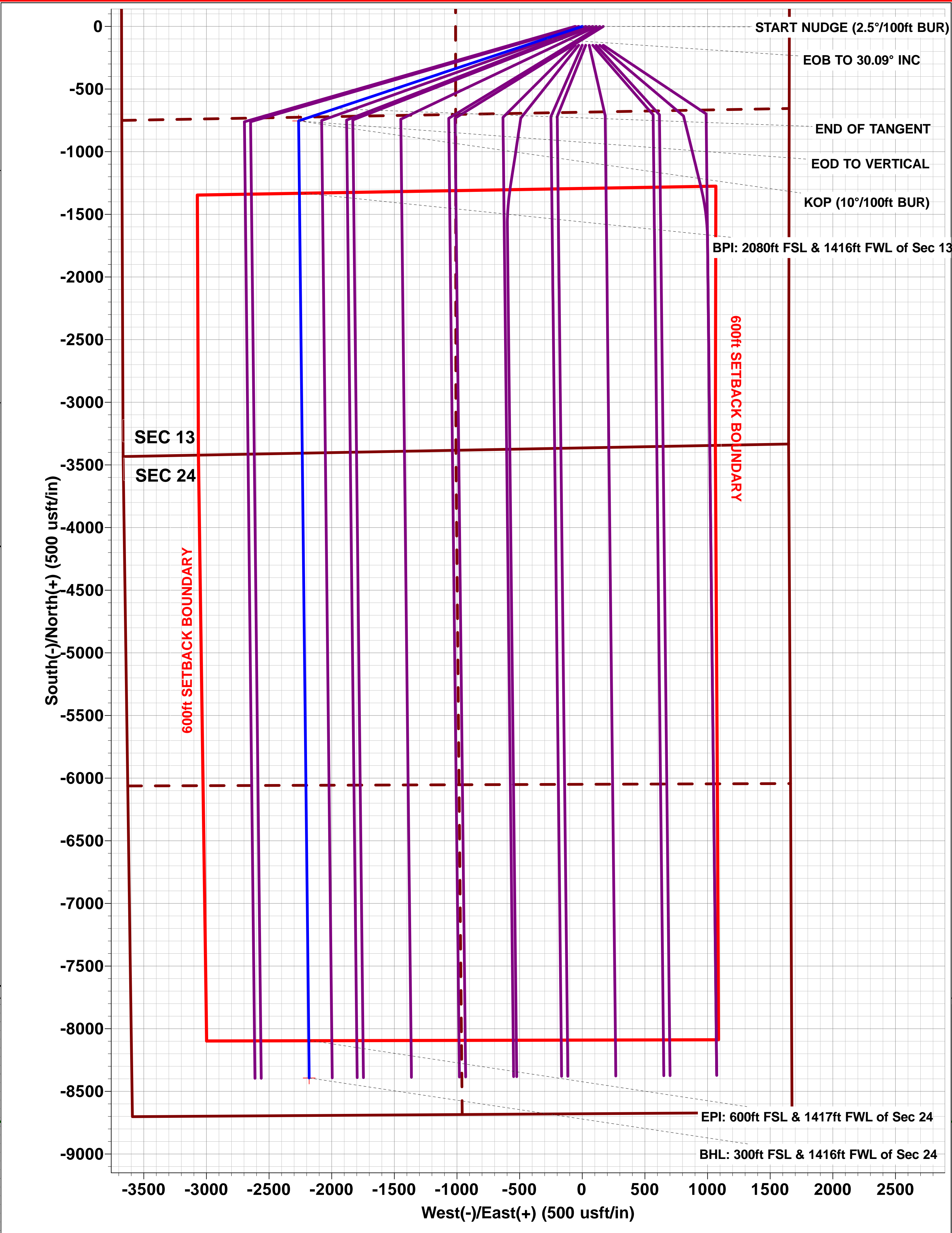
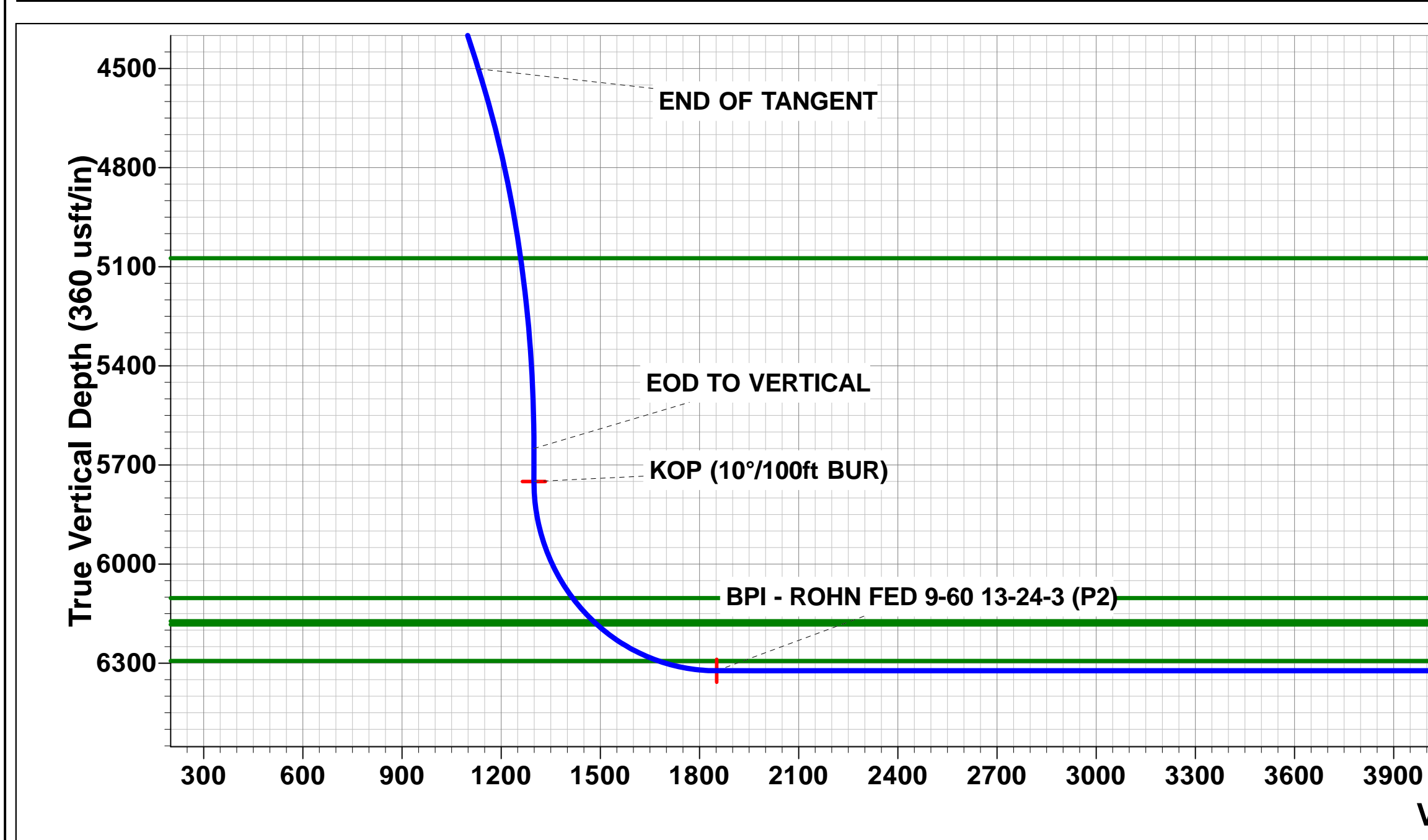
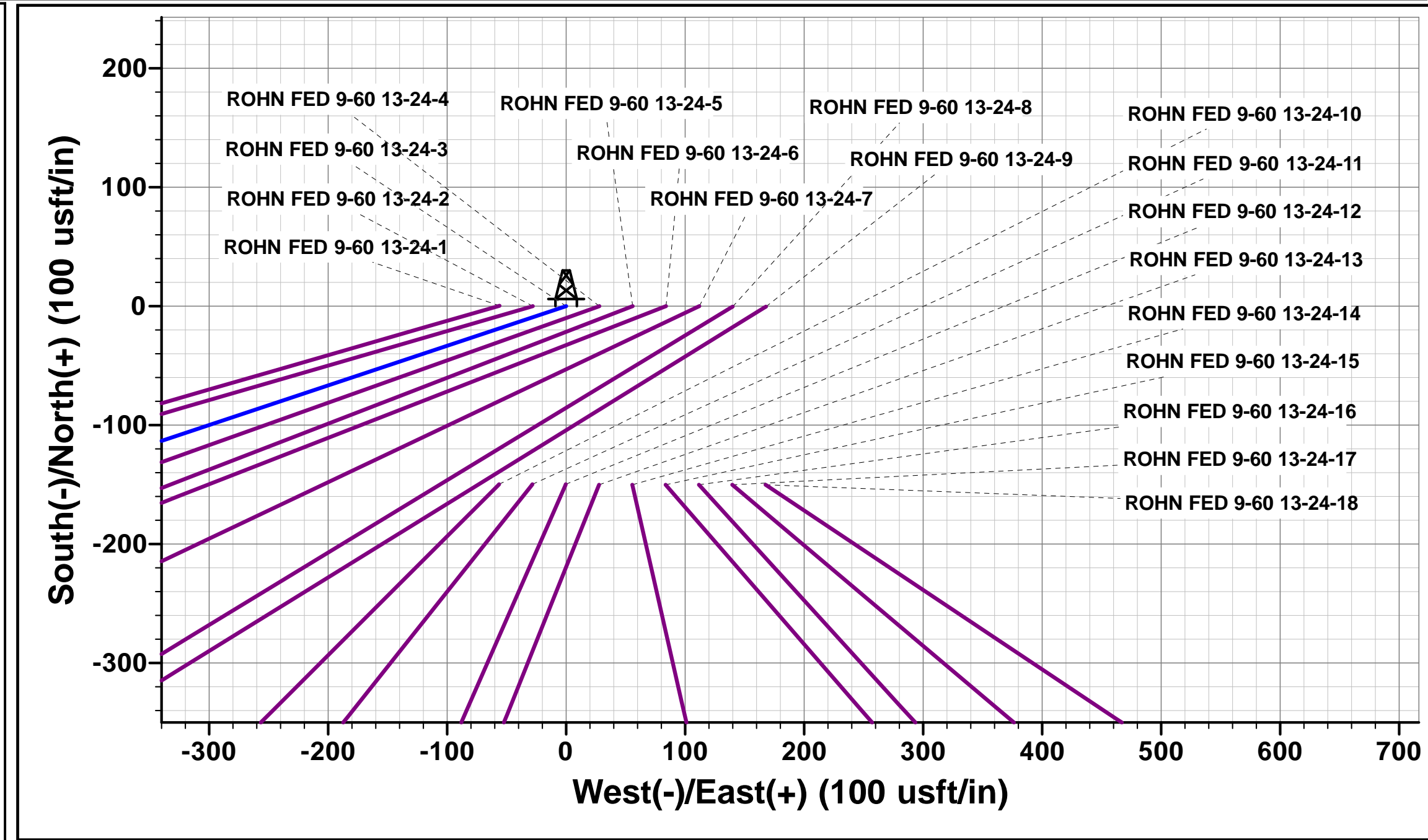
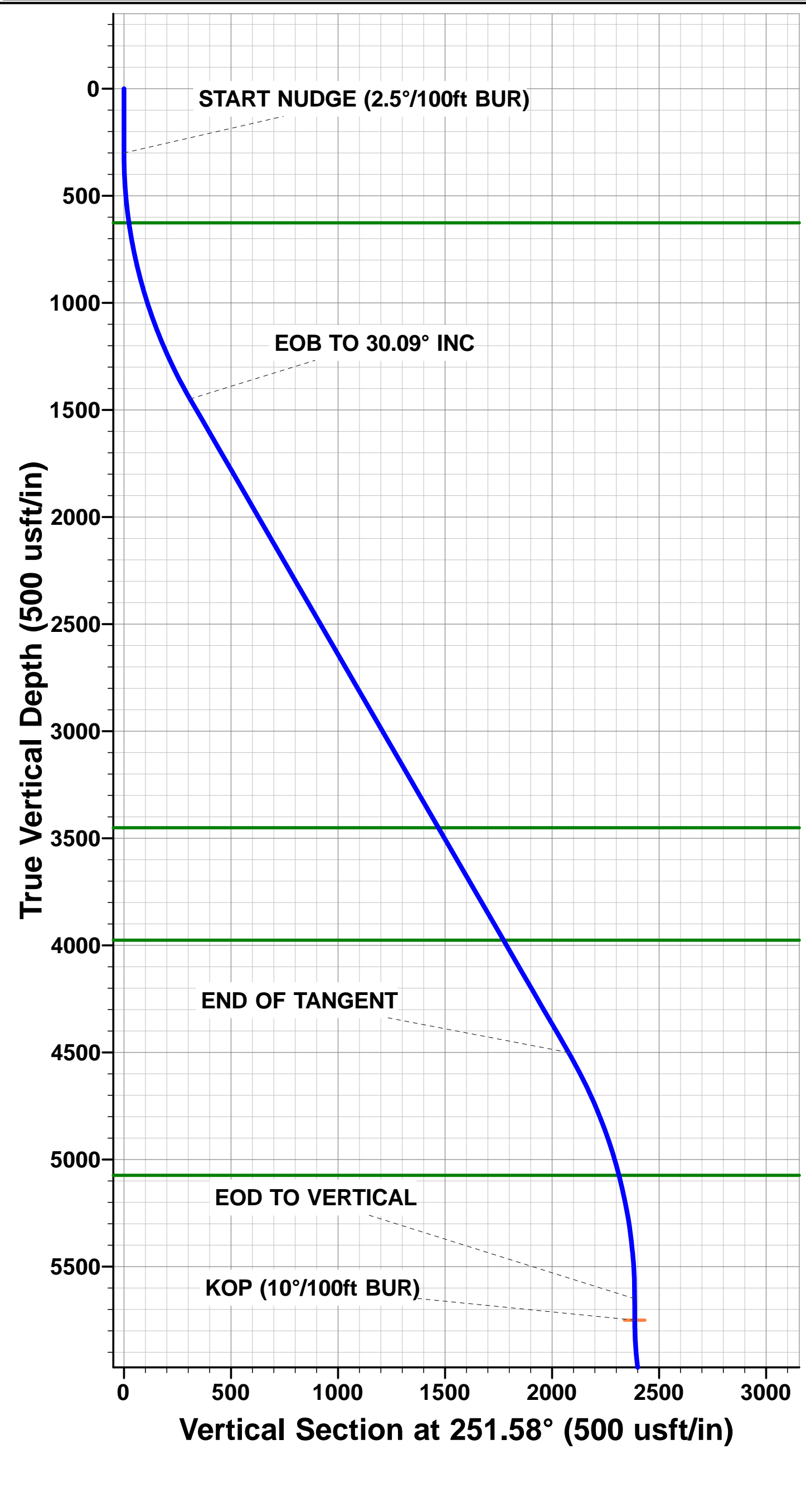
SHL: 1994ft FNL & 1653ft FEL Sec 13

BPI: 2080ft FSL & 1416ft FWL Sec 13

EPI: 600ft FSL & 1417ft FWL Sec 24

BHL: 300ft FSL & 1416ft FWL of Sec 24

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - ROHN FED 9-60 13-24-3 (P2)	5750.04	-754.13	-2264.21	40.750390	-104.044535
BPI - ROHN FED 9-60 13-24-3 (P2)	6323.00	-1327.05	-2257.91	40.748817	-104.044512
EPI - ROHN FED 9-60 13-24-3 (P2)	6323.00	-8092.81	-2182.87	40.730247	-104.044239
BHL - ROHN FED 9-60 13-24-3 (P2)	6323.00	-8393.01	-2179.57	40.729423	-104.044227



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-3	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. 13 T9N R60W 6th P.M.		
Site Position:		Northing:	1,520,312.28 usft
From:	Lat/Long	Easting:	3,405,444.26 usft
Position Uncertainty:	0.00 usft	Slot Radius:	1.10000 ft
		Latitude:	40.752461
		Longitude:	-104.036565
		Grid Convergence:	0.95 °

Well	ROHN FED 9-60 13-24-3		
Well Position	+N/-S	-0.38 usft	Northing: 1,520,312.83 usft
	+E/-W	55.97 usft	Easting: 3,405,500.23 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	40.752460
		Longitude:	-104.036363
		Ground Level:	5,039.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/01/2018	7.78	67.23	52,582

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 (°)
	6,323.00	0.00	0.00	194.56

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	-5,064.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	-4,764.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,503.79	30.09	251.58	1,449.20	-3,614.80	-97.63	-293.11	2.50	2.50	0.00	251.58	
5,030.90	30.09	251.58	4,500.84	-563.16	-656.50	-1,971.10	0.00	0.00	0.00	0.00	
6,234.69	0.00	0.00	5,650.04	586.04	-754.13	-2,264.21	2.50	-2.50	0.00	180.00	
6,334.69	0.00	0.00	5,750.04	686.04	-754.13	-2,264.21	0.00	0.00	0.00	0.00	KOP - ROHN FED 9
7,234.69	90.00	179.37	6,323.00	1,259.00	-1,327.05	-2,257.91	10.00	10.00	19.93	179.37	BPI - ROHN FED 9
14,000.86	90.00	179.36	6,323.00	1,259.00	-8,092.81	-2,182.87	0.00	0.00	0.00	-84.65	EPI - ROHN FED 9
14,301.09	90.00	179.38	6,323.00	1,259.00	-8,393.01	-2,179.57	0.01	0.00	0.01	92.67	BHL - ROHN FED 9

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-3	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: 1994ft FNL & 1653ft FEL of Sec 13										
0.00	0.00	0.00	0.00	5,064.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,964.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	4,864.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2.5°/100ft BUR)										
300.00	0.00	0.00	300.00	4,764.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.50	251.58	399.97	4,664.03	-0.69	-2.07	1.19	2.50	2.50	0.00
500.00	5.00	251.58	499.75	4,564.25	-2.76	-8.27	4.75	2.50	2.50	0.00
600.00	7.50	251.58	599.14	4,464.86	-6.20	-18.60	10.67	2.50	2.50	0.00
PIERRE SHALE (BASE OF FOX HILLS)										
628.12	8.20	251.58	627.00	4,437.00	-7.41	-22.25	12.76	2.50	2.50	0.00
700.00	10.00	251.58	697.97	4,366.03	-11.00	-33.03	18.95	2.50	2.50	0.00
800.00	12.50	251.58	796.04	4,267.96	-17.17	-51.54	29.57	2.50	2.50	0.00
900.00	15.00	251.58	893.17	4,170.83	-24.68	-74.09	42.51	2.50	2.50	0.00
1,000.00	17.50	251.58	989.17	4,074.83	-33.52	-100.64	57.74	2.50	2.50	0.00
1,100.00	20.00	251.58	1,083.85	3,980.15	-43.68	-131.13	75.23	2.50	2.50	0.00
1,200.00	22.50	251.58	1,177.05	3,886.95	-55.13	-165.52	94.96	2.50	2.50	0.00
1,300.00	25.00	251.58	1,268.57	3,795.43	-67.85	-203.72	116.88	2.50	2.50	0.00
1,400.00	27.50	251.58	1,358.25	3,705.75	-81.83	-245.68	140.95	2.50	2.50	0.00
1,500.00	30.00	251.58	1,445.92	3,618.08	-97.03	-291.31	167.13	2.50	2.50	0.00
EOB TO 30.09° INC										
1,503.79	30.09	251.58	1,449.20	3,614.80	-97.63	-293.11	168.17	2.50	2.50	0.00
1,600.00	30.09	251.58	1,532.44	3,531.56	-112.87	-338.89	194.43	0.00	0.00	0.00
1,700.00	30.09	251.58	1,618.96	3,445.04	-128.72	-386.46	221.72	0.00	0.00	0.00
1,800.00	30.09	251.58	1,705.48	3,358.52	-144.56	-434.03	249.02	0.00	0.00	0.00
1,900.00	30.09	251.58	1,792.00	3,272.00	-160.41	-481.61	276.31	0.00	0.00	0.00
2,000.00	30.09	251.58	1,878.52	3,185.48	-176.25	-529.18	303.60	0.00	0.00	0.00
2,100.00	30.09	251.58	1,965.04	3,098.96	-192.10	-576.75	330.90	0.00	0.00	0.00
2,200.00	30.09	251.58	2,051.56	3,012.44	-207.94	-624.33	358.19	0.00	0.00	0.00
2,300.00	30.09	251.58	2,138.07	2,925.93	-223.79	-671.90	385.49	0.00	0.00	0.00
2,400.00	30.09	251.58	2,224.59	2,839.41	-239.63	-719.48	412.78	0.00	0.00	0.00
2,500.00	30.09	251.58	2,311.11	2,752.89	-255.48	-767.05	440.07	0.00	0.00	0.00
2,600.00	30.09	251.58	2,397.63	2,666.37	-271.32	-814.62	467.37	0.00	0.00	0.00
2,700.00	30.09	251.58	2,484.15	2,579.85	-287.17	-862.20	494.66	0.00	0.00	0.00
2,800.00	30.09	251.58	2,570.67	2,493.33	-303.01	-909.77	521.96	0.00	0.00	0.00
2,900.00	30.09	251.58	2,657.19	2,406.81	-318.86	-957.34	549.25	0.00	0.00	0.00
3,000.00	30.09	251.58	2,743.71	2,320.29	-334.70	-1,004.92	576.55	0.00	0.00	0.00
3,100.00	30.09	251.58	2,830.23	2,233.77	-350.55	-1,052.49	603.84	0.00	0.00	0.00
3,200.00	30.09	251.58	2,916.75	2,147.25	-366.39	-1,100.07	631.13	0.00	0.00	0.00
3,300.00	30.09	251.58	3,003.27	2,060.73	-382.24	-1,147.64	658.43	0.00	0.00	0.00
3,400.00	30.09	251.58	3,089.79	1,974.21	-398.08	-1,195.21	685.72	0.00	0.00	0.00
3,500.00	30.09	251.58	3,176.31	1,887.69	-413.93	-1,242.79	713.02	0.00	0.00	0.00
3,600.00	30.09	251.58	3,262.83	1,801.17	-429.77	-1,290.36	740.31	0.00	0.00	0.00
3,700.00	30.09	251.58	3,349.35	1,714.65	-445.62	-1,337.94	767.61	0.00	0.00	0.00
3,800.00	30.09	251.58	3,435.87	1,628.13	-461.47	-1,385.51	794.90	0.00	0.00	0.00
PARKMAN										
3,817.49	30.09	251.58	3,451.00	1,613.00	-464.24	-1,393.83	799.67	0.00	0.00	0.00
3,900.00	30.09	251.58	3,522.39	1,541.61	-477.31	-1,433.08	822.19	0.00	0.00	0.00
4,000.00	30.09	251.58	3,608.91	1,455.09	-493.16	-1,480.66	849.49	0.00	0.00	0.00
4,100.00	30.09	251.58	3,695.43	1,368.57	-509.00	-1,528.23	876.78	0.00	0.00	0.00
4,200.00	30.09	251.58	3,781.95	1,282.05	-524.85	-1,575.80	904.08	0.00	0.00	0.00
4,300.00	30.09	251.58	3,868.47	1,195.53	-540.69	-1,623.38	931.37	0.00	0.00	0.00
4,400.00	30.09	251.58	3,954.99	1,109.01	-556.54	-1,670.95	958.67	0.00	0.00	0.00

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-3	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)
SUSSEX										
4,424.28	30.09	251.58	3,976.00	1,088.00	-560.38	-1,682.50	965.29	0.00	0.00	0.00
4,500.00	30.09	251.58	4,041.51	1,022.49	-572.38	-1,718.53	985.96	0.00	0.00	0.00
4,600.00	30.09	251.58	4,128.03	935.97	-588.23	-1,766.10	1,013.25	0.00	0.00	0.00
4,700.00	30.09	251.58	4,214.55	849.45	-604.07	-1,813.67	1,040.55	0.00	0.00	0.00
4,800.00	30.09	251.58	4,301.07	762.93	-619.92	-1,861.25	1,067.84	0.00	0.00	0.00
4,900.00	30.09	251.58	4,387.59	676.41	-635.76	-1,908.82	1,095.14	0.00	0.00	0.00
5,000.00	30.09	251.58	4,474.11	589.89	-651.61	-1,956.39	1,122.43	0.00	0.00	0.00
END OF TANGENT										
5,030.90	30.09	251.58	4,500.84	563.16	-656.50	-1,971.09	1,130.87	0.00	0.00	0.00
5,100.00	28.37	251.58	4,561.14	502.86	-667.17	-2,003.11	1,149.23	2.50	-2.50	0.00
5,200.00	25.87	251.58	4,650.14	413.86	-681.57	-2,046.35	1,174.04	2.50	-2.50	0.00
5,300.00	23.37	251.58	4,741.04	322.96	-694.73	-2,085.87	1,196.71	2.50	-2.50	0.00
5,400.00	20.87	251.58	4,833.68	230.32	-706.63	-2,121.59	1,217.21	2.50	-2.50	0.00
5,500.00	18.37	251.58	4,927.87	136.13	-717.24	-2,153.44	1,235.48	2.50	-2.50	0.00
5,600.00	15.87	251.58	5,023.43	40.57	-726.54	-2,181.36	1,251.50	2.50	-2.50	0.00
SHANNON										
5,652.41	14.56	251.58	5,074.00	-10.00	-730.88	-2,194.41	1,258.98	2.50	-2.50	0.00
5,700.00	13.37	251.58	5,120.19	-56.19	-734.51	-2,205.30	1,265.24	2.50	-2.50	0.00
5,800.00	10.87	251.58	5,217.95	-153.95	-741.14	-2,225.22	1,276.66	2.50	-2.50	0.00
5,900.00	8.37	251.58	5,316.54	-252.54	-746.42	-2,241.06	1,285.75	2.50	-2.50	0.00
6,000.00	5.87	251.58	5,415.76	-351.76	-750.34	-2,252.82	1,292.50	2.50	-2.50	0.00
6,100.00	3.37	251.58	5,515.43	-451.43	-752.88	-2,260.46	1,296.88	2.50	-2.50	0.00
6,200.00	0.87	251.58	5,615.35	-551.35	-754.05	-2,263.96	1,298.89	2.50	-2.50	0.00
EOD TO VERTICAL										
6,234.69	0.00	0.00	5,650.04	-586.04	-754.13	-2,264.21	1,299.03	2.50	-2.50	312.54
6,300.00	0.00	0.00	5,715.35	-651.35	-754.13	-2,264.21	1,299.03	0.00	0.00	0.00
KOP (10°/100ft BUR)										
6,334.69	0.00	0.00	5,750.04	-686.04	-754.13	-2,264.21	1,299.03	0.00	0.00	0.00
6,400.00	6.53	179.37	5,815.21	-751.21	-757.85	-2,264.17	1,302.62	10.00	10.00	0.00
6,500.00	16.53	179.37	5,913.06	-849.06	-777.81	-2,263.95	1,321.89	10.00	10.00	0.00
6,600.00	26.53	179.37	6,005.97	-941.97	-814.46	-2,263.55	1,357.26	10.00	10.00	0.00
6,700.00	36.53	179.37	6,091.10	-1,027.10	-866.69	-2,262.97	1,407.67	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,714.96	38.03	179.37	6,103.00	-1,039.00	-875.75	-2,262.87	1,416.41	10.00	10.00	0.00
6,800.00	46.53	179.37	6,165.86	-1,101.86	-932.90	-2,262.25	1,471.57	10.00	10.00	0.00
NIORARA FORMATION										
6,810.48	47.58	179.37	6,173.00	-1,109.00	-940.57	-2,262.16	1,478.97	10.00	10.00	0.00
NIORARA A CHALK										
6,825.52	49.08	179.37	6,183.00	-1,119.00	-951.81	-2,262.04	1,489.82	10.00	10.00	0.00
6,900.00	56.53	179.37	6,227.99	-1,163.99	-1,011.09	-2,261.39	1,547.04	10.00	10.00	0.00
7,000.00	66.53	179.37	6,275.60	-1,211.60	-1,098.88	-2,260.42	1,631.76	10.00	10.00	0.00
NIORARA B CHALK										
7,048.46	71.38	179.37	6,293.00	-1,229.00	-1,144.10	-2,259.92	1,675.40	10.00	10.00	0.00
7,100.00	76.53	179.37	6,307.24	-1,243.24	-1,193.61	-2,259.38	1,723.18	10.00	10.00	0.00
7,200.00	86.53	179.37	6,321.95	-1,257.95	-1,292.38	-2,258.29	1,818.52	10.00	10.00	0.00
BPI: 2080ft FSL & 1416ft FWL of Sec 13										
7,234.69	90.00	179.37	6,323.00	-1,259.00	-1,327.05	-2,257.91	1,851.98	10.00	10.00	0.00
7,300.00	90.00	179.37	6,323.00	-1,259.00	-1,392.36	-2,257.20	1,915.01	0.00	0.00	0.00
7,400.00	90.00	179.37	6,323.00	-1,259.00	-1,492.35	-2,256.10	2,011.51	0.00	0.00	0.00
7,500.00	90.00	179.37	6,323.00	-1,259.00	-1,592.34	-2,255.00	2,108.02	0.00	0.00	0.00
7,600.00	90.00	179.37	6,323.00	-1,259.00	-1,692.34	-2,253.90	2,204.53	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-3	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)
7,700.00	90.00	179.37	6,323.00	-1,259.00	-1,792.33	-2,252.80	2,301.04	0.00	0.00	0.00
7,800.00	90.00	179.37	6,323.00	-1,259.00	-1,892.33	-2,251.70	2,397.54	0.00	0.00	0.00
7,900.00	90.00	179.37	6,323.01	-1,259.01	-1,992.32	-2,250.59	2,494.05	0.00	0.00	0.00
8,000.00	90.00	179.37	6,323.01	-1,259.01	-2,092.31	-2,249.49	2,590.56	0.00	0.00	0.00
8,100.00	90.00	179.37	6,323.01	-1,259.01	-2,192.31	-2,248.39	2,687.06	0.00	0.00	0.00
8,200.00	90.00	179.37	6,323.01	-1,259.01	-2,292.30	-2,247.29	2,783.57	0.00	0.00	0.00
8,300.00	90.00	179.37	6,323.01	-1,259.01	-2,392.30	-2,246.19	2,880.08	0.00	0.00	0.00
8,400.00	90.00	179.37	6,323.01	-1,259.01	-2,492.29	-2,245.09	2,976.58	0.00	0.00	0.00
8,500.00	90.00	179.37	6,323.01	-1,259.01	-2,592.28	-2,243.98	3,073.09	0.00	0.00	0.00
8,600.00	90.00	179.37	6,323.01	-1,259.01	-2,692.28	-2,242.88	3,169.60	0.00	0.00	0.00
8,700.00	90.00	179.37	6,323.01	-1,259.01	-2,792.27	-2,241.78	3,266.10	0.00	0.00	0.00
8,800.00	90.00	179.37	6,323.01	-1,259.01	-2,892.27	-2,240.67	3,362.61	0.00	0.00	0.00
8,900.00	90.00	179.37	6,323.01	-1,259.01	-2,992.26	-2,239.57	3,459.12	0.00	0.00	0.00
9,000.00	90.00	179.37	6,323.01	-1,259.01	-3,092.25	-2,238.47	3,555.62	0.00	0.00	0.00
9,100.00	90.00	179.37	6,323.01	-1,259.01	-3,192.25	-2,237.36	3,652.13	0.00	0.00	0.00
9,200.00	90.00	179.37	6,323.01	-1,259.01	-3,292.24	-2,236.26	3,748.63	0.00	0.00	0.00
9,300.00	90.00	179.37	6,323.01	-1,259.01	-3,392.23	-2,235.15	3,845.14	0.00	0.00	0.00
9,400.00	90.00	179.37	6,323.01	-1,259.01	-3,492.23	-2,234.05	3,941.65	0.00	0.00	0.00
9,500.00	90.00	179.37	6,323.01	-1,259.01	-3,592.22	-2,232.94	4,038.15	0.00	0.00	0.00
9,600.00	90.00	179.37	6,323.01	-1,259.01	-3,692.22	-2,231.84	4,134.66	0.00	0.00	0.00
9,700.00	90.00	179.37	6,323.01	-1,259.01	-3,792.21	-2,230.73	4,231.16	0.00	0.00	0.00
9,800.00	90.00	179.37	6,323.02	-1,259.02	-3,892.20	-2,229.62	4,327.67	0.00	0.00	0.00
9,900.00	90.00	179.37	6,323.02	-1,259.02	-3,992.20	-2,228.52	4,424.17	0.00	0.00	0.00
10,000.00	90.00	179.37	6,323.02	-1,259.02	-4,092.19	-2,227.41	4,520.68	0.00	0.00	0.00
10,100.00	90.00	179.37	6,323.02	-1,259.02	-4,192.19	-2,226.30	4,617.18	0.00	0.00	0.00
10,200.00	90.00	179.37	6,323.02	-1,259.02	-4,292.18	-2,225.19	4,713.69	0.00	0.00	0.00
10,300.00	90.00	179.37	6,323.02	-1,259.02	-4,392.17	-2,224.09	4,810.19	0.00	0.00	0.00
10,400.00	90.00	179.36	6,323.02	-1,259.02	-4,492.17	-2,222.98	4,906.70	0.00	0.00	0.00
10,500.00	90.00	179.36	6,323.02	-1,259.02	-4,592.16	-2,221.87	5,003.20	0.00	0.00	0.00
10,600.00	90.00	179.36	6,323.02	-1,259.02	-4,692.16	-2,220.76	5,099.71	0.00	0.00	0.00
10,700.00	90.00	179.36	6,323.02	-1,259.02	-4,792.15	-2,219.65	5,196.21	0.00	0.00	0.00
10,800.00	90.00	179.36	6,323.02	-1,259.02	-4,892.14	-2,218.54	5,292.72	0.00	0.00	0.00
10,900.00	90.00	179.36	6,323.02	-1,259.02	-4,992.14	-2,217.43	5,389.22	0.00	0.00	0.00
11,000.00	90.00	179.36	6,323.02	-1,259.02	-5,092.13	-2,216.32	5,485.73	0.00	0.00	0.00
11,100.00	90.00	179.36	6,323.02	-1,259.02	-5,192.12	-2,215.21	5,582.23	0.00	0.00	0.00
11,200.00	90.00	179.36	6,323.02	-1,259.02	-5,292.12	-2,214.10	5,678.74	0.00	0.00	0.00
11,300.00	90.00	179.36	6,323.02	-1,259.02	-5,392.11	-2,212.99	5,775.24	0.00	0.00	0.00
11,400.00	90.00	179.36	6,323.02	-1,259.02	-5,492.11	-2,211.88	5,871.75	0.00	0.00	0.00
11,500.00	90.00	179.36	6,323.01	-1,259.01	-5,592.10	-2,210.77	5,968.25	0.00	0.00	0.00
11,600.00	90.00	179.36	6,323.01	-1,259.01	-5,692.09	-2,209.65	6,064.75	0.00	0.00	0.00
11,700.00	90.00	179.36	6,323.01	-1,259.01	-5,792.09	-2,208.54	6,161.26	0.00	0.00	0.00
11,800.00	90.00	179.36	6,323.01	-1,259.01	-5,892.08	-2,207.43	6,257.76	0.00	0.00	0.00
11,900.00	90.00	179.36	6,323.01	-1,259.01	-5,992.07	-2,206.32	6,354.27	0.00	0.00	0.00
12,000.00	90.00	179.36	6,323.01	-1,259.01	-6,092.07	-2,205.20	6,450.77	0.00	0.00	0.00
12,100.00	90.00	179.36	6,323.01	-1,259.01	-6,192.06	-2,204.09	6,547.27	0.00	0.00	0.00
12,200.00	90.00	179.36	6,323.01	-1,259.01	-6,292.06	-2,202.98	6,643.78	0.00	0.00	0.00
12,300.00	90.00	179.36	6,323.01	-1,259.01	-6,392.05	-2,201.86	6,740.28	0.00	0.00	0.00
12,400.00	90.00	179.36	6,323.01	-1,259.01	-6,492.04	-2,200.75	6,836.78	0.00	0.00	0.00
12,500.00	90.00	179.36	6,323.01	-1,259.01	-6,592.04	-2,199.64	6,933.29	0.00	0.00	0.00
12,600.00	90.00	179.36	6,323.01	-1,259.01	-6,692.03	-2,198.52	7,029.79	0.00	0.00	0.00
12,700.00	90.00	179.36	6,323.01	-1,259.01	-6,792.03	-2,197.41	7,126.29	0.00	0.00	0.00
12,800.00	90.00	179.36	6,323.01	-1,259.01	-6,892.02	-2,196.29	7,222.80	0.00	0.00	0.00
12,900.00	90.00	179.36	6,323.01	-1,259.01	-6,992.01	-2,195.17	7,319.30	0.00	0.00	0.00
13,000.00	90.00	179.36	6,323.01	-1,259.01	-7,092.01	-2,194.06	7,415.80	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5064.00usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-3	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)
13,100.00	90.00	179.36	6,323.01	-1,259.01	-7,192.00	-2,192.94	7,512.31	0.00	0.00	0.00
13,200.00	90.00	179.36	6,323.01	-1,259.01	-7,291.99	-2,191.83	7,608.81	0.00	0.00	0.00
13,300.00	90.00	179.36	6,323.01	-1,259.01	-7,391.99	-2,190.71	7,705.31	0.00	0.00	0.00
13,400.00	90.00	179.36	6,323.01	-1,259.01	-7,491.98	-2,189.59	7,801.82	0.00	0.00	0.00
13,500.00	90.00	179.36	6,323.00	-1,259.00	-7,591.98	-2,188.47	7,898.32	0.00	0.00	0.00
13,600.00	90.00	179.36	6,323.00	-1,259.00	-7,691.97	-2,187.36	7,994.82	0.00	0.00	0.00
13,700.00	90.00	179.36	6,323.00	-1,259.00	-7,791.96	-2,186.24	8,091.32	0.00	0.00	0.00
13,800.00	90.00	179.36	6,323.00	-1,259.00	-7,891.96	-2,185.12	8,187.83	0.00	0.00	0.00
13,900.00	90.00	179.36	6,323.00	-1,259.00	-7,991.95	-2,184.00	8,284.33	0.00	0.00	0.00
14,000.00	90.00	179.36	6,323.00	-1,259.00	-8,091.94	-2,182.88	8,380.83	0.00	0.00	0.00
EPI: 600ft FSL & 1417ft FWL of Sec 24										
14,000.86	90.00	179.36	6,323.00	-1,259.00	-8,092.80	-2,182.87	8,381.66	0.00	0.00	0.00
14,100.00	90.00	179.37	6,323.00	-1,259.00	-8,191.94	-2,181.77	8,477.33	0.01	0.00	0.01
14,200.00	90.00	179.37	6,323.00	-1,259.00	-8,291.93	-2,180.67	8,573.84	0.01	0.00	0.01
14,300.00	90.00	179.38	6,323.00	-1,259.00	-8,391.93	-2,179.58	8,670.35	0.01	0.00	0.01
BHL: 300ft FSL & 1416ft FWL of Sec 24										
14,301.09	90.00	179.38	6,323.00	-1,259.00	-8,393.01	-2,179.57	8,671.40	0.01	0.00	0.01

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
628.12	627.00	PIERRE SHALE (BASE OF FOX HI				
3,817.49	3,451.00	PARKMAN				
4,424.28	3,976.00	SUSSEX				
5,652.41	5,074.00	SHANNON				
6,714.96	6,103.00	SHARON SPRINGS SHALE				
6,810.48	6,173.00	NIOBRARA FORMATION				
6,825.52	6,183.00	NIOBRARA A CHALK				
7,048.46	6,293.00	NIOBRARA B 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: 1994ft FNL & 1653ft FEL of Sec 13
300.00	300.00	0.00	0.00	START NUDGE (2.5°/100ft BUR)
1,503.79	1,449.20	-97.63	-293.11	EOB TO 30.09° INC
5,030.90	4,500.84	-656.50	-1,971.09	END OF TANGENT
6,234.69	5,650.04	-754.13	-2,264.21	EOD TO VERTICAL
6,334.69	5,750.04	-754.13	-2,264.21	KOP (10°/100ft BUR)
7,234.69	6,323.00	-1,327.05	-2,257.91	BPI: 2080ft FSL & 1416ft FWL of Sec 13
14,000.86	6,323.00	-8,092.80	-2,182.87	EPI: 600ft FSL & 1417ft FWL of Sec 24
14,301.09	6,323.00	-8,393.01	-2,179.57	BHL: 300ft FSL & 1416ft FWL of Sec 24