

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NW SE SEC. 14 T9N R60W 6th P.M.

ROHN 9-60 14A-23-7

ORIGINAL WELLBORE

03 October, 2017

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NW SE SEC. 14 T9N R60W 6th P.M.
Well: ROHN 9-60 14A-23-7
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS										
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation		
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 2160ft FSL & 2463ft FEL of Sec 14		
300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		
895.6	900.0	12.00	305.34	36.2	-51.1	-31.7	62.6	EOB TO 12° INC		
3980.0	4053.3	12.00	305.34	415.5	-585.8	-364.0	718.2	END OF TANGENT		
4575.7	4653.3	0.00	0.00	451.7	-636.9	-395.7	780.8	EOD TO VERTICAL		
5753.1	5830.8	0.00	0.00	451.7	-636.9	-395.7	780.8	KOP (10°/100ft BUR)		
6326.1	6730.8	90.00	179.82	-121.3	-635.1	175.1	1353.8	BPI: 2040ft FSL & 2232ft FWL of Sec 14		
6326.1	13461.9	90.00	179.82	-6852.3	-613.6	6879.7	8084.9	EPI: 600ft FSL & 2232ft FWL of Sec 23		
6326.1	13462.6	90.00	179.84	-6853.1	-613.6	6880.4	8085.6	EOT TO 179.84° AZ		
6326.1	13762.5	90.00	179.85	-7152.9	-612.8	7179.1	8385.5	BHL: 300ft FSL & 2232ft FWL of Sec 23		

PROPOSED LOCAL COORDINATES:

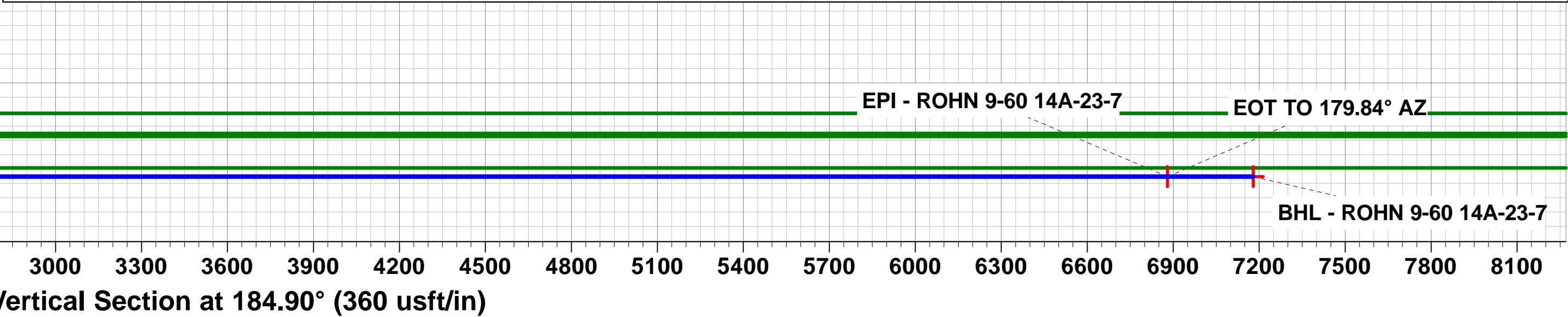
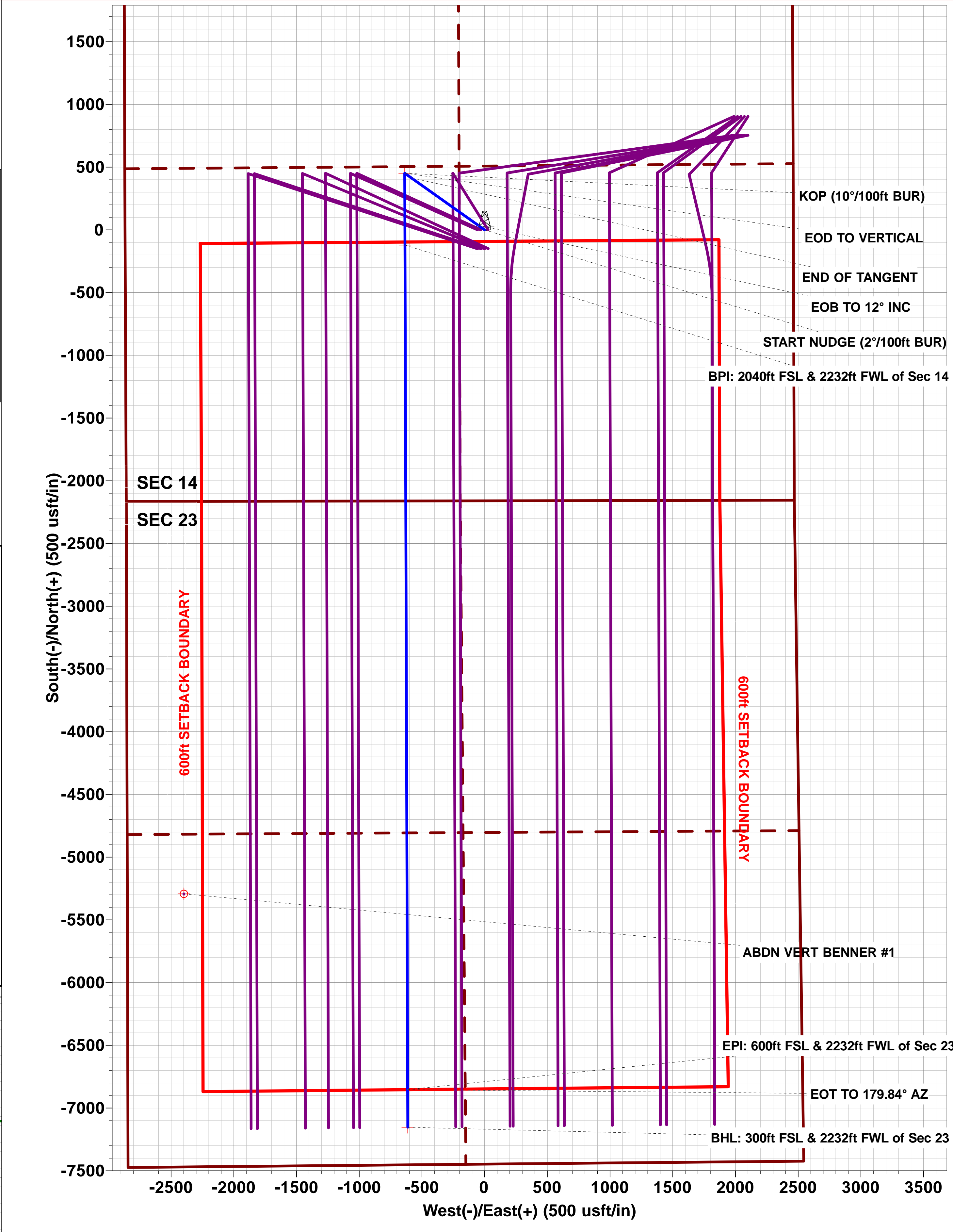
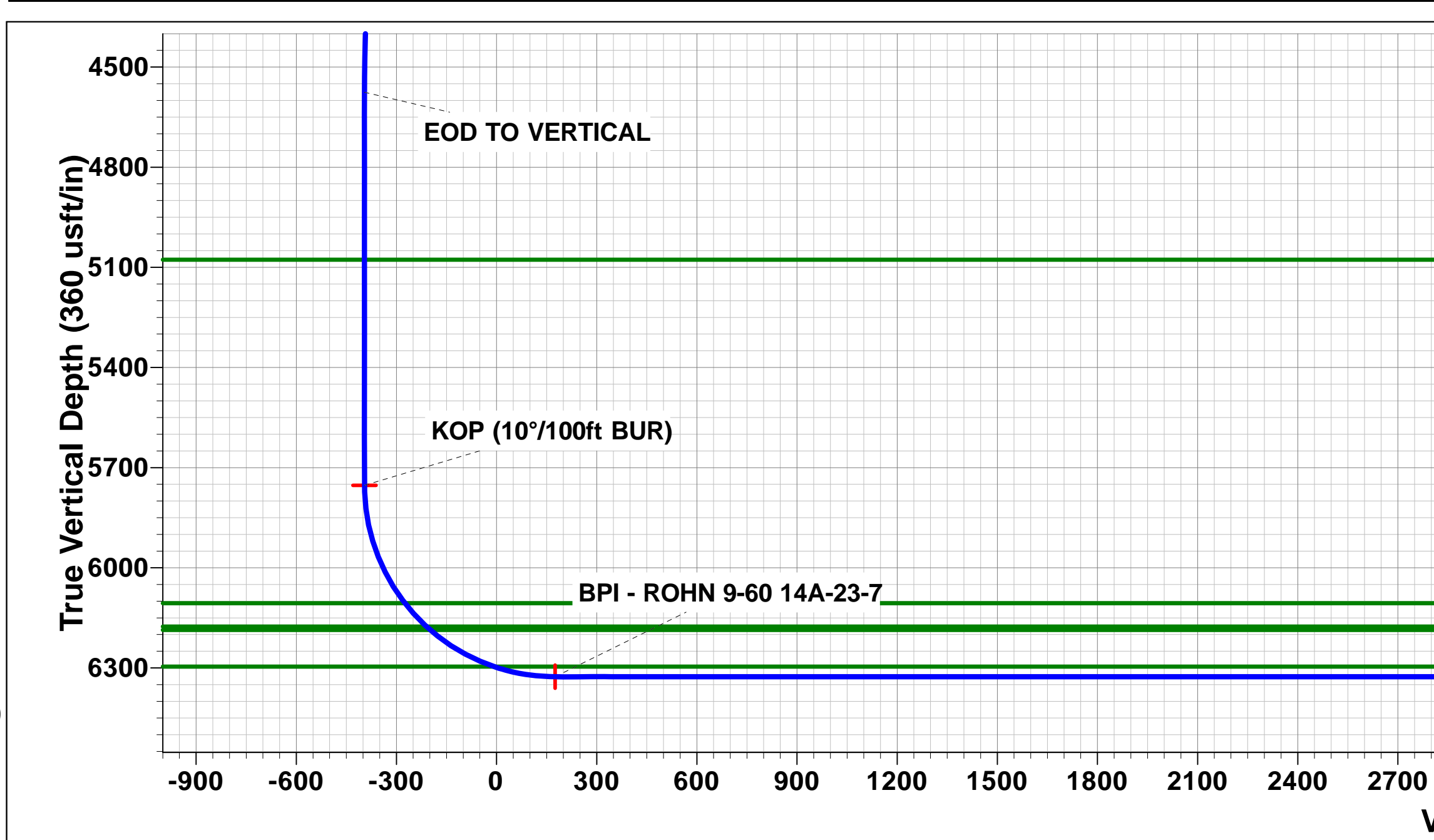
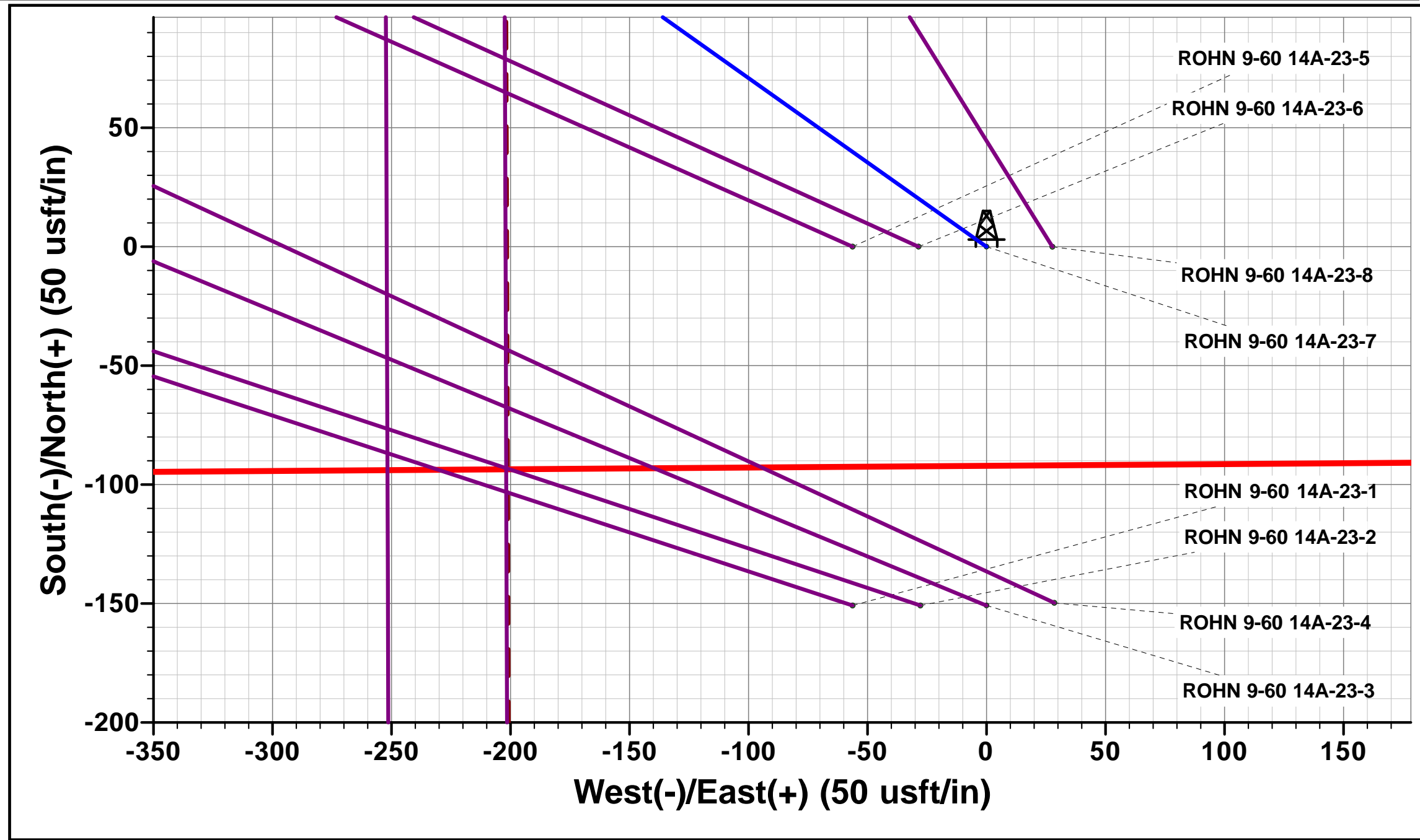
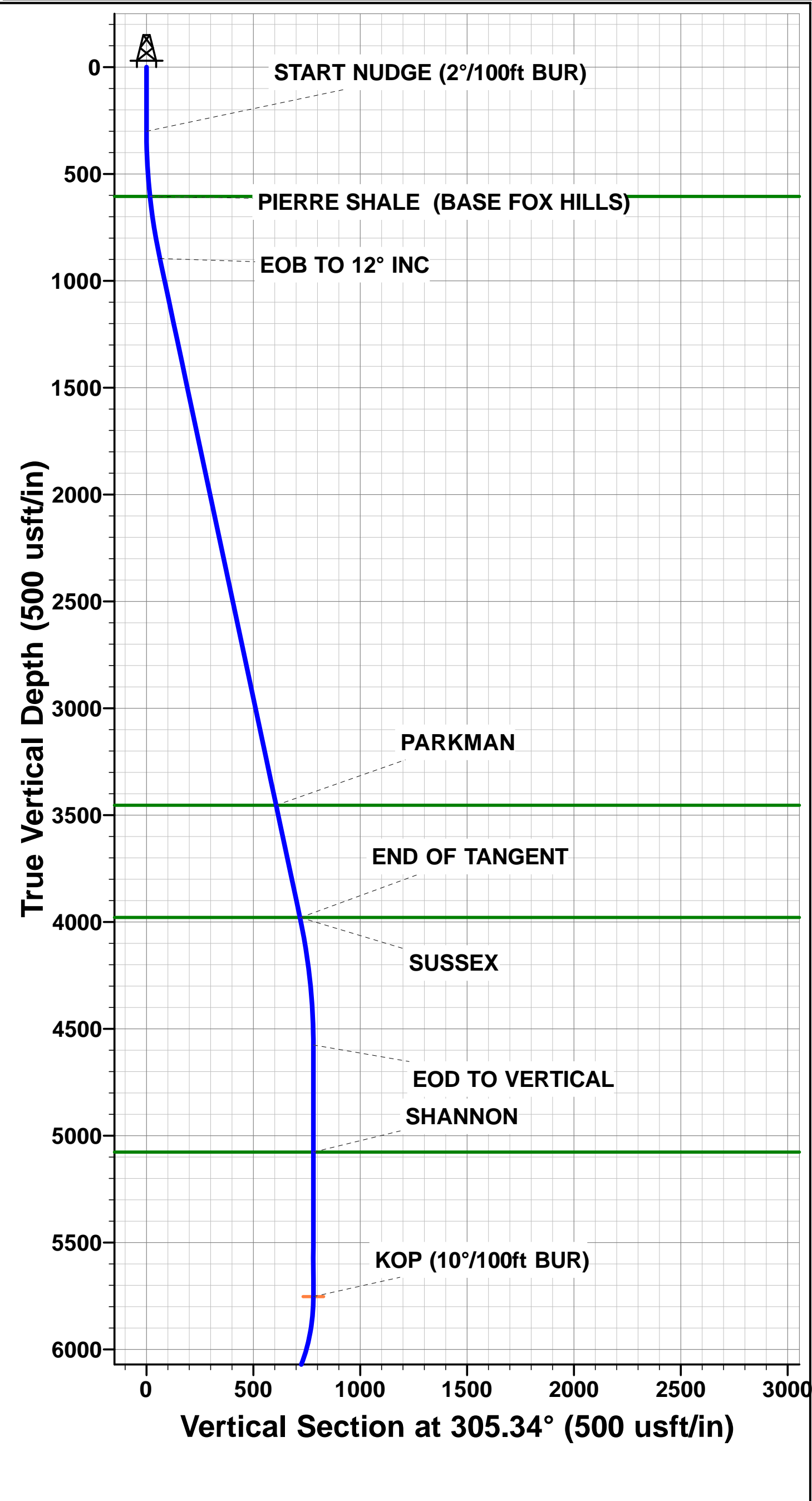
SHL: 2160ft FSL & 2463ft FEL Sec 14

BPI : 2040ft FSL & 2232ft FWL Sec 14

EPI: 600ft FSL & 2232ft FWL Sec 23

BHL: 300ft FSL & 2232ft FWL of Sec 23

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - ROHN 9-60 14A-23-7	5753.1	451.7	-636.9	40.750190	-104.060799
BPI - ROHN 9-60 14A-23-7	6326.1	-121.3	-635.1	40.748617	-104.060792
EPI - ROHN 9-60 14A-23-7	6326.1	-6852.3	-613.6	40.730142	-104.060714
BHL - ROHN 9-60 14A-23-7	6326.1	-7152.9	-612.8	40.729317	-104.060711



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN 9-60 14A-23-7
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Site:	NW SE SEC. 14 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN 9-60 14A-23-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

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	NW SE SEC. 14 T9N R60W 6th P.M.		
Site Position:		Northing:	1,518,782.01 usft
From:	Lat/Long	Easting:	3,399,334.72 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.748536
		Longitude:	-104.058703
		Grid Convergence:	0.93 °

Well	ROHN 9-60 14A-23-7					
Well Position	+N/-S	150.8 usft	Northing:	1,518,933.71 usft	Latitude:	40.748950
	+E/-W	56.2 usft	Easting:	3,399,388.51 usft	Longitude:	-104.058500
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,987.1 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/10/2017	7.82	67.23	52,609

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	6,326.1	0.0	0.0	184.90

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
0.0	0.00	0.00	0.0	-5,012.1	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-4,712.1	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	12.00	305.34	895.6	-4,116.5	36.2	-51.1	2.00	2.00	0.00	305.34	
4,053.3	12.00	305.34	3,980.0	-1,032.1	415.5	-585.8	0.00	0.00	0.00	0.00	
4,653.3	0.00	0.00	4,575.7	-436.4	451.7	-636.9	2.00	-2.00	0.00	180.00	
5,830.8	0.00	0.00	5,753.1	741.0	451.7	-636.9	0.00	0.00	0.00	0.00	KOP - ROHN 9-60
6,730.8	90.00	179.82	6,326.1	1,314.0	-121.3	-635.1	10.00	10.00	19.98	179.82	BPI - ROHN 9-60 1
13,461.9	90.00	179.82	6,326.1	1,314.0	-6,852.3	-613.6	0.00	0.00	0.00	39.06	EPI - ROHN 9-60 1
13,462.6	90.00	179.84	6,326.1	1,314.0	-6,853.1	-613.6	3.00	0.00	3.00	90.00	
13,762.5	90.00	179.85	6,326.1	1,314.0	-7,152.9	-612.8	0.00	0.00	0.00	108.70	BHL - ROHN 9-60 1

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Site:	NW SE SEC. 14 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN 9-60 14A-23-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

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: 2160ft FSL & 2463ft FEL of Sec 14										
0.0	0.00	0.00	0.0	5,012.10	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,912.10	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,812.10	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	4,712.10	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	305.34	400.0	4,612.12	1.0	-1.4	-0.9	2.00	2.00	0.00
500.0	4.00	305.34	499.8	4,512.26	4.0	-5.7	-3.5	2.00	2.00	0.00
600.0	6.00	305.34	599.5	4,412.65	9.1	-12.8	-8.0	2.00	2.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
605.7	6.11	305.34	605.1	4,407.00	9.4	-13.3	-8.3	2.00	2.00	0.00
700.0	8.00	305.34	698.7	4,313.40	16.1	-22.7	-14.1	2.00	2.00	0.00
800.0	10.00	305.34	797.5	4,214.63	25.2	-35.5	-22.1	2.00	2.00	0.00
EOB TO 12° INC										
900.0	12.00	305.34	895.6	4,116.48	36.2	-51.1	-31.7	2.00	2.00	0.00
1,000.0	12.00	305.34	993.4	4,018.66	48.2	-68.0	-42.3	0.00	0.00	0.00
1,100.0	12.00	305.34	1,091.3	3,920.85	60.3	-85.0	-52.8	0.00	0.00	0.00
1,200.0	12.00	305.34	1,189.1	3,823.03	72.3	-101.9	-63.3	0.00	0.00	0.00
1,300.0	12.00	305.34	1,286.9	3,725.22	84.3	-118.9	-73.9	0.00	0.00	0.00
1,400.0	12.00	305.34	1,384.7	3,627.40	96.4	-135.9	-84.4	0.00	0.00	0.00
1,500.0	12.00	305.34	1,482.5	3,529.59	108.4	-152.8	-94.9	0.00	0.00	0.00
1,600.0	12.00	305.34	1,580.3	3,431.77	120.4	-169.8	-105.5	0.00	0.00	0.00
1,700.0	12.00	305.34	1,678.1	3,333.96	132.4	-186.7	-116.0	0.00	0.00	0.00
1,800.0	12.00	305.34	1,776.0	3,236.14	144.5	-203.7	-126.5	0.00	0.00	0.00
1,900.0	12.00	305.34	1,873.8	3,138.33	156.5	-220.7	-137.1	0.00	0.00	0.00
2,000.0	12.00	305.34	1,971.6	3,040.51	168.5	-237.6	-147.6	0.00	0.00	0.00
2,100.0	12.00	305.34	2,069.4	2,942.70	180.5	-254.6	-158.2	0.00	0.00	0.00
2,200.0	12.00	305.34	2,167.2	2,844.88	192.6	-271.5	-168.7	0.00	0.00	0.00
2,300.0	12.00	305.34	2,265.0	2,747.07	204.6	-288.5	-179.2	0.00	0.00	0.00
2,400.0	12.00	305.34	2,362.8	2,649.26	216.6	-305.4	-189.8	0.00	0.00	0.00
2,500.0	12.00	305.34	2,460.7	2,551.44	228.7	-322.4	-200.3	0.00	0.00	0.00
2,600.0	12.00	305.34	2,558.5	2,453.63	240.7	-339.4	-210.8	0.00	0.00	0.00
2,700.0	12.00	305.34	2,656.3	2,355.81	252.7	-356.3	-221.4	0.00	0.00	0.00
2,800.0	12.00	305.34	2,754.1	2,258.00	264.7	-373.3	-231.9	0.00	0.00	0.00
2,900.0	12.00	305.34	2,851.9	2,160.18	276.8	-390.2	-242.4	0.00	0.00	0.00
3,000.0	12.00	305.34	2,949.7	2,062.37	288.8	-407.2	-253.0	0.00	0.00	0.00
3,100.0	12.00	305.34	3,047.5	1,964.55	300.8	-424.2	-263.5	0.00	0.00	0.00
3,200.0	12.00	305.34	3,145.4	1,866.74	312.9	-441.1	-274.1	0.00	0.00	0.00
3,300.0	12.00	305.34	3,243.2	1,768.92	324.9	-458.1	-284.6	0.00	0.00	0.00
3,400.0	12.00	305.34	3,341.0	1,671.11	336.9	-475.0	-295.1	0.00	0.00	0.00
3,500.0	12.00	305.34	3,438.8	1,573.29	348.9	-492.0	-305.7	0.00	0.00	0.00
PARKMAN										
3,515.6	12.00	305.34	3,454.1	1,558.00	350.8	-494.7	-307.3	0.00	0.00	0.00
3,600.0	12.00	305.34	3,536.6	1,475.48	361.0	-509.0	-316.2	0.00	0.00	0.00
3,700.0	12.00	305.34	3,634.4	1,377.66	373.0	-525.9	-326.7	0.00	0.00	0.00
3,800.0	12.00	305.34	3,732.3	1,279.85	385.0	-542.9	-337.3	0.00	0.00	0.00
3,900.0	12.00	305.34	3,830.1	1,182.03	397.0	-559.8	-347.8	0.00	0.00	0.00
4,000.0	12.00	305.34	3,927.9	1,084.22	409.1	-576.8	-358.3	0.00	0.00	0.00
SUSSEX										
4,052.4	12.00	305.34	3,979.1	1,033.00	415.4	-585.7	-363.9	0.00	0.00	0.00
END OF TANGENT										
4,053.3	12.00	305.34	3,980.0	1,032.07	415.5	-585.8	-364.0	0.00	0.00	0.00
4,100.0	11.07	305.34	4,025.8	986.33	420.9	-593.4	-368.7	2.00	-2.00	0.00

Planning Report



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Well:	ROHN 9-60 14A-23-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

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)
4,200.0	9.07	305.34	4,124.2	887.87	431.0	-607.7	-377.5	2.00	-2.00	0.00
4,300.0	7.07	305.34	4,223.2	788.87	439.1	-619.2	-384.7	2.00	-2.00	0.00
4,400.0	5.07	305.34	4,322.7	689.43	445.2	-627.8	-390.0	2.00	-2.00	0.00
4,500.0	3.07	305.34	4,422.4	589.69	449.3	-633.6	-393.6	2.00	-2.00	0.00
4,600.0	1.07	305.34	4,522.3	489.76	451.4	-636.5	-395.4	2.00	-2.00	0.00
EOD TO VERTICAL										
4,653.3	0.00	0.00	4,575.7	436.44	451.7	-636.9	-395.7	2.00	-2.00	0.00
4,700.0	0.00	0.00	4,622.3	389.76	451.7	-636.9	-395.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,722.3	289.76	451.7	-636.9	-395.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,822.3	189.76	451.7	-636.9	-395.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,922.3	89.76	451.7	-636.9	-395.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,022.3	-10.24	451.7	-636.9	-395.7	0.00	0.00	0.00
SHANNON										
5,154.8	0.00	0.00	5,077.1	-65.00	451.7	-636.9	-395.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,122.3	-110.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,222.3	-210.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,322.3	-310.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,422.3	-410.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,522.3	-510.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,622.3	-610.24	451.7	-636.9	-395.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,722.3	-710.24	451.7	-636.9	-395.7	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,830.8	0.00	0.00	5,753.1	-741.00	451.7	-636.9	-395.7	0.00	0.00	0.00
5,900.0	6.92	179.82	5,822.2	-810.07	447.5	-636.9	-391.5	10.00	10.00	0.00
6,000.0	16.92	179.82	5,919.9	-907.79	426.9	-636.8	-371.0	10.00	10.00	0.00
6,100.0	26.92	179.82	6,012.5	-1,000.44	389.6	-636.7	-333.8	10.00	10.00	0.00
6,200.0	36.92	179.82	6,097.3	-1,085.21	336.8	-636.5	-281.2	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,211.1	38.03	179.82	6,106.1	-1,094.00	330.1	-636.5	-274.5	10.00	10.00	0.00
6,300.0	46.92	179.82	6,171.6	-1,159.52	270.1	-636.3	-214.8	10.00	10.00	0.00
NIORARA FORMATION										
6,306.6	47.58	179.82	6,176.1	-1,164.00	265.2	-636.3	-209.9	10.00	10.00	0.00
NIORARA A CHALK										
6,321.6	49.08	179.82	6,186.1	-1,174.00	254.0	-636.3	-198.7	10.00	10.00	0.00
6,400.0	56.92	179.82	6,233.2	-1,221.12	191.5	-636.1	-136.5	10.00	10.00	0.00
6,500.0	66.92	179.82	6,280.2	-1,268.13	103.3	-635.8	-48.7	10.00	10.00	0.00
NIORARA B CHALK										
6,544.6	71.38	179.82	6,296.1	-1,284.00	61.7	-635.7	-7.2	10.00	10.00	0.00
6,600.0	76.92	179.82	6,311.2	-1,299.13	8.4	-635.5	45.9	10.00	10.00	0.00
6,700.0	86.92	179.82	6,325.3	-1,313.17	-90.5	-635.2	144.4	10.00	10.00	0.00
BPI: 2040ft FSL & 2232ft FWL of Sec 14										
6,730.8	90.00	179.82	6,326.1	-1,314.00	-121.3	-635.1	175.1	10.00	10.00	0.00
6,800.0	90.00	179.82	6,326.1	-1,314.00	-190.5	-634.8	244.0	0.00	0.00	0.00
6,900.0	90.00	179.82	6,326.1	-1,314.00	-290.5	-634.5	343.6	0.00	0.00	0.00
7,000.0	90.00	179.82	6,326.1	-1,314.00	-390.5	-634.2	443.2	0.00	0.00	0.00
7,100.0	90.00	179.82	6,326.1	-1,314.01	-490.5	-633.9	542.8	0.00	0.00	0.00
7,200.0	90.00	179.82	6,326.1	-1,314.01	-590.5	-633.6	642.4	0.00	0.00	0.00
7,300.0	90.00	179.82	6,326.1	-1,314.01	-690.5	-633.2	742.0	0.00	0.00	0.00
7,400.0	90.00	179.82	6,326.1	-1,314.01	-790.5	-632.9	841.6	0.00	0.00	0.00
7,500.0	90.00	179.82	6,326.1	-1,314.01	-890.5	-632.6	941.2	0.00	0.00	0.00
7,600.0	90.00	179.82	6,326.1	-1,314.01	-990.5	-632.3	1,040.8	0.00	0.00	0.00
7,700.0	90.00	179.82	6,326.1	-1,314.01	-1,090.5	-632.0	1,140.4	0.00	0.00	0.00
7,800.0	90.00	179.82	6,326.1	-1,314.02	-1,190.5	-631.6	1,240.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN 9-60 14A-23-7
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Site:	NW SE SEC. 14 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN 9-60 14A-23-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

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)
7,900.0	90.00	179.82	6,326.1	-1,314.02	-1,290.5	-631.3	1,339.6	0.00	0.00	0.00
8,000.0	90.00	179.82	6,326.1	-1,314.02	-1,390.5	-631.0	1,439.3	0.00	0.00	0.00
8,100.0	90.00	179.82	6,326.1	-1,314.02	-1,490.5	-630.7	1,538.9	0.00	0.00	0.00
8,200.0	90.00	179.82	6,326.1	-1,314.02	-1,590.5	-630.4	1,638.5	0.00	0.00	0.00
8,300.0	90.00	179.82	6,326.1	-1,314.02	-1,690.5	-630.1	1,738.1	0.00	0.00	0.00
8,400.0	90.00	179.82	6,326.1	-1,314.02	-1,790.5	-629.7	1,837.7	0.00	0.00	0.00
8,500.0	90.00	179.82	6,326.1	-1,314.02	-1,890.5	-629.4	1,937.3	0.00	0.00	0.00
8,600.0	90.00	179.82	6,326.1	-1,314.02	-1,990.5	-629.1	2,036.9	0.00	0.00	0.00
8,700.0	90.00	179.82	6,326.1	-1,314.02	-2,090.5	-628.8	2,136.5	0.00	0.00	0.00
8,800.0	90.00	179.82	6,326.1	-1,314.03	-2,190.5	-628.5	2,236.1	0.00	0.00	0.00
8,900.0	90.00	179.82	6,326.1	-1,314.03	-2,290.5	-628.1	2,335.7	0.00	0.00	0.00
9,000.0	90.00	179.82	6,326.1	-1,314.03	-2,390.5	-627.8	2,435.3	0.00	0.00	0.00
9,100.0	90.00	179.82	6,326.1	-1,314.03	-2,490.5	-627.5	2,534.9	0.00	0.00	0.00
9,200.0	90.00	179.82	6,326.1	-1,314.03	-2,590.5	-627.2	2,634.5	0.00	0.00	0.00
9,300.0	90.00	179.82	6,326.1	-1,314.03	-2,690.5	-626.9	2,734.1	0.00	0.00	0.00
9,400.0	90.00	179.82	6,326.1	-1,314.03	-2,790.5	-626.5	2,833.8	0.00	0.00	0.00
9,500.0	90.00	179.82	6,326.1	-1,314.03	-2,890.5	-626.2	2,933.4	0.00	0.00	0.00
9,600.0	90.00	179.82	6,326.1	-1,314.03	-2,990.5	-625.9	3,033.0	0.00	0.00	0.00
9,700.0	90.00	179.82	6,326.1	-1,314.03	-3,090.5	-625.6	3,132.6	0.00	0.00	0.00
9,800.0	90.00	179.82	6,326.1	-1,314.03	-3,190.5	-625.3	3,232.2	0.00	0.00	0.00
9,900.0	90.00	179.82	6,326.1	-1,314.03	-3,290.5	-624.9	3,331.8	0.00	0.00	0.00
10,000.0	90.00	179.82	6,326.1	-1,314.03	-3,390.5	-624.6	3,431.4	0.00	0.00	0.00
10,100.0	90.00	179.82	6,326.1	-1,314.03	-3,490.5	-624.3	3,531.0	0.00	0.00	0.00
10,200.0	90.00	179.82	6,326.1	-1,314.03	-3,590.5	-624.0	3,630.6	0.00	0.00	0.00
10,300.0	90.00	179.82	6,326.1	-1,314.03	-3,690.5	-623.7	3,730.2	0.00	0.00	0.00
10,400.0	90.00	179.82	6,326.1	-1,314.03	-3,790.5	-623.4	3,829.8	0.00	0.00	0.00
10,500.0	90.00	179.82	6,326.1	-1,314.03	-3,890.5	-623.0	3,929.4	0.00	0.00	0.00
10,600.0	90.00	179.82	6,326.1	-1,314.03	-3,990.4	-622.7	4,029.0	0.00	0.00	0.00
10,700.0	90.00	179.82	6,326.1	-1,314.03	-4,090.4	-622.4	4,128.6	0.00	0.00	0.00
10,800.0	90.00	179.82	6,326.1	-1,314.03	-4,190.4	-622.1	4,228.3	0.00	0.00	0.00
10,900.0	90.00	179.82	6,326.1	-1,314.03	-4,290.4	-621.8	4,327.9	0.00	0.00	0.00
11,000.0	90.00	179.82	6,326.1	-1,314.03	-4,390.4	-621.4	4,427.5	0.00	0.00	0.00
11,100.0	90.00	179.82	6,326.1	-1,314.03	-4,490.4	-621.1	4,527.1	0.00	0.00	0.00
11,200.0	90.00	179.82	6,326.1	-1,314.03	-4,590.4	-620.8	4,626.7	0.00	0.00	0.00
11,300.0	90.00	179.82	6,326.1	-1,314.03	-4,690.4	-620.5	4,726.3	0.00	0.00	0.00
11,400.0	90.00	179.82	6,326.1	-1,314.03	-4,790.4	-620.2	4,825.9	0.00	0.00	0.00
11,500.0	90.00	179.82	6,326.1	-1,314.02	-4,890.4	-619.9	4,925.5	0.00	0.00	0.00
11,600.0	90.00	179.82	6,326.1	-1,314.02	-4,990.4	-619.5	5,025.1	0.00	0.00	0.00
11,700.0	90.00	179.82	6,326.1	-1,314.02	-5,090.4	-619.2	5,124.7	0.00	0.00	0.00
11,800.0	90.00	179.82	6,326.1	-1,314.02	-5,190.4	-618.9	5,224.3	0.00	0.00	0.00
11,900.0	90.00	179.82	6,326.1	-1,314.02	-5,290.4	-618.6	5,323.9	0.00	0.00	0.00
12,000.0	90.00	179.82	6,326.1	-1,314.02	-5,390.4	-618.3	5,423.5	0.00	0.00	0.00
12,100.0	90.00	179.82	6,326.1	-1,314.02	-5,490.4	-617.9	5,523.2	0.00	0.00	0.00
12,200.0	90.00	179.82	6,326.1	-1,314.02	-5,590.4	-617.6	5,622.8	0.00	0.00	0.00
12,300.0	90.00	179.82	6,326.1	-1,314.02	-5,690.4	-617.3	5,722.4	0.00	0.00	0.00
12,400.0	90.00	179.82	6,326.1	-1,314.02	-5,790.4	-617.0	5,822.0	0.00	0.00	0.00
12,500.0	90.00	179.82	6,326.1	-1,314.01	-5,890.4	-616.7	5,921.6	0.00	0.00	0.00
12,600.0	90.00	179.82	6,326.1	-1,314.01	-5,990.4	-616.4	6,021.2	0.00	0.00	0.00
12,700.0	90.00	179.82	6,326.1	-1,314.01	-6,090.4	-616.0	6,120.8	0.00	0.00	0.00
12,800.0	90.00	179.82	6,326.1	-1,314.01	-6,190.4	-615.7	6,220.4	0.00	0.00	0.00
12,900.0	90.00	179.82	6,326.1	-1,314.01	-6,290.4	-615.4	6,320.0	0.00	0.00	0.00
13,000.0	90.00	179.82	6,326.1	-1,314.01	-6,390.4	-615.1	6,419.6	0.00	0.00	0.00
13,100.0	90.00	179.82	6,326.1	-1,314.01	-6,490.4	-614.8	6,519.2	0.00	0.00	0.00
13,200.0	90.00	179.82	6,326.1	-1,314.00	-6,590.4	-614.5	6,618.8	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN 9-60 14A-23-7
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5012.1usft (Original Well Elev)
Site:	NW SE SEC. 14 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN 9-60 14A-23-7	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

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)
13,300.0	90.00	179.82	6,326.1	-1,314.00	-6,690.4	-614.1	6,718.4	0.00	0.00	0.00
13,400.0	90.00	179.82	6,326.1	-1,314.00	-6,790.4	-613.8	6,818.0	0.00	0.00	0.00
EPI: 600ft FSL & 2232ft FWL of Sec 23										
13,461.9	90.00	179.82	6,326.1	-1,314.00	-6,852.3	-613.6	6,879.7	0.00	0.00	0.00
EOT TO 179.84° AZ										
13,462.6	90.00	179.84	6,326.1	-1,314.00	-6,853.1	-613.6	6,880.4	3.00	0.00	3.00
13,500.0	90.00	179.84	6,326.1	-1,314.00	-6,890.4	-613.5	6,917.7	0.00	0.00	0.00
13,600.0	90.00	179.84	6,326.1	-1,314.00	-6,990.4	-613.2	7,017.3	0.00	0.00	0.00
13,700.0	90.00	179.84	6,326.1	-1,314.00	-7,090.4	-613.0	7,116.9	0.00	0.00	0.00
BHL: 300ft FSL & 2232ft FWL of Sec 23										
13,762.5	90.00	179.84	6,326.1	-1,314.00	-7,152.9	-612.8	7,179.1	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
605.7	605.1	PIERRE SHALE (BASE FOX HILLS)				
3,515.6	3,454.1	PARKMAN				
4,052.4	3,979.1	SUSSEX				
5,154.8	5,077.1	SHANNON				
6,211.1	6,106.1	SHARON SPRINGS SHALE				
6,306.6	6,176.1	NIOBRARA FORMATION				
6,321.6	6,186.1	NIOBRARA A CHALK				
6,544.6	6,296.1	NIOBRARA B CHALK				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 2160ft FSL & 2463ft FEL of Sec 14
300.0	300.0	0.0	0.0	START NUDGE (2°/100ft BUR)
900.0	895.6	36.2	-51.1	EOB TO 12° INC
4,053.3	3,980.0	415.5	-585.8	END OF TANGENT
4,653.3	4,575.7	451.7	-636.9	EOD TO VERTICAL
5,830.8	5,753.1	451.7	-636.9	KOP (10°/100ft BUR)
6,730.8	6,326.1	-121.3	-635.1	BPI: 2040ft FSL & 2232ft FWL of Sec 14
13,461.9	6,326.1	-6,852.3	-613.6	EPI: 600ft FSL & 2232ft FWL of Sec 23
13,462.6	6,326.1	-6,853.1	-613.6	EOT TO 179.84° AZ
13,762.5	6,326.1	-7,152.9	-612.8	BHL: 300ft FSL & 2232ft FWL of Sec 23