

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 4 T8N R60W 6th P.M.

STAMPEDE FED 8-60 4-9-10

ORIGINAL WELLBORE

23 October, 2017

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 4 T8N R60W 6th P.M.
Well: STAMPEDE FED 8-60 4-9-10
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 559ft FNL & 2391ft FEL of Sec 4	
400.0	400.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (3°/100ft BUR)	
1347.4	1391.4	29.74	76.44	59.0	244.6	-4.8	251.6	EOB TO 29.74° INC	
4600.9	5138.3	29.74	76.44	494.7	2051.5	-40.2	2110.4	END OF TANGENT	
5548.3	6129.7	0.00	0.00	553.7	2296.1	-45.0	2361.9	EOD TO VERTICAL	
5944.3	6525.7	0.00	0.00	553.7	2296.1	-45.0	2361.9	KOP (10°/100ft BUR)	
6517.2	7425.6	90.00	180.68	-19.2	2289.3	512.9	2934.9	BPI: 600ft FNL & 662ft FEL of Sec 4	
6517.2	16933.5	90.00	180.69	-9526.4	2176.2	9771.5	12442.7	EPI: 600ft FSL & 621ft FEL of Sec 9	
6517.2	16935.3	90.00	180.74	-9528.2	2176.2	9773.3	12444.5	EOT TO 180.74° AZ	
6517.2	17233.0	90.00	180.74	-9825.8	2172.3	10063.1	12742.2	BHL: 300ft FSL & 618ft FEL of Sec 9	

PROPOSED LOCAL COORDINATES:

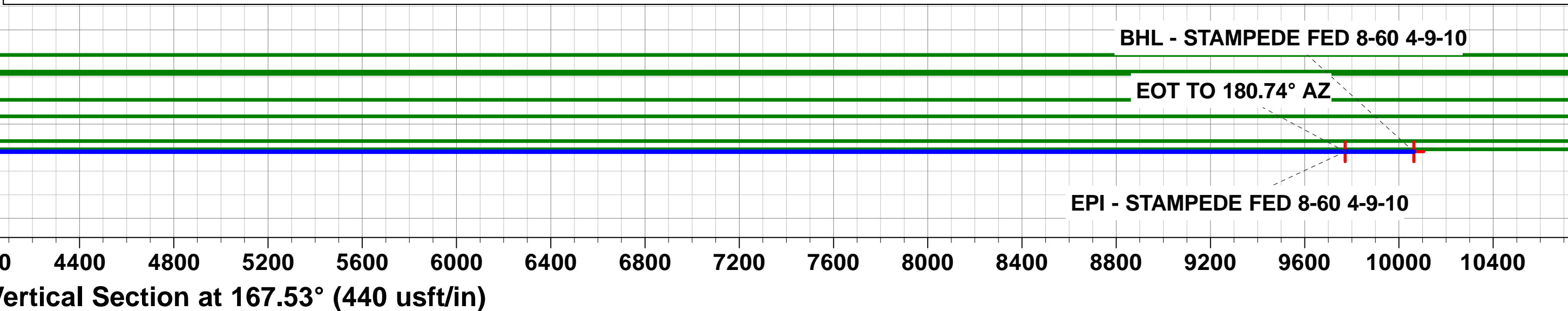
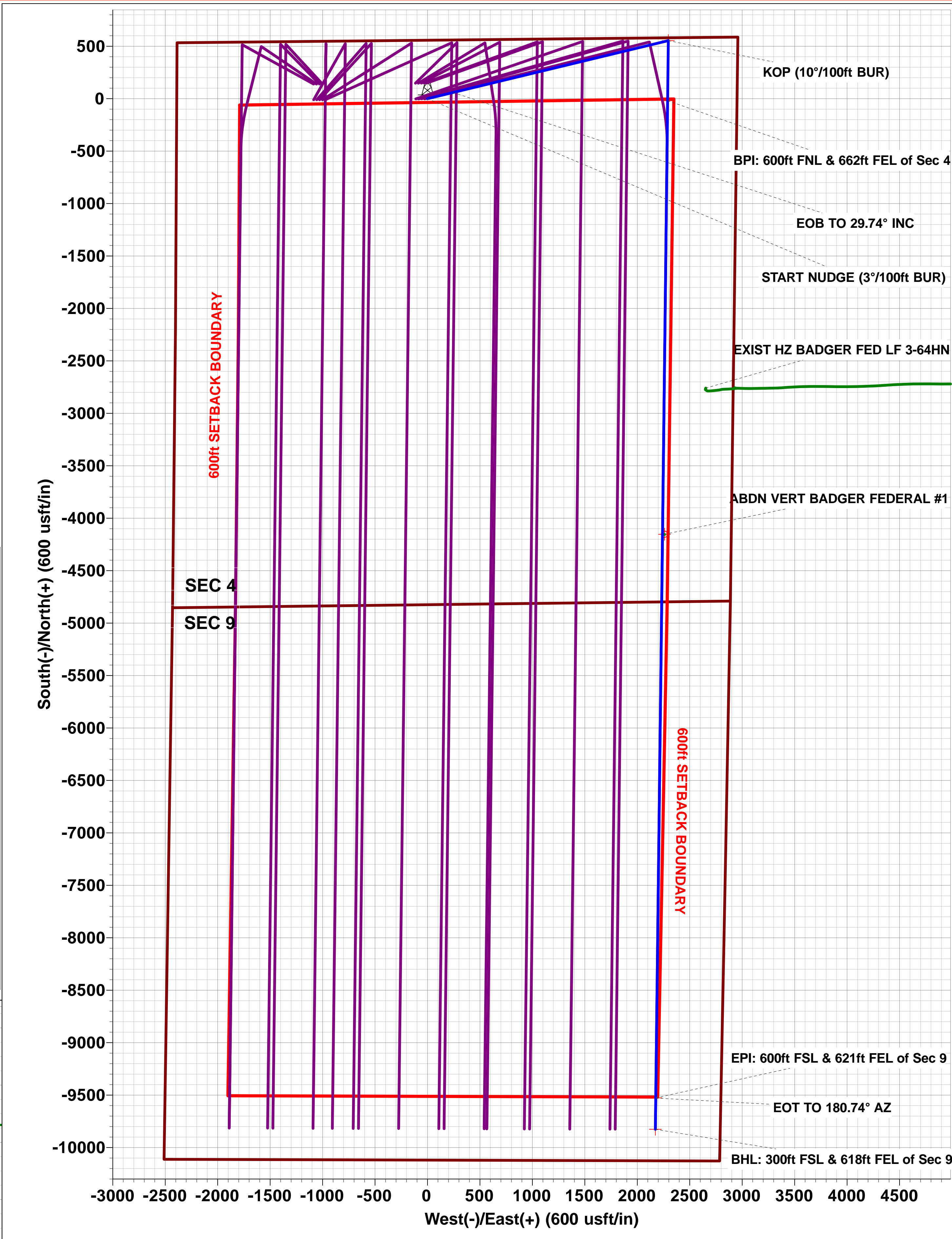
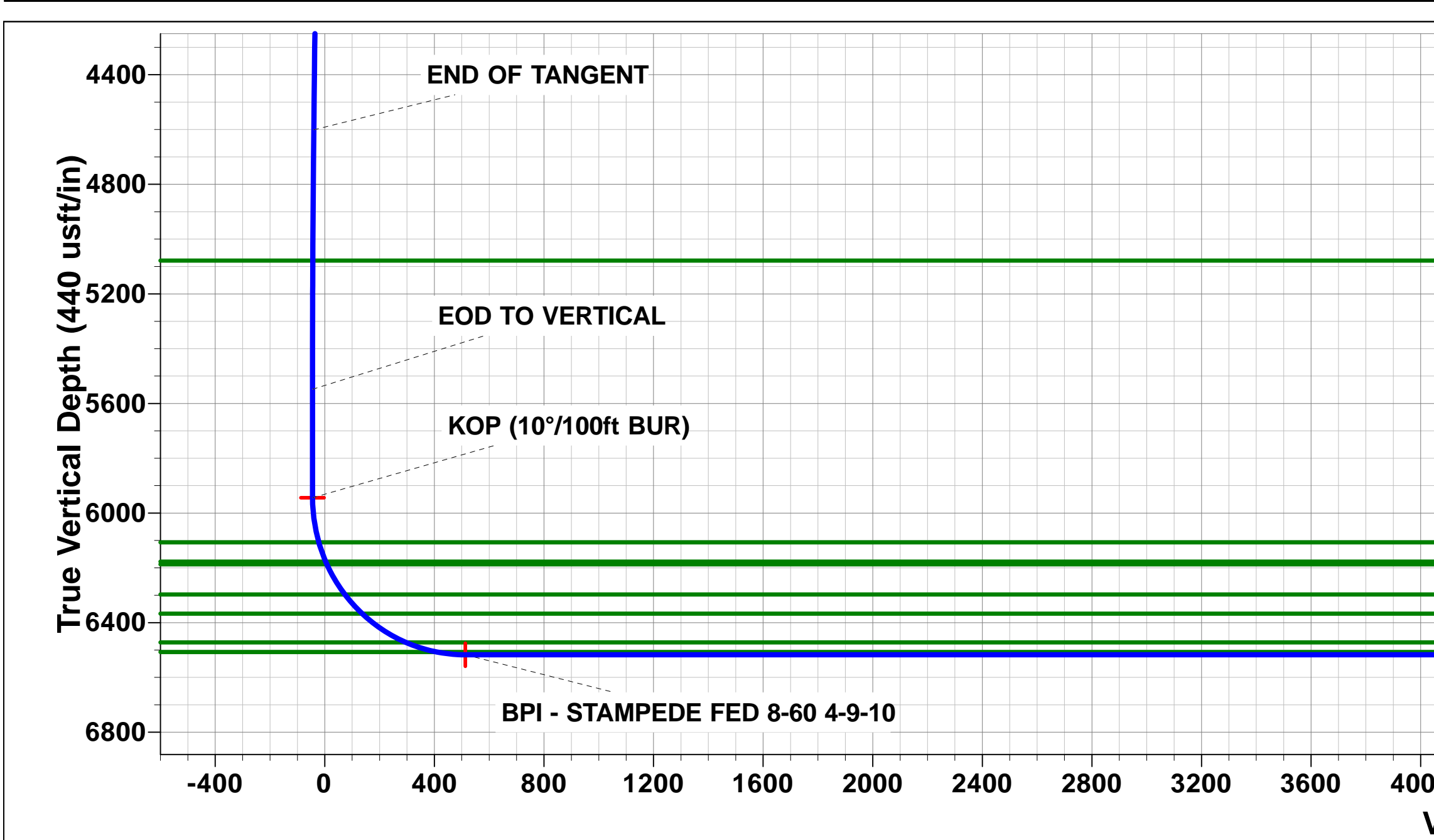
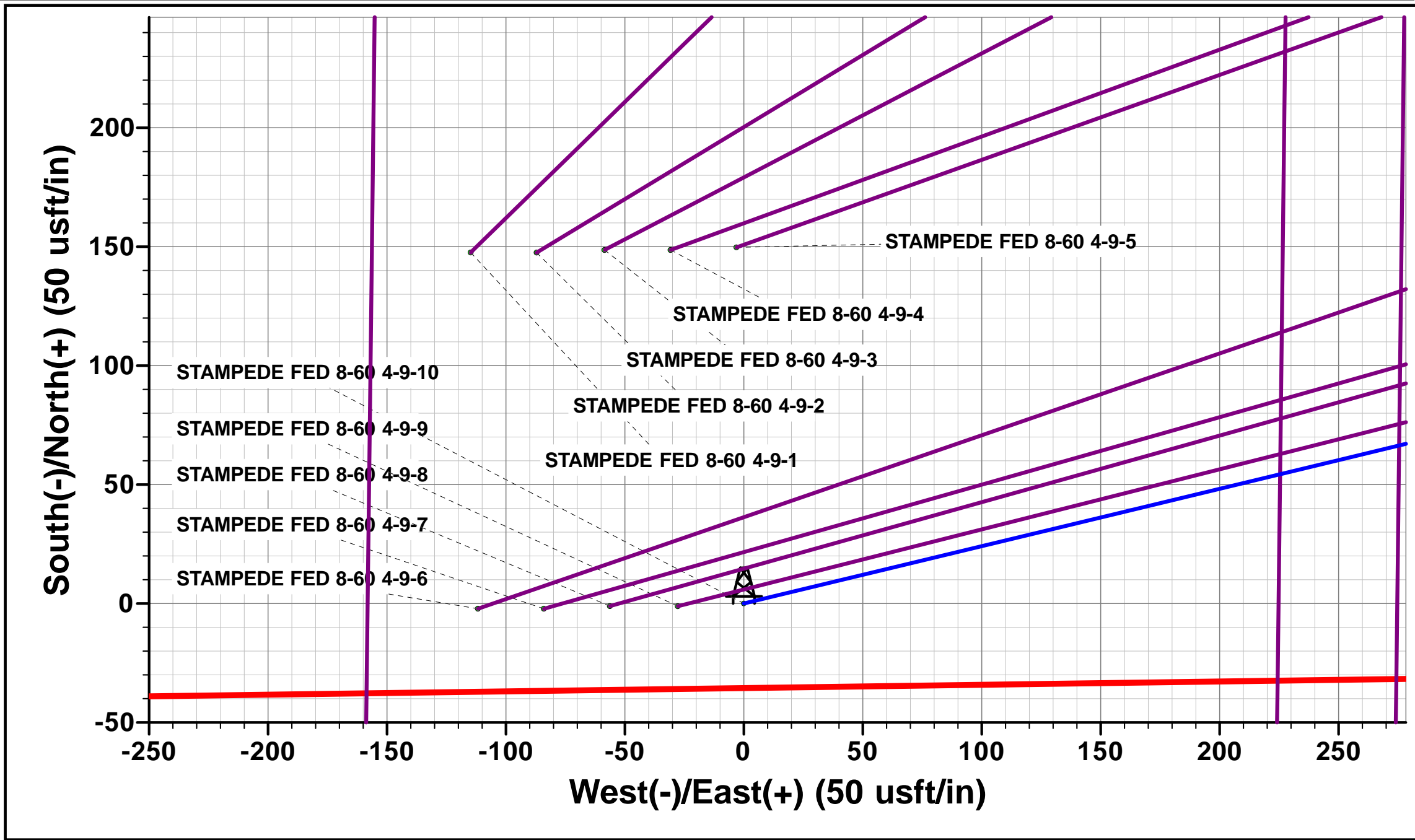
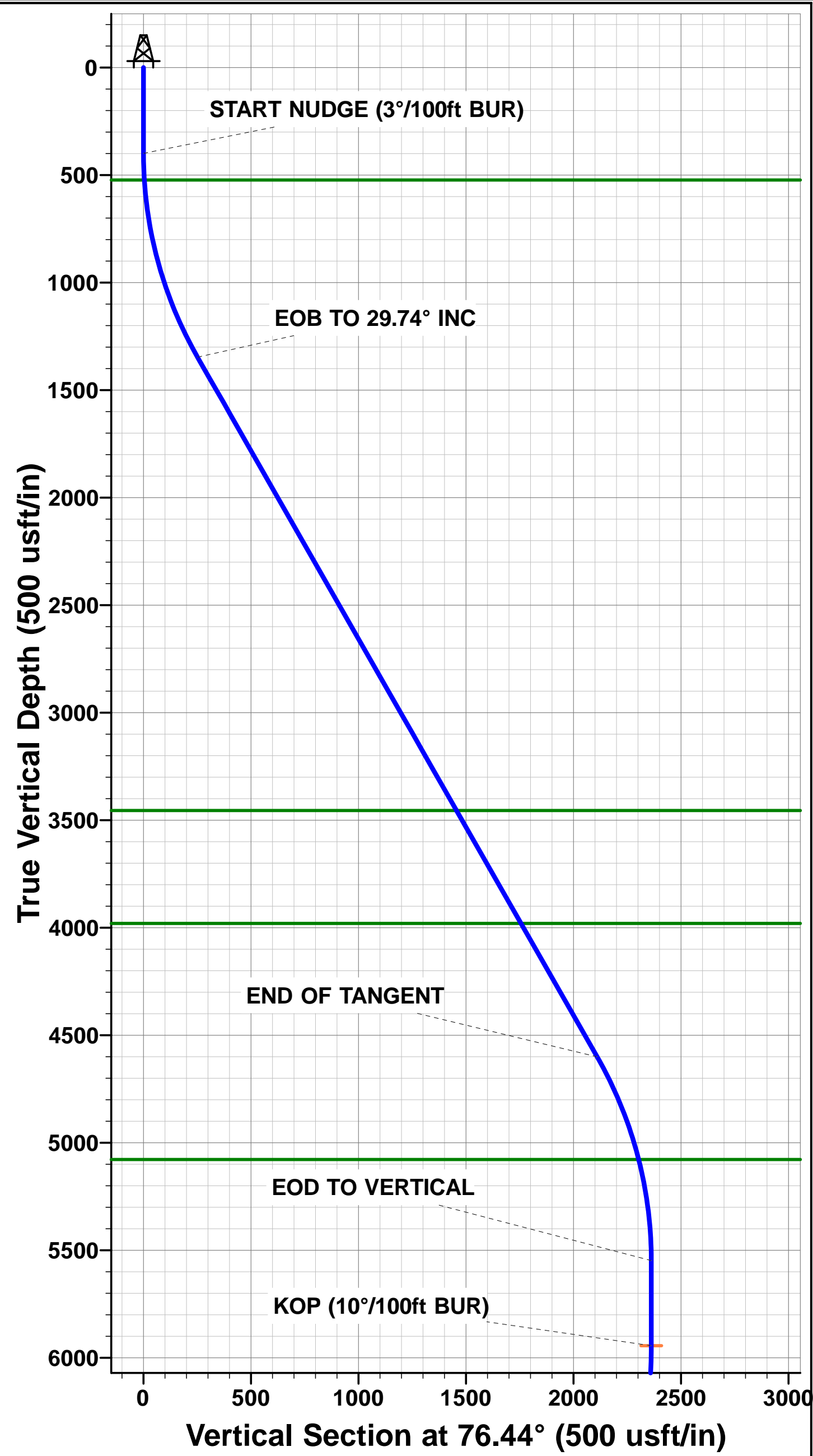
SHL: 559ft FNL & 2391ft FWL Sec 4

BPI: 600ft FNL & 662ft FEL Sec 4

EPI: 600ft FSL & 621ft FEL Sec 9

BHL: 300ft FSL & 618ft FEL of Sec 9

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - STAMPEDE FED 8-60 4-9-10	5944.3	553.7	2296.1	40.698861	-104.088247
BPI - STAMPEDE FED 8-60 4-9-10	6517.2	-19.2	2289.3	40.697289	-104.088272
EPI - STAMPEDE FED 8-60 4-9-10	6517.2	-9526.4	2176.2	40.671194	-104.088683
BHL - STAMPEDE FED 8-60 4-9-10	6517.2	-9825.8	2172.3	40.670372	-104.088697



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STAMPEDE FED 8-60 4-9-10
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Site:	NE NW SEC. 4 T8N R60W 6th P.M.	North Reference:	True
Well:	STAMPEDE FED 8-60 4-9-10	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	NE NW SEC. 4 T8N R60W 6th P.M.		
Site Position:		Northing:	1,500,110.53 usft
From:	Lat/Long	Easting:	3,389,033.65 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.697747
		Longitude:	-104.096942
		Grid Convergence:	0.91 °

Well	STAMPEDE FED 8-60 4-9-10		
Well Position	+N/-S	-147.6 usft	Northing: 1,499,964.80 usfi
	+E/-W	114.8 usft	Easting: 3,389,150.76 usfi
Position Uncertainty	0.0 usft	Wellhead Elevation:	usfi
		Latitude:	40.697342
		Longitude:	-104.096528
		Ground Level:	4,928.2 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	23/10/2017	7.84	67.18	52,573

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 (°)
	6,517.2	0.0	0.0	167.53

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	-4,953.2	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	-4,553.2	0.0	0.0	0.00	0.00	0.00	0.00	
1,391.4	29.74	76.44	1,347.4	-3,605.8	59.0	244.6	3.00	3.00	0.00	76.44	
5,138.3	29.74	76.44	4,600.9	-352.3	494.7	2,051.5	0.00	0.00	0.00	0.00	
6,129.7	0.00	0.00	5,548.3	595.1	553.7	2,296.1	3.00	-3.00	0.00	180.00	
6,525.7	0.00	0.00	5,944.3	991.1	553.7	2,296.1	0.00	0.00	0.00	0.00	KOP - STAMPEDE
7,425.6	90.00	180.68	6,517.2	1,564.0	-19.2	2,289.3	10.00	10.00	-19.93	180.68	BPI - STAMPEDE F
16,933.5	90.00	180.69	6,517.2	1,564.0	-9,526.4	2,176.2	0.00	0.00	0.00	128.46	EPI - STAMPEDE F
16,935.3	90.00	180.74	6,517.2	1,564.0	-9,528.2	2,176.2	3.00	0.00	3.00	90.00	
17,233.0	90.00	180.74	6,517.2	1,564.0	-9,825.8	2,172.3	0.00	0.00	0.00	-28.91	BHL - STAMPEDE

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Site:	NE NW SEC. 4 T8N R60W 6th P.M.	North Reference:	True
Well:	STAMPEDE FED 8-60 4-9-10	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: 559ft FNL & 2391ft FEL of Sec 4										
0.0	0.00	0.00	0.0	4,953.20	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,853.20	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,753.20	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,653.20	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (3°/100ft BUR)										
400.0	0.00	0.00	400.0	4,553.20	0.0	0.0	0.0	0.00	0.00	0.00
500.0	3.00	76.44	500.0	4,453.25	0.6	2.5	0.0	3.00	3.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
523.3	3.70	76.44	523.2	4,430.00	0.9	3.9	-0.1	3.00	3.00	0.00
600.0	6.00	76.44	599.6	4,353.57	2.5	10.2	-0.2	3.00	3.00	0.00
700.0	9.00	76.44	698.8	4,254.43	5.5	22.9	-0.4	3.00	3.00	0.00
800.0	12.00	76.44	797.1	4,156.12	9.8	40.6	-0.8	3.00	3.00	0.00
900.0	15.00	76.44	894.3	4,058.89	15.3	63.3	-1.2	3.00	3.00	0.00
1,000.0	18.00	76.44	990.2	3,963.02	21.9	90.9	-1.8	3.00	3.00	0.00
1,100.0	21.00	76.44	1,084.4	3,868.77	29.7	123.3	-2.4	3.00	3.00	0.00
1,200.0	24.00	76.44	1,176.8	3,776.39	38.7	160.5	-3.1	3.00	3.00	0.00
1,300.0	27.00	76.44	1,267.1	3,686.14	48.8	202.4	-4.0	3.00	3.00	0.00
EOB TO 29.74° INC										
1,391.4	29.74	76.44	1,347.4	3,605.77	59.0	244.6	-4.8	3.00	3.00	0.00
1,400.0	29.74	76.44	1,354.9	3,598.26	60.0	248.7	-4.9	0.00	0.00	0.00
1,500.0	29.74	76.44	1,441.8	3,511.43	71.6	297.0	-5.8	0.00	0.00	0.00
1,600.0	29.74	76.44	1,528.6	3,424.60	83.2	345.2	-6.8	0.00	0.00	0.00
1,700.0	29.74	76.44	1,615.4	3,337.78	94.9	393.4	-7.7	0.00	0.00	0.00
1,800.0	29.74	76.44	1,702.3	3,250.95	106.5	441.6	-8.7	0.00	0.00	0.00
1,900.0	29.74	76.44	1,789.1	3,164.12	118.1	489.9	-9.6	0.00	0.00	0.00
2,000.0	29.74	76.44	1,875.9	3,077.29	129.8	538.1	-10.5	0.00	0.00	0.00
2,100.0	29.74	76.44	1,962.7	2,990.46	141.4	586.3	-11.5	0.00	0.00	0.00
2,200.0	29.74	76.44	2,049.6	2,903.64	153.0	634.5	-12.4	0.00	0.00	0.00
2,300.0	29.74	76.44	2,136.4	2,816.81	164.6	682.8	-13.4	0.00	0.00	0.00
2,400.0	29.74	76.44	2,223.2	2,729.98	176.3	731.0	-14.3	0.00	0.00	0.00
2,500.0	29.74	76.44	2,310.0	2,643.15	187.9	779.2	-15.3	0.00	0.00	0.00
2,600.0	29.74	76.44	2,396.9	2,556.32	199.5	827.4	-16.2	0.00	0.00	0.00
2,700.0	29.74	76.44	2,483.7	2,469.50	211.2	875.7	-17.2	0.00	0.00	0.00
2,800.0	29.74	76.44	2,570.5	2,382.67	222.8	923.9	-18.1	0.00	0.00	0.00
2,900.0	29.74	76.44	2,657.4	2,295.84	234.4	972.1	-19.0	0.00	0.00	0.00
3,000.0	29.74	76.44	2,744.2	2,209.01	246.0	1,020.3	-20.0	0.00	0.00	0.00
3,100.0	29.74	76.44	2,831.0	2,122.18	257.7	1,068.6	-20.9	0.00	0.00	0.00
3,200.0	29.74	76.44	2,917.8	2,035.36	269.3	1,116.8	-21.9	0.00	0.00	0.00
3,300.0	29.74	76.44	3,004.7	1,948.53	280.9	1,165.0	-22.8	0.00	0.00	0.00
3,400.0	29.74	76.44	3,091.5	1,861.70	292.6	1,213.2	-23.8	0.00	0.00	0.00
3,500.0	29.74	76.44	3,178.3	1,774.87	304.2	1,261.5	-24.7	0.00	0.00	0.00
3,600.0	29.74	76.44	3,265.2	1,688.04	315.8	1,309.7	-25.7	0.00	0.00	0.00
3,700.0	29.74	76.44	3,352.0	1,601.22	327.5	1,357.9	-26.6	0.00	0.00	0.00
3,800.0	29.74	76.44	3,438.8	1,514.39	339.1	1,406.1	-27.5	0.00	0.00	0.00
PARKMAN										
3,818.9	29.74	76.44	3,455.2	1,498.00	341.3	1,415.2	-27.7	0.00	0.00	0.00
3,900.0	29.74	76.44	3,525.6	1,427.56	350.7	1,454.4	-28.5	0.00	0.00	0.00
4,000.0	29.74	76.44	3,612.5	1,340.73	362.3	1,502.6	-29.4	0.00	0.00	0.00
4,100.0	29.74	76.44	3,699.3	1,253.90	374.0	1,550.8	-30.4	0.00	0.00	0.00
4,200.0	29.74	76.44	3,786.1	1,167.08	385.6	1,599.0	-31.3	0.00	0.00	0.00
4,300.0	29.74	76.44	3,873.0	1,080.25	397.2	1,647.3	-32.3	0.00	0.00	0.00
4,400.0	29.74	76.44	3,959.8	993.42	408.9	1,695.5	-33.2	0.00	0.00	0.00

Planning Report



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Well:	STAMPEDE FED 8-60 4-9-10	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)
SUSSEX										
4,423.5	29.74	76.44	3,980.2	973.00	411.6	1,706.8	-33.4	0.00	0.00	0.00
4,500.0	29.74	76.44	4,046.6	906.59	420.5	1,743.7	-34.2	0.00	0.00	0.00
4,600.0	29.74	76.44	4,133.4	819.76	432.1	1,791.9	-35.1	0.00	0.00	0.00
4,700.0	29.74	76.44	4,220.3	732.94	443.7	1,840.2	-36.0	0.00	0.00	0.00
4,800.0	29.74	76.44	4,307.1	646.11	455.4	1,888.4	-37.0	0.00	0.00	0.00
4,900.0	29.74	76.44	4,393.9	559.28	467.0	1,936.6	-37.9	0.00	0.00	0.00
5,000.0	29.74	76.44	4,480.7	472.45	478.6	1,984.8	-38.9	0.00	0.00	0.00
5,100.0	29.74	76.44	4,567.6	385.62	490.3	2,033.1	-39.8	0.00	0.00	0.00
END OF TANGENT										
5,138.3	29.74	76.44	4,600.9	352.33	494.7	2,051.5	-40.2	0.00	0.00	0.00
5,200.0	27.89	76.44	4,654.9	298.31	501.7	2,080.4	-40.8	3.00	-3.00	0.00
5,300.0	24.89	76.44	4,744.5	208.74	512.1	2,123.6	-41.6	3.00	-3.00	0.00
5,400.0	21.89	76.44	4,836.2	116.97	521.4	2,162.2	-42.4	3.00	-3.00	0.00
5,500.0	18.89	76.44	4,930.0	23.25	529.6	2,196.1	-43.0	3.00	-3.00	0.00
5,600.0	15.89	76.44	5,025.4	-72.17	536.6	2,225.1	-43.6	3.00	-3.00	0.00
SHANNON										
5,654.7	14.25	76.44	5,078.2	-125.00	539.9	2,239.0	-43.9	3.00	-3.00	0.00
5,700.0	12.89	76.44	5,122.2	-169.02	542.4	2,249.3	-44.1	3.00	-3.00	0.00
5,800.0	9.89	76.44	5,220.2	-267.04	547.0	2,268.5	-44.4	3.00	-3.00	0.00
5,900.0	6.89	76.44	5,319.2	-365.96	550.5	2,282.7	-44.7	3.00	-3.00	0.00
6,000.0	3.89	76.44	5,418.7	-465.50	552.7	2,291.8	-44.9	3.00	-3.00	0.00
6,100.0	0.89	76.44	5,518.6	-565.40	553.6	2,295.9	-45.0	3.00	-3.00	0.00
EOD TO VERTICAL										
6,129.7	0.00	0.00	5,548.3	-595.10	553.7	2,296.1	-45.0	3.00	-3.00	0.00
6,200.0	0.00	0.00	5,618.6	-665.40	553.7	2,296.1	-45.0	0.00	0.00	0.00
6,300.0	0.00	0.00	5,718.6	-765.40	553.7	2,296.1	-45.0	0.00	0.00	0.00
6,400.0	0.00	0.00	5,818.6	-865.40	553.7	2,296.1	-45.0	0.00	0.00	0.00
6,500.0	0.00	0.00	5,918.6	-965.40	553.7	2,296.1	-45.0	0.00	0.00	0.00
KOP (10°/100ft BUR)										
6,525.7	0.00	0.00	5,944.3	-991.10	553.7	2,296.1	-45.0	0.00	0.00	0.00
6,600.0	7.43	180.68	6,018.4	-1,065.20	548.9	2,296.0	-40.3	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,690.9	16.52	180.68	6,107.2	-1,154.00	530.1	2,295.8	-22.0	10.00	10.00	0.00
6,700.0	17.43	180.68	6,115.9	-1,162.73	527.4	2,295.8	-19.4	10.00	10.00	0.00
NIOBRARA FORMATION										
6,765.5	23.99	180.68	6,177.2	-1,224.00	504.2	2,295.5	3.2	10.00	10.00	0.00
NIOBRARA A CHALK										
6,776.5	25.09	180.68	6,187.2	-1,234.00	499.7	2,295.5	7.6	10.00	10.00	0.00
6,800.0	27.43	180.68	6,208.2	-1,255.04	489.3	2,295.3	17.8	10.00	10.00	0.00
6,900.0	37.43	180.68	6,292.5	-1,339.34	435.7	2,294.7	69.9	10.00	10.00	0.00
NIOBRARA B CHALK										
6,905.9	38.02	180.68	6,297.2	-1,344.00	432.1	2,294.7	73.4	10.00	10.00	0.00
7,000.0	47.44	180.68	6,366.2	-1,413.05	368.3	2,293.9	135.5	10.00	10.00	0.00
NIOBRARA C CHALK										
7,001.4	47.58	180.68	6,367.2	-1,414.00	367.3	2,293.9	136.6	10.00	10.00	0.00
7,100.0	57.44	180.68	6,427.1	-1,473.94	289.2	2,293.0	212.6	10.00	10.00	0.00
FT HAYS										
7,197.0	67.14	180.68	6,472.2	-1,519.00	203.4	2,292.0	296.2	10.00	10.00	0.00
7,200.0	67.44	180.68	6,473.3	-1,520.15	200.6	2,291.9	298.8	10.00	10.00	0.00
7,300.0	77.44	180.68	6,503.5	-1,550.29	105.4	2,290.8	391.6	10.00	10.00	0.00
CODELL										

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STAMPEDE FED 8-60 4-9-10
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Site:	NE NW SEC. 4 T8N R60W 6th P.M.	North Reference:	True
Well:	STAMPEDE FED 8-60 4-9-10	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)
7,318.4	79.28	180.68	6,507.2	-1,554.00	87.4	2,290.6	409.1	10.00	10.00	0.00
7,400.0	87.44	180.68	6,516.6	-1,563.43	6.4	2,289.6	488.0	10.00	10.00	0.00
BPI: 600ft FNL & 662ft FEL of Sec 4										
7,425.6	90.00	180.68	6,517.2	-1,564.00	-19.2	2,289.3	512.9	10.00	10.00	0.00
7,500.0	90.00	180.68	6,517.2	-1,564.00	-93.5	2,288.4	585.4	0.00	0.00	0.00
7,600.0	90.00	180.68	6,517.2	-1,563.99	-193.5	2,287.3	682.7	0.00	0.00	0.00
7,700.0	90.00	180.68	6,517.2	-1,563.98	-293.5	2,286.1	780.1	0.00	0.00	0.00
7,800.0	90.00	180.68	6,517.2	-1,563.98	-393.5	2,284.9	877.5	0.00	0.00	0.00
7,900.0	90.00	180.68	6,517.2	-1,563.97	-493.5	2,283.7	974.9	0.00	0.00	0.00
8,000.0	90.00	180.68	6,517.2	-1,563.97	-593.5	2,282.5	1,072.3	0.00	0.00	0.00
8,100.0	90.00	180.68	6,517.2	-1,563.96	-693.5	2,281.4	1,169.6	0.00	0.00	0.00
8,200.0	90.00	180.68	6,517.2	-1,563.96	-793.5	2,280.2	1,267.0	0.00	0.00	0.00
8,300.0	90.00	180.68	6,517.2	-1,563.95	-893.5	2,279.0	1,364.4	0.00	0.00	0.00
8,400.0	90.00	180.68	6,517.1	-1,563.95	-993.5	2,277.8	1,461.8	0.00	0.00	0.00
8,500.0	90.00	180.68	6,517.1	-1,563.94	-1,093.5	2,276.6	1,559.2	0.00	0.00	0.00
8,600.0	90.00	180.68	6,517.1	-1,563.94	-1,193.5	2,275.4	1,656.5	0.00	0.00	0.00
8,700.0	90.00	180.68	6,517.1	-1,563.93	-1,293.5	2,274.2	1,753.9	0.00	0.00	0.00
8,800.0	90.00	180.68	6,517.1	-1,563.93	-1,393.5	2,273.1	1,851.3	0.00	0.00	0.00
8,900.0	90.00	180.68	6,517.1	-1,563.92	-1,493.5	2,271.9	1,948.7	0.00	0.00	0.00
9,000.0	90.00	180.68	6,517.1	-1,563.92	-1,593.4	2,270.7	2,046.1	0.00	0.00	0.00
9,100.0	90.00	180.68	6,517.1	-1,563.92	-1,693.4	2,269.5	2,143.4	0.00	0.00	0.00
9,200.0	90.00	180.68	6,517.1	-1,563.91	-1,793.4	2,268.3	2,240.8	0.00	0.00	0.00
9,300.0	90.00	180.68	6,517.1	-1,563.91	-1,893.4	2,267.1	2,338.2	0.00	0.00	0.00
9,400.0	90.00	180.68	6,517.1	-1,563.90	-1,993.4	2,266.0	2,435.6	0.00	0.00	0.00
9,500.0	90.00	180.68	6,517.1	-1,563.90	-2,093.4	2,264.8	2,533.0	0.00	0.00	0.00
9,600.0	90.00	180.68	6,517.1	-1,563.90	-2,193.4	2,263.6	2,630.3	0.00	0.00	0.00
9,700.0	90.00	180.68	6,517.1	-1,563.89	-2,293.4	2,262.4	2,727.7	0.00	0.00	0.00
9,800.0	90.00	180.68	6,517.1	-1,563.89	-2,393.4	2,261.2	2,825.1	0.00	0.00	0.00
9,900.0	90.00	180.68	6,517.1	-1,563.89	-2,493.4	2,260.0	2,922.5	0.00	0.00	0.00
10,000.0	90.00	180.68	6,517.1	-1,563.89	-2,593.4	2,258.8	3,019.8	0.00	0.00	0.00
10,100.0	90.00	180.68	6,517.1	-1,563.88	-2,693.4	2,257.7	3,117.2	0.00	0.00	0.00
10,200.0	90.00	180.68	6,517.1	-1,563.88	-2,793.4	2,256.5	3,214.6	0.00	0.00	0.00
10,300.0	90.00	180.68	6,517.1	-1,563.88	-2,893.4	2,255.3	3,312.0	0.00	0.00	0.00
10,400.0	90.00	180.68	6,517.1	-1,563.88	-2,993.3	2,254.1	3,409.4	0.00	0.00	0.00
10,500.0	90.00	180.68	6,517.1	-1,563.87	-3,093.3	2,252.9	3,506.7	0.00	0.00	0.00
10,600.0	90.00	180.68	6,517.1	-1,563.87	-3,193.3	2,251.7	3,604.1	0.00	0.00	0.00
10,700.0	90.00	180.68	6,517.1	-1,563.87	-3,293.3	2,250.5	3,701.5	0.00	0.00	0.00
10,800.0	90.00	180.68	6,517.1	-1,563.87	-3,393.3	2,249.3	3,798.9	0.00	0.00	0.00
10,900.0	90.00	180.68	6,517.1	-1,563.87	-3,493.3	2,248.2	3,896.3	0.00	0.00	0.00
11,000.0	90.00	180.68	6,517.1	-1,563.86	-3,593.3	2,247.0	3,993.6	0.00	0.00	0.00
11,100.0	90.00	180.68	6,517.1	-1,563.86	-3,693.3	2,245.8	4,091.0	0.00	0.00	0.00
11,200.0	90.00	180.68	6,517.1	-1,563.86	-3,793.3	2,244.6	4,188.4	0.00	0.00	0.00
11,300.0	90.00	180.68	6,517.1	-1,563.86	-3,893.3	2,243.4	4,285.8	0.00	0.00	0.00
11,400.0	90.00	180.68	6,517.1	-1,563.86	-3,993.3	2,242.2	4,383.2	0.00	0.00	0.00
11,500.0	90.00	180.68	6,517.1	-1,563.86	-4,093.3	2,241.0	4,480.5	0.00	0.00	0.00
11,600.0	90.00	180.68	6,517.1	-1,563.86	-4,193.3	2,239.8	4,577.9	0.00	0.00	0.00
11,700.0	90.00	180.68	6,517.1	-1,563.86	-4,293.3	2,238.7	4,675.3	0.00	0.00	0.00
11,800.0	90.00	180.68	6,517.1	-1,563.86	-4,393.2	2,237.5	4,772.7	0.00	0.00	0.00
11,900.0	90.00	180.68	6,517.1	-1,563.86	-4,493.2	2,236.3	4,870.0	0.00	0.00	0.00
12,000.0	90.00	180.68	6,517.1	-1,563.86	-4,593.2	2,235.1	4,967.4	0.00	0.00	0.00
12,100.0	90.00	180.68	6,517.1	-1,563.85	-4,693.2	2,233.9	5,064.8	0.00	0.00	0.00
12,200.0	90.00	180.68	6,517.1	-1,563.85	-4,793.2	2,232.7	5,162.2	0.00	0.00	0.00
12,300.0	90.00	180.68	6,517.1	-1,563.85	-4,893.2	2,231.5	5,259.6	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STAMPEDE FED 8-60 4-9-10
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Site:	NE NW SEC. 4 T8N R60W 6th P.M.	North Reference:	True
Well:	STAMPEDE FED 8-60 4-9-10	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)
12,400.0	90.00	180.68	6,517.1	-1,563.86	-4,993.2	2,230.3	5,356.9	0.00	0.00	0.00
12,500.0	90.00	180.68	6,517.1	-1,563.86	-5,093.2	2,229.1	5,454.3	0.00	0.00	0.00
12,600.0	90.00	180.68	6,517.1	-1,563.86	-5,193.2	2,227.9	5,551.7	0.00	0.00	0.00
12,700.0	90.00	180.68	6,517.1	-1,563.86	-5,293.2	2,226.8	5,649.1	0.00	0.00	0.00
12,800.0	90.00	180.68	6,517.1	-1,563.86	-5,393.2	2,225.6	5,746.4	0.00	0.00	0.00
12,900.0	90.00	180.68	6,517.1	-1,563.86	-5,493.2	2,224.4	5,843.8	0.00	0.00	0.00
13,000.0	90.00	180.68	6,517.1	-1,563.86	-5,593.2	2,223.2	5,941.2	0.00	0.00	0.00
13,100.0	90.00	180.68	6,517.1	-1,563.86	-5,693.2	2,222.0	6,038.6	0.00	0.00	0.00
13,200.0	90.00	180.68	6,517.1	-1,563.86	-5,793.1	2,220.8	6,136.0	0.00	0.00	0.00
13,300.0	90.00	180.68	6,517.1	-1,563.86	-5,893.1	2,219.6	6,233.3	0.00	0.00	0.00
13,400.0	90.00	180.68	6,517.1	-1,563.86	-5,993.1	2,218.4	6,330.7	0.00	0.00	0.00
13,500.0	90.00	180.68	6,517.1	-1,563.87	-6,093.1	2,217.2	6,428.1	0.00	0.00	0.00
13,600.0	90.00	180.68	6,517.1	-1,563.87	-6,193.1	2,216.0	6,525.5	0.00	0.00	0.00
13,700.0	90.00	180.68	6,517.1	-1,563.87	-6,293.1	2,214.8	6,622.9	0.00	0.00	0.00
13,800.0	90.00	180.68	6,517.1	-1,563.87	-6,393.1	2,213.6	6,720.2	0.00	0.00	0.00
13,900.0	90.00	180.68	6,517.1	-1,563.87	-6,493.1	2,212.5	6,817.6	0.00	0.00	0.00
14,000.0	90.00	180.68	6,517.1	-1,563.88	-6,593.1	2,211.3	6,915.0	0.00	0.00	0.00
14,100.0	90.00	180.68	6,517.1	-1,563.88	-6,693.1	2,210.1	7,012.4	0.00	0.00	0.00
14,200.0	90.00	180.68	6,517.1	-1,563.88	-6,793.1	2,208.9	7,109.7	0.00	0.00	0.00
14,300.0	90.00	180.68	6,517.1	-1,563.88	-6,893.1	2,207.7	7,207.1	0.00	0.00	0.00
14,400.0	90.00	180.68	6,517.1	-1,563.89	-6,993.1	2,206.5	7,304.5	0.00	0.00	0.00
14,500.0	90.00	180.68	6,517.1	-1,563.89	-7,093.1	2,205.3	7,401.9	0.00	0.00	0.00
14,600.0	90.00	180.68	6,517.1	-1,563.89	-7,193.0	2,204.1	7,499.3	0.00	0.00	0.00
14,700.0	90.00	180.68	6,517.1	-1,563.90	-7,293.0	2,202.9	7,596.6	0.00	0.00	0.00
14,800.0	90.00	180.68	6,517.1	-1,563.90	-7,393.0	2,201.7	7,694.0	0.00	0.00	0.00
14,900.0	90.00	180.68	6,517.1	-1,563.90	-7,493.0	2,200.5	7,791.4	0.00	0.00	0.00
15,000.0	90.00	180.68	6,517.1	-1,563.91	-7,593.0	2,199.3	7,888.8	0.00	0.00	0.00
15,100.0	90.00	180.68	6,517.1	-1,563.91	-7,693.0	2,198.1	7,986.1	0.00	0.00	0.00
15,200.0	90.00	180.68	6,517.1	-1,563.91	-7,793.0	2,196.9	8,083.5	0.00	0.00	0.00
15,300.0	90.00	180.68	6,517.1	-1,563.92	-7,893.0	2,195.7	8,180.9	0.00	0.00	0.00
15,400.0	90.00	180.68	6,517.1	-1,563.92	-7,993.0	2,194.5	8,278.3	0.00	0.00	0.00
15,500.0	90.00	180.68	6,517.1	-1,563.93	-8,093.0	2,193.4	8,375.6	0.00	0.00	0.00
15,600.0	90.00	180.68	6,517.1	-1,563.93	-8,193.0	2,192.2	8,473.0	0.00	0.00	0.00
15,700.0	90.00	180.68	6,517.1	-1,563.93	-8,293.0	2,191.0	8,570.4	0.00	0.00	0.00
15,800.0	90.00	180.69	6,517.1	-1,563.94	-8,393.0	2,189.8	8,667.8	0.00	0.00	0.00
15,900.0	90.00	180.69	6,517.1	-1,563.94	-8,493.0	2,188.6	8,765.2	0.00	0.00	0.00
16,000.0	90.00	180.69	6,517.1	-1,563.95	-8,592.9	2,187.4	8,862.5	0.00	0.00	0.00
16,100.0	90.00	180.69	6,517.2	-1,563.95	-8,692.9	2,186.2	8,959.9	0.00	0.00	0.00
16,200.0	90.00	180.69	6,517.2	-1,563.96	-8,792.9	2,185.0	9,057.3	0.00	0.00	0.00
16,300.0	90.00	180.69	6,517.2	-1,563.96	-8,892.9	2,183.8	9,154.7	0.00	0.00	0.00
16,400.0	90.00	180.69	6,517.2	-1,563.97	-8,992.9	2,182.6	9,252.0	0.00	0.00	0.00
16,500.0	90.00	180.69	6,517.2	-1,563.97	-9,092.9	2,181.4	9,349.4	0.00	0.00	0.00
16,600.0	90.00	180.69	6,517.2	-1,563.98	-9,192.9	2,180.2	9,446.8	0.00	0.00	0.00
16,700.0	90.00	180.69	6,517.2	-1,563.99	-9,292.9	2,179.0	9,544.2	0.00	0.00	0.00
16,800.0	90.00	180.69	6,517.2	-1,563.99	-9,392.9	2,177.8	9,641.5	0.00	0.00	0.00
16,900.0	90.00	180.69	6,517.2	-1,564.00	-9,492.9	2,176.6	9,738.9	0.00	0.00	0.00
EPI: 600ft FSL & 621ft FEL of Sec 9										
16,933.5	90.00	180.69	6,517.2	-1,564.00	-9,526.4	2,176.2	9,771.5	0.00	0.00	0.00
EOT TO 180.74° AZ										
16,935.3	90.00	180.74	6,517.2	-1,564.00	-9,528.2	2,176.2	9,773.3	3.00	0.00	3.00
17,000.0	90.00	180.74	6,517.2	-1,564.00	-9,592.9	2,175.3	9,836.3	0.00	0.00	0.00
17,100.0	90.00	180.74	6,517.2	-1,564.00	-9,692.9	2,174.1	9,933.6	0.00	0.00	0.00
17,200.0	90.00	180.74	6,517.2	-1,564.00	-9,792.9	2,172.8	10,031.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STAMPEDE FED 8-60 4-9-10
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4953.2usft (Original Well Elev)
Site:	NE NW SEC. 4 T8N R60W 6th P.M.	North Reference:	True
Well:	STAMPEDE FED 8-60 4-9-10	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)
BHL: 300ft FSL & 618ft FEL of Sec 9										
17,233.0	90.00	180.74	6,517.2	-1,564.00	-9,825.8	2,172.3	10,063.1	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
523.3	523.2	PIERRE SHALE (BASE FOX HILLS				
3,818.9	3,455.2	PARKMAN				
4,423.5	3,980.2	SUSSEX				
5,654.7	5,078.2	SHANNON				
6,690.9	6,107.2	SHARON SPRINGS SHALE				
6,765.5	6,177.2	NIOBRARA FORMATION				
6,776.5	6,187.2	NIOBRARA A CHALK				
6,905.9	6,297.2	NIOBRARA B CHALK				
7,001.4	6,367.2	NIOBRARA C CHALK				
7,197.0	6,472.2	FT HAYS				
7,318.4	6,507.2	CODELL				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 559ft FNL & 2391ft FEL of Sec 4
400.0	400.0	0.0	0.0	START NUDGE (3°/100ft BUR)
1,391.4	1,347.4	59.0	244.6	EOB TO 29.74° INC
5,138.3	4,600.9	494.7	2,051.5	END OF TANGENT
6,129.7	5,548.3	553.7	2,296.1	EOD TO VERTICAL
6,525.7	5,944.3	553.7	2,296.1	KOP (10°/100ft BUR)
7,425.6	6,517.2	-19.2	2,289.3	BPI: 600ft FNL & 662ft FEL of Sec 4
16,933.5	6,517.2	-9,526.4	2,176.2	EPI: 600ft FSL & 621ft FEL of Sec 9
16,935.3	6,517.2	-9,528.2	2,176.2	EOT TO 180.74° AZ
17,233.0	6,517.2	-9,825.8	2,172.3	BHL: 300ft FSL & 618ft FEL of Sec 9