

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NE SE SEC. 14 T8N R60W 6th P.M.

BOOMSLANG FED 8-60 14B-13-18-2

ORIGINAL WELLBORE

27 August, 2017

Plan: PROPOSAL #1



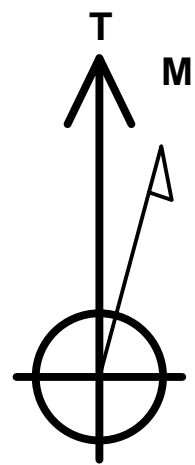
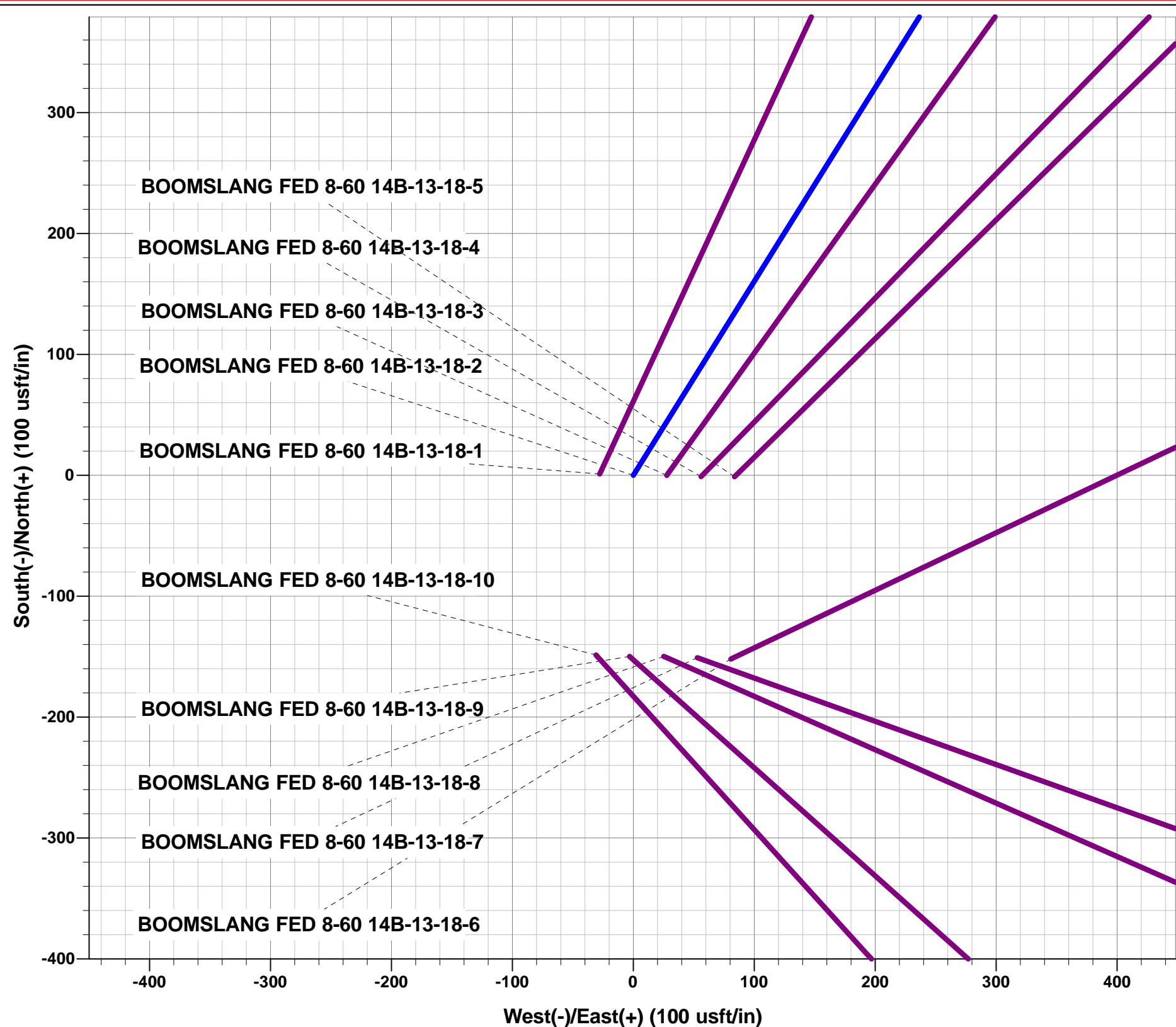
Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE SE SEC. 14 T8N R60W 6th P.M.
Well: BOOMSLANG FED 8-60 14B-13-18-2
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

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: 1388ft FSL & 504ft FEL of Sec 14
400.0	400.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1046.1	1051.7	13.03	31.95	62.6	39.1	43.9	73.8	EOB TO 13.03° INC
4881.9	4988.9	13.03	31.95	816.1	509.0	571.5	961.8	END OF TANGENT
5528.0	5640.7	0.00	0.00	878.7	548.1	615.4	1035.6	EOD TO VERTICAL
5628.0	5740.7	0.00	0.00	878.7	548.1	615.4	1035.6	KOP (10°/100ft BUR)
6201.0	6640.8	90.00	90.14	877.3	1121.1	1186.6	1608.7	BPI: 2260ft FSL & 600ft FWL of Sec 13
6201.0	16053.8	90.00	90.14	854.4	10534.2	10568.7	11021.7	EPI: 2300ft FSL & 600ft FEL of Sec 18
6201.0	16055.4	90.00	90.19	854.4	10535.8	10570.3	11023.3	EOT TO 90.19° AZ
6201.0	16353.7	90.00	90.18	853.5	10834.1	10867.6	11321.6	BHL: 2304ft FSL & 300ft FEL of Sec 18

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - BOOMSLANG FED 8-60 14B-13-18-2	5628.0	878.7	548.1	40.661487	-104.048382
BPI - BOOMSLANG FED 8-60 14B-13-18-2	6201.0	877.3	1121.1	40.661483	-104.046317
EPI - BOOMSLANG FED 8-60 14B-13-18-2	6201.0	854.4	10534.2	40.661414	-104.012389
BHL - BOOMSLANG FED 8-60 14B-13-18-2	6201.0	853.5	10834.1	40.661411	-104.011308



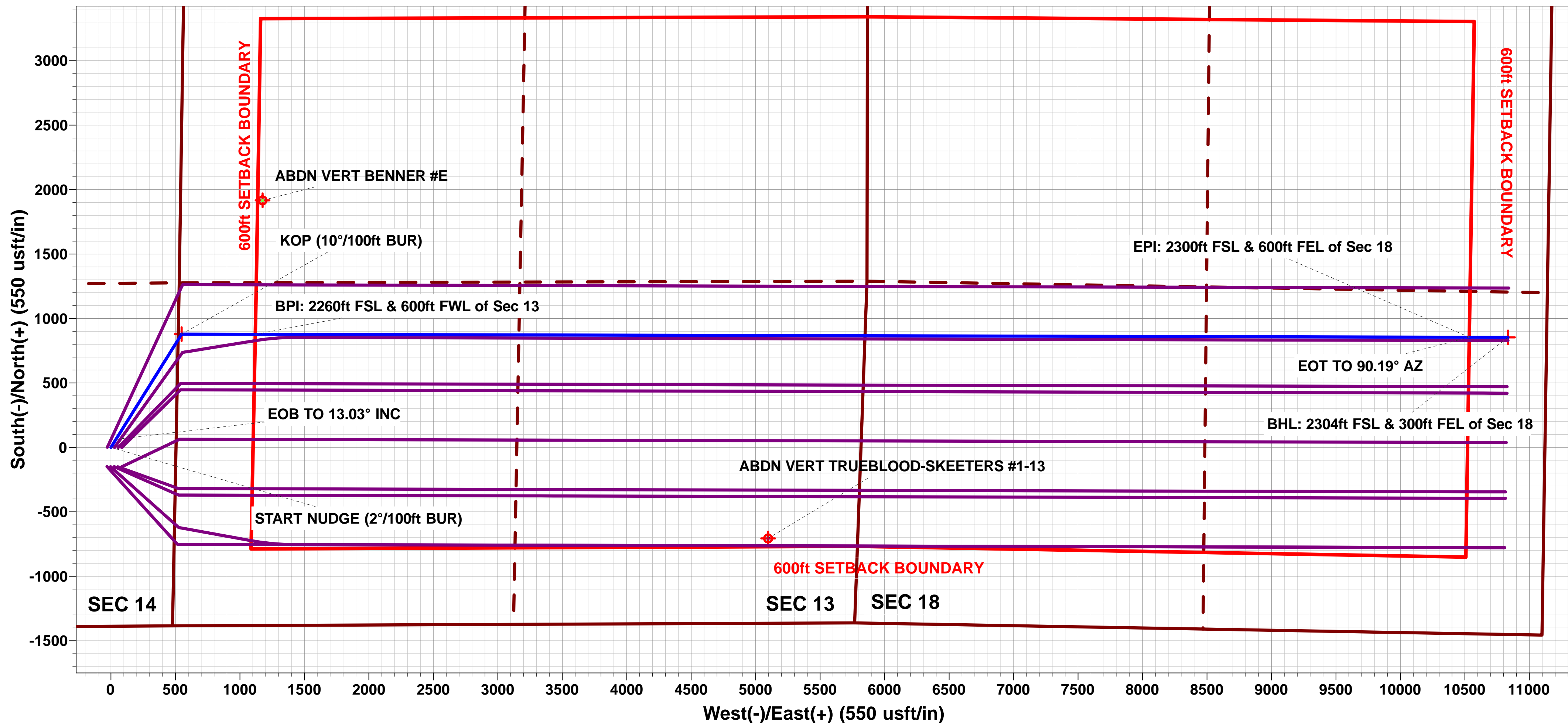
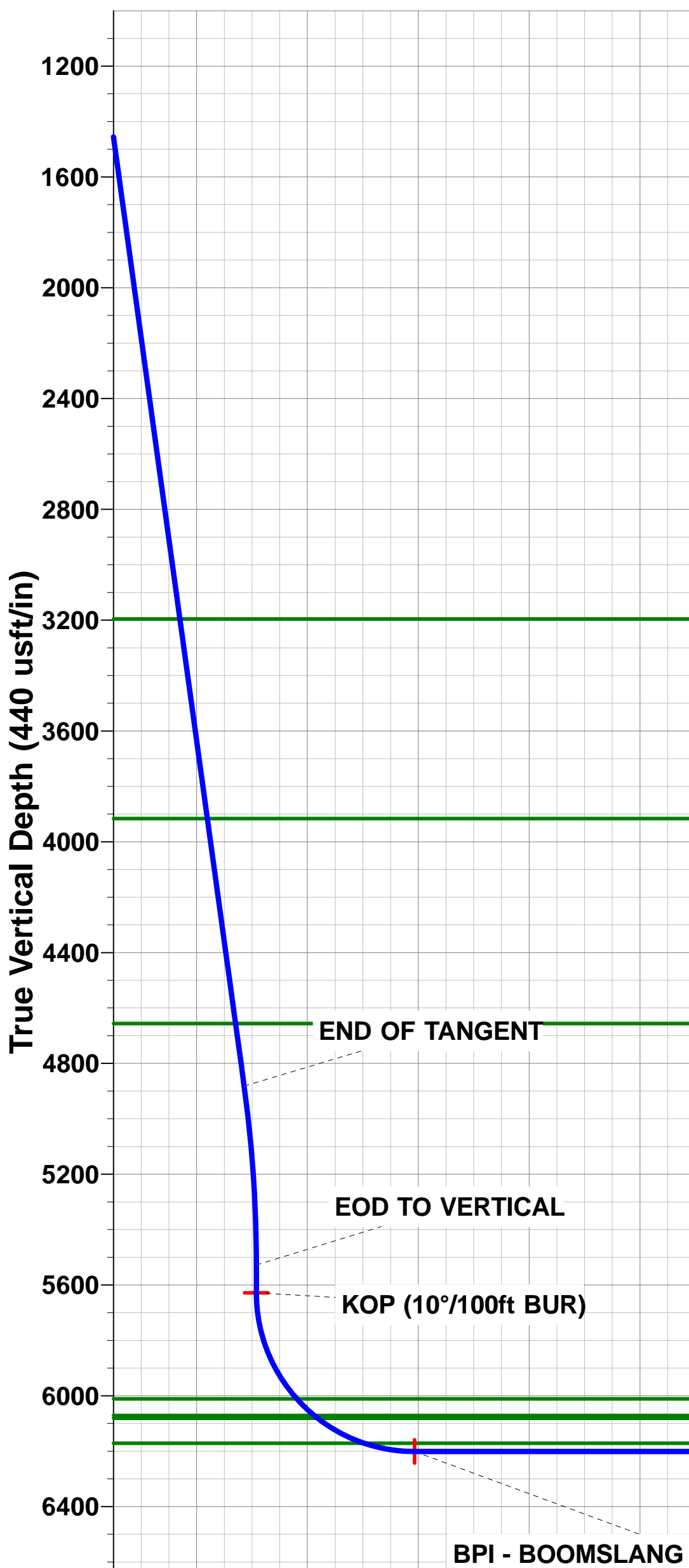
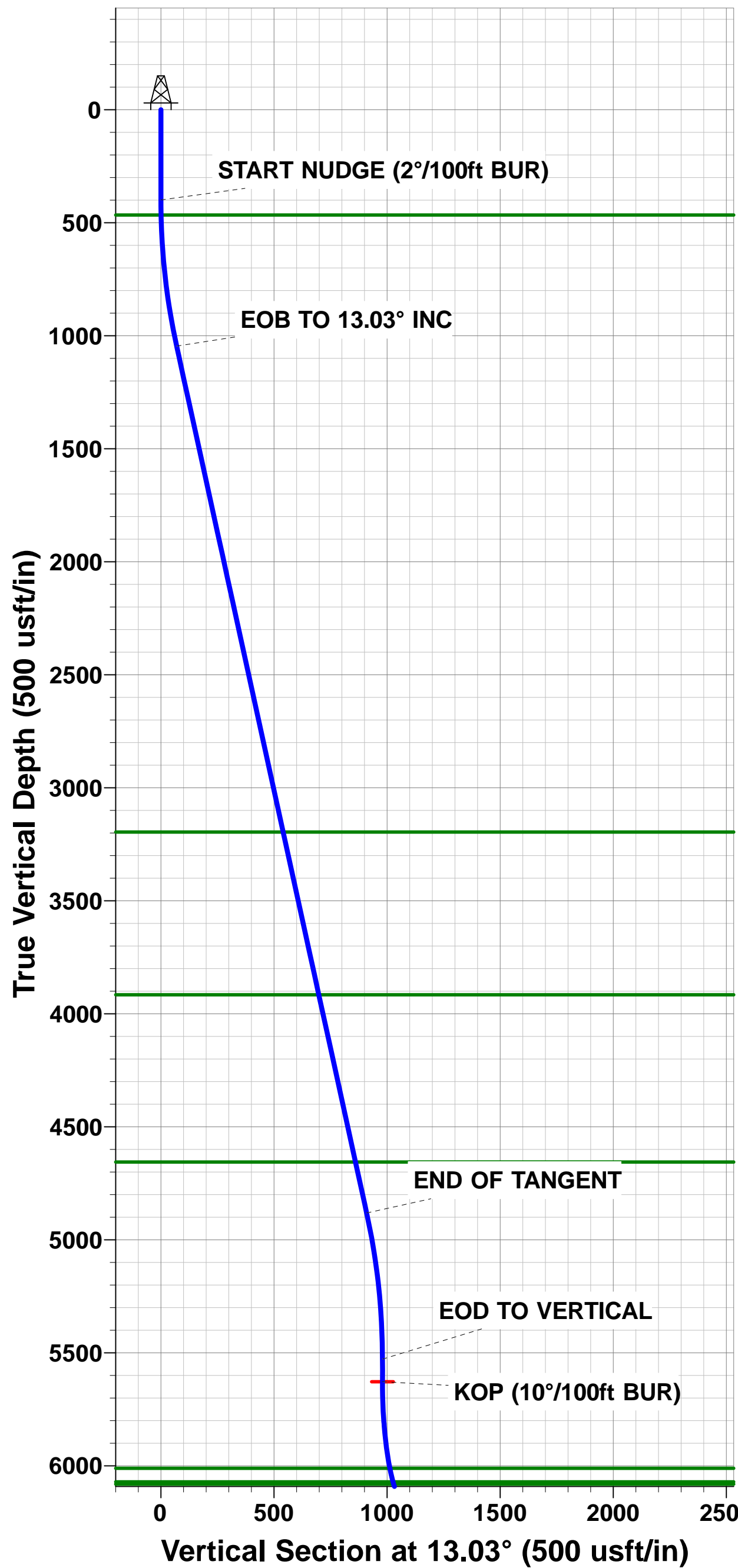
Azimuths to True North
Magnetic North: 7.82°
Magnetic Field
Strength: 52576.3snT
Dip Angle: 67.16°
Date: 27/08/2017
Model: IGRF2015

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
466.0	466.0	PIERRE SH (BASE FOX HILLS)
3196.0	3258.5	PARKMAN
3916.0	3997.5	SUSSEX
4656.0	4757.1	SHANNON
6011.0	6160.1	SHARON SPRINGS SHALE
6071.0	6247.1	NIOBRARA FORMATION
6081.0	6263.1	NIOBRARA A CHALK
6171.0	6454.5	NIOBRARA B CHALK

PROPOSED LOCAL COORDINATES:

SHL:1388ft FSL & 504ft FEL of Sec 14
BEGIN PROD INT: 2260ft FSL & 600ft FWL of Sec 13
END PROD INTERVAL: 2300ft FSL & 600ft FEL of Sec 18
BHL: 2304ft FSL & 300ft FEL of Sec 18



EPI - BOOMSLANG FED 8-60 14B-13-18-2
EOT TO 90.19° AZ
BHL - BOOMSLANG FED 8-60 14B-13-18-2

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	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 SE SEC. 14 T8N R60W 6th P.M.		
Site Position:		Northing:	1,486,231.70 usft
From:	Lat/Long	Easting:	3,402,151.68 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.659078
		Longitude:	-104.050458
		Grid Convergence:	0.94 °

Well	BOOMSLANG FED 8-60 14B-13-18-2		
Well Position	+N/-S	-1.1 usft	Northing:
	+E/-W	27.7 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	27/08/2017	7.82	67.16	52,576

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 (°)
	6,201.0	0.0	0.0	85.50

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
0.0	0.00	0.00	0.0	-4,916.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	-4,516.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,051.7	13.03	31.95	1,046.1	-3,869.9	62.6	39.1	2.00	2.00	0.00	31.95	
4,988.9	13.03	31.95	4,881.9	-34.1	816.1	509.0	0.00	0.00	0.00	0.00	
5,640.7	0.00	0.00	5,528.0	612.0	878.7	548.1	2.00	-2.00	0.00	180.00	
5,740.7	0.00	0.00	5,628.0	712.0	878.7	548.1	0.00	0.00	0.00	0.00	KOP - BOOMSLANG
6,640.8	90.00	90.14	6,201.0	1,285.0	877.3	1,121.1	10.00	10.00	10.01	90.14	BPI - BOOMSLANG
16,053.8	90.00	90.14	6,201.0	1,285.0	854.4	10,534.2	0.00	0.00	0.00	143.92	EPI - BOOMSLANG
16,055.4	90.00	90.19	6,201.0	1,285.0	854.4	10,535.8	3.00	0.00	3.00	90.00	
16,353.7	90.00	90.18	6,201.0	1,285.0	853.5	10,834.1	0.00	0.00	0.00	-55.57	BHL - BOOMSLANG

Planning Report



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Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	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: 1388ft FSL & 504ft FEL of Sec 14										
0.0	0.00	0.00	0.0	4,916.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,816.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,716.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,616.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
400.0	0.00	0.00	400.0	4,516.00	0.0	0.0	0.0	0.00	0.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
466.0	1.32	31.95	466.0	4,450.00	0.6	0.4	0.5	2.00	2.00	0.00
500.0	2.00	31.95	500.0	4,416.02	1.5	0.9	1.0	2.00	2.00	0.00
600.0	4.00	31.95	599.8	4,316.16	5.9	3.7	4.1	2.00	2.00	0.00
700.0	6.00	31.95	699.5	4,216.55	13.3	8.3	9.3	2.00	2.00	0.00
800.0	8.00	31.95	798.7	4,117.30	23.7	14.8	16.6	2.00	2.00	0.00
900.0	10.00	31.95	897.5	4,018.53	36.9	23.0	25.9	2.00	2.00	0.00
1,000.0	12.00	31.95	995.6	3,920.38	53.1	33.1	37.2	2.00	2.00	0.00
EOB TO 13.03° INC										
1,051.7	13.03	31.95	1,046.1	3,869.87	62.6	39.1	43.9	2.00	2.00	0.00
1,100.0	13.03	31.95	1,093.1	3,822.85	71.9	44.8	50.3	0.00	0.00	0.00
1,200.0	13.03	31.95	1,190.6	3,725.43	91.0	56.8	63.7	0.00	0.00	0.00
1,300.0	13.03	31.95	1,288.0	3,628.00	110.1	68.7	77.1	0.00	0.00	0.00
1,400.0	13.03	31.95	1,385.4	3,530.58	129.3	80.6	90.5	0.00	0.00	0.00
1,500.0	13.03	31.95	1,482.8	3,433.16	148.4	92.6	103.9	0.00	0.00	0.00
1,600.0	13.03	31.95	1,580.3	3,335.73	167.5	104.5	117.3	0.00	0.00	0.00
1,700.0	13.03	31.95	1,677.7	3,238.31	186.7	116.4	130.7	0.00	0.00	0.00
1,800.0	13.03	31.95	1,775.1	3,140.89	205.8	128.4	144.2	0.00	0.00	0.00
1,900.0	13.03	31.95	1,872.5	3,043.46	225.0	140.3	157.6	0.00	0.00	0.00
2,000.0	13.03	31.95	1,970.0	2,946.04	244.1	152.3	171.0	0.00	0.00	0.00
2,100.0	13.03	31.95	2,067.4	2,848.62	263.2	164.2	184.4	0.00	0.00	0.00
2,200.0	13.03	31.95	2,164.8	2,751.19	282.4	176.1	197.8	0.00	0.00	0.00
2,300.0	13.03	31.95	2,262.2	2,653.77	301.5	188.1	211.2	0.00	0.00	0.00
2,400.0	13.03	31.95	2,359.7	2,556.35	320.6	200.0	224.6	0.00	0.00	0.00
2,500.0	13.03	31.95	2,457.1	2,458.92	339.8	211.9	238.0	0.00	0.00	0.00
2,600.0	13.03	31.95	2,554.5	2,361.50	358.9	223.9	251.4	0.00	0.00	0.00
2,700.0	13.03	31.95	2,651.9	2,264.08	378.0	235.8	264.8	0.00	0.00	0.00
2,800.0	13.03	31.95	2,749.3	2,166.65	397.2	247.7	278.2	0.00	0.00	0.00
2,900.0	13.03	31.95	2,846.8	2,069.23	416.3	259.7	291.6	0.00	0.00	0.00
3,000.0	13.03	31.95	2,944.2	1,971.81	435.5	271.6	305.0	0.00	0.00	0.00
3,100.0	13.03	31.95	3,041.6	1,874.38	454.6	283.6	318.4	0.00	0.00	0.00
3,200.0	13.03	31.95	3,139.0	1,776.96	473.7	295.5	331.8	0.00	0.00	0.00
PARKMAN										
3,258.5	13.03	31.95	3,196.0	1,720.00	484.9	302.5	339.6	0.00	0.00	0.00
3,300.0	13.03	31.95	3,236.5	1,679.54	492.9	307.4	345.2	0.00	0.00	0.00
3,400.0	13.03	31.95	3,333.9	1,582.11	512.0	319.4	358.6	0.00	0.00	0.00
3,500.0	13.03	31.95	3,431.3	1,484.69	531.1	331.3	372.0	0.00	0.00	0.00
3,600.0	13.03	31.95	3,528.7	1,387.27	550.3	343.2	385.4	0.00	0.00	0.00
3,700.0	13.03	31.95	3,626.2	1,289.84	569.4	355.2	398.8	0.00	0.00	0.00
3,800.0	13.03	31.95	3,723.6	1,192.42	588.6	367.1	412.2	0.00	0.00	0.00
3,900.0	13.03	31.95	3,821.0	1,095.00	607.7	379.1	425.6	0.00	0.00	0.00
SUSSEX										
3,997.5	13.03	31.95	3,916.0	1,000.00	626.3	390.7	438.7	0.00	0.00	0.00
4,000.0	13.03	31.95	3,918.4	997.57	626.8	391.0	439.0	0.00	0.00	0.00
4,100.0	13.03	31.95	4,015.9	900.15	646.0	402.9	452.4	0.00	0.00	0.00
4,200.0	13.03	31.95	4,113.3	802.73	665.1	414.9	465.8	0.00	0.00	0.00

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	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)
4,300.0	13.03	31.95	4,210.7	705.30	684.2	426.8	479.2	0.00	0.00	0.00
4,400.0	13.03	31.95	4,308.1	607.88	703.4	438.7	492.6	0.00	0.00	0.00
4,500.0	13.03	31.95	4,405.5	510.46	722.5	450.7	506.0	0.00	0.00	0.00
4,600.0	13.03	31.95	4,503.0	413.03	741.6	462.6	519.4	0.00	0.00	0.00
4,700.0	13.03	31.95	4,600.4	315.61	760.8	474.5	532.8	0.00	0.00	0.00
SHANNON										
4,757.1	13.03	31.95	4,656.0	260.00	771.7	481.4	540.5	0.00	0.00	0.00
4,800.0	13.03	31.95	4,697.8	218.19	779.9	486.5	546.2	0.00	0.00	0.00
4,900.0	13.03	31.95	4,795.2	120.76	799.1	498.4	559.6	0.00	0.00	0.00
END OF TANGENT										
4,988.9	13.03	31.95	4,881.9	34.13	816.1	509.0	571.5	0.00	0.00	0.00
5,000.0	12.81	31.95	4,892.7	23.33	818.2	510.3	573.0	2.00	-2.00	0.00
5,100.0	10.81	31.95	4,990.5	-74.54	835.5	521.2	585.2	2.00	-2.00	0.00
5,200.0	8.81	31.95	5,089.1	-173.07	850.0	530.2	595.3	2.00	-2.00	0.00
5,300.0	6.81	31.95	5,188.1	-272.14	861.5	537.4	603.4	2.00	-2.00	0.00
5,400.0	4.81	31.95	5,287.6	-371.62	870.1	542.8	609.4	2.00	-2.00	0.00
5,500.0	2.81	31.95	5,387.4	-471.39	875.8	546.3	613.4	2.00	-2.00	0.00
5,600.0	0.81	31.95	5,487.3	-571.34	878.5	547.9	615.2	2.00	-2.00	0.00
EOD TO VERTICAL										
5,640.7	0.00	0.00	5,528.0	-612.00	878.7	548.1	615.4	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,587.3	-671.34	878.7	548.1	615.4	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,740.7	0.00	0.00	5,628.0	-712.00	878.7	548.1	615.4	0.00	0.00	0.00
5,800.0	5.93	90.14	5,687.2	-771.23	878.7	551.2	618.5	10.00	10.00	0.00
5,900.0	15.93	90.14	5,785.3	-869.29	878.6	570.1	637.4	10.00	10.00	0.00
6,000.0	25.93	90.14	5,878.6	-962.57	878.6	605.8	672.9	10.00	10.00	0.00
6,100.0	35.93	90.14	5,964.2	-1,048.24	878.4	657.1	724.1	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,160.1	41.94	90.14	6,011.0	-1,095.00	878.4	694.9	761.7	10.00	10.00	0.00
6,200.0	45.93	90.14	6,039.7	-1,123.70	878.3	722.6	789.3	10.00	10.00	0.00
NIORRARA FORMATION										
6,247.1	50.64	90.14	6,071.0	-1,155.00	878.2	757.7	824.3	10.00	10.00	0.00
NIORRARA A CHALK										
6,263.1	52.24	90.14	6,081.0	-1,165.00	878.2	770.2	836.8	10.00	10.00	0.00
6,300.0	55.93	90.14	6,102.6	-1,186.65	878.1	800.1	866.6	10.00	10.00	0.00
6,400.0	65.93	90.14	6,151.2	-1,235.17	877.9	887.4	953.6	10.00	10.00	0.00
NIORRARA B CHALK										
6,454.5	71.38	90.14	6,171.0	-1,255.00	877.8	938.1	1,004.2	10.00	10.00	0.00
6,500.0	75.93	90.14	6,183.8	-1,267.81	877.7	981.8	1,047.7	10.00	10.00	0.00
6,600.0	85.93	90.14	6,199.6	-1,283.55	877.4	1,080.4	1,146.0	10.00	10.00	0.00
BPI: 2260ft FSL & 600ft FWL of Sec 13										
6,640.8	90.00	90.14	6,201.0	-1,285.00	877.3	1,121.1	1,186.6	10.00	10.00	0.00
6,700.0	90.00	90.14	6,201.0	-1,285.00	877.2	1,180.4	1,245.6	0.00	0.00	0.00
6,800.0	90.00	90.14	6,201.0	-1,284.99	877.0	1,280.4	1,345.3	0.00	0.00	0.00
6,900.0	90.00	90.14	6,201.0	-1,284.98	876.7	1,380.4	1,445.0	0.00	0.00	0.00
7,000.0	90.00	90.14	6,201.0	-1,284.98	876.5	1,480.4	1,544.6	0.00	0.00	0.00
7,100.0	90.00	90.14	6,201.0	-1,284.97	876.2	1,580.4	1,644.3	0.00	0.00	0.00
7,200.0	90.00	90.14	6,201.0	-1,284.96	876.0	1,680.4	1,744.0	0.00	0.00	0.00
7,300.0	90.00	90.14	6,201.0	-1,284.96	875.8	1,780.4	1,843.6	0.00	0.00	0.00
7,400.0	90.00	90.14	6,201.0	-1,284.95	875.5	1,880.4	1,943.3	0.00	0.00	0.00
7,500.0	90.00	90.14	6,200.9	-1,284.94	875.3	1,980.4	2,043.0	0.00	0.00	0.00
7,600.0	90.00	90.14	6,200.9	-1,284.94	875.0	2,080.4	2,142.7	0.00	0.00	0.00
7,700.0	90.00	90.14	6,200.9	-1,284.93	874.8	2,180.4	2,242.3	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	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)
7,800.0	90.00	90.14	6,200.9	-1,284.93	874.6	2,280.4	2,342.0	0.00	0.00	0.00
7,900.0	90.00	90.14	6,200.9	-1,284.92	874.3	2,380.4	2,441.7	0.00	0.00	0.00
8,000.0	90.00	90.14	6,200.9	-1,284.92	874.1	2,480.4	2,541.4	0.00	0.00	0.00
8,100.0	90.00	90.14	6,200.9	-1,284.91	873.8	2,580.4	2,641.0	0.00	0.00	0.00
8,200.0	90.00	90.14	6,200.9	-1,284.91	873.6	2,680.4	2,740.7	0.00	0.00	0.00
8,300.0	90.00	90.14	6,200.9	-1,284.90	873.4	2,780.4	2,840.4	0.00	0.00	0.00
8,400.0	90.00	90.14	6,200.9	-1,284.90	873.1	2,880.4	2,940.0	0.00	0.00	0.00
8,500.0	90.00	90.14	6,200.9	-1,284.89	872.9	2,980.4	3,039.7	0.00	0.00	0.00
8,600.0	90.00	90.14	6,200.9	-1,284.89	872.6	3,080.4	3,139.4	0.00	0.00	0.00
8,700.0	90.00	90.14	6,200.9	-1,284.89	872.4	3,180.4	3,239.1	0.00	0.00	0.00
8,800.0	90.00	90.14	6,200.9	-1,284.88	872.2	3,280.4	3,338.7	0.00	0.00	0.00
8,900.0	90.00	90.14	6,200.9	-1,284.88	871.9	3,380.4	3,438.4	0.00	0.00	0.00
9,000.0	90.00	90.14	6,200.9	-1,284.87	871.7	3,480.4	3,538.1	0.00	0.00	0.00
9,100.0	90.00	90.14	6,200.9	-1,284.87	871.4	3,580.4	3,637.7	0.00	0.00	0.00
9,200.0	90.00	90.14	6,200.9	-1,284.87	871.2	3,680.4	3,737.4	0.00	0.00	0.00
9,300.0	90.00	90.14	6,200.9	-1,284.86	871.0	3,780.4	3,837.1	0.00	0.00	0.00
9,400.0	90.00	90.14	6,200.9	-1,284.86	870.7	3,880.4	3,936.8	0.00	0.00	0.00
9,500.0	90.00	90.14	6,200.9	-1,284.86	870.5	3,980.4	4,036.4	0.00	0.00	0.00
9,600.0	90.00	90.14	6,200.9	-1,284.86	870.2	4,080.4	4,136.1	0.00	0.00	0.00
9,700.0	90.00	90.14	6,200.9	-1,284.85	870.0	4,180.4	4,235.8	0.00	0.00	0.00
9,800.0	90.00	90.14	6,200.9	-1,284.85	869.8	4,280.4	4,335.4	0.00	0.00	0.00
9,900.0	90.00	90.14	6,200.8	-1,284.85	869.5	4,380.4	4,435.1	0.00	0.00	0.00
10,000.0	90.00	90.14	6,200.8	-1,284.85	869.3	4,480.4	4,534.8	0.00	0.00	0.00
10,100.0	90.00	90.14	6,200.8	-1,284.84	869.0	4,580.4	4,634.5	0.00	0.00	0.00
10,200.0	90.00	90.14	6,200.8	-1,284.84	868.8	4,680.4	4,734.1	0.00	0.00	0.00
10,300.0	90.00	90.14	6,200.8	-1,284.84	868.5	4,780.4	4,833.8	0.00	0.00	0.00
10,400.0	90.00	90.14	6,200.8	-1,284.84	868.3	4,880.4	4,933.5	0.00	0.00	0.00
10,500.0	90.00	90.14	6,200.8	-1,284.84	868.1	4,980.4	5,033.1	0.00	0.00	0.00
10,600.0	90.00	90.14	6,200.8	-1,284.84	867.8	5,080.4	5,132.8	0.00	0.00	0.00
10,700.0	90.00	90.14	6,200.8	-1,284.84	867.6	5,180.4	5,232.5	0.00	0.00	0.00
10,800.0	90.00	90.14	6,200.8	-1,284.83	867.3	5,280.4	5,332.2	0.00	0.00	0.00
10,900.0	90.00	90.14	6,200.8	-1,284.83	867.1	5,380.4	5,431.8	0.00	0.00	0.00
11,000.0	90.00	90.14	6,200.8	-1,284.83	866.8	5,480.4	5,531.5	0.00	0.00	0.00
11,100.0	90.00	90.14	6,200.8	-1,284.83	866.6	5,580.4	5,631.2	0.00	0.00	0.00
11,200.0	90.00	90.14	6,200.8	-1,284.83	866.4	5,680.4	5,730.9	0.00	0.00	0.00
11,300.0	90.00	90.14	6,200.8	-1,284.83	866.1	5,780.4	5,830.5	0.00	0.00	0.00
11,400.0	90.00	90.14	6,200.8	-1,284.83	865.9	5,880.4	5,930.2	0.00	0.00	0.00
11,500.0	90.00	90.14	6,200.8	-1,284.83	865.6	5,980.4	6,029.9	0.00	0.00	0.00
11,600.0	90.00	90.14	6,200.8	-1,284.83	865.4	6,080.4	6,129.5	0.00	0.00	0.00
11,700.0	90.00	90.14	6,200.8	-1,284.83	865.1	6,180.4	6,229.2	0.00	0.00	0.00
11,800.0	90.00	90.14	6,200.8	-1,284.83	864.9	6,280.4	6,328.9	0.00	0.00	0.00
11,900.0	90.00	90.14	6,200.8	-1,284.83	864.7	6,380.4	6,428.6	0.00	0.00	0.00
12,000.0	90.00	90.14	6,200.8	-1,284.84	864.4	6,480.4	6,528.2	0.00	0.00	0.00
12,100.0	90.00	90.14	6,200.8	-1,284.84	864.2	6,580.4	6,627.9	0.00	0.00	0.00
12,200.0	90.00	90.14	6,200.8	-1,284.84	863.9	6,680.4	6,727.6	0.00	0.00	0.00
12,300.0	90.00	90.14	6,200.8	-1,284.84	863.7	6,780.4	6,827.2	0.00	0.00	0.00
12,400.0	90.00	90.14	6,200.8	-1,284.84	863.4	6,880.4	6,926.9	0.00	0.00	0.00
12,500.0	90.00	90.14	6,200.8	-1,284.84	863.2	6,980.4	7,026.6	0.00	0.00	0.00
12,600.0	90.00	90.14	6,200.8	-1,284.84	862.9	7,080.4	7,126.3	0.00	0.00	0.00
12,700.0	90.00	90.14	6,200.8	-1,284.85	862.7	7,180.4	7,225.9	0.00	0.00	0.00
12,800.0	90.00	90.14	6,200.8	-1,284.85	862.5	7,280.4	7,325.6	0.00	0.00	0.00
12,900.0	90.00	90.14	6,200.9	-1,284.85	862.2	7,380.4	7,425.3	0.00	0.00	0.00
13,000.0	90.00	90.14	6,200.9	-1,284.85	862.0	7,480.4	7,524.9	0.00	0.00	0.00
13,100.0	90.00	90.14	6,200.9	-1,284.86	861.7	7,580.4	7,624.6	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	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)
13,200.0	90.00	90.14	6,200.9	-1,284.86	861.5	7,680.4	7,724.3	0.00	0.00	0.00
13,300.0	90.00	90.14	6,200.9	-1,284.86	861.2	7,780.4	7,824.0	0.00	0.00	0.00
13,400.0	90.00	90.14	6,200.9	-1,284.86	861.0	7,880.4	7,923.6	0.00	0.00	0.00
13,500.0	90.00	90.14	6,200.9	-1,284.87	860.7	7,980.4	8,023.3	0.00	0.00	0.00
13,600.0	90.00	90.14	6,200.9	-1,284.87	860.5	8,080.4	8,123.0	0.00	0.00	0.00
13,700.0	90.00	90.14	6,200.9	-1,284.87	860.2	8,180.3	8,222.6	0.00	0.00	0.00
13,800.0	90.00	90.14	6,200.9	-1,284.88	860.0	8,280.3	8,322.3	0.00	0.00	0.00
13,900.0	90.00	90.14	6,200.9	-1,284.88	859.8	8,380.3	8,422.0	0.00	0.00	0.00
14,000.0	90.00	90.14	6,200.9	-1,284.89	859.5	8,480.3	8,521.7	0.00	0.00	0.00
14,100.0	90.00	90.14	6,200.9	-1,284.89	859.3	8,580.3	8,621.3	0.00	0.00	0.00
14,200.0	90.00	90.14	6,200.9	-1,284.89	859.0	8,680.3	8,721.0	0.00	0.00	0.00
14,300.0	90.00	90.14	6,200.9	-1,284.90	858.8	8,780.3	8,820.7	0.00	0.00	0.00
14,400.0	90.00	90.14	6,200.9	-1,284.90	858.5	8,880.3	8,920.3	0.00	0.00	0.00
14,500.0	90.00	90.14	6,200.9	-1,284.91	858.3	8,980.3	9,020.0	0.00	0.00	0.00
14,600.0	90.00	90.14	6,200.9	-1,284.91	858.0	9,080.3	9,119.7	0.00	0.00	0.00
14,700.0	90.00	90.14	6,200.9	-1,284.92	857.8	9,180.3	9,219.4	0.00	0.00	0.00
14,800.0	90.00	90.14	6,200.9	-1,284.92	857.5	9,280.3	9,319.0	0.00	0.00	0.00
14,900.0	90.00	90.14	6,200.9	-1,284.93	857.3	9,380.3	9,418.7	0.00	0.00	0.00
15,000.0	90.00	90.14	6,200.9	-1,284.93	857.0	9,480.3	9,518.4	0.00	0.00	0.00
15,100.0	90.00	90.14	6,200.9	-1,284.94	856.8	9,580.3	9,618.0	0.00	0.00	0.00
15,200.0	90.00	90.14	6,200.9	-1,284.94	856.5	9,680.3	9,717.7	0.00	0.00	0.00
15,300.0	90.00	90.14	6,201.0	-1,284.95	856.3	9,780.3	9,817.4	0.00	0.00	0.00
15,400.0	90.00	90.14	6,201.0	-1,284.96	856.0	9,880.3	9,917.1	0.00	0.00	0.00
15,500.0	90.00	90.14	6,201.0	-1,284.96	855.8	9,980.3	10,016.7	0.00	0.00	0.00
15,600.0	90.00	90.14	6,201.0	-1,284.97	855.6	10,080.3	10,116.4	0.00	0.00	0.00
15,700.0	90.00	90.14	6,201.0	-1,284.98	855.3	10,180.3	10,216.1	0.00	0.00	0.00
15,800.0	90.00	90.14	6,201.0	-1,284.98	855.1	10,280.3	10,315.7	0.00	0.00	0.00
15,900.0	90.00	90.14	6,201.0	-1,284.99	854.8	10,380.3	10,415.4	0.00	0.00	0.00
16,000.0	90.00	90.14	6,201.0	-1,285.00	854.6	10,480.3	10,515.1	0.00	0.00	0.00
EPI: 2300ft FSL & 600ft FEL of Sec 18										
16,053.8	90.00	90.14	6,201.0	-1,285.00	854.4	10,534.2	10,568.7	0.00	0.00	0.00
EOT TO 90.19° AZ										
16,055.4	90.00	90.19	6,201.0	-1,285.00	854.4	10,535.8	10,570.3	3.00	0.00	3.00
16,100.0	90.00	90.19	6,201.0	-1,285.00	854.3	10,580.3	10,614.8	0.00	0.00	0.00
16,200.0	90.00	90.18	6,201.0	-1,285.01	853.9	10,680.3	10,714.4	0.00	0.00	0.00
16,300.0	90.00	90.18	6,201.0	-1,285.00	853.6	10,780.3	10,814.1	0.00	0.00	0.00
BHL: 2304ft FSL & 300ft FEL of Sec 18										
16,353.7	90.00	90.18	6,201.0	-1,285.00	853.5	10,834.1	10,867.6	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4916.0usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
466.0	466.0	PIERRE SHALE (BASE FOX HILLS			
3,258.5	3,196.0	PARKMAN			
3,997.5	3,916.0	SUSSEX			
4,757.1	4,656.0	SHANNON			
6,160.1	6,011.0	SHARON SPRINGS SHALE			
6,247.1	6,071.0	NIOBRARA FORMATION			
6,263.1	6,081.0	NIOBRARA A CHALK			
6,454.5	6,171.0	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: 1388ft FSL & 504ft FEL of Sec 14
400.0	400.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,051.7	1,046.1	62.6	39.1	EOB TO 13.03° INC
4,988.9	4,881.9	816.1	509.0	END OF TANGENT
5,640.7	5,528.0	878.7	548.1	EOD TO VERTICAL
5,740.7	5,628.0	878.7	548.1	KOP (10°/100ft BUR)
6,640.8	6,201.0	877.3	1,121.1	BPI: 2260ft FSL & 600ft FWL of Sec 13
16,053.8	6,201.0	854.4	10,534.2	EPI: 2300ft FSL & 600ft FEL of Sec 18
16,055.4	6,201.0	854.4	10,535.8	EOT TO 90.19° AZ
16,353.7	6,201.0	853.5	10,834.1	BHL: 2304ft FSL & 300ft FEL of Sec 18