

BISON IV OPERATING

**WELD COUNTY, COLORADO (NAD 83)
NE NE SEC. 34 T12N R63W 6th P.M.
FOX CREEK 12-63 34-2-3**

ORIGINAL WELLBORE

24 August, 2024

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NE SEC. 34 T12N R63W 6th P.M.
Well: FOX CREEK 12-63 34-2-3
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 460ft FNL & 796ft FEL of Sec 34
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	START NUDGE #1 (2°/100ft)
450.00	3.00	180.00	449.93	-3.93	0.00	3.86	3.93	EOB TO 3° INC
873.20	3.00	180.00	872.55	-26.07	0.00	25.62	26.07	END OF TANGENT
1023.20	0.00	0.00	1022.48	-30.00	0.00	29.47	30.00	EOD TO VERTICAL
2600.00	0.00	0.00	2599.28	-30.00	0.00	29.47	30.00	START NUDGE #2 (2°/100ft)
4071.71	29.43	61.49	4007.11	146.50	324.94	-83.34	399.79	EOB TO 29.43° INC
7244.75	29.43	61.49	6770.57	890.78	1695.16	-559.06	1959.09	KOP (10°/100ft)
8282.77	90.00	180.53	7407.00	331.47	2003.92	48.02	2696.44	LP: 150ft FNL & 1206ft FWL of Sec 35
18563.60	90.00	180.53	7407.00	-9948.91	1908.20	10130.24	12977.27	BPZ: 150ft FSL & 1166ft FWL of Sec 2
18663.58	90.00	180.54	7407.00	-10048.89	1907.27	10228.29	13077.25	BHL: 50ft FSL & 1166ft FWL of Sec 2

PROPOSED LOCAL COORDINATES:

SHL: 460ft FNL & 796ft FEL Sec 34
LP: 150ft FNL & 1206ft FWL Sec 35
BPZ: 150ft FSL & 1166ft FWL Sec 2
BHL: 50ft FSL & 1166ft FWL Sec 2

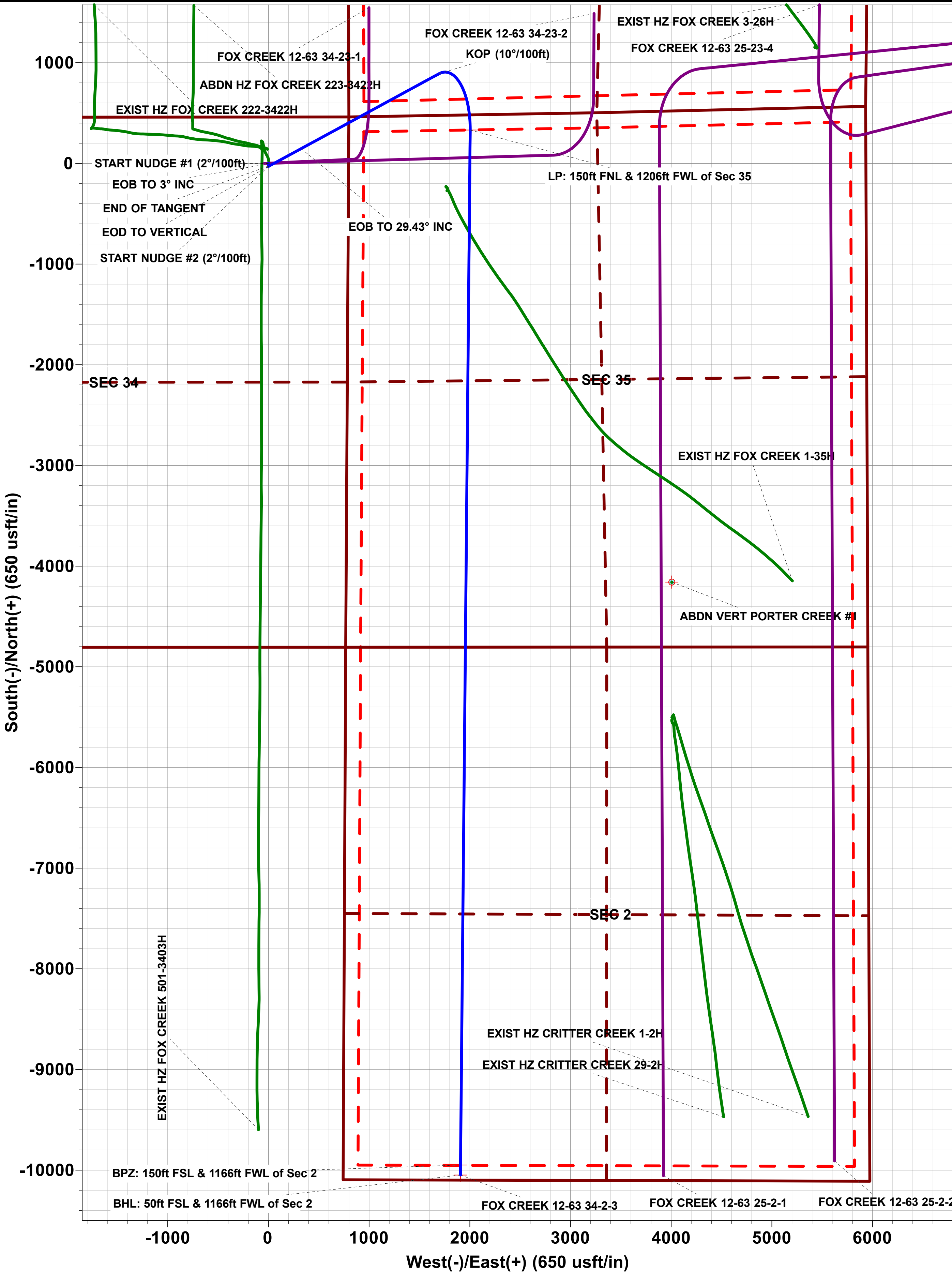
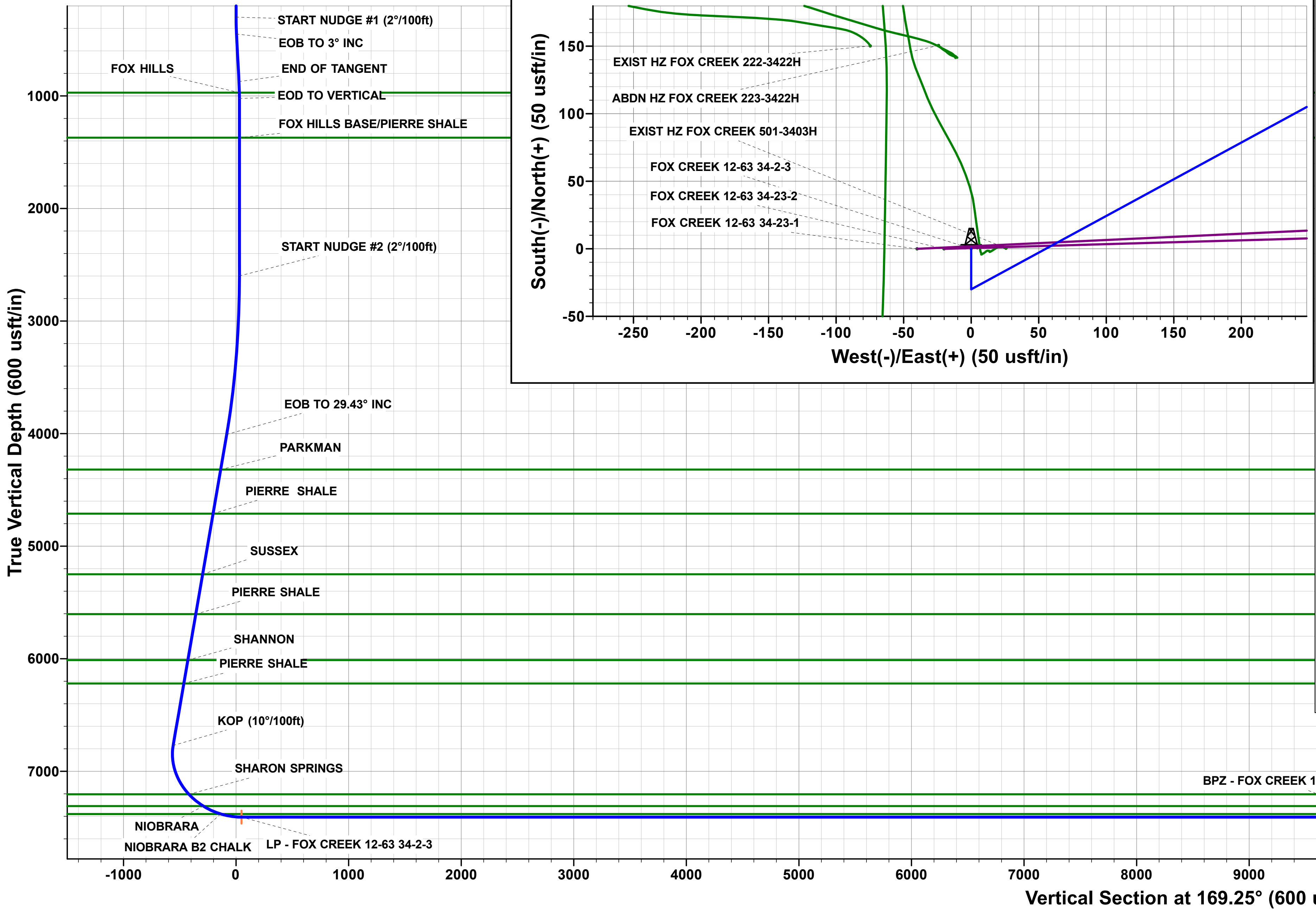
SETBACK

150ft FNL Sec 35 / 150ft FSL of Sec 2

150ft FE/WL of Sec 35/2

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP - FOX CREEK 12-63 34-2-3	7407.00	331.47	2003.92	40.972780	-104.405056
BPZ - FOX CREEK 12-63 34-2-3	7407.00	-9948.91	1908.20	40.944565	-104.405406
BHL - FOX CREEK 12-63 34-2-3	7407.00	-10048.89	1907.27	40.944291	-104.405409



Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
Company:	BISON IV OPERATING	TVD Reference:	KBE @ 5371.00usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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		

Site	NE NE SEC. 34 T12N R63W 6th P.M.				
Site Position:		Northing:	1,598,749.37 usft	Latitude:	40.971871
From:	Map	Easting:	3,300,329.10 usft	Longitude:	-104.412457
Position Uncertainty:	0.00 usft	Slot Radius:	1.10 ft	Grid Convergence:	0.70 °

Well	FOX CREEK 12-63 34-2-3					
Well Position	+N/-S	0.01 usft	Northing:	1,598,749.87 usft	Latitude:	40.971871
	+E/-W	39.99 usft	Easting:	3,300,369.09 usft	Longitude:	-104.412313
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,351.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2024-08-23	7.39	67.02	51,945.01605229

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	169.25

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	-5,371.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	-5,071.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	3.00	180.00	449.93	-4,921.07	-3.93	0.00	2.00	2.00	0.00	180.00	
873.20	3.00	180.00	872.55	-4,498.45	-26.07	0.00	0.00	0.00	0.00	0.00	
1,023.20	0.00	0.00	1,022.48	-4,348.52	-30.00	0.00	2.00	-2.00	0.00	180.00	
2,600.00	0.00	0.00	2,599.28	-2,771.72	-30.00	0.00	0.00	0.00	0.00	0.00	
4,071.71	29.43	61.49	4,007.11	-1,363.89	146.50	324.94	2.00	2.00	0.00	61.49	
7,244.75	29.43	61.49	6,770.57	1,399.57	890.78	1,695.16	0.00	0.00	0.00	0.00	
8,282.77	90.00	180.53	7,407.00	2,036.00	331.47	2,003.92	10.00	5.83	11.47	115.81	LP - FOX CREEK 1
18,563.60	90.00	180.53	7,407.00	2,036.00	-9,948.91	1,908.20	0.00	0.00	0.00	0.00	BPZ - FOX CREEK
18,663.58	90.00	180.54	7,407.00	2,036.00	-10,048.85	1,907.27	0.01	0.00	0.01	90.00	BHL - FOX CREEK

Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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: 460ft FNL & 796ft FEL of Sec 34										
0.00	0.00	0.00	0.00	5,371.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	5,271.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	5,171.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE #1 (2°/100ft)										
300.00	0.00	0.00	300.00	5,071.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	180.00	399.98	4,971.02	-1.75	0.00	1.71	2.00	2.00	0.00
EOB TO 3° INC										
450.00	3.00	180.00	449.93	4,921.07	-3.93	0.00	3.86	2.00	2.00	0.00
500.00	3.00	180.00	499.86	4,871.14	-6.54	0.00	6.43	0.00	0.00	0.00
600.00	3.00	180.00	599.73	4,771.27	-11.78	0.00	11.57	0.00	0.00	0.00
700.00	3.00	180.00	699.59	4,671.41	-17.01	0.00	16.71	0.00	0.00	0.00
800.00	3.00	180.00	799.45	4,571.55	-22.24	0.00	21.85	0.00	0.00	0.00
END OF TANGENT										
873.20	3.00	180.00	872.55	4,498.45	-26.07	0.00	25.62	0.00	0.00	0.00
900.00	2.46	180.00	899.32	4,471.68	-27.35	0.00	26.87	2.00	-2.00	0.00
FOX HILLS										
971.71	1.03	180.00	971.00	4,400.00	-29.54	0.00	29.02	2.00	-2.00	0.00
1,000.00	0.46	180.00	999.28	4,371.72	-29.91	0.00	29.38	2.00	-2.00	0.00
EOD TO VERTICAL										
1,023.20	0.00	0.00	1,022.48	4,348.52	-30.00	0.00	29.47	2.00	-2.00	0.00
1,100.00	0.00	0.00	1,099.28	4,271.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,200.00	0.00	0.00	1,199.28	4,171.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,300.00	0.00	0.00	1,299.28	4,071.72	-30.00	0.00	29.47	0.00	0.00	0.00
FOX HILLS BASE/PIERRE SHALE										
1,371.72	0.00	0.00	1,371.00	4,000.00	-30.00	0.00	29.47	0.00	0.00	0.00
1,400.00	0.00	0.00	1,399.28	3,971.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,500.00	0.00	0.00	1,499.28	3,871.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,600.00	0.00	0.00	1,599.28	3,771.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,700.00	0.00	0.00	1,699.28	3,671.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,800.00	0.00	0.00	1,799.28	3,571.72	-30.00	0.00	29.47	0.00	0.00	0.00
1,900.00	0.00	0.00	1,899.28	3,471.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,000.00	0.00	0.00	1,999.28	3,371.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,100.00	0.00	0.00	2,099.28	3,271.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,200.00	0.00	0.00	2,199.28	3,171.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,300.00	0.00	0.00	2,299.28	3,071.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,400.00	0.00	0.00	2,399.28	2,971.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,500.00	0.00	0.00	2,499.28	2,871.72	-30.00	0.00	29.47	0.00	0.00	0.00
START NUDGE #2 (2°/100ft)										
2,600.00	0.00	0.00	2,599.28	2,771.72	-30.00	0.00	29.47	0.00	0.00	0.00
2,700.00	2.00	61.49	2,699.26	2,671.74	-29.17	1.53	28.94	2.00	2.00	0.00
2,800.00	4.00	61.49	2,799.12	2,571.88	-26.67	6.13	27.35	2.00	2.00	0.00
2,900.00	6.00	61.49	2,898.73	2,472.27	-22.51	13.79	24.69	2.00	2.00	0.00
3,000.00	8.00	61.49	2,997.98	2,373.02	-16.69	24.50	20.97	2.00	2.00	0.00
3,100.00	10.00	61.49	3,096.75	2,274.25	-9.23	38.24	16.20	2.00	2.00	0.00
3,200.00	12.00	61.49	3,194.91	2,176.09	-0.12	55.01	10.38	2.00	2.00	0.00
3,300.00	14.00	61.49	3,292.34	2,078.66	10.62	74.78	3.51	2.00	2.00	0.00
3,400.00	16.00	61.49	3,388.93	1,982.07	22.97	97.52	-4.38	2.00	2.00	0.00
3,500.00	18.00	61.49	3,484.55	1,886.45	36.92	123.21	-13.30	2.00	2.00	0.00
3,600.00	20.00	61.49	3,579.10	1,791.90	52.46	151.82	-23.23	2.00	2.00	0.00
3,700.00	22.00	61.49	3,672.45	1,698.55	69.57	183.31	-34.17	2.00	2.00	0.00
3,800.00	24.00	61.49	3,764.50	1,606.50	88.22	217.64	-46.09	2.00	2.00	0.00
3,900.00	26.00	61.49	3,855.12	1,515.88	108.39	254.77	-58.98	2.00	2.00	0.00

Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
Company:	BISON IV OPERATING	TVD Reference:	KBE @ 5371.00usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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)
4,000.00	28.00	61.49	3,944.22	1,426.78	130.06	294.67	-72.83	2.00	2.00	0.00
EOB TO 29.43° INC										
4,071.71	29.43	61.49	4,007.11	1,363.89	146.50	324.94	-83.34	2.00	2.00	0.00
4,100.00	29.43	61.49	4,031.75	1,339.25	153.14	337.16	-87.58	0.00	0.00	0.00
4,200.00	29.43	61.49	4,118.84	1,252.16	176.59	380.34	-102.57	0.00	0.00	0.00
4,300.00	29.43	61.49	4,205.93	1,165.07	200.05	423.53	-117.57	0.00	0.00	0.00
4,400.00	29.43	61.49	4,293.02	1,077.98	223.51	466.71	-132.56	0.00	0.00	0.00
PARKMAN										
4,429.83	29.43	61.49	4,319.00	1,052.00	230.50	479.59	-137.03	0.00	0.00	0.00
4,500.00	29.43	61.49	4,380.11	990.89	246.96	509.89	-147.55	0.00	0.00	0.00
4,600.00	29.43	61.49	4,467.21	903.79	270.42	553.07	-162.54	0.00	0.00	0.00
4,700.00	29.43	61.49	4,554.30	816.70	293.88	596.26	-177.54	0.00	0.00	0.00
4,800.00	29.43	61.49	4,641.39	729.61	317.33	639.44	-192.53	0.00	0.00	0.00
PIERRE SHALE										
4,879.93	29.43	61.49	4,711.00	660.00	336.08	673.96	-204.51	0.00	0.00	0.00
4,900.00	29.43	61.49	4,728.48	642.52	340.79	682.62	-207.52	0.00	0.00	0.00
5,000.00	29.43	61.49	4,815.58	555.42	364.24	725.81	-222.51	0.00	0.00	0.00
5,100.00	29.43	61.49	4,902.67	468.33	387.70	768.99	-237.51	0.00	0.00	0.00
5,200.00	29.43	61.49	4,989.76	381.24	411.16	812.17	-252.50	0.00	0.00	0.00
5,300.00	29.43	61.49	5,076.85	294.15	434.61	855.36	-267.49	0.00	0.00	0.00
5,400.00	29.43	61.49	5,163.94	207.06	458.07	898.54	-282.48	0.00	0.00	0.00
SUSSEX										
5,497.66	29.43	61.49	5,249.00	122.00	480.98	940.71	-297.13	0.00	0.00	0.00
5,500.00	29.43	61.49	5,251.04	119.96	481.53	941.72	-297.48	0.00	0.00	0.00
5,600.00	29.43	61.49	5,338.13	32.87	504.98	984.91	-312.47	0.00	0.00	0.00
5,700.00	29.43	61.49	5,425.22	-54.22	528.44	1,028.09	-327.46	0.00	0.00	0.00
5,800.00	29.43	61.49	5,512.31	-141.31	551.89	1,071.27	-342.45	0.00	0.00	0.00
5,900.00	29.43	61.49	5,599.40	-228.40	575.35	1,114.45	-357.45	0.00	0.00	0.00
PIERRE SHALE										
5,904.13	29.43	61.49	5,603.00	-232.00	576.32	1,116.24	-358.07	0.00	0.00	0.00
6,000.00	29.43	61.49	5,686.50	-315.50	598.81	1,157.64	-372.44	0.00	0.00	0.00
6,100.00	29.43	61.49	5,773.59	-402.59	622.26	1,200.82	-387.43	0.00	0.00	0.00
6,200.00	29.43	61.49	5,860.68	-489.68	645.72	1,244.00	-402.42	0.00	0.00	0.00
6,300.00	29.43	61.49	5,947.77	-576.77	669.17	1,287.19	-417.42	0.00	0.00	0.00
SHANNON										
6,373.75	29.43	61.49	6,012.00	-641.00	686.47	1,319.03	-428.47	0.00	0.00	0.00
6,400.00	29.43	61.49	6,034.86	-663.86	692.63	1,330.37	-432.41	0.00	0.00	0.00
6,500.00	29.43	61.49	6,121.96	-750.96	716.09	1,373.55	-447.40	0.00	0.00	0.00
6,600.00	29.43	61.49	6,209.05	-838.05	739.54	1,416.74	-462.39	0.00	0.00	0.00
PIERRE SHALE										
6,612.58	29.43	61.49	6,220.00	-849.00	742.49	1,422.17	-464.28	0.00	0.00	0.00
6,700.00	29.43	61.49	6,296.14	-925.14	763.00	1,459.92	-477.39	0.00	0.00	0.00
6,800.00	29.43	61.49	6,383.23	-1,012.23	786.46	1,503.10	-492.38	0.00	0.00	0.00
6,900.00	29.43	61.49	6,470.32	-1,099.32	809.91	1,546.29	-507.37	0.00	0.00	0.00
7,000.00	29.43	61.49	6,557.42	-1,186.42	833.37	1,589.47	-522.36	0.00	0.00	0.00
7,100.00	29.43	61.49	6,644.51	-1,273.51	856.82	1,632.65	-537.36	0.00	0.00	0.00
7,200.00	29.43	61.49	6,731.60	-1,360.60	880.28	1,675.83	-552.35	0.00	0.00	0.00
KOP (10°/100ft)										
7,244.75	29.43	61.49	6,770.57	-1,399.57	890.78	1,695.16	-559.06	0.00	0.00	0.00
7,300.00	27.44	72.33	6,819.19	-1,448.19	901.13	1,719.24	-564.74	10.00	-3.60	19.62
7,400.00	26.31	94.42	6,908.61	-1,537.61	906.43	1,763.40	-561.71	10.00	-1.13	22.09
7,500.00	28.58	115.66	6,997.56	-1,626.56	894.33	1,807.17	-541.66	10.00	2.27	21.24
7,600.00	33.58	132.54	7,083.34	-1,712.34	865.20	1,849.22	-505.20	10.00	4.99	16.88

Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
Company:	BISON IV OPERATING	TVD Reference:	KBE @ 5371.00usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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)
7,700.00	40.29	144.94	7,163.34	-1,792.34	819.92	1,888.26	-453.44	10.00	6.71	12.40
SHARON SPRINGS										
7,755.01	44.43	150.32	7,204.00	-1,833.00	788.61	1,908.03	-418.99	10.00	7.53	9.77
7,800.00	47.98	154.15	7,235.13	-1,864.13	759.88	1,923.12	-387.95	10.00	7.90	8.50
7,900.00	56.25	161.29	7,296.54	-1,925.54	686.89	1,952.73	-310.71	10.00	8.27	7.14
NIOBRARA										
7,923.03	58.21	162.73	7,309.00	-1,938.00	668.47	1,958.71	-291.51	10.00	8.50	6.26
8,000.00	64.86	167.15	7,345.68	-1,974.68	603.17	1,976.20	-224.09	10.00	8.64	5.74
NIOBRARA B2 CHALK										
8,092.75	73.02	171.87	7,379.00	-2,008.00	518.14	1,991.84	-137.63	10.00	8.80	5.09
8,100.00	73.66	172.22	7,381.08	-2,010.08	511.27	1,992.80	-130.70	10.00	8.87	4.82
8,200.00	82.58	176.85	7,401.65	-2,030.65	413.97	2,002.04	-33.39	10.00	8.92	4.63
LP: 150ft FNL & 1206ft FWL of Sec 35										
8,282.77	90.00	180.53	7,407.00	-2,036.00	331.47	2,003.92	48.02	10.00	8.96	4.45
8,300.00	90.00	180.53	7,407.00	-2,036.00	314.24	2,003.76	64.91	0.00	0.00	0.00
8,400.00	90.00	180.53	7,407.00	-2,036.00	214.24	2,002.83	162.98	0.00	0.00	0.00
8,500.00	90.00	180.53	7,407.00	-2,036.00	114.25	2,001.89	261.05	0.00	0.00	0.00
8,600.00	90.00	180.53	7,407.00	-2,036.00	14.25	2,000.96	359.12	0.00	0.00	0.00
8,700.00	90.00	180.53	7,407.00	-2,036.00	-85.74	2,000.03	457.18	0.00	0.00	0.00
8,800.00	90.00	180.53	7,407.00	-2,036.00	-185.74	1,999.10	555.25	0.00	0.00	0.00
8,900.00	90.00	180.53	7,407.00	-2,036.00	-285.73	1,998.17	653.32	0.00	0.00	0.00
9,000.00	90.00	180.53	7,407.00	-2,036.00	-385.73	1,997.24	751.39	0.00	0.00	0.00
9,100.00	90.00	180.53	7,407.00	-2,036.00	-485.73	1,996.31	849.46	0.00	0.00	0.00
9,200.00	90.00	180.53	7,407.00	-2,036.00	-585.72	1,995.38	947.53	0.00	0.00	0.00
9,300.00	90.00	180.53	7,407.00	-2,036.00	-685.72	1,994.45	1,045.59	0.00	0.00	0.00
9,400.00	90.00	180.53	7,407.00	-2,036.00	-785.71	1,993.52	1,143.66	0.00	0.00	0.00
9,500.00	90.00	180.53	7,407.00	-2,036.00	-885.71	1,992.58	1,241.73	0.00	0.00	0.00
9,600.00	90.00	180.53	7,407.00	-2,036.00	-985.70	1,991.65	1,339.80	0.00	0.00	0.00
9,700.00	90.00	180.53	7,407.00	-2,036.00	-1,085.70	1,990.72	1,437.87	0.00	0.00	0.00
9,800.00	90.00	180.53	7,407.00	-2,036.00	-1,185.70	1,989.79	1,535.94	0.00	0.00	0.00
9,900.00	90.00	180.53	7,407.00	-2,036.00	-1,285.69	1,988.86	1,634.00	0.00	0.00	0.00
10,000.00	90.00	180.53	7,407.00	-2,036.00	-1,385.69	1,987.93	1,732.07	0.00	0.00	0.00
10,100.00	90.00	180.53	7,407.00	-2,036.00	-1,485.68	1,987.00	1,830.14	0.00	0.00	0.00
10,200.00	90.00	180.53	7,407.00	-2,036.00	-1,585.68	1,986.07	1,928.21	0.00	0.00	0.00
10,300.00	90.00	180.53	7,407.00	-2,036.00	-1,685.67	1,985.14	2,026.28	0.00	0.00	0.00
10,400.00	90.00	180.53	7,407.00	-2,036.00	-1,785.67	1,984.21	2,124.34	0.00	0.00	0.00
10,500.00	90.00	180.53	7,407.00	-2,036.00	-1,885.67	1,983.27	2,222.41	0.00	0.00	0.00
10,600.00	90.00	180.53	7,407.00	-2,036.00	-1,985.66	1,982.34	2,320.48	0.00	0.00	0.00
10,700.00	90.00	180.53	7,407.00	-2,036.00	-2,085.66	1,981.41	2,418.55	0.00	0.00	0.00
10,800.00	90.00	180.53	7,407.00	-2,036.00	-2,185.65	1,980.48	2,516.62	0.00	0.00	0.00
10,900.00	90.00	180.53	7,407.00	-2,036.00	-2,285.65	1,979.55	2,614.69	0.00	0.00	0.00
11,000.00	90.00	180.53	7,407.00	-2,036.00	-2,385.64	1,978.62	2,712.75	0.00	0.00	0.00
11,100.00	90.00	180.53	7,407.00	-2,036.00	-2,485.64	1,977.69	2,810.82	0.00	0.00	0.00
11,200.00	90.00	180.53	7,407.00	-2,036.00	-2,585.63	1,976.76	2,908.89	0.00	0.00	0.00
11,300.00	90.00	180.53	7,407.00	-2,036.00	-2,685.63	1,975.83	3,006.96	0.00	0.00	0.00
11,400.00	90.00	180.53	7,407.00	-2,036.00	-2,785.63	1,974.90	3,105.03	0.00	0.00	0.00
11,500.00	90.00	180.53	7,407.00	-2,036.00	-2,885.62	1,973.96	3,203.09	0.00	0.00	0.00
11,600.00	90.00	180.53	7,407.00	-2,036.00	-2,985.62	1,973.03	3,301.16	0.00	0.00	0.00
11,700.00	90.00	180.53	7,407.00	-2,036.00	-3,085.61	1,972.10	3,399.23	0.00	0.00	0.00
11,800.00	90.00	180.53	7,407.00	-2,036.00	-3,185.61	1,971.17	3,497.30	0.00	0.00	0.00
11,900.00	90.00	180.53	7,407.00	-2,036.00	-3,285.60	1,970.24	3,595.37	0.00	0.00	0.00
12,000.00	90.00	180.53	7,407.00	-2,036.00	-3,385.60	1,969.31	3,693.44	0.00	0.00	0.00
12,100.00	90.00	180.53	7,407.00	-2,036.00	-3,485.60	1,968.38	3,791.50	0.00	0.00	0.00
12,200.00	90.00	180.53	7,407.00	-2,036.00	-3,585.59	1,967.45	3,889.57	0.00	0.00	0.00

Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
Company:	BISON IV OPERATING	TVD Reference:	KBE @ 5371.00usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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)
12,300.00	90.00	180.53	7,407.00	-2,036.00	-3,685.59	1,966.52	3,987.64	0.00	0.00	0.00
12,400.00	90.00	180.53	7,407.00	-2,036.00	-3,785.58	1,965.59	4,085.71	0.00	0.00	0.00
12,500.00	90.00	180.53	7,407.00	-2,036.00	-3,885.58	1,964.65	4,183.78	0.00	0.00	0.00
12,600.00	90.00	180.53	7,407.00	-2,036.00	-3,985.57	1,963.72	4,281.84	0.00	0.00	0.00
12,700.00	90.00	180.53	7,407.00	-2,036.00	-4,085.57	1,962.79	4,379.91	0.00	0.00	0.00
12,800.00	90.00	180.53	7,407.00	-2,036.00	-4,185.57	1,961.86	4,477.98	0.00	0.00	0.00
12,900.00	90.00	180.53	7,407.00	-2,036.00	-4,285.56	1,960.93	4,576.05	0.00	0.00	0.00
13,000.00	90.00	180.53	7,407.00	-2,036.00	-4,385.56	1,960.00	4,674.12	0.00	0.00	0.00
13,100.00	90.00	180.53	7,407.00	-2,036.00	-4,485.55	1,959.07	4,772.19	0.00	0.00	0.00
13,200.00	90.00	180.53	7,407.00	-2,036.00	-4,585.55	1,958.14	4,870.25	0.00	0.00	0.00
13,300.00	90.00	180.53	7,407.00	-2,036.00	-4,685.54	1,957.21	4,968.32	0.00	0.00	0.00
13,400.00	90.00	180.53	7,407.00	-2,036.00	-4,785.54	1,956.28	5,066.39	0.00	0.00	0.00
13,500.00	90.00	180.53	7,407.00	-2,036.00	-4,885.54	1,955.34	5,164.46	0.00	0.00	0.00
13,600.00	90.00	180.53	7,407.00	-2,036.00	-4,985.53	1,954.41	5,262.53	0.00	0.00	0.00
13,700.00	90.00	180.53	7,407.00	-2,036.00	-5,085.53	1,953.48	5,360.60	0.00	0.00	0.00
13,800.00	90.00	180.53	7,407.00	-2,036.00	-5,185.52	1,952.55	5,458.66	0.00	0.00	0.00
13,900.00	90.00	180.53	7,407.00	-2,036.00	-5,285.52	1,951.62	5,556.73	0.00	0.00	0.00
14,000.00	90.00	180.53	7,407.00	-2,036.00	-5,385.51	1,950.69	5,654.80	0.00	0.00	0.00
14,100.00	90.00	180.53	7,407.00	-2,036.00	-5,485.51	1,949.76	5,752.87	0.00	0.00	0.00
14,200.00	90.00	180.53	7,407.00	-2,036.00	-5,585.50	1,948.83	5,850.94	0.00	0.00	0.00
14,300.00	90.00	180.53	7,407.00	-2,036.00	-5,685.50	1,947.90	5,949.00	0.00	0.00	0.00
14,400.00	90.00	180.53	7,407.00	-2,036.00	-5,785.50	1,946.97	6,047.07	0.00	0.00	0.00
14,500.00	90.00	180.53	7,407.00	-2,036.00	-5,885.49	1,946.03	6,145.14	0.00	0.00	0.00
14,600.00	90.00	180.53	7,407.00	-2,036.00	-5,985.49	1,945.10	6,243.21	0.00	0.00	0.00
14,700.00	90.00	180.53	7,407.00	-2,036.00	-6,085.48	1,944.17	6,341.28	0.00	0.00	0.00
14,800.00	90.00	180.53	7,407.00	-2,036.00	-6,185.48	1,943.24	6,439.35	0.00	0.00	0.00
14,900.00	90.00	180.53	7,407.00	-2,036.00	-6,285.47	1,942.31	6,537.41	0.00	0.00	0.00
15,000.00	90.00	180.53	7,407.00	-2,036.00	-6,385.47	1,941.38	6,635.48	0.00	0.00	0.00
15,100.00	90.00	180.53	7,407.00	-2,036.00	-6,485.47	1,940.45	6,733.55	0.00	0.00	0.00
15,200.00	90.00	180.53	7,407.00	-2,036.00	-6,585.46	1,939.52	6,831.62	0.00	0.00	0.00
15,300.00	90.00	180.53	7,407.00	-2,036.00	-6,685.46	1,938.59	6,929.69	0.00	0.00	0.00
15,400.00	90.00	180.53	7,407.00	-2,036.00	-6,785.45	1,937.66	7,027.75	0.00	0.00	0.00
15,500.00	90.00	180.53	7,407.00	-2,036.00	-6,885.45	1,936.72	7,125.82	0.00	0.00	0.00
15,600.00	90.00	180.53	7,407.00	-2,036.00	-6,985.44	1,935.79	7,223.89	0.00	0.00	0.00
15,700.00	90.00	180.53	7,407.00	-2,036.00	-7,085.44	1,934.86	7,321.96	0.00	0.00	0.00
15,800.00	90.00	180.53	7,407.00	-2,036.00	-7,185.44	1,933.93	7,420.03	0.00	0.00	0.00
15,900.00	90.00	180.53	7,407.00	-2,036.00	-7,285.43	1,933.00	7,518.10	0.00	0.00	0.00
16,000.00	90.00	180.53	7,407.00	-2,036.00	-7,385.43	1,932.07	7,616.16	0.00	0.00	0.00
16,100.00	90.00	180.53	7,407.00	-2,036.00	-7,485.42	1,931.14	7,714.23	0.00	0.00	0.00
16,200.00	90.00	180.53	7,407.00	-2,036.00	-7,585.42	1,930.21	7,812.30	0.00	0.00	0.00
16,300.00	90.00	180.53	7,407.00	-2,036.00	-7,685.41	1,929.28	7,910.37	0.00	0.00	0.00
16,400.00	90.00	180.53	7,407.00	-2,036.00	-7,785.41	1,928.35	8,008.44	0.00	0.00	0.00
16,500.00	90.00	180.53	7,407.00	-2,036.00	-7,885.41	1,927.41	8,106.51	0.00	0.00	0.00
16,600.00	90.00	180.53	7,407.00	-2,036.00	-7,985.40	1,926.48	8,204.57	0.00	0.00	0.00
16,700.00	90.00	180.53	7,407.00	-2,036.00	-8,085.40	1,925.55	8,302.64	0.00	0.00	0.00
16,800.00	90.00	180.53	7,407.00	-2,036.00	-8,185.39	1,924.62	8,400.71	0.00	0.00	0.00
16,900.00	90.00	180.53	7,407.00	-2,036.00	-8,285.39	1,923.69	8,498.78	0.00	0.00	0.00
17,000.00	90.00	180.53	7,407.00	-2,036.00	-8,385.38	1,922.76	8,596.85	0.00	0.00	0.00
17,100.00	90.00	180.53	7,407.00	-2,036.00	-8,485.38	1,921.83	8,694.91	0.00	0.00	0.00
17,200.00	90.00	180.53	7,407.00	-2,036.00	-8,585.37	1,920.90	8,792.98	0.00	0.00	0.00
17,300.00	90.00	180.53	7,407.00	-2,036.00	-8,685.37	1,919.97	8,891.05	0.00	0.00	0.00
17,400.00	90.00	180.53	7,407.00	-2,036.00	-8,785.37	1,919.04	8,989.12	0.00	0.00	0.00
17,500.00	90.00	180.53	7,407.00	-2,036.00	-8,885.36	1,918.11	9,087.19	0.00	0.00	0.00
17,600.00	90.00	180.53	7,407.00	-2,036.00	-8,985.36	1,917.17	9,185.26	0.00	0.00	0.00

Database:	Database 1	Local Co-ordinate Reference:	Well FOX CREEK 12-63 34-2-3
Company:	BISON IV OPERATING	TVD Reference:	KBE @ 5371.00usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KBE @ 5371.00usft
Site:	NE NE SEC. 34 T12N R63W 6th P.M.	North Reference:	True
Well:	FOX CREEK 12-63 34-2-3	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)
17,700.00	90.00	180.53	7,407.00	-2,036.00	-9,085.35	1,916.24	9,283.32	0.00	0.00	0.00
17,800.00	90.00	180.53	7,407.00	-2,036.00	-9,185.35	1,915.31	9,381.39	0.00	0.00	0.00
17,900.00	90.00	180.53	7,407.00	-2,036.00	-9,285.34	1,914.38	9,479.46	0.00	0.00	0.00
18,000.00	90.00	180.53	7,407.00	-2,036.00	-9,385.34	1,913.45	9,577.53	0.00	0.00	0.00
18,100.00	90.00	180.53	7,407.00	-2,036.00	-9,485.34	1,912.52	9,675.60	0.00	0.00	0.00
18,200.00	90.00	180.53	7,407.00	-2,036.00	-9,585.33	1,911.59	9,773.66	0.00	0.00	0.00
18,300.00	90.00	180.53	7,407.00	-2,036.00	-9,685.33	1,910.66	9,871.73	0.00	0.00	0.00
18,400.00	90.00	180.53	7,407.00	-2,036.00	-9,785.32	1,909.73	9,969.80	0.00	0.00	0.00
18,500.00	90.00	180.53	7,407.00	-2,036.00	-9,885.32	1,908.80	10,067.87	0.00	0.00	0.00
BPZ: 150ft FSL & 1166ft FWL of Sec 2										
18,563.60	90.00	180.53	7,407.00	-2,036.00	-9,948.91	1,908.20	10,130.24	0.00	0.00	0.00
18,600.00	90.00	180.54	7,407.00	-2,036.00	-9,985.31	1,907.86	10,165.94	0.01	0.00	0.01
BHL: 50ft FSL & 1166ft FWL of Sec 2										
18,663.58	90.00	180.54	7,407.00	-2,036.00	-10,048.89	1,907.27	10,228.29	0.01	0.00	0.01

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
971.71	971.00	FOX HILLS		0.00		
1,371.72	1,371.00	FOX HILLS BASE/PIERRE SHALE		0.00		
4,429.83	4,319.00	PARKMAN		0.00		
4,879.93	4,711.00	PIERRE SHALE		0.00		
5,497.66	5,249.00	SUSSEX		0.00		
5,904.13	5,603.00	PIERRE SHALE		0.00		
6,373.75	6,012.00	SHANNON		0.00		
6,612.58	6,220.00	PIERRE SHALE		0.00		
7,755.01	7,204.00	SHARON SPRINGS		0.00		
7,923.03	7,309.00	NIOBRARA		0.00		
8,092.75	7,379.00	NIOBRARA B2 CHALK		0.00		

Plan Annotations					
MD (usft)	TVD (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
0.00	0.00	0.00	0.00	SHL: 460ft FNL & 796ft FEL of Sec 34	
300.00	300.00	0.00	0.00	START NUDGE #1 (2°/100ft)	
450.00	449.93	-3.93	0.00	EOB TO 3° INC	
873.20	872.55	-26.07	0.00	END OF TANGENT	
1,023.20	1,022.48	-30.00	0.00	EOD TO VERTICAL	
2,600.00	2,599.28	-30.00	0.00	START NUDGE #2 (2°/100ft)	
4,071.71	4,007.11	146.50	324.94	EOB TO 29.43° INC	
7,244.75	6,770.57	890.78	1,695.16	KOP (10°/100ft)	
8,282.77	7,407.00	331.47	2,003.92	LP: 150ft FNL & 1206ft FWL of Sec 35	
18,563.60	7,407.00	-9,948.91	1,908.20	BPZ: 150ft FSL & 1166ft FWL of Sec 2	
18,663.58	7,407.00	-10,048.89	1,907.27	BHL: 50ft FSL & 1166ft FWL of Sec 2	