

# **BISON IV OPERATING**

**LARIMER COUNTY, COLORADO (NAD 83)**

**SEC. 11 T5N R68W 6th P.M.**

**CE 5-68 11-3-2H**

**ORIGINAL WELLBORE**

**18 July, 2024**

**Plan: PROPOSAL #1**

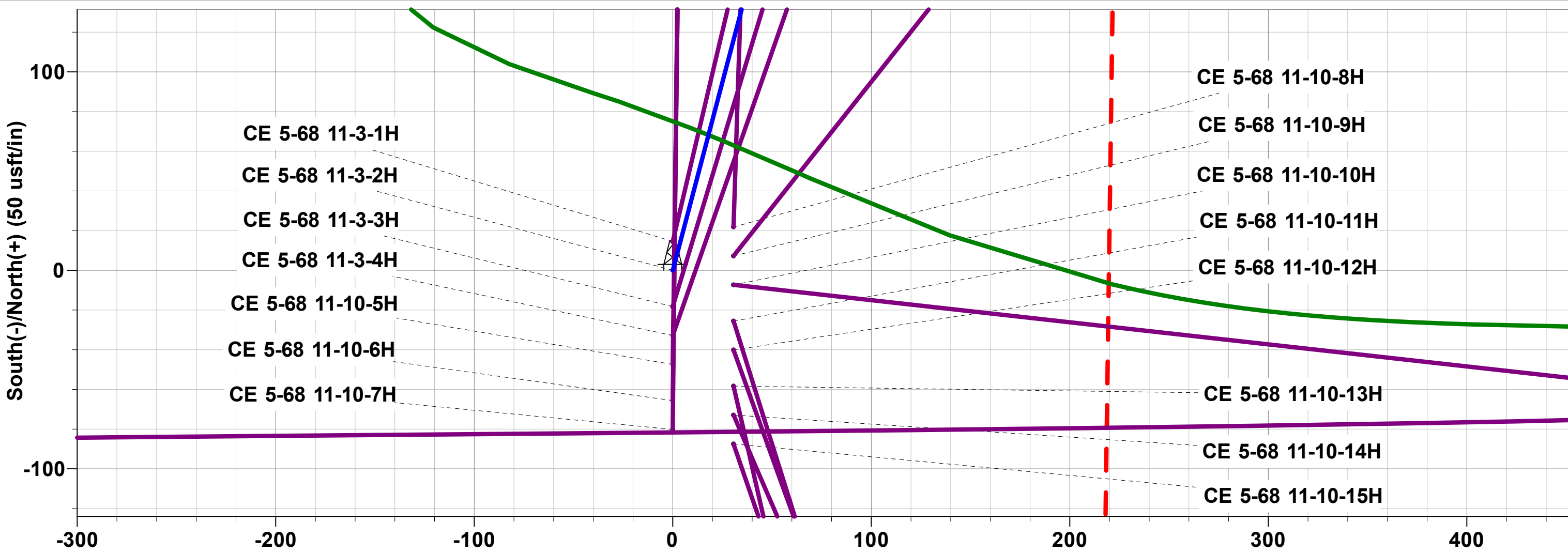




Project: LARIMER COUNTY, COLORADO (NAD 83)  
Site: SEC. 11 T5N R68W 6th P.M.  
Well: CE 5-68 11-3-2H  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

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: 2260ft FNL & 519ft FEL of Sec 11
1350.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft)
3185.69	36.71	14.79	3062.62	549.46	145.05	71.38	568.28	EOB TO 36.71° INC
7498.05	36.71	14.79	6519.54	3042.08	803.05	395.22	3146.29	KOP (10°/100ft)
8488.77	90.00	269.50	7058.00	3424.42	233.86	1066.19	3925.09	EP: 1162ft FSL & 350ft FEL of Sec 2
17011.19	90.00	269.50	7058.00	3349.30	-8288.23	8939.39	12447.51	BHL: 1174ft FSL & 1700ft FWL of Sec 3



PROPOSED LOCAL COORDINATES:

SHL: 2260ft FNL & 519ft FEL of Sec 11

EP: 1162ft FSL & 350ft FEL of Sec 2

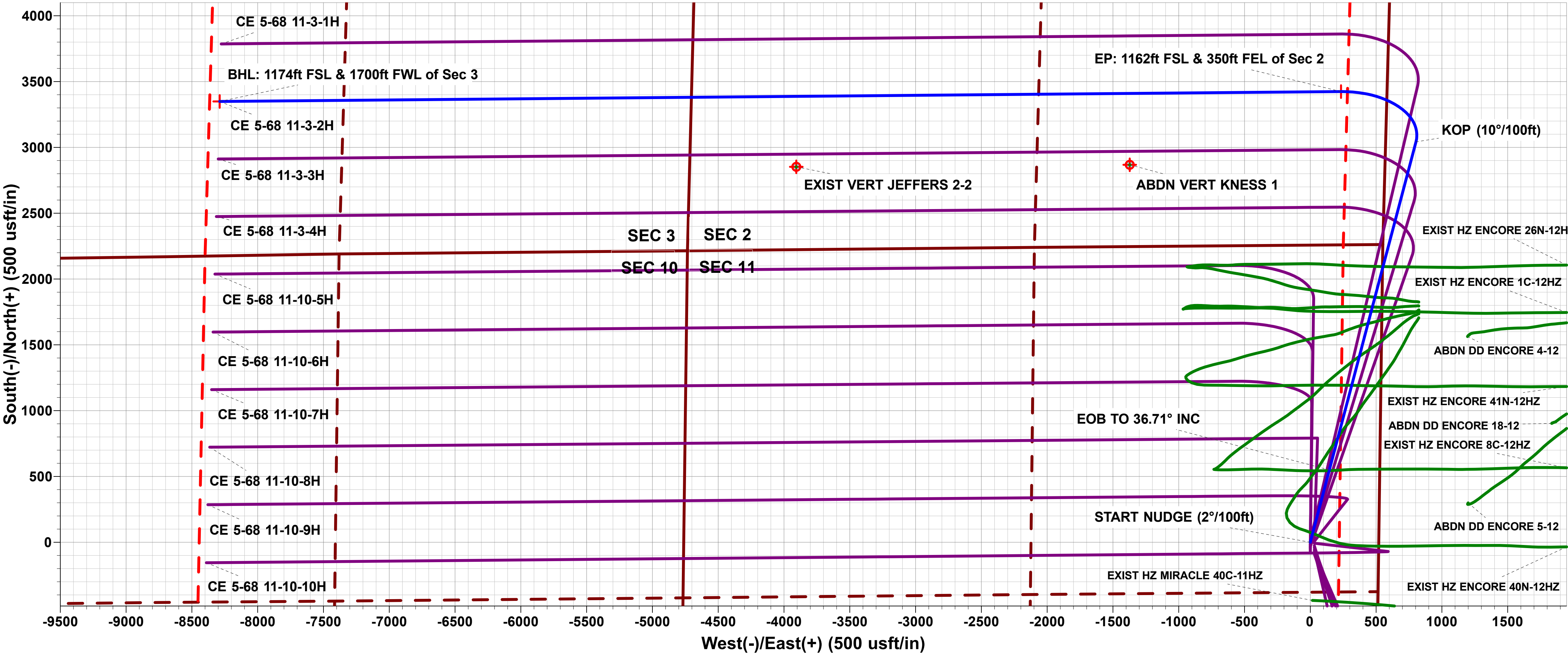
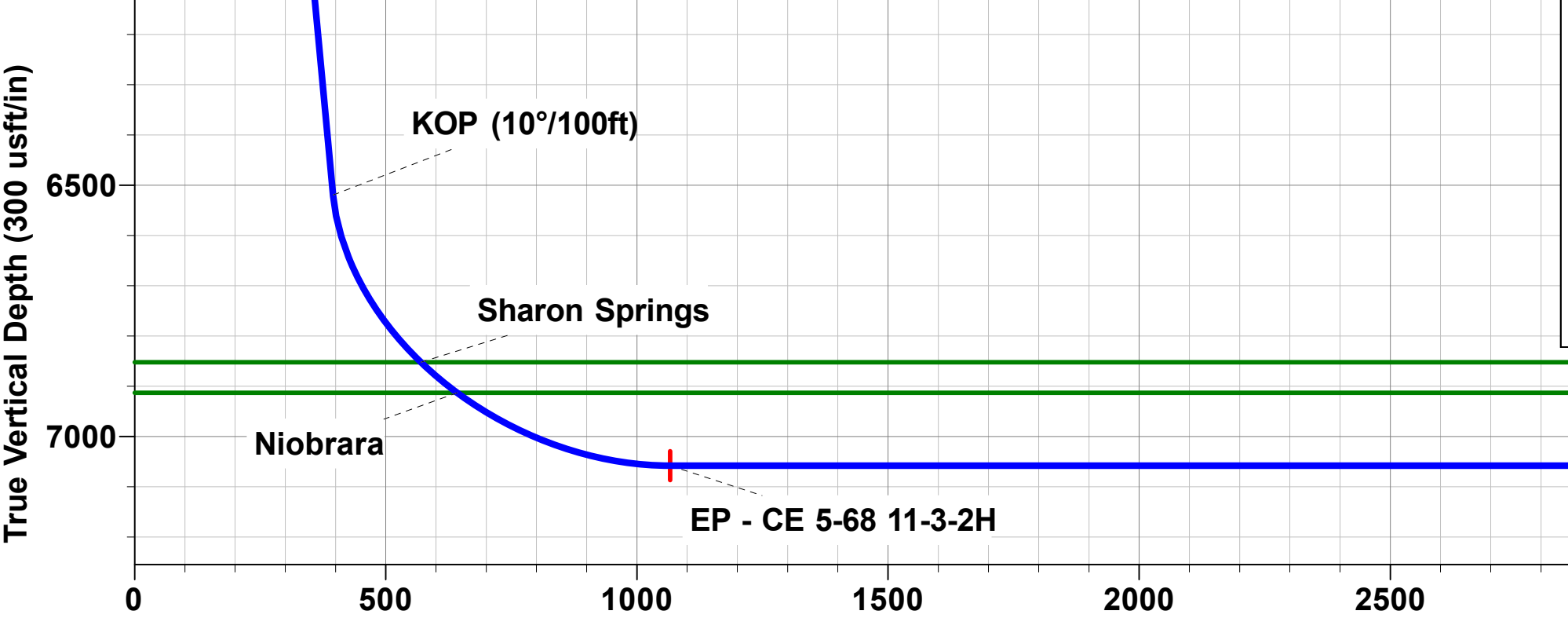
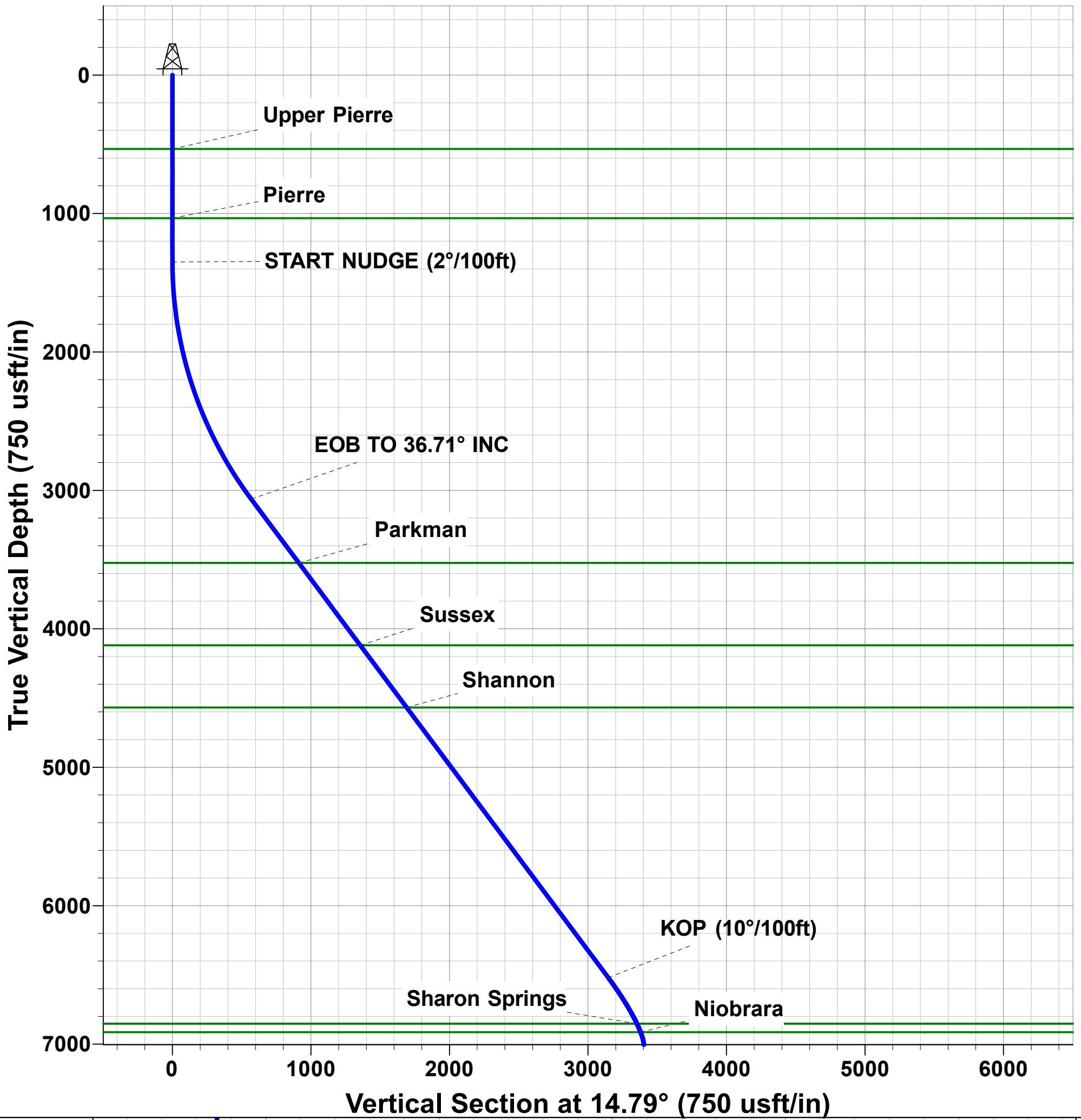
BHL: 1174ft FSL & 1700ft FWL of Sec 3

SETBACK BOUNDARY

300ft FSL of Sec 11 & 300ft FNL of Sec 2

300ft FEL of Sec 11/2 & 300ft FW 1/4 1/4 of Sec 10/3

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - CE 5-68 11-3-2H	7058.00	3349.30	-8288.23	1397957.60	3140367.43	40.424700	-104.995820
EP - CE 5-68 11-3-2H	7058.00	3424.42	233.86	1398084.02	3148888.92	40.424910	-104.965210



<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	LARIMER COUNTY, COLORADO (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site	SEC. 11 T5N R68W 6th P.M.				
Site Position:		Northing:	1,394,672.84 usft	Latitude:	40.415550
From:	Lat/Long	Easting:	3,148,675.60 usft	Longitude:	-104.966050
Position Uncertainty:	0.00 usft	Slot Radius:	1.10 ft	Grid Convergence:	0.35 °

Well	CE 5-68 11-3-2H					
Well Position	+N/-S	-14.58 usft	Northing:	1,394,658.26 usft	Latitude:	40.415510
	+E/-W	0.00 usft	Easting:	3,148,675.68 usft	Longitude:	-104.966050
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,980.00 usft

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	2024-07-18	7.64	66.51	51,613.94079314

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	292.00

<b>Plan Sections</b>											
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	-5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,350.00	0.00	0.00	1,350.00	-3,650.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,185.69	36.71	14.79	3,062.62	-1,937.38	549.46	145.05	2.00	2.00	0.00	14.79	
7,498.05	36.71	14.79	6,519.54	1,519.54	3,042.08	803.05	0.00	0.00	0.00	0.00	
8,488.77	90.00	269.50	7,058.00	2,058.00	3,424.42	233.86	10.00	5.38	-10.63	-102.36	EP - CE 5-68 11-3-2H
17,011.19	90.00	269.50	7,058.00	2,058.00	3,349.30	-8,288.23	0.00	0.00	0.00	0.00	BHL - CE 5-68 11-3-2H

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
<b>SHL: 2260ft FNL &amp; 519ft FEL of Sec 11</b>										
0.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Upper Pierre</b>										
534.00	0.00	0.00	534.00	4,466.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Pierre</b>										
1,034.00	0.00	0.00	1,034.00	3,966.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>START NUDGE (2°/100ft)</b>										
1,350.00	0.00	0.00	1,350.00	3,650.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	1.00	14.79	1,400.00	3,600.00	0.42	0.11	0.05	2.00	2.00	0.00
1,500.00	3.00	14.79	1,499.93	3,500.07	3.80	1.00	0.49	2.00	2.00	0.00
1,600.00	5.00	14.79	1,599.68	3,400.32	10.54	2.78	1.37	2.00	2.00	0.00
1,700.00	7.00	14.79	1,699.13	3,300.87	20.65	5.45	2.68	2.00	2.00	0.00
1,800.00	9.00	14.79	1,798.15	3,201.85	34.10	9.00	4.43	2.00	2.00	0.00
1,900.00	11.00	14.79	1,896.63	3,103.37	50.89	13.43	6.61	2.00	2.00	0.00
2,000.00	13.00	14.79	1,994.44	3,005.56	70.99	18.74	9.22	2.00	2.00	0.00
2,100.00	15.00	14.79	2,091.46	2,908.54	94.38	24.91	12.26	2.00	2.00	0.00
2,200.00	17.00	14.79	2,187.58	2,812.42	121.03	31.95	15.72	2.00	2.00	0.00
2,300.00	19.00	14.79	2,282.68	2,717.32	150.91	39.84	19.61	2.00	2.00	0.00
2,400.00	21.00	14.79	2,376.65	2,623.35	183.98	48.57	23.90	2.00	2.00	0.00
2,500.00	23.00	14.79	2,469.36	2,530.64	220.19	58.13	28.61	2.00	2.00	0.00
2,600.00	25.00	14.79	2,560.71	2,439.29	259.52	68.51	33.72	2.00	2.00	0.00
2,700.00	27.00	14.79	2,650.59	2,349.41	301.90	79.70	39.22	2.00	2.00	0.00
2,800.00	29.00	14.79	2,738.88	2,261.12	347.29	91.68	45.12	2.00	2.00	0.00
2,900.00	31.00	14.79	2,825.48	2,174.52	395.63	104.44	51.40	2.00	2.00	0.00
3,000.00	33.00	14.79	2,910.28	2,089.72	446.87	117.96	58.06	2.00	2.00	0.00
3,100.00	35.00	14.79	2,993.18	2,006.82	500.93	132.24	65.08	2.00	2.00	0.00
<b>EOB TO 36.71° INC</b>										
3,185.69	36.71	14.79	3,062.62	1,937.38	549.46	145.05	71.38	2.00	2.00	0.00
3,200.00	36.71	14.79	3,074.09	1,925.91	557.73	147.23	72.46	0.00	0.00	0.00
3,300.00	36.71	14.79	3,154.26	1,845.74	615.53	162.49	79.97	0.00	0.00	0.00
3,400.00	36.71	14.79	3,234.42	1,765.58	673.34	177.75	87.48	0.00	0.00	0.00
3,500.00	36.71	14.79	3,314.58	1,685.42	731.14	193.01	94.99	0.00	0.00	0.00
3,600.00	36.71	14.79	3,394.75	1,605.25	788.94	208.26	102.50	0.00	0.00	0.00
3,700.00	36.71	14.79	3,474.91	1,525.09	846.74	223.52	110.01	0.00	0.00	0.00
<b>Parkman</b>										
3,761.24	36.71	14.79	3,524.00	1,476.00	882.14	232.87	114.61	0.00	0.00	0.00
3,800.00	36.71	14.79	3,555.07	1,444.93	904.54	238.78	117.52	0.00	0.00	0.00
3,900.00	36.71	14.79	3,635.24	1,364.76	962.35	254.04	125.03	0.00	0.00	0.00
4,000.00	36.71	14.79	3,715.40	1,284.60	1,020.15	269.30	132.54	0.00	0.00	0.00
4,100.00	36.71	14.79	3,795.56	1,204.44	1,077.95	284.56	140.04	0.00	0.00	0.00

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
4,200.00	36.71	14.79	3,875.73	1,124.27	1,135.75	299.81	147.55	0.00	0.00	0.00
4,300.00	36.71	14.79	3,955.89	1,044.11	1,193.55	315.07	155.06	0.00	0.00	0.00
4,400.00	36.71	14.79	4,036.05	963.95	1,251.35	330.33	162.57	0.00	0.00	0.00
4,500.00	36.71	14.79	4,116.22	883.78	1,309.16	345.59	170.08	0.00	0.00	0.00
<b>Sussex</b>										
<b>4,503.47</b>	<b>36.71</b>	<b>14.79</b>	<b>4,119.00</b>	<b>881.00</b>	<b>1,311.16</b>	<b>346.12</b>	<b>170.34</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,600.00	36.71	14.79	4,196.38	803.62	1,366.96	360.85	177.59	0.00	0.00	0.00
4,700.00	36.71	14.79	4,276.54	723.46	1,424.76	376.11	185.10	0.00	0.00	0.00
4,800.00	36.71	14.79	4,356.70	643.30	1,482.56	391.37	192.61	0.00	0.00	0.00
4,900.00	36.71	14.79	4,436.87	563.13	1,540.36	406.62	200.12	0.00	0.00	0.00
5,000.00	36.71	14.79	4,517.03	482.97	1,598.16	421.88	207.63	0.00	0.00	0.00
<b>Shannon</b>										
<b>5,063.58</b>	<b>36.71</b>	<b>14.79</b>	<b>4,568.00</b>	<b>432.00</b>	<b>1,634.92</b>	<b>431.58</b>	<b>212.40</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,100.00	36.71	14.79	4,597.19	402.81	1,655.97	437.14	215.14	0.00	0.00	0.00
5,200.00	36.71	14.79	4,677.36	322.64	1,713.77	452.40	222.65	0.00	0.00	0.00
5,300.00	36.71	14.79	4,757.52	242.48	1,771.57	467.66	230.16	0.00	0.00	0.00
5,400.00	36.71	14.79	4,837.68	162.32	1,829.37	482.92	237.67	0.00	0.00	0.00
5,500.00	36.71	14.79	4,917.85	82.15	1,887.17	498.17	245.18	0.00	0.00	0.00
5,600.00	36.71	14.79	4,998.01	1.99	1,944.98	513.43	252.69	0.00	0.00	0.00
5,700.00	36.71	14.79	5,078.17	-78.17	2,002.78	528.69	260.20	0.00	0.00	0.00
5,800.00	36.71	14.79	5,158.34	-158.34	2,060.58	543.95	267.71	0.00	0.00	0.00
5,900.00	36.71	14.79	5,238.50	-238.50	2,118.38	559.21	275.21	0.00	0.00	0.00
6,000.00	36.71	14.79	5,318.66	-318.66	2,176.18	574.47	282.72	0.00	0.00	0.00
6,100.00	36.71	14.79	5,398.83	-398.83	2,233.98	589.73	290.23	0.00	0.00	0.00
6,200.00	36.71	14.79	5,478.99	-478.99	2,291.79	604.98	297.74	0.00	0.00	0.00
6,300.00	36.71	14.79	5,559.15	-559.15	2,349.59	620.24	305.25	0.00	0.00	0.00
6,400.00	36.71	14.79	5,639.32	-639.32	2,407.39	635.50	312.76	0.00	0.00	0.00
6,500.00	36.71	14.79	5,719.48	-719.48	2,465.19	650.76	320.27	0.00	0.00	0.00
6,600.00	36.71	14.79	5,799.64	-799.64	2,522.99	666.02	327.78	0.00	0.00	0.00
6,700.00	36.71	14.79	5,879.80	-879.80	2,580.80	681.28	335.29	0.00	0.00	0.00
6,800.00	36.71	14.79	5,959.97	-959.97	2,638.60	696.53	342.80	0.00	0.00	0.00
6,900.00	36.71	14.79	6,040.13	-1,040.13	2,696.40	711.79	350.31	0.00	0.00	0.00
7,000.00	36.71	14.79	6,120.29	-1,120.29	2,754.20	727.05	357.82	0.00	0.00	0.00
7,100.00	36.71	14.79	6,200.46	-1,200.46	2,812.00	742.31	365.33	0.00	0.00	0.00
7,200.00	36.71	14.79	6,280.62	-1,280.62	2,869.80	757.57	372.84	0.00	0.00	0.00
7,300.00	36.71	14.79	6,360.78	-1,360.78	2,927.61	772.83	380.35	0.00	0.00	0.00
7,400.00	36.71	14.79	6,440.95	-1,440.95	2,985.41	788.09	387.86	0.00	0.00	0.00
<b>KOP (10°/100ft)</b>										
<b>7,498.05</b>	<b>36.71</b>	<b>14.79</b>	<b>6,519.54</b>	<b>-1,519.54</b>	<b>3,042.08</b>	<b>803.05</b>	<b>395.22</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,500.00	36.67	14.47	6,521.11	-1,521.11	3,043.21	803.34	395.37	10.00	-2.12	-16.36
7,600.00	35.74	357.57	6,602.00	-1,602.00	3,101.46	809.58	411.41	10.00	-0.93	-16.90
7,700.00	37.20	340.89	6,682.61	-1,682.61	3,159.35	798.41	443.45	10.00	1.45	-16.68
7,800.00	40.78	326.01	6,760.50	-1,760.50	3,215.13	770.19	490.52	10.00	3.58	-14.88
7,900.00	45.98	313.54	6,833.29	-1,833.29	3,267.10	725.75	551.19	10.00	5.20	-12.47
<b>Sharon Springs</b>										
<b>7,927.32</b>	<b>47.61</b>	<b>310.53</b>	<b>6,852.00</b>	<b>-1,852.00</b>	<b>3,280.43</b>	<b>710.96</b>	<b>569.90</b>	<b>10.00</b>	<b>5.98</b>	<b>-11.00</b>
8,000.00	52.30	303.27	6,898.78	-1,898.78	3,313.69	666.46	623.62	10.00	6.45	-9.99
<b>Niobrara</b>										
<b>8,023.68</b>	<b>53.92</b>	<b>301.11</b>	<b>6,913.00</b>	<b>-1,913.00</b>	<b>3,323.78</b>	<b>650.43</b>	<b>642.26</b>	<b>10.00</b>	<b>6.83</b>	<b>-9.13</b>
8,100.00	59.37	294.71	6,954.98	-1,954.98	3,353.48	594.12	705.60	10.00	7.14	-8.39
8,200.00	66.92	287.35	7,000.17	-2,000.17	3,385.25	510.91	794.65	10.00	7.55	-7.36
8,300.00	74.77	280.79	7,032.98	-2,032.98	3,408.06	419.38	888.05	10.00	7.85	-6.56
8,400.00	82.80	274.71	7,052.43	-2,052.43	3,421.19	322.31	982.98	10.00	8.03	-6.08



<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
EP: 1162ft FSL & 350ft FEL of Sec 2										
8,488.77	90.00	269.50	7,058.00	-2,058.00	3,424.42	233.86	1,066.19	10.00	8.11	-5.87
8,500.00	90.00	269.50	7,058.00	-2,058.00	3,424.32	222.63	1,076.57	0.00	0.00	0.00
8,600.00	90.00	269.50	7,058.00	-2,058.00	3,423.43	122.63	1,168.95	0.00	0.00	0.00
8,700.00	90.00	269.50	7,058.00	-2,058.00	3,422.55	22.64	1,261.33	0.00	0.00	0.00
8,800.00	90.00	269.50	7,058.00	-2,058.00	3,421.67	-77.36	1,353.72	0.00	0.00	0.00
8,900.00	90.00	269.50	7,058.00	-2,058.00	3,420.79	-177.36	1,446.10	0.00	0.00	0.00
9,000.00	90.00	269.50	7,058.00	-2,058.00	3,419.91	-277.35	1,538.48	0.00	0.00	0.00
9,100.00	90.00	269.50	7,058.00	-2,058.00	3,419.03	-377.35	1,630.86	0.00	0.00	0.00
9,200.00	90.00	269.50	7,058.00	-2,058.00	3,418.15	-477.34	1,723.24	0.00	0.00	0.00
9,300.00	90.00	269.50	7,058.00	-2,058.00	3,417.27	-577.34	1,815.63	0.00	0.00	0.00
9,400.00	90.00	269.50	7,058.00	-2,058.00	3,416.38	-677.34	1,908.01	0.00	0.00	0.00
9,500.00	90.00	269.50	7,058.00	-2,058.00	3,415.50	-777.33	2,000.39	0.00	0.00	0.00
9,600.00	90.00	269.50	7,058.00	-2,058.00	3,414.62	-877.33	2,092.77	0.00	0.00	0.00
9,700.00	90.00	269.50	7,058.00	-2,058.00	3,413.74	-977.32	2,185.16	0.00	0.00	0.00
9,800.00	90.00	269.50	7,058.00	-2,058.00	3,412.86	-1,077.32	2,277.54	0.00	0.00	0.00
9,900.00	90.00	269.50	7,058.00	-2,058.00	3,411.98	-1,177.32	2,369.92	0.00	0.00	0.00
10,000.00	90.00	269.50	7,058.00	-2,058.00	3,411.10	-1,277.31	2,462.30	0.00	0.00	0.00
10,100.00	90.00	269.50	7,058.00	-2,058.00	3,410.21	-1,377.31	2,554.68	0.00	0.00	0.00
10,200.00	90.00	269.50	7,058.00	-2,058.00	3,409.33	-1,477.31	2,647.07	0.00	0.00	0.00
10,300.00	90.00	269.50	7,058.00	-2,058.00	3,408.45	-1,577.30	2,739.45	0.00	0.00	0.00
10,400.00	90.00	269.50	7,058.00	-2,058.00	3,407.57	-1,677.30	2,831.83	0.00	0.00	0.00
10,500.00	90.00	269.50	7,058.00	-2,058.00	3,406.69	-1,777.29	2,924.21	0.00	0.00	0.00
10,600.00	90.00	269.50	7,058.00	-2,058.00	3,405.81	-1,877.29	3,016.59	0.00	0.00	0.00
10,700.00	90.00	269.50	7,058.00	-2,058.00	3,404.93	-1,977.29	3,108.98	0.00	0.00	0.00
10,800.00	90.00	269.50	7,058.00	-2,058.00	3,404.05	-2,077.28	3,201.36	0.00	0.00	0.00
10,900.00	90.00	269.50	7,058.00	-2,058.00	3,403.16	-2,177.28	3,293.74	0.00	0.00	0.00
11,000.00	90.00	269.50	7,058.00	-2,058.00	3,402.28	-2,277.27	3,386.12	0.00	0.00	0.00
11,100.00	90.00	269.50	7,058.00	-2,058.00	3,401.40	-2,377.27	3,478.50	0.00	0.00	0.00
11,200.00	90.00	269.50	7,058.00	-2,058.00	3,400.52	-2,477.27	3,570.89	0.00	0.00	0.00
11,300.00	90.00	269.50	7,058.00	-2,058.00	3,399.64	-2,577.26	3,663.27	0.00	0.00	0.00
11,400.00	90.00	269.50	7,058.00	-2,058.00	3,398.76	-2,677.26	3,755.65	0.00	0.00	0.00
11,500.00	90.00	269.50	7,058.00	-2,058.00	3,397.88	-2,777.26	3,848.03	0.00	0.00	0.00
11,600.00	90.00	269.50	7,058.00	-2,058.00	3,396.99	-2,877.25	3,940.41	0.00	0.00	0.00
11,700.00	90.00	269.50	7,058.00	-2,058.00	3,396.11	-2,977.25	4,032.80	0.00	0.00	0.00
11,800.00	90.00	269.50	7,058.00	-2,058.00	3,395.23	-3,077.24	4,125.18	0.00	0.00	0.00
11,900.00	90.00	269.50	7,058.00	-2,058.00	3,394.35	-3,177.24	4,217.56	0.00	0.00	0.00
12,000.00	90.00	269.50	7,058.00	-2,058.00	3,393.47	-3,277.24	4,309.94	0.00	0.00	0.00
12,100.00	90.00	269.50	7,058.00	-2,058.00	3,392.59	-3,377.23	4,402.33	0.00	0.00	0.00
12,200.00	90.00	269.50	7,058.00	-2,058.00	3,391.71	-3,477.23	4,494.71	0.00	0.00	0.00
12,300.00	90.00	269.50	7,058.00	-2,058.00	3,390.82	-3,577.22	4,587.09	0.00	0.00	0.00
12,400.00	90.00	269.50	7,058.00	-2,058.00	3,389.94	-3,677.22	4,679.47	0.00	0.00	0.00
12,500.00	90.00	269.50	7,058.00	-2,058.00	3,389.06	-3,777.22	4,771.85	0.00	0.00	0.00
12,600.00	90.00	269.50	7,058.00	-2,058.00	3,388.18	-3,877.21	4,864.24	0.00	0.00	0.00
12,700.00	90.00	269.50	7,058.00	-2,058.00	3,387.30	-3,977.21	4,956.62	0.00	0.00	0.00
12,800.00	90.00	269.50	7,058.00	-2,058.00	3,386.42	-4,077.20	5,049.00	0.00	0.00	0.00
12,900.00	90.00	269.50	7,058.00	-2,058.00	3,385.54	-4,177.20	5,141.38	0.00	0.00	0.00
13,000.00	90.00	269.50	7,058.00	-2,058.00	3,384.66	-4,277.20	5,233.76	0.00	0.00	0.00
13,100.00	90.00	269.50	7,058.00	-2,058.00	3,383.77	-4,377.19	5,326.15	0.00	0.00	0.00
13,200.00	90.00	269.50	7,058.00	-2,058.00	3,382.89	-4,477.19	5,418.53	0.00	0.00	0.00
13,300.00	90.00	269.50	7,058.00	-2,058.00	3,382.01	-4,577.19	5,510.91	0.00	0.00	0.00
13,400.00	90.00	269.50	7,058.00	-2,058.00	3,381.13	-4,677.18	5,603.29	0.00	0.00	0.00
13,500.00	90.00	269.50	7,058.00	-2,058.00	3,380.25	-4,777.18	5,695.67	0.00	0.00	0.00
13,600.00	90.00	269.50	7,058.00	-2,058.00	3,379.37	-4,877.17	5,788.06	0.00	0.00	0.00

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
13,700.00	90.00	269.50	7,058.00	-2,058.00	3,378.49	-4,977.17	5,880.44	0.00	0.00	0.00
13,800.00	90.00	269.50	7,058.00	-2,058.00	3,377.60	-5,077.17	5,972.82	0.00	0.00	0.00
13,900.00	90.00	269.50	7,058.00	-2,058.00	3,376.72	-5,177.16	6,065.20	0.00	0.00	0.00
14,000.00	90.00	269.50	7,058.00	-2,058.00	3,375.84	-5,277.16	6,157.58	0.00	0.00	0.00
14,100.00	90.00	269.50	7,058.00	-2,058.00	3,374.96	-5,377.15	6,249.97	0.00	0.00	0.00
14,200.00	90.00	269.50	7,058.00	-2,058.00	3,374.08	-5,477.15	6,342.35	0.00	0.00	0.00
14,300.00	90.00	269.50	7,058.00	-2,058.00	3,373.20	-5,577.15	6,434.73	0.00	0.00	0.00
14,400.00	90.00	269.50	7,058.00	-2,058.00	3,372.32	-5,677.14	6,527.11	0.00	0.00	0.00
14,500.00	90.00	269.50	7,058.00	-2,058.00	3,371.44	-5,777.14	6,619.50	0.00	0.00	0.00
14,600.00	90.00	269.50	7,058.00	-2,058.00	3,370.55	-5,877.13	6,711.88	0.00	0.00	0.00
14,700.00	90.00	269.50	7,058.00	-2,058.00	3,369.67	-5,977.13	6,804.26	0.00	0.00	0.00
14,800.00	90.00	269.50	7,058.00	-2,058.00	3,368.79	-6,077.13	6,896.64	0.00	0.00	0.00
14,900.00	90.00	269.50	7,058.00	-2,058.00	3,367.91	-6,177.12	6,989.02	0.00	0.00	0.00
15,000.00	90.00	269.50	7,058.00	-2,058.00	3,367.03	-6,277.12	7,081.41	0.00	0.00	0.00
15,100.00	90.00	269.50	7,058.00	-2,058.00	3,366.15	-6,377.12	7,173.79	0.00	0.00	0.00
15,200.00	90.00	269.50	7,058.00	-2,058.00	3,365.27	-6,477.11	7,266.17	0.00	0.00	0.00
15,300.00	90.00	269.50	7,058.00	-2,058.00	3,364.38	-6,577.11	7,358.55	0.00	0.00	0.00
15,400.00	90.00	269.50	7,058.00	-2,058.00	3,363.50	-6,677.10	7,450.93	0.00	0.00	0.00
15,500.00	90.00	269.50	7,058.00	-2,058.00	3,362.62	-6,777.10	7,543.32	0.00	0.00	0.00
15,600.00	90.00	269.50	7,058.00	-2,058.00	3,361.74	-6,877.10	7,635.70	0.00	0.00	0.00
15,700.00	90.00	269.50	7,058.00	-2,058.00	3,360.86	-6,977.09	7,728.08	0.00	0.00	0.00
15,800.00	90.00	269.50	7,058.00	-2,058.00	3,359.98	-7,077.09	7,820.46	0.00	0.00	0.00
15,900.00	90.00	269.50	7,058.00	-2,058.00	3,359.10	-7,177.08	7,912.84	0.00	0.00	0.00
16,000.00	90.00	269.50	7,058.00	-2,058.00	3,358.21	-7,277.08	8,005.23	0.00	0.00	0.00
16,100.00	90.00	269.50	7,058.00	-2,058.00	3,357.33	-7,377.08	8,097.61	0.00	0.00	0.00
16,200.00	90.00	269.50	7,058.00	-2,058.00	3,356.45	-7,477.07	8,189.99	0.00	0.00	0.00
16,300.00	90.00	269.50	7,058.00	-2,058.00	3,355.57	-7,577.07	8,282.37	0.00	0.00	0.00
16,400.00	90.00	269.50	7,058.00	-2,058.00	3,354.69	-7,677.06	8,374.75	0.00	0.00	0.00
16,500.00	90.00	269.50	7,058.00	-2,058.00	3,353.81	-7,777.06	8,467.14	0.00	0.00	0.00
16,600.00	90.00	269.50	7,058.00	-2,058.00	3,352.93	-7,877.06	8,559.52	0.00	0.00	0.00
16,700.00	90.00	269.50	7,058.00	-2,058.00	3,352.05	-7,977.05	8,651.90	0.00	0.00	0.00
16,800.00	90.00	269.50	7,058.00	-2,058.00	3,351.16	-8,077.05	8,744.28	0.00	0.00	0.00
16,900.00	90.00	269.50	7,058.00	-2,058.00	3,350.28	-8,177.05	8,836.67	0.00	0.00	0.00
17,000.00	90.00	269.50	7,058.00	-2,058.00	3,349.40	-8,277.04	8,929.05	0.00	0.00	0.00
<b>BHL: 1174ft FSL &amp; 1700ft FWL of Sec 3</b>										
<b>17,011.19</b>	<b>90.00</b>	<b>269.50</b>	<b>7,058.00</b>	<b>-2,058.00</b>	<b>3,349.30</b>	<b>-8,288.23</b>	<b>8,939.39</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
534.00	534.00	Upper Pierre				
1,034.00	1,034.00	Pierre				
3,761.24	3,524.00	Parkman				
4,503.47	4,119.00	Sussex				
5,063.58	4,568.00	Shannon				
7,927.32	6,852.00	Sharon Springs				
8,023.68	6,913.00	Niobrara				

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-3-2H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-3-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Plan Annotations				
Local Coordinates				
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
0.00	0.00	0.00	0.00	SHL: 2260ft FNL & 519ft FEL of Sec 11
1,350.00	1,350.00	0.00	0.00	START NUDGE (2°/100ft)
3,185.69	3,062.62	549.46	145.05	EOB TO 36.71° INC
7,498.05	6,519.54	3,042.08	803.05	KOP (10°/100ft)
8,488.77	7,058.00	3,424.42	233.86	EP: 1162ft FSL & 350ft FEL of Sec 2
17,011.19	7,058.00	3,349.30	-8,288.23	BHL: 1174ft FSL & 1700ft FWL of Sec 3