

BONANZA CREEK ENERGY INC.

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 5 T4N R62W 6th P.M.

STATE SEVENTY HOLES 21-5-17XRLNB

ORIGINAL WELLBORE

11 November, 2015

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 5 T4N R62W 6th P.M.
Well: STATE SEVENTY HOLES 21-5-17XRLNB
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS

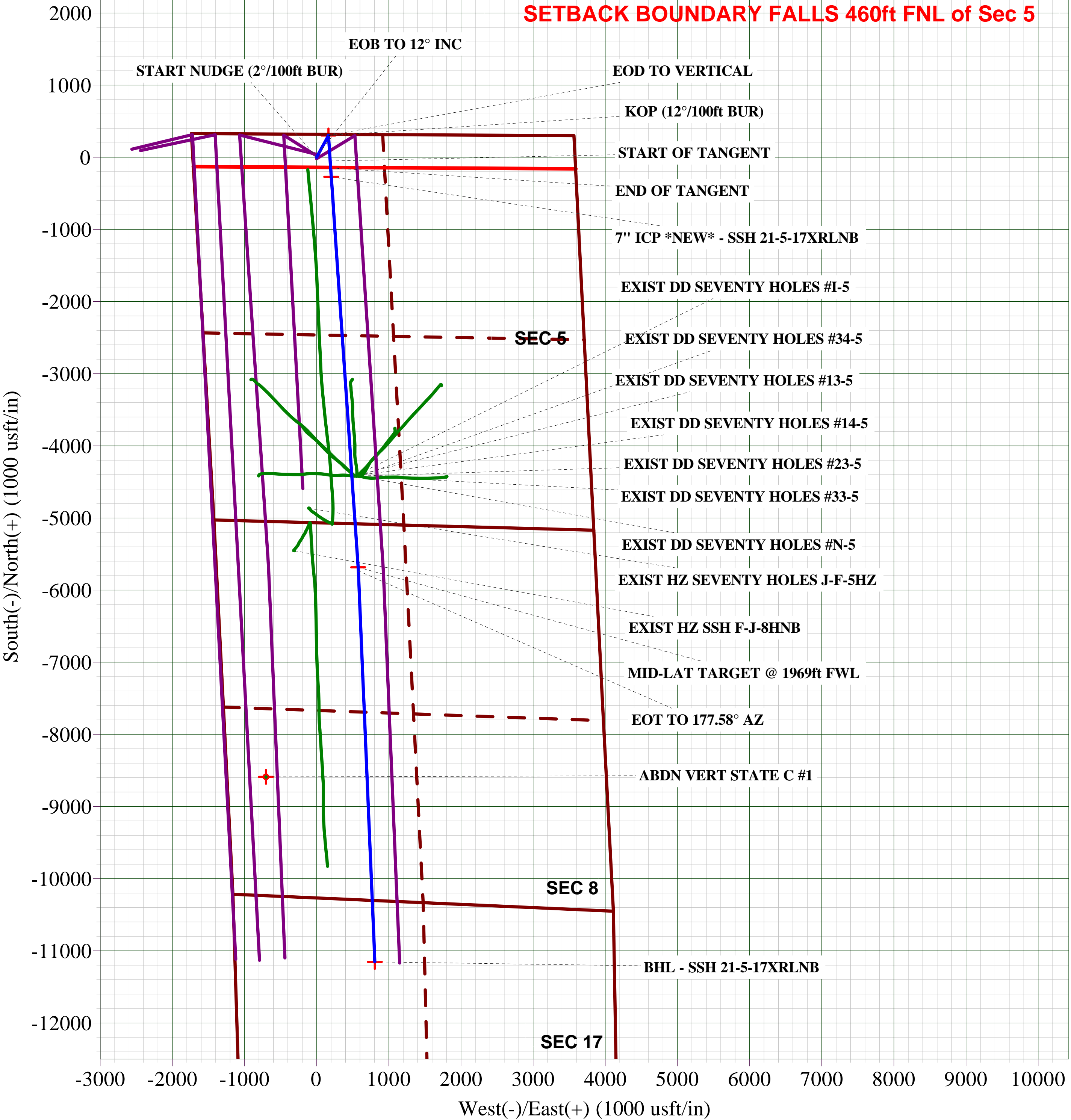
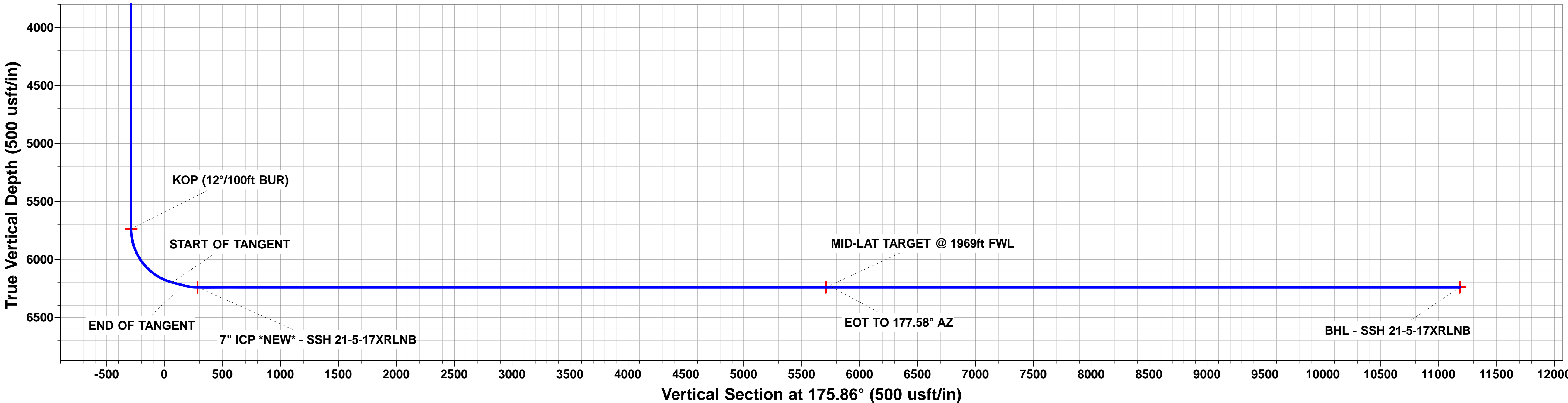
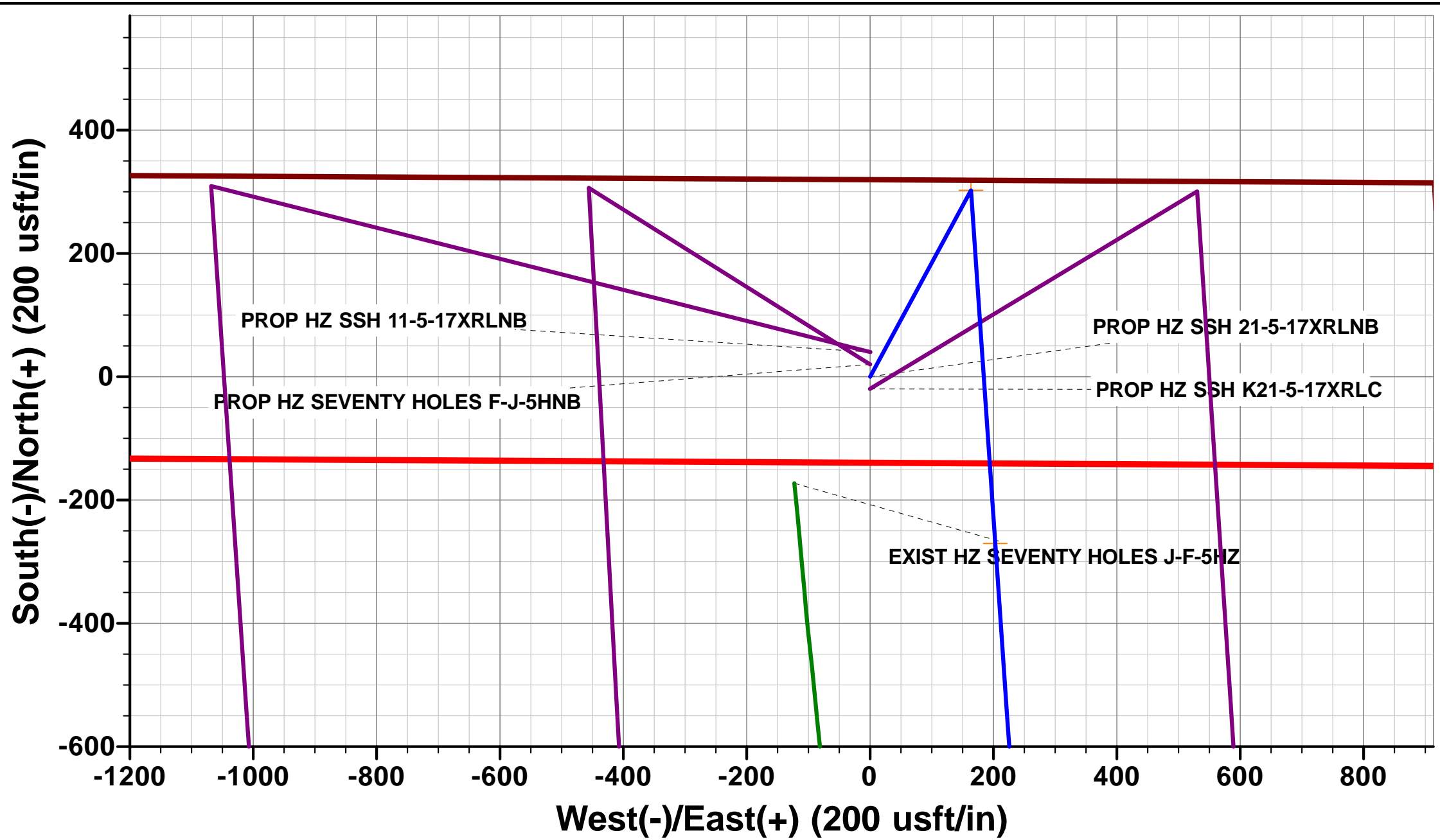
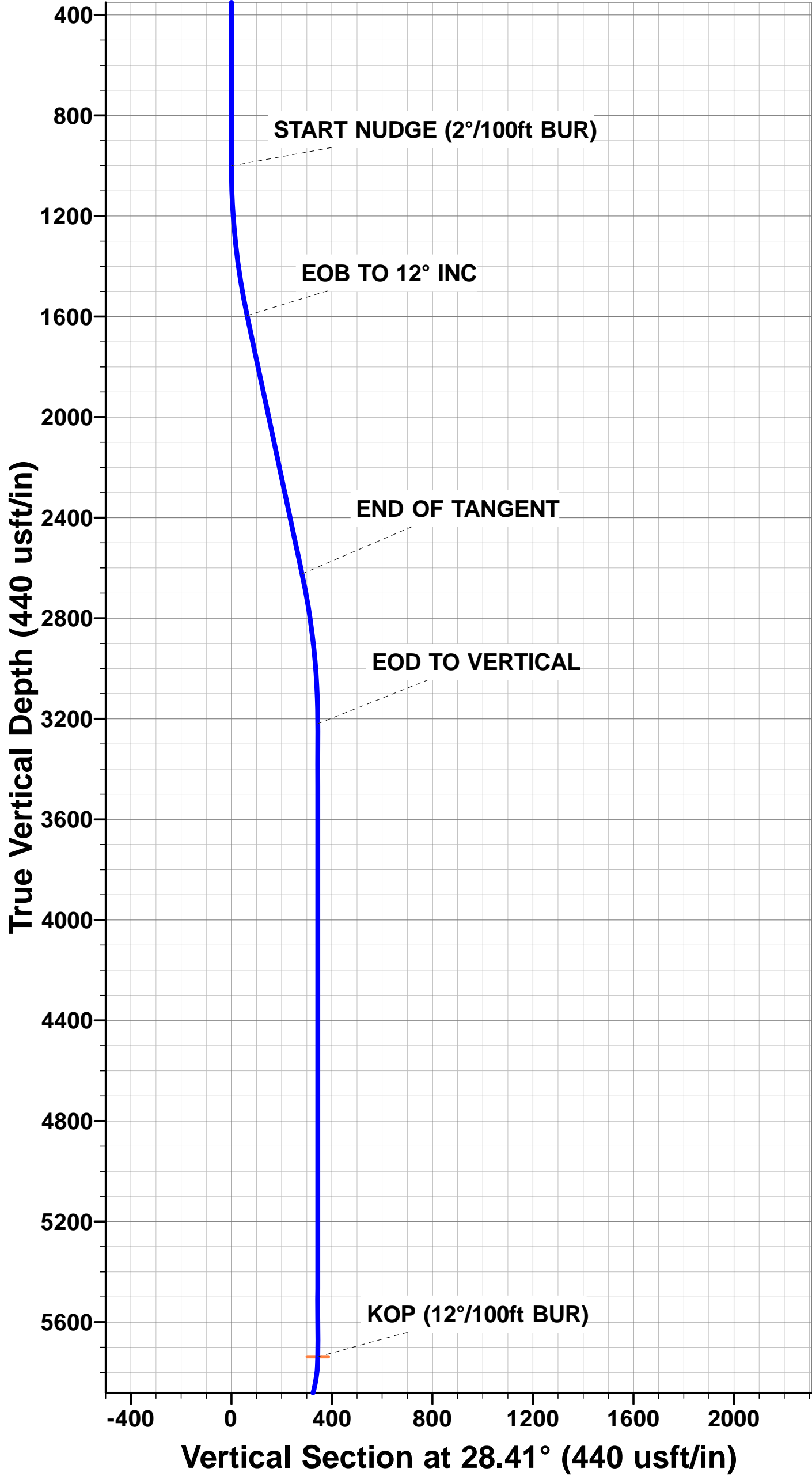
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation
1000.0	1000.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1595.7	1600.1	12.00	28.41	55.1	29.8	-52.8	62.6	EOB TO 12° INC
2623.9	2651.3	12.00	28.41	247.3	133.8	-237.0	281.2	END OF TANGENT
3219.6	3251.3	0.00	0.00	302.4	163.6	-289.8	343.8	EOD TO VERTICAL
5738.1	5769.8	0.00	0.00	302.4	163.6	-289.8	343.8	KOP (12°/100ft BUR)
6199.3	6394.8	75.00	176.07	-50.7	187.9	64.1	697.7	START OF TANGENT
6225.2	6494.8	75.00	176.07	-147.0	194.5	160.7	794.3	END OF TANGENT
6241.4	6619.8	90.00	176.07	-270.3	202.9	284.2	917.9	7" ICP *NEW* - SSH 21-5-17XRLNB
6241.4	12045.5	90.00	176.06	-5683.2	575.2	5709.9	6343.6	MID-LAT TARGET @1969ft FWL
6241.4	12096.2	90.00	177.58	-5733.8	578.0	5760.6	6394.3	EOT TO 177.58° AZ
6241.4	17521.2	90.00	177.58	-11154.0	806.7	11183.1	11819.2	BHL - SSH 21-5-17XRLNB

PROPOSED LOCAL COORDINATES:

SHL: 320ft FNL & 1714ft FWL Sec 5
7" ICP *NEW*: 588.9ft FNL & 1900ft FWL Sec 5
BHL: 850ft FNL & 1937ft FWL Sec 17

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - SSH 21-5-17XRLNB	5738.1	302.4	163.6	40.348962	-104.353142
MID-LAT TARGET @ 1969ft FWL	6241.4	-5683.2	575.2	40.332532	-104.351666
BHL - SSH 21-5-17XRLNB	6241.4	-11154.0	806.7	40.317515	-104.350836
7" ICP *NEW* - SSH 21-5-17XRLNB	6241.4	-270.3	202.9	40.347390	-104.353001



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STATE SEVENTY HOLES 21-5-17XRLNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	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. 5 T4N R62W 6th P.M.		
Site Position:		Northing:	1,371,770.18 usft
From:	Lat/Long	Easting:	3,319,483.74 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.348242
		Longitude:	-104.353727
		Grid Convergence:	0.74 °

Well	STATE SEVENTY HOLES 21-5-17XRLNB		
Well Position	+N/-S	-40.1 usft	Northing:
	+E/-W	-0.6 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/11/2015	8.16	66.92	52,593

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 (°)	
	0.0	0.0	0.0	175.86	

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	-4,561.4	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	-3,561.4	0.0	0.0	0.00	0.00	0.00	0.00	
1,600.1	12.00	28.41	1,595.7	-2,965.7	55.1	29.8	2.00	2.00	0.00	28.41	
2,651.3	12.00	28.41	2,623.9	-1,937.5	247.3	133.8	0.00	0.00	0.00	0.00	
3,251.3	0.00	0.00	3,219.6	-1,341.8	302.4	163.6	2.00	-2.00	0.00	180.00	
5,769.8	0.00	0.00	5,738.1	1,176.7	302.4	163.6	0.00	0.00	0.00	0.00	KOP - SSH 21-5-17
6,394.8	75.00	176.07	6,199.3	1,637.9	-50.7	187.9	12.00	12.00	0.00	176.07	
6,494.8	75.00	176.07	6,225.2	1,663.8	-147.0	194.5	0.00	0.00	0.00	0.00	
6,619.8	90.00	176.07	6,241.4	1,680.0	-270.3	202.9	12.00	12.00	0.00	0.00	
12,045.5	90.00	176.06	6,241.4	1,680.0	-5,683.2	575.2	0.00	0.00	0.00	-83.23	MID-LAT TARGET
12,096.2	90.00	177.58	6,241.4	1,680.0	-5,733.8	578.0	3.00	0.00	3.00	90.04	
17,521.2	90.00	177.58	6,241.4	1,680.0	-11,154.0	806.7	0.00	0.00	0.00	0.00	BHL - SSH 21-5-17

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	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)
0.0	0.00	0.00	0.0	4,561.40	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,461.40	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,361.40	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,261.40	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,161.40	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,061.40	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	3,961.40	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,861.40	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,761.40	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,661.40	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,000.0	0.00	0.00	1,000.0	3,561.40	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	28.41	1,100.0	3,461.42	1.5	0.8	-1.5	2.00	2.00	0.00
1,200.0	4.00	28.41	1,199.8	3,361.56	6.1	3.3	-5.9	2.00	2.00	0.00
1,300.0	6.00	28.41	1,299.5	3,261.95	13.8	7.5	-13.2	2.00	2.00	0.00
1,400.0	8.00	28.41	1,398.7	3,162.70	24.5	13.3	-23.5	2.00	2.00	0.00
1,500.0	10.00	28.41	1,497.5	3,063.93	38.3	20.7	-36.7	2.00	2.00	0.00
1,600.0	12.00	28.41	1,595.6	2,965.78	55.1	29.8	-52.8	2.00	2.00	0.00
EOB TO 12° INC										
1,600.1	12.00	28.41	1,595.7	2,965.70	55.1	29.8	-52.8	2.00	2.00	0.00
1,700.0	12.00	28.41	1,693.4	2,867.96	73.4	39.7	-70.3	0.00	0.00	0.00
1,800.0	12.00	28.41	1,791.3	2,770.15	91.6	49.6	-87.8	0.00	0.00	0.00
1,900.0	12.00	28.41	1,889.1	2,672.33	109.9	59.5	-105.4	0.00	0.00	0.00
2,000.0	12.00	28.41	1,986.9	2,574.52	128.2	69.4	-122.9	0.00	0.00	0.00
2,100.0	12.00	28.41	2,084.7	2,476.71	146.5	79.3	-140.4	0.00	0.00	0.00
2,200.0	12.00	28.41	2,182.5	2,378.89	164.8	89.2	-157.9	0.00	0.00	0.00
2,300.0	12.00	28.41	2,280.3	2,281.08	183.1	99.0	-175.5	0.00	0.00	0.00
2,400.0	12.00	28.41	2,378.1	2,183.26	201.4	108.9	-193.0	0.00	0.00	0.00
2,500.0	12.00	28.41	2,476.0	2,085.45	219.7	118.8	-210.5	0.00	0.00	0.00
2,600.0	12.00	28.41	2,573.8	1,987.63	238.0	128.7	-228.0	0.00	0.00	0.00
END OF TANGENT										
2,651.3	12.00	28.41	2,623.9	1,937.50	247.3	133.8	-237.0	0.00	0.00	0.00
2,700.0	11.03	28.41	2,671.7	1,889.74	255.9	138.4	-245.2	2.00	-2.00	0.00
2,800.0	9.03	28.41	2,770.1	1,791.27	271.2	146.7	-259.9	2.00	-2.00	0.00
2,900.0	7.03	28.41	2,869.1	1,692.25	283.5	153.4	-271.7	2.00	-2.00	0.00
3,000.0	5.03	28.41	2,968.6	1,592.81	292.7	158.4	-280.5	2.00	-2.00	0.00
3,100.0	3.03	28.41	3,068.3	1,493.06	298.9	161.7	-286.4	2.00	-2.00	0.00
3,200.0	1.03	28.41	3,168.3	1,393.13	302.0	163.4	-289.4	2.00	-2.00	0.00
EOD TO VERTICAL										
3,251.3	0.00	0.00	3,219.6	1,341.80	302.4	163.6	-289.8	2.00	-2.00	0.00
3,300.0	0.00	0.00	3,268.3	1,293.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,400.0	0.00	0.00	3,368.3	1,193.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,500.0	0.00	0.00	3,468.3	1,093.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,600.0	0.00	0.00	3,568.3	993.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,700.0	0.00	0.00	3,668.3	893.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,800.0	0.00	0.00	3,768.3	793.13	302.4	163.6	-289.8	0.00	0.00	0.00
3,900.0	0.00	0.00	3,868.3	693.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,000.0	0.00	0.00	3,968.3	593.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,100.0	0.00	0.00	4,068.3	493.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,200.0	0.00	0.00	4,168.3	393.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,300.0	0.00	0.00	4,268.3	293.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,400.0	0.00	0.00	4,368.3	193.13	302.4	163.6	-289.8	0.00	0.00	0.00

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Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	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)
4,500.0	0.00	0.00	4,468.3	93.13	302.4	163.6	-289.8	0.00	0.00	0.00
4,600.0	0.00	0.00	4,568.3	-6.87	302.4	163.6	-289.8	0.00	0.00	0.00
4,700.0	0.00	0.00	4,668.3	-106.87	302.4	163.6	-289.8	0.00	0.00	0.00
4,800.0	0.00	0.00	4,768.3	-206.87	302.4	163.6	-289.8	0.00	0.00	0.00
4,900.0	0.00	0.00	4,868.3	-306.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,000.0	0.00	0.00	4,968.3	-406.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,100.0	0.00	0.00	5,068.3	-506.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,200.0	0.00	0.00	5,168.3	-606.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,300.0	0.00	0.00	5,268.3	-706.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,368.3	-806.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,500.0	0.00	0.00	5,468.3	-906.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,568.3	-1,006.87	302.4	163.6	-289.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,668.3	-1,106.87	302.4	163.6	-289.8	0.00	0.00	0.00
KOP (12°/100ft BUR)										
5,769.8	0.00	0.00	5,738.1	-1,176.70	302.4	163.6	-289.8	0.00	0.00	0.00
5,800.0	3.62	176.07	5,768.2	-1,206.85	301.4	163.7	-288.9	12.00	12.00	0.00
5,900.0	15.62	176.07	5,866.7	-1,305.26	284.8	164.8	-272.2	12.00	12.00	0.00
6,000.0	27.62	176.07	5,959.5	-1,398.05	248.1	167.3	-235.4	12.00	12.00	0.00
6,100.0	39.62	176.07	6,042.6	-1,481.18	193.0	171.1	-180.1	12.00	12.00	0.00
6,200.0	51.62	176.07	6,112.4	-1,550.99	121.8	176.0	-108.8	12.00	12.00	0.00
6,300.0	63.62	176.07	6,165.8	-1,604.44	37.7	181.8	-24.5	12.00	12.00	0.00
START OF TANGENT										
6,394.8	75.00	176.07	6,199.3	-1,637.90	-50.7	187.9	64.1	12.00	12.00	0.00
6,400.0	75.00	176.07	6,200.6	-1,639.23	-55.6	188.2	69.1	0.00	0.00	0.00
END OF TANGENT										
6,494.8	75.00	176.07	6,225.2	-1,663.78	-147.0	194.5	160.7	0.00	0.00	0.00
6,500.0	75.62	176.07	6,226.5	-1,665.09	-152.0	194.8	165.7	12.00	12.00	0.00
6,600.0	87.62	176.07	6,241.0	-1,679.63	-250.5	201.6	264.4	12.00	12.00	0.00
7" ICP *NEW* - SSH 21-5-17XRLNB										
6,619.8	90.00	176.07	6,241.4	-1,680.05	-270.3	202.9	284.2	12.00	12.00	0.00
6,700.0	90.00	176.07	6,241.4	-1,680.05	-350.3	208.4	364.4	0.00	0.00	0.00
6,800.0	90.00	176.07	6,241.4	-1,680.05	-450.0	215.3	464.4	0.00	0.00	0.00
6,900.0	90.00	176.07	6,241.4	-1,680.05	-549.8	222.1	564.4	0.00	0.00	0.00
7,000.0	90.00	176.07	6,241.4	-1,680.05	-649.6	229.0	664.4	0.00	0.00	0.00
7,100.0	90.00	176.07	6,241.4	-1,680.05	-749.3	235.9	764.4	0.00	0.00	0.00
7,200.0	90.00	176.07	6,241.4	-1,680.05	-849.1	242.7	864.4	0.00	0.00	0.00
7,300.0	90.00	176.07	6,241.4	-1,680.05	-948.9	249.6	964.4	0.00	0.00	0.00
7,400.0	90.00	176.07	6,241.4	-1,680.05	-1,048.6	256.4	1,064.4	0.00	0.00	0.00
7,500.0	90.00	176.07	6,241.4	-1,680.05	-1,148.4	263.3	1,164.4	0.00	0.00	0.00
7,600.0	90.00	176.07	6,241.4	-1,680.05	-1,248.2	270.1	1,264.4	0.00	0.00	0.00
7,700.0	90.00	176.07	6,241.4	-1,680.04	-1,347.9	277.0	1,364.4	0.00	0.00	0.00
7,800.0	90.00	176.07	6,241.4	-1,680.04	-1,447.7	283.8	1,464.4	0.00	0.00	0.00
7,900.0	90.00	176.07	6,241.4	-1,680.04	-1,547.5	290.7	1,564.4	0.00	0.00	0.00
8,000.0	90.00	176.07	6,241.4	-1,680.04	-1,647.2	297.6	1,664.4	0.00	0.00	0.00
8,100.0	90.00	176.07	6,241.4	-1,680.04	-1,747.0	304.4	1,764.4	0.00	0.00	0.00
8,200.0	90.00	176.07	6,241.4	-1,680.04	-1,846.8	311.3	1,864.4	0.00	0.00	0.00
8,300.0	90.00	176.07	6,241.4	-1,680.04	-1,946.5	318.1	1,964.4	0.00	0.00	0.00
8,400.0	90.00	176.07	6,241.4	-1,680.04	-2,046.3	325.0	2,064.4	0.00	0.00	0.00
8,500.0	90.00	176.07	6,241.4	-1,680.04	-2,146.0	331.9	2,164.4	0.00	0.00	0.00
8,600.0	90.00	176.07	6,241.4	-1,680.04	-2,245.8	338.7	2,264.4	0.00	0.00	0.00
8,700.0	90.00	176.07	6,241.4	-1,680.04	-2,345.6	345.6	2,364.4	0.00	0.00	0.00
8,800.0	90.00	176.07	6,241.4	-1,680.04	-2,445.3	352.4	2,464.4	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STATE SEVENTY HOLES 21-5-17XRLNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	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)
8,900.0	90.00	176.07	6,241.4	-1,680.04	-2,545.1	359.3	2,564.4	0.00	0.00	0.00
9,000.0	90.00	176.07	6,241.4	-1,680.04	-2,644.9	366.2	2,664.4	0.00	0.00	0.00
9,100.0	90.00	176.07	6,241.4	-1,680.04	-2,744.6	373.0	2,764.4	0.00	0.00	0.00
9,200.0	90.00	176.07	6,241.4	-1,680.04	-2,844.4	379.9	2,864.4	0.00	0.00	0.00
9,300.0	90.00	176.07	6,241.4	-1,680.04	-2,944.2	386.7	2,964.4	0.00	0.00	0.00
9,400.0	90.00	176.07	6,241.4	-1,680.03	-3,043.9	393.6	3,064.4	0.00	0.00	0.00
9,500.0	90.00	176.07	6,241.4	-1,680.03	-3,143.7	400.5	3,164.4	0.00	0.00	0.00
9,600.0	90.00	176.07	6,241.4	-1,680.03	-3,243.5	407.3	3,264.4	0.00	0.00	0.00
9,700.0	90.00	176.07	6,241.4	-1,680.03	-3,343.2	414.2	3,364.4	0.00	0.00	0.00
9,800.0	90.00	176.07	6,241.4	-1,680.03	-3,443.0	421.0	3,464.4	0.00	0.00	0.00
9,900.0	90.00	176.06	6,241.4	-1,680.03	-3,542.8	427.9	3,564.4	0.00	0.00	0.00
10,000.0	90.00	176.06	6,241.4	-1,680.03	-3,642.5	434.8	3,664.4	0.00	0.00	0.00
10,100.0	90.00	176.06	6,241.4	-1,680.03	-3,742.3	441.6	3,764.4	0.00	0.00	0.00
10,200.0	90.00	176.06	6,241.4	-1,680.03	-3,842.0	448.5	3,864.4	0.00	0.00	0.00
10,300.0	90.00	176.06	6,241.4	-1,680.03	-3,941.8	455.4	3,964.4	0.00	0.00	0.00
10,400.0	90.00	176.06	6,241.4	-1,680.02	-4,041.6	462.2	4,064.4	0.00	0.00	0.00
10,500.0	90.00	176.06	6,241.4	-1,680.02	-4,141.3	469.1	4,164.4	0.00	0.00	0.00
10,600.0	90.00	176.06	6,241.4	-1,680.02	-4,241.1	475.9	4,264.4	0.00	0.00	0.00
10,700.0	90.00	176.06	6,241.4	-1,680.02	-4,340.9	482.8	4,364.4	0.00	0.00	0.00
10,800.0	90.00	176.06	6,241.4	-1,680.02	-4,440.6	489.7	4,464.4	0.00	0.00	0.00
10,900.0	90.00	176.06	6,241.4	-1,680.02	-4,540.4	496.5	4,564.4	0.00	0.00	0.00
11,000.0	90.00	176.06	6,241.4	-1,680.02	-4,640.2	503.4	4,664.4	0.00	0.00	0.00
11,100.0	90.00	176.06	6,241.4	-1,680.01	-4,739.9	510.3	4,764.4	0.00	0.00	0.00
11,200.0	90.00	176.06	6,241.4	-1,680.01	-4,839.7	517.1	4,864.4	0.00	0.00	0.00
11,300.0	90.00	176.06	6,241.4	-1,680.01	-4,939.4	524.0	4,964.4	0.00	0.00	0.00
11,400.0	90.00	176.06	6,241.4	-1,680.01	-5,039.2	530.9	5,064.4	0.00	0.00	0.00
11,500.0	90.00	176.06	6,241.4	-1,680.01	-5,139.0	537.7	5,164.4	0.00	0.00	0.00
11,600.0	90.00	176.06	6,241.4	-1,680.01	-5,238.7	544.6	5,264.4	0.00	0.00	0.00
11,700.0	90.00	176.06	6,241.4	-1,680.01	-5,338.5	551.5	5,364.4	0.00	0.00	0.00
11,800.0	90.00	176.06	6,241.4	-1,680.00	-5,438.3	558.3	5,464.4	0.00	0.00	0.00
11,900.0	90.00	176.06	6,241.4	-1,680.00	-5,538.0	565.2	5,564.4	0.00	0.00	0.00
12,000.0	90.00	176.06	6,241.4	-1,680.00	-5,637.8	572.1	5,664.4	0.00	0.00	0.00
MID-LAT TARGET @1969ft FWL										
12,045.5	90.00	176.06	6,241.4	-1,680.00	-5,683.2	575.2	5,709.9	0.00	0.00	0.00
EOT TO 177.58° AZ										
12,096.2	90.00	177.58	6,241.4	-1,680.00	-5,733.8	578.0	5,760.6	3.00	0.00	3.00
12,100.0	90.00	177.58	6,241.4	-1,680.00	-5,737.6	578.2	5,764.4	0.00	0.00	0.00
12,200.0	90.00	177.58	6,241.4	-1,680.00	-5,837.5	582.4	5,864.3	0.00	0.00	0.00
12,300.0	90.00	177.58	6,241.4	-1,680.00	-5,937.4	586.6	5,964.3	0.00	0.00	0.00
12,400.0	90.00	177.58	6,241.4	-1,680.00	-6,037.3	590.8	6,064.2	0.00	0.00	0.00
12,500.0	90.00	177.58	6,241.4	-1,680.00	-6,137.2	595.0	6,164.2	0.00	0.00	0.00
12,600.0	90.00	177.58	6,241.4	-1,680.00	-6,237.2	599.3	6,264.1	0.00	0.00	0.00
12,700.0	90.00	177.58	6,241.4	-1,680.00	-6,337.1	603.5	6,364.1	0.00	0.00	0.00
12,800.0	90.00	177.58	6,241.4	-1,680.00	-6,437.0	607.7	6,464.0	0.00	0.00	0.00
12,900.0	90.00	177.58	6,241.4	-1,680.00	-6,536.9	611.9	6,564.0	0.00	0.00	0.00
13,000.0	90.00	177.58	6,241.4	-1,680.00	-6,636.8	616.1	6,664.0	0.00	0.00	0.00
13,100.0	90.00	177.58	6,241.4	-1,680.00	-6,736.7	620.3	6,763.9	0.00	0.00	0.00
13,200.0	90.00	177.58	6,241.4	-1,680.00	-6,836.6	624.5	6,863.9	0.00	0.00	0.00
13,300.0	90.00	177.58	6,241.4	-1,680.00	-6,936.5	628.8	6,963.8	0.00	0.00	0.00
13,400.0	90.00	177.58	6,241.4	-1,680.00	-7,036.4	633.0	7,063.8	0.00	0.00	0.00
13,500.0	90.00	177.58	6,241.4	-1,680.00	-7,136.4	637.2	7,163.7	0.00	0.00	0.00
13,600.0	90.00	177.58	6,241.4	-1,680.00	-7,236.3	641.4	7,263.7	0.00	0.00	0.00
13,700.0	90.00	177.58	6,241.4	-1,680.00	-7,336.2	645.6	7,363.6	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STATE SEVENTY HOLES 21-5-17XRLNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	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)
13,800.0	90.00	177.58	6,241.4	-1,680.00	-7,436.1	649.8	7,463.6	0.00	0.00	0.00
13,900.0	90.00	177.58	6,241.4	-1,680.00	-7,536.0	654.1	7,563.6	0.00	0.00	0.00
14,000.0	90.00	177.58	6,241.4	-1,680.00	-7,635.9	658.3	7,663.5	0.00	0.00	0.00
14,100.0	90.00	177.58	6,241.4	-1,680.00	-7,735.8	662.5	7,763.5	0.00	0.00	0.00
14,200.0	90.00	177.58	6,241.4	-1,680.00	-7,835.7	666.7	7,863.4	0.00	0.00	0.00
14,300.0	90.00	177.58	6,241.4	-1,680.00	-7,935.6	670.9	7,963.4	0.00	0.00	0.00
14,400.0	90.00	177.58	6,241.4	-1,680.00	-8,035.6	675.1	8,063.3	0.00	0.00	0.00
14,500.0	90.00	177.58	6,241.4	-1,680.00	-8,135.5	679.4	8,163.3	0.00	0.00	0.00
14,600.0	90.00	177.58	6,241.4	-1,680.00	-8,235.4	683.6	8,263.2	0.00	0.00	0.00
14,700.0	90.00	177.58	6,241.4	-1,680.00	-8,335.3	687.8	8,363.2	0.00	0.00	0.00
14,800.0	90.00	177.58	6,241.4	-1,680.00	-8,435.2	692.0	8,463.1	0.00	0.00	0.00
14,900.0	90.00	177.58	6,241.4	-1,680.00	-8,535.1	696.2	8,563.1	0.00	0.00	0.00
15,000.0	90.00	177.58	6,241.4	-1,680.00	-8,635.0	700.4	8,663.1	0.00	0.00	0.00
15,100.0	90.00	177.58	6,241.4	-1,680.00	-8,734.9	704.7	8,763.0	0.00	0.00	0.00
15,200.0	90.00	177.58	6,241.4	-1,680.00	-8,834.8	708.9	8,863.0	0.00	0.00	0.00
15,300.0	90.00	177.58	6,241.4	-1,680.00	-8,934.8	713.1	8,962.9	0.00	0.00	0.00
15,400.0	90.00	177.58	6,241.4	-1,680.00	-9,034.7	717.3	9,062.9	0.00	0.00	0.00
15,500.0	90.00	177.58	6,241.4	-1,680.00	-9,134.6	721.5	9,162.8	0.00	0.00	0.00
15,600.0	90.00	177.58	6,241.4	-1,680.00	-9,234.5	725.7	9,262.8	0.00	0.00	0.00
15,700.0	90.00	177.58	6,241.4	-1,680.00	-9,334.4	730.0	9,362.7	0.00	0.00	0.00
15,800.0	90.00	177.58	6,241.4	-1,680.00	-9,434.3	734.2	9,462.7	0.00	0.00	0.00
15,900.0	90.00	177.58	6,241.4	-1,680.00	-9,534.2	738.4	9,562.7	0.00	0.00	0.00
16,000.0	90.00	177.58	6,241.4	-1,680.00	-9,634.1	742.6	9,662.6	0.00	0.00	0.00
16,100.0	90.00	177.58	6,241.4	-1,680.00	-9,734.0	746.8	9,762.6	0.00	0.00	0.00
16,200.0	90.00	177.58	6,241.4	-1,680.00	-9,834.0	751.0	9,862.5	0.00	0.00	0.00
16,300.0	90.00	177.58	6,241.4	-1,680.00	-9,933.9	755.3	9,962.5	0.00	0.00	0.00
16,400.0	90.00	177.58	6,241.4	-1,680.00	-10,033.8	759.5	10,062.4	0.00	0.00	0.00
16,500.0	90.00	177.58	6,241.4	-1,680.00	-10,133.7	763.7	10,162.4	0.00	0.00	0.00
16,600.0	90.00	177.58	6,241.4	-1,680.00	-10,233.6	767.9	10,262.3	0.00	0.00	0.00
16,700.0	90.00	177.58	6,241.4	-1,680.00	-10,333.5	772.1	10,362.3	0.00	0.00	0.00
16,800.0	90.00	177.58	6,241.4	-1,680.00	-10,433.4	776.3	10,462.2	0.00	0.00	0.00
16,900.0	90.00	177.58	6,241.4	-1,680.00	-10,533.3	780.6	10,562.2	0.00	0.00	0.00
17,000.0	90.00	177.58	6,241.4	-1,680.00	-10,633.2	784.8	10,662.2	0.00	0.00	0.00
17,100.0	90.00	177.58	6,241.4	-1,680.00	-10,733.2	789.0	10,762.1	0.00	0.00	0.00
17,200.0	90.00	177.58	6,241.4	-1,680.00	-10,833.1	793.2	10,862.1	0.00	0.00	0.00
17,300.0	90.00	177.58	6,241.4	-1,680.00	-10,933.0	797.4	10,962.0	0.00	0.00	0.00
17,400.0	90.00	177.58	6,241.4	-1,680.00	-11,032.9	801.6	11,062.0	0.00	0.00	0.00
17,500.0	90.00	177.58	6,241.4	-1,680.00	-11,132.8	805.9	11,161.9	0.00	0.00	0.00
BHL - SSH 21-5-17XRLNB										
17,521.2	90.00	177.58	6,241.4	-1,680.00	-11,154.0	806.7	11,183.1	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well STATE SEVENTY HOLES 21-5-17XRLNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4561.4usft (Original Well Elev)
Site:	NE NW SEC. 5 T4N R62W 6th P.M.	North Reference:	True
Well:	STATE SEVENTY HOLES 21-5-17XRLNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,600.1	1,595.7	55.1	29.8	EOB TO 12° INC
2,651.3	2,623.9	247.3	133.8	END OF TANGENT
3,251.3	3,219.6	302.4	163.6	EOD TO VERTICAL
5,769.8	5,738.1	302.4	163.6	KOP (12°/100ft BUR)
6,394.8	6,199.3	-50.7	187.9	START OF TANGENT
6,494.8	6,225.2	-147.0	194.5	END OF TANGENT
6,619.8	6,241.4	-270.3	202.9	7" ICP *NEW* - SSH 21-5-17XRLNB
12,045.5	6,241.4	-5,683.2	575.2	MID-LAT TARGET @1969ft FWL
12,096.2	6,241.4	-5,733.8	578.0	EOT TO 177.58° AZ
17,521.2	6,241.4	-11,154.0	806.7	BHL - SSH 21-5-17XRLNB