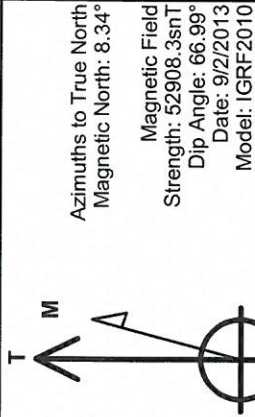


# BONANZA CREEK ENERGY OPERATING

Well Name: **State Seventy Holes T-P-6HNB**  
Surface Location: State Seventy Holes T-6 Pad Sec.6-T4N-R62W  
North American Datum 1983, US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 4530.0  
+N/-S +E/-W Northing Easting Longitude Slot  
0.0 0.0 1367091.82 3316958.92 40.335490 -104.363000  
Ensign Rig #136 - RKB - 13' WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')

## WELLBORE TARGET DETAILS

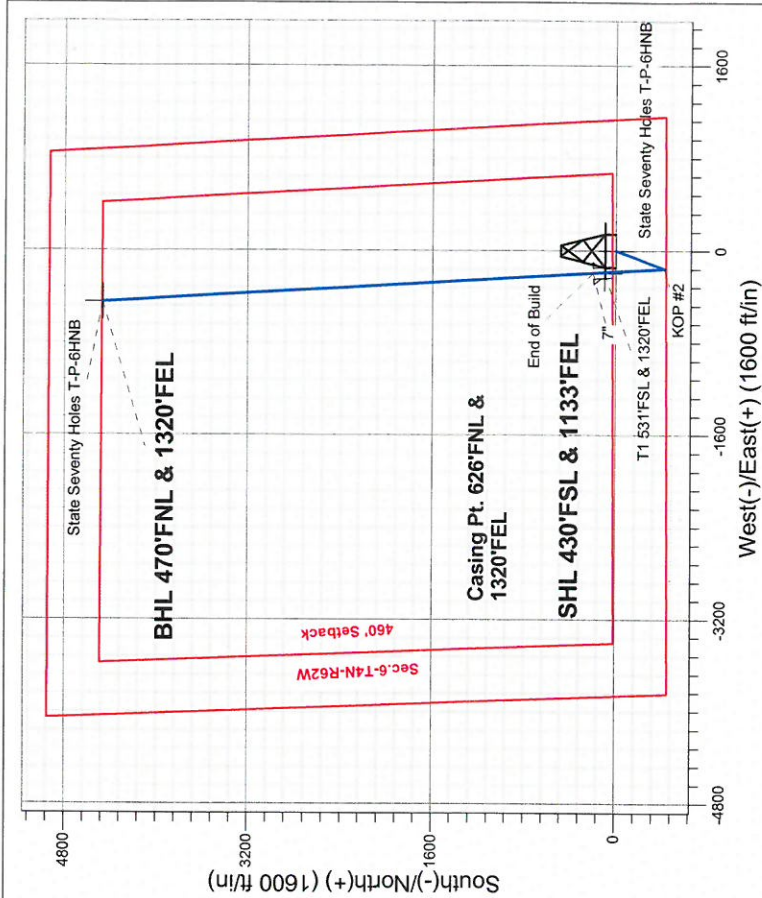
Name	TVD	+N/-S	+E/-W	Shape
SHL 430'FSL & 1133'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 1320'FEL	6218.0	4470.1	-446.0	Point
T1 531'FSL & 1320'FEL	6218.0	102.0	-192.4	Point



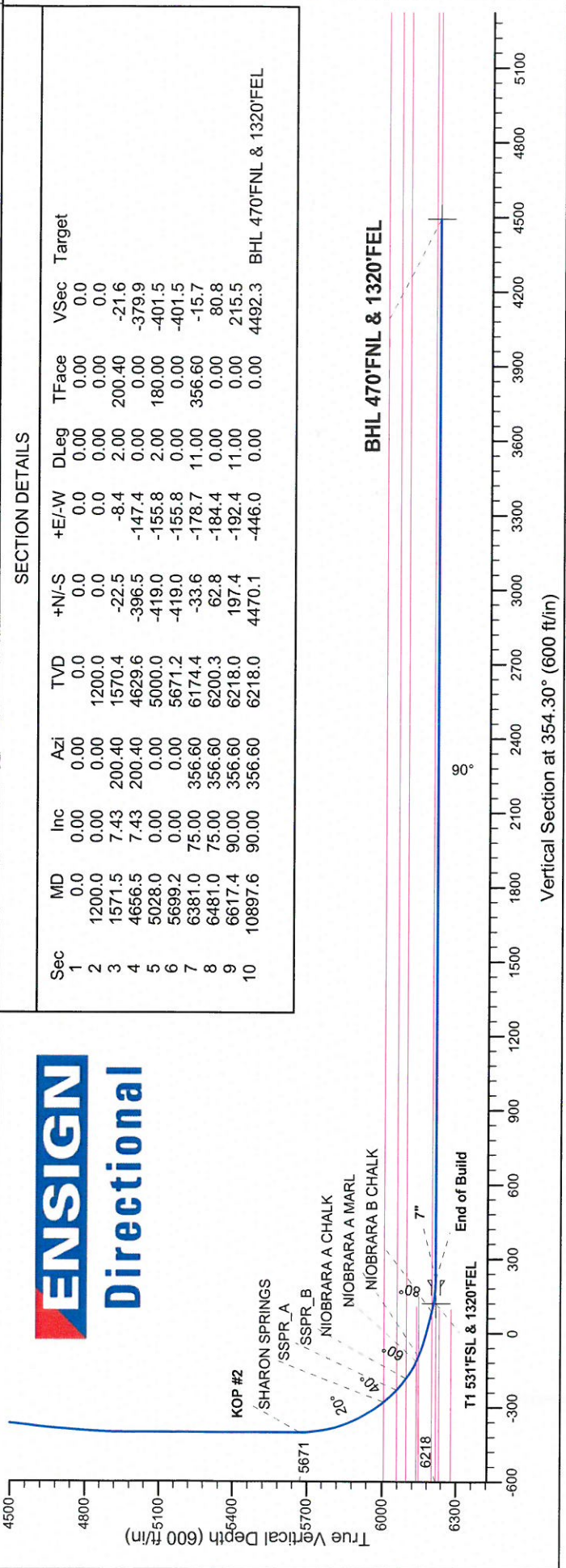
State Seventy Holes T-6 Pad Sec.6-T4N-R62W  
State Seventy Holes T-P-6HNB  
Plan #2 (9-02-13)  
9:33, September 03 2013

## ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	KOP #1
5671.2	5699.2	KOP #2
6218.0	6617.4	End of Build



## ENSIGN Directional



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1571.5	7.43	200.40	1570.4	-22.5	-8.4	2.00	200.40	-21.6	
4	4656.5	7.43	200.40	4629.6	-396.5	-147.4	0.00	0.00	-379.9	
5	5028.0	0.00	0.00	5000.0	-419.0	-155.8	2.00	180.00	-401.5	
6	5699.2	0.00	0.00	5671.2	-419.0	-155.8	0.00	0.00	-401.5	
7	6381.0	75.00	356.60	6174.4	-33.6	-178.7	11.00	356.60	-15.7	
8	6481.0	75.00	356.60	6200.3	62.8	-184.4	0.00	0.00	80.8	
9	6617.4	90.00	356.60	6218.0	197.4	-192.4	11.00	0.00	215.5	
10	10897.6	90.00	356.60	6218.0	4470.1	-446.0	0.00	0.00	4492.3	BHL 470'FNL & 1320'FEL



## **Directional**

# **BONANZA CREEK ENERGY OPERATING**

**SEC.6-T4N-R62W**

**State Seventy Holes T-6 Pad Sec.6-T4N-R62W**

**State Seventy Holes T-P-6HNB**

**Wellbore #1**

**Plan: Plan #2 (9-02-13)**

## **Standard Planning Report**

**03 September, 2013**



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well State Seventy Holes T-P-6HNB
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Project:</b>	SEC.6-T4N-R62W	<b>MD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Site:</b>	State Seventy Holes T-6 Pad Sec.6-T4N-R62W	<b>North Reference:</b>	True
<b>Well:</b>	State Seventy Holes T-P-6HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-02-13)		

<b>Project</b>	SEC.6-T4N-R62W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	State Seventy Holes T-6 Pad Sec.6-T4N-R62W				
Site Position:		Northing:	1,367,073.65 ft	Latitude:	40.335440
From:	Lat/Long	Easting:	3,316,961.94 ft	Longitude:	-104.362990
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.73 °

Well	State Seventy Holes T-P-6HNB					
Well Position	+N/-S	18.2 ft	Northing:	1,367,091.82 ft	Latitude:	40.335490
	+E/-W	-2.8 ft	Easting:	3,316,958.92 ft	Longitude:	-104.363000
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,530.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/2/2013	8.34	66.99	52,908

<b>Design</b>	Plan #2 (9-02-13)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	354.30

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,571.5	7.43	200.40	1,570.4	-22.5	-8.4	2.00	2.00	0.00	200.40	
4,656.5	7.43	200.40	4,629.6	-396.5	-147.4	0.00	0.00	0.00	0.00	
5,028.0	0.00	0.00	5,000.0	-419.0	-155.8	2.00	-2.00	0.00	180.00	
5,699.2	0.00	0.00	5,671.2	-419.0	-155.8	0.00	0.00	0.00	0.00	
6,381.0	75.00	356.60	6,174.4	-33.6	-178.7	11.00	11.00	0.00	356.60	
6,481.0	75.00	356.60	6,200.3	62.8	-184.4	0.00	0.00	0.00	0.00	
6,617.4	90.00	356.60	6,218.0	197.4	-192.4	11.00	11.00	0.00	0.00	
10,897.6	90.00	356.60	6,218.0	4,470.1	-446.0	0.00	0.00	0.00	0.00	BHL 470°FNL & 132



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well State Seventy Holes T-P-6HNB
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Project:</b>	SEC.6-T4N-R62W	<b>MD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Site:</b>	State Seventy Holes T-6 Pad Sec.6-T4N-R62W	<b>North Reference:</b>	True
<b>Well:</b>	State Seventy Holes T-P-6HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-02-13)		

#### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>SHL 430'FSL &amp; 1133'FEL</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
1,300.0	2.00	200.40	1,300.0	-1.6	-0.6	-1.6	2.00	2.00	0.00
1,400.0	4.00	200.40	1,399.8	-6.5	-2.4	-6.3	2.00	2.00	0.00
1,500.0	6.00	200.40	1,499.5	-14.7	-5.5	-14.1	2.00	2.00	0.00
1,571.5	7.43	200.40	1,570.4	-22.5	-8.4	-21.6	2.00	2.00	0.00
1,600.0	7.43	200.40	1,598.7	-26.0	-9.7	-24.9	0.00	0.00	0.00
1,700.0	7.43	200.40	1,697.9	-38.1	-14.2	-36.5	0.00	0.00	0.00
1,800.0	7.43	200.40	1,797.0	-50.2	-18.7	-48.1	0.00	0.00	0.00
1,900.0	7.43	200.40	1,896.2	-62.4	-23.2	-59.8	0.00	0.00	0.00
2,000.0	7.43	200.40	1,995.4	-74.5	-27.7	-71.4	0.00	0.00	0.00
2,100.0	7.43	200.40	2,094.5	-86.6	-32.2	-83.0	0.00	0.00	0.00
2,200.0	7.43	200.40	2,193.7	-98.7	-36.7	-94.6	0.00	0.00	0.00
2,300.0	7.43	200.40	2,292.8	-110.8	-41.2	-106.2	0.00	0.00	0.00
2,400.0	7.43	200.40	2,392.0	-123.0	-45.7	-117.8	0.00	0.00	0.00
2,500.0	7.43	200.40	2,491.2	-135.1	-50.2	-129.4	0.00	0.00	0.00
2,600.0	7.43	200.40	2,590.3	-147.2	-54.7	-141.0	0.00	0.00	0.00
2,700.0	7.43	200.40	2,689.5	-159.3	-59.2	-152.7	0.00	0.00	0.00
2,800.0	7.43	200.40	2,788.6	-171.4	-63.7	-164.3	0.00	0.00	0.00
2,900.0	7.43	200.40	2,887.8	-183.6	-68.3	-175.9	0.00	0.00	0.00
3,000.0	7.43	200.40	2,987.0	-195.7	-72.8	-187.5	0.00	0.00	0.00
3,100.0	7.43	200.40	3,086.1	-207.8	-77.3	-199.1	0.00	0.00	0.00
3,200.0	7.43	200.40	3,185.3	-219.9	-81.8	-210.7	0.00	0.00	0.00
3,300.0	7.43	200.40	3,284.4	-232.0	-86.3	-222.3	0.00	0.00	0.00
3,328.8	7.43	200.40	3,313.0	-235.5	-87.6	-225.7	0.00	0.00	0.00
<b>PARKMAN</b>									
3,400.0	7.43	200.40	3,383.6	-244.2	-90.8	-233.9	0.00	0.00	0.00
3,500.0	7.43	200.40	3,482.8	-256.3	-95.3	-245.6	0.00	0.00	0.00
3,600.0	7.43	200.40	3,581.9	-268.4	-99.8	-257.2	0.00	0.00	0.00
3,700.0	7.43	200.40	3,681.1	-280.5	-104.3	-268.8	0.00	0.00	0.00
3,800.0	7.43	200.40	3,780.2	-292.6	-108.8	-280.4	0.00	0.00	0.00
3,900.0	7.43	200.40	3,879.4	-304.8	-113.3	-292.0	0.00	0.00	0.00
4,000.0	7.43	200.40	3,978.6	-316.9	-117.8	-303.6	0.00	0.00	0.00
4,100.0	7.43	200.40	4,077.7	-329.0	-122.3	-315.2	0.00	0.00	0.00
4,200.0	7.43	200.40	4,176.9	-341.1	-126.8	-326.8	0.00	0.00	0.00
4,300.0	7.43	200.40	4,276.1	-353.2	-131.4	-338.5	0.00	0.00	0.00
4,400.0	7.43	200.40	4,375.2	-365.4	-135.9	-350.1	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well State Seventy Holes T-P-6HNB
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Project:</b>	SEC.6-T4N-R62W	<b>MD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Site:</b>	State Seventy Holes T-6 Pad Sec.6-T4N-R62W	<b>North Reference:</b>	True
<b>Well:</b>	State Seventy Holes T-P-6HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-02-13)		

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.0	7.43	200.40	4,474.4	-377.5	-140.4	-361.7	0.00	0.00	0.00
4,600.0	7.43	200.40	4,573.5	-389.6	-144.9	-373.3	0.00	0.00	0.00
4,656.5	7.43	200.40	4,629.6	-396.5	-147.4	-379.9	0.00	0.00	0.00
4,700.0	6.56	200.40	4,672.7	-401.4	-149.3	-384.6	2.00	-2.00	0.00
4,800.0	4.56	200.40	4,772.3	-410.5	-152.6	-393.3	2.00	-2.00	0.00
4,900.0	2.56	200.40	4,872.1	-416.3	-154.8	-398.9	2.00	-2.00	0.00
5,000.0	0.56	200.40	4,972.0	-418.9	-155.8	-401.3	2.00	-2.00	0.00
5,028.0	0.00	0.00	5,000.0	-419.0	-155.8	-401.5	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,072.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,172.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,300.0	0.00	0.00	5,272.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,372.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,472.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,572.0	-419.0	-155.8	-401.5	0.00	0.00	0.00
5,699.2	0.00	0.00	5,671.2	-419.0	-155.8	-401.5	0.00	0.00	0.00
<b>KOP #2</b>									
5,700.0	0.08	356.60	5,672.0	-419.0	-155.8	-401.5	10.61	10.61	0.00
5,800.0	11.08	356.60	5,771.4	-409.3	-156.4	-391.8	11.00	11.00	0.00
5,900.0	22.08	356.60	5,867.1	-380.8	-158.1	-363.3	11.00	11.00	0.00
6,000.0	33.08	356.60	5,955.6	-334.7	-160.8	-317.1	11.00	11.00	0.00
6,064.1	40.14	356.60	6,007.0	-296.6	-163.1	-278.9	11.00	11.00	0.00
<b>SHARON SPRINGS</b>									
6,100.0	44.08	356.60	6,033.6	-272.5	-164.5	-254.9	11.00	11.00	0.00
6,133.6	47.78	356.60	6,057.0	-248.4	-165.9	-230.7	11.00	11.00	0.00
<b>SSPR_A</b>									
6,194.2	54.44	356.60	6,095.0	-201.4	-168.7	-183.7	11.00	11.00	0.00
<b>SSPR_B</b>									
6,200.0	55.08	356.60	6,098.4	-196.6	-169.0	-178.9	11.00	11.00	0.00
6,275.6	63.40	356.60	6,137.0	-131.8	-172.8	-114.0	11.00	11.00	0.00
<b>NIOBRARA A CHALK</b>									
6,296.6	65.71	356.60	6,146.0	-112.9	-174.0	-95.1	11.00	11.00	0.00
<b>NIOBRARA A MARL</b>									
6,300.0	66.08	356.60	6,147.4	-109.8	-174.2	-92.0	11.00	11.00	0.00
6,381.0	75.00	356.60	6,174.4	-33.6	-178.7	-15.7	11.00	11.00	0.00
6,400.0	75.00	356.60	6,179.3	-15.3	-179.8	2.6	0.00	0.00	0.00
6,481.0	75.00	356.60	6,200.3	62.8	-184.4	80.8	0.00	0.00	0.00
6,488.0	75.76	356.60	6,202.0	69.5	-184.8	87.5	11.00	11.00	0.00
<b>NIOBRARA B CHALK</b>									
6,500.0	77.08	356.60	6,204.8	81.2	-185.5	99.2	11.00	11.00	0.00
6,522.8	79.59	356.60	6,209.4	103.4	-186.8	121.5	11.00	11.00	0.00
<b>T1 531'FSL &amp; 1320'FEL</b>									
6,600.0	88.08	356.60	6,217.7	180.0	-191.4	198.1	11.00	11.00	0.00
6,617.4	90.00	356.60	6,218.0	197.4	-192.4	215.5	11.00	11.00	0.00
<b>End of Build - NIOBRARA B TARGET - 7"</b>									
6,700.0	90.00	356.60	6,218.0	279.8	-197.3	298.0	0.00	0.00	0.00
6,800.0	90.00	356.60	6,218.0	379.6	-203.2	397.9	0.00	0.00	0.00
6,900.0	90.00	356.60	6,218.0	479.5	-209.1	497.9	0.00	0.00	0.00
7,000.0	90.00	356.60	6,218.0	579.3	-215.1	597.8	0.00	0.00	0.00
7,100.0	90.00	356.60	6,218.0	679.1	-221.0	697.7	0.00	0.00	0.00
7,200.0	90.00	356.60	6,218.0	778.9	-226.9	797.6	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well State Seventy Holes T-P-6HNB
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Project:</b>	SEC.6-T4N-R62W	<b>MD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Site:</b>	State Seventy Holes T-6 Pad Sec.6-T4N-R62W	<b>North Reference:</b>	True
<b>Well:</b>	State Seventy Holes T-P-6HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-02-13)		

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,300.0	90.00	356.60	6,218.0	878.8	-232.8	897.5	0.00	0.00	0.00
7,400.0	90.00	356.60	6,218.0	978.6	-238.8	997.5	0.00	0.00	0.00
7,500.0	90.00	356.60	6,218.0	1,078.4	-244.7	1,097.4	0.00	0.00	0.00
7,600.0	90.00	356.60	6,218.0	1,178.2	-250.6	1,197.3	0.00	0.00	0.00
7,700.0	90.00	356.60	6,218.0	1,278.1	-256.5	1,297.2	0.00	0.00	0.00
7,800.0	90.00	356.60	6,218.0	1,377.9	-262.5	1,397.1	0.00	0.00	0.00
7,900.0	90.00	356.60	6,218.0	1,477.7	-268.4	1,497.1	0.00	0.00	0.00
8,000.0	90.00	356.60	6,218.0	1,577.5	-274.3	1,597.0	0.00	0.00	0.00
8,100.0	90.00	356.60	6,218.0	1,677.4	-280.2	1,696.9	0.00	0.00	0.00
8,200.0	90.00	356.60	6,218.0	1,777.2	-286.1	1,796.8	0.00	0.00	0.00
8,300.0	90.00	356.60	6,218.0	1,877.0	-292.1	1,896.7	0.00	0.00	0.00
8,400.0	90.00	356.60	6,218.0	1,976.8	-298.0	1,996.7	0.00	0.00	0.00
8,500.0	90.00	356.60	6,218.0	2,076.7	-303.9	2,096.6	0.00	0.00	0.00
8,600.0	90.00	356.60	6,218.0	2,176.5	-309.8	2,196.5	0.00	0.00	0.00
8,700.0	90.00	356.60	6,218.0	2,276.3	-315.8	2,296.4	0.00	0.00	0.00
8,800.0	90.00	356.60	6,218.0	2,376.1	-321.7	2,396.3	0.00	0.00	0.00
8,900.0	90.00	356.60	6,218.0	2,476.0	-327.6	2,496.3	0.00	0.00	0.00
9,000.0	90.00	356.60	6,218.0	2,575.8	-333.5	2,596.2	0.00	0.00	0.00
9,100.0	90.00	356.60	6,218.0	2,675.6	-339.5	2,696.1	0.00	0.00	0.00
9,200.0	90.00	356.60	6,218.0	2,775.4	-345.4	2,796.0	0.00	0.00	0.00
9,300.0	90.00	356.60	6,218.0	2,875.3	-351.3	2,895.9	0.00	0.00	0.00
9,400.0	90.00	356.60	6,218.0	2,975.1	-357.2	2,995.8	0.00	0.00	0.00
9,500.0	90.00	356.60	6,218.0	3,074.9	-363.2	3,095.8	0.00	0.00	0.00
9,600.0	90.00	356.60	6,218.0	3,174.7	-369.1	3,195.7	0.00	0.00	0.00
9,700.0	90.00	356.60	6,218.0	3,274.6	-375.0	3,295.6	0.00	0.00	0.00
9,800.0	90.00	356.60	6,218.0	3,374.4	-380.9	3,395.5	0.00	0.00	0.00
9,900.0	90.00	356.60	6,218.0	3,474.2	-386.9	3,495.4	0.00	0.00	0.00
10,000.0	90.00	356.60	6,218.0	3,574.0	-392.8	3,595.4	0.00	0.00	0.00
10,100.0	90.00	356.60	6,218.0	3,673.9	-398.7	3,695.3	0.00	0.00	0.00
10,200.0	90.00	356.60	6,218.0	3,773.7	-404.6	3,795.2	0.00	0.00	0.00
10,300.0	90.00	356.60	6,218.0	3,873.5	-410.6	3,895.1	0.00	0.00	0.00
10,400.0	90.00	356.60	6,218.0	3,973.3	-416.5	3,995.0	0.00	0.00	0.00
10,500.0	90.00	356.60	6,218.0	4,073.1	-422.4	4,095.0	0.00	0.00	0.00
10,600.0	90.00	356.60	6,218.0	4,173.0	-428.3	4,194.9	0.00	0.00	0.00
10,700.0	90.00	356.60	6,218.0	4,272.8	-434.3	4,294.8	0.00	0.00	0.00
10,800.0	90.00	356.60	6,218.0	4,372.6	-440.2	4,394.7	0.00	0.00	0.00
10,897.6	90.00	356.60	6,218.0	4,470.1	-446.0	4,492.3	0.00	0.00	0.00
<b>BHL 470'FNL &amp; 1320'FEL</b>									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well State Seventy Holes T-P-6HNB
<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>TVD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Project:</b>	SEC.6-T4N-R62W	<b>MD Reference:</b>	WELL @ 4543.0ft (Ensign Rig #136 - RKB - 13')
<b>Site:</b>	State Seventy Holes T-6 Pad Sec.6-T4N-R62W	<b>North Reference:</b>	True
<b>Well:</b>	State Seventy Holes T-P-6HNB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-02-13)		

**Targets**

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
T1 531'FSL & 1320'FE	- plan misses target center by 10.3ft at 6522.8ft MD (6209.4 TVD, 103.4 N, -186.8 E)	0.00	0.00	6,218.0	102.0	-192.4	1,367,191.36	3,316,765.27	40.335770	-104.363690
	- Point									
BHL 470'FNL & 1320'	- plan hits target center	0.00	0.00	6,218.0	4,470.1	-446.0	1,371,555.61	3,316,455.68	40.347760	-104.364600
	- Point									
SHL 430'FSL & 1133'	- plan hits target center	0.00	0.00	1.0	0.0	0.0	1,367,091.83	3,316,958.92	40.335490	-104.363000
	- Point									

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,617.4	6,218.0	7"	7	7-1/2

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,328.8	3,313.0	PARKMAN		0.00	
6,064.1	6,007.0	SHARON SPRINGS		0.00	
6,133.6	6,057.0	SSPR_A		0.00	
6,194.2	6,095.0	SSPR_B		0.00	
6,275.6	6,137.0	NIOBRARA A CHALK		0.00	
6,296.6	6,146.0	NIOBRARA A MARL		0.00	
6,488.0	6,202.0	NIOBRARA B CHALK		0.00	
6,617.4	6,218.0	NIOBRARA B TARGET		0.00	
	6,232.0	NIOBRARA B MARL		0.00	
	6,280.0	NIOBRARA C CHALK		0.00	

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.0	1,200.0	0.0	0.0	KOP #1
5,699.2	5,671.2	-419.0	-155.8	KOP #2
6,617.4	6,218.0	197.4	-192.4	End of Build