

BONANZA CREEK ENERGY OPERATING

Well Name: **State Seventy Holes P-T-4HNB**

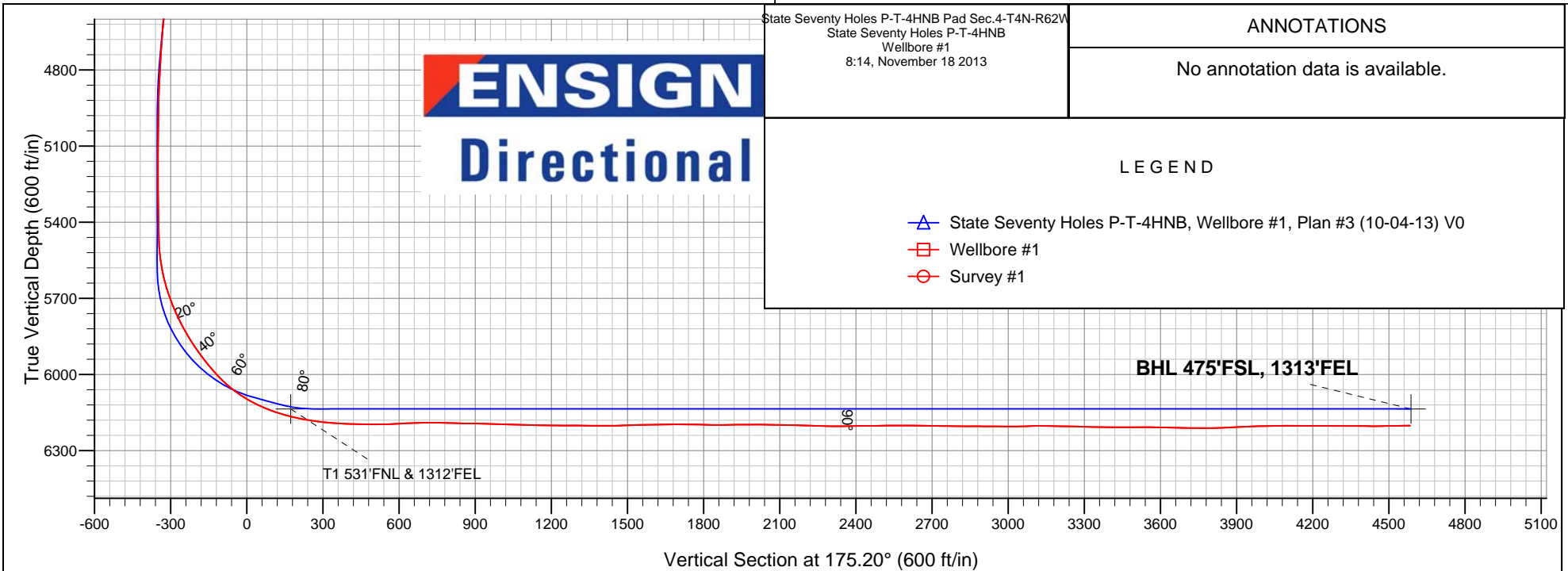
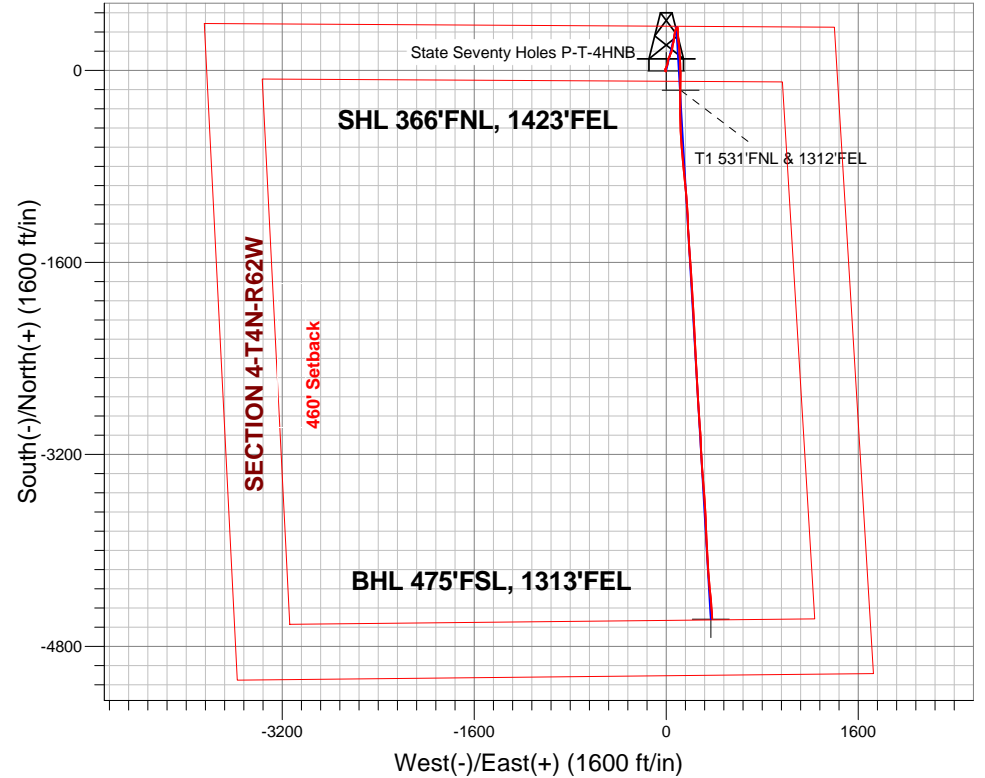
Surface Location: State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4561.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1371738.89	3326898.00	40.347890	-104.327130	

Ensign Rig #136 - RKB - 12'WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')

FINAL SURVEY

Projected Bottom Hole Location
 10835' MD 6202' TVD 4568' S & 383' E of SHL
 91.2 degree Incl @ 176.0 degree AZM





BONANZA CREEK ENERGY OPERATING

SEC.4-T4N-R62W

State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W

State Seventy Holes P-T-4HNB

Wellbore #1

Survey: Survey #1

Standard Survey Report

18 November, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State Seventy Holes P-T-4HNB
Project:	SEC.4-T4N-R62W	TVD Reference:	WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')
Site:	State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W	MD Reference:	WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')
Well:	State Seventy Holes P-T-4HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.4-T4N-R62W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W				
Site Position:		Northing:	1,371,735.26 ft	Latitude:	40.347880
From:	Lat/Long	Easting:	3,326,898.04 ft	Longitude:	-104.327130
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.76 °

Well	State Seventy Holes P-T-4HNB					
Well Position	+N/-S	0.0 ft	Northing:	1,371,738.89 ft	Latitude:	40.347890
	+E/-W	0.0 ft	Easting:	3,326,898.00 ft	Longitude:	-104.327130
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,561.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/2/2013	8.31	67.00	52,910

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.0	0.0	0.0	175.20

Survey Program	Date	11/18/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
142.0	10,835.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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	
SHL 370'FNL, 1423'FEL										
142.0	0.80	201.10	142.0	-0.9	-0.4	0.9	0.56	0.56	0.00	
282.0	1.10	206.80	282.0	-3.0	-1.3	2.9	0.22	0.21	4.07	
486.0	1.10	215.40	485.9	-6.4	-3.3	6.1	0.08	0.00	4.22	
508.0	1.30	243.00	507.9	-6.7	-3.7	6.3	2.75	0.91	125.45	
600.0	1.10	303.40	599.9	-6.7	-5.3	6.2	1.33	-0.22	65.65	
694.0	0.80	316.80	693.9	-5.7	-6.5	5.1	0.40	-0.32	14.26	
787.0	1.10	329.60	786.9	-4.4	-7.4	3.8	0.39	0.32	13.76	
881.0	0.80	324.70	880.9	-3.1	-8.3	2.4	0.33	-0.32	-5.21	
974.0	2.10	352.80	973.8	-0.9	-8.9	0.2	1.55	1.40	30.22	
1,065.0	2.70	352.10	1,064.8	2.9	-9.4	-3.6	0.66	0.66	-0.77	

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Site:	State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W	MD Reference:	WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')
Well:	State Seventy Holes P-T-4HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
1,157.0	3.50	25.00	1,156.6	7.6	-8.5	-8.3	2.08	0.87	35.76
1,248.0	4.90	22.90	1,247.4	13.7	-5.8	-14.1	1.55	1.54	-2.31
1,338.0	6.50	24.50	1,336.9	21.8	-2.2	-21.9	1.79	1.78	1.78
1,428.0	5.50	26.10	1,426.5	30.4	1.8	-30.1	1.13	-1.11	1.78
1,555.0	4.70	22.40	1,552.9	40.6	6.5	-39.9	0.68	-0.63	-2.91
1,682.0	6.00	11.50	1,679.4	51.9	9.8	-50.9	1.29	1.02	-8.58
1,809.0	6.10	5.10	1,805.7	65.2	11.7	-64.0	0.54	0.08	-5.04
1,936.0	6.50	11.50	1,931.9	78.9	13.7	-77.5	0.64	0.31	5.04
2,063.0	6.00	11.10	2,058.2	92.5	16.5	-90.8	0.40	-0.39	-0.31
2,190.0	6.00	32.20	2,184.5	104.6	21.3	-102.5	1.73	0.00	16.61
2,317.0	5.50	22.70	2,310.9	115.9	27.2	-113.2	0.85	-0.39	-7.48
2,444.0	4.70	14.80	2,437.3	126.5	30.8	-123.5	0.84	-0.63	-6.22
2,572.0	5.80	27.10	2,564.8	137.3	35.1	-133.9	1.22	0.86	9.61
2,700.0	5.90	25.00	2,692.1	149.0	40.8	-145.1	0.18	0.08	-1.64
2,828.0	5.70	14.60	2,819.5	161.2	45.2	-156.8	0.83	-0.16	-8.13
2,957.0	5.30	13.40	2,947.9	173.2	48.2	-168.5	0.32	-0.31	-0.93
3,085.0	5.30	3.60	3,075.4	184.8	50.0	-180.0	0.71	0.00	-7.66
3,213.0	4.90	5.30	3,202.8	196.2	50.8	-191.2	0.33	-0.31	1.33
3,342.0	6.20	15.20	3,331.2	208.4	53.2	-203.2	1.25	1.01	7.67
3,470.0	5.80	12.40	3,458.5	221.3	56.4	-215.9	0.39	-0.31	-2.19
3,598.0	5.60	10.90	3,585.9	233.8	59.0	-228.1	0.19	-0.16	-1.17
3,726.0	6.60	11.80	3,713.2	247.1	61.6	-241.1	0.78	0.78	0.70
3,855.0	6.10	10.10	3,841.4	261.1	64.4	-254.8	0.41	-0.39	-1.32
3,983.0	5.30	6.60	3,968.8	273.7	66.2	-267.2	0.68	-0.63	-2.73
4,111.0	6.30	7.40	4,096.1	286.5	67.8	-279.9	0.78	0.78	0.63
4,240.0	5.40	6.40	4,224.4	299.6	69.4	-292.7	0.70	-0.70	-0.78
4,368.0	5.50	9.20	4,351.9	311.6	71.1	-304.6	0.22	0.08	2.19
4,496.0	6.00	13.90	4,479.2	324.2	73.6	-316.9	0.54	0.39	3.67
4,625.0	5.10	13.90	4,607.6	336.3	76.6	-328.7	0.70	-0.70	0.00
4,753.0	4.00	21.70	4,735.2	346.0	79.7	-338.1	0.98	-0.86	6.09
4,882.0	3.10	26.80	4,863.9	353.3	82.9	-345.1	0.74	-0.70	3.95
5,010.0	1.40	70.20	4,991.9	356.9	85.9	-348.4	1.79	-1.33	33.91
5,138.0	1.30	64.00	5,119.8	358.0	88.7	-349.4	0.14	-0.08	-4.84
5,267.0	1.00	115.50	5,248.8	358.2	91.0	-349.3	0.80	-0.23	39.92
5,394.0	1.10	125.20	5,375.8	357.0	93.0	-348.0	0.16	0.08	7.64
5,437.0	1.20	135.00	5,418.8	356.5	93.7	-347.4	0.51	0.23	22.79
5,480.0	1.50	144.70	5,461.8	355.7	94.3	-346.6	0.87	0.70	22.56
5,523.0	4.60	166.20	5,504.7	353.6	95.1	-344.4	7.56	7.21	50.00
5,566.0	7.70	172.30	5,547.4	349.0	95.9	-339.8	7.36	7.21	14.19
5,608.0	10.70	176.90	5,588.9	342.3	96.4	-333.1	7.35	7.14	10.95
5,651.0	14.40	176.40	5,630.9	333.0	97.0	-323.7	8.61	8.60	-1.16
5,694.0	17.90	177.90	5,672.2	321.1	97.6	-311.8	8.20	8.14	3.49
5,737.0	20.80	178.60	5,712.7	306.8	98.0	-297.6	6.77	6.74	1.63
5,779.0	23.70	178.60	5,751.6	290.9	98.4	-281.7	6.90	6.90	0.00
5,822.0	26.60	177.90	5,790.5	272.7	99.0	-263.4	6.78	6.74	-1.63
5,865.0	29.40	174.40	5,828.5	252.5	100.3	-243.3	7.55	6.51	-8.14
5,908.0	32.10	173.00	5,865.4	230.7	102.8	-221.3	6.50	6.28	-3.26
5,951.0	34.80	173.20	5,901.3	207.2	105.6	-197.6	6.28	6.28	0.47
5,993.0	37.40	174.20	5,935.2	182.6	108.3	-172.9	6.35	6.19	2.38
6,036.0	39.90	176.40	5,968.8	155.8	110.5	-146.0	6.63	5.81	5.12
6,079.0	43.10	177.40	6,001.0	127.4	112.0	-117.5	7.60	7.44	2.33
6,122.0	47.00	177.60	6,031.4	97.0	113.4	-87.1	9.08	9.07	0.47
6,164.0	51.40	177.60	6,058.8	65.2	114.7	-55.4	10.48	10.48	0.00

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Well:	State Seventy Holes P-T-4HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
6,207.0	56.40	177.10	6,084.2	30.5	116.3	-20.7	11.67	11.63	-1.16
6,250.0	61.70	178.10	6,106.3	-6.3	117.8	16.1	12.49	12.33	2.33
6,293.0	66.10	180.00	6,125.2	-44.9	118.5	54.7	10.97	10.23	4.42
6,335.0	69.70	181.10	6,141.0	-83.8	118.1	93.4	8.91	8.57	2.62
6,378.0	73.00	181.80	6,154.7	-124.5	117.1	133.9	7.83	7.67	1.63
6,410.8	75.06	181.11	6,163.7	-156.1	116.3	165.2	6.59	6.28	-2.10
T1 531'FNL & 1312'FEL									
6,421.0	75.70	180.90	6,166.3	-165.9	116.1	175.1	6.59	6.28	-2.07
6,464.0	79.00	181.10	6,175.7	-207.9	115.4	216.8	7.69	7.67	0.47
6,506.0	82.00	180.60	6,182.7	-249.3	114.7	258.0	7.24	7.14	-1.19
6,549.0	83.80	179.70	6,188.0	-292.0	114.6	300.5	4.67	4.19	-2.09
6,592.0	85.80	178.80	6,191.9	-334.8	115.2	343.2	5.10	4.65	-2.09
6,635.0	87.70	178.50	6,194.3	-377.7	116.2	386.1	4.47	4.42	-0.70
6,678.0	88.30	177.90	6,195.8	-420.6	117.5	429.0	1.97	1.40	-1.40
6,763.0	90.40	177.90	6,196.8	-505.6	120.7	513.9	2.47	2.47	0.00
6,806.0	91.40	177.60	6,196.1	-548.5	122.4	556.9	2.43	2.33	-0.70
6,848.0	92.20	176.50	6,194.8	-590.5	124.5	598.8	3.24	1.90	-2.62
6,890.0	92.80	175.80	6,193.0	-632.3	127.3	640.8	2.19	1.43	-1.67
6,933.0	92.40	175.30	6,191.0	-675.2	130.7	683.7	1.49	-0.93	-1.16
6,975.0	90.10	175.00	6,190.1	-717.0	134.2	725.7	5.52	-5.48	-0.71
7,017.0	88.00	174.40	6,190.8	-758.8	138.1	767.7	5.20	-5.00	-1.43
7,060.0	88.40	173.70	6,192.1	-801.6	142.5	810.7	1.87	0.93	-1.63
7,102.0	89.10	174.20	6,193.1	-843.3	147.0	852.6	2.05	1.67	1.19
7,144.0	89.70	173.40	6,193.5	-885.1	151.5	894.6	2.38	1.43	-1.90
7,186.0	88.60	173.90	6,194.1	-926.8	156.2	936.6	2.88	-2.62	1.19
7,229.0	87.70	174.40	6,195.5	-969.5	160.5	979.6	2.39	-2.09	1.16
7,272.0	87.80	175.10	6,197.2	-1,012.3	164.5	1,022.5	1.64	0.23	1.63
7,315.0	88.50	175.50	6,198.6	-1,055.2	168.0	1,065.5	1.87	1.63	0.93
7,358.0	89.10	175.70	6,199.5	-1,098.0	171.3	1,108.5	1.47	1.40	0.47
7,400.0	88.90	177.10	6,200.2	-1,139.9	173.9	1,150.5	3.37	-0.48	3.33
7,443.0	89.00	177.40	6,201.0	-1,182.9	176.0	1,193.5	0.74	0.23	0.70
7,486.0	90.00	177.90	6,201.4	-1,225.8	177.7	1,236.4	2.60	2.33	1.16
7,529.0	90.20	177.60	6,201.3	-1,268.8	179.4	1,279.4	0.84	0.47	-0.70
7,571.0	89.00	176.40	6,201.6	-1,310.8	181.6	1,321.3	4.04	-2.86	-2.86
7,614.0	89.50	176.70	6,202.2	-1,353.7	184.2	1,364.3	1.36	1.16	0.70
7,657.0	90.00	176.50	6,202.3	-1,396.6	186.8	1,407.3	1.25	1.16	-0.47
7,700.0	90.40	176.50	6,202.2	-1,439.5	189.4	1,450.3	0.93	0.93	0.00
7,743.0	92.00	176.40	6,201.3	-1,482.4	192.1	1,493.3	3.73	3.72	-0.23
7,785.0	92.50	176.40	6,199.6	-1,524.3	194.7	1,535.2	1.19	1.19	0.00
7,828.0	91.50	175.10	6,198.1	-1,567.2	197.9	1,578.2	3.81	-2.33	-3.02
7,871.0	90.70	176.20	6,197.3	-1,610.0	201.1	1,621.2	3.16	-1.86	2.56
7,914.0	90.10	176.50	6,197.0	-1,652.9	203.9	1,664.2	1.56	-1.40	0.70
7,956.0	89.90	176.50	6,197.0	-1,694.9	206.4	1,706.2	0.48	-0.48	0.00
7,999.0	89.30	176.70	6,197.3	-1,737.8	209.0	1,749.2	1.47	-1.40	0.47
8,042.0	88.50	176.40	6,198.1	-1,780.7	211.6	1,792.2	1.99	-1.86	-0.70
8,085.0	88.70	176.50	6,199.2	-1,823.6	214.2	1,835.1	0.52	0.47	0.23
8,128.0	90.40	176.00	6,199.5	-1,866.5	217.0	1,878.1	4.12	3.95	-1.16
8,170.0	91.50	176.00	6,198.8	-1,908.4	220.0	1,920.1	2.62	2.62	0.00
8,213.0	90.70	176.00	6,198.0	-1,951.3	223.0	1,963.1	1.86	-1.86	0.00
8,256.0	90.40	176.70	6,197.6	-1,994.2	225.7	2,006.1	1.77	-0.70	1.63
8,299.0	89.60	177.10	6,197.6	-2,037.1	228.0	2,049.1	2.08	-1.86	0.93
8,341.0	88.60	177.20	6,198.3	-2,079.1	230.1	2,091.0	2.39	-2.38	0.24
8,384.0	87.80	177.20	6,199.6	-2,122.0	232.2	2,134.0	1.86	-1.86	0.00

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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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)
8,427.0	88.10	176.90	6,201.1	-2,164.9	234.4	2,176.9	0.99	0.70	-0.70
8,470.0	88.70	176.70	6,202.3	-2,207.8	236.8	2,219.9	1.47	1.40	-0.47
8,512.0	88.90	176.70	6,203.2	-2,249.8	239.3	2,261.9	0.48	0.48	0.00
8,555.0	89.20	176.70	6,203.9	-2,292.7	241.7	2,304.9	0.70	0.70	0.00
8,598.0	90.50	177.10	6,204.1	-2,335.6	244.1	2,347.8	3.16	3.02	0.93
8,641.0	91.00	178.10	6,203.5	-2,378.6	245.9	2,390.8	2.60	1.16	2.33
8,684.0	90.40	177.80	6,203.0	-2,421.5	247.4	2,433.7	1.56	-1.40	-0.70
8,726.0	90.50	177.40	6,202.6	-2,463.5	249.2	2,475.7	0.98	0.24	-0.95
8,769.0	90.80	177.90	6,202.1	-2,506.5	250.9	2,518.7	1.36	0.70	1.16
8,812.0	90.70	177.10	6,201.6	-2,549.4	252.8	2,561.6	1.87	-0.23	-1.86
8,855.0	90.40	176.40	6,201.2	-2,592.3	255.2	2,604.6	1.77	-0.70	-1.63
8,897.0	88.90	176.40	6,201.4	-2,634.3	257.9	2,646.6	3.57	-3.57	0.00
8,940.0	88.80	176.20	6,202.3	-2,677.2	260.6	2,689.6	0.52	-0.23	-0.47
8,983.0	88.80	176.90	6,203.2	-2,720.1	263.2	2,732.6	1.63	0.00	1.63
9,026.0	89.00	176.50	6,204.0	-2,763.0	265.7	2,775.5	1.04	0.47	-0.93
9,068.0	89.90	175.80	6,204.4	-2,804.9	268.5	2,817.5	2.71	2.14	-1.67
9,111.0	90.40	176.40	6,204.3	-2,847.8	271.4	2,860.5	1.82	1.16	1.40
9,154.0	89.10	175.80	6,204.5	-2,890.7	274.4	2,903.5	3.33	-3.02	-1.40
9,197.0	89.70	175.70	6,204.9	-2,933.6	277.6	2,946.5	1.41	1.40	-0.23
9,239.0	89.40	175.70	6,205.3	-2,975.5	280.7	2,988.5	0.71	-0.71	0.00
9,282.0	91.20	176.40	6,205.0	-3,018.4	283.7	3,031.5	4.49	4.19	1.63
9,325.0	91.90	177.40	6,203.9	-3,061.3	286.0	3,074.5	2.84	1.63	2.33
9,368.0	90.10	177.80	6,203.1	-3,104.2	287.8	3,117.4	4.29	-4.19	0.93
9,411.0	89.20	178.10	6,203.4	-3,147.2	289.3	3,160.4	2.21	-2.09	0.70
9,453.0	89.30	177.80	6,203.9	-3,189.2	290.8	3,202.3	0.75	0.24	-0.71
9,496.0	88.70	176.40	6,204.7	-3,232.1	293.0	3,245.3	3.54	-1.40	-3.26
9,539.0	88.50	175.80	6,205.7	-3,275.0	295.9	3,288.3	1.47	-0.47	-1.40
9,582.0	88.60	176.00	6,206.8	-3,317.9	299.0	3,331.3	0.52	0.23	0.47
9,624.0	88.80	175.30	6,207.8	-3,359.7	302.2	3,373.2	1.73	0.48	-1.67
9,667.0	89.60	175.80	6,208.4	-3,402.6	305.5	3,416.2	2.19	1.86	1.16
9,710.0	90.30	175.80	6,208.4	-3,445.5	308.7	3,459.2	1.63	1.63	0.00
9,753.0	90.50	176.00	6,208.1	-3,488.4	311.8	3,502.2	0.66	0.47	0.47
9,795.0	90.00	175.10	6,207.9	-3,530.2	315.0	3,544.2	2.45	-1.19	-2.14
9,838.0	88.50	175.80	6,208.5	-3,573.1	318.4	3,587.2	3.85	-3.49	1.63
9,881.0	88.40	175.80	6,209.7	-3,616.0	321.6	3,630.2	0.23	-0.23	0.00
9,924.0	88.80	176.50	6,210.7	-3,658.9	324.5	3,673.2	1.87	0.93	1.63
9,967.0	89.10	176.90	6,211.5	-3,701.8	326.9	3,716.2	1.16	0.70	0.93
10,009.0	89.70	177.10	6,211.9	-3,743.7	329.1	3,758.1	1.51	1.43	0.48
10,052.0	91.50	178.50	6,211.5	-3,786.7	330.8	3,801.1	5.30	4.19	3.26
10,095.0	92.40	177.90	6,210.0	-3,829.6	332.1	3,844.0	2.52	2.09	-1.40
10,138.0	92.70	177.40	6,208.1	-3,872.6	333.9	3,886.9	1.36	0.70	-1.16
10,181.0	91.80	177.90	6,206.4	-3,915.5	335.7	3,929.8	2.39	-2.09	1.16
10,223.0	92.20	176.70	6,205.0	-3,957.4	337.6	3,971.8	3.01	0.95	-2.86
10,266.0	91.70	176.70	6,203.5	-4,000.3	340.1	4,014.8	1.16	-1.16	0.00
10,309.0	90.70	177.10	6,202.6	-4,043.3	342.4	4,057.7	2.50	-2.33	0.93
10,352.0	89.80	176.90	6,202.4	-4,086.2	344.7	4,100.7	2.14	-2.09	-0.47
10,395.0	90.00	176.40	6,202.5	-4,129.1	347.2	4,143.7	1.25	0.47	-1.16
10,437.0	89.70	175.70	6,202.6	-4,171.0	350.1	4,185.7	1.81	-0.71	-1.67
10,480.0	89.90	175.80	6,202.8	-4,213.9	353.3	4,228.7	0.52	0.47	0.23
10,523.0	89.60	175.30	6,202.9	-4,256.8	356.6	4,271.7	1.36	-0.70	-1.16
10,566.0	89.70	174.80	6,203.2	-4,299.6	360.3	4,314.7	1.19	0.23	-1.16
10,608.0	89.60	174.10	6,203.5	-4,341.4	364.4	4,356.7	1.68	-0.24	-1.67
10,651.0	89.50	173.90	6,203.8	-4,384.2	368.9	4,399.7	0.52	-0.23	-0.47

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well State Seventy Holes P-T-4HNB
Project:	SEC.4-T4N-R62W	TVD Reference:	WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')
Site:	State Seventy Holes P-T-4HNB Pad Sec.4-T4N-R62W	MD Reference:	WELL @ 4573.0ft (Ensign Rig #136 - RKB - 12')
Well:	State Seventy Holes P-T-4HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
10,694.0	90.20	175.30	6,203.9	-4,427.0	372.9	4,442.7	3.64	1.63	3.26
10,737.0	90.40	175.80	6,203.7	-4,469.9	376.3	4,485.7	1.25	0.47	1.16
10,780.0	91.20	176.00	6,203.1	-4,512.7	379.3	4,528.7	1.92	1.86	0.47
10,835.0	91.20	176.00	6,201.9	-4,567.6	383.2	4,583.6	0.00	0.00	0.00
BHL 470'FSL, 1325'FEL									

Checked By: _____	Approved By: _____	Date: _____
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