

# BONANZA CREEK ENERGY OPERATING

**Well Name: PRONGHORN 31-34-15HZ**

Surface Location: PRONGHORN 31-34-15HZ PAD 15-5N-61W

North American Datum 1983 , US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4672.0

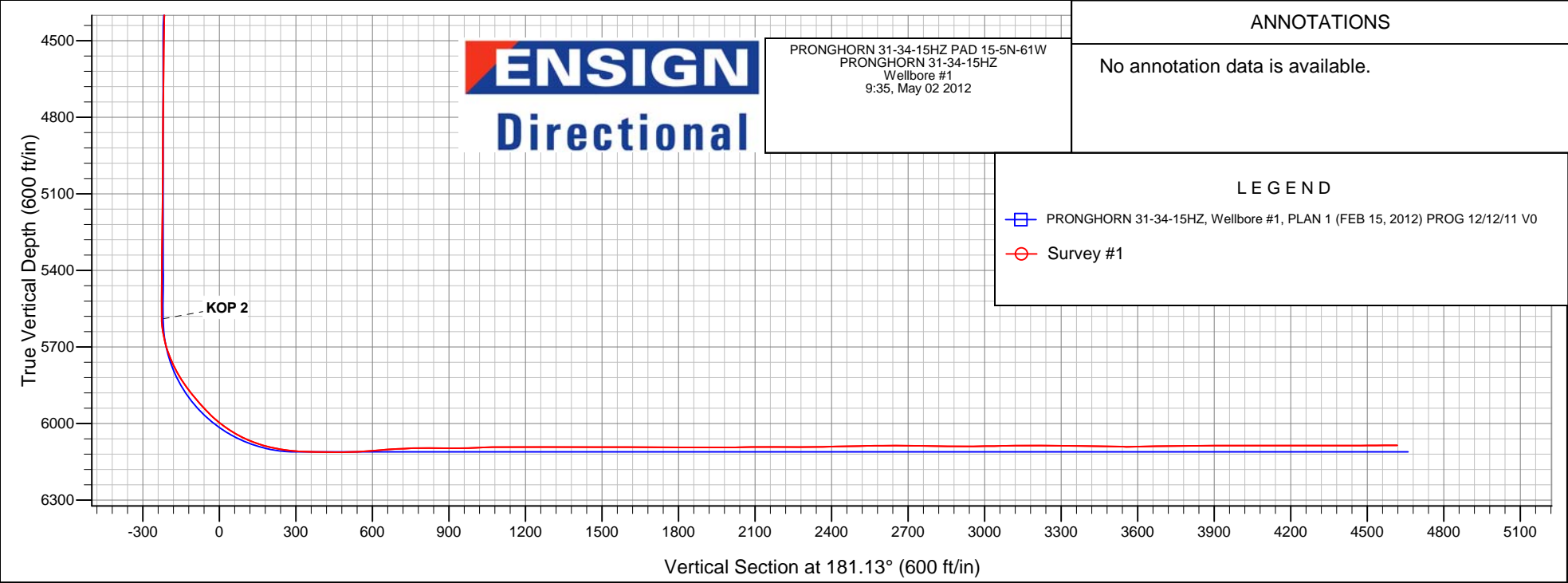
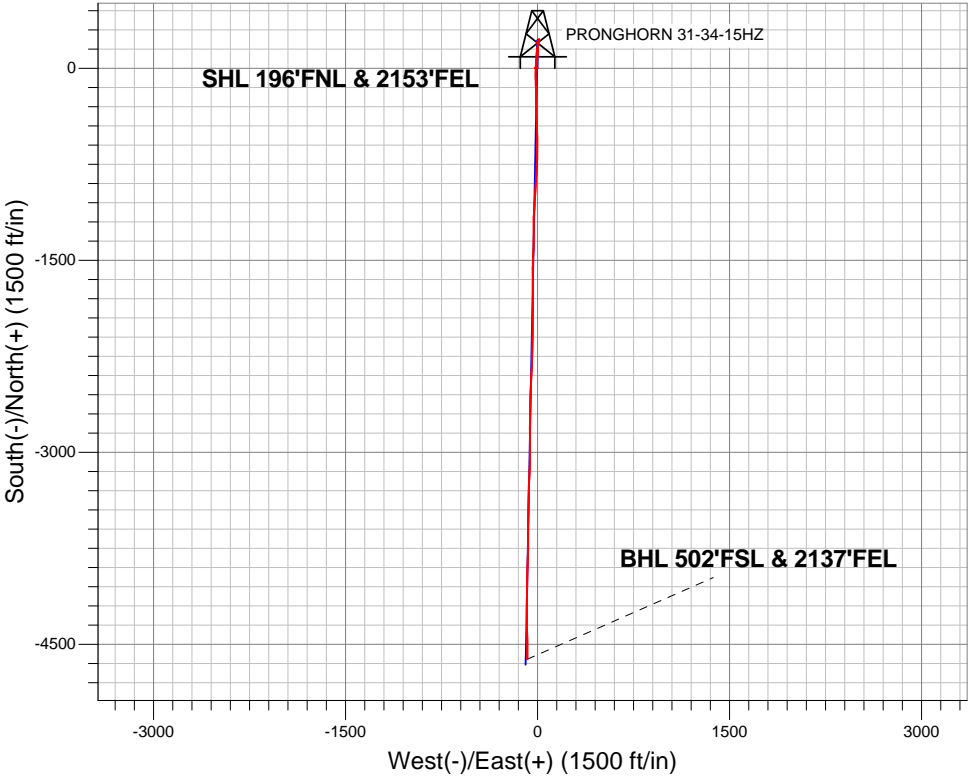
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1394102.72	3363979.98	40.407850	-104.192920	

KB 15' RKB @ 4687.0ft (KB 15')

## FINAL SURVEY

Projected Bottom Hole Location  
10728' MD 6085' TVD 4617'S & 79'W of SHL

90.30 degree Incl @ 180.50 degree AZM





# **BONANZA CREEK ENERGY OPERATING**

**SEC.15-T5N-R61W**

**PRONGHORN 31-34-15HZ PAD 15-5N-61W**

**PRONGHORN 31-34-15HZ**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**02 May, 2012**

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well PRONGHORN 31-34-15HZ
<b>Project:</b>	SEC.15-T5N-R61W	<b>TVD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Site:</b>	PRONGHORN 31-34-15HZ PAD 15-5N-61W	<b>MD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Well:</b>	PRONGHORN 31-34-15HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.15-T5N-R61W		
<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		PRONGHORN 31-34-15HZ PAD 15-5N-61W			
Site Position:		Northing:	1,394,099.13 ft	Latitude:	40.407840 °
From:	Lat/Long	Easting:	3,363,982.82 ft	Longitude:	-104.192910 °
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.84 °

Well	PRONGHORN 31-34-15HZ					
Well Position	+N/-S	0.0 ft	Northing:	1,394,102.72 ft	Latitude:	40.407850
	+E/-W	0.0 ft	Easting:	3,363,979.98 ft	Longitude:	-104.192920
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,672.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/30/2012	8.45	67.12	53,114

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 (°)	
	6,111.0	0.0	0.0	181.13	

Survey Program		Date	5/2/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
487.0	10,728.0	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	
0.8	0.00	277.80	0.8	0.0	0.0	0.0	0.00	0.00	0.00	
460'FSL HARDLINE										
2.6	0.00	277.80	2.6	0.0	0.0	0.0	0.00	0.00	0.00	
460'FNL HARDLINE										
487.0	0.40	277.80	487.0	0.2	-1.7	-0.2	0.08	0.08	0.00	
640.0	0.60	285.00	640.0	0.5	-3.0	-0.5	0.14	0.13	4.71	
795.0	0.70	290.80	795.0	1.1	-4.7	-1.0	0.08	0.06	3.74	
950.0	0.90	288.00	950.0	1.8	-6.7	-1.6	0.13	0.13	-1.81	
1,106.0	0.90	287.90	1,105.9	2.5	-9.0	-2.3	0.00	0.00	-0.06	
1,261.0	0.80	275.00	1,260.9	3.0	-11.3	-2.8	0.14	-0.06	-8.32	
1,414.0	0.70	263.10	1,413.9	3.0	-13.3	-2.7	0.12	-0.07	-7.78	
1,614.0	0.40	267.20	1,613.9	2.8	-15.2	-2.5	0.15	-0.15	2.05	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well PRONGHORN 31-34-15HZ
<b>Project:</b>	SEC.15-T5N-R61W	<b>TVD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Site:</b>	PRONGHORN 31-34-15HZ PAD 15-5N-61W	<b>MD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Well:</b>	PRONGHORN 31-34-15HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
1,721.0	0.50	230.10	1,720.9	2.5	-15.9	-2.2	0.28	0.09	-34.67	
1,874.0	0.80	197.90	1,873.9	1.0	-16.7	-0.7	0.30	0.20	-21.05	
1,935.0	0.90	193.60	1,934.9	0.2	-17.0	0.2	0.19	0.16	-7.05	
2,058.0	1.00	40.70	2,057.9	0.0	-16.5	0.3	1.50	0.08	-124.31	
2,180.0	2.60	23.80	2,179.8	3.4	-14.7	-3.1	1.37	1.31	-13.85	
2,302.0	4.80	22.30	2,301.6	10.6	-11.6	-10.4	1.80	1.80	-1.23	
2,425.0	6.50	14.10	2,424.0	22.1	-8.0	-22.0	1.53	1.38	-6.67	
2,547.0	8.20	3.80	2,545.0	37.5	-5.7	-37.4	1.76	1.39	-8.44	
2,670.0	8.50	4.60	2,666.6	55.3	-4.4	-55.2	0.26	0.24	0.65	
2,795.0	7.80	7.10	2,790.4	73.0	-2.6	-72.9	0.63	-0.56	2.00	
2,920.0	6.60	9.90	2,914.4	88.5	-0.4	-88.4	1.00	-0.96	2.24	
3,045.0	6.50	2.10	3,038.6	102.6	1.1	-102.6	0.72	-0.08	-6.24	
3,170.0	6.90	4.90	3,162.7	117.2	2.0	-117.2	0.41	0.32	2.24	
3,295.0	7.80	5.30	3,286.7	133.1	3.5	-133.1	0.72	0.72	0.32	
3,421.0	8.00	356.70	3,411.5	150.4	3.8	-150.4	0.95	0.16	-6.83	
3,546.0	8.20	357.20	3,535.3	167.9	2.8	-168.0	0.17	0.16	0.40	
3,671.0	6.80	349.80	3,659.2	184.1	1.1	-184.1	1.36	-1.12	-5.92	
3,796.0	5.20	358.40	3,783.5	197.1	-0.4	-197.0	1.46	-1.28	6.88	
3,921.0	2.50	14.70	3,908.2	205.4	0.1	-205.3	2.31	-2.16	13.04	
4,046.0	1.90	30.50	4,033.1	209.8	1.9	-209.8	0.68	-0.48	12.64	
4,172.0	1.90	55.60	4,159.1	212.8	4.7	-212.8	0.66	0.00	19.92	
4,297.0	1.30	62.70	4,284.0	214.6	7.6	-214.7	0.50	-0.48	5.68	
4,422.0	1.40	61.20	4,409.0	216.0	10.2	-216.1	0.08	0.08	-1.20	
4,546.0	0.90	33.80	4,533.0	217.5	12.1	-217.7	0.59	-0.40	-22.10	
4,670.0	1.00	61.70	4,656.9	218.8	13.6	-219.1	0.38	0.08	22.50	
4,794.0	0.50	18.30	4,780.9	219.9	14.7	-220.1	0.58	-0.40	-35.00	
4,919.0	0.40	9.20	4,905.9	220.8	15.0	-221.1	0.10	-0.08	-7.28	
5,044.0	0.60	296.00	5,030.9	221.5	14.4	-221.8	0.49	0.16	-58.56	
5,137.0	1.10	302.70	5,123.9	222.2	13.2	-222.5	0.55	0.54	7.20	
5,230.0	0.50	329.50	5,216.9	223.1	12.3	-223.3	0.74	-0.65	28.82	
5,324.0	0.50	22.50	5,310.9	223.8	12.2	-224.0	0.47	0.00	56.38	
5,418.0	0.70	4.70	5,404.9	224.7	12.4	-225.0	0.29	0.21	-18.94	
5,480.0	0.80	20.60	5,466.9	225.5	12.6	-225.7	0.37	0.16	25.65	
5,513.0	1.10	10.40	5,499.9	226.1	12.8	-226.3	1.04	0.91	-30.91	
5,545.0	1.00	19.50	5,531.9	226.6	12.9	-226.8	0.61	-0.31	28.44	
5,576.0	1.10	173.50	5,562.9	226.6	13.0	-226.8	6.60	0.32	496.78	
5,607.0	2.80	177.40	5,593.9	225.5	13.1	-225.7	5.50	5.48	12.58	
5,638.0	6.70	182.50	5,624.7	223.0	13.1	-223.2	12.64	12.58	16.45	
5,669.0	10.90	186.50	5,655.4	218.2	12.7	-218.5	13.68	13.55	12.90	
5,700.0	15.10	188.30	5,685.6	211.3	11.7	-211.5	13.61	13.55	5.81	
5,731.0	19.00	191.00	5,715.2	202.4	10.2	-202.5	12.83	12.58	8.71	
5,762.0	22.80	191.10	5,744.2	191.5	8.1	-191.7	12.26	12.26	0.32	
5,793.0	25.90	191.40	5,772.4	179.0	5.6	-179.1	10.01	10.00	0.97	
5,825.0	29.50	192.70	5,800.7	164.5	2.5	-164.5	11.41	11.25	4.06	
5,855.0	32.60	192.20	5,826.4	149.3	-0.9	-149.3	10.37	10.33	-1.67	
5,886.0	35.80	189.50	5,852.1	132.2	-4.1	-132.1	11.42	10.32	-8.71	
5,917.0	37.90	185.30	5,876.9	113.8	-6.5	-113.7	10.58	6.77	-13.55	
5,948.0	40.40	182.80	5,900.9	94.3	-7.9	-94.1	9.54	8.06	-8.06	
5,980.0	41.90	183.40	5,925.0	73.3	-9.0	-73.1	4.85	4.69	1.88	
6,011.0	43.20	183.70	5,947.8	52.3	-10.3	-52.1	4.24	4.19	0.97	
6,041.0	46.30	183.90	5,969.1	31.3	-11.7	-31.0	10.34	10.33	0.67	
6,072.0	50.20	182.30	5,989.8	8.2	-13.0	-7.9	13.16	12.58	-5.16	
6,104.0	54.00	181.10	6,009.4	-17.1	-13.7	17.3	12.24	11.88	-3.75	
6,135.0	57.20	180.00	6,026.9	-42.6	-13.9	42.9	10.73	10.32	-3.55	

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<b>Site:</b>	PRONGHORN 31-34-15HZ PAD 15-5N-61W	<b>MD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Well:</b>	PRONGHORN 31-34-15HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
6,166.0	60.90	179.10	6,042.9	-69.2	-13.7	69.5	12.19	11.94	-2.90	
6,198.0	64.50	178.60	6,057.6	-97.6	-13.2	97.9	11.34	11.25	-1.56	
6,229.0	68.60	178.30	6,069.9	-126.1	-12.4	126.3	13.26	13.23	-0.97	
6,260.0	72.00	178.40	6,080.3	-155.2	-11.5	155.4	10.97	10.97	0.32	
6,292.0	75.40	179.00	6,089.3	-185.9	-10.9	186.1	10.78	10.63	1.88	
6,323.0	78.40	179.10	6,096.4	-216.1	-10.4	216.3	9.68	9.68	0.32	
6,354.0	81.60	179.00	6,101.7	-246.6	-9.8	246.8	10.33	10.32	-0.32	
6,370.7	82.77	179.00	6,104.0	-263.2	-9.6	263.4	6.98	6.98	0.00	
Target 1 460'FNL & 2150'FEL										
6,407.0	85.30	179.00	6,107.8	-299.3	-8.9	299.4	6.98	6.98	0.00	
6,437.0	86.70	178.80	6,109.9	-329.2	-8.4	329.3	4.71	4.67	-0.67	
6,468.0	89.10	178.80	6,111.0	-360.2	-7.7	360.2	7.74	7.74	0.00	
6,498.0	89.60	178.60	6,111.3	-390.1	-7.0	390.2	1.80	1.67	-0.67	
6,529.0	89.50	178.40	6,111.6	-421.1	-6.2	421.2	0.72	-0.32	-0.65	
6,560.0	89.50	178.10	6,111.9	-452.1	-5.3	452.1	0.97	0.00	-0.97	
6,591.0	90.00	177.60	6,112.0	-483.1	-4.1	483.1	2.28	1.61	-1.61	
6,621.0	91.60	177.90	6,111.6	-513.1	-2.9	513.0	5.43	5.33	1.00	
6,652.0	92.50	178.40	6,110.5	-544.0	-1.9	544.0	3.32	2.90	1.61	
6,683.0	94.20	179.30	6,108.7	-575.0	-1.3	574.9	6.20	5.48	2.90	
6,713.0	95.10	180.00	6,106.2	-604.9	-1.1	604.8	3.80	3.00	2.33	
6,743.0	94.60	180.40	6,103.7	-634.8	-1.2	634.7	2.13	-1.67	1.33	
6,773.0	93.60	180.70	6,101.5	-664.7	-1.5	664.6	3.48	-3.33	1.00	
6,805.0	93.10	181.40	6,099.7	-696.6	-2.1	696.5	2.69	-1.56	2.19	
6,835.0	93.00	183.20	6,098.1	-726.6	-3.3	726.5	6.00	-0.33	6.00	
6,867.0	92.00	183.70	6,096.7	-758.5	-5.2	758.4	3.49	-3.13	1.56	
6,897.0	90.90	183.00	6,095.9	-788.4	-7.0	788.4	4.35	-3.67	-2.33	
6,929.0	89.60	183.00	6,095.8	-820.4	-8.7	820.4	4.06	-4.06	0.00	
6,960.0	88.80	183.20	6,096.2	-851.3	-10.3	851.4	2.66	-2.58	0.65	
6,991.0	89.10	183.00	6,096.8	-882.3	-12.0	882.3	1.16	0.97	-0.65	
7,022.0	90.30	183.40	6,096.9	-913.2	-13.7	913.3	4.08	3.87	1.29	
7,054.0	91.30	183.00	6,096.5	-945.2	-15.5	945.3	3.37	3.13	-1.25	
7,085.0	92.20	183.50	6,095.6	-976.1	-17.3	976.2	3.32	2.90	1.61	
7,116.0	91.90	183.20	6,094.4	-1,007.0	-19.1	1,007.2	1.37	-0.97	-0.97	
7,148.0	91.90	184.10	6,093.4	-1,038.9	-21.1	1,039.2	2.81	0.00	2.81	
7,179.0	91.20	184.40	6,092.5	-1,069.8	-23.4	1,070.1	2.46	-2.26	0.97	
7,210.0	90.60	183.90	6,092.1	-1,100.8	-25.7	1,101.1	2.52	-1.94	-1.61	
7,242.0	89.80	183.00	6,091.9	-1,132.7	-27.6	1,133.0	3.76	-2.50	-2.81	
7,273.0	89.90	181.40	6,092.0	-1,163.7	-28.8	1,164.0	5.17	0.32	-5.16	
7,305.0	89.40	180.00	6,092.2	-1,195.7	-29.2	1,196.0	4.65	-1.56	-4.38	
7,336.0	90.00	179.80	6,092.4	-1,226.7	-29.1	1,227.0	2.04	1.94	-0.65	
7,367.0	89.90	180.20	6,092.4	-1,257.7	-29.1	1,258.0	1.33	-0.32	1.29	
7,399.0	90.70	180.00	6,092.2	-1,289.7	-29.2	1,290.0	2.58	2.50	-0.63	
7,430.0	90.60	180.00	6,091.9	-1,320.7	-29.2	1,321.0	0.32	-0.32	0.00	
7,461.0	90.20	180.40	6,091.7	-1,351.7	-29.3	1,352.0	1.82	-1.29	1.29	
7,492.0	89.60	181.30	6,091.7	-1,382.7	-29.7	1,383.0	3.49	-1.94	2.90	
7,524.0	89.30	182.70	6,092.0	-1,414.6	-30.9	1,415.0	4.47	-0.94	4.38	
7,555.0	89.30	182.70	6,092.4	-1,445.6	-32.3	1,446.0	0.00	0.00	0.00	
7,585.0	90.00	182.80	6,092.6	-1,475.6	-33.8	1,476.0	2.36	2.33	0.33	
7,617.0	90.00	182.10	6,092.6	-1,507.5	-35.1	1,507.9	2.19	0.00	-2.19	
7,648.0	90.30	181.30	6,092.5	-1,538.5	-36.0	1,538.9	2.76	0.97	-2.58	
7,679.0	90.30	180.20	6,092.4	-1,569.5	-36.4	1,569.9	3.55	0.00	-3.55	
7,710.0	89.80	179.70	6,092.3	-1,600.5	-36.4	1,600.9	2.28	-1.61	-1.61	
7,742.0	89.40	180.00	6,092.6	-1,632.5	-36.3	1,632.9	1.56	-1.25	0.94	
7,773.0	89.90	179.80	6,092.7	-1,663.5	-36.3	1,663.9	1.74	1.61	-0.65	

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<b>Well:</b>	PRONGHORN 31-34-15HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
7,804.0	89.80	179.70	6,092.8	-1,694.5	-36.1	1,694.9	0.46	-0.32	-0.32
7,836.0	89.70	179.30	6,093.0	-1,726.5	-35.9	1,726.9	1.29	-0.31	-1.25
7,867.0	89.80	179.70	6,093.1	-1,757.5	-35.6	1,757.9	1.33	0.32	1.29
7,898.0	89.80	179.10	6,093.2	-1,788.5	-35.3	1,788.9	1.94	0.00	-1.94
7,929.0	89.80	179.50	6,093.3	-1,819.5	-34.9	1,819.8	1.29	0.00	1.29
7,961.0	89.70	180.00	6,093.5	-1,851.5	-34.8	1,851.8	1.59	-0.31	1.56
7,991.0	89.40	180.20	6,093.7	-1,881.5	-34.8	1,881.8	1.20	-1.00	0.67
8,023.0	90.30	180.70	6,093.8	-1,913.5	-35.1	1,913.8	3.22	2.81	1.56
8,054.0	90.40	180.40	6,093.6	-1,944.5	-35.4	1,944.8	1.02	0.32	-0.97
8,085.0	89.80	180.40	6,093.5	-1,975.5	-35.6	1,975.8	1.94	-1.94	0.00
8,117.0	90.20	180.90	6,093.5	-2,007.5	-35.9	2,007.8	2.00	1.25	1.56
8,148.0	91.30	181.40	6,093.1	-2,038.5	-36.6	2,038.8	3.90	3.55	1.61
8,179.0	91.40	181.60	6,092.4	-2,069.5	-37.4	2,069.8	0.72	0.32	0.65
8,211.0	90.70	181.40	6,091.8	-2,101.5	-38.2	2,101.8	2.28	-2.19	-0.63
8,242.0	90.40	181.30	6,091.5	-2,132.5	-38.9	2,132.8	1.02	-0.97	-0.32
8,273.0	90.20	181.40	6,091.3	-2,163.4	-39.7	2,163.8	0.72	-0.65	0.32
8,305.0	89.40	181.30	6,091.5	-2,195.4	-40.4	2,195.8	2.52	-2.50	-0.31
8,336.0	89.30	181.40	6,091.8	-2,226.4	-41.2	2,226.8	0.46	-0.32	0.32
8,367.0	89.60	181.10	6,092.1	-2,257.4	-41.8	2,257.8	1.37	0.97	-0.97
8,398.0	90.10	181.60	6,092.2	-2,288.4	-42.6	2,288.8	2.28	1.61	1.61
8,430.0	91.20	181.60	6,091.8	-2,320.4	-43.5	2,320.8	3.44	3.44	0.00
8,461.0	91.10	181.80	6,091.2	-2,351.4	-44.4	2,351.8	0.72	-0.32	0.65
8,492.0	90.80	182.50	6,090.7	-2,382.3	-45.5	2,382.8	2.46	-0.97	2.26
8,524.0	91.30	182.70	6,090.1	-2,414.3	-47.0	2,414.8	1.68	1.56	0.63
8,555.0	91.40	182.70	6,089.4	-2,445.3	-48.4	2,445.7	0.32	0.32	0.00
8,586.0	91.30	182.70	6,088.6	-2,476.2	-49.9	2,476.7	0.32	-0.32	0.00
8,618.0	91.10	182.80	6,088.0	-2,508.2	-51.4	2,508.7	0.70	-0.63	0.31
8,648.0	90.70	183.00	6,087.5	-2,538.1	-53.0	2,538.7	1.49	-1.33	0.67
8,679.0	90.50	183.40	6,087.2	-2,569.1	-54.7	2,569.7	1.44	-0.65	1.29
8,710.0	90.40	182.50	6,086.9	-2,600.0	-56.3	2,600.6	2.92	-0.32	-2.90
8,741.0	90.70	181.60	6,086.6	-2,631.0	-57.4	2,631.6	3.06	0.97	-2.90
8,772.0	90.40	181.40	6,086.3	-2,662.0	-58.2	2,662.6	1.16	-0.97	-0.65
8,804.0	89.30	180.00	6,086.4	-2,694.0	-58.6	2,694.6	5.56	-3.44	-4.38
8,835.0	88.50	179.70	6,087.0	-2,725.0	-58.5	2,725.6	2.76	-2.58	-0.97
8,898.0	89.10	179.30	6,088.3	-2,788.0	-58.0	2,788.6	1.14	0.95	-0.63
8,929.0	89.10	179.70	6,088.8	-2,819.0	-57.7	2,819.6	1.29	0.00	1.29
8,960.0	89.50	179.80	6,089.2	-2,850.0	-57.6	2,850.6	1.33	1.29	0.32
8,991.0	89.90	180.00	6,089.4	-2,881.0	-57.5	2,881.5	1.44	1.29	0.65
9,023.0	90.00	180.40	6,089.4	-2,913.0	-57.6	2,913.5	1.29	0.31	1.25
9,054.0	90.70	180.70	6,089.2	-2,944.0	-57.9	2,944.5	2.46	2.26	0.97
9,085.0	90.80	179.80	6,088.8	-2,975.0	-58.1	2,975.5	2.92	0.32	-2.90
9,116.0	90.80	180.40	6,088.4	-3,006.0	-58.1	3,006.5	1.94	0.00	1.94
9,148.0	91.10	180.90	6,087.8	-3,038.0	-58.5	3,038.5	1.82	0.94	1.56
9,179.0	90.90	180.70	6,087.3	-3,068.9	-58.9	3,069.5	0.91	-0.65	-0.65
9,210.0	90.60	181.30	6,086.9	-3,099.9	-59.4	3,100.5	2.16	-0.97	1.94
9,242.0	90.30	181.80	6,086.6	-3,131.9	-60.3	3,132.5	1.82	-0.94	1.56
9,273.0	90.30	182.30	6,086.5	-3,162.9	-61.4	3,163.5	1.61	0.00	1.61
9,305.0	90.20	181.60	6,086.3	-3,194.9	-62.5	3,195.5	2.21	-0.31	-2.19
9,336.0	90.10	182.50	6,086.3	-3,225.9	-63.6	3,226.5	2.92	-0.32	2.90
9,367.0	89.70	182.80	6,086.3	-3,256.8	-65.0	3,257.5	1.61	-1.29	0.97
9,399.0	89.30	183.50	6,086.6	-3,288.8	-66.8	3,289.5	2.52	-1.25	2.19
9,430.0	88.90	182.80	6,087.1	-3,319.7	-68.5	3,320.4	2.60	-1.29	-2.26
9,461.0	88.80	182.50	6,087.7	-3,350.7	-69.9	3,351.4	1.02	-0.32	-0.97
9,493.0	89.20	182.10	6,088.3	-3,382.7	-71.2	3,383.4	1.77	1.25	-1.25

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well PRONGHORN 31-34-15HZ
<b>Project:</b>	SEC.15-T5N-R61W	<b>TVD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Site:</b>	PRONGHORN 31-34-15HZ PAD 15-5N-61W	<b>MD Reference:</b>	RKB @ 4687.0ft (KB 15')
<b>Well:</b>	PRONGHORN 31-34-15HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
9,524.0	89.20	180.90	6,088.7	-3,413.6	-72.0	3,414.4	3.87	0.00	-3.87
9,556.0	89.50	180.20	6,089.0	-3,445.6	-72.3	3,446.4	2.38	0.94	-2.19
9,587.0	88.80	180.00	6,089.5	-3,476.6	-72.4	3,477.4	2.35	-2.26	-0.65
9,618.0	88.70	180.00	6,090.2	-3,507.6	-72.4	3,508.4	0.32	-0.32	0.00
9,650.0	89.10	179.50	6,090.8	-3,539.6	-72.3	3,540.4	2.00	1.25	-1.56
9,681.0	90.30	180.20	6,091.0	-3,570.6	-72.2	3,571.4	4.48	3.87	2.26
9,712.0	90.80	179.70	6,090.7	-3,601.6	-72.1	3,602.3	2.28	1.61	-1.61
9,743.0	91.70	180.20	6,090.0	-3,632.6	-72.1	3,633.3	3.32	2.90	1.61
9,775.0	91.50	180.00	6,089.1	-3,664.6	-72.2	3,665.3	0.88	-0.63	-0.63
9,806.0	91.30	180.70	6,088.3	-3,695.6	-72.4	3,696.3	2.35	-0.65	2.26
9,837.0	90.70	180.90	6,087.8	-3,726.6	-72.8	3,727.3	2.04	-1.94	0.65
9,868.0	90.20	180.90	6,087.6	-3,757.6	-73.3	3,758.3	1.61	-1.61	0.00
9,899.0	90.40	181.80	6,087.4	-3,788.6	-74.0	3,789.3	2.97	0.65	2.90
9,931.0	90.70	181.60	6,087.1	-3,820.6	-75.0	3,821.3	1.13	0.94	-0.63
9,962.0	90.60	181.60	6,086.7	-3,851.5	-75.8	3,852.3	0.32	-0.32	0.00
9,993.0	90.30	181.60	6,086.5	-3,882.5	-76.7	3,883.3	0.97	-0.97	0.00
10,025.0	89.90	181.60	6,086.4	-3,914.5	-77.6	3,915.3	1.25	-1.25	0.00
10,056.0	89.80	182.10	6,086.5	-3,945.5	-78.6	3,946.3	1.64	-0.32	1.61
10,086.0	90.10	182.10	6,086.5	-3,975.5	-79.7	3,976.3	1.00	1.00	0.00
10,117.0	89.70	181.80	6,086.6	-4,006.5	-80.7	4,007.3	1.61	-1.29	-0.97
10,148.0	89.70	181.80	6,086.8	-4,037.4	-81.7	4,038.3	0.00	0.00	0.00
10,179.0	90.00	181.30	6,086.8	-4,068.4	-82.6	4,069.3	1.88	0.97	-1.61
10,210.0	90.40	180.90	6,086.7	-4,099.4	-83.2	4,100.3	1.82	1.29	-1.29
10,241.0	90.90	180.20	6,086.4	-4,130.4	-83.5	4,131.3	2.77	1.61	-2.26
10,273.0	90.80	179.80	6,085.9	-4,162.4	-83.5	4,163.3	1.29	-0.31	-1.25
10,304.0	90.60	180.50	6,085.5	-4,193.4	-83.5	4,194.3	2.35	-0.65	2.26
10,335.0	89.90	180.40	6,085.4	-4,224.4	-83.8	4,225.2	2.28	-2.26	-0.32
10,366.0	89.30	179.50	6,085.6	-4,255.4	-83.7	4,256.2	3.49	-1.94	-2.90
10,398.0	89.60	179.30	6,085.9	-4,287.4	-83.4	4,288.2	1.13	0.94	-0.63
10,429.0	89.30	178.40	6,086.2	-4,318.4	-82.8	4,319.2	3.06	-0.97	-2.90
10,460.0	89.60	178.10	6,086.5	-4,349.4	-81.8	4,350.2	1.37	0.97	-0.97
10,491.0	90.00	177.60	6,086.6	-4,380.4	-80.7	4,381.1	2.07	1.29	-1.61
10,522.0	90.00	178.30	6,086.6	-4,411.3	-79.6	4,412.1	2.26	0.00	2.26
10,553.0	90.40	179.00	6,086.5	-4,442.3	-78.8	4,443.0	2.60	1.29	2.26
10,584.0	90.50	179.50	6,086.3	-4,473.3	-78.4	4,474.0	1.64	0.32	1.61
10,615.0	90.70	180.00	6,085.9	-4,504.3	-78.3	4,505.0	1.74	0.65	1.61
10,647.0	90.70	180.50	6,085.5	-4,536.3	-78.4	4,537.0	1.56	0.00	1.56
10,678.0	90.30	180.50	6,085.3	-4,567.3	-78.7	4,568.0	1.29	-1.29	0.00
10,728.0	90.30	180.50	6,085.0	-4,617.3	-79.1	4,618.0	0.00	0.00	0.00
Target 2 460'FSL & 2150'FEL									

Checked By: _____	Approved By: _____	Date: _____
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