

BONANZA CREEK ENERGY OPERATING

Well Name: ANTELOPE P-T-17HZ

Surface Location: ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W
North American Datum 1983 , US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4694.0

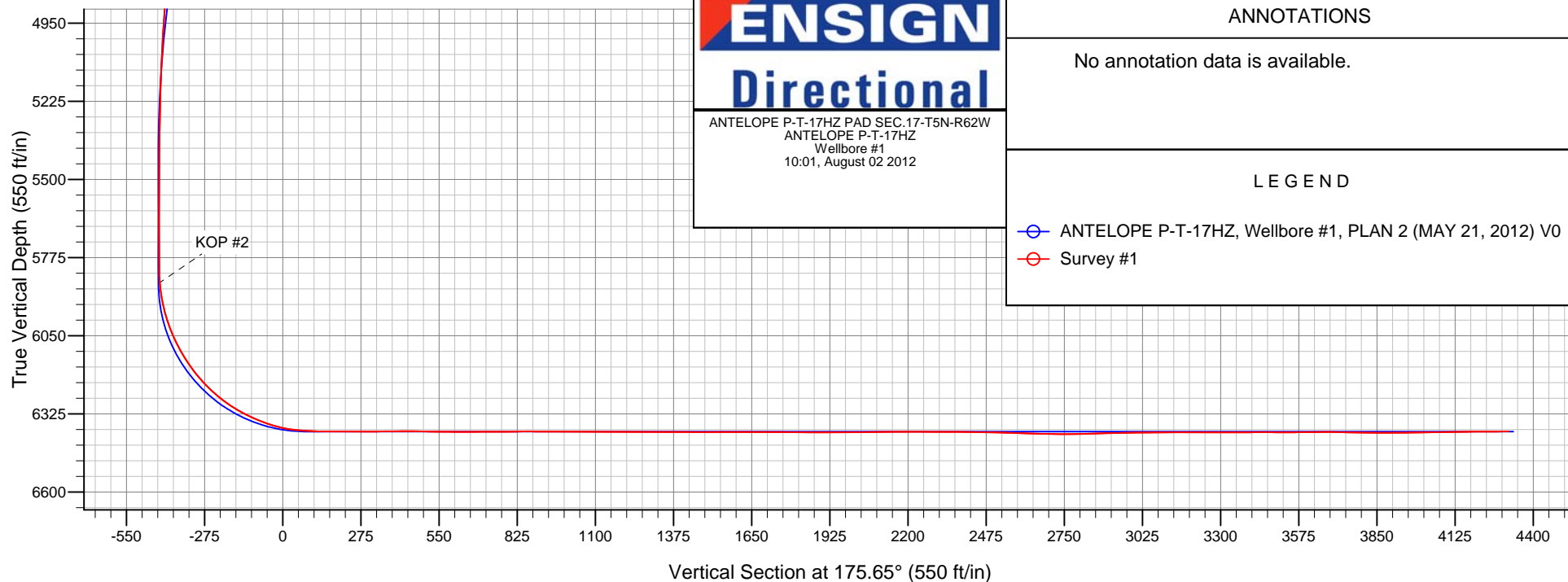
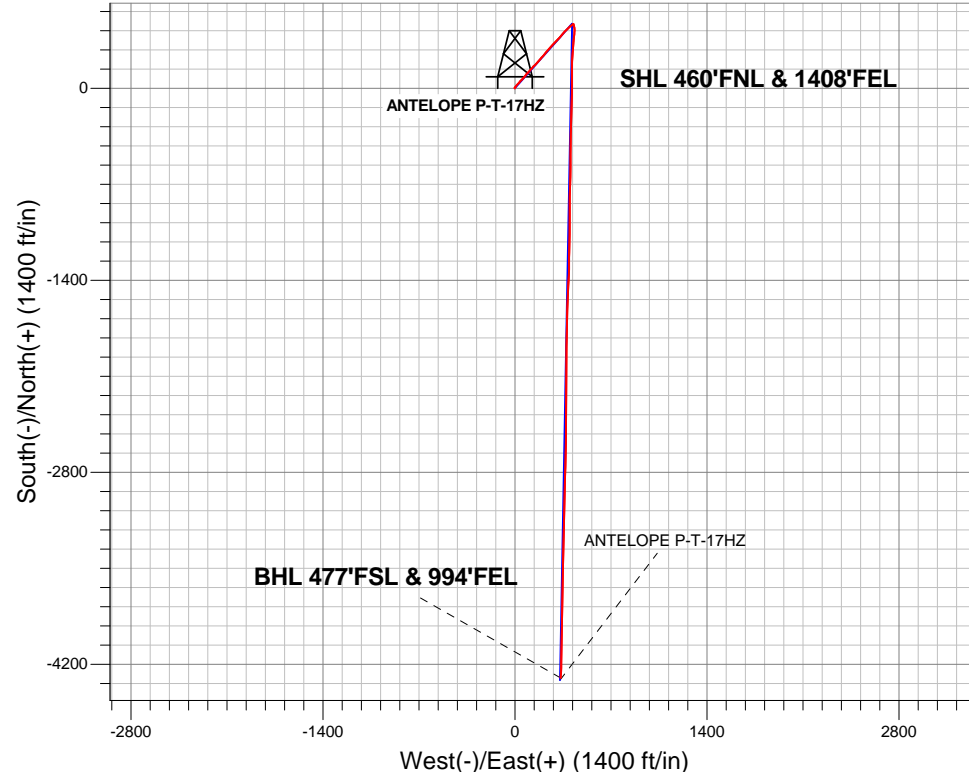
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1392656.10	3322279.31	40.405470	-104.342720	

Original Well ElevWELL @ 4706.0ft (Original Well Elev)

FINAL SURVEY

Projected Bottom Hole Location
10965' MD 6386' TVD 4300' S & 334' E of SHL

90.70 degree Incl @ 182.40 degree AZM





BONANZA CREEK ENERGY OPERATING

SEC.17-T5N-R62W

ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W

ANTELOPE P-T-17HZ

Wellbore #1

Survey: Survey #1

Standard Survey Report

02 August, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well ANTELOPE P-T-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4706.0ft (Original Well Elev)
Site:	ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W	MD Reference:	WELL @ 4706.0ft (Original Well Elev)
Well:	ANTELOPE P-T-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.17-T5N-R62W, Weld County, CO		
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		ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W			
Site Position:		Northing:	1,392,656.13ft	Latitude:	40.405470
From:	Lat/Long	Easting:	3,322,279.31 ft	Longitude:	-104.342720
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.75 °

Well	ANTELOPE P-T-17HZ					
Well Position	+N-S	0.0 ft	Northing:	1,392,656.10 ft	Latitude:	40.405470
	+E-W	0.0 ft	Easting:	3,322,279.31 ft	Longitude:	-104.342720
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,694.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/21/2012	8.51	67.09	53,082

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	175.65

Survey Program		Date	8/2/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
511.0	10,965.0	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
	1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE BH 460'										
	1.3	0.00	269.20	1.3	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE SH 460'										
	511.0	0.10	269.20	511.0	0.0	-0.4	0.0	0.02	0.02	0.00
	637.0	0.40	315.80	637.0	0.3	-0.9	-0.4	0.27	0.24	36.98
	764.0	0.40	295.70	764.0	0.8	-1.6	-0.9	0.11	0.00	-15.83
	888.0	1.10	37.50	888.0	1.9	-1.2	-2.0	1.00	0.56	82.10
	982.0	1.10	39.30	982.0	3.4	-0.1	-3.4	0.04	0.00	1.91
	1,076.0	3.20	32.20	1,075.9	6.3	1.9	-6.1	2.25	2.23	-7.55
	1,171.0	4.70	37.00	1,170.7	11.6	5.6	-11.2	1.62	1.58	5.05
	1,264.0	6.90	38.60	1,263.2	19.0	11.4	-18.1	2.37	2.37	1.72

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Site:	ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W	MD Reference:	WELL @ 4706.0ft (Original Well Elev)
Well:	ANTELOPE P-T-17HZ	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)	
1,357.0	8.70	42.30	1,355.3	28.6	19.6	-27.0	2.01	1.94	3.98	
1,449.0	9.80	44.70	1,446.1	39.3	29.8	-36.9	1.27	1.20	2.61	
1,542.0	9.80	40.90	1,537.8	50.9	40.5	-47.7	0.70	0.00	-4.09	
1,635.0	9.10	44.40	1,629.5	62.2	50.9	-58.1	0.97	-0.75	3.76	
1,728.0	9.10	38.90	1,721.3	73.1	60.6	-68.3	0.93	0.00	-5.91	
1,821.0	9.20	41.70	1,813.2	84.4	70.2	-78.9	0.49	0.11	3.01	
1,915.0	8.40	37.90	1,906.1	95.5	79.4	-89.1	1.05	-0.85	-4.04	
2,008.0	8.30	41.00	1,998.1	105.9	88.0	-98.9	0.50	-0.11	3.33	
2,102.0	8.10	47.90	2,091.1	115.4	97.4	-107.7	1.07	-0.21	7.34	
2,196.0	8.40	38.90	2,184.1	125.2	106.6	-116.8	1.41	0.32	-9.57	
2,289.0	8.80	39.10	2,276.1	136.0	115.3	-126.9	0.43	0.43	0.22	
2,383.0	8.90	40.90	2,369.0	147.1	124.6	-137.2	0.31	0.11	1.91	
2,475.0	8.60	45.80	2,459.9	157.3	134.2	-146.6	0.87	-0.33	5.33	
2,569.0	8.80	48.60	2,552.8	166.9	144.7	-155.5	0.50	0.21	2.98	
2,663.0	8.80	43.30	2,645.7	176.9	155.0	-164.6	0.86	0.00	-5.64	
2,756.0	9.30	39.30	2,737.6	187.9	164.6	-174.9	0.86	0.54	-4.30	
2,850.0	10.10	41.40	2,830.2	200.0	174.9	-186.1	0.93	0.85	2.23	
2,943.0	9.10	40.90	2,921.9	211.7	185.1	-197.0	1.08	-1.08	-0.54	
3,036.0	8.40	42.60	3,013.8	222.2	194.5	-206.8	0.80	-0.75	1.83	
3,129.0	8.40	42.10	3,105.8	232.3	203.7	-216.1	0.08	0.00	-0.54	
3,223.0	7.70	38.90	3,198.9	242.2	212.2	-225.4	0.88	-0.74	-3.40	
3,315.0	7.30	38.70	3,290.1	251.6	219.7	-234.2	0.44	-0.43	-0.22	
3,409.0	8.10	40.90	3,383.3	261.3	227.8	-243.2	0.91	0.85	2.34	
3,503.0	8.80	41.00	3,476.2	271.7	236.9	-252.9	0.74	0.74	0.11	
3,596.0	10.10	40.50	3,568.0	283.3	246.8	-263.7	1.40	1.40	-0.54	
3,690.0	11.40	40.00	3,660.3	296.7	258.2	-276.2	1.39	1.38	-0.53	
3,784.0	11.60	40.70	3,752.4	310.9	270.3	-289.5	0.26	0.21	0.74	
3,878.0	11.00	44.90	3,844.6	324.5	282.8	-302.1	1.08	-0.64	4.47	
3,972.0	9.80	46.50	3,937.1	336.3	294.9	-313.0	1.31	-1.28	1.70	
4,066.0	9.60	45.80	4,029.7	347.3	306.3	-323.0	0.25	-0.21	-0.74	
4,159.0	8.30	41.20	4,121.6	357.7	316.3	-332.7	1.59	-1.40	-4.95	
4,253.0	7.70	41.60	4,214.7	367.6	325.0	-341.8	0.64	-0.64	0.43	
4,346.0	8.50	39.80	4,306.8	377.5	333.5	-351.1	0.90	0.86	-1.94	
4,438.0	9.30	40.90	4,397.7	388.3	342.7	-361.2	0.89	0.87	1.20	
4,532.0	10.20	37.90	4,490.3	400.7	352.8	-372.7	1.10	0.96	-3.19	
4,626.0	9.70	41.70	4,582.9	413.1	363.2	-384.4	0.88	-0.53	4.04	
4,719.0	9.10	46.00	4,674.6	424.1	373.7	-394.5	0.99	-0.65	4.62	
4,812.0	9.10	48.10	4,766.5	434.1	384.5	-403.7	0.36	0.00	2.26	
4,906.0	8.70	50.20	4,859.3	443.6	395.5	-412.3	0.55	-0.43	2.23	
4,998.0	6.40	49.60	4,950.5	451.4	404.7	-419.4	2.50	-2.50	-0.65	
5,092.0	5.20	53.30	5,044.0	457.3	412.1	-424.7	1.34	-1.28	3.94	
5,186.0	3.70	54.40	5,137.8	461.7	418.0	-428.6	1.60	-1.60	1.17	
5,279.0	2.40	32.90	5,230.6	465.0	421.5	-431.7	1.84	-1.40	-23.12	
5,373.0	0.80	21.50	5,324.6	467.3	422.8	-433.9	1.73	-1.70	-12.13	
5,497.0	0.50	36.30	5,448.6	468.5	423.4	-435.0	0.28	-0.24	11.94	
5,623.0	0.30	101.30	5,574.6	468.9	424.1	-435.4	0.37	-0.16	51.59	
5,746.0	0.50	99.40	5,697.6	468.8	424.9	-435.2	0.16	0.16	-1.54	
5,809.0	0.90	75.30	5,760.6	468.9	425.7	-435.2	0.78	0.63	-38.25	
5,835.0	0.80	82.00	5,786.6	468.9	426.1	-435.2	0.54	-0.38	25.77	
5,866.0	1.10	120.80	5,817.6	468.8	426.5	-435.1	2.23	0.97	125.16	
5,897.0	3.40	153.70	5,848.5	467.8	427.2	-434.0	8.22	7.42	106.13	
5,929.0	6.60	163.00	5,880.4	465.2	428.1	-431.4	10.28	10.00	29.06	
5,960.0	9.00	163.70	5,911.1	461.2	429.3	-427.3	7.75	7.74	2.26	
5,991.0	12.70	167.20	5,941.6	455.5	430.8	-421.5	12.12	11.94	11.29	

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Site:	ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W	MD Reference:	WELL @ 4706.0ft (Original Well Elev)
Well:	ANTELOPE P-T-17HZ	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)	
6,023.0	15.80	170.80	5,972.6	447.8	432.3	-413.7	10.07	9.69	11.25	
6,054.0	18.80	173.20	6,002.2	438.7	433.5	-404.5	9.95	9.68	7.74	
6,085.0	21.40	179.00	6,031.3	428.1	434.2	-393.9	10.56	8.39	18.71	
6,117.0	24.90	181.50	6,060.7	415.5	434.1	-381.3	11.36	10.94	7.81	
6,148.0	28.30	182.70	6,088.4	401.6	433.6	-367.5	11.10	10.97	3.87	
6,179.0	30.80	184.80	6,115.4	386.4	432.6	-352.4	8.73	8.06	6.77	
6,211.0	33.70	186.40	6,142.4	369.4	430.9	-335.6	9.45	9.06	5.00	
6,242.0	36.90	186.80	6,167.7	351.6	428.9	-318.0	10.35	10.32	1.29	
6,273.0	40.40	184.80	6,191.9	332.3	426.9	-299.0	11.99	11.29	-6.45	
6,305.0	43.70	183.60	6,215.7	311.0	425.4	-277.8	10.61	10.31	-3.75	
6,336.0	46.20	184.30	6,237.6	289.1	423.9	-256.1	8.22	8.06	2.26	
6,367.0	49.70	185.50	6,258.4	266.2	421.9	-233.4	11.65	11.29	3.87	
6,399.0	53.50	184.10	6,278.3	241.2	419.8	-208.6	12.36	11.88	-4.38	
6,430.0	56.70	182.40	6,296.0	215.8	418.4	-183.4	11.26	10.32	-5.48	
6,461.0	60.00	182.00	6,312.3	189.4	417.4	-157.2	10.70	10.65	-1.29	
6,492.0	63.30	180.60	6,327.0	162.2	416.7	-130.1	11.36	10.65	-4.52	
6,524.0	66.30	179.20	6,340.6	133.2	416.8	-101.2	10.18	9.38	-4.38	
6,555.0	68.90	179.70	6,352.4	104.6	417.1	-72.6	8.52	8.39	1.61	
6,586.0	72.30	179.90	6,362.7	75.3	417.2	-43.4	10.98	10.97	0.65	
6,617.0	76.30	179.90	6,371.1	45.5	417.2	-13.7	12.90	12.90	0.00	
6,648.0	80.40	180.20	6,377.4	15.1	417.2	16.6	13.26	13.23	0.97	
6,650.0	80.61	180.27	6,377.7	13.2	417.2	18.6	10.95	10.33	3.69	
TARGET 1 460°FNL & 1000°FEL										
6,678.0	83.50	181.30	6,381.6	-14.6	416.8	46.2	10.95	10.33	3.66	
6,710.0	86.60	182.00	6,384.3	-46.4	415.9	77.9	9.93	9.69	2.19	
6,741.0	88.60	182.00	6,385.6	-77.4	414.8	108.6	6.45	6.45	0.00	
6,773.0	89.00	182.50	6,386.3	-109.3	413.6	140.4	2.00	1.25	1.56	
6,804.0	89.70	182.20	6,386.7	-140.3	412.3	171.2	2.46	2.26	-0.97	
6,835.0	89.50	181.70	6,386.9	-171.3	411.2	202.0	1.74	-0.65	-1.61	
6,898.0	90.10	180.60	6,387.1	-234.3	410.0	264.7	1.99	0.95	-1.75	
6,930.0	90.30	180.20	6,387.0	-266.3	409.7	296.6	1.40	0.63	-1.25	
6,961.0	90.70	181.00	6,386.7	-297.3	409.4	327.5	2.89	1.29	2.58	
6,992.0	90.30	181.00	6,386.4	-328.3	408.9	358.4	1.29	-1.29	0.00	
7,024.0	90.70	181.50	6,386.2	-360.3	408.2	390.2	2.00	1.25	1.56	
7,055.0	90.70	181.30	6,385.8	-391.3	407.4	421.1	0.65	0.00	-0.65	
7,087.0	89.30	181.00	6,385.8	-423.2	406.8	452.9	4.47	-4.38	-0.94	
7,118.0	89.00	180.60	6,386.2	-454.2	406.3	483.8	1.61	-0.97	-1.29	
7,149.0	88.80	181.00	6,386.8	-485.2	405.9	514.6	1.44	-0.65	1.29	
7,180.0	89.30	180.40	6,387.4	-516.2	405.5	545.5	2.52	1.61	-1.94	
7,211.0	89.90	180.10	6,387.6	-547.2	405.4	576.4	2.16	1.94	-0.97	
7,242.0	89.30	180.80	6,387.8	-578.2	405.2	607.3	2.97	-1.94	2.26	
7,274.0	90.00	180.20	6,388.0	-610.2	404.9	639.2	2.88	2.19	-1.88	
7,305.0	90.30	180.80	6,387.9	-641.2	404.6	670.1	2.16	0.97	1.94	
7,336.0	90.50	181.70	6,387.7	-672.2	403.9	700.9	2.97	0.65	2.90	
7,368.0	89.90	182.20	6,387.6	-704.2	402.8	732.7	2.44	-1.88	1.56	
7,399.0	90.00	181.70	6,387.6	-735.2	401.8	763.6	1.64	0.32	-1.61	
7,430.0	90.50	181.30	6,387.5	-766.2	401.0	794.4	2.07	1.61	-1.29	
7,461.0	91.10	180.60	6,387.0	-797.2	400.5	825.3	2.97	1.94	-2.26	
7,493.0	90.30	180.20	6,386.6	-829.1	400.2	857.1	2.80	-2.50	-1.25	
7,524.0	89.30	180.10	6,386.7	-860.1	400.2	888.0	3.24	-3.23	-0.32	
7,555.0	89.80	179.90	6,387.0	-891.1	400.2	919.0	1.74	1.61	-0.65	
7,586.0	90.30	180.20	6,387.0	-922.1	400.1	949.9	1.88	1.61	0.97	
7,618.0	89.70	180.10	6,387.0	-954.1	400.0	981.8	1.90	-1.88	-0.31	
7,649.0	90.30	180.60	6,387.0	-985.1	399.9	1,012.7	2.52	1.94	1.61	

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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)
7,680.0	89.70	181.00	6,387.0	-1,016.1	399.4	1,043.5	2.33	-1.94	1.29
7,711.0	89.50	180.40	6,387.2	-1,047.1	399.0	1,074.4	2.04	-0.65	-1.94
7,742.0	88.70	181.10	6,387.7	-1,078.1	398.6	1,105.3	3.43	-2.58	2.26
7,774.0	89.20	181.00	6,388.3	-1,110.1	398.0	1,137.1	1.59	1.56	-0.31
7,804.0	89.80	181.10	6,388.5	-1,140.1	397.5	1,167.0	2.03	2.00	0.33
7,835.0	90.50	180.80	6,388.4	-1,171.1	397.0	1,197.9	2.46	2.26	-0.97
7,866.0	90.00	181.50	6,388.3	-1,202.1	396.4	1,228.7	2.77	-1.61	2.26
7,897.0	90.60	181.30	6,388.1	-1,233.1	395.6	1,259.6	2.04	1.94	-0.65
7,929.0	89.70	180.20	6,388.1	-1,265.1	395.2	1,291.4	4.44	-2.81	-3.44
7,958.0	89.80	180.20	6,388.2	-1,294.1	395.1	1,320.3	0.34	0.34	0.00
7,989.0	89.50	180.80	6,388.4	-1,325.1	394.8	1,351.2	2.16	-0.97	1.94
8,021.0	90.00	181.30	6,388.5	-1,357.1	394.2	1,383.1	2.21	1.56	1.56
8,052.0	89.20	182.40	6,388.7	-1,388.1	393.2	1,413.9	4.39	-2.58	3.55
8,084.0	89.90	183.10	6,389.0	-1,420.0	391.7	1,445.7	3.09	2.19	2.19
8,115.0	90.50	182.90	6,388.9	-1,451.0	390.1	1,476.4	2.04	1.94	-0.65
8,146.0	89.50	182.90	6,388.9	-1,481.9	388.5	1,507.2	3.23	-3.23	0.00
8,178.0	90.00	182.50	6,389.0	-1,513.9	387.0	1,538.9	2.00	1.56	-1.25
8,209.0	90.90	182.90	6,388.8	-1,544.9	385.5	1,569.7	3.18	2.90	1.29
8,240.0	90.10	181.50	6,388.5	-1,575.8	384.3	1,600.5	5.20	-2.58	-4.52
8,271.0	89.70	182.00	6,388.5	-1,606.8	383.4	1,631.3	2.07	-1.29	1.61
8,303.0	89.90	181.70	6,388.7	-1,638.8	382.4	1,663.1	1.13	0.63	-0.94
8,334.0	89.60	181.80	6,388.8	-1,669.8	381.4	1,693.9	1.02	-0.97	0.32
8,365.0	89.90	181.70	6,388.9	-1,700.8	380.5	1,724.8	1.02	0.97	-0.32
8,397.0	90.10	181.10	6,388.9	-1,732.8	379.7	1,756.6	1.98	0.63	-1.88
8,428.0	88.90	181.50	6,389.2	-1,763.8	379.0	1,787.4	4.08	-3.87	1.29
8,459.0	89.30	181.30	6,389.7	-1,794.8	378.2	1,818.3	1.44	1.29	-0.65
8,490.0	89.90	181.30	6,389.9	-1,825.7	377.5	1,849.1	1.94	1.94	0.00
8,521.0	90.50	180.60	6,389.8	-1,856.7	377.0	1,880.0	2.97	1.94	-2.26
8,552.0	89.90	180.40	6,389.7	-1,887.7	376.7	1,910.9	2.04	-1.94	-0.65
8,584.0	90.00	180.80	6,389.7	-1,919.7	376.4	1,942.8	1.29	0.31	1.25
8,615.0	90.60	181.00	6,389.6	-1,950.7	375.9	1,973.6	2.04	1.94	0.65
8,645.0	90.00	181.10	6,389.4	-1,980.7	375.4	2,003.5	2.03	-2.00	0.33
8,677.0	90.50	180.80	6,389.3	-2,012.7	374.8	2,035.4	1.82	1.56	-0.94
8,707.0	90.90	181.10	6,388.9	-2,042.7	374.3	2,065.2	1.67	1.33	1.00
8,739.0	90.40	181.00	6,388.5	-2,074.7	373.8	2,097.1	1.59	-1.56	-0.31
8,770.0	90.90	180.20	6,388.2	-2,105.7	373.4	2,128.0	3.04	1.61	-2.58
8,801.0	90.30	180.60	6,387.8	-2,136.7	373.2	2,158.9	2.33	-1.94	1.29
8,832.0	90.70	180.10	6,387.6	-2,167.7	373.0	2,189.8	2.07	1.29	-1.61
8,863.0	90.30	179.70	6,387.3	-2,198.7	373.1	2,220.7	1.82	-1.29	-1.29
8,894.0	89.30	178.70	6,387.4	-2,229.7	373.5	2,251.6	4.56	-3.23	-3.23
8,926.0	89.40	179.40	6,387.8	-2,261.7	374.0	2,283.6	2.21	0.31	2.19
8,958.0	90.40	179.50	6,387.8	-2,293.7	374.3	2,315.5	3.14	3.13	0.31
8,989.0	89.40	179.50	6,387.9	-2,324.7	374.6	2,346.4	3.23	-3.23	0.00
9,020.0	89.30	180.10	6,388.2	-2,355.7	374.7	2,377.3	1.96	-0.32	1.94
9,051.0	89.60	179.90	6,388.5	-2,386.7	374.7	2,408.2	1.16	0.97	-0.65
9,083.0	89.20	180.20	6,388.9	-2,418.7	374.7	2,440.1	1.56	-1.25	0.94
9,114.0	89.20	180.80	6,389.3	-2,449.7	374.4	2,471.0	1.94	0.00	1.94
9,145.0	88.10	180.60	6,390.0	-2,480.7	374.1	2,501.9	3.61	-3.55	-0.65
9,177.0	88.60	180.20	6,391.0	-2,512.6	373.8	2,533.8	2.00	1.56	-1.25
9,207.0	88.40	180.80	6,391.7	-2,542.6	373.6	2,563.7	2.11	-0.67	2.00
9,239.0	88.00	181.10	6,392.7	-2,574.6	373.0	2,595.5	1.56	-1.25	0.94
9,270.0	88.20	181.10	6,393.8	-2,605.6	372.4	2,626.3	0.65	0.65	0.00
9,301.0	88.50	181.10	6,394.7	-2,636.6	371.8	2,657.2	0.97	0.97	0.00
9,332.0	89.20	181.50	6,395.3	-2,667.6	371.1	2,688.0	2.60	2.26	1.29

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well ANTELOPE P-T-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4706.0ft (Original Well Elev)
Site:	ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W	MD Reference:	WELL @ 4706.0ft (Original Well Elev)
Well:	ANTELOPE P-T-17HZ	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)
9,363.0	89.10	181.10	6,395.8	-2,698.5	370.4	2,718.9	1.33	-0.32	-1.29
9,395.0	89.90	181.30	6,396.0	-2,730.5	369.8	2,750.7	2.58	2.50	0.63
9,426.0	90.70	182.70	6,395.9	-2,761.5	368.7	2,781.5	5.20	2.58	4.52
9,457.0	91.00	182.20	6,395.4	-2,792.5	367.4	2,812.3	1.88	0.97	-1.61
9,488.0	91.50	182.20	6,394.7	-2,823.5	366.2	2,843.1	1.61	1.61	0.00
9,519.0	91.80	181.80	6,393.8	-2,854.4	365.1	2,873.9	1.61	0.97	-1.29
9,551.0	92.00	181.80	6,392.8	-2,886.4	364.1	2,905.7	0.63	0.63	0.00
9,582.0	91.00	181.00	6,392.0	-2,917.4	363.3	2,936.5	4.13	-3.23	-2.58
9,613.0	91.50	181.10	6,391.3	-2,948.4	362.8	2,967.4	1.64	1.61	0.32
9,644.0	91.00	181.50	6,390.6	-2,979.3	362.1	2,998.2	2.07	-1.61	1.29
9,675.0	91.10	181.10	6,390.0	-3,010.3	361.4	3,029.1	1.33	0.32	-1.29
9,706.0	90.30	181.00	6,389.7	-3,041.3	360.8	3,059.9	2.60	-2.58	-0.32
9,738.0	90.40	181.50	6,389.5	-3,073.3	360.1	3,091.8	1.59	0.31	1.56
9,769.0	89.60	182.20	6,389.5	-3,104.3	359.1	3,122.6	3.43	-2.58	2.26
9,800.0	90.00	182.00	6,389.6	-3,135.3	358.0	3,153.4	1.44	1.29	-0.65
9,832.0	90.20	181.70	6,389.5	-3,167.3	356.9	3,185.2	1.13	0.63	-0.94
9,863.0	89.60	180.80	6,389.6	-3,198.3	356.2	3,216.1	3.49	-1.94	-2.90
9,893.0	90.00	180.80	6,389.7	-3,228.2	355.8	3,245.9	1.33	1.33	0.00
9,924.0	90.50	180.60	6,389.5	-3,259.2	355.4	3,276.8	1.74	1.61	-0.65
9,955.0	89.50	180.80	6,389.5	-3,290.2	355.1	3,307.7	3.29	-3.23	0.65
9,987.0	89.70	180.60	6,389.8	-3,322.2	354.7	3,339.6	0.88	0.63	-0.63
10,018.0	90.30	180.60	6,389.8	-3,353.2	354.4	3,370.5	1.94	1.94	0.00
10,049.0	90.40	180.20	6,389.6	-3,384.2	354.1	3,401.4	1.33	0.32	-1.29
10,080.0	90.30	181.30	6,389.4	-3,415.2	353.7	3,432.2	3.56	-0.32	3.55
10,111.0	90.00	181.00	6,389.3	-3,446.2	353.1	3,463.1	1.37	-0.97	-0.97
10,143.0	89.40	182.00	6,389.5	-3,478.2	352.3	3,494.9	3.64	-1.88	3.13
10,174.0	90.10	182.20	6,389.6	-3,509.2	351.1	3,525.7	2.35	2.26	0.65
10,205.0	90.50	181.00	6,389.5	-3,540.2	350.3	3,556.6	4.08	1.29	-3.87
10,236.0	90.40	181.00	6,389.2	-3,571.2	349.7	3,587.4	0.32	-0.32	0.00
10,268.0	90.40	180.60	6,389.0	-3,603.2	349.3	3,619.3	1.25	0.00	-1.25
10,299.0	90.70	181.00	6,388.7	-3,634.2	348.8	3,650.2	1.61	0.97	1.29
10,330.0	89.40	181.70	6,388.7	-3,665.2	348.1	3,681.0	4.76	-4.19	2.26
10,362.0	89.40	181.80	6,389.0	-3,697.1	347.1	3,712.8	0.31	0.00	0.31
10,393.0	88.50	181.80	6,389.6	-3,728.1	346.2	3,743.6	2.90	-2.90	0.00
10,423.0	88.50	181.30	6,390.3	-3,758.1	345.4	3,773.5	1.67	0.00	-1.67
10,455.0	89.10	181.10	6,391.0	-3,790.1	344.7	3,805.3	1.98	1.88	-0.63
10,486.0	89.40	181.70	6,391.4	-3,821.1	343.9	3,836.2	2.16	0.97	1.94
10,517.0	90.00	181.10	6,391.6	-3,852.1	343.2	3,867.0	2.74	1.94	-1.94
10,548.0	90.30	181.10	6,391.5	-3,883.1	342.6	3,897.9	0.97	0.97	0.00
10,580.0	91.00	180.40	6,391.1	-3,915.0	342.2	3,929.7	3.09	2.19	-2.19
10,611.0	91.30	180.20	6,390.5	-3,946.0	342.0	3,960.6	1.16	0.97	-0.65
10,641.0	90.10	180.20	6,390.2	-3,976.0	341.9	3,990.5	4.00	-4.00	0.00
10,673.0	90.60	180.10	6,390.0	-4,008.0	341.8	4,022.4	1.59	1.56	-0.31
10,704.0	91.10	180.20	6,389.5	-4,039.0	341.7	4,053.3	1.64	1.61	0.32
10,736.0	91.00	180.80	6,388.9	-4,071.0	341.4	4,085.2	1.90	-0.31	1.88
10,765.0	91.50	180.80	6,388.3	-4,100.0	341.0	4,114.1	1.72	1.72	0.00
10,797.0	90.60	181.30	6,387.7	-4,132.0	340.5	4,145.9	3.22	-2.81	1.56
10,828.0	91.00	181.30	6,387.3	-4,163.0	339.8	4,176.8	1.29	1.29	0.00
10,859.0	89.90	182.40	6,387.0	-4,194.0	338.8	4,207.6	5.02	-3.55	3.55
10,890.0	90.30	182.50	6,387.0	-4,224.9	337.4	4,238.4	1.33	1.29	0.32
10,921.0	90.70	182.40	6,386.7	-4,255.9	336.1	4,269.2	1.33	1.29	-0.32
10,965.0	90.70	182.40	6,386.2	-4,299.9	334.3	4,312.8	0.00	0.00	0.00
BHL 460'FSL & 1000'FEL									

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well ANTELOPE P-T-17HZ
Project:	SEC.17-T5N-R62W	TVD Reference:	WELL @ 4706.0ft (Original Well Elev)
Site:	ANTELOPE P-T-17HZ PAD SEC.17-T5N-R62W	MD Reference:	WELL @ 4706.0ft (Original Well Elev)
Well:	ANTELOPE P-T-17HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Checked By: _____	Approved By: _____	Date: _____
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