

BONANZA CREEK ENERGY OPERATING

Well Name: STATE ANTELOPE 14-11-24HZ

Surface Location: STATE ANTELOPE 14-11-24HZ

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

Ground Elevation: 4562.0

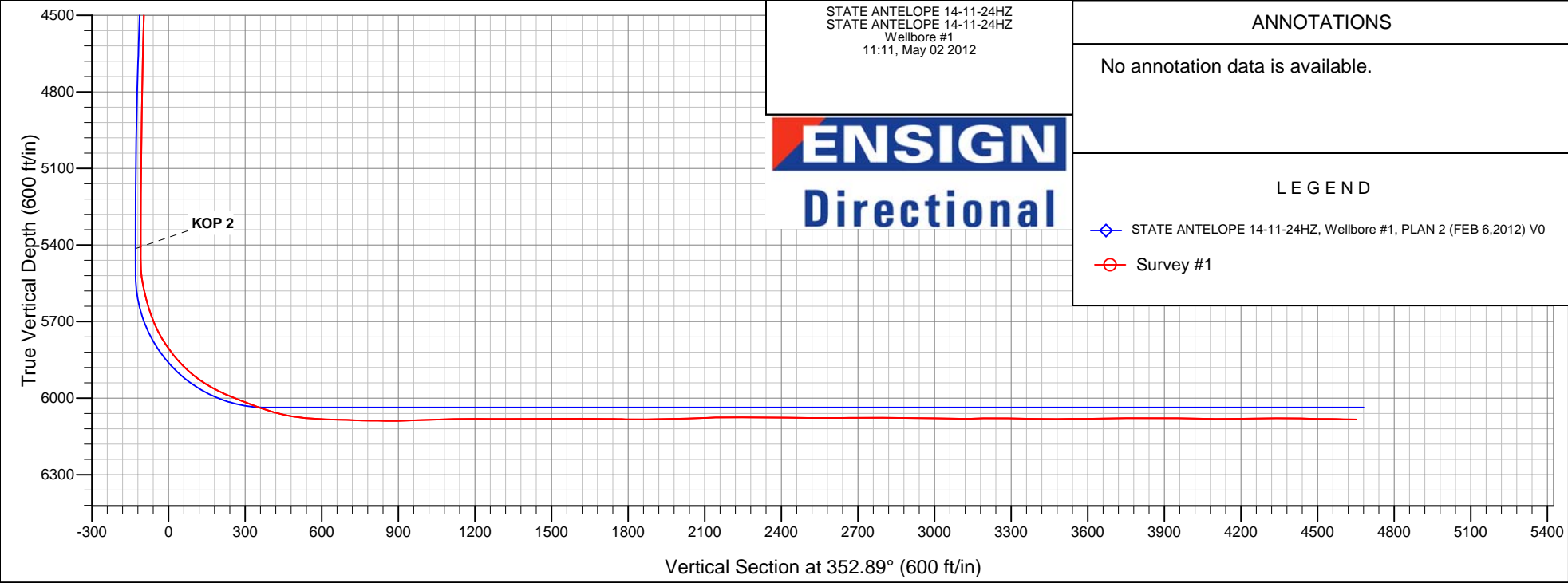
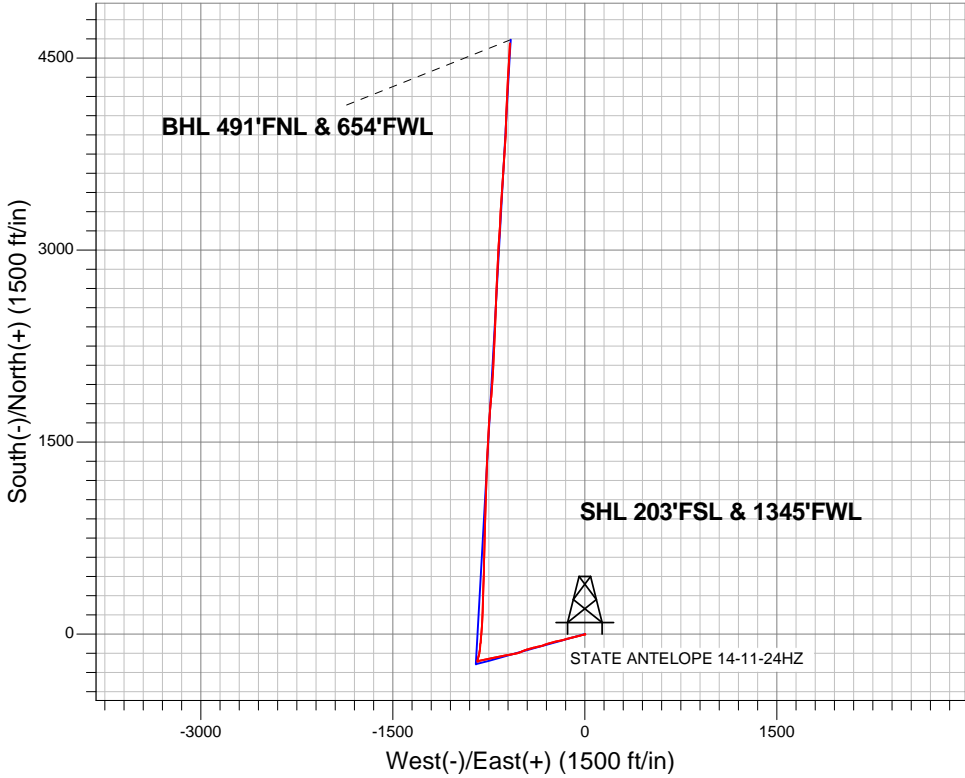
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1383343.26	3340956.91	40.379220	-104.276120	

EST KB - 15' RKB 2-6-12 @ 4577.0ft (EST KB - 15')

FINAL SURVEY

Projected Bottom Hole Location
10730' MD 6084' TVD 4614' N & 586' W of SHL

89.10 degree Incl @ 2.70 degree AZM





BONANZA CREEK ENERGY OPERATING

SEC.24-T5N-R62W

STATE ANTELOPE 14-11-24HZ

STATE ANTELOPE 14-11-24HZ

Wellbore #1

Survey: Survey #1

Standard Survey Report

02 May, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well STATE ANTELOPE 14-11-24HZ
Project:	SEC.24-T5N-R62W	TVD Reference:	RKB 2-6-12 @ 4577.0ft (EST KB - 15')
Site:	STATE ANTELOPE 14-11-24HZ	MD Reference:	RKB 2-6-12 @ 4577.0ft (EST KB - 15')
Well:	STATE ANTELOPE 14-11-24HZ	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.24-T5N-R62W		
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 ANTELOPE 14-11-24HZ			
Site Position:		Northing:	1,383,343.32 ft	Latitude:	40.379220 °
From:	Lat/Long	Easting:	3,340,959.70 ft	Longitude:	-104.276110 °
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.79 °

Well	STATE ANTELOPE 14-11-24HZ					
Well Position	+N/-S	0.0 ft	Northing:	1,383,343.26 ft	Latitude:	40.379220
	+E/-W	0.0 ft	Easting:	3,340,956.91 ft	Longitude:	-104.276120
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,562.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/8/2011	8.53	67.10	53,124
	IGRF2010	2/6/2012	8.51	67.09	53,106

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 (°)
	6,037.0	0.0	0.0	352.89

Survey Program		Date	5/2/2012	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
486.0	10,730.0	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
Hardline 460'									
486.0	0.20	103.00	486.0	-0.2	0.8	-0.3	0.04	0.04	0.00
610.0	0.80	132.70	610.0	-0.8	1.7	-1.0	0.51	0.48	23.95
734.0	0.70	147.10	734.0	-2.0	2.7	-2.4	0.17	-0.08	11.61
859.0	0.80	272.00	859.0	-2.7	2.3	-2.9	1.06	0.08	99.92
983.0	2.80	268.00	982.9	-2.7	-1.6	-2.5	1.62	1.61	-3.23
1,107.0	4.80	251.20	1,106.6	-4.5	-9.6	-3.3	1.83	1.61	-13.55
1,231.0	7.20	258.30	1,229.9	-7.8	-22.1	-5.0	2.02	1.94	5.73
1,353.0	9.80	254.60	1,350.6	-12.1	-39.6	-7.1	2.18	2.13	-3.03
1,476.0	11.00	256.80	1,471.6	-17.5	-61.1	-9.8	1.03	0.98	1.79
1,598.0	10.30	255.10	1,591.5	-23.0	-83.0	-12.5	0.63	-0.57	-1.39

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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)	
1,721.0	12.80	257.90	1,712.0	-28.7	-106.9	-15.2	2.08	2.03	2.28	
1,844.0	13.00	253.70	1,831.9	-35.4	-133.5	-18.6	0.78	0.16	-3.41	
1,966.0	15.20	256.60	1,950.2	-43.0	-162.3	-22.6	1.89	1.80	2.38	
2,088.0	13.90	256.60	2,068.3	-50.1	-192.1	-25.9	1.07	-1.07	0.00	
2,211.0	14.90	258.60	2,187.4	-56.6	-222.0	-28.7	0.91	0.81	1.63	
2,333.0	14.90	254.20	2,305.3	-64.0	-252.4	-32.3	0.93	0.00	-3.61	
2,456.0	15.10	252.90	2,424.1	-73.0	-283.0	-37.4	0.32	0.16	-1.06	
2,578.0	14.50	250.50	2,542.1	-82.8	-312.5	-43.5	0.70	-0.49	-1.97	
2,702.0	13.60	253.70	2,662.4	-92.1	-341.2	-49.1	0.96	-0.73	2.58	
2,827.0	12.20	256.40	2,784.2	-99.3	-368.1	-53.0	1.22	-1.12	2.16	
2,952.0	10.30	258.50	2,906.8	-104.6	-391.9	-55.3	1.55	-1.52	1.68	
3,077.0	8.60	256.40	3,030.1	-109.1	-411.9	-57.2	1.39	-1.36	-1.68	
3,201.0	6.50	250.90	3,153.0	-113.5	-427.6	-59.7	1.79	-1.69	-4.44	
3,325.0	8.30	256.30	3,276.0	-117.9	-442.9	-62.2	1.55	1.45	4.35	
3,451.0	12.70	249.60	3,399.9	-124.9	-464.7	-66.4	3.62	3.49	-5.32	
3,574.0	13.10	247.60	3,519.7	-135.0	-490.3	-73.2	0.49	0.33	-1.63	
3,700.0	12.70	250.60	3,642.6	-145.0	-516.6	-79.9	0.62	-0.32	2.38	
3,825.0	13.10	257.40	3,764.4	-152.7	-543.4	-84.2	1.26	0.32	5.44	
3,950.0	13.90	262.00	3,886.0	-157.8	-572.0	-85.8	1.07	0.64	3.68	
4,076.0	14.90	260.10	4,008.0	-162.7	-603.0	-86.8	0.88	0.79	-1.51	
4,201.0	16.60	257.90	4,128.3	-169.2	-636.3	-89.2	1.44	1.36	-1.76	
4,327.0	15.30	258.70	4,249.5	-176.3	-670.2	-92.0	1.05	-1.03	0.63	
4,452.0	13.90	259.40	4,370.4	-182.3	-701.1	-94.1	1.13	-1.12	0.56	
4,576.0	15.40	258.00	4,490.4	-188.4	-731.9	-96.4	1.24	1.21	-1.13	
4,702.0	14.90	258.50	4,612.0	-195.1	-764.1	-99.0	0.41	-0.40	0.40	
4,824.0	11.00	254.90	4,730.9	-201.3	-790.7	-101.9	3.26	-3.20	-2.95	
4,949.0	7.00	259.90	4,854.3	-205.7	-809.7	-103.9	3.26	-3.20	4.00	
5,074.0	5.60	255.70	4,978.6	-208.6	-823.2	-105.1	1.18	-1.12	-3.36	
5,200.0	3.00	241.40	5,104.2	-211.7	-832.0	-107.1	2.22	-2.06	-11.35	
5,325.0	1.20	243.60	5,229.1	-213.8	-836.1	-108.7	1.44	-1.44	1.76	
5,450.0	0.50	273.50	5,354.1	-214.4	-837.8	-109.0	0.64	-0.56	23.92	
5,481.0	0.40	216.60	5,385.1	-214.4	-838.0	-109.1	1.41	-0.32	-183.55	
5,516.0	0.30	265.20	5,420.1	-214.6	-838.1	-109.2	0.86	-0.29	138.86	
5,546.0	0.20	297.80	5,450.1	-214.5	-838.3	-109.1	0.57	-0.33	108.67	
5,577.0	2.30	351.50	5,481.1	-213.9	-838.4	-108.5	7.06	6.77	173.23	
5,608.0	5.60	358.10	5,512.0	-211.8	-838.5	-106.3	10.73	10.65	21.29	
5,638.0	9.60	3.60	5,541.7	-207.8	-838.4	-102.4	13.54	13.33	18.33	
5,668.0	12.90	7.80	5,571.2	-202.0	-837.8	-96.7	11.33	11.00	14.00	
5,700.0	14.60	15.40	5,602.2	-194.6	-836.3	-89.6	7.74	5.31	23.75	
5,731.0	17.20	15.90	5,632.1	-186.4	-834.0	-81.7	8.40	8.39	1.61	
5,762.0	19.60	14.10	5,661.5	-176.9	-831.4	-72.7	7.96	7.74	-5.81	
5,793.0	22.60	15.20	5,690.4	-166.1	-828.6	-62.3	9.76	9.68	3.55	
5,825.0	26.00	12.60	5,719.5	-153.4	-825.5	-50.0	11.14	10.63	-8.13	
5,856.0	29.10	8.00	5,747.0	-139.3	-822.9	-36.3	12.12	10.00	-14.84	
5,888.0	32.60	5.20	5,774.5	-123.0	-821.1	-20.4	11.82	10.94	-8.75	
5,919.0	35.90	5.30	5,800.1	-105.6	-819.5	-3.3	10.65	10.65	0.32	
5,950.0	38.30	6.90	5,824.8	-87.0	-817.5	14.9	8.34	7.74	5.16	
5,981.0	41.70	5.70	5,848.6	-67.2	-815.3	34.2	11.25	10.97	-3.87	
6,012.0	44.90	5.30	5,871.1	-46.0	-813.3	55.0	10.36	10.32	-1.29	
6,043.0	48.50	4.80	5,892.4	-23.6	-811.3	77.0	11.67	11.61	-1.61	
6,074.0	52.00	5.30	5,912.2	0.2	-809.2	100.3	11.36	11.29	1.61	
6,106.0	55.70	5.20	5,931.1	25.9	-806.8	125.6	11.57	11.56	-0.31	
6,137.0	59.40	4.10	5,947.7	52.0	-804.7	151.2	12.31	11.94	-3.55	
6,168.0	62.30	3.10	5,962.8	79.0	-803.0	177.8	9.77	9.35	-3.23	

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Well:	STATE ANTELOPE 14-11-24HZ	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)
6,199.0	64.30	2.70	5,976.8	106.6	-801.6	205.0	6.55	6.45	-1.29
6,230.0	67.60	2.20	5,989.4	134.9	-800.4	233.0	10.75	10.65	-1.61
6,262.0	68.20	1.80	6,001.4	164.6	-799.4	262.2	2.20	1.88	-1.25
6,293.0	69.20	1.50	6,012.7	193.4	-798.5	290.8	3.35	3.23	-0.97
6,324.0	70.10	1.80	6,023.5	222.5	-797.7	319.5	3.04	2.90	0.97
6,346.5	70.32	1.80	6,031.1	243.6	-797.0	340.4	0.97	0.97	0.00
TARGET 1 460'FSL & 460'FWL									
6,355.0	70.40	1.80	6,033.9	251.6	-796.8	348.3	0.97	0.97	0.00
6,386.0	71.10	2.40	6,044.2	280.9	-795.7	377.2	2.90	2.26	1.94
6,418.0	73.40	2.50	6,053.9	311.3	-794.4	407.3	7.19	7.19	0.31
6,448.0	76.70	2.20	6,061.7	340.3	-793.2	435.9	11.04	11.00	-1.00
6,480.0	79.40	1.70	6,068.3	371.6	-792.2	466.8	8.57	8.44	-1.56
6,511.0	81.40	1.10	6,073.5	402.1	-791.4	497.0	6.73	6.45	-1.94
6,542.0	83.70	1.10	6,077.5	432.9	-790.8	527.4	7.42	7.42	0.00
6,573.0	86.00	1.50	6,080.3	463.7	-790.1	558.0	7.53	7.42	1.29
6,586.0	87.00	1.50	6,081.0	476.7	-789.8	570.8	7.69	7.69	0.00
6,654.0	88.30	1.50	6,083.8	544.6	-788.0	638.0	1.91	1.91	0.00
6,684.0	88.30	1.80	6,084.7	574.6	-787.1	667.6	1.00	0.00	1.00
6,715.0	88.10	1.70	6,085.7	605.6	-786.2	698.2	0.72	-0.65	-0.32
6,745.0	88.00	1.30	6,086.7	635.5	-785.4	727.9	1.37	-0.33	-1.33
6,775.0	88.60	1.80	6,087.6	665.5	-784.6	757.5	2.60	2.00	1.67
6,808.0	89.30	2.00	6,088.2	698.5	-783.5	790.1	2.21	2.12	0.61
6,839.0	89.70	2.00	6,088.5	729.5	-782.4	820.7	1.29	1.29	0.00
6,870.0	88.90	0.80	6,088.9	760.4	-781.7	851.4	4.65	-2.58	-3.87
6,901.0	89.70	0.40	6,089.2	791.4	-781.3	882.1	2.89	2.58	-1.29
6,932.0	91.20	1.10	6,089.0	822.4	-780.9	912.8	5.34	4.84	2.26
6,964.0	91.80	1.70	6,088.2	854.4	-780.2	944.4	2.65	1.88	1.88
6,995.0	92.20	1.80	6,087.1	885.4	-779.2	975.0	1.33	1.29	0.32
7,026.0	93.00	2.00	6,085.7	916.3	-778.2	1,005.6	2.66	2.58	0.65
7,058.0	92.30	1.30	6,084.2	948.3	-777.3	1,037.2	3.09	-2.19	-2.19
7,089.0	91.10	1.10	6,083.3	979.3	-776.6	1,067.9	3.92	-3.87	-0.65
7,120.0	91.50	1.10	6,082.6	1,010.3	-776.0	1,098.5	1.29	1.29	0.00
7,151.0	90.80	2.40	6,082.0	1,041.2	-775.1	1,129.2	4.76	-2.26	4.19
7,183.0	90.10	1.10	6,081.7	1,073.2	-774.1	1,160.8	4.61	-2.19	-4.06
7,214.0	90.00	0.80	6,081.7	1,104.2	-773.6	1,191.5	1.02	-0.32	-0.97
7,245.0	89.80	1.50	6,081.7	1,135.2	-773.0	1,222.1	2.35	-0.65	2.26
7,277.0	90.00	1.80	6,081.8	1,167.2	-772.0	1,253.8	1.13	0.63	0.94
7,308.0	89.90	2.50	6,081.8	1,198.2	-770.9	1,284.4	2.28	-0.32	2.26
7,340.0	90.20	2.40	6,081.8	1,230.1	-769.5	1,315.9	0.99	0.94	-0.31
7,371.0	89.80	2.50	6,081.8	1,261.1	-768.2	1,346.5	1.33	-1.29	0.32
7,402.0	90.00	2.40	6,081.8	1,292.1	-766.9	1,377.1	0.72	0.65	-0.32
7,433.0	90.60	3.40	6,081.7	1,323.0	-765.3	1,407.6	3.76	1.94	3.23
7,464.0	90.70	3.80	6,081.3	1,354.0	-763.3	1,438.1	1.33	0.32	1.29
7,495.0	90.70	2.90	6,080.9	1,384.9	-761.5	1,468.5	2.90	0.00	-2.90
7,527.0	90.20	2.50	6,080.7	1,416.9	-760.0	1,500.1	2.00	-1.56	-1.25
7,556.0	90.10	2.50	6,080.6	1,445.9	-758.8	1,528.7	0.34	-0.34	0.00
7,588.0	89.80	2.50	6,080.6	1,477.8	-757.4	1,560.2	0.94	-0.94	0.00
7,619.0	89.50	2.20	6,080.8	1,508.8	-756.1	1,590.8	1.37	-0.97	-0.97
7,651.0	89.50	2.00	6,081.1	1,540.8	-754.9	1,622.4	0.62	0.00	-0.63
7,682.0	89.70	3.40	6,081.3	1,571.7	-753.5	1,652.9	4.56	0.65	4.52
7,713.0	89.60	3.20	6,081.5	1,602.7	-751.7	1,683.4	0.72	-0.32	-0.65
7,744.0	89.40	4.10	6,081.8	1,633.6	-749.7	1,713.9	2.97	-0.65	2.90
7,775.0	89.50	3.80	6,082.1	1,664.6	-747.6	1,744.3	1.02	0.32	-0.97
7,806.0	88.20	3.90	6,082.7	1,695.5	-745.5	1,774.7	4.21	-4.19	0.32

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7,838.0	89.20	4.30	6,083.4	1,727.4	-743.2	1,806.1	3.37	3.13	1.25	
7,869.0	90.10	5.50	6,083.6	1,758.3	-740.5	1,836.4	4.84	2.90	3.87	
7,900.0	91.40	6.00	6,083.2	1,789.1	-737.4	1,866.6	4.49	4.19	1.61	
7,932.0	90.50	5.20	6,082.7	1,821.0	-734.3	1,897.8	3.76	-2.81	-2.50	
7,963.0	90.40	4.10	6,082.4	1,851.8	-731.8	1,928.2	3.56	-0.32	-3.55	
7,994.0	90.60	4.10	6,082.2	1,882.8	-729.6	1,958.6	0.65	0.65	0.00	
8,026.0	91.80	4.60	6,081.5	1,914.7	-727.2	1,990.0	4.06	3.75	1.56	
8,057.0	92.00	4.50	6,080.5	1,945.6	-724.7	2,020.3	0.72	0.65	-0.32	
8,089.0	92.00	4.30	6,079.4	1,977.4	-722.3	2,051.6	0.62	0.00	-0.63	
8,120.0	92.00	4.10	6,078.3	2,008.3	-720.0	2,082.0	0.64	0.00	-0.65	
8,151.0	92.10	4.10	6,077.2	2,039.2	-717.8	2,112.4	0.32	0.32	0.00	
8,182.0	91.90	2.90	6,076.1	2,070.2	-715.9	2,142.9	3.92	-0.65	-3.87	
8,213.0	90.80	2.40	6,075.4	2,101.1	-714.4	2,173.4	3.90	-3.55	-1.61	
8,245.0	90.50	2.50	6,075.0	2,133.1	-713.1	2,204.9	0.99	-0.94	0.31	
8,276.0	88.80	1.70	6,075.2	2,164.1	-711.9	2,235.5	6.06	-5.48	-2.58	
8,307.0	88.60	1.70	6,075.9	2,195.0	-711.0	2,266.2	0.65	-0.65	0.00	
8,338.0	89.80	2.00	6,076.3	2,226.0	-710.0	2,296.8	3.99	3.87	0.97	
8,369.0	90.30	2.40	6,076.3	2,257.0	-708.8	2,327.4	2.07	1.61	1.29	
8,400.0	89.40	2.40	6,076.4	2,288.0	-707.5	2,358.0	2.90	-2.90	0.00	
8,431.0	90.00	2.50	6,076.5	2,318.9	-706.2	2,388.5	1.96	1.94	0.32	
8,463.0	90.10	2.20	6,076.5	2,350.9	-704.9	2,420.1	0.99	0.31	-0.94	
8,494.0	89.30	3.10	6,076.7	2,381.9	-703.5	2,450.6	3.88	-2.58	2.90	
8,526.0	89.30	2.70	6,077.1	2,413.8	-701.8	2,482.1	1.25	0.00	-1.25	
8,557.0	89.20	2.70	6,077.5	2,444.8	-700.4	2,512.7	0.32	-0.32	0.00	
8,588.0	89.60	2.90	6,077.8	2,475.8	-698.9	2,543.2	1.44	1.29	0.65	
8,619.0	89.80	2.70	6,078.0	2,506.7	-697.4	2,573.8	0.91	0.65	-0.65	
8,650.0	90.70	3.10	6,077.8	2,537.7	-695.8	2,604.3	3.18	2.90	1.29	
8,681.0	90.70	2.70	6,077.4	2,568.6	-694.2	2,634.8	1.29	0.00	-1.29	
8,713.0	90.60	2.70	6,077.1	2,600.6	-692.7	2,666.3	0.31	-0.31	0.00	
8,744.0	90.30	1.50	6,076.8	2,631.6	-691.6	2,696.9	3.99	-0.97	-3.87	
8,775.0	89.80	2.00	6,076.8	2,662.6	-690.6	2,727.6	2.28	-1.61	1.61	
8,807.0	89.70	2.40	6,076.9	2,694.5	-689.4	2,759.2	1.29	-0.31	1.25	
8,838.0	89.70	2.50	6,077.1	2,725.5	-688.1	2,789.7	0.32	0.00	0.32	
8,870.0	89.90	2.00	6,077.2	2,757.5	-686.8	2,821.3	1.68	0.63	-1.56	
8,901.0	89.80	1.70	6,077.3	2,788.5	-685.8	2,851.9	1.02	-0.32	-0.97	
8,932.0	89.40	2.00	6,077.5	2,819.5	-684.8	2,882.5	1.61	-1.29	0.97	
8,964.0	89.30	2.20	6,077.9	2,851.4	-683.6	2,914.1	0.70	-0.31	0.63	
8,995.0	89.30	3.20	6,078.3	2,882.4	-682.2	2,944.7	3.23	0.00	3.23	
9,026.0	89.20	3.10	6,078.7	2,913.3	-680.5	2,975.2	0.46	-0.32	-0.32	
9,057.0	88.50	3.20	6,079.3	2,944.3	-678.8	3,005.7	2.28	-2.26	0.32	
9,088.0	88.30	3.10	6,080.2	2,975.2	-677.1	3,036.2	0.72	-0.65	-0.32	
9,119.0	89.30	3.10	6,080.8	3,006.2	-675.4	3,066.7	3.23	3.23	0.00	
9,150.0	90.00	3.40	6,081.0	3,037.1	-673.6	3,097.2	2.46	2.26	0.97	
9,182.0	90.80	3.80	6,080.8	3,069.1	-671.6	3,128.6	2.80	2.50	1.25	
9,213.0	91.80	4.10	6,080.1	3,100.0	-669.5	3,159.0	3.37	3.23	0.97	
9,244.0	91.20	4.60	6,079.3	3,130.9	-667.1	3,189.4	2.52	-1.94	1.61	
9,275.0	90.00	3.80	6,078.9	3,161.8	-664.9	3,219.8	4.65	-3.87	-2.58	
9,307.0	89.10	2.90	6,079.2	3,193.7	-663.0	3,251.2	3.98	-2.81	-2.81	
9,338.0	88.90	2.90	6,079.7	3,224.7	-661.4	3,281.8	0.65	-0.65	0.00	
9,369.0	89.00	2.70	6,080.3	3,255.7	-659.9	3,312.3	0.72	0.32	-0.65	
9,401.0	89.20	3.10	6,080.8	3,287.6	-658.3	3,343.8	1.40	0.63	1.25	
9,432.0	89.20	3.40	6,081.2	3,318.6	-656.5	3,374.3	0.97	0.00	0.97	
9,464.0	89.30	3.60	6,081.6	3,350.5	-654.6	3,405.8	0.70	0.31	0.63	
9,495.0	90.20	3.40	6,081.8	3,381.4	-652.7	3,436.2	2.97	2.90	-0.65	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well STATE ANTELOPE 14-11-24HZ
Project:	SEC.24-T5N-R62W	TVD Reference:	RKB 2-6-12 @ 4577.0ft (EST KB - 15')
Site:	STATE ANTELOPE 14-11-24HZ	MD Reference:	RKB 2-6-12 @ 4577.0ft (EST KB - 15')
Well:	STATE ANTELOPE 14-11-24HZ	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)	
9,526.0	90.40	3.80	6,081.6	3,412.4	-650.8	3,466.7	1.44	0.65	1.29	
9,558.0	90.30	3.80	6,081.4	3,444.3	-648.6	3,498.1	0.31	-0.31	0.00	
9,589.0	89.90	3.90	6,081.4	3,475.2	-646.6	3,528.5	1.33	-1.29	0.32	
9,621.0	90.20	3.40	6,081.3	3,507.2	-644.5	3,560.0	1.82	0.94	-1.56	
9,652.0	90.60	3.90	6,081.1	3,538.1	-642.5	3,590.4	2.07	1.29	1.61	
9,683.0	90.70	3.90	6,080.8	3,569.0	-640.4	3,620.9	0.32	0.32	0.00	
9,715.0	91.20	4.10	6,080.2	3,601.0	-638.2	3,652.3	1.68	1.56	0.63	
9,746.0	91.20	3.80	6,079.6	3,631.9	-636.1	3,682.7	0.97	0.00	-0.97	
9,778.0	90.70	3.90	6,079.1	3,663.8	-633.9	3,714.1	1.59	-1.56	0.31	
9,809.0	90.40	3.20	6,078.8	3,694.7	-632.0	3,744.5	2.46	-0.97	-2.26	
9,840.0	90.00	3.10	6,078.7	3,725.7	-630.3	3,775.1	1.33	-1.29	-0.32	
9,871.0	90.00	3.80	6,078.7	3,756.6	-628.4	3,805.5	2.26	0.00	2.26	
9,903.0	90.10	3.80	6,078.6	3,788.6	-626.3	3,836.9	0.31	0.31	0.00	
9,934.0	89.70	3.40	6,078.7	3,819.5	-624.4	3,867.4	1.82	-1.29	-1.29	
9,965.0	89.90	3.80	6,078.8	3,850.4	-622.4	3,897.9	1.44	0.65	1.29	
9,996.0	90.20	3.80	6,078.8	3,881.4	-620.4	3,928.3	0.97	0.97	0.00	
10,028.0	89.50	2.50	6,078.8	3,913.3	-618.6	3,959.8	4.61	-2.19	-4.06	
10,059.0	89.10	1.80	6,079.2	3,944.3	-617.4	3,990.4	2.60	-1.29	-2.26	
10,090.0	88.50	1.50	6,079.9	3,975.3	-616.5	4,021.0	2.16	-1.94	-0.97	
10,120.0	88.30	1.10	6,080.7	4,005.3	-615.9	4,050.7	1.49	-0.67	-1.33	
10,152.0	88.90	1.30	6,081.5	4,037.2	-615.2	4,082.3	1.98	1.88	0.63	
10,183.0	90.30	2.20	6,081.7	4,068.2	-614.3	4,113.0	5.37	4.52	2.90	
10,214.0	91.00	3.40	6,081.4	4,099.2	-612.7	4,143.5	4.48	2.26	3.87	
10,245.0	90.70	3.20	6,080.9	4,130.1	-611.0	4,174.0	1.16	-0.97	-0.65	
10,277.0	90.50	2.90	6,080.6	4,162.1	-609.3	4,205.5	1.13	-0.63	-0.94	
10,308.0	90.40	2.70	6,080.3	4,193.0	-607.7	4,236.0	0.72	-0.32	-0.65	
10,339.0	90.70	3.10	6,080.0	4,224.0	-606.2	4,266.5	1.61	0.97	1.29	
10,371.0	90.20	2.00	6,079.8	4,256.0	-604.7	4,298.1	3.78	-1.56	-3.44	
10,402.0	90.20	2.00	6,079.7	4,286.9	-603.7	4,328.7	0.00	0.00	0.00	
10,433.0	90.80	2.40	6,079.4	4,317.9	-602.5	4,359.3	2.33	1.94	1.29	
10,464.0	90.00	3.40	6,079.2	4,348.9	-600.9	4,389.8	4.13	-2.58	3.23	
10,495.0	88.80	3.80	6,079.5	4,379.8	-599.0	4,420.3	4.08	-3.87	1.29	
10,527.0	88.50	3.60	6,080.3	4,411.7	-596.9	4,451.7	1.13	-0.94	-0.63	
10,558.0	88.40	3.80	6,081.1	4,442.7	-594.9	4,482.1	0.72	-0.32	0.65	
10,590.0	89.30	3.40	6,081.7	4,474.6	-592.9	4,513.6	3.08	2.81	-1.25	
10,621.0	89.30	3.20	6,082.1	4,505.5	-591.1	4,544.1	0.65	0.00	-0.65	
10,652.0	89.30	3.20	6,082.5	4,536.5	-589.4	4,574.6	0.00	0.00	0.00	
10,680.0	89.10	2.70	6,082.9	4,564.5	-587.9	4,602.1	1.92	-0.71	-1.79	
10,730.0	89.10	2.70	6,083.7	4,614.4	-585.6	4,651.4	0.00	0.00	0.00	
BHL 460'FNL & 660'FWL										

Checked By: _____ Approved By: _____ Date: _____