

FileName: F:\WELL REPORTS\Bonanza Creek\State Antelope #31-11HZ\Directional Plan\State Antelope #31-11HZ, Directional Plan.sr5

[illegible]

Company: BONANZA CREEK ENERGY OPERATING COMPANY, LLC
WellName: STATE ANTELOPE #31-11HZ
Location: NWNE, SEC. 11 T5N-R62W

Vertical Section calculated on an Azimuth of: 156.3044

Survey Calculation Method: Minimum Curvature

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#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
43	4300.00	0.00	156.30	4300.00	304.00	0.00	0.00	0.00	0.00	0.00	0.00	
44	4400.00	0.00	156.30	4400.00	204.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	4500.00	0.00	156.30	4500.00	104.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	4600.00	0.00	156.30	4600.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	
47	4700.00	0.00	156.30	4700.00	-96.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	4800.00	0.00	156.30	4800.00	-196.00	0.00	0.00	0.00	0.00	0.00	0.00	
49	4900.00	0.00	156.30	4900.00	-296.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	5000.00	0.00	156.30	5000.00	-396.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	5100.00	0.00	156.30	5100.00	-496.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	5200.00	0.00	156.30	5200.00	-596.00	0.00	0.00	0.00	0.00	0.00	0.00	
53	5300.00	0.00	156.30	5300.00	-696.00	0.00	0.00	0.00	0.00	0.00	0.00	
54	5400.00	0.00	156.30	5400.00	-796.00	0.00	0.00	0.00	0.00	0.00	0.00	
55	5500.00	0.00	156.30	5500.00	-896.00	0.00	0.00	0.00	0.00	0.00	0.00	
56	5600.00	0.00	156.30	5600.00	-996.00	0.00	0.00	0.00	0.00	0.00	0.00	
57	5683.54	0.00	156.30	5683.54	-1079.54	KOP, B.G. = 12°/100'		0.00	0.00	0.00	0.00	
58	5700.00	1.98	156.30	5700.00	-1096.00	-0.26	0.11	0.28	12.00	12.00	0.00	
59	5800.00	13.98	156.30	5798.85	-1194.85	-12.94	5.68	14.13	12.00	12.00	0.00	
60	5900.00	25.98	156.30	5892.66	-1288.66	-44.17	19.38	48.23	12.00	12.00	0.00	
61	6000.00	37.98	156.30	5977.33	-1373.33	-92.57	40.63	101.09	12.00	12.00	0.00	
62	6100.00	49.98	156.30	6049.17	-1445.17	-156.03	68.48	170.40	12.00	12.00	0.00	
63	6200.00	61.98	156.30	6105.02	-1501.02	-231.79	101.73	253.13	12.00	12.00	0.00	
64	6300.00	73.98	156.30	6142.45	-1538.45	-316.52	138.91	345.66	12.00	12.00	0.00	
65	6400.00	85.98	156.30	6159.83	-1555.83	-406.52	178.41	443.95	12.00	12.00	0.00	
66	6433.54	90.00	156.30	6161.00	-1557.00	-437.21	191.88	477.46	12.00	12.00	0.00	7" CSG, EOB HOLD 90°
67	6500.00	90.00	156.30	6161.00	-1557.00	-498.07	218.59	543.92	0.00	0.00	0.00	
68	6600.00	90.00	156.30	6161.00	-1557.00	-589.64	258.78	643.92	0.00	0.00	0.00	
69	6700.00	90.00	156.30	6161.00	-1557.00	-681.21	298.97	743.92	0.00	0.00	0.00	
70	6800.00	90.00	156.30	6161.00	-1557.00	-772.78	339.15	843.92	0.00	0.00	0.00	
71	6900.00	90.00	156.30	6161.00	-1557.00	-864.35	379.34	943.92	0.00	0.00	0.00	
72	7000.00	90.00	156.30	6161.00	-1557.00	-955.92	419.53	1043.92	0.00	0.00	0.00	
73	7100.00	90.00	156.30	6161.00	-1557.00	-1047.48	459.72	1143.92	0.00	0.00	0.00	
74	7200.00	90.00	156.30	6161.00	-1557.00	-1139.05	499.90	1243.92	0.00	0.00	0.00	
75	7300.00	90.00	156.30	6161.00	-1557.00	-1230.62	540.09	1343.92	0.00	0.00	0.00	
76	7400.00	90.00	156.30	6161.00	-1557.00	-1322.19	580.28	1443.92	0.00	0.00	0.00	
77	7500.00	90.00	156.30	6161.00	-1557.00	-1413.76	620.47	1543.92	0.00	0.00	0.00	
78	7600.00	90.00	156.30	6161.00	-1557.00	-1505.33	660.66	1643.92	0.00	0.00	0.00	
79	7700.00	90.00	156.30	6161.00	-1557.00	-1596.90	700.84	1743.92	0.00	0.00	0.00	
80	7800.00	90.00	156.30	6161.00	-1557.00	-1688.47	741.03	1843.92	0.00	0.00	0.00	
81	7900.00	90.00	156.30	6161.00	-1557.00	-1780.04	781.22	1943.92	0.00	0.00	0.00	
82	8000.00	90.00	156.30	6161.00	-1557.00	-1871.61	821.41	2043.92	0.00	0.00	0.00	
83	8100.00	90.00	156.30	6161.00	-1557.00	-1963.18	861.59	2143.92	0.00	0.00	0.00	
84	8200.00	90.00	156.30	6161.00	-1557.00	-2054.75	901.78	2243.92	0.00	0.00	0.00	
85	8300.00	90.00	156.30	6161.00	-1557.00	-2146.32	941.97	2343.92	0.00	0.00	0.00	

Company: BONANZA CREEK ENERGY OPERATING COMPANY, LLC
WellName: STATE ANTELOPE #31-11HZ
Location: NWNE, SEC. 11 T5N-R62W

Vertical Section calculated on an Azimuth of: 156.3044

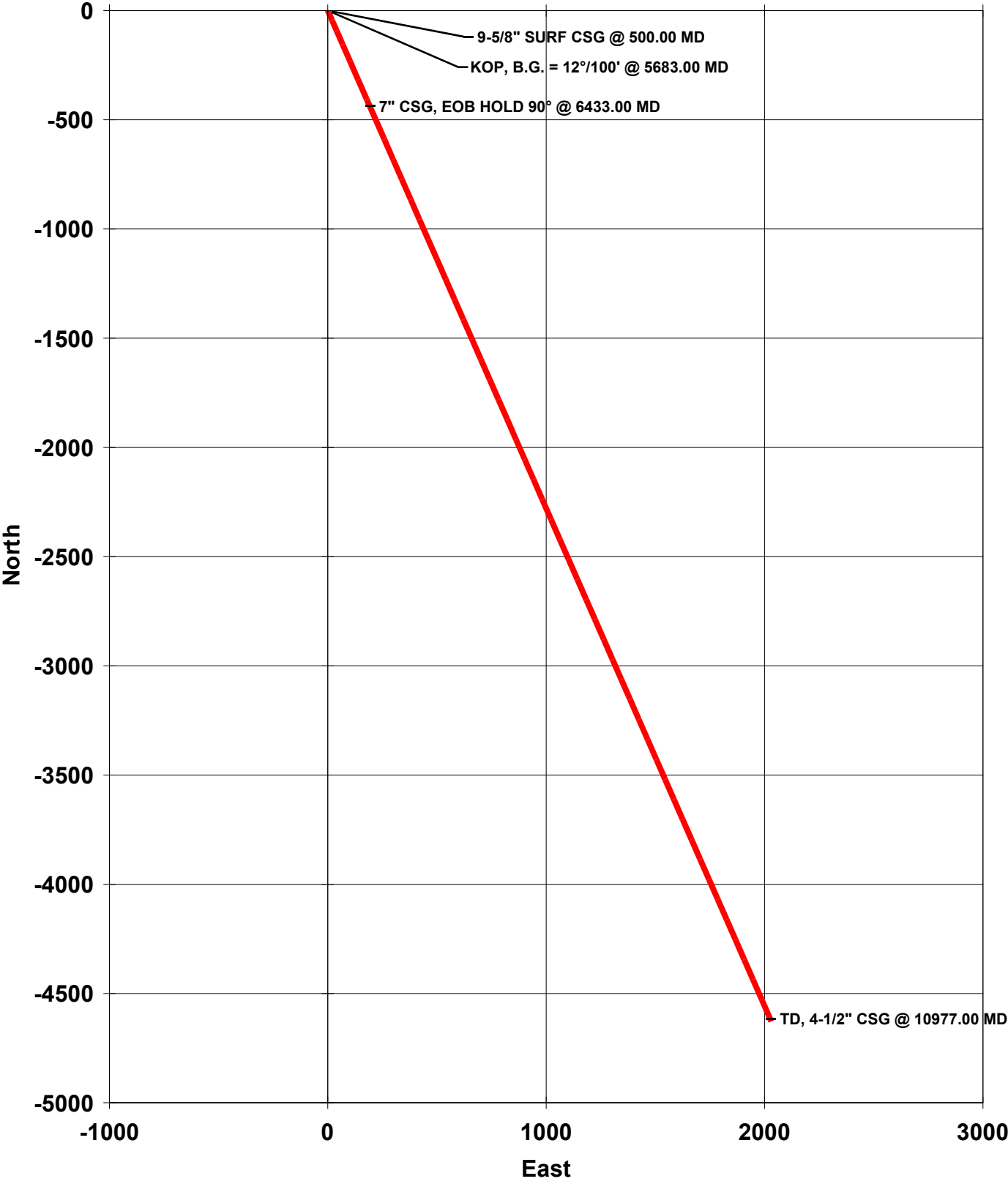
Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\Bonanza Creek\State Antelope #31-11HZ\Directional Plan\State Antelope #31-11HZ, Directional Plan.sr5

#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
86	8400.00	90.00	156.30	6161.00	-1557.00	-2237.89	982.16	2443.92	0.00	0.00	0.00	
87	8500.00	90.00	156.30	6161.00	-1557.00	-2329.46	1022.34	2543.92	0.00	0.00	0.00	
88	8600.00	90.00	156.30	6161.00	-1557.00	-2421.02	1062.53	2643.92	0.00	0.00	0.00	
89	8700.00	90.00	156.30	6161.00	-1557.00	-2512.59	1102.72	2743.92	0.00	0.00	0.00	
90	8800.00	90.00	156.30	6161.00	-1557.00	-2604.16	1142.91	2843.92	0.00	0.00	0.00	
91	8900.00	90.00	156.30	6161.00	-1557.00	-2695.73	1183.09	2943.92	0.00	0.00	0.00	
92	9000.00	90.00	156.30	6161.00	-1557.00	-2787.30	1223.28	3043.92	0.00	0.00	0.00	
93	9100.00	90.00	156.30	6161.00	-1557.00	-2878.87	1263.47	3143.92	0.00	0.00	0.00	
94	9200.00	90.00	156.30	6161.00	-1557.00	-2970.44	1303.66	3243.92	0.00	0.00	0.00	
95	9300.00	90.00	156.30	6161.00	-1557.00	-3062.01	1343.85	3343.92	0.00	0.00	0.00	
96	9400.00	90.00	156.30	6161.00	-1557.00	-3153.58	1384.03	3443.92	0.00	0.00	0.00	
97	9500.00	90.00	156.30	6161.00	-1557.00	-3245.15	1424.22	3543.92	0.00	0.00	0.00	
98	9600.00	90.00	156.30	6161.00	-1557.00	-3336.72	1464.41	3643.92	0.00	0.00	0.00	
99	9700.00	90.00	156.30	6161.00	-1557.00	-3428.29	1504.60	3743.92	0.00	0.00	0.00	
100	9800.00	90.00	156.30	6161.00	-1557.00	-3519.86	1544.78	3843.92	0.00	0.00	0.00	
101	9900.00	90.00	156.30	6161.00	-1557.00	-3611.43	1584.97	3943.92	0.00	0.00	0.00	
102	10000.00	90.00	156.30	6161.00	-1557.00	-3703.00	1625.16	4043.92	0.00	0.00	0.00	
103	10100.00	90.00	156.30	6161.00	-1557.00	-3794.56	1665.35	4143.92	0.00	0.00	0.00	
104	10200.00	90.00	156.30	6161.00	-1557.00	-3886.13	1705.53	4243.92	0.00	0.00	0.00	
105	10300.00	90.00	156.30	6161.00	-1557.00	-3977.70	1745.72	4343.92	0.00	0.00	0.00	
106	10400.00	90.00	156.30	6161.00	-1557.00	-4069.27	1785.91	4443.92	0.00	0.00	0.00	
107	10500.00	90.00	156.30	6161.00	-1557.00	-4160.84	1826.10	4543.92	0.00	0.00	0.00	
108	10600.00	90.00	156.30	6161.00	-1557.00	-4252.41	1866.28	4643.92	0.00	0.00	0.00	
109	10700.00	90.00	156.30	6161.00	-1557.00	-4343.98	1906.47	4743.92	0.00	0.00	0.00	
110	10800.00	90.00	156.30	6161.00	-1557.00	-4435.55	1946.66	4843.92	0.00	0.00	0.00	
111	10900.00	90.00	156.30	6161.00	-1557.00	-4527.12	1986.85	4943.92	0.00	0.00	0.00	
112	10997.00	90.00	156.30	6161.00	-1557.00	-4615.94	2025.83	5040.92	0.00	0.00	0.00	

Closure is 5040.9229 meters on an Azimuth of 156.3044

Plan View
STATE ANTELOPE #31-11HZ



Section View
STATE ANTELOPE #31-11HZ

