

BONANZA CREEK ENERGY INC.

WELD COUNTY, COLORADO (NAD 83)

SE SW SEC. 20 T5N R62W 6th P.M.

ANTELOPE O34-K31-20HNC

JOB #2009-319

22 July, 2014

Survey: FINAL SURVEYS





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SE SW SEC. 20 T5N R62W 6th P.M.
Well: ANTELOPE O34-K31-20HNC
Wellbore: JOB #2009-319
Design: FINAL SURVEYS

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation
475.0	475.0	0.00	0.00	0.0	0.0	0.0	0.0	SURFACE CASING
5854.7	6002.4	3.70	350.48	-315.5	1118.9	-18.6	1183.5	KOP
6440.0	6945.0	90.04	358.10	289.8	1133.4	570.2	1791.1	ICP
6439.9	11047.0	90.20	359.50	4390.4	1158.4	4540.7	5892.5	LAST SURVEY - MAY 4, 2014
6439.8	11092.0	90.20	359.50	4435.4	1158.0	4584.1	5937.5	EXTRAPOLATION TO TD

PROPOSED LOCAL COORDINATES:

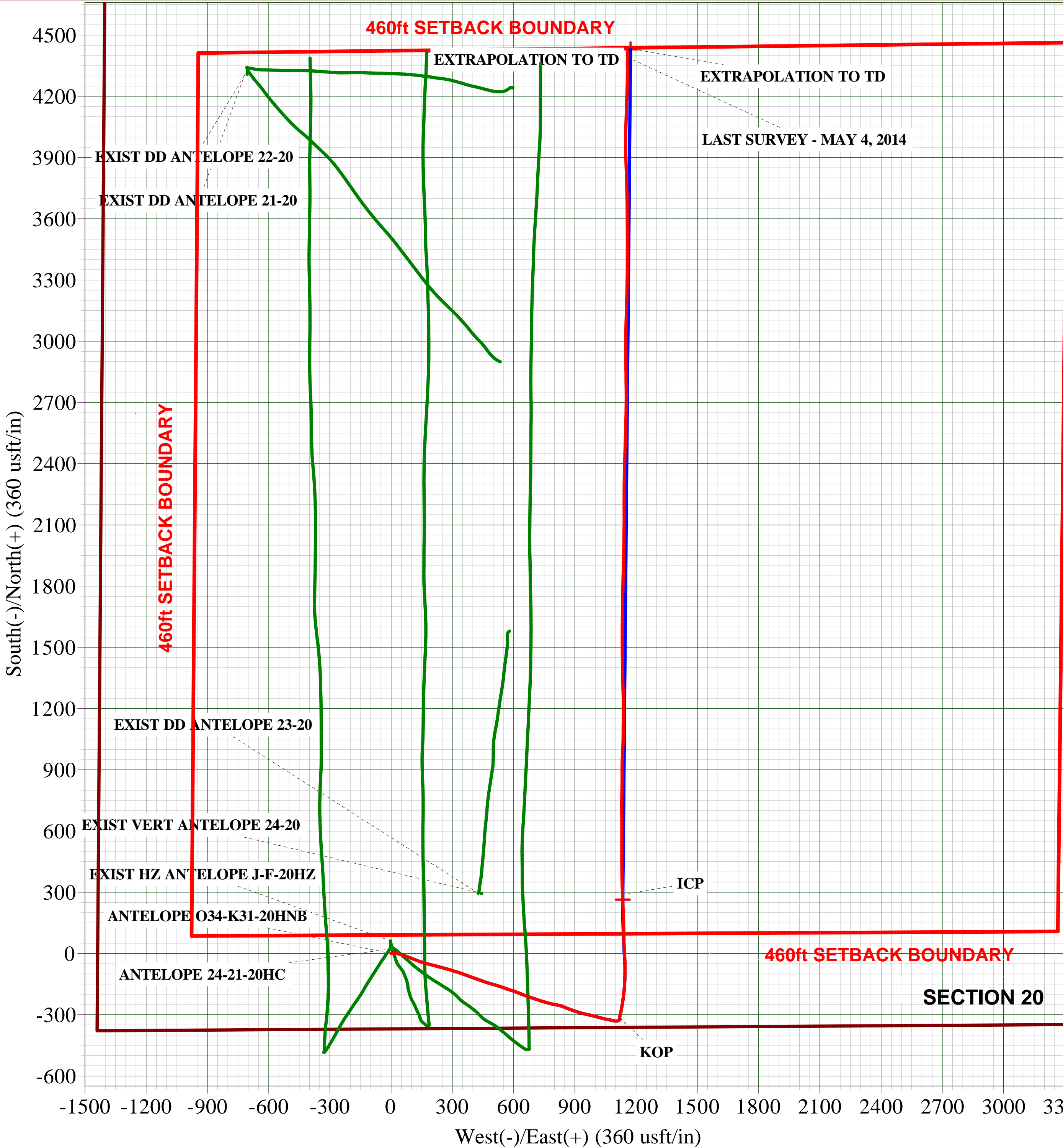
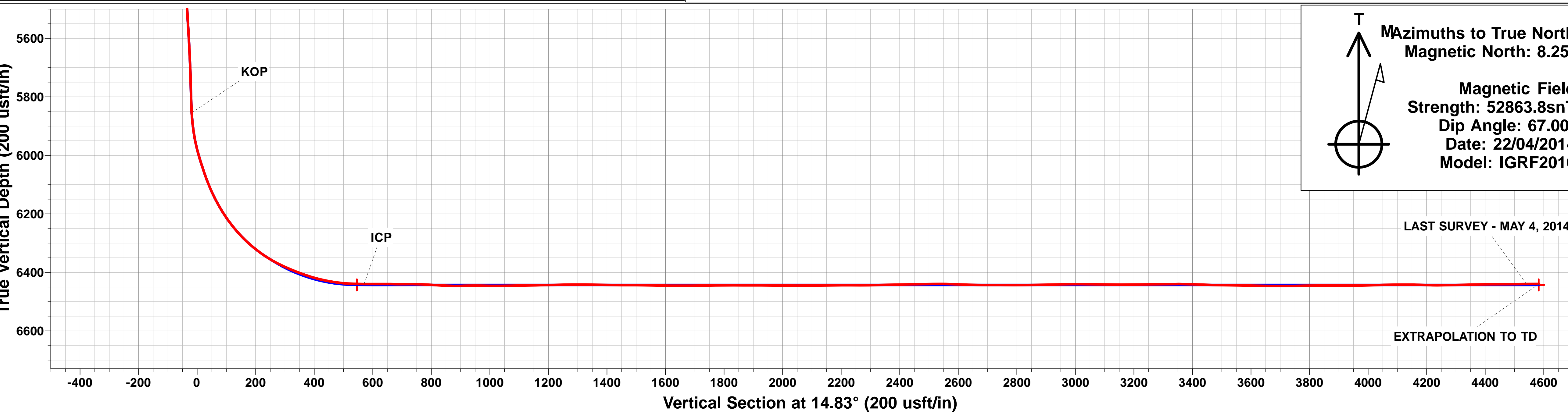
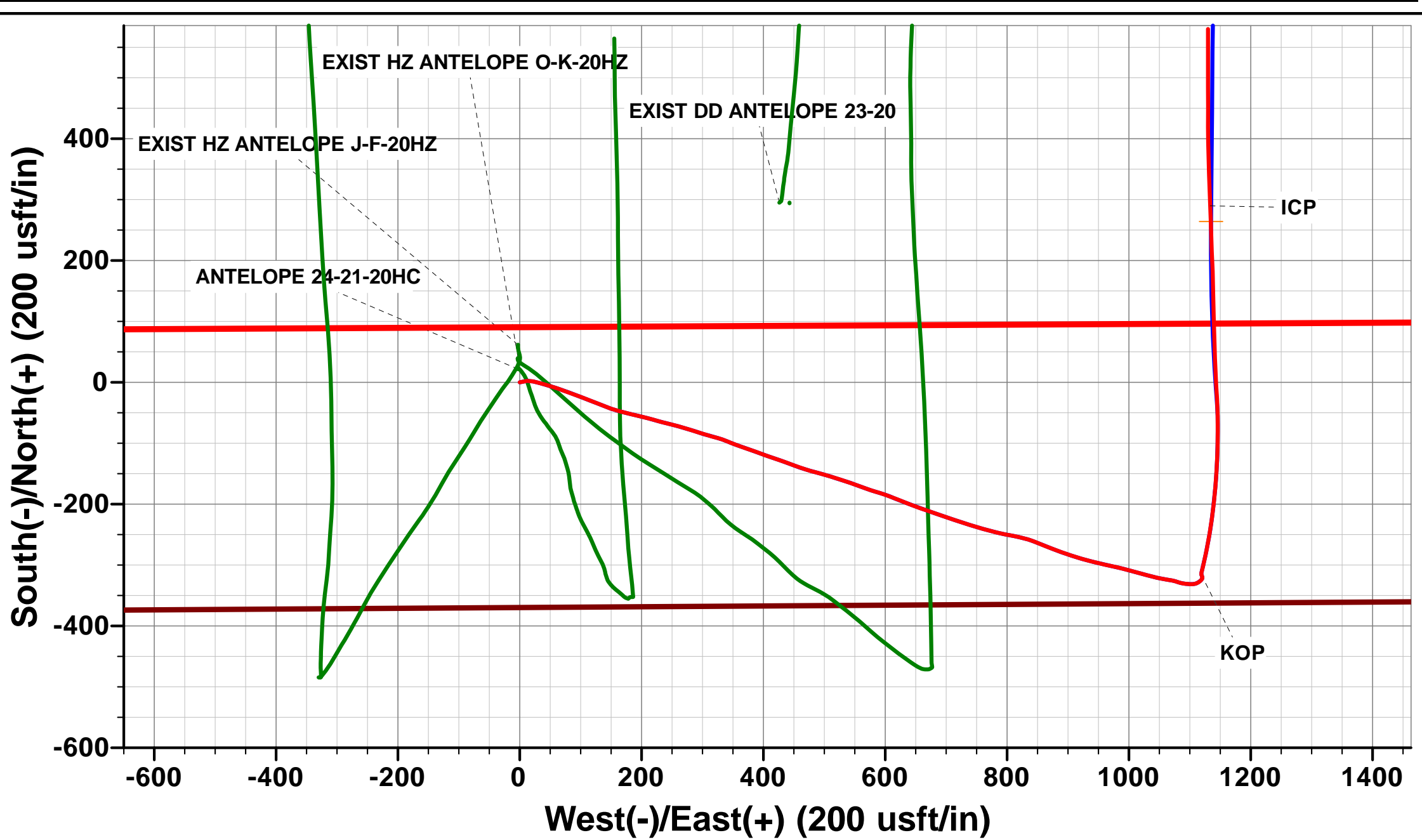
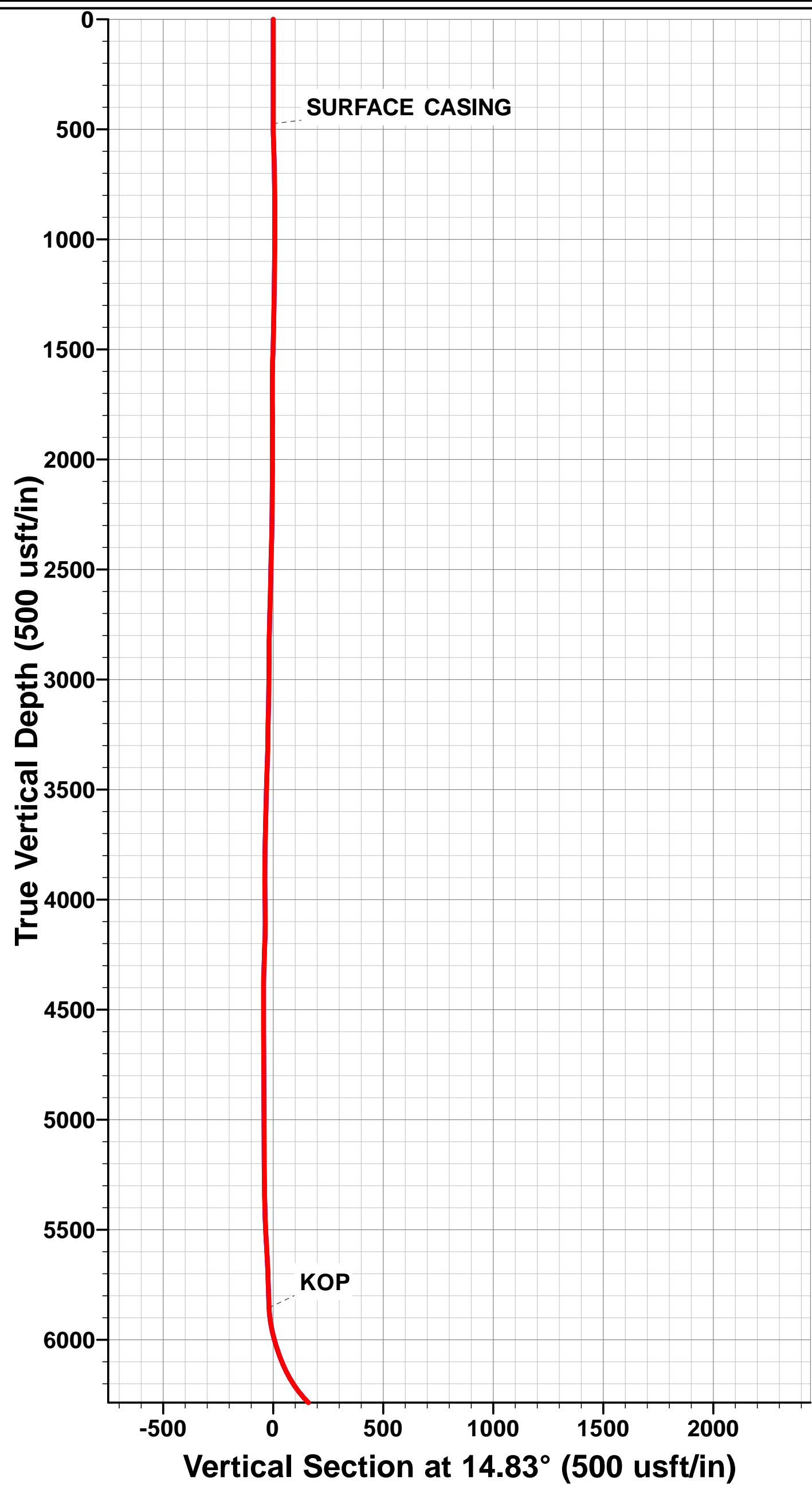
SHL: 370ft FSL & 1438ft FWL Sec 20

7" ICP *NEW*: ft 627.4ft FSL & 2570.9ft FWL Sec 20

BHL: 470ft FSL & 2580ft FWL Sec 20

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
7" ICP *NEW* - ANTELOPE O34-K31-20HNC (P2)	6443.0	264.0	1134.8	40.379585	-104.347467	Point
BHL - ANTELOPE O34-K31-20HNC (P2)	6443.0	4430.1	1172.7	40.391020	-104.347330	Point



Survey Report



Company:	BONANZA CREEK ENERGY INC.	Local Co-ordinate Reference:	Well ANTELOPE O34-K31-20HNC
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		SE SW SEC. 20 T5N R62W 6th P.M.				
Site Position:		Northing:	1,382,952.91 usft	Latitude:	40.378920	
From:	Lat/Long	Easting:	3,319,945.73 usft	Longitude:	-104.351550	
Position Uncertainty:		0.0 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.74 °

Well	ANTELOPE O34-K31-20HNC					
Well Position	+N-S	0.0 usft	Northing:	1,382,931.06 usft	Latitude:	40.378860
	+E-W	0.0 usft	Easting:	3,319,948.80 usft	Longitude:	-104.351540
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,665.0 usft

Wellbore	JOB #2009-319				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	22/04/2014	8.25	67.00	52,864

Design	FINAL SURVEYS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	14.83	

Survey Program	Date	22/07/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
475.0	11,092.0	FINAL SURVEYS (JOB #2009-319)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	4,682.0	0.0	0.0	0.0	0.00	0.00	0.00
SURFACE CASING										
475.0	0.00	0.00	475.0	4,207.0	0.0	0.0	0.0	0.00	0.00	0.00
559.8	4.80	75.50	559.7	4,122.3	0.9	3.4	1.7	5.66	5.66	0.00
656.3	5.60	83.00	655.9	4,026.1	2.5	12.0	5.5	1.09	0.83	7.77
752.5	6.20	105.80	751.5	3,930.5	1.6	21.7	7.1	2.50	0.62	23.73
845.4	5.90	104.00	843.9	3,838.1	-0.9	31.1	7.1	0.38	-0.32	-1.94
907.5	6.00	105.80	905.7	3,776.3	-2.5	37.4	7.1	0.34	0.16	2.90
969.3	6.10	104.10	967.1	3,714.9	-4.2	43.7	7.1	0.33	0.16	-2.75
1,030.9	6.40	106.10	1,028.4	3,653.6	-6.0	50.1	7.1	0.60	0.49	3.25
1,093.1	6.60	110.10	1,090.1	3,591.9	-8.2	56.8	6.6	0.80	0.32	6.44
1,155.3	7.30	107.90	1,151.9	3,530.1	-10.6	63.9	6.1	1.20	1.12	-3.54
1,217.2	8.50	109.30	1,213.2	3,468.8	-13.3	72.0	5.5	1.96	1.94	2.26

Survey Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,278.6	9.60	110.60	1,273.9	3,408.1	-16.6	81.1	4.7	1.82	1.79	2.12
1,340.4	10.70	111.70	1,334.7	3,347.3	-20.6	91.2	3.5	1.81	1.78	1.78
1,402.2	11.60	111.20	1,395.3	3,286.7	-24.9	102.3	2.1	1.46	1.46	-0.81
1,463.3	12.90	110.60	1,455.0	3,227.0	-29.6	114.5	0.7	2.14	2.13	-0.98
1,525.7	14.30	111.20	1,515.6	3,166.4	-34.8	128.1	-0.8	2.26	2.25	0.96
1,587.0	14.70	111.00	1,575.0	3,107.0	-40.3	142.5	-2.5	0.66	0.65	-0.33
1,648.6	15.60	106.80	1,634.5	3,047.5	-45.5	157.7	-3.6	2.30	1.46	-6.82
1,709.5	15.00	104.70	1,693.2	2,988.8	-49.9	173.2	-3.9	1.34	-0.99	-3.45
1,770.9	14.80	102.10	1,752.5	2,929.5	-53.5	188.5	-3.5	1.14	-0.33	-4.24
1,832.4	15.30	103.80	1,812.0	2,870.0	-57.1	204.1	-3.0	1.08	0.81	2.76
1,893.8	15.60	106.90	1,871.1	2,810.9	-61.5	219.8	-3.1	1.43	0.49	5.05
1,955.1	14.70	103.60	1,930.3	2,751.7	-65.7	235.3	-3.3	2.03	-1.47	-5.38
2,017.3	14.60	105.10	1,990.5	2,691.5	-69.6	250.5	-3.1	0.63	-0.16	2.41
2,079.2	14.30	104.60	2,050.4	2,631.6	-73.5	265.5	-3.2	0.53	-0.48	-0.81
2,141.1	14.30	108.20	2,110.4	2,571.6	-77.8	280.1	-3.6	1.44	0.00	5.82
2,202.2	15.40	108.00	2,169.4	2,512.6	-82.7	295.0	-4.5	1.80	1.80	-0.33
2,264.0	14.70	104.20	2,229.1	2,452.9	-87.2	310.4	-4.8	1.96	-1.13	-6.15
2,324.8	14.30	107.20	2,288.0	2,394.0	-91.3	325.1	-5.1	1.40	-0.66	4.93
2,387.3	14.80	112.00	2,348.5	2,333.5	-96.6	339.8	-6.4	2.09	0.80	7.68
2,449.5	15.90	110.90	2,408.5	2,273.5	-102.6	355.2	-8.3	1.83	1.77	-1.77
2,510.9	15.60	107.40	2,467.6	2,214.4	-108.0	370.9	-9.5	1.62	-0.49	-5.70
2,572.0	15.90	110.90	2,526.4	2,155.6	-113.5	386.6	-10.8	1.63	0.49	5.73
2,636.4	15.60	109.80	2,588.3	2,093.7	-119.6	402.9	-12.5	0.66	-0.47	-1.71
2,700.3	15.00	108.30	2,650.0	2,032.0	-125.1	418.9	-13.7	1.12	-0.94	-2.34
2,763.5	16.20	110.20	2,710.8	1,971.2	-130.7	434.9	-15.0	2.07	1.90	3.01
2,826.0	16.90	110.30	2,770.8	1,911.2	-136.8	451.6	-16.7	1.12	1.12	0.16
2,889.1	16.50	107.70	2,831.2	1,850.8	-142.8	468.8	-18.0	1.34	-0.63	-4.12
2,952.1	16.00	104.10	2,891.7	1,790.3	-147.6	485.7	-18.4	1.78	-0.79	-5.71
3,015.7	15.60	106.50	2,952.9	1,729.1	-152.2	502.4	-18.5	1.21	-0.63	3.78
3,079.6	16.00	108.30	3,014.3	1,667.7	-157.4	519.0	-19.3	0.99	0.63	2.82
3,142.5	15.60	107.00	3,074.9	1,607.1	-162.6	535.3	-20.1	0.85	-0.64	-2.06
3,207.1	14.90	110.60	3,137.2	1,544.8	-168.0	551.4	-21.3	1.82	-1.08	5.57
3,271.1	15.70	110.10	3,199.0	1,483.0	-173.9	567.3	-22.9	1.27	1.25	-0.78
3,334.3	15.00	105.70	3,259.9	1,422.1	-179.0	583.2	-23.8	2.15	-1.11	-6.96
3,397.9	15.40	109.20	3,321.3	1,360.7	-184.0	599.0	-24.6	1.57	0.63	5.51
3,460.5	16.50	112.90	3,381.5	1,300.5	-190.2	615.1	-26.5	2.39	1.76	5.90
3,523.9	16.50	111.20	3,442.3	1,239.7	-197.0	631.8	-28.8	0.76	0.00	-2.68
3,586.8	17.10	109.80	3,502.5	1,179.5	-203.4	648.8	-30.6	1.15	0.95	-2.23
3,650.0	17.80	109.00	3,562.8	1,119.2	-209.7	666.7	-32.1	1.17	1.11	-1.27
3,713.3	18.50	109.30	3,623.0	1,059.0	-216.1	685.3	-33.6	1.12	1.11	0.47
3,773.2	18.70	108.50	3,679.7	1,002.3	-222.3	703.4	-34.9	0.54	0.33	-1.34
3,836.8	17.90	108.50	3,740.1	941.9	-228.6	722.3	-36.2	1.26	-1.26	0.00
3,901.2	17.60	107.70	3,801.4	880.6	-234.7	741.0	-37.3	0.60	-0.47	-1.24
3,966.1	17.70	105.20	3,863.2	818.8	-240.3	759.8	-37.9	1.18	0.15	-3.85
4,029.8	16.60	104.70	3,924.2	757.8	-245.2	778.0	-37.9	1.74	-1.72	-0.78
4,093.4	15.60	101.50	3,985.2	696.8	-249.2	795.2	-37.4	2.10	-1.57	-5.03
4,156.7	15.50	100.30	4,046.3	635.7	-252.4	811.8	-36.2	0.53	-0.16	-1.89
4,220.6	16.00	105.10	4,107.7	574.3	-256.2	828.7	-35.6	2.19	0.78	7.52
4,284.5	17.00	112.00	4,169.0	513.0	-262.0	845.9	-36.8	3.44	1.56	10.79
4,348.4	16.80	111.30	4,230.1	451.9	-268.9	863.2	-39.0	0.45	-0.31	-1.10
4,412.3	17.00	110.40	4,291.3	390.7	-275.5	880.5	-41.0	0.52	0.31	-1.41
4,476.0	16.40	109.40	4,352.2	329.8	-281.7	897.7	-42.6	1.04	-0.94	-1.57
4,540.4	15.30	106.90	4,414.2	267.8	-287.2	914.4	-43.6	2.01	-1.71	-3.88

Survey Report



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Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,604.9	14.60	105.30	4,476.6	205.4	-291.8	930.4	-44.0	1.26	-1.09	-2.48
4,669.0	14.30	103.60	4,538.6	143.4	-295.8	945.9	-43.9	0.81	-0.47	-2.65
4,732.1	14.10	101.90	4,599.8	82.2	-299.2	961.0	-43.3	0.73	-0.32	-2.69
4,795.2	13.90	102.60	4,661.0	21.0	-302.5	975.9	-42.6	0.42	-0.32	1.11
4,858.2	13.30	104.80	4,722.2	-40.2	-306.0	990.3	-42.3	1.26	-0.95	3.49
4,921.5	13.30	104.80	4,783.8	-101.8	-309.7	1,004.4	-42.3	0.00	0.00	0.00
4,985.1	13.30	105.30	4,845.8	-163.8	-313.5	1,018.5	-42.4	0.18	0.00	0.79
5,047.7	12.80	104.90	4,906.8	-224.8	-317.2	1,032.2	-42.5	0.81	-0.80	-0.64
5,112.0	11.70	103.00	4,969.5	-287.5	-320.5	1,045.4	-42.3	1.82	-1.71	-2.96
5,175.2	10.10	101.10	5,031.7	-349.7	-323.0	1,057.1	-41.7	2.59	-2.53	-3.00
5,239.1	8.80	97.30	5,094.6	-412.6	-324.7	1,067.4	-40.7	2.26	-2.04	-5.95
5,303.6	8.60	107.70	5,158.5	-476.5	-326.8	1,076.9	-40.3	2.45	-0.31	16.11
5,366.5	7.60	104.50	5,220.7	-538.7	-329.2	1,085.4	-40.5	1.74	-1.59	-5.09
5,429.6	6.50	96.30	5,283.3	-601.3	-330.7	1,093.0	-39.9	2.36	-1.74	-13.00
5,492.7	5.40	92.30	5,346.0	-664.0	-331.2	1,099.5	-38.8	1.86	-1.74	-6.34
5,556.5	4.60	86.70	5,409.6	-727.6	-331.1	1,105.1	-37.3	1.47	-1.25	-8.78
5,620.8	4.10	71.70	5,473.7	-791.7	-330.3	1,109.8	-35.3	1.93	-0.78	-23.33
5,684.3	4.70	56.80	5,537.0	-855.0	-328.1	1,114.2	-32.1	2.02	0.94	-23.46
5,747.7	4.20	47.50	5,600.3	-918.3	-325.2	1,118.1	-28.2	1.38	-0.79	-14.67
5,811.4	2.20	21.50	5,663.9	-981.9	-322.4	1,120.2	-25.0	3.80	-3.14	-40.79
5,875.5	1.90	357.30	5,728.0	-1,046.0	-320.2	1,120.6	-22.8	1.42	-0.47	-37.74
5,939.2	2.20	335.40	5,791.6	-1,109.6	-318.1	1,120.1	-20.8	1.31	0.47	-34.42
5,971.0	2.30	326.10	5,823.4	-1,141.4	-317.0	1,119.5	-19.9	1.19	0.31	-29.23
KOP										
6,002.4	3.70	350.48	5,854.7	-1,172.7	-315.5	1,118.9	-18.6	5.93	4.45	77.61
6,002.4	3.70	350.50	5,854.8	-1,172.8	-315.5	1,118.9	-18.6	5.93	5.10	46.83
6,034.0	5.50	10.40	5,886.3	-1,204.3	-313.0	1,119.0	-16.2	7.53	5.70	62.99
6,065.8	8.20	13.30	5,917.8	-1,235.8	-309.3	1,119.8	-12.4	8.57	8.50	9.13
6,097.4	11.30	13.80	5,949.0	-1,267.0	-304.1	1,121.1	-7.0	9.81	9.81	1.58
6,129.5	14.50	13.60	5,980.3	-1,298.3	-297.1	1,122.8	0.1	9.97	9.97	-0.62
6,161.7	16.60	13.00	6,011.3	-1,329.3	-288.7	1,124.8	8.8	6.54	6.52	-1.86
6,193.9	18.40	10.10	6,041.9	-1,359.9	-279.2	1,126.7	18.4	6.23	5.61	-9.03
6,226.3	19.70	10.80	6,072.5	-1,390.5	-268.8	1,128.6	29.0	4.07	4.01	2.16
6,267.6	23.00	11.00	6,111.0	-1,429.0	-254.0	1,131.5	44.0	7.99	7.98	0.48
6,299.2	26.10	9.20	6,139.8	-1,457.8	-241.1	1,133.8	57.0	10.10	9.82	-5.70
6,331.2	29.30	7.30	6,168.1	-1,486.1	-226.4	1,135.9	71.8	10.36	9.98	-5.93
6,362.8	32.60	6.50	6,195.2	-1,513.2	-210.3	1,137.8	87.9	10.54	10.46	-2.54
6,394.9	35.80	6.30	6,221.7	-1,539.7	-192.3	1,139.8	105.7	9.97	9.97	-0.62
6,427.2	39.70	5.40	6,247.3	-1,565.3	-172.7	1,141.8	125.3	12.18	12.06	-2.78
6,458.7	43.30	4.00	6,270.9	-1,588.9	-151.9	1,143.5	145.8	11.80	11.43	-4.44
6,490.5	47.20	2.40	6,293.3	-1,611.3	-129.3	1,144.8	167.9	12.78	12.27	-5.03
6,522.1	51.00	1.30	6,313.9	-1,631.9	-105.5	1,145.6	191.2	12.33	12.04	-3.49
6,553.6	54.90	0.10	6,332.9	-1,650.9	-80.3	1,145.9	215.6	12.73	12.37	-3.80
6,584.2	58.90	358.80	6,349.6	-1,667.6	-54.7	1,145.6	240.3	13.56	13.08	-4.25
6,615.8	62.80	357.50	6,365.0	-1,683.0	-27.1	1,144.7	266.7	12.85	12.33	-4.11
6,647.3	66.20	356.60	6,378.6	-1,696.6	1.3	1,143.2	293.8	11.10	10.80	-2.86
6,678.7	68.50	356.80	6,390.7	-1,708.7	30.2	1,141.6	321.3	7.35	7.32	0.64
6,710.3	69.90	358.70	6,401.9	-1,719.9	59.7	1,140.4	349.5	7.16	4.43	6.02
6,742.2	72.70	358.80	6,412.1	-1,730.1	89.9	1,139.8	378.6	8.78	8.77	0.31
6,773.8	75.70	358.80	6,420.7	-1,738.7	120.3	1,139.1	407.8	9.50	9.50	0.00
6,805.3	78.50	358.40	6,427.8	-1,745.8	151.0	1,138.4	437.3	8.96	8.87	-1.27
6,837.1	81.80	358.10	6,433.2	-1,751.2	182.3	1,137.4	467.3	10.43	10.39	-0.94
6,869.6	84.60	357.50	6,437.0	-1,755.0	214.6	1,136.2	498.2	8.80	8.61	-1.85

Survey Report



Company:	BONANZA CREEK ENERGY INC.	Local Co-ordinate Reference:	Well ANTELOPE O34-K31-20HNC
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,901.5	87.80	358.00	6,439.1	-1,757.1	246.4	1,134.9	528.6	10.15	10.03	1.57
ICP										
6,945.0	90.04	358.10	6,440.0	-1,758.0	289.8	1,133.4	570.2	5.15	5.15	0.22
6,946.2	90.10	358.10	6,440.0	-1,758.0	291.0	1,133.4	571.4	5.15	5.15	0.22
6,978.6	90.40	358.10	6,439.8	-1,757.8	323.4	1,132.3	602.4	0.93	0.93	0.00
7,010.5	89.50	358.40	6,439.9	-1,757.9	355.2	1,131.4	632.9	2.98	-2.82	0.94
7,042.3	89.00	358.10	6,440.3	-1,758.3	387.1	1,130.4	663.5	1.83	-1.57	-0.94
7,074.3	90.10	0.30	6,440.5	-1,758.5	419.0	1,129.9	694.2	7.70	3.45	6.89
7,106.7	90.60	0.20	6,440.3	-1,758.3	451.4	1,130.1	725.6	1.57	1.54	-0.31
7,138.8	88.20	359.30	6,440.7	-1,758.7	483.6	1,129.9	756.6	7.97	-7.47	-2.80
7,170.4	86.90	0.30	6,442.0	-1,760.0	515.1	1,129.8	787.1	5.19	-4.12	3.17
7,202.9	86.10	0.00	6,444.0	-1,762.0	547.6	1,129.9	818.5	2.63	-2.46	-0.92
7,235.5	87.70	359.80	6,445.8	-1,763.8	580.1	1,129.9	849.9	4.95	4.91	-0.61
7,267.7	90.40	0.20	6,446.3	-1,764.3	612.4	1,129.9	881.1	8.46	8.37	1.24
7,300.0	91.10	0.10	6,445.9	-1,763.9	644.6	1,129.9	912.3	2.19	2.17	-0.31
7,331.6	90.30	359.40	6,445.5	-1,763.5	676.2	1,129.8	942.8	3.37	-2.53	-2.22
7,362.8	89.00	0.00	6,445.7	-1,763.7	707.4	1,129.6	972.9	4.58	-4.16	1.92
7,394.5	89.40	0.30	6,446.1	-1,764.1	739.1	1,129.7	1,003.6	1.58	1.26	0.95
7,425.9	90.30	0.80	6,446.2	-1,764.2	770.5	1,130.0	1,034.0	3.28	2.86	1.59
7,457.5	90.80	1.40	6,445.9	-1,763.9	802.1	1,130.6	1,064.7	2.47	1.58	1.90
7,521.2	91.00	0.20	6,444.9	-1,762.9	865.7	1,131.5	1,126.5	1.91	0.31	-1.89
7,552.8	91.30	359.90	6,444.3	-1,762.3	897.4	1,131.5	1,157.1	1.34	0.95	-0.95
7,584.5	91.10	0.80	6,443.6	-1,761.6	929.0	1,131.7	1,187.7	2.91	-0.63	2.84
7,616.3	91.00	2.60	6,443.0	-1,761.0	960.8	1,132.7	1,218.7	5.66	-0.31	5.65
7,647.9	91.40	2.80	6,442.4	-1,760.4	992.4	1,134.2	1,249.6	1.41	1.26	0.63
7,679.6	90.20	2.50	6,441.9	-1,759.9	1,024.1	1,135.6	1,280.6	3.91	-3.79	-0.95
7,711.8	90.10	1.00	6,441.8	-1,759.8	1,056.3	1,136.6	1,312.0	4.67	-0.31	-4.66
7,743.4	88.70	359.90	6,442.2	-1,760.2	1,087.9	1,136.9	1,342.6	5.63	-4.43	-3.48
7,774.7	89.20	0.40	6,442.7	-1,760.7	1,119.2	1,137.0	1,372.9	2.26	1.60	1.60
7,806.4	89.40	0.40	6,443.1	-1,761.1	1,150.8	1,137.2	1,403.5	0.63	0.63	0.00
7,838.6	88.90	359.70	6,443.6	-1,761.6	1,183.0	1,137.2	1,434.6	2.67	-1.55	-2.17
7,870.3	89.90	359.90	6,443.9	-1,761.9	1,214.7	1,137.1	1,465.2	3.22	3.16	0.63
7,901.9	90.00	359.80	6,444.0	-1,762.0	1,246.3	1,137.0	1,495.8	0.45	0.32	-0.32
7,933.4	89.30	358.50	6,444.1	-1,762.1	1,277.8	1,136.5	1,526.1	4.69	-2.22	-4.13
7,965.1	88.80	357.50	6,444.7	-1,762.7	1,309.5	1,135.4	1,556.4	3.53	-1.58	-3.16
7,997.0	88.90	358.70	6,445.3	-1,763.3	1,341.4	1,134.4	1,587.0	3.77	0.31	3.76
8,028.7	89.90	359.10	6,445.6	-1,763.6	1,373.0	1,133.8	1,617.4	3.40	3.16	1.26
8,060.6	89.90	359.50	6,445.7	-1,763.7	1,405.0	1,133.4	1,648.2	1.25	0.00	1.25
8,092.1	90.20	359.50	6,445.7	-1,763.7	1,436.5	1,133.1	1,678.6	0.95	0.95	0.00
8,123.8	90.40	358.90	6,445.5	-1,763.5	1,468.2	1,132.7	1,709.2	2.00	0.63	-1.89
8,156.1	90.80	359.10	6,445.2	-1,763.2	1,500.4	1,132.1	1,740.2	1.39	1.24	0.62
8,187.7	90.60	0.30	6,444.8	-1,762.8	1,532.0	1,131.9	1,770.7	3.85	-0.63	3.80
8,219.8	90.70	0.10	6,444.4	-1,762.4	1,564.1	1,132.0	1,801.7	0.70	0.31	-0.62
8,251.8	89.70	0.50	6,444.3	-1,762.3	1,596.1	1,132.2	1,832.7	3.37	-3.12	1.25
8,283.2	89.80	1.10	6,444.4	-1,762.4	1,627.6	1,132.7	1,863.2	1.93	0.32	1.91
8,315.7	90.10	1.00	6,444.5	-1,762.5	1,660.1	1,133.3	1,894.8	0.97	0.92	-0.31
8,347.9	89.70	0.60	6,444.5	-1,762.5	1,692.2	1,133.7	1,926.0	1.76	-1.24	-1.24
8,379.5	89.30	0.40	6,444.8	-1,762.8	1,723.8	1,134.0	1,956.6	1.42	-1.27	-0.63
8,410.9	89.70	1.00	6,445.1	-1,763.1	1,755.3	1,134.4	1,987.1	2.29	1.27	1.91
8,442.6	89.40	1.10	6,445.3	-1,763.3	1,786.9	1,134.9	2,017.8	1.00	-0.95	0.32
8,475.1	90.20	1.20	6,445.4	-1,763.4	1,819.5	1,135.6	2,049.5	2.48	2.46	0.31
8,507.0	90.10	1.30	6,445.4	-1,763.4	1,851.4	1,136.3	2,080.5	0.44	-0.31	0.31
8,538.6	90.50	1.80	6,445.2	-1,763.2	1,882.9	1,137.1	2,111.2	2.03	1.27	1.58

Survey Report



Company:	BONANZA CREEK ENERGY INC.	Local Co-ordinate Reference:	Well ANTELOPE O34-K31-20HNC
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,570.1	90.50	1.60	6,444.9	-1,762.9	1,914.4	1,138.1	2,141.9	0.64	0.00	-0.64
8,601.3	90.90	1.30	6,444.5	-1,762.5	1,945.6	1,138.9	2,172.2	1.60	1.28	-0.96
8,633.0	90.50	1.00	6,444.2	-1,762.2	1,977.2	1,139.5	2,203.0	1.58	-1.26	-0.95
8,664.4	89.70	1.00	6,444.1	-1,762.1	2,008.6	1,140.0	2,233.5	2.55	-2.55	0.00
8,696.9	89.70	0.90	6,444.3	-1,762.3	2,041.2	1,140.6	2,265.1	0.31	0.00	-0.31
8,728.8	91.00	0.70	6,444.1	-1,762.1	2,073.1	1,141.0	2,296.0	4.12	4.08	-0.63
8,761.0	91.50	0.70	6,443.4	-1,761.4	2,105.2	1,141.4	2,327.2	1.56	1.56	0.00
8,792.6	91.20	359.90	6,442.6	-1,760.6	2,136.8	1,141.6	2,357.8	2.70	-0.95	-2.53
8,824.9	90.80	359.40	6,442.1	-1,760.1	2,169.1	1,141.4	2,388.9	1.98	-1.24	-1.55
8,857.0	91.10	0.10	6,441.5	-1,759.5	2,201.3	1,141.3	2,420.0	2.37	0.93	2.18
8,888.6	91.50	0.20	6,440.8	-1,758.8	2,232.9	1,141.3	2,450.6	1.30	1.27	0.32
8,920.2	90.40	0.50	6,440.3	-1,758.3	2,264.4	1,141.5	2,481.1	3.62	-3.49	0.95
8,952.3	90.80	0.70	6,440.0	-1,758.0	2,296.5	1,141.9	2,512.3	1.39	1.24	0.62
8,984.1	89.90	1.00	6,439.8	-1,757.8	2,328.3	1,142.3	2,543.1	2.99	-2.83	0.94
9,016.3	88.20	1.30	6,440.3	-1,758.3	2,360.5	1,143.0	2,574.4	5.36	-5.28	0.93
9,047.9	87.70	1.50	6,441.4	-1,759.4	2,392.1	1,143.8	2,605.1	1.70	-1.58	0.63
9,110.5	89.10	1.60	6,443.2	-1,761.2	2,454.6	1,145.4	2,666.0	2.24	2.24	0.16
9,142.7	90.20	2.20	6,443.4	-1,761.4	2,486.8	1,146.5	2,697.4	3.89	3.42	1.87
9,174.4	90.20	1.80	6,443.3	-1,761.3	2,518.5	1,147.6	2,728.3	1.26	0.00	-1.26
9,206.0	89.10	1.90	6,443.4	-1,761.4	2,550.1	1,148.6	2,759.1	3.49	-3.48	0.32
9,237.5	89.80	1.40	6,443.8	-1,761.8	2,581.5	1,149.5	2,789.7	2.74	2.23	-1.59
9,269.1	90.80	1.40	6,443.6	-1,761.6	2,613.1	1,150.3	2,820.4	3.17	3.17	0.00
9,300.9	90.70	0.70	6,443.2	-1,761.2	2,644.9	1,150.9	2,851.3	2.22	-0.31	-2.20
9,332.5	90.80	0.70	6,442.8	-1,760.8	2,676.5	1,151.3	2,882.0	0.32	0.32	0.00
9,364.1	91.30	0.30	6,442.2	-1,760.2	2,708.1	1,151.6	2,912.6	2.03	1.58	-1.27
9,395.6	91.20	359.50	6,441.5	-1,759.5	2,739.6	1,151.5	2,943.0	2.56	-0.32	-2.54
9,427.8	91.60	359.50	6,440.7	-1,758.7	2,771.8	1,151.2	2,974.1	1.24	1.24	0.00
9,459.4	89.80	359.70	6,440.3	-1,758.3	2,803.4	1,151.0	3,004.6	5.73	-5.69	0.63
9,491.5	89.00	359.20	6,440.7	-1,758.7	2,835.5	1,150.7	3,035.5	2.94	-2.49	-1.56
9,523.3	89.10	358.80	6,441.2	-1,759.2	2,867.3	1,150.1	3,066.1	1.30	0.31	-1.26
9,554.8	89.40	359.80	6,441.6	-1,759.6	2,898.7	1,149.8	3,096.4	3.32	0.95	3.18
9,586.2	89.30	359.80	6,441.9	-1,759.9	2,930.2	1,149.7	3,126.8	0.32	-0.32	0.00
9,617.7	90.30	359.40	6,442.1	-1,760.1	2,961.6	1,149.4	3,157.2	3.42	3.18	-1.27
9,649.2	90.30	359.50	6,441.9	-1,759.9	2,993.2	1,149.1	3,187.6	0.32	0.00	0.32
9,681.3	90.50	1.00	6,441.7	-1,759.7	3,025.3	1,149.3	3,218.7	4.71	0.62	4.67
9,713.0	90.60	1.80	6,441.4	-1,759.4	3,056.9	1,150.0	3,249.4	2.55	0.32	2.53
9,744.6	90.80	1.60	6,441.0	-1,759.0	3,088.5	1,151.0	3,280.2	0.89	0.63	-0.63
9,776.8	90.90	1.70	6,440.5	-1,758.5	3,120.7	1,151.9	3,311.5	0.44	0.31	0.31
9,808.9	90.70	1.30	6,440.1	-1,758.1	3,152.8	1,152.7	3,342.8	1.39	-0.62	-1.24
9,841.1	88.70	1.60	6,440.2	-1,758.2	3,185.0	1,153.6	3,374.2	6.27	-6.21	0.93
9,872.8	88.30	1.40	6,441.1	-1,759.1	3,216.7	1,154.4	3,405.0	1.41	-1.26	-0.63
9,904.6	87.60	1.30	6,442.2	-1,760.2	3,248.4	1,155.1	3,435.9	2.22	-2.20	-0.31
9,936.8	88.60	1.30	6,443.3	-1,761.3	3,280.6	1,155.9	3,467.1	3.11	3.11	0.00
9,968.9	89.30	0.90	6,443.8	-1,761.8	3,312.7	1,156.5	3,498.4	2.51	2.18	-1.24
10,000.1	89.40	0.70	6,444.2	-1,762.2	3,343.9	1,156.9	3,528.6	0.72	0.32	-0.64
10,032.1	88.90	0.00	6,444.7	-1,762.7	3,375.9	1,157.1	3,559.6	2.69	-1.56	-2.19
10,063.9	88.80	0.00	6,445.3	-1,763.3	3,407.7	1,157.1	3,590.4	0.31	-0.31	0.00
10,095.9	89.30	0.00	6,445.8	-1,763.8	3,439.7	1,157.1	3,621.3	1.56	1.56	0.00
10,127.6	89.30	359.40	6,446.2	-1,764.2	3,471.3	1,157.0	3,651.8	1.90	0.00	-1.90
10,159.4	89.80	0.50	6,446.5	-1,764.5	3,503.2	1,156.9	3,682.6	3.80	1.57	3.46
10,191.2	89.60	0.20	6,446.6	-1,764.6	3,535.0	1,157.1	3,713.4	1.13	-0.63	-0.94
10,225.9	90.90	0.00	6,446.5	-1,764.5	3,569.7	1,157.2	3,746.9	3.80	3.75	-0.58
10,258.3	91.00	359.50	6,446.0	-1,764.0	3,602.1	1,157.0	3,778.2	1.57	0.31	-1.54

Survey Report



Company:	BONANZA CREEK ENERGY INC.	Local Co-ordinate Reference:	Well ANTELOPE O34-K31-20HNC
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,290.3	90.40	358.90	6,445.6	-1,763.6	3,634.1	1,156.6	3,809.1	2.65	-1.87	-1.87
10,322.0	90.50	358.70	6,445.3	-1,763.3	3,665.7	1,155.9	3,839.5	0.71	0.32	-0.63
10,354.2	90.10	0.00	6,445.1	-1,763.1	3,697.9	1,155.6	3,870.5	4.23	-1.24	4.04
10,385.9	89.50	359.00	6,445.3	-1,763.3	3,729.6	1,155.3	3,901.1	3.68	-1.89	-3.16
10,417.7	90.00	357.80	6,445.4	-1,763.4	3,761.5	1,154.4	3,931.6	4.08	1.57	-3.76
10,449.3	90.60	357.80	6,445.2	-1,763.2	3,793.0	1,153.2	3,961.9	1.90	1.90	0.00
10,480.9	91.30	358.40	6,444.7	-1,762.7	3,824.6	1,152.1	3,992.1	2.92	2.22	1.90
10,513.3	91.70	358.40	6,443.9	-1,761.9	3,857.0	1,151.2	4,023.1	1.23	1.23	0.00
10,545.0	91.60	358.20	6,442.9	-1,760.9	3,888.6	1,150.3	4,053.5	0.71	-0.32	-0.63
10,576.2	90.60	359.20	6,442.4	-1,760.4	3,919.8	1,149.6	4,083.5	4.53	-3.20	3.20
10,607.7	90.60	359.40	6,442.0	-1,760.0	3,951.3	1,149.2	4,113.9	0.63	0.00	0.63
10,639.7	89.40	359.40	6,442.0	-1,760.0	3,983.3	1,148.9	4,144.6	3.76	-3.76	0.00
10,671.0	88.00	1.10	6,442.7	-1,760.7	4,014.6	1,149.0	4,175.0	7.02	-4.46	5.42
10,702.5	88.40	1.20	6,443.7	-1,761.7	4,046.1	1,149.6	4,205.6	1.31	1.27	0.32
10,733.8	89.80	1.70	6,444.2	-1,762.2	4,077.3	1,150.4	4,236.0	4.76	4.48	1.60
10,766.0	91.00	2.50	6,444.0	-1,762.0	4,109.6	1,151.6	4,267.4	4.47	3.72	2.48
10,797.4	91.20	2.20	6,443.4	-1,761.4	4,140.9	1,152.9	4,298.0	1.15	0.64	-0.96
10,829.7	91.30	1.90	6,442.7	-1,760.7	4,173.2	1,154.0	4,329.6	0.98	0.31	-0.93
10,861.4	91.30	1.40	6,442.0	-1,760.0	4,204.8	1,155.0	4,360.4	1.58	0.00	-1.58
10,893.7	90.90	2.10	6,441.3	-1,759.3	4,237.1	1,155.9	4,391.8	2.50	-1.24	2.17
10,925.2	90.40	1.20	6,441.0	-1,759.0	4,268.6	1,156.9	4,422.5	3.27	-1.59	-2.85
10,957.0	90.40	1.10	6,440.8	-1,758.8	4,300.4	1,157.5	4,453.4	0.31	0.00	-0.31
10,989.4	90.70	0.70	6,440.5	-1,758.5	4,332.8	1,158.0	4,484.9	1.54	0.92	-1.23
11,021.5	90.60	0.70	6,440.1	-1,758.1	4,364.9	1,158.4	4,516.0	0.31	-0.31	0.00
LAST SURVEY - MAY 4, 2014										
11,047.0	90.20	359.50	6,439.9	-1,757.9	4,390.4	1,158.4	4,540.7	4.96	-1.57	-4.71
EXTRAPOLATION TO TD										
11,092.0	90.20	359.50	6,439.8	-1,757.8	4,435.4	1,158.0	4,584.1	0.00	0.00	0.00

Survey Report



Company:	BONANZA CREEK ENERGY INC.	Local Co-ordinate Reference:	Well ANTELOPE O34-K31-20HNC
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 4682.0usft (CADE 21)
Site:	SE SW SEC. 20 T5N R62W 6th P.M.	MD Reference:	KB @ 4682.0usft (CADE 21)
Well:	ANTELOPE O34-K31-20HNC	North Reference:	True
Wellbore:	JOB #2009-319	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Targets									
Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
BHL - ANTELOPE O3		0.00	0.00	6,443.0	4,430.1	1,172.7	1,387,375.77	3,321,064.01	
- survey misses target center by 15.0usft at 11086.5usft MD (6439.8 TVD, 4429.9 N, 1158.1 E)									
- Point									
7" ICP *NEW* - ANTE		0.00	0.00	6,443.0	264.0	1,134.8	1,383,209.74	3,321,080.05	
- survey misses target center by 3.3usft at 6919.2usft MD (6439.7 TVD, 264.1 N, 1134.3 E)									
- Point									
BHL - ANTELOPE O3		0.00	0.00	6,390.0	4,430.1	1,172.7	1,387,375.77	3,321,064.01	
- survey misses target center by 51.9usft at 11086.7usft MD (6439.8 TVD, 4430.1 N, 1158.1 E)									
- Point									
7" ICP *NEW* - ANTE		0.00	0.00	6,390.0	264.0	1,134.8	1,383,209.74	3,321,080.05	
- survey misses target center by 49.7usft at 6918.2usft MD (6439.7 TVD, 263.1 N, 1134.3 E)									
- Point									
KOP - ANTELOPE O3		0.00	0.00	5,843.2	-353.4	1,129.2	1,382,592.35	3,321,082.45	
- survey misses target center by 38.6usft at 5988.9usft MD (5841.2 TVD, -316.2 N, 1119.1 E)									
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
475.0	475.0	0.0	0.0	SURFACE CASING
6,002.4	5,854.7	-315.5	1,118.9	KOP
6,945.0	6,440.0	289.8	1,133.4	ICP
11,047.0	6,439.9	4,390.4	1,158.4	LAST SURVEY - MAY 4, 2014
11,092.0	6,439.8	4,435.4	1,158.0	EXTRAPOLATION TO TD

Checked By: _____	Approved By: _____	Date: _____
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