

BONANZA CREEK ENERGY OPERATING

Well Name: **Pronghorn T-P-3HNB**

Surface Location: Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

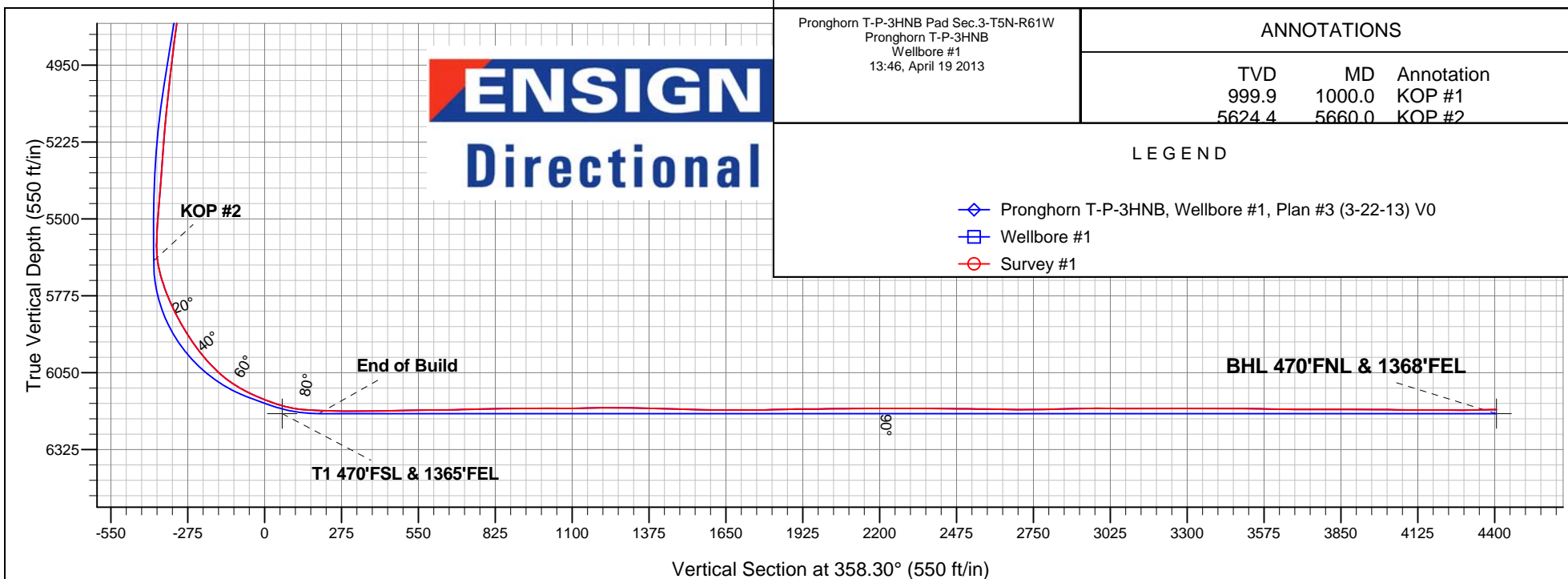
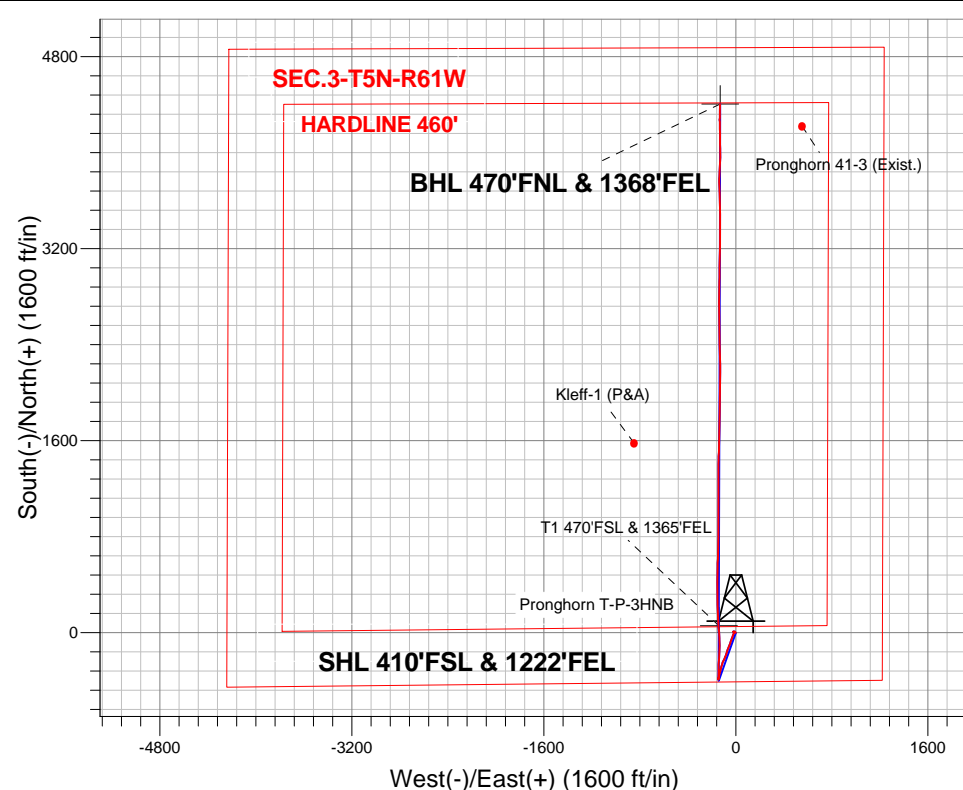
Ground Elevation: 4753.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1400087.26	3364863.52	40.424240	-104.189430	

Ensign 128 RKB - 15' WELL @ 4768.0ft (Ensign 128 RKB - 15')

FINAL SURVEY

Projected Bottom Hole Location
10756' MD 6182' TVD 4404' N & 134' W of SHL
90.7 degree Incl @ 0.6 degree AZM





BONANZA CREEK ENERGY OPERATING

SEC.3-T5N-R61W

Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W

Pronghorn T-P-3HNB

Wellbore #1

Survey: Survey #1

Standard Survey Report

19 April, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Pronghorn T-P-3HNB
Project:	SEC.3-T5N-R61W	TVD Reference:	WELL @ 4768.0ft (Ensign 128 RKB - 15')
Site:	Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W	MD Reference:	WELL @ 4768.0ft (Ensign 128 RKB - 15')
Well:	Pronghorn T-P-3HNB	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.3-T5N-R61W, 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	Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W				
Site Position:		Northing:	1,400,087.27 ft	Latitude:	40.424240
From:	Lat/Long	Easting:	3,364,863.52 ft	Longitude:	-104.189430
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.85 °

Well	Pronghorn T-P-3HNB					
Well Position	+N/-S	0.0 ft	Northing:	1,400,087.26 ft	Latitude:	40.424240
	+E/-W	0.0 ft	Easting:	3,364,863.52 ft	Longitude:	-104.189430
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,753.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/22/2013	8.32	67.10	53,018

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	358.30	

Survey Program	Date	4/10/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
475.0	10,756.0	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	
456.9	0.48	256.00	456.9	-0.5	-1.9	-0.4	0.11	0.11	0.00	
9 5/8"										
475.0	0.50	256.00	475.0	-0.5	-2.0	-0.4	0.11	0.11	0.00	
599.0	0.80	261.30	599.0	-0.8	-3.4	-0.7	0.25	0.24	4.27	
722.0	0.80	285.70	722.0	-0.7	-5.1	-0.5	0.27	0.00	19.84	
847.0	1.00	292.90	847.0	0.0	-6.9	0.2	0.18	0.16	5.76	
971.0	1.00	294.50	970.9	0.9	-8.9	1.1	0.02	0.00	1.29	
1,000.0	1.02	294.54	999.9	1.1	-9.4	1.4	0.06	0.06	0.13	
KOP #1										
1,135.0	1.10	294.70	1,134.9	2.1	-11.6	2.5	0.06	0.06	0.12	
1,260.0	1.20	306.60	1,259.9	3.4	-13.8	3.8	0.21	0.08	9.52	
1,382.0	1.80	299.90	1,381.8	5.1	-16.5	5.6	0.51	0.49	-5.49	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Pronghorn T-P-3HNB
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Site:	Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W	MD Reference:	WELL @ 4768.0ft (Ensign 128 RKB - 15')
Well:	Pronghorn T-P-3HNB	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)
1,505.0	1.80	274.50	1,504.8	6.2	-20.1	6.8	0.64	0.00	-20.65
1,628.0	1.00	258.80	1,627.7	6.2	-23.0	6.9	0.72	-0.65	-12.76
1,751.0	0.20	56.10	1,750.7	6.1	-23.9	6.8	0.97	-0.65	127.89
1,874.0	0.70	2.70	1,873.7	7.0	-23.7	7.7	0.49	0.41	-43.41
1,997.0	1.30	68.40	1,996.7	8.2	-22.4	8.9	0.97	0.49	53.41
2,121.0	1.20	81.30	2,120.7	8.9	-19.8	9.5	0.24	-0.08	10.40
2,244.0	1.80	78.30	2,243.7	9.5	-16.6	10.0	0.49	0.49	-2.44
2,367.0	2.10	85.00	2,366.6	10.1	-12.5	10.5	0.31	0.24	5.45
2,491.0	0.60	156.60	2,490.5	9.7	-9.9	10.0	1.61	-1.21	57.74
2,614.0	2.50	214.50	2,613.5	6.9	-11.2	7.2	1.82	1.54	47.07
2,739.0	3.90	205.20	2,738.3	0.8	-14.6	1.3	1.19	1.12	-7.44
2,866.0	6.00	203.80	2,864.8	-9.2	-19.1	-8.6	1.66	1.65	-1.10
2,993.0	6.00	196.90	2,991.1	-21.6	-23.7	-20.9	0.57	0.00	-5.43
3,119.0	6.60	201.30	3,116.4	-34.6	-28.2	-33.8	0.61	0.48	3.49
3,246.0	9.00	201.70	3,242.2	-50.7	-34.6	-49.6	1.89	1.89	0.31
3,373.0	11.90	199.60	3,367.1	-72.2	-42.6	-70.9	2.30	2.28	-1.65
3,499.0	15.00	198.50	3,489.6	-99.9	-52.2	-98.4	2.47	2.46	-0.87
3,626.0	15.50	200.80	3,612.1	-131.4	-63.4	-129.5	0.62	0.39	1.81
3,753.0	14.60	201.50	3,734.8	-162.2	-75.3	-159.8	0.72	-0.71	0.55
3,880.0	12.10	196.80	3,858.3	-189.8	-85.0	-187.2	2.14	-1.97	-3.70
4,007.0	8.80	204.80	3,983.2	-211.4	-92.9	-208.5	2.83	-2.60	6.30
4,134.0	9.70	207.70	4,108.6	-229.7	-102.0	-226.5	0.80	0.71	2.28
4,260.0	8.60	200.40	4,233.0	-247.9	-110.2	-244.5	1.27	-0.87	-5.79
4,387.0	7.90	196.40	4,358.6	-265.2	-116.0	-261.6	0.71	-0.55	-3.15
4,514.0	6.70	195.70	4,484.6	-280.7	-120.4	-277.0	0.95	-0.94	-0.55
4,641.0	7.30	194.50	4,610.7	-295.6	-124.5	-291.8	0.49	0.47	-0.94
4,767.0	7.50	194.60	4,735.6	-311.3	-128.5	-307.4	0.16	0.16	0.08
4,894.0	7.20	190.40	4,861.6	-327.2	-132.1	-323.1	0.48	-0.24	-3.31
5,021.0	6.50	193.60	4,987.7	-342.0	-135.2	-337.8	0.63	-0.55	2.52
5,147.0	6.00	195.90	5,112.9	-355.2	-138.7	-351.0	0.44	-0.40	1.83
5,274.0	4.70	197.30	5,239.4	-366.6	-142.0	-362.2	1.03	-1.02	1.10
5,400.0	4.30	188.50	5,365.0	-376.2	-144.3	-371.7	0.63	-0.32	-6.98
5,527.0	4.70	180.90	5,491.6	-386.1	-145.1	-381.6	0.56	0.31	-5.98
5,596.0	2.50	171.60	5,560.4	-390.4	-144.9	-385.9	3.29	-3.19	-13.48
5,628.0	0.20	203.30	5,592.4	-391.2	-144.8	-386.7	7.29	-7.19	99.06
5,660.0	3.90	344.10	5,624.4	-390.2	-145.1	-385.7	12.68	11.56	440.00
KOP #2									
5,691.0	8.70	354.10	5,655.2	-386.8	-145.7	-382.3	15.83	15.48	32.26
5,723.0	13.50	359.00	5,686.6	-380.7	-146.0	-376.2	15.27	15.00	15.31
5,755.0	17.10	2.30	5,717.5	-372.2	-145.9	-367.7	11.57	11.25	10.31
5,787.0	19.50	3.90	5,747.8	-362.2	-145.3	-357.7	7.66	7.50	5.00
5,818.0	22.10	2.70	5,776.8	-351.2	-144.7	-346.8	8.50	8.39	-3.87
5,850.0	24.60	0.60	5,806.2	-338.5	-144.3	-334.1	8.23	7.81	-6.56
5,882.0	27.30	359.20	5,835.0	-324.5	-144.4	-320.1	8.65	8.44	-4.38
5,914.0	29.30	359.00	5,863.1	-309.4	-144.6	-304.9	6.26	6.25	-0.63
5,946.0	30.40	0.10	5,890.9	-293.4	-144.7	-289.0	3.84	3.44	3.44
5,977.0	31.80	2.00	5,917.4	-277.4	-144.4	-273.0	5.51	4.52	6.13
6,009.0	34.60	3.40	5,944.2	-259.9	-143.6	-255.6	9.07	8.75	4.38
6,041.0	38.30	3.70	5,970.0	-241.0	-142.4	-236.6	11.58	11.56	0.94
6,073.0	40.70	3.90	5,994.6	-220.7	-141.1	-216.4	7.51	7.50	0.63
6,104.0	43.10	3.20	6,017.7	-200.0	-139.8	-195.8	7.89	7.74	-2.26
6,136.0	45.70	3.60	6,040.6	-177.6	-138.4	-173.5	8.17	8.13	1.25
6,168.0	49.90	3.00	6,062.1	-154.0	-137.1	-149.8	13.20	13.13	-1.88
6,200.0	54.50	1.60	6,081.7	-128.7	-136.1	-124.6	14.78	14.38	-4.38

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Project: SEC.3-T5N-R61W
Site: Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W
Well: Pronghorn T-P-3HNB
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pronghorn T-P-3HNB
TVD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
MD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
6,231.0	59.30	359.50	6,098.6	-102.8	-135.8	-98.7	16.49	15.48	-6.77
6,263.0	62.40	357.90	6,114.2	-74.8	-136.5	-70.8	10.63	9.69	-5.00
6,295.0	64.50	356.90	6,128.5	-46.2	-137.8	-42.1	7.13	6.56	-3.13
6,327.0	68.10	356.20	6,141.4	-17.0	-139.6	-12.8	11.43	11.25	-2.19
6,337.6	68.65	356.03	6,145.3	-7.2	-140.2	-3.0	5.38	5.16	-1.62
4 1/2"									
6,358.0	69.70	355.70	6,152.5	11.8	-141.6	16.0	5.38	5.16	-1.61
6,390.0	72.30	355.50	6,162.9	42.0	-143.9	46.3	8.15	8.13	-0.63
6,414.5	75.06	355.73	6,169.8	65.5	-145.7	69.8	11.29	11.25	0.94
T1 470'FSL & 1365'FEL									
6,422.0	75.90	355.80	6,171.7	72.7	-146.2	77.0	11.29	11.25	0.92
6,454.0	80.40	356.50	6,178.3	103.9	-148.3	108.3	14.22	14.06	2.19
6,482.0	85.10	357.60	6,181.8	131.7	-149.8	136.1	17.23	16.79	3.93
6,522.2	87.00	358.25	6,184.6	171.7	-151.2	176.2	5.00	4.73	1.62
7"									
6,556.0	88.60	358.80	6,185.9	205.5	-152.1	209.9	5.00	4.73	1.62
6,586.0	88.70	358.50	6,186.6	235.5	-152.8	239.9	1.05	0.33	-1.00
6,617.0	89.00	358.60	6,187.2	266.5	-153.6	270.9	1.02	0.97	0.32
6,648.0	89.80	359.20	6,187.5	297.5	-154.2	301.9	3.23	2.58	1.94
6,679.0	90.20	359.30	6,187.5	328.5	-154.6	332.9	1.33	1.29	0.32
6,710.0	90.30	0.40	6,187.4	359.5	-154.7	363.9	3.56	0.32	3.55
6,740.0	90.70	0.80	6,187.1	389.5	-154.4	393.9	1.89	1.33	1.33
6,772.0	91.20	0.90	6,186.6	421.4	-153.9	425.8	1.59	1.56	0.31
6,804.0	91.30	1.10	6,185.9	453.4	-153.3	457.8	0.70	0.31	0.63
6,835.0	91.20	1.30	6,185.2	484.4	-152.7	488.7	0.72	-0.32	0.65
6,867.0	91.00	0.80	6,184.6	516.4	-152.1	520.7	1.68	-0.63	-1.56
6,899.0	90.80	0.80	6,184.1	548.4	-151.6	552.7	0.63	-0.63	0.00
6,931.0	90.90	0.60	6,183.6	580.4	-151.2	584.6	0.70	0.31	-0.63
6,963.0	90.80	1.30	6,183.1	612.4	-150.7	616.6	2.21	-0.31	2.19
6,995.0	90.60	1.50	6,182.8	644.4	-149.9	648.5	0.88	-0.63	0.63
7,026.0	91.20	2.00	6,182.3	675.4	-149.0	679.5	2.52	1.94	1.61
7,058.0	91.50	1.30	6,181.5	707.3	-148.1	711.4	2.38	0.94	-2.19
7,090.0	91.60	0.80	6,180.7	739.3	-147.5	743.4	1.59	0.31	-1.56
7,121.0	91.70	0.60	6,179.8	770.3	-147.1	774.3	0.72	0.32	-0.65
7,153.0	90.40	0.20	6,179.2	802.3	-146.9	806.3	4.25	-4.06	-1.25
7,185.0	90.70	0.60	6,178.9	834.3	-146.7	838.3	1.56	0.94	1.25
7,217.0	91.30	0.80	6,178.3	866.3	-146.3	870.2	1.98	1.88	0.63
7,248.0	91.20	0.80	6,177.6	897.3	-145.8	901.2	0.32	-0.32	0.00
7,280.0	90.80	0.00	6,177.1	929.3	-145.6	933.2	2.79	-1.25	-2.50
7,312.0	89.30	359.30	6,177.0	961.3	-145.8	965.2	5.17	-4.69	-2.19
7,344.0	89.70	359.50	6,177.3	993.3	-146.1	997.2	1.40	1.25	0.63
7,375.0	89.80	0.40	6,177.5	1,024.3	-146.2	1,028.2	2.92	0.32	2.90
7,407.0	90.10	0.40	6,177.5	1,056.3	-145.9	1,060.1	0.94	0.94	0.00
7,439.0	90.40	0.00	6,177.3	1,088.3	-145.8	1,092.1	1.56	0.94	-1.25
7,471.0	90.80	0.20	6,177.0	1,120.3	-145.8	1,124.1	1.40	1.25	0.63
7,502.0	91.40	0.60	6,176.4	1,151.3	-145.6	1,155.1	2.33	1.94	1.29
7,534.0	91.20	0.60	6,175.7	1,183.2	-145.2	1,187.0	0.63	-0.63	0.00
7,566.0	90.70	0.00	6,175.2	1,215.2	-145.1	1,219.0	2.44	-1.56	-1.88
7,597.0	90.20	359.50	6,174.9	1,246.2	-145.2	1,250.0	2.28	-1.61	-1.61
7,629.0	89.30	359.90	6,175.1	1,278.2	-145.4	1,282.0	3.08	-2.81	1.25
7,661.0	88.60	0.40	6,175.6	1,310.2	-145.3	1,314.0	2.69	-2.19	1.56
7,692.0	88.60	359.90	6,176.4	1,341.2	-145.2	1,344.9	1.61	0.00	-1.61
7,724.0	88.50	0.40	6,177.2	1,373.2	-145.1	1,376.9	1.59	-0.31	1.56
7,756.0	88.60	0.20	6,178.0	1,405.2	-144.9	1,408.9	0.70	0.31	-0.63

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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)
7,788.0	88.70	0.90	6,178.8	1,437.2	-144.6	1,440.9	2.21	0.31	2.19
7,820.0	88.50	1.50	6,179.6	1,469.2	-144.0	1,472.8	1.98	-0.63	1.88
7,851.0	88.00	1.80	6,180.5	1,500.1	-143.1	1,503.7	1.88	-1.61	0.97
7,883.0	88.30	2.00	6,181.5	1,532.1	-142.0	1,535.7	1.13	0.94	0.63
7,915.0	88.50	2.20	6,182.4	1,564.1	-140.8	1,567.6	0.88	0.63	0.63
7,947.0	89.40	1.50	6,183.0	1,596.1	-139.8	1,599.5	3.56	2.81	-2.19
7,978.0	90.10	1.50	6,183.1	1,627.0	-139.0	1,630.5	2.26	2.26	0.00
8,010.0	90.20	1.10	6,183.1	1,659.0	-138.3	1,662.4	1.29	0.31	-1.25
8,042.0	89.90	0.80	6,183.0	1,691.0	-137.7	1,694.4	1.33	-0.94	-0.94
8,073.0	89.50	0.20	6,183.2	1,722.0	-137.5	1,725.4	2.33	-1.29	-1.94
8,105.0	90.20	0.40	6,183.3	1,754.0	-137.3	1,757.3	2.28	2.19	0.63
8,137.0	91.00	0.80	6,182.9	1,786.0	-137.0	1,789.3	2.80	2.50	1.25
8,169.0	91.90	0.90	6,182.1	1,818.0	-136.5	1,821.3	2.83	2.81	0.31
8,200.0	92.10	0.80	6,181.1	1,849.0	-136.0	1,852.2	0.72	0.65	-0.32
8,232.0	91.20	0.90	6,180.1	1,881.0	-135.6	1,884.2	2.83	-2.81	0.31
8,263.0	89.80	0.90	6,179.9	1,912.0	-135.1	1,915.1	4.52	-4.52	0.00
8,295.0	90.20	1.50	6,179.9	1,944.0	-134.4	1,947.1	2.25	1.25	1.88
8,327.0	90.70	2.20	6,179.6	1,975.9	-133.4	1,979.0	2.69	1.56	2.19
8,359.0	90.80	2.20	6,179.2	2,007.9	-132.1	2,011.0	0.31	0.31	0.00
8,390.0	90.80	1.60	6,178.8	2,038.9	-131.1	2,041.9	1.94	0.00	-1.94
8,422.0	90.70	0.40	6,178.3	2,070.9	-130.6	2,073.8	3.76	-0.31	-3.75
8,453.0	90.00	359.30	6,178.2	2,101.9	-130.6	2,104.8	4.21	-2.26	-3.55
8,485.0	89.60	359.20	6,178.3	2,133.9	-131.1	2,136.8	1.29	-1.25	-0.31
8,517.0	91.00	359.90	6,178.1	2,165.9	-131.3	2,168.8	4.89	4.38	2.19
8,549.0	91.50	359.90	6,177.4	2,197.9	-131.4	2,200.8	1.56	1.56	0.00
8,580.0	89.90	359.90	6,177.0	2,228.9	-131.4	2,231.8	5.16	-5.16	0.00
8,612.0	89.30	358.50	6,177.2	2,260.9	-131.9	2,263.8	4.76	-1.88	-4.38
8,644.0	89.40	358.60	6,177.6	2,292.9	-132.7	2,295.8	0.44	0.31	0.31
8,676.0	90.30	359.20	6,177.7	2,324.8	-133.3	2,327.8	3.38	2.81	1.88
8,708.0	89.70	358.80	6,177.7	2,356.8	-133.8	2,359.8	2.25	-1.88	-1.25
8,739.0	89.30	358.80	6,178.0	2,387.8	-134.5	2,390.8	1.29	-1.29	0.00
8,771.0	89.60	358.60	6,178.3	2,419.8	-135.2	2,422.8	1.13	0.94	-0.63
8,803.0	89.10	358.10	6,178.6	2,451.8	-136.1	2,454.8	2.21	-1.56	-1.56
8,834.0	89.40	357.90	6,179.0	2,482.8	-137.2	2,485.8	1.16	0.97	-0.65
8,866.0	89.70	358.50	6,179.3	2,514.8	-138.2	2,517.8	2.10	0.94	1.88
8,898.0	89.70	358.30	6,179.5	2,546.8	-139.1	2,549.8	0.62	0.00	-0.63
8,929.0	89.30	359.00	6,179.7	2,577.7	-139.9	2,580.8	2.60	-1.29	2.26
8,961.0	88.70	359.50	6,180.3	2,609.7	-140.3	2,612.8	2.44	-1.88	1.56
8,993.0	89.20	0.00	6,180.9	2,641.7	-140.4	2,644.7	2.21	1.56	1.56
9,024.0	89.30	0.60	6,181.3	2,672.7	-140.2	2,675.7	1.96	0.32	1.94
9,056.0	89.30	0.80	6,181.7	2,704.7	-139.9	2,707.7	0.62	0.00	0.63
9,087.0	90.00	0.60	6,181.9	2,735.7	-139.5	2,738.7	2.35	2.26	-0.65
9,119.0	90.80	0.80	6,181.6	2,767.7	-139.1	2,770.6	2.58	2.50	0.63
9,151.0	91.10	0.60	6,181.1	2,799.7	-138.7	2,802.6	1.13	0.94	-0.63
9,182.0	91.60	0.60	6,180.4	2,830.7	-138.4	2,833.6	1.61	1.61	0.00
9,214.0	92.30	0.40	6,179.3	2,862.7	-138.1	2,865.5	2.27	2.19	-0.63
9,246.0	91.50	0.80	6,178.2	2,894.7	-137.8	2,897.5	2.79	-2.50	1.25
9,277.0	90.70	1.10	6,177.6	2,925.6	-137.2	2,928.4	2.76	-2.58	0.97
9,309.0	90.50	0.60	6,177.3	2,957.6	-136.8	2,960.4	1.68	-0.63	-1.56
9,341.0	89.50	0.60	6,177.3	2,989.6	-136.4	2,992.4	3.13	-3.13	0.00
9,373.0	89.50	0.90	6,177.6	3,021.6	-136.0	3,024.3	0.94	0.00	0.94
9,404.0	89.30	0.60	6,177.9	3,052.6	-135.6	3,055.3	1.16	-0.65	-0.97
9,436.0	89.30	0.40	6,178.3	3,084.6	-135.3	3,087.3	0.62	0.00	-0.63
9,468.0	90.00	0.60	6,178.5	3,116.6	-135.1	3,119.3	2.28	2.19	0.63

Company: BONANZA CREEK ENERGY OPERATING
Project: SEC.3-T5N-R61W
Site: Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W
Well: Pronghorn T-P-3HNB
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pronghorn T-P-3HNB
TVD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
MD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
9,500.0	90.40	0.60	6,178.4	3,148.6	-134.7	3,151.2	1.25	1.25	0.00
9,531.0	90.80	0.90	6,178.0	3,179.6	-134.3	3,182.2	1.61	1.29	0.97
9,563.0	90.70	1.10	6,177.6	3,211.6	-133.8	3,214.2	0.70	-0.31	0.63
9,595.0	90.20	0.40	6,177.4	3,243.6	-133.3	3,246.1	2.69	-1.56	-2.19
9,627.0	89.20	0.60	6,177.5	3,275.6	-133.1	3,278.1	3.19	-3.13	0.63
9,658.0	89.30	0.60	6,178.0	3,306.6	-132.7	3,309.1	0.32	0.32	0.00
9,690.0	89.80	0.40	6,178.2	3,338.6	-132.5	3,341.1	1.68	1.56	-0.63
9,722.0	90.00	1.10	6,178.3	3,370.6	-132.0	3,373.0	2.28	0.63	2.19
9,753.0	90.20	0.80	6,178.2	3,401.6	-131.5	3,404.0	1.16	0.65	-0.97
9,785.0	90.40	0.80	6,178.0	3,433.6	-131.1	3,436.0	0.63	0.63	0.00
9,816.0	90.00	359.70	6,177.9	3,464.6	-130.9	3,466.9	3.78	-1.29	-3.55
9,848.0	89.30	358.80	6,178.1	3,496.6	-131.4	3,498.9	3.56	-2.19	-2.81
9,880.0	88.90	358.30	6,178.6	3,528.6	-132.2	3,530.9	2.00	-1.25	-1.56
9,912.0	89.30	358.10	6,179.1	3,560.6	-133.2	3,562.9	1.40	1.25	-0.63
9,943.0	88.90	357.80	6,179.6	3,591.5	-134.3	3,593.9	1.61	-1.29	-0.97
9,975.0	89.30	357.80	6,180.1	3,623.5	-135.5	3,625.9	1.25	1.25	0.00
10,007.0	89.30	358.50	6,180.5	3,655.5	-136.5	3,657.9	2.19	0.00	2.19
10,038.0	89.30	358.30	6,180.9	3,686.5	-137.4	3,688.9	0.65	0.00	-0.65
10,070.0	90.00	358.80	6,181.1	3,718.5	-138.2	3,720.9	2.69	2.19	1.56
10,102.0	90.00	359.70	6,181.1	3,750.5	-138.6	3,752.9	2.81	0.00	2.81
10,134.0	90.00	1.10	6,181.1	3,782.4	-138.4	3,784.9	4.38	0.00	4.38
10,165.0	90.00	2.20	6,181.1	3,813.4	-137.5	3,815.8	3.55	0.00	3.55
10,197.0	89.80	3.00	6,181.1	3,845.4	-136.1	3,847.7	2.58	-0.63	2.50
10,229.0	89.80	3.00	6,181.3	3,877.4	-134.4	3,879.6	0.00	0.00	0.00
10,261.0	90.20	2.90	6,181.3	3,909.3	-132.7	3,911.5	1.29	1.25	-0.31
10,292.0	89.30	0.90	6,181.4	3,940.3	-131.7	3,942.5	7.07	-2.90	-6.45
10,324.0	89.80	0.60	6,181.6	3,972.3	-131.3	3,974.4	1.82	1.56	-0.94
10,356.0	90.00	0.20	6,181.7	4,004.3	-131.1	4,006.4	1.40	0.63	-1.25
10,387.0	88.50	358.80	6,182.1	4,035.3	-131.3	4,037.4	6.62	-4.84	-4.52
10,419.0	88.50	358.50	6,182.9	4,067.3	-132.1	4,069.4	0.94	0.00	-0.94
10,451.0	89.60	359.00	6,183.5	4,099.3	-132.8	4,101.4	3.78	3.44	1.56
10,482.0	91.10	359.90	6,183.3	4,130.3	-133.1	4,132.4	5.64	4.84	2.90
10,514.0	89.70	358.50	6,183.1	4,162.2	-133.5	4,164.4	6.19	-4.38	-4.38
10,546.0	89.30	359.00	6,183.3	4,194.2	-134.2	4,196.4	2.00	-1.25	1.56
10,577.0	89.60	359.30	6,183.6	4,225.2	-134.7	4,227.4	1.37	0.97	0.97
10,609.0	89.40	359.30	6,183.9	4,257.2	-135.1	4,259.4	0.63	-0.63	0.00
10,641.0	90.90	0.40	6,183.8	4,289.2	-135.2	4,291.3	5.81	4.69	3.44
10,672.0	91.80	1.60	6,183.1	4,320.2	-134.6	4,322.3	4.84	2.90	3.87
10,701.0	90.70	0.60	6,182.5	4,349.2	-134.1	4,351.3	5.13	-3.79	-3.45
10,748.8	90.70	0.60	6,181.9	4,397.0	-133.6	4,399.0	0.00	0.00	0.00
4 1/2"									
10,756.0	90.70	0.60	6,181.8	4,404.2	-133.5	4,406.2	0.00	0.00	0.00
TD at 10756' - BHL 470'FNL & 1365'FEL									

Company: BONANZA CREEK ENERGY OPERATING
Project: SEC.3-T5N-R61W
Site: Pronghorn T-P-3HNB Pad Sec.3-T5N-R61W
Well: Pronghorn T-P-3HNB
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pronghorn T-P-3HNB
TVD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
MD Reference: WELL @ 4768.0ft (Ensign 128 RKB - 15')
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,522.2	6,184.6	7"	7	7-1/2
6,337.6	6,145.3	4 1/2"	4-1/2	6
10,748.8	6,181.9	4 1/2"	4-1/2	6
456.9	456.9	9 5/8"	9-5/8	12-1/4

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.0	999.9	1.1	-9.4	KOP #1
5,660.0	5,624.4	-390.2	-145.1	KOP #2
10,756.0	6,181.8	4,404.2	-133.5	TD at 10756'

Checked By: _____ Approved By: _____ Date: _____