BONANZA CREEK ENERGY OPERATING

Well Name: **State Antelope K-O-1HNB**

Surface Location: State Antelope K-1 Pad Sec.1-T5N-R62W

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

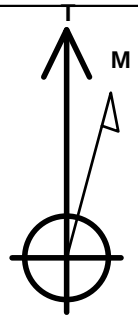
Ground Elevation: 4660.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1403962.33	3341855.47	40.435780	-104.271870	

RKB -13' WELL @ 4673.0ft (RKB -13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 470'FSL, 2621'FEL	6277.0	-4258.8	158.7	Point
T1 470'FNL, 2603'FWL	6277.0	98.4	89.1	Point



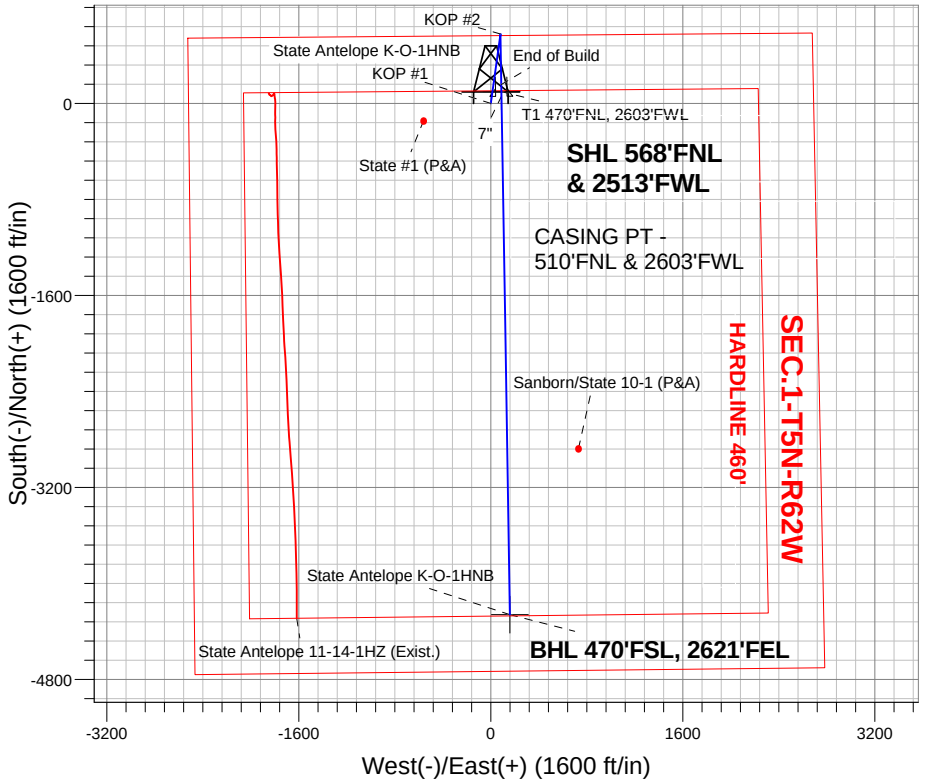
Azimuths to True North
Magnetic North: 8.41°

Magnetic Field
Strength: 53057.5snT
Dip Angle: 67.11°
Date: 11/1/2012
Model: IGRF2010

State Antelope K-1 Pad Sec.1-T5N-R62W
State Antelope K-O-1HNB
Plan #2 (11-07-12)
16:08, November 07 2012

ANNOTATIONS

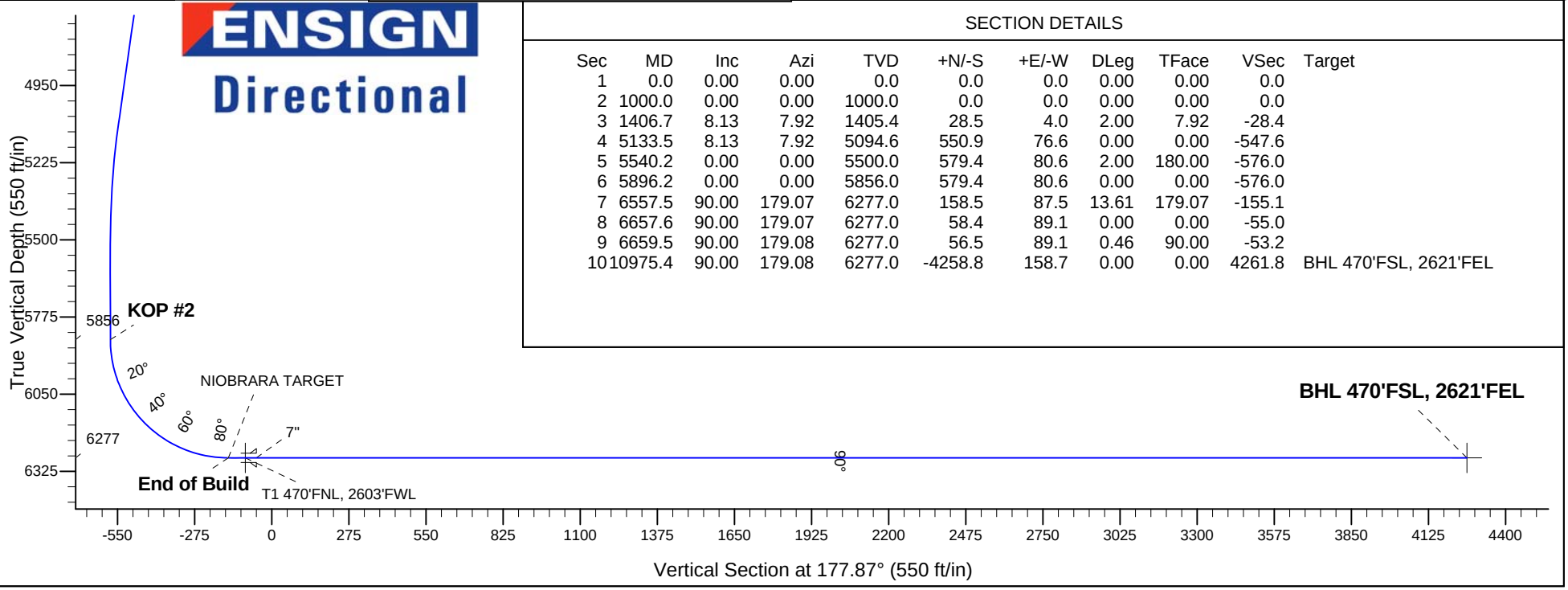
TVD	MD	Annotation
1000.0	1000.0	KOP #1
5856.0	5896.2	KOP #2
6277.0	6557.5	End of Build



ENSIGN Directional

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1406.7	8.13	7.92	1405.4	28.5	4.0	2.00	7.92	-28.4	
4	5133.5	8.13	7.92	5094.6	550.9	76.6	0.00	0.00	-547.6	
5	5540.2	0.00	0.00	5500.0	579.4	80.6	2.00	180.00	-576.0	
6	5896.2	0.00	0.00	5856.0	579.4	80.6	0.00	0.00	-576.0	
7	6557.5	90.00	179.07	6277.0	158.5	87.5	13.61	179.07	-155.1	
8	6657.6	90.00	179.07	6277.0	58.4	89.1	0.00	0.00	-55.0	
9	6659.5	90.00	179.08	6277.0	56.5	89.1	0.46	90.00	-53.2	
10	10975.4	90.00	179.08	6277.0	-4258.8	158.7	0.00	0.00	4261.8	BHL 470'FSL, 2621'FEL



BONANZA CREEK ENERGY OPERATING

SEC.1-T5N-R62W
State Antelope K-1 Pad Sec.1-T5N-R62W
State Antelope K-O-1HNB

Wellbore #1

Plan: Plan #2 (11-07-12)

Standard Planning Report

07 November, 2012

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Project:	SEC.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**North Reference:**	True
Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-07-12)		

Project SEC.1-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 K-1 Pad Sec.1-T5N-R62W

Site Position:		**Northing:**	1,403,962.34 ft	**Latitude:**	40.435780
From:	Lat/Long	**Easting:**	3,341,855.47 ft	**Longitude:**	-104.271870
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.79 °

Well State Antelope K-O-1HNB

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,403,962.33 ft	**Latitude:**	40.435780
	+E/-W	0.0 ft	**Easting:**	3,341,855.47 ft	**Longitude:**	-104.271870
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,660.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/1/2012	8.41	67.11	53,058

Design Plan #2 (11-07-12)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	177.87

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,406.7	8.13	7.92	1,405.4	28.5	4.0	2.00	2.00	0.00	7.92	
5,133.5	8.13	7.92	5,094.6	550.9	76.6	0.00	0.00	0.00	0.00	
5,540.2	0.00	0.00	5,500.0	579.4	80.6	2.00	-2.00	0.00	180.00	
5,896.2	0.00	0.00	5,856.0	579.4	80.6	0.00	0.00	0.00	0.00	
6,557.5	90.00	179.07	6,277.0	158.5	87.5	13.61	13.61	0.00	179.07	
6,657.6	90.00	179.07	6,277.0	58.4	89.1	0.00	0.00	0.00	0.00	
6,659.5	90.00	179.08	6,277.0	56.5	89.1	0.46	0.00	0.46	90.00	
10,975.4	90.00	179.08	6,277.0	-4,258.8	158.7	0.00	0.00	0.00	0.00	BHL 470'FSL, 2621

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Project:	SEC.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**North Reference:**	True
Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-07-12)		

Planned 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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
1,100.0	2.00	7.92	1,100.0	1.7	0.2	-1.7	2.00	2.00	0.00
1,200.0	4.00	7.92	1,199.8	6.9	1.0	-6.9	2.00	2.00	0.00
1,300.0	6.00	7.92	1,299.5	15.5	2.2	-15.5	2.00	2.00	0.00
1,400.0	8.00	7.92	1,398.7	27.6	3.8	-27.5	2.00	2.00	0.00
1,406.7	8.13	7.92	1,405.4	28.5	4.0	-28.4	2.00	2.00	0.00
1,500.0	8.13	7.92	1,497.7	41.6	5.8	-41.4	0.00	0.00	0.00
1,600.0	8.13	7.92	1,596.7	55.6	7.7	-55.3	0.00	0.00	0.00
1,700.0	8.13	7.92	1,695.7	69.7	9.7	-69.2	0.00	0.00	0.00
1,800.0	8.13	7.92	1,794.7	83.7	11.6	-83.2	0.00	0.00	0.00
1,900.0	8.13	7.92	1,893.7	97.7	13.6	-97.1	0.00	0.00	0.00
2,000.0	8.13	7.92	1,992.7	111.7	15.5	-111.0	0.00	0.00	0.00
2,100.0	8.13	7.92	2,091.7	125.7	17.5	-125.0	0.00	0.00	0.00
2,200.0	8.13	7.92	2,190.7	139.7	19.4	-138.9	0.00	0.00	0.00
2,300.0	8.13	7.92	2,289.6	153.7	21.4	-152.8	0.00	0.00	0.00
2,400.0	8.13	7.92	2,388.6	167.8	23.3	-166.8	0.00	0.00	0.00
2,500.0	8.13	7.92	2,487.6	181.8	25.3	-180.7	0.00	0.00	0.00
2,600.0	8.13	7.92	2,586.6	195.8	27.2	-194.6	0.00	0.00	0.00
2,700.0	8.13	7.92	2,685.6	209.8	29.2	-208.6	0.00	0.00	0.00
2,800.0	8.13	7.92	2,784.6	223.8	31.1	-222.5	0.00	0.00	0.00
2,900.0	8.13	7.92	2,883.6	237.8	33.1	-236.4	0.00	0.00	0.00
3,000.0	8.13	7.92	2,982.6	251.8	35.0	-250.4	0.00	0.00	0.00
3,100.0	8.13	7.92	3,081.6	265.9	37.0	-264.3	0.00	0.00	0.00
3,200.0	8.13	7.92	3,180.6	279.9	38.9	-278.2	0.00	0.00	0.00
3,300.0	8.13	7.92	3,279.6	293.9	40.9	-292.2	0.00	0.00	0.00
3,400.0	8.13	7.92	3,378.6	307.9	42.8	-306.1	0.00	0.00	0.00
3,500.0	8.13	7.92	3,477.6	321.9	44.8	-320.0	0.00	0.00	0.00
3,600.0	8.13	7.92	3,576.6	335.9	46.7	-334.0	0.00	0.00	0.00
3,700.0	8.13	7.92	3,675.6	349.9	48.7	-347.9	0.00	0.00	0.00
3,800.0	8.13	7.92	3,774.6	364.0	50.6	-361.8	0.00	0.00	0.00
3,900.0	8.13	7.92	3,873.5	378.0	52.6	-375.8	0.00	0.00	0.00
4,000.0	8.13	7.92	3,972.5	392.0	54.5	-389.7	0.00	0.00	0.00
4,100.0	8.13	7.92	4,071.5	406.0	56.5	-403.6	0.00	0.00	0.00
4,200.0	8.13	7.92	4,170.5	420.0	58.4	-417.6	0.00	0.00	0.00
4,300.0	8.13	7.92	4,269.5	434.0	60.4	-431.5	0.00	0.00	0.00
4,400.0	8.13	7.92	4,368.5	448.1	62.3	-445.4	0.00	0.00	0.00
4,500.0	8.13	7.92	4,467.5	462.1	64.3	-459.4	0.00	0.00	0.00
4,600.0	8.13	7.92	4,566.5	476.1	66.2	-473.3	0.00	0.00	0.00
4,700.0	8.13	7.92	4,665.5	490.1	68.2	-487.2	0.00	0.00	0.00
4,800.0	8.13	7.92	4,764.5	504.1	70.1	-501.2	0.00	0.00	0.00
4,900.0	8.13	7.92	4,863.5	518.1	72.1	-515.1	0.00	0.00	0.00
5,000.0	8.13	7.92	4,962.5	532.1	74.0	-529.0	0.00	0.00	0.00
5,100.0	8.13	7.92	5,061.5	546.2	76.0	-542.9	0.00	0.00	0.00

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Project:	SEC.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**North Reference:**	True
Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-07-12)		

Planned 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)
5,133.5	8.13	7.92	5,094.6	550.9	76.6	-547.6	0.00	0.00	0.00
5,200.0	6.80	7.92	5,160.6	559.4	77.8	-556.1	2.00	-2.00	0.00
5,300.0	4.80	7.92	5,260.1	569.4	79.2	-566.1	2.00	-2.00	0.00
5,400.0	2.80	7.92	5,359.8	576.0	80.1	-572.6	2.00	-2.00	0.00
5,500.0	0.80	7.92	5,459.8	579.1	80.6	-575.7	2.00	-2.00	0.00
5,540.2	0.00	0.00	5,500.0	579.4	80.6	-576.0	2.00	-2.00	0.00
5,600.0	0.00	0.00	5,559.8	579.4	80.6	-576.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,659.8	579.4	80.6	-576.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,759.8	579.4	80.6	-576.0	0.00	0.00	0.00
5,896.2	0.00	0.00	5,856.0	579.4	80.6	-576.0	0.00	0.00	0.00
KOP #2									
5,900.0	0.51	179.07	5,859.8	579.4	80.6	-576.0	13.51	13.51	0.00
6,000.0	14.12	179.07	5,958.7	566.7	80.8	-563.3	13.61	13.61	0.00
6,100.0	27.73	179.07	6,051.9	531.0	81.4	-527.6	13.61	13.61	0.00
6,200.0	41.34	179.07	6,134.1	474.5	82.3	-471.1	13.61	13.61	0.00
6,300.0	54.95	179.07	6,200.7	400.2	83.5	-396.8	13.61	13.61	0.00
6,400.0	68.56	179.07	6,247.9	312.3	84.9	-308.9	13.61	13.61	0.00
6,500.0	82.17	179.07	6,273.1	215.8	86.5	-212.4	13.61	13.61	0.00
6,557.5	90.00	179.07	6,277.0	158.5	87.5	-155.1	13.61	13.61	0.00
End of Build - NIOBRARA TARGET									
6,600.0	90.00	179.07	6,277.0	116.0	88.1	-112.6	0.00	0.00	0.00
6,617.6	90.00	179.07	6,277.0	98.4	88.4	-95.0	0.00	0.00	0.00
T1 470'FNL, 2603'FWL									
6,657.6	90.00	179.07	6,277.0	58.4	89.1	-55.0	0.00	0.00	0.00
7"									
6,659.5	90.00	179.08	6,277.0	56.5	89.1	-53.2	0.46	0.00	0.46
6,700.0	90.00	179.08	6,277.0	16.0	89.8	-12.7	0.00	0.00	0.00
6,800.0	90.00	179.08	6,277.0	-84.0	91.4	87.3	0.00	0.00	0.00
6,900.0	90.00	179.08	6,277.0	-184.0	93.0	187.3	0.00	0.00	0.00
7,000.0	90.00	179.08	6,277.0	-284.0	94.6	287.3	0.00	0.00	0.00
7,100.0	90.00	179.08	6,277.0	-383.9	96.2	387.3	0.00	0.00	0.00
7,200.0	90.00	179.08	6,277.0	-483.9	97.8	487.2	0.00	0.00	0.00
7,300.0	90.00	179.08	6,277.0	-583.9	99.4	587.2	0.00	0.00	0.00
7,400.0	90.00	179.08	6,277.0	-683.9	101.1	687.2	0.00	0.00	0.00
7,500.0	90.00	179.08	6,277.0	-783.9	102.7	787.2	0.00	0.00	0.00
7,600.0	90.00	179.08	6,277.0	-883.9	104.3	887.1	0.00	0.00	0.00
7,700.0	90.00	179.08	6,277.0	-983.9	105.9	987.1	0.00	0.00	0.00
7,800.0	90.00	179.08	6,277.0	-1,083.9	107.5	1,087.1	0.00	0.00	0.00
7,900.0	90.00	179.08	6,277.0	-1,183.8	109.1	1,187.1	0.00	0.00	0.00
8,000.0	90.00	179.08	6,277.0	-1,283.8	110.7	1,287.1	0.00	0.00	0.00
8,100.0	90.00	179.08	6,277.0	-1,383.8	112.3	1,387.0	0.00	0.00	0.00
8,200.0	90.00	179.08	6,277.0	-1,483.8	113.9	1,487.0	0.00	0.00	0.00
8,300.0	90.00	179.08	6,277.0	-1,583.8	115.6	1,587.0	0.00	0.00	0.00
8,400.0	90.00	179.08	6,277.0	-1,683.8	117.2	1,687.0	0.00	0.00	0.00
8,500.0	90.00	179.08	6,277.0	-1,783.8	118.8	1,786.9	0.00	0.00	0.00
8,600.0	90.00	179.08	6,277.0	-1,883.7	120.4	1,886.9	0.00	0.00	0.00
8,700.0	90.00	179.08	6,277.0	-1,983.7	122.0	1,986.9	0.00	0.00	0.00
8,800.0	90.00	179.08	6,277.0	-2,083.7	123.6	2,086.9	0.00	0.00	0.00
8,900.0	90.00	179.08	6,277.0	-2,183.7	125.2	2,186.9	0.00	0.00	0.00
9,000.0	90.00	179.08	6,277.0	-2,283.7	126.8	2,286.8	0.00	0.00	0.00
9,100.0	90.00	179.08	6,277.0	-2,383.7	128.5	2,386.8	0.00	0.00	0.00
9,200.0	90.00	179.08	6,277.0	-2,483.7	130.1	2,486.8	0.00	0.00	0.00
9,300.0	90.00	179.08	6,277.0	-2,583.7	131.7	2,586.8	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
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Project:	SEC.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**North Reference:**	True
Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-07-12)		

Planned 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)
9,400.0	90.00	179.08	6,277.0	-2,683.6	133.3	2,686.7	0.00	0.00	0.00
9,500.0	90.00	179.08	6,277.0	-2,783.6	134.9	2,786.7	0.00	0.00	0.00
9,600.0	90.00	179.08	6,277.0	-2,883.6	136.5	2,886.7	0.00	0.00	0.00
9,700.0	90.00	179.08	6,277.0	-2,983.6	138.1	2,986.7	0.00	0.00	0.00
9,800.0	90.00	179.08	6,277.0	-3,083.6	139.7	3,086.7	0.00	0.00	0.00
9,900.0	90.00	179.08	6,277.0	-3,183.6	141.4	3,186.6	0.00	0.00	0.00
10,000.0	90.00	179.08	6,277.0	-3,283.6	143.0	3,286.6	0.00	0.00	0.00
10,100.0	90.00	179.08	6,277.0	-3,383.6	144.6	3,386.6	0.00	0.00	0.00
10,200.0	90.00	179.08	6,277.0	-3,483.5	146.2	3,486.6	0.00	0.00	0.00
10,300.0	90.00	179.08	6,277.0	-3,583.5	147.8	3,586.5	0.00	0.00	0.00
10,400.0	90.00	179.08	6,277.0	-3,683.5	149.4	3,686.5	0.00	0.00	0.00
10,500.0	90.00	179.08	6,277.0	-3,783.5	151.0	3,786.5	0.00	0.00	0.00
10,600.0	90.00	179.08	6,277.0	-3,883.5	152.6	3,886.5	0.00	0.00	0.00
10,700.0	90.00	179.08	6,277.0	-3,983.5	154.3	3,986.5	0.00	0.00	0.00
10,800.0	90.00	179.08	6,277.0	-4,083.5	155.9	4,086.4	0.00	0.00	0.00
10,900.0	90.00	179.08	6,277.0	-4,183.4	157.5	4,186.4	0.00	0.00	0.00
10,975.4	90.00	179.08	6,277.0	-4,258.8	158.7	4,261.8	0.00	0.00	0.00
BHL 470'FSL, 2621'FEL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
BHL 470'FSL, 2621'FE - plan hits target center - Point	0.00	0.00	6,277.0	-4,258.8	158.7	1,399,706.29	3,342,073.13	40.424090	-104.271300
T1 470'FNL, 2603'FW - plan misses target center by 0.7ft at 6617.6ft MD (6277.0 TVD, 98.4 N, 88.4 E) - Point	0.00	0.00	6,277.0	98.4	89.1	1,404,061.93	3,341,943.17	40.436050	-104.271550

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,657.6	6,277.0	7"	7	8-3/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,557.5	6,277.0	NIOBRARA TARGET		0.00	

Database:	Landmark	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Company:	BONANZA CREEK ENERGY OPERATING	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Project:	SEC.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**North Reference:**	True
Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (11-07-12)		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,000.0	1,000.0	0.0	0.0	KOP #1
5,896.2	5,856.0	579.4	80.6	KOP #2
6,557.5	6,277.0	158.5	87.5	End of Build

ENSIGN Directional

BONANZA CREEK ENERGY OPERATING

SEC.1-T5N-R62W
State Antelope K-1 Pad Sec.1-T5N-R62W
State Antelope K-O-1HNB

Wellbore #1
Plan #2 (11-07-12)

Anticollision Report

07 November, 2012

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Reference Plan #2 (11-07-12)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 11/7/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,975.4	Plan #2 (11-07-12) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
State Antelope 11-14-1 HZ Pad 1-5N-62W						
State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1	10,738.6	10,067.0	1,773.8	1,616.1	11.247	CC
State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1	10,975.4	10,264.9	1,777.2	1,611.5	10.723	ES, SF
State Antelope K-1 Pad Sec.1-T5N-R62W						
Sanborn/State 10-1 (P&A) - Wellbore #1 - Wellbore #1	9,600.4	6,267.0	593.0	407.4	3.195	CC, ES, SF
State #1 (P&A) - Wellbore #1 - Wellbore #1	1,000.0	1,014.0	577.3	554.9	25.754	CC
State #1 (P&A) - Wellbore #1 - Wellbore #1	6,847.6	6,291.0	651.8	510.1	4.600	ES, SF

Offset Design State Antelope 11-14-1 HZ Pad 1-5N-62W - State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 493-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	21.4	21.4	0.0	0.0	-87.41	83.9	-1,851.2	1,853.1	1,853.1	0.02	N/A	
100.0	100.0	123.5	123.5	0.1	0.1	-87.41	83.8	-1,851.1	1,853.0	1,852.7	0.25	7,354.097	
200.0	200.0	225.6	225.6	0.3	0.3	-87.42	83.5	-1,850.9	1,852.8	1,852.2	0.59	3,130.122	
300.0	300.0	327.7	327.7	0.6	0.4	-87.43	83.1	-1,850.6	1,852.5	1,851.6	0.93	1,987.905	
400.0	400.0	429.8	429.8	0.8	0.5	-87.45	82.5	-1,850.2	1,852.1	1,850.8	1.27	1,456.221	
500.0	500.0	531.6	531.6	1.0	0.6	-87.47	81.9	-1,849.7	1,851.6	1,849.9	1.65	1,122.404	
600.0	600.0	631.1	631.1	1.2	0.8	-87.49	81.2	-1,849.2	1,851.0	1,848.9	2.08	891.464	
700.0	700.0	731.5	731.5	1.5	1.0	-87.50	80.7	-1,848.7	1,850.5	1,848.0	2.50	739.749	
800.0	800.0	831.4	831.3	1.7	1.3	-87.52	80.0	-1,848.1	1,849.9	1,846.9	2.94	629.562	
900.0	900.0	928.9	928.9	1.9	1.5	-87.55	79.1	-1,847.7	1,849.4	1,846.0	3.36	549.660	
1,000.0	1,000.0	1,027.4	1,027.3	2.1	1.7	-87.57	78.3	-1,847.3	1,849.0	1,845.2	3.79	487.833	
1,085.1	1,085.1	1,111.5	1,111.4	2.3	1.8	-95.55	77.6	-1,847.1	1,848.8	1,844.7	4.15	445.277	
1,100.0	1,100.0	1,126.1	1,126.1	2.4	1.9	-95.57	77.5	-1,847.0	1,848.8	1,844.6	4.22	438.601	
1,200.0	1,199.8	1,225.0	1,225.0	2.6	2.1	-95.75	76.7	-1,846.8	1,849.1	1,844.5	4.64	398.414	
1,300.0	1,299.5	1,325.7	1,325.7	2.8	2.3	-96.04	75.8	-1,846.6	1,849.8	1,844.7	5.08	363.794	
1,406.7	1,405.4	1,433.0	1,433.0	3.1	2.5	-96.45	74.8	-1,846.3	1,850.9	1,845.3	5.57	332.076	
1,500.0	1,497.7	1,526.6	1,526.5	3.3	2.7	-96.89	73.9	-1,846.0	1,852.0	1,846.0	6.02	307.817	
1,600.0	1,596.7	1,627.0	1,627.0	3.6	2.9	-97.35	73.1	-1,845.5	1,853.3	1,846.8	6.50	285.056	
1,700.0	1,695.7	1,727.6	1,727.5	3.9	3.1	-97.80	72.6	-1,845.0	1,854.7	1,847.7	7.00	265.070	
1,800.0	1,794.7	1,827.9	1,827.9	4.2	3.3	-98.24	72.2	-1,844.3	1,856.0	1,848.5	7.50	247.447	
1,900.0	1,893.7	1,928.0	1,928.0	4.5	3.5	-98.69	71.7	-1,843.6	1,857.5	1,849.4	8.01	231.851	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope 11-14-1 HZ Pad 1-5N-62W - State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 493-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,000.0	1,992.7	2,028.0	2,028.0	4.8	3.7	-99.15	71.0	-1,842.9	1,858.9	1,850.4	8.53	218.008	
2,100.0	2,091.7	2,126.2	2,126.1	5.1	4.0	-99.59	70.1	-1,842.1	1,860.5	1,851.4	9.04	205.768	
2,200.0	2,190.7	2,223.4	2,223.3	5.4	4.2	-100.03	69.6	-1,841.4	1,862.2	1,852.7	9.56	194.846	
2,300.0	2,289.6	2,320.8	2,320.7	5.7	4.4	-100.45	69.4	-1,840.9	1,864.2	1,854.1	10.08	185.012	
2,400.0	2,388.6	2,420.2	2,420.1	6.1	4.6	-100.88	69.4	-1,840.3	1,866.3	1,855.7	10.60	176.073	
2,500.0	2,487.6	2,520.1	2,520.0	6.4	4.8	-101.30	69.5	-1,839.8	1,868.4	1,857.3	11.13	167.946	
2,600.0	2,586.6	2,619.9	2,619.8	6.7	5.0	-101.72	69.8	-1,839.1	1,870.7	1,859.0	11.65	160.536	
2,700.0	2,685.6	2,718.9	2,718.8	7.0	5.2	-102.13	70.1	-1,838.5	1,873.0	1,860.8	12.18	153.750	
2,800.0	2,784.6	2,817.8	2,817.8	7.4	5.4	-102.54	70.4	-1,837.9	1,875.4	1,862.6	12.71	147.527	
2,900.0	2,883.6	2,916.5	2,916.4	7.7	5.6	-102.95	70.7	-1,837.3	1,877.9	1,864.6	13.24	141.816	
3,000.0	2,982.6	3,014.3	3,014.2	8.0	5.8	-103.37	70.5	-1,836.7	1,880.5	1,866.7	13.77	136.579	
3,100.0	3,081.6	3,111.9	3,111.8	8.4	6.0	-103.80	69.9	-1,836.1	1,883.3	1,869.0	14.30	131.742	
3,200.0	3,180.6	3,211.2	3,211.1	8.7	6.2	-104.25	68.7	-1,835.5	1,886.3	1,871.5	14.83	127.224	
3,300.0	3,279.6	3,312.6	3,312.5	9.0	6.4	-104.71	67.4	-1,834.8	1,889.3	1,874.0	15.36	122.980	
3,400.0	3,378.6	3,414.0	3,413.9	9.4	6.7	-105.17	66.1	-1,833.9	1,892.3	1,876.4	15.90	119.022	
3,500.0	3,477.6	3,514.3	3,514.1	9.7	6.9	-105.63	64.9	-1,832.9	1,895.3	1,878.9	16.43	115.322	
3,600.0	3,576.6	3,614.2	3,614.0	10.0	7.1	-106.08	63.6	-1,831.9	1,898.3	1,881.4	16.97	111.860	
3,700.0	3,675.6	3,714.0	3,713.9	10.4	7.3	-106.53	62.3	-1,830.8	1,901.5	1,884.0	17.51	108.616	
3,800.0	3,774.6	3,810.8	3,810.7	10.7	7.5	-106.96	61.3	-1,829.8	1,904.7	1,886.7	18.03	105.626	
3,900.0	3,873.5	3,908.8	3,908.6	11.0	7.7	-107.37	61.0	-1,829.0	1,908.2	1,889.6	18.56	102.805	
4,000.0	3,972.5	4,021.8	4,021.6	11.4	7.9	-107.83	61.3	-1,827.8	1,911.4	1,892.3	19.12	99.969	
4,100.0	4,071.5	4,134.9	4,134.6	11.7	8.2	-108.27	62.1	-1,825.9	1,914.0	1,894.3	19.68	97.263	
4,200.0	4,170.5	4,239.0	4,238.8	12.0	8.4	-108.67	63.3	-1,823.5	1,916.0	1,895.8	20.22	94.767	
4,300.0	4,269.5	4,336.4	4,336.1	12.4	8.6	-109.03	64.8	-1,821.4	1,918.2	1,897.5	20.74	92.468	
4,400.0	4,368.5	4,433.8	4,433.5	12.7	8.8	-109.38	66.5	-1,819.4	1,920.6	1,899.3	21.27	90.292	
4,500.0	4,467.5	4,529.4	4,529.1	13.1	9.0	-109.71	68.4	-1,817.7	1,923.1	1,901.3	21.79	88.259	
4,600.0	4,566.5	4,623.9	4,623.6	13.4	9.2	-110.04	70.3	-1,816.1	1,925.9	1,903.6	22.30	86.353	
4,700.0	4,665.5	4,718.4	4,718.0	13.7	9.4	-110.37	72.0	-1,814.8	1,929.1	1,906.3	22.82	84.548	
4,800.0	4,764.5	4,815.6	4,815.2	14.1	9.6	-110.72	73.6	-1,813.6	1,932.5	1,909.2	23.33	82.821	
4,900.0	4,863.5	4,914.4	4,913.9	14.4	9.8	-111.07	75.1	-1,812.4	1,936.1	1,912.2	23.85	81.166	
5,000.0	4,962.5	5,013.1	5,012.6	14.7	10.0	-111.42	76.5	-1,811.2	1,939.7	1,915.4	24.37	79.589	
5,100.0	5,061.5	5,113.2	5,112.8	15.1	10.2	-111.79	77.7	-1,809.9	1,943.5	1,918.6	24.90	78.064	
5,133.5	5,094.6	5,147.0	5,146.5	15.2	10.3	-111.91	78.1	-1,809.5	1,944.7	1,919.6	25.07	77.565	
5,200.0	5,160.6	5,214.0	5,213.5	15.4	10.4	-112.17	78.9	-1,808.6	1,946.9	1,921.5	25.40	76.664	
5,300.0	5,260.1	5,315.0	5,314.5	15.6	10.7	-112.46	80.2	-1,807.2	1,949.1	1,923.2	25.82	75.473	
5,400.0	5,359.8	5,415.0	5,414.5	15.8	10.9	-112.63	81.5	-1,805.7	1,949.9	1,923.7	26.22	74.357	
5,500.0	5,459.8	5,489.2	5,488.6	16.0	11.0	-112.72	81.1	-1,804.7	1,950.0	1,923.4	26.54	73.485	
5,540.2	5,500.0	5,510.0	5,509.4	16.0	11.1	-104.84	79.9	-1,804.4	1,950.1	1,923.4	26.67	73.125	
5,600.0	5,559.8	5,550.2	5,549.4	16.1	11.2	-104.96	75.8	-1,803.8	1,950.8	1,923.9	26.84	72.679	
5,700.0	5,659.8	5,636.0	5,634.1	16.3	11.3	-105.36	62.2	-1,801.9	1,952.8	1,925.6	27.18	71.838	
5,800.0	5,759.8	5,699.0	5,695.1	16.5	11.5	-105.81	46.9	-1,799.5	1,955.9	1,928.5	27.49	71.160	
5,896.2	5,856.0	5,739.5	5,733.4	16.6	11.6	-106.19	33.9	-1,798.0	1,961.5	1,933.8	27.74	70.706	
5,900.0	5,859.8	5,741.1	5,735.0	16.6	11.6	74.69	33.3	-1,798.0	1,961.8	1,934.1	27.71	70.786	
5,925.0	5,884.8	5,752.0	5,745.2	16.7	11.6	74.37	29.5	-1,797.7	1,963.5	1,935.7	27.75	70.763	
5,950.0	5,909.6	5,762.0	5,754.4	16.7	11.6	74.09	25.8	-1,797.4	1,964.9	1,937.2	27.76	70.779	
5,975.0	5,934.3	5,776.6	5,767.9	16.7	11.7	73.83	20.2	-1,797.1	1,966.2	1,938.4	27.77	70.793	
6,000.0	5,958.7	5,794.0	5,783.8	16.6	11.7	73.61	13.3	-1,796.7	1,967.2	1,939.4	27.78	70.819	
6,025.0	5,982.8	5,794.0	5,783.8	16.6	11.7	73.51	13.3	-1,796.7	1,967.9	1,940.2	27.72	70.989	
6,050.0	6,006.4	5,810.9	5,799.3	16.6	11.8	73.40	6.3	-1,796.5	1,968.4	1,940.7	27.70	71.064	
6,075.0	6,029.4	5,826.0	5,813.0	16.5	11.8	73.36	0.0	-1,796.4	1,968.6	1,941.0	27.66	71.175	
6,100.0	6,051.9	5,833.4	5,819.7	16.5	11.8	73.37	-3.1	-1,796.4	1,968.6	1,941.0	27.59	71.357	
6,125.0	6,073.7	5,848.6	5,833.3	16.4	11.9	73.43	-9.7	-1,796.4	1,968.4	1,940.8	27.53	71.487	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope 11-14-1 HZ Pad 1-5N-62W - State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 493-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,150.0	6,094.7	5,857.0	5,840.9	16.3	11.9	73.53	-13.5	-1,796.4	1,967.8	1,940.3	27.45	71.679	
6,175.0	6,114.8	5,873.4	5,855.5	16.2	12.0	73.71	-20.9	-1,796.5	1,967.0	1,939.6	27.40	71.794	
6,200.0	6,134.1	5,889.0	5,869.4	16.1	12.0	73.95	-28.0	-1,796.7	1,965.9	1,938.6	27.34	71.908	
6,225.0	6,152.4	5,898.2	5,877.6	16.0	12.0	74.19	-32.3	-1,796.9	1,964.6	1,937.3	27.26	72.067	
6,250.0	6,169.6	5,913.3	5,890.9	15.9	12.1	74.53	-39.4	-1,797.1	1,963.0	1,935.8	27.21	72.145	
6,275.0	6,185.7	5,934.2	5,909.1	15.8	12.2	74.99	-49.7	-1,797.4	1,961.2	1,934.0	27.19	72.117	
6,300.0	6,200.7	5,958.5	5,929.9	15.7	12.3	75.55	-62.2	-1,797.6	1,959.0	1,931.7	27.21	71.994	
6,325.0	6,214.4	5,976.4	5,945.0	15.6	12.3	76.09	-71.8	-1,797.6	1,956.5	1,929.2	27.21	71.901	
6,350.0	6,226.9	5,992.6	5,958.4	15.5	12.4	76.65	-80.9	-1,797.5	1,953.7	1,926.5	27.22	71.783	
6,375.0	6,238.0	6,007.3	5,970.3	15.4	12.5	77.24	-89.6	-1,797.3	1,950.8	1,923.5	27.23	71.641	
6,400.0	6,247.9	6,017.0	5,978.0	15.3	12.5	77.79	-95.4	-1,797.2	1,947.7	1,920.4	27.23	71.535	
6,425.0	6,256.3	6,029.5	5,987.7	15.3	12.6	78.41	-103.2	-1,797.0	1,944.4	1,917.2	27.26	71.336	
6,450.0	6,263.3	6,038.6	5,994.7	15.2	12.6	79.01	-109.0	-1,796.9	1,941.1	1,913.9	27.28	71.155	
6,475.0	6,268.9	6,049.0	6,002.7	15.1	12.7	79.64	-115.8	-1,796.8	1,937.8	1,910.5	27.32	70.919	
6,500.0	6,273.1	6,064.8	6,014.6	15.1	12.8	80.40	-126.1	-1,796.7	1,934.3	1,906.9	27.41	70.567	
6,525.0	6,275.7	6,080.0	6,026.1	15.0	12.8	81.19	-136.0	-1,796.7	1,930.8	1,903.3	27.51	70.190	
6,550.0	6,276.9	6,091.6	6,034.9	15.0	12.9	81.92	-143.6	-1,796.6	1,927.2	1,899.6	27.60	69.834	
6,557.5	6,277.0	6,094.6	6,037.1	15.0	12.9	82.14	-145.6	-1,796.6	1,926.2	1,898.5	27.62	69.731	
6,600.0	6,277.0	6,112.0	6,050.0	15.0	13.0	82.52	-157.3	-1,796.5	1,920.5	1,892.7	27.74	69.223	
6,657.6	6,277.0	6,137.1	6,068.0	15.1	13.2	83.06	-174.8	-1,796.5	1,913.8	1,885.8	28.01	68.327	
6,659.5	6,277.0	6,137.9	6,068.6	15.1	13.2	83.08	-175.4	-1,796.5	1,913.6	1,885.6	28.02	68.302	
6,700.0	6,277.0	6,257.3	6,147.1	15.1	14.0	85.42	-265.0	-1,791.9	1,908.5	1,879.5	29.04	65.720	
6,800.0	6,277.0	6,303.0	6,172.1	15.6	14.4	86.18	-303.1	-1,788.6	1,896.9	1,867.0	29.89	63.453	
6,900.0	6,277.0	6,335.0	6,187.2	16.2	14.8	86.63	-331.2	-1,786.7	1,888.7	1,857.8	30.86	61.197	
7,000.0	6,277.0	6,380.0	6,205.0	17.1	15.2	87.17	-372.6	-1,784.8	1,883.8	1,851.6	32.18	58.531	
7,093.9	6,277.0	6,417.5	6,216.8	18.0	15.6	87.53	-408.1	-1,784.3	1,882.4	1,848.8	33.55	56.106	
7,100.0	6,277.0	6,420.5	6,217.6	18.1	15.7	87.55	-411.0	-1,784.3	1,882.4	1,848.7	33.65	55.947	
7,200.0	6,277.0	6,563.0	6,236.1	19.2	17.4	88.11	-551.9	-1,782.3	1,882.3	1,845.7	36.59	51.438	
7,298.5	6,277.0	6,624.0	6,236.3	20.5	18.3	88.12	-612.8	-1,780.6	1,881.3	1,842.6	38.67	48.653	
7,300.0	6,277.0	6,624.0	6,236.3	20.5	18.3	88.12	-612.8	-1,780.6	1,881.3	1,842.6	38.69	48.630	
7,400.0	6,277.0	6,706.7	6,235.1	21.9	19.3	88.08	-695.5	-1,779.9	1,882.1	1,841.0	41.10	45.796	
7,500.0	6,277.0	6,836.3	6,235.1	23.3	21.0	88.09	-825.2	-1,777.9	1,882.0	1,837.8	44.19	42.586	
7,600.0	6,277.0	6,928.2	6,232.4	24.8	22.3	88.00	-916.9	-1,775.9	1,881.7	1,834.6	47.02	40.018	
7,700.0	6,277.0	7,073.8	6,223.3	26.4	24.6	87.72	-1,062.2	-1,771.4	1,880.4	1,829.6	50.84	36.988	
7,800.0	6,277.0	7,189.9	6,219.4	28.0	26.3	87.60	-1,178.0	-1,765.9	1,877.4	1,823.2	54.19	34.646	
7,900.0	6,277.0	7,338.6	6,222.0	29.6	28.6	87.67	-1,326.4	-1,756.3	1,872.4	1,814.3	58.11	32.222	
8,000.0	6,277.0	7,436.0	6,223.4	31.3	30.2	87.70	-1,423.6	-1,749.0	1,866.5	1,805.1	61.39	30.403	
8,100.0	6,277.0	7,504.5	6,223.3	33.0	31.3	87.70	-1,491.9	-1,744.4	1,861.4	1,797.2	64.23	28.981	
8,200.0	6,277.0	7,572.3	6,223.8	34.8	32.4	87.71	-1,559.6	-1,741.1	1,858.1	1,791.0	67.08	27.701	
8,300.0	6,277.0	7,689.4	6,224.5	36.5	34.4	87.73	-1,676.6	-1,735.8	1,855.2	1,784.4	70.79	26.207	
8,400.0	6,277.0	7,771.9	6,224.0	38.3	35.8	87.71	-1,759.0	-1,732.0	1,852.2	1,778.2	73.98	25.035	
8,500.0	6,277.0	7,868.8	6,222.4	40.1	37.5	87.66	-1,855.8	-1,728.4	1,850.1	1,772.7	77.42	23.897	
8,600.0	6,277.0	8,034.0	6,222.4	41.8	40.3	87.65	-2,020.8	-1,719.7	1,846.8	1,764.7	82.01	22.518	
8,700.0	6,277.0	8,124.2	6,222.3	43.7	41.8	87.64	-2,110.7	-1,712.6	1,840.5	1,755.2	85.36	21.561	
8,800.0	6,277.0	8,203.0	6,222.3	45.5	43.2	87.63	-2,189.4	-1,708.3	1,836.5	1,747.9	88.54	20.742	
8,900.0	6,277.0	8,274.0	6,222.0	47.3	44.5	87.62	-2,260.3	-1,705.3	1,833.8	1,742.1	91.60	20.019	
9,000.0	6,277.0	8,376.4	6,220.9	49.1	46.3	87.59	-2,362.6	-1,700.9	1,831.1	1,735.8	95.25	19.225	
9,100.0	6,277.0	8,478.6	6,219.7	51.0	48.1	87.54	-2,464.7	-1,696.4	1,828.4	1,729.4	98.93	18.481	
9,200.0	6,277.0	8,588.1	6,218.1	52.8	50.1	87.49	-2,574.0	-1,691.2	1,825.3	1,722.5	102.75	17.764	
9,300.0	6,277.0	8,678.5	6,216.4	54.7	51.7	87.43	-2,664.3	-1,686.9	1,822.2	1,716.0	106.22	17.155	
9,400.0	6,277.0	8,837.0	6,214.0	56.5	54.5	87.35	-2,822.5	-1,677.8	1,818.3	1,707.5	110.87	16.401	
9,500.0	6,277.0	8,936.4	6,213.2	58.4	56.3	87.31	-2,921.6	-1,670.2	1,812.3	1,697.8	114.51	15.827	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope 11-14-1 HZ Pad 1-5N-62W - State Antelope 11-14-1HZ - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 493-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,600.0	6,277.0	9,040.7	6,212.2	60.2	58.2	87.27	-3,025.6	-1,662.1	1,806.2	1,688.0	118.22	15.278	
9,700.0	6,277.0	9,134.8	6,212.0	62.1	59.8	87.26	-3,119.4	-1,654.6	1,800.0	1,678.2	121.74	14.785	
9,800.0	6,277.0	9,214.0	6,211.7	64.0	61.2	87.24	-3,198.4	-1,649.0	1,794.5	1,669.5	125.00	14.356	
9,900.0	6,277.0	9,300.2	6,211.6	65.9	62.7	87.23	-3,284.5	-1,643.6	1,789.9	1,661.5	128.37	13.943	
10,000.0	6,277.0	9,383.1	6,212.3	67.7	64.2	87.25	-3,367.2	-1,639.4	1,786.4	1,654.7	131.70	13.564	
10,100.0	6,277.0	9,468.0	6,212.6	69.6	65.7	87.25	-3,452.1	-1,635.8	1,783.7	1,648.7	135.06	13.207	
10,200.0	6,277.0	9,579.6	6,211.3	71.5	67.7	87.21	-3,563.6	-1,631.1	1,781.2	1,642.2	138.98	12.816	
10,300.0	6,277.0	9,666.2	6,209.4	73.4	69.2	87.14	-3,650.0	-1,627.3	1,778.6	1,636.2	142.39	12.491	
10,400.0	6,277.0	9,749.4	6,208.5	75.3	70.7	87.11	-3,733.2	-1,624.6	1,776.9	1,631.2	145.73	12.193	
10,500.0	6,277.0	9,833.1	6,209.5	77.2	72.1	87.14	-3,816.9	-1,622.6	1,776.2	1,627.2	149.04	11.917	
10,600.0	6,277.0	9,957.9	6,212.2	79.1	74.3	87.23	-3,941.6	-1,619.9	1,775.6	1,622.5	153.14	11.595	
10,700.0	6,277.0	10,040.0	6,214.4	81.0	75.8	87.30	-4,023.6	-1,617.3	1,774.0	1,617.5	156.49	11.336	
10,738.6	6,277.0	10,067.0	6,214.6	81.7	76.3	87.31	-4,050.6	-1,616.7	1,773.8	1,616.1	157.71	11.247	CC
10,800.0	6,277.0	10,103.0	6,214.6	82.9	76.9	87.30	-4,086.6	-1,616.4	1,774.3	1,614.8	159.53	11.122	
10,900.0	6,277.0	10,199.8	6,213.7	84.8	78.6	87.28	-4,183.5	-1,616.3	1,775.8	1,612.6	163.15	10.884	
10,975.4	6,277.0	10,264.9	6,213.0	86.2	79.8	87.26	-4,248.5	-1,616.4	1,777.2	1,611.5	165.74	10.723	ES, SF

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - Sanborn/State 10-1 (P&A) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 7193-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	165.76	-2,874.4	729.4	2,965.6				
100.0	100.0	90.0	90.0	0.1	1.8	165.76	-2,874.4	729.4	2,965.5	2,963.6	1.91	1,550.541	
200.0	200.0	190.0	190.0	0.3	3.8	165.76	-2,874.4	729.4	2,965.5	2,961.4	4.14	716.772	
300.0	300.0	290.0	290.0	0.6	5.8	165.76	-2,874.4	729.4	2,965.5	2,959.2	6.36	466.125	
400.0	400.0	390.0	390.0	0.8	7.8	165.76	-2,874.4	729.4	2,965.5	2,956.9	8.59	345.357	
500.0	500.0	490.0	490.0	1.0	9.8	165.76	-2,874.4	729.4	2,965.5	2,954.7	10.81	274.291	
600.0	600.0	590.0	590.0	1.2	11.8	165.76	-2,874.4	729.4	2,965.5	2,952.5	13.04	227.481	
700.0	700.0	690.0	690.0	1.5	13.8	165.76	-2,874.4	729.4	2,965.5	2,950.3	15.26	194.319	
800.0	800.0	790.0	790.0	1.7	15.8	165.76	-2,874.4	729.4	2,965.5	2,948.0	17.49	169.596	
900.0	900.0	890.0	890.0	1.9	17.8	165.76	-2,874.4	729.4	2,965.5	2,945.8	19.71	150.453	
1,000.0	1,000.0	990.0	990.0	2.1	19.8	165.76	-2,874.4	729.4	2,965.5	2,943.6	21.94	135.194	
1,100.0	1,100.0	1,090.0	1,090.0	2.4	21.8	157.84	-2,874.4	729.4	2,967.2	2,943.0	24.15	122.875	
1,200.0	1,199.8	1,189.8	1,189.8	2.6	23.8	157.84	-2,874.4	729.4	2,972.0	2,945.7	26.33	112.881	
1,300.0	1,299.5	1,289.5	1,289.5	2.8	25.8	157.85	-2,874.4	729.4	2,980.1	2,951.6	28.47	104.671	
1,406.7	1,405.4	1,395.4	1,395.4	3.1	27.9	157.85	-2,874.4	729.4	2,992.2	2,961.5	30.71	97.446	
1,500.0	1,497.7	1,487.7	1,487.7	3.3	29.8	157.94	-2,874.4	729.4	3,004.5	2,971.7	32.76	91.722	
1,600.0	1,596.7	1,586.7	1,586.7	3.6	31.7	158.04	-2,874.4	729.4	3,017.6	2,982.7	34.96	86.323	
1,700.0	1,695.7	1,685.7	1,685.7	3.9	33.7	158.14	-2,874.4	729.4	3,030.8	2,993.6	37.16	81.557	
1,800.0	1,794.7	1,784.7	1,784.7	4.2	35.7	158.24	-2,874.4	729.4	3,043.9	3,004.6	39.37	77.320	
1,900.0	1,893.7	1,883.7	1,883.7	4.5	37.7	158.34	-2,874.4	729.4	3,057.1	3,015.5	41.58	73.530	
2,000.0	1,992.7	1,982.7	1,982.7	4.8	39.7	158.44	-2,874.4	729.4	3,070.3	3,026.5	43.79	70.120	
2,100.0	2,091.7	2,081.7	2,081.7	5.1	41.6	158.53	-2,874.4	729.4	3,083.5	3,037.5	46.00	67.036	
2,200.0	2,190.7	2,180.7	2,180.7	5.4	43.6	158.63	-2,874.4	729.4	3,096.6	3,048.4	48.21	64.234	
2,300.0	2,289.6	2,279.6	2,279.6	5.7	45.6	158.72	-2,874.4	729.4	3,109.8	3,059.4	50.42	61.677	
2,400.0	2,388.6	2,378.6	2,378.6	6.1	47.6	158.82	-2,874.4	729.4	3,123.0	3,070.4	52.64	59.334	
2,500.0	2,487.6	2,477.6	2,477.6	6.4	49.6	158.91	-2,874.4	729.4	3,136.3	3,081.4	54.85	57.180	
2,600.0	2,586.6	2,576.6	2,576.6	6.7	51.5	159.00	-2,874.4	729.4	3,149.5	3,092.4	57.06	55.192	
2,700.0	2,685.6	2,675.6	2,675.6	7.0	53.5	159.10	-2,874.4	729.4	3,162.7	3,103.4	59.28	53.353	
2,800.0	2,784.6	2,774.6	2,774.6	7.4	55.5	159.19	-2,874.4	729.4	3,176.0	3,114.5	61.49	51.647	
2,900.0	2,883.6	2,873.6	2,873.6	7.7	57.5	159.28	-2,874.4	729.4	3,189.2	3,125.5	63.71	50.059	
3,000.0	2,982.6	2,972.6	2,972.6	8.0	59.5	159.37	-2,874.4	729.4	3,202.5	3,136.5	65.92	48.577	
3,100.0	3,081.6	3,071.6	3,071.6	8.4	61.4	159.46	-2,874.4	729.4	3,215.7	3,147.6	68.14	47.192	
3,200.0	3,180.6	3,170.6	3,170.6	8.7	63.4	159.54	-2,874.4	729.4	3,229.0	3,158.6	70.36	45.895	
3,300.0	3,279.6	3,269.6	3,269.6	9.0	65.4	159.63	-2,874.4	729.4	3,242.3	3,169.7	72.57	44.676	
3,400.0	3,378.6	3,368.6	3,368.6	9.4	67.4	159.72	-2,874.4	729.4	3,255.6	3,180.8	74.79	43.530	
3,500.0	3,477.6	3,467.6	3,467.6	9.7	69.4	159.80	-2,874.4	729.4	3,268.8	3,191.8	77.00	42.450	
3,600.0	3,576.6	3,566.6	3,566.6	10.0	71.3	159.89	-2,874.4	729.4	3,282.1	3,202.9	79.22	41.430	
3,700.0	3,675.6	3,665.6	3,665.6	10.4	73.3	159.97	-2,874.4	729.4	3,295.5	3,214.0	81.44	40.466	
3,800.0	3,774.6	3,764.6	3,764.6	10.7	75.3	160.06	-2,874.4	729.4	3,308.8	3,225.1	83.65	39.554	
3,900.0	3,873.5	3,863.5	3,863.5	11.0	77.3	160.14	-2,874.4	729.4	3,322.1	3,236.2	85.87	38.688	
4,000.0	3,972.5	3,962.5	3,962.5	11.4	79.3	160.22	-2,874.4	729.4	3,335.4	3,247.3	88.08	37.866	
4,100.0	4,071.5	4,061.5	4,061.5	11.7	81.2	160.30	-2,874.4	729.4	3,348.7	3,258.4	90.30	37.084	
4,200.0	4,170.5	4,160.5	4,160.5	12.0	83.2	160.39	-2,874.4	729.4	3,362.1	3,269.6	92.52	36.340	
4,300.0	4,269.5	4,259.5	4,259.5	12.4	85.2	160.47	-2,874.4	729.4	3,375.4	3,280.7	94.73	35.631	
4,400.0	4,368.5	4,358.5	4,358.5	12.7	87.2	160.55	-2,874.4	729.4	3,388.8	3,291.8	96.95	34.955	
4,500.0	4,467.5	4,457.5	4,457.5	13.1	89.2	160.63	-2,874.4	729.4	3,402.1	3,303.0	99.16	34.308	
4,600.0	4,566.5	4,556.5	4,556.5	13.4	91.1	160.70	-2,874.4	729.4	3,415.5	3,314.1	101.38	33.691	
4,700.0	4,665.5	4,655.5	4,655.5	13.7	93.1	160.78	-2,874.4	729.4	3,428.9	3,325.3	103.59	33.099	
4,800.0	4,764.5	4,754.5	4,754.5	14.1	95.1	160.86	-2,874.4	729.4	3,442.3	3,336.5	105.81	32.533	
4,900.0	4,863.5	4,853.5	4,853.5	14.4	97.1	160.94	-2,874.4	729.4	3,455.7	3,347.6	108.03	31.989	
5,000.0	4,962.5	4,952.5	4,952.5	14.7	99.0	161.01	-2,874.4	729.4	3,469.0	3,358.8	110.24	31.468	
5,100.0	5,061.5	5,051.5	5,051.5	15.1	101.0	161.09	-2,874.4	729.4	3,482.4	3,370.0	112.46	30.967	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - Sanborn/State 10-1 (P&A) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 7193-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,133.5	5,094.6	5,084.6	5,084.6	15.2	101.7	161.11	-2,874.4	729.4	3,486.9	3,373.7	113.20	30.804	
5,200.0	5,160.6	5,150.6	5,150.6	15.4	103.0	161.21	-2,874.4	729.4	3,495.1	3,380.2	114.93	30.411	
5,300.0	5,260.1	5,250.1	5,250.1	15.6	105.0	161.33	-2,874.4	729.4	3,504.7	3,387.3	117.42	29.847	
5,400.0	5,359.8	5,349.8	5,349.8	15.8	107.0	161.40	-2,874.4	729.4	3,511.0	3,391.2	119.79	29.309	
5,500.0	5,459.8	5,449.8	5,449.8	16.0	109.0	161.44	-2,874.4	729.4	3,514.0	3,391.9	122.04	28.794	
5,540.2	5,500.0	5,490.0	5,490.0	16.0	109.8	169.36	-2,874.4	729.4	3,514.2	3,391.4	122.87	28.602	
5,600.0	5,559.8	5,549.8	5,549.8	16.1	111.0	169.36	-2,874.4	729.4	3,514.2	3,390.1	124.17	28.302	
5,700.0	5,659.8	5,649.8	5,649.8	16.3	113.0	169.36	-2,874.4	729.4	3,514.2	3,387.9	126.38	27.808	
5,800.0	5,759.8	5,749.8	5,749.8	16.5	115.0	169.36	-2,874.4	729.4	3,514.2	3,385.7	128.58	27.331	
5,896.2	5,856.0	5,846.0	5,846.0	16.6	116.9	169.36	-2,874.4	729.4	3,514.2	3,383.5	130.71	26.887	
5,900.0	5,859.8	5,849.8	5,849.8	16.6	117.0	-9.71	-2,874.4	729.4	3,514.2	3,383.4	130.81	26.866	
5,925.0	5,884.8	5,874.8	5,874.8	16.7	117.5	-9.73	-2,874.4	729.4	3,513.3	3,382.3	130.99	26.820	
5,950.0	5,909.6	5,899.6	5,899.6	16.7	118.0	-9.79	-2,874.4	729.4	3,510.9	3,380.1	130.73	26.855	
5,975.0	5,934.3	5,924.3	5,924.3	16.7	118.5	-9.90	-2,874.4	729.4	3,507.0	3,377.0	130.02	26.972	
6,000.0	5,958.7	5,948.7	5,948.7	16.6	119.0	-10.04	-2,874.4	729.4	3,501.7	3,372.8	128.86	27.174	
6,025.0	5,982.8	5,972.8	5,972.8	16.6	119.5	-10.23	-2,874.4	729.4	3,495.0	3,367.7	127.26	27.464	
6,050.0	6,006.4	5,996.4	5,996.4	16.6	119.9	-10.46	-2,874.4	729.4	3,486.9	3,361.7	125.21	27.847	
6,075.0	6,029.4	6,019.4	6,019.4	16.5	120.4	-10.75	-2,874.4	729.4	3,477.4	3,354.7	122.74	28.331	
6,100.0	6,051.9	6,041.9	6,041.9	16.5	120.8	-11.09	-2,874.4	729.4	3,466.6	3,346.7	119.86	28.923	
6,125.0	6,073.7	6,063.7	6,063.7	16.4	121.3	-11.50	-2,874.4	729.4	3,454.5	3,337.9	116.58	29.631	
6,150.0	6,094.7	6,084.7	6,084.7	16.3	121.7	-11.98	-2,874.4	729.4	3,441.1	3,328.2	112.95	30.467	
6,175.0	6,114.8	6,104.8	6,104.8	16.2	122.1	-12.55	-2,874.4	729.4	3,426.6	3,317.6	108.99	31.439	
6,200.0	6,134.1	6,124.1	6,124.1	16.1	122.5	-13.22	-2,874.4	729.4	3,410.9	3,306.1	104.76	32.559	
6,225.0	6,152.4	6,142.4	6,142.4	16.0	122.8	-14.02	-2,874.4	729.4	3,394.1	3,293.7	100.33	33.829	
6,250.0	6,169.6	6,159.6	6,159.6	15.9	123.2	-14.96	-2,874.4	729.4	3,376.2	3,280.4	95.79	35.245	
6,275.0	6,185.7	6,175.7	6,175.7	15.8	123.5	-16.08	-2,874.4	729.4	3,357.4	3,266.1	91.28	36.781	
6,300.0	6,200.7	6,190.7	6,190.7	15.7	123.8	-17.44	-2,874.4	729.4	3,337.7	3,250.7	86.98	38.373	
6,325.0	6,214.4	6,204.4	6,204.4	15.6	124.1	-19.09	-2,874.4	729.4	3,317.2	3,234.0	83.16	39.889	
6,350.0	6,226.9	6,216.9	6,216.9	15.5	124.3	-21.12	-2,874.4	729.4	3,295.9	3,215.7	80.20	41.095	
6,375.0	6,238.0	6,228.0	6,228.0	15.4	124.6	-23.66	-2,874.4	729.4	3,273.9	3,195.2	78.63	41.636	
6,400.0	6,247.9	6,237.9	6,237.9	15.3	124.8	-26.89	-2,874.4	729.4	3,251.3	3,172.1	79.14	41.083	
6,425.0	6,256.3	6,246.3	6,246.3	15.3	124.9	-31.09	-2,874.4	729.4	3,228.1	3,145.6	82.53	39.114	
6,450.0	6,263.3	6,253.3	6,253.3	15.2	125.1	-36.67	-2,874.4	729.4	3,204.6	3,115.0	89.59	35.768	
6,475.0	6,268.9	6,258.9	6,258.9	15.1	125.2	-44.23	-2,874.4	729.4	3,180.6	3,079.8	100.77	31.564	
6,500.0	6,273.1	6,263.1	6,263.1	15.1	125.3	-54.52	-2,874.4	729.4	3,156.4	3,040.9	115.47	27.335	
6,525.0	6,275.7	6,265.7	6,265.7	15.0	125.3	-68.17	-2,874.4	729.4	3,132.0	3,001.3	130.64	23.974	
6,550.0	6,276.9	6,266.9	6,266.9	15.0	125.3	-84.74	-2,874.4	729.4	3,107.5	2,967.7	139.78	22.231	
6,557.5	6,277.0	6,267.0	6,267.0	15.0	125.3	-90.00	-2,874.4	729.4	3,100.1	2,959.7	140.33	22.091	
6,600.0	6,277.0	6,267.0	6,267.0	15.0	125.3	-90.00	-2,874.4	729.4	3,058.4	2,918.1	140.34	21.793	
6,657.6	6,277.0	6,267.0	6,267.0	15.1	125.3	-90.00	-2,874.4	729.4	3,001.9	2,861.5	140.42	21.378	
6,659.5	6,277.0	6,267.0	6,267.0	15.1	125.3	-90.00	-2,874.4	729.4	3,000.1	2,859.7	140.42	21.364	
6,700.0	6,277.0	6,267.0	6,267.0	15.1	125.3	-90.00	-2,874.4	729.4	2,960.4	2,819.9	140.47	21.075	
6,800.0	6,277.0	6,267.0	6,267.0	15.6	125.3	-90.00	-2,874.4	729.4	2,862.5	2,721.6	140.90	20.316	
6,900.0	6,277.0	6,267.0	6,267.0	16.2	125.3	-90.00	-2,874.4	729.4	2,764.7	2,623.2	141.54	19.533	
7,000.0	6,277.0	6,267.0	6,267.0	17.1	125.3	-90.00	-2,874.4	729.4	2,667.1	2,524.7	142.39	18.732	
7,100.0	6,277.0	6,267.0	6,267.0	18.1	125.3	-90.00	-2,874.4	729.4	2,569.7	2,426.3	143.39	17.921	
7,200.0	6,277.0	6,267.0	6,267.0	19.2	125.3	-90.00	-2,874.4	729.4	2,472.5	2,328.0	144.55	17.106	
7,300.0	6,277.0	6,267.0	6,267.0	20.5	125.3	-90.00	-2,874.4	729.4	2,375.6	2,229.8	145.81	16.292	
7,400.0	6,277.0	6,267.0	6,267.0	21.9	125.3	-90.00	-2,874.4	729.4	2,278.9	2,131.7	147.18	15.484	
7,500.0	6,277.0	6,267.0	6,267.0	23.3	125.3	-90.00	-2,874.4	729.4	2,182.5	2,033.8	148.62	14.685	
7,600.0	6,277.0	6,267.0	6,267.0	24.8	125.3	-90.00	-2,874.4	729.4	2,086.4	1,936.3	150.13	13.897	
7,700.0	6,277.0	6,267.0	6,267.0	26.4	125.3	-90.00	-2,874.4	729.4	1,990.7	1,839.0	151.70	13.123	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - Sanborn/State 10-1 (P&A) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 7193-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,800.0	6,277.0	6,267.0	6,267.0	28.0	125.3	-90.00	-2,874.4	729.4	1,895.5	1,742.2	153.31	12.364	
7,900.0	6,277.0	6,267.0	6,267.0	29.6	125.3	-90.00	-2,874.4	729.4	1,800.8	1,645.8	154.96	11.621	
8,000.0	6,277.0	6,267.0	6,267.0	31.3	125.3	-90.00	-2,874.4	729.4	1,706.7	1,550.1	156.64	10.896	
8,100.0	6,277.0	6,267.0	6,267.0	33.0	125.3	-90.00	-2,874.4	729.4	1,613.3	1,455.0	158.34	10.189	
8,200.0	6,277.0	6,267.0	6,267.0	34.8	125.3	-90.00	-2,874.4	729.4	1,520.7	1,360.7	160.07	9.500	
8,300.0	6,277.0	6,267.0	6,267.0	36.5	125.3	-90.00	-2,874.4	729.4	1,429.2	1,267.4	161.83	8.832	
8,400.0	6,277.0	6,267.0	6,267.0	38.3	125.3	-90.00	-2,874.4	729.4	1,338.8	1,175.3	163.59	8.184	
8,500.0	6,277.0	6,267.0	6,267.0	40.1	125.3	-90.00	-2,874.4	729.4	1,250.0	1,084.6	165.38	7.558	
8,600.0	6,277.0	6,267.0	6,267.0	41.8	125.3	-90.00	-2,874.4	729.4	1,162.9	995.7	167.17	6.956	
8,700.0	6,277.0	6,267.0	6,267.0	43.7	125.3	-90.00	-2,874.4	729.4	1,078.1	909.1	168.98	6.380	
8,800.0	6,277.0	6,267.0	6,267.0	45.5	125.3	-90.00	-2,874.4	729.4	996.1	825.3	170.79	5.832	
8,900.0	6,277.0	6,267.0	6,267.0	47.3	125.3	-90.00	-2,874.4	729.4	917.7	745.1	172.62	5.316	
9,000.0	6,277.0	6,267.0	6,267.0	49.1	125.3	-90.00	-2,874.4	729.4	843.8	669.4	174.45	4.837	
9,100.0	6,277.0	6,267.0	6,267.0	51.0	125.3	-90.00	-2,874.4	729.4	775.9	599.6	176.29	4.401	
9,200.0	6,277.0	6,267.0	6,267.0	52.8	125.3	-90.00	-2,874.4	729.4	715.5	537.3	178.14	4.016	
9,300.0	6,277.0	6,267.0	6,267.0	54.7	125.3	-90.00	-2,874.4	729.4	664.7	484.7	179.99	3.693	
9,400.0	6,277.0	6,267.0	6,267.0	56.5	125.3	-90.00	-2,874.4	729.4	625.9	444.1	181.85	3.442	
9,500.0	6,277.0	6,267.0	6,267.0	58.4	125.3	-90.00	-2,874.4	729.4	601.4	417.7	183.71	3.274	
9,600.0	6,277.0	6,267.0	6,267.0	60.2	125.3	-90.00	-2,874.4	729.4	593.0	407.4	185.58	3.195	
9,600.4	6,277.0	6,267.0	6,267.0	60.3	125.3	-90.00	-2,874.4	729.4	593.0	407.4	185.58	3.195	CC, ES, SF
9,700.0	6,277.0	6,267.0	6,267.0	62.1	125.3	-90.00	-2,874.4	729.4	601.3	413.8	187.45	3.208	
9,800.0	6,277.0	6,267.0	6,267.0	64.0	125.3	-90.00	-2,874.4	729.4	625.7	436.4	189.32	3.305	
9,900.0	6,277.0	6,267.0	6,267.0	65.9	125.3	-90.00	-2,874.4	729.4	664.4	473.2	191.20	3.475	
10,000.0	6,277.0	6,267.0	6,267.0	67.7	125.3	-90.00	-2,874.4	729.4	715.1	522.0	193.08	3.704	
10,100.0	6,277.0	6,267.0	6,267.0	69.6	125.3	-90.00	-2,874.4	729.4	775.4	580.4	194.96	3.977	
10,200.0	6,277.0	6,267.0	6,267.0	71.5	125.3	-90.00	-2,874.4	729.4	843.3	646.5	196.84	4.284	
10,300.0	6,277.0	6,267.0	6,267.0	73.4	125.3	-90.00	-2,874.4	729.4	917.1	718.4	198.73	4.615	
10,400.0	6,277.0	6,267.0	6,267.0	75.3	125.3	-90.00	-2,874.4	729.4	995.5	794.9	200.62	4.962	
10,500.0	6,277.0	6,267.0	6,267.0	77.2	125.3	-90.00	-2,874.4	729.4	1,077.5	875.0	202.51	5.321	
10,600.0	6,277.0	6,267.0	6,267.0	79.1	125.3	-90.00	-2,874.4	729.4	1,162.3	957.9	204.40	5.686	
10,700.0	6,277.0	6,267.0	6,267.0	81.0	125.3	-90.00	-2,874.4	729.4	1,249.3	1,043.0	206.30	6.056	
10,800.0	6,277.0	6,267.0	6,267.0	82.9	125.3	-90.00	-2,874.4	729.4	1,338.2	1,130.0	208.19	6.428	
10,900.0	6,277.0	6,267.0	6,267.0	84.8	125.3	-90.00	-2,874.4	729.4	1,428.5	1,218.4	210.09	6.799	
10,975.4	6,277.0	6,267.0	6,267.0	86.2	125.3	-90.00	-2,874.4	729.4	1,497.4	1,285.9	211.52	7.079	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - State #1 (P&A) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 7019-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	14.0	14.0	0.0	0.3	-104.25	-142.1	-559.5	577.3	577.0	0.28	2,060.289	
100.0	100.0	114.0	114.0	0.1	2.3	-104.25	-142.1	-559.5	577.3	574.9	2.39	241.284	
200.0	200.0	214.0	214.0	0.3	4.3	-104.25	-142.1	-559.5	577.3	572.7	4.62	125.027	
300.0	300.0	314.0	314.0	0.6	6.3	-104.25	-142.1	-559.5	577.3	570.4	6.84	84.373	
400.0	400.0	414.0	414.0	0.8	8.3	-104.25	-142.1	-559.5	577.3	568.2	9.07	63.670	
500.0	500.0	514.0	514.0	1.0	10.3	-104.25	-142.1	-559.5	577.3	566.0	11.29	51.126	
600.0	600.0	614.0	614.0	1.2	12.3	-104.25	-142.1	-559.5	577.3	563.8	13.52	42.711	
700.0	700.0	714.0	714.0	1.5	14.3	-104.25	-142.1	-559.5	577.3	561.6	15.74	36.674	
800.0	800.0	814.0	814.0	1.7	16.3	-104.25	-142.1	-559.5	577.3	559.3	17.97	32.133	
900.0	900.0	914.0	914.0	1.9	18.3	-104.25	-142.1	-559.5	577.3	557.1	20.19	28.592	
1,000.0	1,000.0	1,014.0	1,014.0	2.1	20.3	-104.25	-142.1	-559.5	577.3	554.9	22.42	25.754	CC
1,100.0	1,100.0	1,114.0	1,114.0	2.4	22.3	-112.31	-142.1	-559.5	578.0	553.3	24.64	23.459	
1,200.0	1,199.8	1,213.8	1,213.8	2.6	24.3	-112.76	-142.1	-559.5	580.0	553.1	26.85	21.600	
1,300.0	1,299.5	1,313.5	1,313.5	2.8	26.3	-113.48	-142.1	-559.5	583.4	554.3	29.06	20.078	
1,406.7	1,405.4	1,419.4	1,419.4	3.1	28.4	-114.55	-142.1	-559.5	588.8	557.4	31.40	18.748	
1,500.0	1,497.7	1,511.7	1,511.7	3.3	30.2	-115.69	-142.1	-559.5	594.4	560.9	33.48	17.753	
1,600.0	1,596.7	1,610.7	1,610.7	3.6	32.2	-116.90	-142.1	-559.5	600.7	565.0	35.72	16.818	
1,700.0	1,695.7	1,709.7	1,709.7	3.9	34.2	-118.08	-142.1	-559.5	607.3	569.4	37.96	15.997	
1,800.0	1,794.7	1,808.7	1,808.7	4.2	36.2	-119.24	-142.1	-559.5	614.2	574.0	40.21	15.273	
1,900.0	1,893.7	1,907.7	1,907.7	4.5	38.2	-120.37	-142.1	-559.5	621.3	578.8	42.46	14.631	
2,000.0	1,992.7	2,006.7	2,006.7	4.8	40.1	-121.47	-142.1	-559.5	628.6	583.9	44.71	14.058	
2,100.0	2,091.7	2,105.7	2,105.7	5.1	42.1	-122.55	-142.1	-559.5	636.1	589.2	46.97	13.544	
2,200.0	2,190.7	2,204.7	2,204.7	5.4	44.1	-123.61	-142.1	-559.5	643.9	594.7	49.22	13.082	
2,300.0	2,289.6	2,303.6	2,303.6	5.7	46.1	-124.63	-142.1	-559.5	651.9	600.4	51.47	12.665	
2,400.0	2,388.6	2,402.6	2,402.6	6.1	48.1	-125.64	-142.1	-559.5	660.1	606.4	53.72	12.287	
2,500.0	2,487.6	2,501.6	2,501.6	6.4	50.0	-126.62	-142.1	-559.5	668.5	612.5	55.97	11.943	
2,600.0	2,586.6	2,600.6	2,600.6	6.7	52.0	-127.57	-142.1	-559.5	677.1	618.9	58.22	11.629	
2,700.0	2,685.6	2,699.6	2,699.6	7.0	54.0	-128.50	-142.1	-559.5	685.9	625.4	60.47	11.342	
2,800.0	2,784.6	2,798.6	2,798.6	7.4	56.0	-129.41	-142.1	-559.5	694.8	632.1	62.71	11.079	
2,900.0	2,883.6	2,897.6	2,897.6	7.7	58.0	-130.30	-142.1	-559.5	703.9	639.0	64.96	10.837	
3,000.0	2,982.6	2,996.6	2,996.6	8.0	59.9	-131.16	-142.1	-559.5	713.2	646.0	67.20	10.614	
3,100.0	3,081.6	3,095.6	3,095.6	8.4	61.9	-132.00	-142.1	-559.5	722.7	653.2	69.44	10.407	
3,200.0	3,180.6	3,194.6	3,194.6	8.7	63.9	-132.82	-142.1	-559.5	732.3	660.6	71.68	10.216	
3,300.0	3,279.6	3,293.6	3,293.6	9.0	65.9	-133.61	-142.1	-559.5	742.0	668.1	73.91	10.039	
3,400.0	3,378.6	3,392.6	3,392.6	9.4	67.9	-134.39	-142.1	-559.5	751.9	675.7	76.15	9.874	
3,500.0	3,477.6	3,491.6	3,491.6	9.7	69.8	-135.15	-142.1	-559.5	761.9	683.5	78.38	9.721	
3,600.0	3,576.6	3,590.6	3,590.6	10.0	71.8	-135.88	-142.1	-559.5	772.0	691.4	80.61	9.578	
3,700.0	3,675.6	3,689.6	3,689.6	10.4	73.8	-136.60	-142.1	-559.5	782.3	699.5	82.84	9.444	
3,800.0	3,774.6	3,788.6	3,788.6	10.7	75.8	-137.30	-142.1	-559.5	792.7	707.6	85.07	9.319	
3,900.0	3,873.5	3,887.5	3,887.5	11.0	77.8	-137.98	-142.1	-559.5	803.2	715.9	87.29	9.201	
4,000.0	3,972.5	3,986.5	3,986.5	11.4	79.7	-138.65	-142.1	-559.5	813.8	724.3	89.52	9.091	
4,100.0	4,071.5	4,085.5	4,085.5	11.7	81.7	-139.29	-142.1	-559.5	824.5	732.8	91.74	8.988	
4,200.0	4,170.5	4,184.5	4,184.5	12.0	83.7	-139.92	-142.1	-559.5	835.4	741.4	93.96	8.891	
4,300.0	4,269.5	4,283.5	4,283.5	12.4	85.7	-140.54	-142.1	-559.5	846.3	750.1	96.18	8.799	
4,400.0	4,368.5	4,382.5	4,382.5	12.7	87.7	-141.14	-142.1	-559.5	857.3	758.9	98.40	8.712	
4,500.0	4,467.5	4,481.5	4,481.5	13.1	89.6	-141.72	-142.1	-559.5	868.4	767.8	100.62	8.631	
4,600.0	4,566.5	4,580.5	4,580.5	13.4	91.6	-142.29	-142.1	-559.5	879.6	776.8	102.83	8.554	
4,700.0	4,665.5	4,679.5	4,679.5	13.7	93.6	-142.84	-142.1	-559.5	890.9	785.8	105.05	8.481	
4,800.0	4,764.5	4,778.5	4,778.5	14.1	95.6	-143.38	-142.1	-559.5	902.2	795.0	107.26	8.411	
4,900.0	4,863.5	4,877.5	4,877.5	14.4	97.5	-143.91	-142.1	-559.5	913.7	804.2	109.48	8.346	
5,000.0	4,962.5	4,976.5	4,976.5	14.7	99.5	-144.43	-142.1	-559.5	925.2	813.5	111.69	8.283	
5,100.0	5,061.5	5,075.5	5,075.5	15.1	101.5	-144.93	-142.1	-559.5	936.8	822.9	113.90	8.224	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - State #1 (P&A) - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 ft

Survey Program: 7019-UNKNOWN — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,133.5	5,094.6	5,108.6	5,108.6	15.2	102.2	-145.09	-142.1	-559.5	940.7	826.0	114.64	8.205	
5,200.0	5,160.6	5,174.6	5,174.6	15.4	103.5	-145.47	-142.1	-559.5	947.8	831.5	116.30	8.149	
5,300.0	5,260.1	5,274.1	5,274.1	15.6	105.5	-145.91	-142.1	-559.5	956.2	837.5	118.71	8.055	
5,400.0	5,359.8	5,373.8	5,373.8	15.8	107.5	-146.19	-142.1	-559.5	961.7	840.6	121.02	7.946	
5,500.0	5,459.8	5,473.8	5,473.8	16.0	109.5	-146.33	-142.1	-559.5	964.3	841.0	123.24	7.824	
5,540.2	5,500.0	5,514.0	5,514.0	16.0	110.3	-138.42	-142.1	-559.5	964.5	840.4	124.16	7.768	
5,600.0	5,559.8	5,573.8	5,573.8	16.1	111.5	-138.42	-142.1	-559.5	964.5	839.1	125.46	7.688	
5,700.0	5,659.8	5,673.8	5,673.8	16.3	113.5	-138.42	-142.1	-559.5	964.5	836.9	127.65	7.556	
5,800.0	5,759.8	5,773.8	5,773.8	16.5	115.5	-138.42	-142.1	-559.5	964.5	834.7	129.84	7.428	
5,896.2	5,856.0	5,870.0	5,870.0	16.6	117.4	-138.42	-142.1	-559.5	964.5	832.6	131.95	7.309	
5,900.0	5,859.8	5,873.8	5,873.8	16.6	117.5	42.52	-142.1	-559.5	964.5	832.5	131.98	7.308	
5,925.0	5,884.8	5,898.8	5,898.8	16.7	118.0	42.62	-142.1	-559.5	963.8	831.5	132.32	7.284	
5,950.0	5,909.6	5,923.6	5,923.6	16.7	118.5	42.89	-142.1	-559.5	962.0	829.6	132.42	7.265	
5,975.0	5,934.3	5,948.3	5,948.3	16.7	119.0	43.31	-142.1	-559.5	959.1	826.8	132.29	7.250	
6,000.0	5,958.7	5,972.7	5,972.7	16.6	119.5	43.91	-142.1	-559.5	955.2	823.2	131.96	7.238	
6,025.0	5,982.8	5,996.8	5,996.8	16.6	119.9	44.67	-142.1	-559.5	950.2	818.8	131.46	7.228	
6,050.0	6,006.4	6,020.4	6,020.4	16.6	120.4	45.61	-142.1	-559.5	944.2	813.4	130.83	7.218	
6,075.0	6,029.4	6,043.4	6,043.4	16.5	120.9	46.72	-142.1	-559.5	937.3	807.2	130.12	7.203	
6,100.0	6,051.9	6,065.9	6,065.9	16.5	121.3	48.02	-142.1	-559.5	929.4	800.0	129.41	7.182	
6,125.0	6,073.7	6,087.7	6,087.7	16.4	121.8	49.50	-142.1	-559.5	920.7	792.0	128.76	7.151	
6,150.0	6,094.7	6,108.7	6,108.7	16.3	122.2	51.17	-142.1	-559.5	911.2	783.0	128.25	7.105	
6,175.0	6,114.8	6,128.8	6,128.8	16.2	122.6	53.03	-142.1	-559.5	900.9	773.0	127.94	7.042	
6,200.0	6,134.1	6,148.1	6,148.1	16.1	123.0	55.08	-142.1	-559.5	890.0	762.1	127.91	6.958	
6,225.0	6,152.4	6,166.4	6,166.4	16.0	123.3	57.31	-142.1	-559.5	878.5	750.3	128.19	6.853	
6,250.0	6,169.6	6,183.6	6,183.6	15.9	123.7	59.70	-142.1	-559.5	866.4	737.6	128.80	6.727	
6,275.0	6,185.7	6,199.7	6,199.7	15.8	124.0	62.24	-142.1	-559.5	854.0	724.2	129.74	6.582	
6,300.0	6,200.7	6,214.7	6,214.7	15.7	124.3	64.90	-142.1	-559.5	841.2	710.2	130.95	6.423	
6,325.0	6,214.4	6,228.4	6,228.4	15.6	124.6	67.65	-142.1	-559.5	828.1	695.8	132.37	6.256	
6,350.0	6,226.9	6,240.9	6,240.9	15.5	124.8	70.45	-142.1	-559.5	814.9	681.1	133.90	6.086	
6,375.0	6,238.0	6,252.0	6,252.0	15.4	125.0	73.25	-142.1	-559.5	801.7	666.3	135.43	5.920	
6,400.0	6,247.9	6,261.9	6,261.9	15.3	125.2	76.02	-142.1	-559.5	788.6	651.7	136.86	5.762	
6,425.0	6,256.3	6,270.3	6,270.3	15.3	125.4	78.71	-142.1	-559.5	775.6	637.5	138.11	5.616	
6,450.0	6,263.3	6,277.3	6,277.3	15.2	125.5	81.27	-142.1	-559.5	762.8	623.7	139.13	5.483	
6,475.0	6,268.9	6,282.9	6,282.9	15.1	125.7	83.66	-142.1	-559.5	750.5	610.6	139.89	5.365	
6,500.0	6,273.1	6,287.1	6,287.1	15.1	125.7	85.85	-142.1	-559.5	738.6	598.1	140.41	5.260	
6,525.0	6,275.7	6,289.7	6,289.7	15.0	125.8	87.81	-142.1	-559.5	727.2	586.5	140.70	5.169	
6,550.0	6,276.9	6,290.9	6,290.9	15.0	125.8	89.53	-142.1	-559.5	716.5	575.7	140.81	5.088	
6,557.5	6,277.0	6,291.0	6,291.0	15.0	125.8	90.00	-142.1	-559.5	713.4	572.6	140.81	5.066	
6,600.0	6,277.0	6,291.0	6,291.0	15.0	125.8	90.00	-142.1	-559.5	697.2	556.4	140.82	4.951	
6,657.6	6,277.0	6,291.0	6,291.0	15.1	125.8	90.00	-142.1	-559.5	678.9	538.0	140.90	4.818	
6,659.5	6,277.0	6,291.0	6,291.0	15.1	125.8	90.00	-142.1	-559.5	678.4	537.5	140.90	4.814	
6,700.0	6,277.0	6,291.0	6,291.0	15.1	125.8	90.00	-142.1	-559.5	668.3	527.3	140.95	4.741	
6,800.0	6,277.0	6,291.0	6,291.0	15.6	125.8	90.00	-142.1	-559.5	653.5	512.1	141.38	4.622	
6,847.6	6,277.0	6,291.0	6,291.0	15.9	125.8	90.00	-142.1	-559.5	651.8	510.1	141.68	4.600	ES, SF
6,900.0	6,277.0	6,291.0	6,291.0	16.2	125.8	90.00	-142.1	-559.5	653.9	511.8	142.02	4.604	
7,000.0	6,277.0	6,291.0	6,291.0	17.1	125.8	90.00	-142.1	-559.5	669.3	526.5	142.87	4.685	
7,100.0	6,277.0	6,291.0	6,291.0	18.1	125.8	90.00	-142.1	-559.5	698.9	555.1	143.87	4.858	
7,200.0	6,277.0	6,291.0	6,291.0	19.2	125.8	90.00	-142.1	-559.5	740.9	595.9	145.03	5.109	
7,300.0	6,277.0	6,291.0	6,291.0	20.5	125.8	90.00	-142.1	-559.5	793.4	647.1	146.29	5.423	
7,400.0	6,277.0	6,291.0	6,291.0	21.9	125.8	90.00	-142.1	-559.5	854.4	706.7	147.66	5.786	
7,500.0	6,277.0	6,291.0	6,291.0	23.3	125.8	90.00	-142.1	-559.5	922.2	773.1	149.10	6.185	
7,600.0	6,277.0	6,291.0	6,291.0	24.8	125.8	90.00	-142.1	-559.5	995.4	844.8	150.61	6.609	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Offset Design State Antelope K-1 Pad Sec.1-T5N-R62W - State #1 (P&A) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 7019-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,700.0	6,277.0	6,291.0	6,291.0	26.4	125.8	90.00	-142.1	-559.5	1,073.0	920.9	152.18	7.051	
7,800.0	6,277.0	6,291.0	6,291.0	28.0	125.8	90.00	-142.1	-559.5	1,154.1	1,000.3	153.79	7.504	
7,900.0	6,277.0	6,291.0	6,291.0	29.6	125.8	90.00	-142.1	-559.5	1,237.9	1,082.4	155.44	7.964	
8,000.0	6,277.0	6,291.0	6,291.0	31.3	125.8	90.00	-142.1	-559.5	1,323.9	1,166.8	157.12	8.427	
8,100.0	6,277.0	6,291.0	6,291.0	33.0	125.8	90.00	-142.1	-559.5	1,411.8	1,253.0	158.82	8.889	
8,200.0	6,277.0	6,291.0	6,291.0	34.8	125.8	90.00	-142.1	-559.5	1,501.3	1,340.7	160.55	9.350	
8,300.0	6,277.0	6,291.0	6,291.0	36.5	125.8	90.00	-142.1	-559.5	1,591.9	1,429.6	162.31	9.808	
8,400.0	6,277.0	6,291.0	6,291.0	38.3	125.8	90.00	-142.1	-559.5	1,683.7	1,519.6	164.07	10.262	
8,500.0	6,277.0	6,291.0	6,291.0	40.1	125.8	90.00	-142.1	-559.5	1,776.3	1,610.4	165.86	10.710	
8,600.0	6,277.0	6,291.0	6,291.0	41.8	125.8	90.00	-142.1	-559.5	1,869.7	1,702.0	167.65	11.152	
8,700.0	6,277.0	6,291.0	6,291.0	43.7	125.8	90.00	-142.1	-559.5	1,963.7	1,794.3	169.46	11.588	
8,800.0	6,277.0	6,291.0	6,291.0	45.5	125.8	90.00	-142.1	-559.5	2,058.3	1,887.0	171.27	12.018	
8,900.0	6,277.0	6,291.0	6,291.0	47.3	125.8	90.00	-142.1	-559.5	2,153.4	1,980.3	173.10	12.440	
9,000.0	6,277.0	6,291.0	6,291.0	49.1	125.8	90.00	-142.1	-559.5	2,248.9	2,074.0	174.93	12.856	
9,100.0	6,277.0	6,291.0	6,291.0	51.0	125.8	90.00	-142.1	-559.5	2,344.8	2,168.0	176.77	13.264	
9,200.0	6,277.0	6,291.0	6,291.0	52.8	125.8	90.00	-142.1	-559.5	2,441.0	2,262.4	178.62	13.666	
9,300.0	6,277.0	6,291.0	6,291.0	54.7	125.8	90.00	-142.1	-559.5	2,537.5	2,357.1	180.47	14.061	
9,400.0	6,277.0	6,291.0	6,291.0	56.5	125.8	90.00	-142.1	-559.5	2,634.3	2,452.0	182.33	14.448	
9,500.0	6,277.0	6,291.0	6,291.0	58.4	125.8	90.00	-142.1	-559.5	2,731.3	2,547.1	184.19	14.829	
9,600.0	6,277.0	6,291.0	6,291.0	60.2	125.8	90.00	-142.1	-559.5	2,828.5	2,642.5	186.06	15.202	
9,700.0	6,277.0	6,291.0	6,291.0	62.1	125.8	90.00	-142.1	-559.5	2,925.9	2,738.0	187.93	15.569	
9,800.0	6,277.0	6,291.0	6,291.0	64.0	125.8	90.00	-142.1	-559.5	3,023.5	2,833.7	189.80	15.930	
9,900.0	6,277.0	6,291.0	6,291.0	65.9	125.8	90.00	-142.1	-559.5	3,121.2	2,929.5	191.68	16.284	
10,000.0	6,277.0	6,291.0	6,291.0	67.7	125.8	90.00	-142.1	-559.5	3,219.1	3,025.5	193.56	16.631	
10,100.0	6,277.0	6,291.0	6,291.0	69.6	125.8	90.00	-142.1	-559.5	3,317.1	3,121.6	195.44	16.972	
10,200.0	6,277.0	6,291.0	6,291.0	71.5	125.8	90.00	-142.1	-559.5	3,415.2	3,217.9	197.32	17.307	
10,300.0	6,277.0	6,291.0	6,291.0	73.4	125.8	90.00	-142.1	-559.5	3,513.4	3,314.2	199.21	17.637	
10,400.0	6,277.0	6,291.0	6,291.0	75.3	125.8	90.00	-142.1	-559.5	3,611.7	3,410.6	201.10	17.960	
10,500.0	6,277.0	6,291.0	6,291.0	77.2	125.8	90.00	-142.1	-559.5	3,710.1	3,507.1	202.99	18.277	
10,600.0	6,277.0	6,291.0	6,291.0	79.1	125.8	90.00	-142.1	-559.5	3,808.6	3,603.7	204.88	18.589	
10,700.0	6,277.0	6,291.0	6,291.0	81.0	125.8	90.00	-142.1	-559.5	3,907.2	3,700.4	206.78	18.895	
10,800.0	6,277.0	6,291.0	6,291.0	82.9	125.8	90.00	-142.1	-559.5	4,005.8	3,797.1	208.67	19.196	
10,900.0	6,277.0	6,291.0	6,291.0	84.8	125.8	90.00	-142.1	-559.5	4,104.5	3,893.9	210.57	19.492	
10,975.4	6,277.0	6,291.0	6,291.0	86.2	125.8	90.00	-142.1	-559.5	4,178.9	3,966.9	212.00	19.712	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4673.0ft (RKB -13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: State Antelope K-O-1HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.79°

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well State Antelope K-O-1HNB
Project:	SEC.1-T5N-R62W	**TVD Reference:**	WELL @ 4673.0ft (RKB -13')
Reference Site:	State Antelope K-1 Pad Sec.1-T5N-R62W	**MD Reference:**	WELL @ 4673.0ft (RKB -13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	State Antelope K-O-1HNB	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (11-07-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4673.0ft (RKB -13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: State Antelope K-O-1HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.79°