

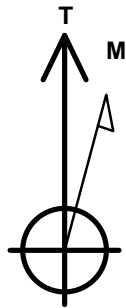
BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope Y44-U41-18HNC**

Surface Location: Antelope T-18 Pad Sec.18-T5N-R62W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4634.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1388315.32 3317085.11 40.393740 -104.361570
 Original Well Elev WELL @ 4647.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 590'FSL, 1395'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 331'FEL	6418.0	4226.1	1091.7	Point
T1 531'FSL & 322'FEL	6418.0	-29.1	1072.4	Point



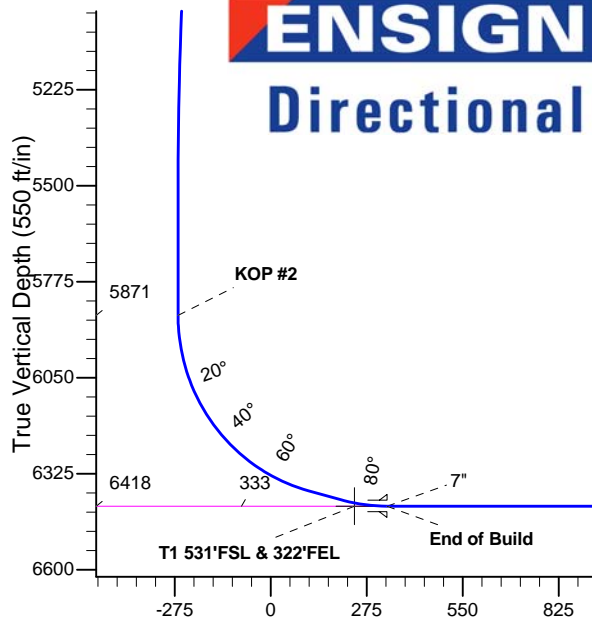
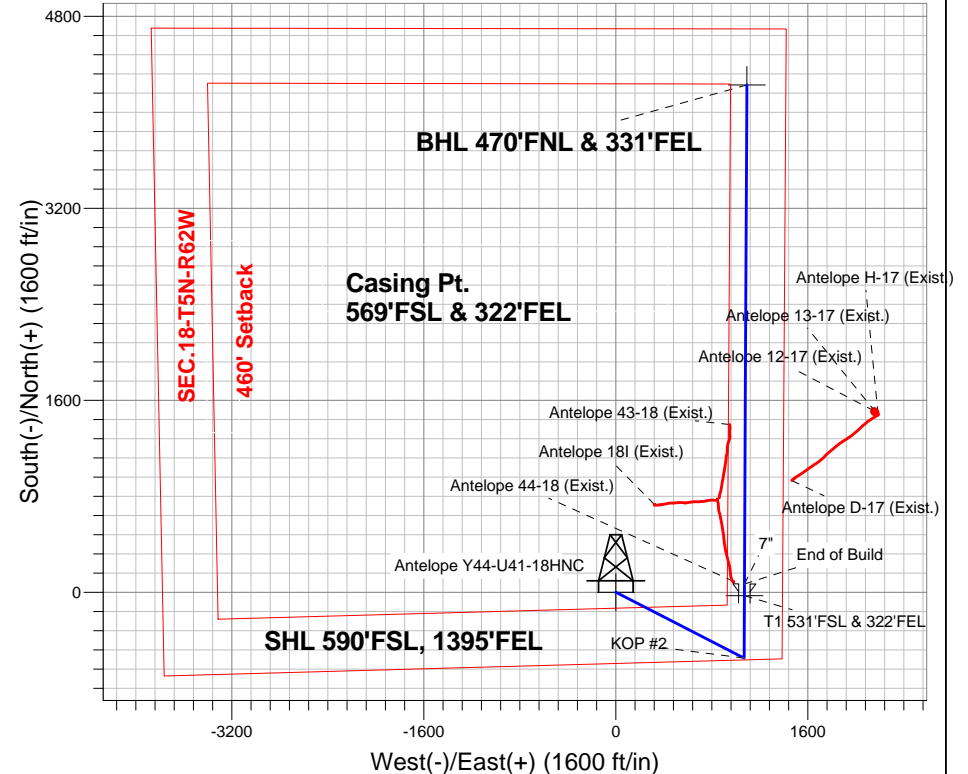
Azimuths to True North
 Magnetic North: 8.33°

Magnetic Field
 Strength: 52923.6snT
 Dip Angle: 67.03°
 Date: 10/22/2013
 Model: IGRF2010

Antelope T-18 Pad Sec.18-T5N-R62W
 Antelope Y44-U41-18HNC
 Plan #1 (10-7-13)
 13:30, October 22 2013

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP
5871.2	6019.0	KOP #2
6418.0	6937.2	End of Build



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	939.3	14.79	117.22	931.1	-43.4	84.4	2.00	117.22	-20.9	
4	4908.5	14.79	117.22	4768.9	-506.7	985.1	0.00	0.00	-244.2	
5	5647.8	0.00	0.00	5500.0	-550.1	1069.5	2.00	180.00	-265.1	
6	6019.0	0.00	0.00	5871.2	-550.1	1069.5	0.00	0.00	-265.1	
7	6700.9	75.00	0.27	6374.4	-164.0	1071.3	11.00	0.27	109.1	
8	6800.9	75.00	0.27	6400.3	-67.5	1071.7	0.00	0.00	202.8	
9	6937.2	90.00	0.27	6418.0	67.4	1072.4	11.00	0.00	333.4	
10	11096.0	90.00	0.27	6418.0	4226.1	1091.7	0.00	0.00	4364.8	BHL 470'FNL & 331'FEL

BHL 470'FNL & 331'FEL

Vertical Section at 14.48° (550 ft/in)



Directional

BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W

Antelope T-18 Pad Sec.18-T5N-R62W

Antelope Y44-U41-18HNC

Wellbore #1

Plan: Plan #1 (10-7-13)

Standard Planning Report

22 October, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site:	Antelope T-18 Pad Sec.18-T5N-R62W	North Reference:	True
Well:	Antelope Y44-U41-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

Project	SEC.18-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	Antelope T-18 Pad Sec.18-T5N-R62W				
Site Position:		Northing:	1,388,373.58 ft	Latitude:	40.393900
From:	Lat/Long	Easting:	3,317,081.58 ft	Longitude:	-104.361580
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.74 °

Well	Antelope Y44-U41-18HNC					
Well Position	+N-S	-58.3 ft	Northing:	1,388,315.32 ft	Latitude:	40.393740
	+E-W	2.8 ft	Easting:	3,317,085.11 ft	Longitude:	-104.361570
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,634.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/22/2013	8.33	67.03	52,924

Design	Plan #1 (10-7-13)			
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	14.48

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
939.3	14.79	117.22	931.1	-43.4	84.4	2.00	2.00	0.00	117.22	
4,908.5	14.79	117.22	4,768.9	-506.7	985.1	0.00	0.00	0.00	0.00	
5,647.8	0.00	0.00	5,500.0	-550.1	1,069.5	2.00	-2.00	0.00	180.00	
6,019.0	0.00	0.00	5,871.2	-550.1	1,069.5	0.00	0.00	0.00	0.00	
6,700.9	75.00	0.27	6,374.4	-164.0	1,071.3	11.00	11.00	0.00	0.27	
6,800.9	75.00	0.27	6,400.3	-67.5	1,071.7	0.00	0.00	0.00	0.00	
6,937.2	90.00	0.27	6,418.0	67.4	1,072.4	11.00	11.00	0.00	0.00	
11,096.0	90.00	0.27	6,418.0	4,226.1	1,091.7	0.00	0.00	0.00	0.00	BHL 470'FNL & 331

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site:	Antelope T-18 Pad Sec.18-T5N-R62W	North Reference:	True
Well:	Antelope Y44-U41-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 590'FSL, 1395'FEL									
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
KOP									
300.0	2.00	117.22	300.0	-0.8	1.6	-0.4	2.00	2.00	0.00
400.0	4.00	117.22	399.8	-3.2	6.2	-1.5	2.00	2.00	0.00
500.0	6.00	117.22	499.5	-7.2	14.0	-3.5	2.00	2.00	0.00
600.0	8.00	117.22	598.7	-12.8	24.8	-6.1	2.00	2.00	0.00
700.0	10.00	117.22	697.5	-19.9	38.7	-9.6	2.00	2.00	0.00
800.0	12.00	117.22	795.6	-28.6	55.7	-13.8	2.00	2.00	0.00
900.0	14.00	117.22	893.1	-38.9	75.7	-18.8	2.00	2.00	0.00
939.3	14.79	117.22	931.1	-43.4	84.4	-20.9	2.00	2.00	0.00
1,000.0	14.79	117.22	989.8	-50.5	98.1	-24.3	0.00	0.00	0.00
1,100.0	14.79	117.22	1,086.5	-62.1	120.8	-30.0	0.00	0.00	0.00
1,200.0	14.79	117.22	1,183.2	-73.8	143.5	-35.6	0.00	0.00	0.00
1,300.0	14.79	117.22	1,279.9	-85.5	166.2	-41.2	0.00	0.00	0.00
1,400.0	14.79	117.22	1,376.6	-97.2	188.9	-46.8	0.00	0.00	0.00
1,500.0	14.79	117.22	1,473.3	-108.8	211.6	-52.5	0.00	0.00	0.00
1,600.0	14.79	117.22	1,569.9	-120.5	234.3	-58.1	0.00	0.00	0.00
1,700.0	14.79	117.22	1,666.6	-132.2	257.0	-63.7	0.00	0.00	0.00
1,800.0	14.79	117.22	1,763.3	-143.9	279.7	-69.3	0.00	0.00	0.00
1,900.0	14.79	117.22	1,860.0	-155.5	302.4	-75.0	0.00	0.00	0.00
2,000.0	14.79	117.22	1,956.7	-167.2	325.1	-80.6	0.00	0.00	0.00
2,100.0	14.79	117.22	2,053.4	-178.9	347.8	-86.2	0.00	0.00	0.00
2,200.0	14.79	117.22	2,150.1	-190.6	370.5	-91.8	0.00	0.00	0.00
2,300.0	14.79	117.22	2,246.8	-202.2	393.2	-97.5	0.00	0.00	0.00
2,400.0	14.79	117.22	2,343.5	-213.9	415.9	-103.1	0.00	0.00	0.00
2,500.0	14.79	117.22	2,440.1	-225.6	438.6	-108.7	0.00	0.00	0.00
2,600.0	14.79	117.22	2,536.8	-237.2	461.2	-114.3	0.00	0.00	0.00
2,700.0	14.79	117.22	2,633.5	-248.9	483.9	-120.0	0.00	0.00	0.00
2,800.0	14.79	117.22	2,730.2	-260.6	506.6	-125.6	0.00	0.00	0.00
2,900.0	14.79	117.22	2,826.9	-272.3	529.3	-131.2	0.00	0.00	0.00
3,000.0	14.79	117.22	2,923.6	-283.9	552.0	-136.8	0.00	0.00	0.00
3,100.0	14.79	117.22	3,020.3	-295.6	574.7	-142.5	0.00	0.00	0.00
3,200.0	14.79	117.22	3,117.0	-307.3	597.4	-148.1	0.00	0.00	0.00
3,300.0	14.79	117.22	3,213.7	-319.0	620.1	-153.7	0.00	0.00	0.00
3,400.0	14.79	117.22	3,310.3	-330.6	642.8	-159.3	0.00	0.00	0.00
3,500.0	14.79	117.22	3,407.0	-342.3	665.5	-165.0	0.00	0.00	0.00
3,600.0	14.79	117.22	3,503.7	-354.0	688.2	-170.6	0.00	0.00	0.00
3,700.0	14.79	117.22	3,600.4	-365.6	710.9	-176.2	0.00	0.00	0.00
3,800.0	14.79	117.22	3,697.1	-377.3	733.6	-181.8	0.00	0.00	0.00
3,900.0	14.79	117.22	3,793.8	-389.0	756.3	-187.5	0.00	0.00	0.00
4,000.0	14.79	117.22	3,890.5	-400.7	779.0	-193.1	0.00	0.00	0.00
4,100.0	14.79	117.22	3,987.2	-412.3	801.7	-198.7	0.00	0.00	0.00
4,200.0	14.79	117.22	4,083.9	-424.0	824.4	-204.3	0.00	0.00	0.00
4,300.0	14.79	117.22	4,180.5	-435.7	847.0	-210.0	0.00	0.00	0.00
4,400.0	14.79	117.22	4,277.2	-447.4	869.7	-215.6	0.00	0.00	0.00
4,500.0	14.79	117.22	4,373.9	-459.0	892.4	-221.2	0.00	0.00	0.00
4,600.0	14.79	117.22	4,470.6	-470.7	915.1	-226.8	0.00	0.00	0.00
4,700.0	14.79	117.22	4,567.3	-482.4	937.8	-232.5	0.00	0.00	0.00
4,800.0	14.79	117.22	4,664.0	-494.0	960.5	-238.1	0.00	0.00	0.00
4,900.0	14.79	117.22	4,760.7	-505.7	983.2	-243.7	0.00	0.00	0.00

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)
4,908.5	14.79	117.22	4,768.9	-506.7	985.1	-244.2	0.00	0.00	0.00
5,000.0	12.96	117.22	4,857.7	-516.7	1,004.6	-249.0	2.00	-2.00	0.00
5,100.0	10.96	117.22	4,955.5	-526.2	1,023.1	-253.6	2.00	-2.00	0.00
5,200.0	8.96	117.22	5,054.0	-534.1	1,038.4	-257.4	2.00	-2.00	0.00
5,300.0	6.96	117.22	5,153.1	-540.5	1,050.8	-260.5	2.00	-2.00	0.00
5,400.0	4.96	117.22	5,252.5	-545.2	1,060.0	-262.8	2.00	-2.00	0.00
5,500.0	2.96	117.22	5,352.3	-548.4	1,066.1	-264.3	2.00	-2.00	0.00
5,600.0	0.96	117.22	5,452.2	-549.9	1,069.1	-265.0	2.00	-2.00	0.00
5,647.8	0.00	0.00	5,500.0	-550.1	1,069.5	-265.1	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,552.2	-550.1	1,069.5	-265.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,652.2	-550.1	1,069.5	-265.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,752.2	-550.1	1,069.5	-265.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,852.2	-550.1	1,069.5	-265.1	0.00	0.00	0.00
6,019.0	0.00	0.00	5,871.2	-550.1	1,069.5	-265.1	0.00	0.00	0.00
KOP #2									
6,100.0	8.91	0.27	5,951.9	-543.8	1,069.5	-259.0	11.00	11.00	0.00
6,200.0	19.91	0.27	6,048.6	-519.0	1,069.6	-234.9	11.00	11.00	0.00
6,300.0	30.91	0.27	6,138.8	-476.1	1,069.8	-193.4	11.00	11.00	0.00
6,400.0	41.91	0.27	6,219.1	-416.9	1,070.1	-136.0	11.00	11.00	0.00
6,500.0	52.91	0.27	6,286.7	-343.4	1,070.5	-64.7	11.00	11.00	0.00
6,600.0	63.91	0.27	6,339.0	-258.3	1,070.9	17.7	11.00	11.00	0.00
6,700.0	74.91	0.27	6,374.1	-164.9	1,071.3	108.3	11.00	11.00	0.00
6,700.9	75.00	0.27	6,374.4	-164.0	1,071.3	109.1	11.00	11.00	0.00
6,800.0	75.00	0.27	6,400.0	-68.3	1,071.7	202.0	0.00	0.00	0.00
6,800.9	75.00	0.27	6,400.3	-67.5	1,071.7	202.8	0.00	0.00	0.00
6,841.7	79.49	0.27	6,409.3	-27.6	1,071.9	241.3	11.00	11.00	0.00
T1 531'FSL & 322'FEL									
6,900.0	85.91	0.27	6,416.7	30.2	1,072.2	297.4	11.00	11.00	0.00
6,937.2	90.00	0.27	6,418.0	67.3	1,072.4	333.4	11.00	11.00	0.00
End of Build - TARGET - 7"									
7,000.0	90.00	0.27	6,418.0	130.1	1,072.7	394.3	0.00	0.00	0.00
7,100.0	90.00	0.27	6,418.0	230.1	1,073.1	491.2	0.00	0.00	0.00
7,200.0	90.00	0.27	6,418.0	330.1	1,073.6	588.2	0.00	0.00	0.00
7,300.0	90.00	0.27	6,418.0	430.1	1,074.1	685.1	0.00	0.00	0.00
7,400.0	90.00	0.27	6,418.0	530.1	1,074.5	782.0	0.00	0.00	0.00
7,500.0	90.00	0.27	6,418.0	630.1	1,075.0	879.0	0.00	0.00	0.00
7,600.0	90.00	0.27	6,418.0	730.1	1,075.5	975.9	0.00	0.00	0.00
7,700.0	90.00	0.27	6,418.0	830.1	1,075.9	1,072.9	0.00	0.00	0.00
7,800.0	90.00	0.27	6,418.0	930.1	1,076.4	1,169.8	0.00	0.00	0.00
7,900.0	90.00	0.27	6,418.0	1,030.1	1,076.9	1,266.7	0.00	0.00	0.00
8,000.0	90.00	0.27	6,418.0	1,130.1	1,077.3	1,363.7	0.00	0.00	0.00
8,100.0	90.00	0.27	6,418.0	1,230.1	1,077.8	1,460.6	0.00	0.00	0.00
8,200.0	90.00	0.27	6,418.0	1,330.1	1,078.2	1,557.5	0.00	0.00	0.00
8,300.0	90.00	0.27	6,418.0	1,430.1	1,078.7	1,654.5	0.00	0.00	0.00
8,400.0	90.00	0.27	6,418.0	1,530.1	1,079.2	1,751.4	0.00	0.00	0.00
8,500.0	90.00	0.27	6,418.0	1,630.1	1,079.6	1,848.3	0.00	0.00	0.00
8,600.0	90.00	0.27	6,418.0	1,730.1	1,080.1	1,945.3	0.00	0.00	0.00
8,700.0	90.00	0.27	6,418.0	1,830.1	1,080.6	2,042.2	0.00	0.00	0.00
8,800.0	90.00	0.27	6,418.0	1,930.1	1,081.0	2,139.2	0.00	0.00	0.00
8,900.0	90.00	0.27	6,418.0	2,030.1	1,081.5	2,236.1	0.00	0.00	0.00
9,000.0	90.00	0.27	6,418.0	2,130.1	1,082.0	2,333.0	0.00	0.00	0.00
9,100.0	90.00	0.27	6,418.0	2,230.1	1,082.4	2,430.0	0.00	0.00	0.00
9,200.0	90.00	0.27	6,418.0	2,330.1	1,082.9	2,526.9	0.00	0.00	0.00

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)	
9,300.0	90.00	0.27	6,418.0	2,430.1	1,083.4	2,623.8	0.00	0.00	0.00	
9,400.0	90.00	0.27	6,418.0	2,530.1	1,083.8	2,720.8	0.00	0.00	0.00	
9,500.0	90.00	0.27	6,418.0	2,630.1	1,084.3	2,817.7	0.00	0.00	0.00	
9,600.0	90.00	0.27	6,418.0	2,730.1	1,084.8	2,914.7	0.00	0.00	0.00	
9,700.0	90.00	0.27	6,418.0	2,830.1	1,085.2	3,011.6	0.00	0.00	0.00	
9,800.0	90.00	0.27	6,418.0	2,930.1	1,085.7	3,108.5	0.00	0.00	0.00	
9,900.0	90.00	0.27	6,418.0	3,030.1	1,086.2	3,205.5	0.00	0.00	0.00	
10,000.0	90.00	0.27	6,418.0	3,130.1	1,086.6	3,302.4	0.00	0.00	0.00	
10,100.0	90.00	0.27	6,418.0	3,230.1	1,087.1	3,399.3	0.00	0.00	0.00	
10,200.0	90.00	0.27	6,418.0	3,330.1	1,087.6	3,496.3	0.00	0.00	0.00	
10,300.0	90.00	0.27	6,418.0	3,430.1	1,088.0	3,593.2	0.00	0.00	0.00	
10,400.0	90.00	0.27	6,418.0	3,530.1	1,088.5	3,690.1	0.00	0.00	0.00	
10,500.0	90.00	0.27	6,418.0	3,630.1	1,088.9	3,787.1	0.00	0.00	0.00	
10,600.0	90.00	0.27	6,418.0	3,730.1	1,089.4	3,884.0	0.00	0.00	0.00	
10,700.0	90.00	0.27	6,418.0	3,830.1	1,089.9	3,981.0	0.00	0.00	0.00	
10,800.0	90.00	0.27	6,418.0	3,930.1	1,090.3	4,077.9	0.00	0.00	0.00	
10,900.0	90.00	0.27	6,418.0	4,030.1	1,090.8	4,174.8	0.00	0.00	0.00	
11,000.0	90.00	0.27	6,418.0	4,130.1	1,091.3	4,271.8	0.00	0.00	0.00	
11,096.0	90.00	0.27	6,418.0	4,226.1	1,091.7	4,364.8	0.00	0.00	0.00	
BHL 470'FNL & 331'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
T1 531'FSL & 322'FEI - plan misses target center by 8.9ft at 6841.7ft MD (6409.3 TVD, -27.6 N, 1071.9 E) - Point	0.00	0.00	6,418.0	-29.1	1,072.4	1,388,299.98	3,318,157.76	40.393660	-104.357720
SHL 590'FSL, 1395'FI - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,388,315.33	3,317,085.11	40.393740	-104.361570
BHL 470'FNL & 331'F - plan hits target center - Point	0.00	0.00	6,418.0	4,226.1	1,091.7	1,392,554.87	3,318,122.45	40.405340	-104.357650

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")
6,937.2	6,418.0	7"		7	7-1/2

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	6,937.2	6,418.0	TARGET		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Project:	SEC.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site:	Antelope T-18 Pad Sec.18-T5N-R62W	North Reference:	True
Well:	Antelope Y44-U41-18HNC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
200.0	200.0	0.0	0.0	KOP	
6,019.0	5,871.2	-550.1	1,069.5	KOP #2	
6,937.2	6,418.0	67.3	1,072.4	End of Build	



Directional

BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W

Antelope T-18 Pad Sec.18-T5N-R62W

Antelope Y44-U41-18HNC

Wellbore #1

Plan #1 (10-7-13)

Anticollision Report

22 October, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design		Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope 18I (Exist.) - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 ft		
Survey Program: 510-MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
2,300.0	2,246.8	2,271.3	2,254.3	10.1	6.0	-105.60	745.0	590.6	968.6	952.9	15.66	61.865				
2,400.0	2,343.5	2,346.9	2,329.5	10.6	6.2	-107.09	743.7	583.1	972.4	956.0	16.36	59.449				
2,500.0	2,440.1	2,423.7	2,406.0	11.2	6.4	-108.57	743.9	576.2	979.2	962.2	17.05	57.442				
2,600.0	2,536.8	2,520.0	2,501.6	11.7	6.7	-110.54	745.6	565.4	988.3	970.6	17.77	55.621				
2,700.0	2,633.5	2,620.8	2,601.9	12.3	7.0	-112.56	746.1	553.9	997.5	979.0	18.49	53.952				
7,000.0	6,418.0	6,402.1	6,372.5	25.0	15.8	-89.28	730.1	322.0	961.0	929.6	31.36	30.645				
7,100.0	6,418.0	6,403.2	6,373.6	25.0	15.8	-89.36	730.1	322.0	902.3	870.3	32.00	28.199				
7,200.0	6,418.0	6,404.2	6,374.6	25.1	15.8	-89.44	730.1	322.0	851.4	818.6	32.81	25.950				
7,300.0	6,418.0	6,405.2	6,375.6	25.4	15.8	-89.51	730.1	322.0	809.7	775.9	33.77	23.976				
7,400.0	6,418.0	6,406.2	6,376.6	25.9	15.8	-89.59	730.1	322.0	778.7	743.8	34.86	22.336				
7,500.0	6,418.0	6,407.2	6,377.6	26.7	15.8	-89.67	730.1	322.0	759.6	723.6	36.06	21.063				
7,596.5	6,418.0	6,408.2	6,378.6	27.5	15.8	-89.74	730.2	322.0	753.5	716.2	37.32	20.192 CC				
7,600.0	6,418.0	6,408.2	6,378.6	27.6	15.8	-89.74	730.2	322.0	753.5	716.1	37.36	20.168 ES				
7,700.0	6,418.0	6,409.2	6,379.6	28.7	15.8	-89.82	730.2	322.0	760.5	721.8	38.74	19.634				
7,800.0	6,418.0	6,410.2	6,380.6	29.9	15.8	-89.90	730.2	322.0	780.5	740.3	40.18	19.424 SF				
7,900.0	6,418.0	6,411.2	6,381.6	31.2	15.8	-89.97	730.2	322.0	812.3	770.6	41.68	19.488				
8,000.0	6,418.0	6,412.2	6,382.6	32.6	15.8	-90.04	730.2	322.0	854.7	811.5	43.23	19.771				
8,100.0	6,418.0	6,413.2	6,383.6	34.1	15.8	-90.12	730.2	322.0	906.2	861.4	44.82	20.218				
8,200.0	6,418.0	6,414.1	6,384.5	35.6	15.8	-90.19	730.2	322.0	965.3	918.9	46.45	20.783				

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope 43-18 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 470-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,300.0	6,418.0	6,410.1	6,370.9	25.4	16.9	-85.16	1,396.4	946.9	974.6	937.9	36.71	26.546	
7,400.0	6,418.0	6,411.3	6,372.0	25.9	16.9	-85.67	1,396.4	946.9	875.7	837.8	37.86	23.130	
7,500.0	6,418.0	6,412.4	6,373.2	26.7	16.9	-86.17	1,396.4	946.9	776.9	737.8	39.11	19.865	
7,600.0	6,418.0	6,413.6	6,374.3	27.6	16.9	-86.67	1,396.4	946.9	678.6	638.1	40.46	16.773	
7,700.0	6,418.0	6,414.7	6,375.4	28.7	16.9	-87.15	1,396.4	946.9	580.8	539.0	41.88	13.868	
7,800.0	6,418.0	6,415.8	6,376.5	29.9	16.9	-87.63	1,396.4	946.9	484.0	440.6	43.38	11.158	
7,900.0	6,418.0	6,416.9	6,377.6	31.2	16.9	-88.10	1,396.4	946.9	388.7	343.8	44.92	8.653	
8,000.0	6,418.0	6,417.9	6,378.7	32.6	16.9	-88.56	1,396.5	946.9	296.6	250.1	46.51	6.376	
8,100.0	6,418.0	6,419.0	6,379.7	34.1	16.9	-89.01	1,396.5	946.9	211.7	163.5	48.14	4.397	
8,200.0	6,418.0	6,420.0	6,380.8	35.6	16.9	-89.46	1,396.5	946.9	147.2	97.4	49.80	2.955	
8,265.7	6,418.0	6,420.7	6,381.4	36.6	16.9	-89.75	1,396.5	946.9	131.7	80.8	50.91	2.586 CC, ES, SF	
8,300.0	6,418.0	6,421.0	6,381.8	37.1	16.9	-89.90	1,396.5	946.9	136.0	84.6	51.49	2.642	
8,400.0	6,418.0	6,422.0	6,382.8	38.7	16.9	-90.33	1,396.5	946.9	188.0	134.8	53.20	3.534	
8,500.0	6,418.0	6,423.0	6,383.7	40.3	16.9	-90.75	1,396.5	946.9	268.7	213.8	54.93	4.892	
8,600.0	6,418.0	6,423.9	6,384.7	42.0	16.9	-91.17	1,396.5	946.9	359.2	302.6	56.68	6.338	
8,700.0	6,418.0	6,424.9	6,385.6	43.7	16.9	-91.58	1,396.5	946.9	453.8	395.3	58.44	7.765	
8,800.0	6,418.0	6,425.8	6,386.6	45.3	16.9	-91.99	1,396.5	946.9	550.2	490.0	60.21	9.138	
8,900.0	6,418.0	6,426.7	6,387.5	47.0	16.9	-92.38	1,396.5	946.9	647.7	585.8	61.99	10.449	
9,000.0	6,418.0	6,427.6	6,388.4	48.8	16.9	-92.77	1,396.6	946.9	745.9	682.1	63.78	11.695	
9,100.0	6,418.0	6,428.5	6,389.3	50.5	16.9	-93.16	1,396.6	946.9	844.5	779.0	65.58	12.878	
9,200.0	6,418.0	6,429.4	6,390.1	52.2	16.9	-93.54	1,396.6	946.9	943.4	876.1	67.38	14.001	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 479-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
1,600.0	1,569.9	1,660.3	1,646.8	6.2	4.1	-78.61	622.0	872.8	985.8	976.0	9.86	99.967	
1,700.0	1,666.6	1,764.0	1,748.6	6.8	4.5	-79.27	602.6	876.4	968.2	957.5	10.73	90.243	
1,800.0	1,763.3	1,855.2	1,838.4	7.3	4.8	-79.92	586.3	879.1	951.2	939.6	11.55	82.360	
1,900.0	1,860.0	1,939.4	1,921.3	7.9	5.1	-80.58	572.3	881.6	935.2	922.9	12.34	75.773	
2,000.0	1,956.7	2,046.1	2,026.6	8.4	5.5	-81.44	555.2	885.5	920.4	907.2	13.21	69.693	
2,100.0	2,053.4	2,143.6	2,122.6	9.0	5.8	-82.22	538.5	888.6	904.6	890.5	14.04	64.404	
2,200.0	2,150.1	2,230.4	2,208.3	9.5	6.1	-83.00	524.7	891.1	889.7	874.8	14.84	59.958	
2,300.0	2,246.8	2,344.9	2,321.3	10.1	6.5	-84.10	506.5	893.7	874.7	859.0	15.70	55.704	
2,400.0	2,343.5	2,435.9	2,411.0	10.6	6.8	-85.01	491.7	895.4	859.4	842.9	16.50	52.091	
2,500.0	2,440.1	2,529.9	2,503.8	11.2	7.2	-85.99	477.2	897.6	845.3	828.0	17.29	48.875	
2,600.0	2,536.8	2,635.7	2,608.2	11.7	7.5	-87.13	459.9	899.6	830.5	812.4	18.12	45.845	
2,700.0	2,633.5	2,727.6	2,699.0	12.3	7.9	-88.18	445.5	901.1	816.4	797.5	18.89	43.218	
2,800.0	2,730.2	2,821.3	2,791.6	12.8	8.2	-89.33	431.4	902.3	803.1	783.4	19.66	40.854	
2,900.0	2,826.9	2,914.4	2,883.7	13.4	8.5	-90.51	418.0	903.7	790.7	770.3	20.41	38.737	
3,000.0	2,923.6	3,004.7	2,973.1	13.9	8.8	-91.70	405.5	905.4	779.4	758.3	21.15	36.850	
3,100.0	3,020.3	3,097.8	3,065.4	14.5	9.1	-93.00	393.8	906.8	769.5	747.6	21.88	35.174	
3,200.0	3,117.0	3,199.7	3,166.5	15.0	9.4	-94.41	380.6	909.0	760.0	737.4	22.61	33.612	
3,300.0	3,213.7	3,290.1	3,256.1	15.6	9.7	-95.66	368.7	911.3	750.9	727.6	23.32	32.203	
3,400.0	3,310.3	3,403.5	3,368.5	16.2	10.0	-97.27	353.7	914.1	742.1	718.1	24.05	30.854	
3,500.0	3,407.0	3,497.3	3,461.2	16.7	10.3	-98.56	340.2	916.9	732.9	708.1	24.75	29.605	
3,600.0	3,503.7	3,597.9	3,560.7	17.3	10.7	-99.96	325.6	920.2	724.1	698.7	25.46	28.445	
3,700.0	3,600.4	3,702.0	3,663.5	17.8	11.0	-101.39	309.8	924.1	715.2	689.1	26.15	27.346	
3,800.0	3,697.1	3,801.3	3,761.5	18.4	11.4	-102.83	294.2	927.2	706.0	679.2	26.82	26.321	
3,900.0	3,793.8	3,893.5	3,852.6	18.9	11.7	-104.18	280.0	930.3	697.7	670.3	27.47	25.397	
4,000.0	3,890.5	3,997.0	3,954.8	19.5	12.1	-105.67	264.3	934.6	690.3	662.1	28.12	24.543	
4,100.0	3,987.2	4,095.9	4,052.3	20.0	12.4	-107.10	248.4	938.8	682.4	653.6	28.76	23.728	
4,200.0	4,083.9	4,182.0	4,137.3	20.6	12.7	-108.37	235.3	942.7	675.8	646.4	29.36	23.015	
4,300.0	4,180.5	4,277.9	4,232.2	21.1	13.0	-109.87	222.0	946.5	670.9	641.0	29.94	22.409	
4,400.0	4,277.2	4,388.1	4,341.2	21.7	13.4	-111.71	205.7	949.5	665.5	635.0	30.48	21.832	
4,500.0	4,373.9	4,476.4	4,428.4	22.3	13.7	-113.27	192.7	951.2	660.6	629.6	30.99	21.315	
4,600.0	4,470.6	4,561.0	4,512.4	22.8	13.9	-114.81	181.9	952.7	658.3	626.9	31.48	20.915	
4,700.0	4,567.3	4,659.2	4,609.9	23.4	14.2	-116.64	170.1	953.9	657.4	625.5	31.93	20.592	
4,740.9	4,606.8	4,697.6	4,647.9	23.6	14.3	-117.36	165.6	954.4	657.3	625.2	32.10	20.473	
4,800.0	4,664.0	4,752.6	4,702.7	23.9	14.5	-118.39	159.2	955.1	657.5	625.2	32.36	20.319	
4,908.5	4,768.9	4,851.8	4,801.2	24.5	14.8	-120.25	148.4	956.3	659.3	626.5	32.81	20.091	
5,000.0	4,857.7	4,944.5	4,893.4	24.9	15.0	-121.94	139.0	956.8	661.4	628.2	33.11	19.977	
5,100.0	4,955.5	5,041.8	4,990.2	25.3	15.3	-123.34	128.1	958.7	661.3	627.9	33.39	19.805	
5,200.0	5,054.0	5,129.1	5,077.0	25.6	15.6	-124.36	119.7	960.5	661.1	627.4	33.67	19.634	
5,300.0	5,153.1	5,219.2	5,166.8	25.8	15.8	-125.13	112.6	962.7	660.9	626.9	33.95	19.463	
5,400.0	5,252.5	5,310.5	5,257.8	26.0	16.0	-125.65	106.6	965.2	659.9	625.7	34.23	19.277	
5,500.0	5,352.3	5,403.2	5,350.4	26.2	16.2	-125.92	101.6	967.6	658.3	623.8	34.51	19.075	
5,600.0	5,452.2	5,497.9	5,444.9	26.3	16.4	-125.96	97.4	969.9	655.6	620.8	34.79	18.843	
5,647.8	5,500.0	5,543.6	5,490.6	26.4	16.5	-8.68	95.7	971.0	653.8	618.9	34.88	18.745	
5,700.0	5,552.2	5,593.8	5,540.8	26.4	16.6	-8.61	93.8	972.0	651.7	616.7	35.05	18.595	
5,800.0	5,652.2	5,690.0	5,636.9	26.5	16.8	-8.50	90.7	973.7	648.2	612.9	35.37	18.326	
5,900.0	5,752.2	5,786.8	5,733.7	26.6	17.0	-8.42	88.0	975.1	645.3	609.6	35.69	18.078	
6,000.0	5,852.2	5,880.7	5,827.5	26.7	17.1	-8.33	86.1	976.3	643.1	607.0	36.01	17.857	
6,019.0	5,871.2	5,898.8	5,845.6	26.7	17.2	-8.32	85.8	976.6	642.7	606.7	36.07	17.818	
6,050.0	5,902.2	5,928.2	5,875.0	26.7	17.2	-8.59	85.4	976.9	641.4	605.3	36.01	17.808	
6,100.0	5,951.9	5,975.9	5,922.7	26.8	17.3	-8.72	84.9	977.4	635.5	599.9	35.58	17.859	
6,150.0	6,000.8	6,023.9	5,970.7	26.8	17.4	-9.01	84.5	977.8	625.0	590.2	34.83	17.942	
6,200.0	6,048.6	6,071.0	6,017.8	26.7	17.4	-9.48	84.1	978.1	610.0	576.2	33.77	18.062	

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

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design		Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope 44-18 (Exist.) - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 ft		
Survey Program: 479-MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
6,250.0	6,094.7	6,116.7	6,063.5	26.7	17.5	-10.15	83.8	978.5	590.6	558.2	32.42	18.217				
6,300.0	6,138.8	6,159.8	6,106.6	26.6	17.6	-11.07	83.5	979.0	567.0	536.2	30.80	18.411				
6,350.0	6,180.4	6,200.1	6,146.9	26.5	17.7	-12.32	83.3	979.4	539.5	510.5	28.94	18.643				
6,400.0	6,219.1	6,237.6	6,184.4	26.4	17.7	-14.04	83.3	979.7	508.3	481.4	26.90	18.896				
6,450.0	6,254.7	6,271.8	6,218.6	26.3	17.8	-16.39	83.3	980.0	473.7	448.9	24.78	19.120				
6,500.0	6,286.7	6,302.9	6,249.7	26.1	17.8	-19.68	83.4	980.2	436.2	413.4	22.75	19.169				
6,550.0	6,314.9	6,330.6	6,277.4	26.0	17.9	-24.38	83.5	980.4	396.0	374.8	21.19	18.691				
6,600.0	6,339.0	6,354.6	6,301.4	25.9	17.9	-31.20	83.6	980.6	353.7	332.9	20.77	17.026				
6,650.0	6,358.8	6,374.4	6,321.2	25.7	17.9	-41.00	83.8	980.7	309.7	287.2	22.56	13.730				
6,700.9	6,374.4	6,390.1	6,336.9	25.6	17.9	-54.46	83.9	980.8	264.0	237.1	26.88	9.819				
6,800.9	6,400.3	6,416.6	6,363.4	25.3	18.0	-66.41	84.1	980.9	176.7	146.0	30.74	5.748				
6,850.0	6,410.7	6,427.5	6,374.2	25.2	18.0	-79.06	84.2	981.0	137.9	104.1	33.82	4.078				
6,900.0	6,416.7	6,433.9	6,380.7	25.1	18.0	-87.60	84.3	981.0	106.0	70.8	35.22	3.010				
6,937.2	6,418.0	6,435.6	6,382.4	25.1	18.0	-90.23	84.3	981.1	92.9	57.3	35.60	2.609				
6,953.8	6,418.0	6,435.8	6,382.5	25.1	18.0	-90.34	84.3	981.1	91.4	55.7	35.69	2.561 CC, ES, SF				
7,000.0	6,418.0	6,436.2	6,383.0	25.0	18.0	-90.64	84.3	981.1	102.4	66.5	35.93	2.850				
7,100.0	6,418.0	6,437.3	6,384.0	25.0	18.0	-91.28	84.3	981.1	172.4	135.8	36.62	4.709				
7,200.0	6,418.0	6,438.3	6,385.1	25.1	18.0	-91.93	84.3	981.1	262.6	225.2	37.47	7.009				
7,300.0	6,418.0	6,439.4	6,386.1	25.4	18.0	-92.59	84.4	981.1	358.1	319.6	38.47	9.308				
7,400.0	6,418.0	6,440.4	6,387.2	25.9	18.0	-93.26	84.4	981.1	455.5	415.9	39.59	11.504				
7,500.0	6,418.0	6,441.5	6,388.3	26.7	18.0	-93.92	84.4	981.1	553.8	513.0	40.82	13.567				
7,600.0	6,418.0	6,442.6	6,389.3	27.6	18.0	-94.60	84.4	981.1	652.6	610.5	42.14	15.489				
7,700.0	6,418.0	6,443.7	6,390.4	28.7	18.0	-95.28	84.4	981.1	751.8	708.3	43.52	17.274				
7,800.0	6,418.0	6,444.8	6,391.5	29.9	18.0	-95.96	84.4	981.1	851.1	806.2	44.97	18.928				
7,900.0	6,418.0	6,445.9	6,392.7	31.2	18.0	-96.65	84.4	981.1	950.6	904.1	46.46	20.461				

Antelope (Existing Wells) Pad Sec.18-T5N-R62W - Antelope D-17 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 493-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
6,900.0	6,416.7	6,480.8	6,391.4	25.1	20.8	82.17	931.2	1,467.2	983.9	949.2	34.70	28.353		
6,937.2	6,418.0	6,481.7	6,392.3	25.1	20.8	91.51	931.2	1,467.2	949.9	915.2	34.70	27.374		
7,000.0	6,418.0	6,480.9	6,391.5	25.0	20.8	91.40	931.2	1,467.2	893.0	858.0	35.01	25.510		
7,100.0	6,418.0	6,479.7	6,390.3	25.0	20.8	91.22	931.2	1,467.2	804.3	768.7	35.65	22.562		
7,200.0	6,418.0	6,478.5	6,389.1	25.1	20.8	91.04	931.2	1,467.2	718.6	682.1	36.46	19.708		
7,300.0	6,418.0	6,477.3	6,387.9	25.4	20.8	90.86	931.3	1,467.2	637.0	599.5	37.42	17.021		
7,400.0	6,418.0	6,476.0	6,386.6	25.9	20.8	90.68	931.3	1,467.2	561.4	522.9	38.52	14.575		
7,500.0	6,418.0	6,474.8	6,385.4	26.7	20.8	90.50	931.3	1,467.2	494.5	454.8	39.72	12.450		
7,600.0	6,418.0	6,473.6	6,384.2	27.6	20.8	90.32	931.3	1,467.2	440.4	399.4	41.02	10.737		
7,700.0	6,418.0	6,472.4	6,383.0	28.7	20.8	90.14	931.3	1,467.2	404.2	361.8	42.40	9.533		
7,800.0	6,418.0	6,471.1	6,381.7	29.9	20.8	89.96	931.3	1,467.2	390.8	347.0	43.84	8.915		
7,803.0	6,418.0	6,471.1	6,381.7	29.9	20.8	89.96	931.3	1,467.2	390.8	346.9	43.89	8.905 CC, ES		
7,900.0	6,418.0	6,469.9	6,380.5	31.2	20.8	89.78	931.3	1,467.2	402.7	357.3	45.34	8.881 SF		
8,000.0	6,418.0	6,468.7	6,379.3	32.6	20.8	89.60	931.4	1,467.2	437.7	390.8	46.89	9.333		
8,100.0	6,418.0	6,467.5	6,378.1	34.1	20.8	89.42	931.4	1,467.2	490.8	442.4	48.48	10.124		
8,200.0	6,418.0	6,466.2	6,376.8	35.6	20.8	89.24	931.4	1,467.2	557.1	506.9	50.11	11.117		
8,300.0	6,418.0	6,465.0	6,375.6	37.1	20.8	89.06	931.4	1,467.2	632.2	580.5	51.77	12.213		
8,400.0	6,418.0	6,463.8	6,374.4	38.7	20.8	88.89	931.4	1,467.2	713.5	660.0	53.45	13.350		
8,500.0	6,418.0	6,462.6	6,373.2	40.3	20.8	88.71	931.4	1,467.2	799.0	743.9	55.15	14.488		
8,600.0	6,418.0	6,461.4	6,372.0	42.0	20.8	88.53	931.5	1,467.2	887.6	830.7	56.87	15.607		
8,700.0	6,418.0	6,460.1	6,370.7	43.7	20.8	88.35	931.5	1,467.2	978.4	919.8	58.61	16.692		

Antelope T-18 Pad Sec.18-T5N-R62W - Antelope 034-K31-18HNC - Wellbore #1 - Plan #1 (10-7-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-2.74	58.3	-2.8	58.4					
100.0	100.0	100.0	100.0	0.1	0.1	-2.74	58.3	-2.8	58.4	58.1	0.22	259.686		
200.0	200.0	200.0	200.0	0.3	0.3	-2.74	58.3	-2.8	58.4	57.7	0.67	86.562 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.6	-121.40	58.3	-2.8	59.3	58.1	1.11	53.390		
400.0	399.8	399.8	399.8	0.8	0.8	-125.47	58.3	-2.8	62.1	60.6	1.55	40.056		
500.0	499.5	499.5	499.5	1.0	1.0	-131.40	58.3	-2.8	67.6	65.6	2.01	33.549		
600.0	598.7	598.7	598.7	1.3	1.2	-138.15	58.3	-2.8	76.2	73.7	2.49	30.586		
700.0	697.5	697.5	697.5	1.6	1.5	-144.75	58.3	-2.8	88.5	85.6	2.97	29.759 SF		
800.0	795.6	795.6	795.6	2.0	1.7	-150.60	58.3	-2.8	104.8	101.3	3.46	30.303		
900.0	893.1	893.1	893.1	2.5	1.9	-155.48	58.3	-2.8	124.9	121.0	3.94	31.740		
939.3	931.1	931.1	931.1	2.7	2.0	-157.13	58.3	-2.8	133.9	129.8	4.12	32.479		
1,000.0	989.8	989.8	989.8	3.0	2.1	-159.45	58.3	-2.8	148.4	144.0	4.41	33.633		
1,100.0	1,086.5	1,086.5	1,086.5	3.5	2.3	-162.41	58.3	-2.8	172.6	167.7	4.89	35.317		
1,200.0	1,183.2	1,183.2	1,183.2	4.0	2.5	-164.65	58.3	-2.8	197.1	191.8	5.36	36.754		
1,300.0	1,279.9	1,279.9	1,279.9	4.6	2.8	-166.39	58.3	-2.8	221.9	216.1	5.84	37.981		
1,400.0	1,376.6	1,376.6	1,376.6	5.1	3.0	-167.78	58.3	-2.8	246.8	240.5	6.32	39.034		
1,500.0	1,473.3	1,473.3	1,473.3	5.7	3.2	-168.92	58.3	-2.8	271.8	265.0	6.81	39.943		
1,600.0	1,569.9	1,568.1	1,568.1	6.2	3.4	-170.01	57.8	-3.4	297.2	289.9	7.27	40.879		
1,700.0	1,666.6	1,661.5	1,661.4	6.8	3.6	-171.43	55.5	-6.4	323.4	315.7	7.71	41.952		
1,800.0	1,763.3	1,753.9	1,753.6	7.3	3.8	-173.12	51.4	-11.7	350.9	342.7	8.14	43.077		
1,900.0	1,860.0	1,845.1	1,844.3	7.9	3.9	-174.98	45.5	-19.2	379.6	371.0	8.59	44.191		
2,000.0	1,956.7	1,935.0	1,933.3	8.4	4.1	-176.96	38.0	-28.8	409.7	400.7	9.05	45.275		
2,100.0	2,053.4	2,023.4	2,020.5	9.0	4.4	-179.00	29.0	-40.4	441.5	432.0	9.53	46.309		
2,200.0	2,150.1	2,110.1	2,105.5	9.5	4.6	178.95	18.5	-53.8	475.1	465.0	10.05	47.283		
2,300.0	2,246.8	2,195.2	2,188.4	10.1	4.9	176.91	6.7	-69.0	510.5	499.9	10.59	48.187		
2,400.0	2,343.5	2,278.4	2,268.8	10.6	5.2	174.92	-6.3	-85.7	547.9	536.7	11.18	49.012		
2,500.0	2,440.1	2,359.7	2,346.9	11.2	5.5	172.98	-20.4	-103.7	587.2	575.5	11.80	49.777		
2,600.0	2,536.8	2,442.8	2,425.9	11.7	5.9	171.05	-36.1	-123.9	628.6	616.1	12.46	50.457		
2,700.0	2,633.5	2,531.3	2,510.0	12.3	6.4	169.19	-53.1	-145.6	670.8	657.6	13.17	50.944		
2,800.0	2,730.2	2,619.8	2,594.1	12.8	6.8	167.55	-70.1	-167.4	713.5	699.7	13.89	51.369		
2,900.0	2,826.9	2,708.4	2,678.2	13.4	7.3	166.08	-87.1	-189.2	756.7	742.1	14.63	51.740		
3,000.0	2,923.6	2,796.9	2,762.3	13.9	7.8	164.77	-104.1	-211.0	800.3	785.0	15.37	52.072		
3,100.0	3,020.3	2,885.4	2,846.4	14.5	8.3	163.59	-121.1	-232.8	844.2	828.1	16.12	52.370		
3,200.0	3,117.0	2,973.9	2,930.5	15.0	8.8	162.53	-138.0	-254.5	888.4	871.5	16.87	52.645		
3,300.0	3,213.7	3,062.4	3,014.6	15.6	9.4	161.56	-155.0	-276.3	932.8	915.1	17.63	52.902		
3,400.0	3,310.3	3,150.9	3,098.7	16.2	9.9	160.68	-172.0	-298.1	977.3	959.0	18.39	53.142		

COMPASS 2003.21 Build 46

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2	18.2	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	0.00	18.2	0.0	18.2	18.0	0.22	81.079	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.5	0.67	27.026 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.6	-121.87	18.2	0.0	19.1	18.0	1.11	17.194	
400.0	399.8	399.8	399.8	0.8	0.8	-133.31	18.2	0.0	22.3	20.7	1.55	14.362	
500.0	499.5	499.5	499.5	1.0	1.0	-145.86	18.2	0.0	29.0	27.0	2.01	14.414	
600.0	598.7	598.7	598.7	1.3	1.2	-155.68	18.2	0.0	39.7	37.2	2.47	16.048	
700.0	697.5	697.5	697.5	1.6	1.5	-162.39	18.2	0.0	54.3	51.4	2.93	18.519	
800.0	795.6	795.6	795.6	2.0	1.7	-166.85	18.2	0.0	72.8	69.4	3.40	21.429	
900.0	893.1	893.1	893.1	2.5	1.9	-169.86	18.2	0.0	94.8	91.0	3.86	24.571	
939.3	931.1	931.1	931.1	2.7	2.0	-170.77	18.2	0.0	104.5	100.4	4.04	25.844	
1,000.0	989.8	989.8	989.8	3.0	2.1	-171.96	18.2	0.0	119.8	115.5	4.33	27.687	
1,100.0	1,086.5	1,090.8	1,090.8	3.5	2.3	-173.63	17.1	0.8	143.8	139.1	4.78	30.092	
1,200.0	1,183.2	1,193.7	1,193.5	4.0	2.5	-175.29	12.9	3.9	164.7	159.5	5.21	31.592	
1,300.0	1,279.9	1,297.8	1,297.2	4.6	2.7	-177.05	5.7	9.1	182.5	176.8	5.67	32.207	
1,400.0	1,376.6	1,402.9	1,401.5	5.1	2.9	-178.96	-4.6	16.7	197.1	191.0	6.14	32.096	
1,500.0	1,473.3	1,508.3	1,505.6	5.7	3.2	178.91	-18.1	26.5	208.7	202.0	6.65	31.395	
1,600.0	1,569.9	1,607.5	1,603.3	6.2	3.5	176.92	-32.1	36.7	219.0	211.8	7.17	30.543	
1,700.0	1,666.6	1,706.7	1,700.9	6.8	3.8	175.11	-46.1	47.0	229.6	221.9	7.72	29.732	
1,800.0	1,763.3	1,805.8	1,798.6	7.3	4.2	173.45	-60.0	57.2	240.4	232.1	8.30	28.972	
1,900.0	1,860.0	1,905.0	1,896.3	7.9	4.5	171.94	-74.0	67.4	251.3	242.4	8.89	28.265	
2,000.0	1,956.7	2,004.2	1,993.9	8.4	4.8	170.56	-88.0	77.6	262.5	253.0	9.51	27.604	
2,100.0	2,053.4	2,103.4	2,091.6	9.0	5.2	169.29	-102.0	87.8	273.7	263.6	10.14	26.991	
2,200.0	2,150.1	2,202.6	2,189.3	9.5	5.6	168.12	-116.0	98.1	285.1	274.3	10.79	26.423	
2,300.0	2,246.8	2,301.8	2,286.9	10.1	5.9	167.04	-130.0	108.3	296.6	285.2	11.45	25.898	
2,400.0	2,343.5	2,401.0	2,384.6	10.6	6.3	166.05	-144.0	118.5	308.2	296.1	12.13	25.411	
2,500.0	2,440.1	2,500.2	2,482.2	11.2	6.7	165.12	-158.0	128.7	319.9	307.1	12.82	24.962	
2,600.0	2,536.8	2,599.3	2,579.9	11.7	7.1	164.26	-171.9	138.9	331.7	318.1	13.51	24.546	
2,700.0	2,633.5	2,698.5	2,677.6	12.3	7.5	163.46	-185.9	149.2	343.5	329.3	14.22	24.160	
2,800.0	2,730.2	2,797.7	2,775.2	12.8	7.8	162.71	-199.9	159.4	355.4	340.4	14.93	23.803	
2,900.0	2,826.9	2,896.9	2,872.9	13.4	8.2	162.01	-213.9	169.6	367.3	351.7	15.65	23.472	
3,000.0	2,923.6	2,996.1	2,970.6	13.9	8.6	161.35	-227.9	179.8	379.3	362.9	16.38	23.164	
3,100.0	3,020.3	3,095.3	3,068.2	14.5	9.0	160.74	-241.9	190.0	391.4	374.2	17.11	22.877	
3,200.0	3,117.0	3,194.5	3,165.9	15.0	9.4	160.16	-255.9	200.3	403.4	385.6	17.84	22.610	
3,300.0	3,213.7	3,293.7	3,263.5	15.6	9.8	159.61	-269.9	210.5	415.6	397.0	18.58	22.361	
3,400.0	3,310.3	3,392.8	3,361.2	16.2	10.2	159.10	-283.8	220.7	427.7	408.4	19.33	22.128	
3,500.0	3,407.0	3,492.0	3,458.9	16.7	10.6	158.61	-297.8	230.9	439.9	419.8	20.08	21.910	
3,600.0	3,503.7	3,591.2	3,556.5	17.3	11.0	158.15	-311.8	241.1	452.1	431.3	20.83	21.706	
3,700.0	3,600.4	3,690.4	3,654.2	17.8	11.4	157.72	-325.8	251.4	464.4	442.8	21.58	21.514	
3,800.0	3,697.1	3,789.6	3,751.9	18.4	11.8	157.30	-339.8	261.6	476.6	454.3	22.34	21.334	
3,900.0	3,793.8	3,888.8	3,849.5	18.9	12.2	156.91	-353.8	271.8	488.9	465.8	23.10	21.164	
4,000.0	3,890.5	3,988.0	3,947.2	19.5	12.6	156.54	-367.8	282.0	501.2	477.4	23.86	21.004	
4,100.0	3,987.2	4,087.1	4,044.8	20.0	13.0	156.18	-381.8	292.2	513.6	489.0	24.63	20.853	
4,200.0	4,083.9	4,186.3	4,142.5	20.6	13.4	155.84	-395.7	302.5	525.9	500.5	25.40	20.710	
4,300.0	4,180.5	4,285.5	4,240.2	21.1	13.8	155.52	-409.7	312.7	538.3	512.1	26.16	20.575	
4,400.0	4,277.2	4,384.7	4,337.8	21.7	14.2	155.21	-423.7	322.9	550.7	523.8	26.93	20.446	
4,500.0	4,373.9	4,483.9	4,435.5	22.3	14.6	154.92	-437.7	333.1	563.1	535.4	27.70	20.325	
4,600.0	4,470.6	4,583.1	4,533.2	22.8	15.0	154.64	-451.7	343.3	575.5	547.0	28.48	20.209	
4,700.0	4,567.3	4,682.3	4,630.8	23.4	15.4	154.36	-465.7	353.6	587.9	558.7	29.25	20.100	
4,800.0	4,664.0	4,781.5	4,728.5	23.9	15.8	154.11	-479.7	363.8	600.4	570.4	30.03	19.995	
4,908.5	4,768.9	4,889.1	4,834.5	24.5	16.2	153.84	-494.8	374.9	613.9	583.0	30.87	19.887	
5,000.0	4,857.7	4,980.0	4,923.9	24.9	16.6	153.65	-507.7	384.2	624.0	592.4	31.58	19.762	

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

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

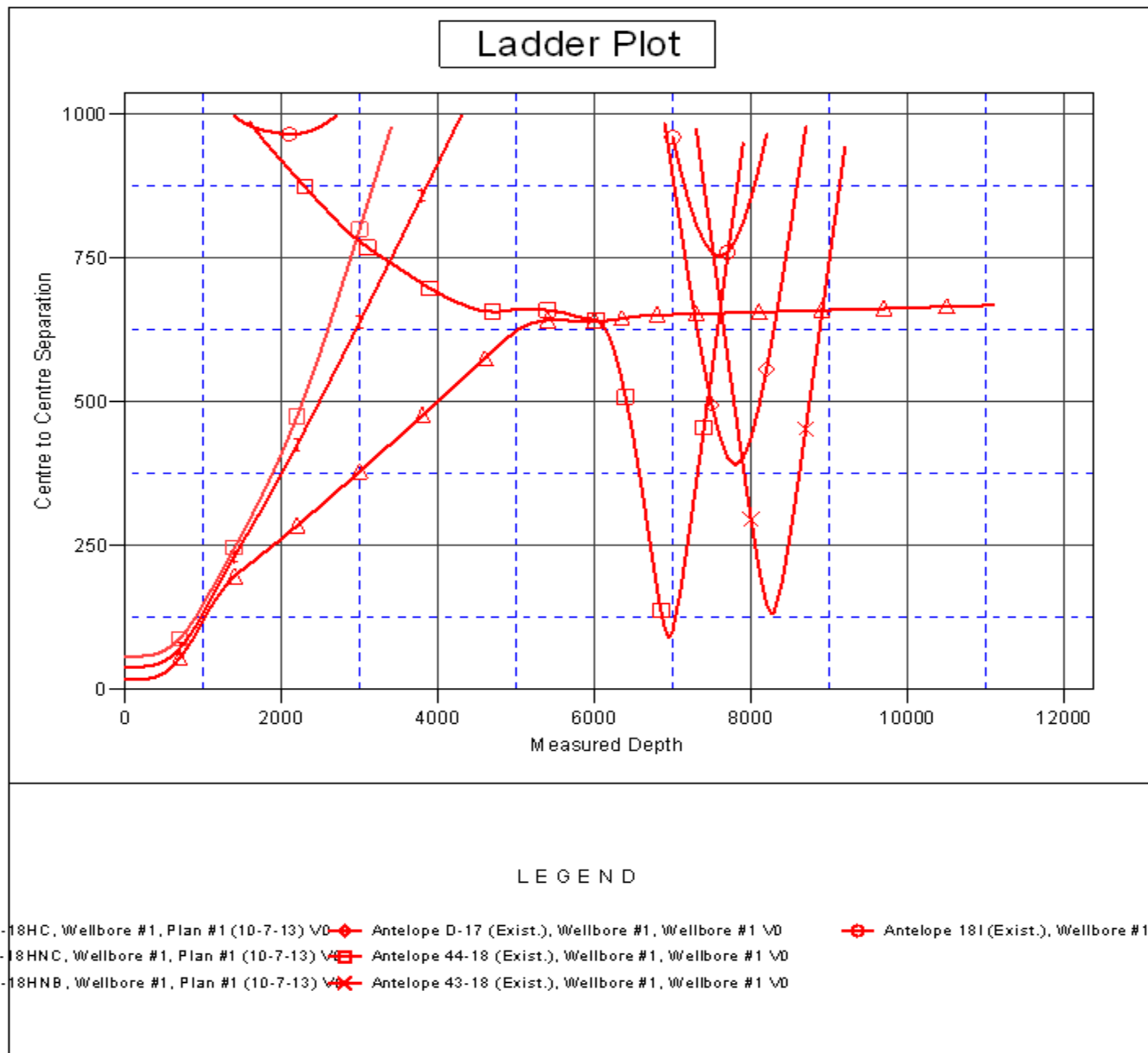
Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.0	4,955.5	5,079.5	5,022.0	25.3	17.0	153.29	-521.7	394.5	632.1	599.8	32.31	19.563	
5,200.0	5,054.0	5,176.8	5,117.7	25.6	17.4	152.79	-535.4	404.5	637.2	604.1	33.03	19.292	
5,300.0	5,153.1	5,264.9	5,204.9	25.8	17.6	152.35	-546.3	412.4	640.4	606.8	33.58	19.073	
5,400.0	5,252.5	5,353.2	5,292.5	26.0	17.8	151.96	-555.0	418.8	642.5	608.4	34.04	18.873	
5,500.0	5,352.3	5,441.7	5,380.6	26.2	18.0	151.63	-561.6	423.6	643.2	608.8	34.42	18.686	
5,600.0	5,452.2	5,530.3	5,469.0	26.3	18.2	151.36	-566.0	426.8	642.7	608.0	34.72	18.509	
5,647.8	5,500.0	5,572.6	5,511.3	26.4	18.3	-91.53	-567.3	427.8	642.0	607.1	34.92	18.385	
5,700.0	5,552.2	5,618.9	5,557.6	26.4	18.3	-91.61	-568.1	428.4	641.4	606.3	35.08	18.281	
5,763.8	5,616.0	5,677.4	5,616.0	26.5	18.4	-91.63	-568.4	428.6	641.2	605.9	35.26	18.186	
5,800.0	5,652.2	5,713.6	5,652.2	26.5	18.5	-91.63	-568.4	428.6	641.2	605.8	35.35	18.137	
5,900.0	5,752.2	5,813.6	5,752.2	26.6	18.6	-91.63	-568.4	428.6	641.2	605.6	35.61	18.005	
6,000.0	5,852.2	5,913.6	5,852.2	26.7	18.7	-91.63	-568.4	428.6	641.2	605.3	35.87	17.873	
6,019.0	5,871.2	5,932.6	5,871.2	26.7	18.7	-91.63	-568.4	428.6	641.2	605.2	35.92	17.847	
6,050.0	5,902.2	5,963.5	5,902.2	26.7	18.8	-91.98	-568.4	428.6	641.2	605.2	35.95	17.835	
6,100.0	5,951.9	6,013.2	5,951.9	26.8	18.8	-92.43	-568.4	428.6	641.4	605.2	36.17	17.734	
6,150.0	6,000.8	6,063.9	6,002.5	26.8	18.9	-93.24	-567.8	428.6	641.9	605.5	36.43	17.622	
6,200.0	6,048.6	6,116.9	6,055.2	26.7	18.9	-94.11	-562.5	428.6	642.6	605.9	36.61	17.553	
6,250.0	6,094.7	6,171.1	6,108.3	26.7	18.9	-94.94	-551.6	428.6	643.4	606.7	36.67	17.544	
6,300.0	6,138.8	6,226.5	6,161.1	26.6	18.8	-95.74	-534.9	428.6	644.3	607.7	36.62	17.594	
6,350.0	6,180.4	6,283.1	6,212.9	26.5	18.7	-96.48	-512.0	428.6	645.3	608.8	36.45	17.702	
6,400.0	6,219.1	6,340.9	6,262.8	26.4	18.6	-97.17	-483.1	428.7	646.4	610.2	36.19	17.862	
6,450.0	6,254.7	6,399.8	6,310.2	26.3	18.4	-97.79	-448.1	428.7	647.4	611.6	35.84	18.066	
6,500.0	6,286.7	6,459.7	6,354.0	26.1	18.2	-98.33	-407.2	428.7	648.4	613.0	35.43	18.302	
6,550.0	6,314.9	6,520.7	6,393.4	26.0	18.0	-98.78	-360.8	428.7	649.4	614.3	35.01	18.550	
6,600.0	6,339.0	6,582.4	6,427.5	25.9	17.8	-99.14	-309.4	428.8	650.2	615.6	34.60	18.790	
6,650.0	6,358.8	6,644.7	6,455.6	25.7	17.6	-99.38	-253.7	428.8	650.8	616.6	34.26	18.999	
6,700.9	6,374.4	6,708.6	6,477.2	25.6	17.4	-99.52	-193.7	428.8	651.3	617.3	34.01	19.151	
6,800.9	6,400.3	6,811.0	6,503.8	25.3	17.1	-99.53	-94.8	428.9	651.7	617.6	34.12	19.098	
6,850.0	6,410.7	6,870.5	6,516.9	25.2	17.0	-99.54	-36.8	428.9	652.0	617.7	34.27	19.023	
6,900.0	6,416.7	6,933.5	6,523.5	25.1	16.9	-99.45	25.8	429.0	652.0	617.5	34.57	18.861	
6,924.5	6,417.8	6,962.8	6,524.0	25.1	16.9	-99.37	55.1	429.0	652.0	617.2	34.77	18.754	
6,937.2	6,418.0	6,975.5	6,524.0	25.1	16.9	-99.36	67.8	429.0	652.0	617.2	34.87	18.699	
7,000.0	6,418.0	7,038.2	6,524.0	25.0	17.0	-99.35	130.6	429.0	652.3	616.7	35.55	18.349	
7,100.0	6,418.0	7,138.2	6,524.0	25.0	17.6	-99.35	230.6	429.1	652.7	615.8	36.90	17.690	
7,200.0	6,418.0	7,238.2	6,524.0	25.1	18.5	-99.34	330.6	429.2	653.1	614.5	38.57	16.931	
7,300.0	6,418.0	7,338.2	6,524.0	25.4	19.6	-99.34	430.6	429.2	653.5	612.9	40.54	16.121	
7,400.0	6,418.0	7,438.2	6,524.0	25.9	20.8	-99.33	530.5	429.3	653.9	611.1	42.75	15.296	
7,500.0	6,418.0	7,538.2	6,524.0	26.7	22.1	-99.32	630.5	429.4	654.3	609.1	45.17	14.485	
7,600.0	6,418.0	7,638.2	6,524.0	27.6	23.5	-99.32	730.5	429.4	654.7	606.9	47.77	13.704	
7,700.0	6,418.0	7,738.2	6,524.0	28.7	24.9	-99.31	830.5	429.5	655.1	604.5	50.53	12.965	
7,800.0	6,418.0	7,838.2	6,524.0	29.9	26.4	-99.31	930.5	429.6	655.5	602.0	53.41	12.272	
7,900.0	6,418.0	7,938.2	6,524.0	31.2	28.0	-99.30	1,030.5	429.6	655.8	599.4	56.40	11.628	
8,000.0	6,418.0	8,038.2	6,524.0	32.6	29.5	-99.30	1,130.5	429.7	656.2	596.8	59.48	11.032	
8,100.0	6,418.0	8,138.2	6,524.0	34.1	31.2	-99.29	1,230.5	429.8	656.6	594.0	62.65	10.482	
8,200.0	6,418.0	8,238.2	6,524.0	35.6	32.8	-99.28	1,330.5	429.8	657.0	591.2	65.88	9.974	
8,300.0	6,418.0	8,338.2	6,524.0	37.1	34.5	-99.28	1,430.5	429.9	657.4	588.3	69.16	9.506	
8,400.0	6,418.0	8,438.2	6,524.0	38.7	36.2	-99.27	1,530.5	429.9	657.8	585.3	72.50	9.073	
8,500.0	6,418.0	8,538.2	6,524.0	40.3	37.9	-99.27	1,630.5	430.0	658.2	582.3	75.88	8.674	
8,600.0	6,418.0	8,638.2	6,524.0	42.0	39.7	-99.26	1,730.5	430.1	658.6	579.3	79.30	8.305	
8,700.0	6,418.0	8,738.2	6,524.0	43.7	41.4	-99.26	1,830.5	430.1	659.0	576.3	82.75	7.964	
8,800.0	6,418.0	8,838.2	6,524.0	45.3	43.2	-99.25	1,930.5	430.2	659.4	573.2	86.23	7.647	
8,900.0	6,418.0	8,938.2	6,524.0	47.0	45.0	-99.24	2,030.5	430.3	659.8	570.1	89.74	7.352	

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

Antelope T-18 Pad Sec.18-T5N-R62W - Antelope T44-P41-18HC - Wellbore #1 - Plan #1 (10-7-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
9,000.0	6,418.0	9,038.2	6,524.0	48.8	46.8	-99.24	2,130.5	430.3	660.2	566.9	93.27	7.078		
9,100.0	6,418.0	9,138.2	6,524.0	50.5	48.6	-99.23	2,230.5	430.4	660.6	563.8	96.82	6.823		
9,200.0	6,418.0	9,238.2	6,524.0	52.2	50.4	-99.23	2,330.5	430.5	661.0	560.6	100.39	6.584		
9,300.0	6,418.0	9,338.2	6,524.0	54.0	52.2	-99.22	2,430.5	430.5	661.4	557.4	103.97	6.361		
9,400.0	6,418.0	9,438.2	6,524.0	55.8	54.0	-99.22	2,530.5	430.6	661.8	554.2	107.57	6.152		
9,500.0	6,418.0	9,538.2	6,524.0	57.5	55.8	-99.21	2,630.5	430.7	662.2	551.0	111.19	5.956		
9,600.0	6,418.0	9,638.2	6,524.0	59.3	57.7	-99.21	2,730.5	430.7	662.6	547.8	114.81	5.771		
9,700.0	6,418.0	9,738.2	6,524.0	61.1	59.5	-99.20	2,830.5	430.8	663.0	544.5	118.45	5.597		
9,800.0	6,418.0	9,838.2	6,524.0	62.9	61.4	-99.19	2,930.5	430.8	663.4	541.3	122.10	5.433		
9,900.0	6,418.0	9,938.2	6,524.0	64.7	63.2	-99.19	3,030.5	430.9	663.8	538.0	125.75	5.278		
10,000.0	6,418.0	10,038.2	6,524.0	66.5	65.1	-99.18	3,130.5	431.0	664.2	534.7	129.42	5.132		
10,100.0	6,418.0	10,138.2	6,524.0	68.4	66.9	-99.18	3,230.5	431.0	664.6	531.5	133.09	4.993		
10,200.0	6,418.0	10,238.2	6,524.0	70.2	68.8	-99.17	3,330.5	431.1	665.0	528.2	136.77	4.862		
10,300.0	6,418.0	10,338.2	6,524.0	72.0	70.6	-99.17	3,430.5	431.2	665.4	524.9	140.45	4.737		
10,400.0	6,418.0	10,438.2	6,524.0	73.8	72.5	-99.16	3,530.5	431.2	665.7	521.6	144.15	4.619		
10,500.0	6,418.0	10,538.2	6,524.0	75.7	74.4	-99.16	3,630.5	431.3	666.1	518.3	147.84	4.506		
10,600.0	6,418.0	10,638.2	6,524.0	77.5	76.3	-99.15	3,730.5	431.4	666.5	515.0	151.55	4.398		
10,700.0	6,418.0	10,738.2	6,524.0	79.4	78.1	-99.15	3,830.5	431.4	666.9	511.7	155.25	4.296		
10,800.0	6,418.0	10,838.2	6,524.0	81.2	80.0	-99.14	3,930.5	431.5	667.3	508.4	158.96	4.198		
10,900.0	6,418.0	10,938.2	6,524.0	83.1	81.9	-99.13	4,030.5	431.5	667.7	505.0	162.68	4.105		
11,000.0	6,418.0	11,038.2	6,524.0	84.9	83.8	-99.13	4,130.5	431.6	668.1	501.7	166.40	4.015		
11,096.0	6,418.0	11,133.7	6,524.0	86.7	85.6	-99.12	4,226.0	431.7	668.5	498.5	169.97	3.933 SF		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4647.0ft (Original Well Elev) Coordinates are relative to: Antelope Y44-U41-18HNC
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.74°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope Y44-U41-18HNC
Project:	SEC.18-T5N-R62W	TVD Reference:	WELL @ 4647.0ft (Original Well Elev)
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	MD Reference:	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope Y44-U41-18HNC	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 #1 (10-7-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4647.0ft (Original Well Elev) Coordinates are relative to: Antelope Y44-U41-18HNC
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.74°

