BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope T44-P41-18HC**

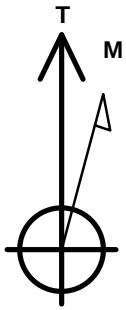
Surface Location: Antelope T-18 Pad Sec.18-T5N-R62W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4634.0

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1388333.54	3317084.88	40.393790	-104.361570	

Original Well Elev WELL @ 4647.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 610'FSL, 1396'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 992'FEL	6524.0	4207.8	431.7	Point
T1 531'FSL & 966'FEL	6524.0	-65.6	429.0	Point



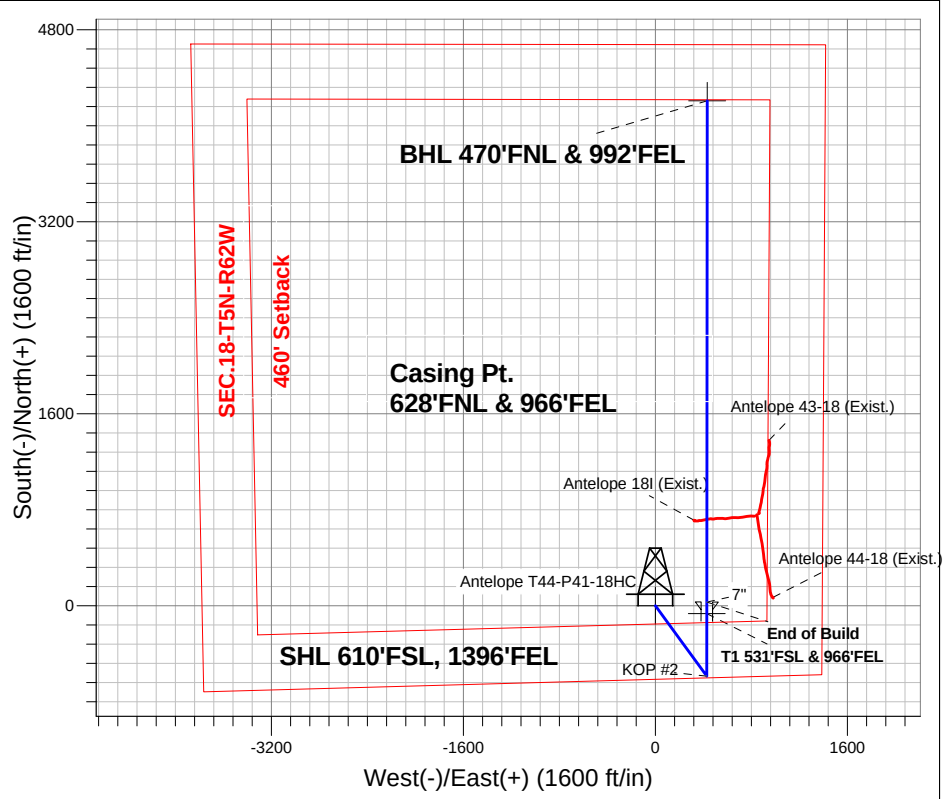
Azimuths to True North
Magnetic North: 8.33°

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

Antelope T-18 Pad Sec.18-T5N-R62W
Antelope T44-P41-18HC
Plan #1 (10-7-13)
14:22, October 22 2013

ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP
5977.3	6038.6	KOP #2
6524.0	6956.8	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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1502.9	10.06	143.85	1500.3	-35.6	26.0	2.00	143.85	-32.7	
4	5158.4	10.06	143.85	5099.7	-551.0	402.6	0.00	0.00	-507.1	
5	5661.3	0.00	0.00	5600.0	-586.6	428.6	2.00	180.00	-539.8	
6	6038.6	0.00	0.00	5977.2	-586.6	428.6	0.00	0.00	-539.8	
7	6720.4	75.00	0.04	6480.4	-200.5	428.8	11.00	0.04	-155.7	
8	6820.4	75.00	0.04	6506.3	-103.9	428.9	0.00	0.00	-59.6	
9	6956.8	90.00	0.04	6524.0	30.9	429.0	11.00	0.00	74.5	
10	11133.7	90.00	0.04	6524.0	4207.8	431.7	0.00	0.00	4229.9	BHL 470'FNL & 992'FEL

ENSIGN Directional

BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W
Antelope T-18 Pad Sec.18-T5N-R62W
Antelope T44-P41-18HC

Wellbore #1

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

Standard Planning Report

22 October, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T44-P41-18HC

Well Position	**+N/-S**	-40.1 ft	**Northing:**	1,388,333.54 ft	**Latitude:**	40.393790
	+E/-W	2.8 ft	**Easting:**	3,317,084.88 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	5.86

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	
1,502.9	10.06	143.85	1,500.3	-35.6	26.0	2.00	2.00	0.00	143.85	
5,158.4	10.06	143.85	5,099.7	-551.0	402.6	0.00	0.00	0.00	0.00	
5,661.3	0.00	0.00	5,600.0	-586.6	428.6	2.00	-2.00	0.00	180.00	
6,038.6	0.00	0.00	5,977.2	-586.6	428.6	0.00	0.00	0.00	0.00	
6,720.4	75.00	0.04	6,480.4	-200.5	428.8	11.00	11.00	0.00	0.04	
6,820.4	75.00	0.04	6,506.3	-103.9	428.9	0.00	0.00	0.00	0.00	
6,956.8	90.00	0.04	6,524.0	30.9	429.0	11.00	11.00	0.00	0.00	
11,133.7	90.00	0.04	6,524.0	4,207.8	431.7	0.00	0.00	0.00	0.00	BHL 470'FNL & 992

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Site:	Antelope T-18 Pad Sec.18-T5N-R62W	**North Reference:**	True
Well:	Antelope T44-P41-18HC	**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 610'FSL, 1396'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
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									
1,100.0	2.00	143.85	1,100.0	-1.4	1.0	-1.3	2.00	2.00	0.00
1,200.0	4.00	143.85	1,199.8	-5.6	4.1	-5.2	2.00	2.00	0.00
1,300.0	6.00	143.85	1,299.5	-12.7	9.3	-11.7	2.00	2.00	0.00
1,400.0	8.00	143.85	1,398.7	-22.5	16.4	-20.7	2.00	2.00	0.00
1,500.0	10.00	143.85	1,497.5	-35.1	25.7	-32.3	2.00	2.00	0.00
1,502.9	10.06	143.85	1,500.3	-35.6	26.0	-32.7	2.00	2.00	0.00
1,600.0	10.06	143.85	1,595.9	-49.2	36.0	-45.3	0.00	0.00	0.00
1,700.0	10.06	143.85	1,694.4	-63.3	46.3	-58.3	0.00	0.00	0.00
1,800.0	10.06	143.85	1,792.9	-77.4	56.6	-71.3	0.00	0.00	0.00
1,900.0	10.06	143.85	1,891.3	-91.5	66.9	-84.2	0.00	0.00	0.00
2,000.0	10.06	143.85	1,989.8	-105.7	77.2	-97.2	0.00	0.00	0.00
2,100.0	10.06	143.85	2,088.2	-119.8	87.5	-110.2	0.00	0.00	0.00
2,200.0	10.06	143.85	2,186.7	-133.9	97.8	-123.2	0.00	0.00	0.00
2,300.0	10.06	143.85	2,285.2	-148.0	108.1	-136.2	0.00	0.00	0.00
2,400.0	10.06	143.85	2,383.6	-162.1	118.4	-149.1	0.00	0.00	0.00
2,500.0	10.06	143.85	2,482.1	-176.2	128.7	-162.1	0.00	0.00	0.00
2,600.0	10.06	143.85	2,580.6	-190.3	139.0	-175.1	0.00	0.00	0.00
2,700.0	10.06	143.85	2,679.0	-204.4	149.3	-188.1	0.00	0.00	0.00
2,800.0	10.06	143.85	2,777.5	-218.5	159.6	-201.0	0.00	0.00	0.00
2,900.0	10.06	143.85	2,875.9	-232.6	169.9	-214.0	0.00	0.00	0.00
3,000.0	10.06	143.85	2,974.4	-246.7	180.2	-227.0	0.00	0.00	0.00
3,100.0	10.06	143.85	3,072.9	-260.8	190.5	-240.0	0.00	0.00	0.00
3,200.0	10.06	143.85	3,171.3	-274.9	200.8	-252.9	0.00	0.00	0.00
3,300.0	10.06	143.85	3,269.8	-289.0	211.1	-265.9	0.00	0.00	0.00
3,400.0	10.06	143.85	3,368.3	-303.1	221.4	-278.9	0.00	0.00	0.00
3,500.0	10.06	143.85	3,466.7	-317.2	231.7	-291.9	0.00	0.00	0.00
3,600.0	10.06	143.85	3,565.2	-331.3	242.1	-304.8	0.00	0.00	0.00
3,700.0	10.06	143.85	3,663.7	-345.4	252.4	-317.8	0.00	0.00	0.00
3,800.0	10.06	143.85	3,762.1	-359.5	262.7	-330.8	0.00	0.00	0.00
3,900.0	10.06	143.85	3,860.6	-373.6	273.0	-343.8	0.00	0.00	0.00
4,000.0	10.06	143.85	3,959.0	-387.7	283.3	-356.8	0.00	0.00	0.00
4,100.0	10.06	143.85	4,057.5	-401.8	293.6	-369.7	0.00	0.00	0.00
4,200.0	10.06	143.85	4,156.0	-415.9	303.9	-382.7	0.00	0.00	0.00
4,300.0	10.06	143.85	4,254.4	-430.0	314.2	-395.7	0.00	0.00	0.00
4,400.0	10.06	143.85	4,352.9	-444.1	324.5	-408.7	0.00	0.00	0.00
4,500.0	10.06	143.85	4,451.4	-458.2	334.8	-421.6	0.00	0.00	0.00
4,600.0	10.06	143.85	4,549.8	-472.3	345.1	-434.6	0.00	0.00	0.00
4,700.0	10.06	143.85	4,648.3	-486.4	355.4	-447.6	0.00	0.00	0.00
4,800.0	10.06	143.85	4,746.7	-500.5	365.7	-460.6	0.00	0.00	0.00
4,900.0	10.06	143.85	4,845.2	-514.6	376.0	-473.5	0.00	0.00	0.00

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Site:	Antelope T-18 Pad Sec.18-T5N-R62W	**North Reference:**	True
Well:	Antelope T44-P41-18HC	**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)
5,000.0	10.06	143.85	4,943.7	-528.7	386.3	-486.5	0.00	0.00	0.00
5,100.0	10.06	143.85	5,042.1	-542.8	396.6	-499.5	0.00	0.00	0.00
5,158.4	10.06	143.85	5,099.7	-551.0	402.6	-507.1	0.00	0.00	0.00
5,200.0	9.23	143.85	5,140.6	-556.7	406.7	-512.3	2.00	-2.00	0.00
5,300.0	7.23	143.85	5,239.6	-568.2	415.2	-522.9	2.00	-2.00	0.00
5,400.0	5.23	143.85	5,339.0	-577.0	421.6	-530.9	2.00	-2.00	0.00
5,500.0	3.23	143.85	5,438.7	-582.9	425.9	-536.4	2.00	-2.00	0.00
5,600.0	1.23	143.85	5,538.7	-586.1	428.2	-539.3	2.00	-2.00	0.00
5,661.3	0.00	0.00	5,600.0	-586.6	428.6	-539.8	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,638.7	-586.6	428.6	-539.8	0.00	0.00	0.00
5,800.0	0.00	0.00	5,738.7	-586.6	428.6	-539.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,838.7	-586.6	428.6	-539.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,938.7	-586.6	428.6	-539.8	0.00	0.00	0.00
6,038.6	0.00	0.00	5,977.3	-586.6	428.6	-539.8	0.00	0.00	0.00
KOP #2									
6,100.0	6.76	0.04	6,038.5	-583.0	428.6	-536.2	11.00	11.00	0.00
6,200.0	17.76	0.04	6,136.1	-561.8	428.6	-515.1	11.00	11.00	0.00
6,300.0	28.76	0.04	6,227.8	-522.4	428.6	-475.9	11.00	11.00	0.00
6,400.0	39.76	0.04	6,310.3	-466.2	428.7	-420.0	11.00	11.00	0.00
6,500.0	50.76	0.04	6,380.6	-395.2	428.7	-349.4	11.00	11.00	0.00
6,600.0	61.76	0.04	6,436.1	-312.2	428.8	-266.8	11.00	11.00	0.00
6,700.0	72.76	0.04	6,474.7	-220.1	428.8	-175.2	11.00	11.00	0.00
6,720.4	75.00	0.04	6,480.4	-200.5	428.8	-155.7	11.00	11.00	0.00
6,800.0	75.00	0.04	6,501.0	-123.7	428.9	-79.2	0.00	0.00	0.00
6,820.4	75.00	0.04	6,506.3	-103.9	428.9	-59.6	0.00	0.00	0.00
6,861.4	79.51	0.04	6,515.3	-63.9	428.9	-19.8	11.00	11.00	0.00
T1 531'FSL & 966'FEL									
6,900.0	83.76	0.04	6,520.9	-25.8	429.0	18.1	11.00	11.00	0.00
6,953.4	89.26	0.04	6,524.0	27.5	429.0	71.1	10.30	10.30	0.00
TARGET									
6,956.8	90.00	0.04	6,524.0	30.9	429.0	74.5	21.82	21.82	0.00
End of Build - 7"									
7,000.0	90.00	0.04	6,524.0	74.1	429.0	117.5	0.00	0.00	0.00
7,100.0	90.00	0.04	6,524.0	174.1	429.1	217.0	0.00	0.00	0.00
7,200.0	90.00	0.04	6,524.0	274.1	429.2	316.5	0.00	0.00	0.00
7,300.0	90.00	0.04	6,524.0	374.1	429.2	415.9	0.00	0.00	0.00
7,400.0	90.00	0.04	6,524.0	474.1	429.3	515.4	0.00	0.00	0.00
7,500.0	90.00	0.04	6,524.0	574.1	429.3	614.9	0.00	0.00	0.00
7,600.0	90.00	0.04	6,524.0	674.1	429.4	714.4	0.00	0.00	0.00
7,700.0	90.00	0.04	6,524.0	774.1	429.5	813.9	0.00	0.00	0.00
7,800.0	90.00	0.04	6,524.0	874.1	429.5	913.4	0.00	0.00	0.00
7,900.0	90.00	0.04	6,524.0	974.1	429.6	1,012.8	0.00	0.00	0.00
8,000.0	90.00	0.04	6,524.0	1,074.1	429.7	1,112.3	0.00	0.00	0.00
8,100.0	90.00	0.04	6,524.0	1,174.1	429.7	1,211.8	0.00	0.00	0.00
8,200.0	90.00	0.04	6,524.0	1,274.1	429.8	1,311.3	0.00	0.00	0.00
8,300.0	90.00	0.04	6,524.0	1,374.1	429.9	1,410.8	0.00	0.00	0.00
8,400.0	90.00	0.04	6,524.0	1,474.1	429.9	1,510.3	0.00	0.00	0.00
8,500.0	90.00	0.04	6,524.0	1,574.1	430.0	1,609.8	0.00	0.00	0.00
8,600.0	90.00	0.04	6,524.0	1,674.1	430.1	1,709.2	0.00	0.00	0.00
8,700.0	90.00	0.04	6,524.0	1,774.1	430.1	1,808.7	0.00	0.00	0.00
8,800.0	90.00	0.04	6,524.0	1,874.1	430.2	1,908.2	0.00	0.00	0.00
8,900.0	90.00	0.04	6,524.0	1,974.1	430.2	2,007.7	0.00	0.00	0.00
9,000.0	90.00	0.04	6,524.0	2,074.1	430.3	2,107.2	0.00	0.00	0.00

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Site:	Antelope T-18 Pad Sec.18-T5N-R62W	**North Reference:**	True
Well:	Antelope T44-P41-18HC	**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)
9,100.0	90.00	0.04	6,524.0	2,174.1	430.4	2,206.7	0.00	0.00	0.00
9,200.0	90.00	0.04	6,524.0	2,274.1	430.4	2,306.1	0.00	0.00	0.00
9,300.0	90.00	0.04	6,524.0	2,374.1	430.5	2,405.6	0.00	0.00	0.00
9,400.0	90.00	0.04	6,524.0	2,474.1	430.6	2,505.1	0.00	0.00	0.00
9,500.0	90.00	0.04	6,524.0	2,574.1	430.6	2,604.6	0.00	0.00	0.00
9,600.0	90.00	0.04	6,524.0	2,674.1	430.7	2,704.1	0.00	0.00	0.00
9,700.0	90.00	0.04	6,524.0	2,774.1	430.8	2,803.6	0.00	0.00	0.00
9,800.0	90.00	0.04	6,524.0	2,874.1	430.8	2,903.1	0.00	0.00	0.00
9,900.0	90.00	0.04	6,524.0	2,974.1	430.9	3,002.5	0.00	0.00	0.00
10,000.0	90.00	0.04	6,524.0	3,074.1	430.9	3,102.0	0.00	0.00	0.00
10,100.0	90.00	0.04	6,524.0	3,174.1	431.0	3,201.5	0.00	0.00	0.00
10,200.0	90.00	0.04	6,524.0	3,274.1	431.1	3,301.0	0.00	0.00	0.00
10,300.0	90.00	0.04	6,524.0	3,374.1	431.1	3,400.5	0.00	0.00	0.00
10,400.0	90.00	0.04	6,524.0	3,474.1	431.2	3,500.0	0.00	0.00	0.00
10,500.0	90.00	0.04	6,524.0	3,574.1	431.3	3,599.4	0.00	0.00	0.00
10,600.0	90.00	0.04	6,524.0	3,674.1	431.3	3,698.9	0.00	0.00	0.00
10,700.0	90.00	0.04	6,524.0	3,774.1	431.4	3,798.4	0.00	0.00	0.00
10,800.0	90.00	0.04	6,524.0	3,874.1	431.5	3,897.9	0.00	0.00	0.00
10,900.0	90.00	0.04	6,524.0	3,974.1	431.5	3,997.4	0.00	0.00	0.00
11,000.0	90.00	0.04	6,524.0	4,074.1	431.6	4,096.9	0.00	0.00	0.00
11,100.0	90.00	0.04	6,524.0	4,174.1	431.7	4,196.4	0.00	0.00	0.00
11,133.7	90.00	0.04	6,524.0	4,207.8	431.7	4,229.9	0.00	0.00	0.00
BHL 470'FNL & 992'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 & 966'FEl	0.00	0.00	6,524.0	-65.6	429.0	1,388,273.49	3,317,514.63	40.393610	-104.360030
- plan misses target center by 8.9ft at 6861.4ft MD (6515.3 TVD, -63.9 N, 428.9 E)									
- Point									
SHL 610'FSL, 1396'Fl	0.00	0.00	1.0	0.0	0.0	1,388,333.55	3,317,084.88	40.393790	-104.361570
- plan hits target center									
- Point									
BHL 470'FNL & 992'F	0.00	0.00	6,524.0	4,207.8	431.7	1,392,546.37	3,317,462.48	40.405340	-104.360020
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,956.8	6,524.0	7"	7	7-1/2

Database:	Landmark	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (10-7-13)		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,953.4	6,524.0	TARGET		0.00	

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
6,038.6	5,977.3	-586.6	428.6	KOP #2
6,956.8	6,524.0	30.9	429.0	End of Build

ENSIGN Directional

BONANZA CREEK ENERGY OPERATING

SEC.18-T5N-R62W
Antelope T-18 Pad Sec.18-T5N-R62W
Antelope T44-P41-18HC

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

Anticollision Report

22 October, 2013

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 Plan #1 (10-7-13)

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 1,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 10/22/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,133.7	Plan #1 (10-7-13) (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
Antelope (Existing Wells) Pad Sec.18-T5N-R62W						
Antelope 18I (Exist.) - Wellbore #1 - Wellbore #1	7,638.7	6,516.9	108.0	71.2	2.932	CC, ES, SF
Antelope 43-18 (Exist.) - Wellbore #1 - Wellbore #1	8,305.2	6,528.0	516.8	466.2	10.207	CC, ES
Antelope 43-18 (Exist.) - Wellbore #1 - Wellbore #1	8,400.0	6,528.6	525.4	473.2	10.058	SF
Antelope 44-18 (Exist.) - Wellbore #1 - Wellbore #1	6,993.6	6,538.1	552.6	517.9	15.917	CC, ES
Antelope 44-18 (Exist.) - Wellbore #1 - Wellbore #1	7,000.0	6,538.2	552.7	517.9	15.905	SF
Antelope T-18 Pad Sec.18-T5N-R62W						
Antelope O34-K31-18HNC - Wellbore #1 - Plan #1 (10-7	1,000.0	1,000.0	40.2	35.9	9.407	CC, ES
Antelope O34-K31-18HNC - Wellbore #1 - Plan #1 (10-7	1,100.0	1,100.0	41.7	37.0	8.874	SF
Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-	1,000.0	999.0	21.9	17.6	5.121	CC, ES
Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-	11,133.7	10,973.0	681.3	515.4	4.105	SF
Antelope Y44-U41-18HNC - Wellbore #1 - Plan #1 (10-7-	200.0	200.0	18.2	17.5	27.026	CC, ES
Antelope Y44-U41-18HNC - Wellbore #1 - Plan #1 (10-7-	11,133.7	11,092.9	668.5	498.7	3.936	SF

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 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	1,989.8	2,055.7	2,040.3	4.8	5.3	-111.56	731.2	616.4	999.3	989.7	9.66	103.488	
2,100.0	2,088.2	2,149.1	2,132.9	5.2	5.6	-112.94	729.4	604.7	997.5	987.2	10.28	97.064	
2,200.0	2,186.7	2,242.4	2,225.6	5.6	5.9	-114.28	727.5	593.7	996.7	985.8	10.89	91.493	
2,236.7	2,222.9	2,276.8	2,259.7	5.7	6.0	-114.75	726.7	590.0	996.6	985.5	11.12	89.631	
2,300.0	2,285.2	2,324.0	2,306.7	5.9	6.1	-115.39	725.7	585.2	997.1	985.7	11.47	86.950	
6,650.0	6,457.6	6,441.7	6,412.1	17.6	15.8	-15.52	712.3	321.8	985.2	967.8	17.43	56.529	
6,700.0	6,474.7	6,459.8	6,430.2	17.4	15.9	-20.73	712.4	321.7	938.7	921.5	17.28	54.327	
6,720.4	6,480.4	6,465.8	6,436.2	17.3	15.9	-23.81	712.5	321.7	919.3	901.7	17.64	52.103	
6,800.0	6,501.0	6,487.7	6,458.1	17.1	15.9	-25.80	712.6	321.6	843.2	824.9	18.29	46.096	
6,820.4	6,506.3	6,493.3	6,463.7	17.1	15.9	-26.36	712.7	321.6	823.7	805.2	18.48	44.567	
6,850.0	6,513.1	6,500.5	6,470.9	17.0	15.9	-32.96	712.7	321.5	795.2	775.3	19.91	39.939	
6,900.0	6,520.9	6,508.9	6,479.3	16.9	15.9	-51.49	712.8	321.5	746.4	721.7	24.68	30.242	
6,950.0	6,524.0	6,512.4	6,482.8	16.9	16.0	-82.53	712.8	321.4	697.1	667.3	29.81	23.384	
6,956.8	6,524.0	6,512.4	6,482.8	16.9	16.0	-87.27	712.8	321.4	690.4	660.3	30.06	22.969	
7,000.0	6,524.0	6,512.7	6,483.1	16.9	16.0	-87.42	712.8	321.4	647.7	617.5	30.26	21.403	

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 Antelope T44-P41-18HC
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 T44-P41-18HC	**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 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
7,100.0	6,524.0	6,513.4	6,483.8	17.3	16.0	-87.78	712.8	321.4	549.4	518.5	30.88	17.790	
7,200.0	6,524.0	6,514.1	6,484.5	18.2	16.0	-88.13	712.8	321.4	451.8	420.1	31.69	14.257	
7,300.0	6,524.0	6,514.7	6,485.1	19.2	16.0	-88.48	712.8	321.4	355.5	322.8	32.65	10.887	
7,400.0	6,524.0	6,515.4	6,485.8	20.3	16.0	-88.83	712.8	321.4	262.0	228.2	33.76	7.761	
7,500.0	6,524.0	6,516.0	6,486.4	21.6	16.0	-89.18	712.8	321.4	175.8	140.8	34.98	5.026	
7,600.0	6,524.0	6,516.7	6,487.1	22.9	16.0	-89.52	712.8	321.4	114.7	78.4	36.29	3.161	
7,638.7	6,524.0	6,516.9	6,487.3	23.5	16.0	-89.65	712.8	321.4	108.0	71.2	36.83	2.932	CC, ES, SF
7,700.0	6,524.0	6,517.3	6,487.7	24.3	16.0	-89.86	712.8	321.4	124.2	86.5	37.69	3.295	
7,800.0	6,524.0	6,518.0	6,488.4	25.8	16.0	-90.20	712.9	321.4	194.1	155.0	39.16	4.958	
7,900.0	6,524.0	6,518.6	6,489.0	27.3	16.0	-90.53	712.9	321.4	282.8	242.1	40.68	6.950	
8,000.0	6,524.0	6,519.2	6,489.6	28.9	16.0	-90.87	712.9	321.4	377.1	334.9	42.25	8.925	
8,100.0	6,524.0	6,519.9	6,490.3	30.5	16.0	-91.20	712.9	321.4	473.8	429.9	43.86	10.802	
8,200.0	6,524.0	6,520.5	6,490.9	32.2	16.0	-91.53	712.9	321.4	571.6	526.1	45.50	12.562	
8,300.0	6,524.0	6,521.1	6,491.5	33.8	16.0	-91.85	712.9	321.4	670.1	622.9	47.17	14.204	
8,400.0	6,524.0	6,521.7	6,492.1	35.5	16.0	-92.18	712.9	321.4	768.9	720.1	48.87	15.735	
8,500.0	6,524.0	6,522.3	6,492.7	37.3	16.0	-92.50	712.9	321.4	868.0	817.5	50.58	17.161	
8,600.0	6,524.0	6,522.9	6,493.3	39.0	16.0	-92.82	712.9	321.4	967.3	915.0	52.31	18.492	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 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
7,500.0	6,524.0	6,523.3	6,484.0	21.6	17.0	89.56	1,378.9	946.7	956.8	918.4	38.39	24.925	
7,600.0	6,524.0	6,523.8	6,484.6	22.9	17.0	89.62	1,378.9	946.7	874.3	834.6	39.70	22.025	
7,700.0	6,524.0	6,524.4	6,485.2	24.3	17.0	89.69	1,379.0	946.7	795.8	754.8	41.09	19.370	
7,800.0	6,524.0	6,525.0	6,485.8	25.8	17.0	89.75	1,379.0	946.7	722.7	680.2	42.55	16.987	
7,900.0	6,524.0	6,525.6	6,486.4	27.3	17.0	89.82	1,379.0	946.7	656.7	612.7	44.06	14.905	
8,000.0	6,524.0	6,526.2	6,487.0	28.9	17.0	89.88	1,379.0	946.7	600.2	554.6	45.63	13.155	
8,100.0	6,524.0	6,526.8	6,487.6	30.5	17.0	89.95	1,379.0	946.7	556.1	508.8	47.23	11.773	
8,200.0	6,524.0	6,527.4	6,488.2	32.2	17.0	90.02	1,379.0	946.7	527.4	478.5	48.87	10.791	
8,300.0	6,524.0	6,528.0	6,488.8	33.8	17.0	90.08	1,379.0	946.7	516.8	466.3	50.54	10.225	
8,305.2	6,524.0	6,528.0	6,488.8	33.9	17.0	90.09	1,379.0	946.7	516.8	466.2	50.63	10.207	CC, ES
8,400.0	6,524.0	6,528.6	6,489.4	35.5	17.1	90.15	1,379.0	946.7	525.4	473.2	52.24	10.058	SF
8,500.0	6,524.0	6,529.2	6,490.0	37.3	17.1	90.22	1,379.0	946.7	552.3	498.3	53.96	10.236	
8,600.0	6,524.0	6,529.8	6,490.6	39.0	17.1	90.29	1,379.0	946.7	595.0	539.3	55.70	10.683	
8,700.0	6,524.0	6,530.4	6,491.2	40.7	17.1	90.35	1,379.0	946.7	650.3	592.9	57.45	11.320	
8,800.0	6,524.0	6,531.0	6,491.8	42.5	17.1	90.42	1,379.0	946.7	715.5	656.3	59.22	12.082	
8,900.0	6,524.0	6,531.7	6,492.4	44.3	17.1	90.49	1,379.0	946.7	787.9	726.9	61.00	12.918	
9,000.0	6,524.0	6,532.3	6,493.0	46.1	17.1	90.56	1,379.0	946.7	865.9	803.1	62.79	13.791	
9,100.0	6,524.0	6,532.9	6,493.6	47.9	17.1	90.63	1,379.0	946.7	948.0	883.4	64.59	14.678	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 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
2,500.0	2,482.1	2,559.2	2,532.7	6.7	7.3	-94.00	454.3	898.2	998.6	985.1	13.52	73.880	
2,600.0	2,580.6	2,660.8	2,633.0	7.1	7.6	-94.22	437.7	900.0	990.6	976.4	14.22	69.671	
2,700.0	2,679.0	2,757.7	2,728.7	7.5	8.0	-94.48	422.7	901.5	983.0	968.1	14.90	65.971	
2,800.0	2,777.5	2,852.5	2,822.5	7.9	8.3	-94.77	408.6	902.8	975.8	960.2	15.57	62.664	
2,900.0	2,875.9	2,946.7	2,915.7	8.2	8.6	-95.09	395.2	904.3	969.1	952.9	16.24	59.686	
3,000.0	2,974.4	3,041.0	3,009.1	8.6	8.9	-95.44	382.6	905.9	963.1	946.2	16.89	57.015	
3,100.0	3,072.9	3,135.7	3,103.0	9.0	9.2	-95.83	370.8	907.5	957.8	940.2	17.54	54.608	
3,200.0	3,171.3	3,235.4	3,201.9	9.4	9.5	-96.18	357.5	910.0	952.5	934.3	18.21	52.317	
3,300.0	3,269.8	3,333.7	3,299.4	9.8	9.8	-96.57	345.2	912.2	947.6	928.8	18.87	50.222	
3,400.0	3,368.3	3,439.8	3,404.3	10.2	10.1	-96.90	330.2	915.2	942.0	922.5	19.57	48.145	
3,500.0	3,466.7	3,536.6	3,500.1	10.6	10.5	-97.19	316.3	918.1	936.6	916.4	20.25	46.256	
3,600.0	3,565.2	3,637.1	3,599.4	11.0	10.8	-97.45	301.6	921.7	931.3	910.4	20.95	44.461	
3,700.0	3,663.7	3,748.6	3,709.5	11.4	11.2	-97.70	284.3	925.6	925.4	903.8	21.68	42.682	
3,800.0	3,762.1	3,839.0	3,798.8	11.8	11.5	-97.92	270.1	928.4	919.1	896.8	22.35	41.117	
3,900.0	3,860.6	3,932.7	3,891.3	12.2	11.8	-98.15	256.0	931.9	913.8	890.7	23.04	39.657	
4,000.0	3,959.0	4,040.0	3,997.3	12.6	12.2	-98.37	239.2	936.4	908.3	884.5	23.78	38.201	
4,100.0	4,057.5	4,133.4	4,089.3	13.0	12.5	-98.53	224.3	940.5	902.9	878.4	24.47	36.890	
4,200.0	4,156.0	4,227.2	4,182.0	13.4	12.9	-98.77	210.8	944.6	898.4	873.3	25.16	35.714	
4,300.0	4,254.4	4,343.0	4,296.7	13.8	13.2	-99.14	194.5	948.4	893.5	867.6	25.88	34.526	
4,400.0	4,352.9	4,445.4	4,397.8	14.2	13.6	-99.47	178.9	950.7	887.0	860.5	26.56	33.396	
4,500.0	4,451.4	4,530.3	4,481.9	14.6	13.8	-99.83	167.4	952.1	881.4	854.3	27.18	32.434	
4,600.0	4,549.8	4,633.0	4,583.9	15.1	14.2	-100.36	155.0	953.6	876.8	849.0	27.81	31.529	
4,700.0	4,648.3	4,727.6	4,677.8	15.5	14.4	-100.87	143.8	954.7	872.2	843.8	28.42	30.694	
4,800.0	4,746.7	4,822.6	4,772.2	15.9	14.7	-101.41	133.2	956.0	868.2	839.2	29.02	29.923	
4,900.0	4,845.2	4,922.0	4,871.1	16.3	15.0	-102.06	123.1	956.5	864.6	835.0	29.60	29.207	
5,000.0	4,943.7	5,018.0	4,966.4	16.7	15.3	-102.60	112.5	958.2	861.2	831.0	30.19	28.522	
5,100.0	5,042.1	5,106.1	5,054.1	17.1	15.5	-103.13	103.5	960.0	858.7	828.0	30.76	27.913	
5,158.4	5,099.7	5,162.0	5,109.8	17.3	15.6	-103.49	98.7	961.2	858.1	827.0	31.10	27.594	
5,200.0	5,140.6	5,192.3	5,140.0	17.5	15.7	-103.67	96.4	962.0	857.9	826.6	31.29	27.418	
5,300.0	5,239.6	5,283.1	5,230.5	17.7	15.9	-104.12	90.1	964.4	857.8	826.0	31.72	27.045	
5,331.2	5,270.6	5,311.5	5,258.9	17.8	16.0	-104.23	88.3	965.2	857.7	825.9	31.84	26.940	
5,400.0	5,339.0	5,375.5	5,322.7	17.9	16.2	-104.42	84.8	966.9	857.8	825.6	32.12	26.709	
5,500.0	5,438.7	5,471.1	5,418.2	18.1	16.4	-104.55	80.3	969.3	857.6	825.1	32.50	26.391	
5,600.0	5,538.7	5,568.3	5,515.3	18.3	16.6	-104.51	76.5	971.5	856.9	824.1	32.86	26.080	
5,661.3	5,600.0	5,628.9	5,575.9	18.4	16.7	39.46	74.4	972.7	856.2	823.2	33.07	25.888	
5,700.0	5,638.7	5,667.9	5,614.8	18.4	16.7	39.55	73.1	973.4	855.7	822.5	33.21	25.763	
5,800.0	5,738.7	5,765.3	5,712.2	18.6	16.9	39.74	70.3	974.8	854.4	820.8	33.56	25.460	
5,900.0	5,838.7	5,860.6	5,807.4	18.7	17.1	39.90	68.2	976.1	853.5	819.6	33.89	25.186	
6,000.0	5,938.7	5,956.9	5,903.7	18.8	17.3	40.01	66.9	977.2	853.2	819.0	34.21	24.938	
6,038.6	5,977.2	5,995.5	5,942.3	18.9	17.3	40.05	66.5	977.5	853.2	818.8	34.34	24.846	
6,050.0	5,988.7	6,006.9	5,953.7	18.9	17.3	40.03	66.4	977.6	853.0	818.7	34.36	24.827	
6,100.0	6,038.5	6,056.6	6,003.4	18.9	17.4	40.42	66.0	978.0	850.3	815.9	34.37	24.740	
6,150.0	6,087.8	6,104.4	6,051.2	18.9	17.5	41.26	65.6	978.4	844.0	809.7	34.28	24.623	
6,200.0	6,136.1	6,151.3	6,098.1	18.9	17.6	42.59	65.3	978.9	834.3	800.2	34.11	24.462	
6,250.0	6,182.9	6,197.1	6,143.9	18.8	17.7	44.43	65.1	979.3	821.4	787.5	33.89	24.233	
6,300.0	6,227.8	6,240.8	6,187.6	18.7	17.7	46.79	65.0	979.7	805.4	771.8	33.68	23.917	
6,350.0	6,270.4	6,282.0	6,228.8	18.6	17.8	49.69	65.1	980.0	786.8	753.4	33.50	23.491	
6,400.0	6,310.3	6,320.9	6,267.7	18.4	17.8	53.16	65.2	980.3	766.0	732.6	33.39	22.939	
6,450.0	6,347.2	6,357.4	6,304.2	18.3	17.9	57.18	65.4	980.6	743.3	709.9	33.39	22.258	
6,500.0	6,380.6	6,390.7	6,337.5	18.1	17.9	61.68	65.7	980.8	719.2	685.7	33.49	21.474	
6,550.0	6,410.4	6,420.3	6,367.1	17.9	18.0	66.49	65.9	981.0	694.4	660.8	33.66	20.632	
6,600.0	6,436.1	6,446.0	6,392.8	17.8	18.0	71.41	66.2	981.1	669.6	635.8	33.84	19.789	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 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
6,650.0	6,457.6	6,467.7	6,414.5	17.6	18.1	76.20	66.4	981.2	645.4	611.4	33.98	18.992	
6,700.0	6,474.7	6,485.1	6,431.9	17.4	18.1	80.58	66.7	981.4	622.6	588.5	34.06	18.276	
6,720.4	6,480.4	6,491.0	6,437.7	17.3	18.1	82.20	66.7	981.4	613.8	579.7	34.08	18.010	
6,800.0	6,501.0	6,512.5	6,459.3	17.1	18.1	84.32	67.0	981.5	584.6	550.4	34.17	17.107	
6,820.4	6,506.3	6,518.0	6,464.8	17.1	18.1	84.87	67.1	981.5	578.5	544.3	34.21	16.909	
6,850.0	6,513.1	6,525.2	6,472.0	17.0	18.1	86.48	67.2	981.6	570.7	536.5	34.26	16.658	
6,900.0	6,520.9	6,533.7	6,480.5	16.9	18.2	88.49	67.3	981.6	560.5	526.1	34.37	16.309	
6,950.0	6,524.0	6,537.4	6,484.2	16.9	18.2	89.55	67.3	981.7	554.4	519.8	34.52	16.058	
6,956.8	6,524.0	6,537.6	6,484.3	16.9	18.2	89.62	67.3	981.7	553.9	519.3	34.55	16.032	
6,993.6	6,524.0	6,538.1	6,484.9	16.9	18.2	89.67	67.4	981.7	552.6	517.9	34.72	15.917	CC, ES
7,000.0	6,524.0	6,538.2	6,484.9	16.9	18.2	89.68	67.4	981.7	552.7	517.9	34.75	15.905	SF
7,100.0	6,524.0	6,539.5	6,486.3	17.3	18.2	89.83	67.4	981.7	562.8	527.4	35.36	15.916	
7,200.0	6,524.0	6,540.9	6,487.7	18.2	18.2	89.97	67.4	981.7	589.9	553.8	36.15	16.318	
7,300.0	6,524.0	6,542.3	6,489.1	19.2	18.2	90.11	67.4	981.7	631.9	594.8	37.10	17.030	
7,400.0	6,524.0	6,543.7	6,490.5	20.3	18.2	90.26	67.4	981.7	686.0	647.8	38.20	17.959	
7,500.0	6,524.0	6,545.1	6,491.9	21.6	18.2	90.41	67.5	981.7	749.5	710.1	39.40	19.022	
7,600.0	6,524.0	6,546.6	6,493.3	22.9	18.2	90.55	67.5	981.7	820.4	779.7	40.71	20.153	
7,700.0	6,524.0	6,548.0	6,494.7	24.3	18.2	90.70	67.5	981.7	896.8	854.7	42.10	21.304	
7,800.0	6,524.0	6,549.4	6,496.2	25.8	18.2	90.85	67.5	981.7	977.5	934.0	43.55	22.445	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope O34-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 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	-3.98	40.1	-2.8	40.2				
100.0	100.0	100.0	100.0	0.1	0.1	-3.98	40.1	-2.8	40.2	39.9	0.22	178.724	
200.0	200.0	200.0	200.0	0.3	0.3	-3.98	40.1	-2.8	40.2	39.5	0.67	59.575	
300.0	300.0	300.0	300.0	0.6	0.6	-3.98	40.1	-2.8	40.2	39.0	1.12	35.745	
400.0	400.0	400.0	400.0	0.8	0.8	-3.98	40.1	-2.8	40.2	38.6	1.57	25.532	
500.0	500.0	500.0	500.0	1.0	1.0	-3.98	40.1	-2.8	40.2	38.1	2.02	19.858	
600.0	600.0	600.0	600.0	1.2	1.2	-3.98	40.1	-2.8	40.2	37.7	2.47	16.248	
700.0	700.0	700.0	700.0	1.5	1.5	-3.98	40.1	-2.8	40.2	37.2	2.92	13.748	
800.0	800.0	800.0	800.0	1.7	1.7	-3.98	40.1	-2.8	40.2	36.8	3.37	11.915	
900.0	900.0	900.0	900.0	1.9	1.9	-3.98	40.1	-2.8	40.2	36.3	3.82	10.513	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-3.98	40.1	-2.8	40.2	35.9	4.27	9.407	CC, ES
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	-149.09	40.1	-2.8	41.7	37.0	4.69	8.874	SF
1,200.0	1,199.8	1,199.8	1,199.8	2.5	2.6	-152.38	40.1	-2.8	46.2	41.1	5.10	9.069	
1,300.0	1,299.5	1,299.5	1,299.5	2.7	2.8	-156.59	40.1	-2.8	54.1	48.6	5.50	9.830	
1,400.0	1,398.7	1,398.7	1,398.7	2.9	3.0	-160.76	40.1	-2.8	65.5	59.6	5.91	11.077	
1,502.9	1,500.3	1,500.3	1,500.3	3.2	3.3	-164.44	40.1	-2.8	80.9	74.6	6.33	12.786	
1,600.0	1,595.9	1,596.7	1,596.7	3.5	3.5	-168.08	39.1	-4.1	97.0	90.3	6.72	14.427	
1,700.0	1,694.4	1,695.8	1,695.6	3.8	3.6	-172.43	36.0	-8.1	113.2	106.1	7.11	15.916	
1,800.0	1,792.9	1,794.4	1,793.9	4.1	3.8	-177.18	30.8	-14.7	129.6	122.1	7.52	17.238	
1,900.0	1,891.3	1,892.4	1,891.2	4.5	4.0	177.84	23.6	-23.9	146.6	138.7	7.95	18.448	
2,000.0	1,989.8	1,989.5	1,987.2	4.8	4.3	172.79	14.4	-35.7	164.8	156.4	8.42	19.584	
2,100.0	2,088.2	2,085.6	2,081.5	5.2	4.5	167.78	3.4	-49.8	184.6	175.6	8.93	20.670	
2,200.0	2,186.7	2,180.3	2,173.9	5.6	4.8	162.93	-9.4	-66.2	206.3	196.8	9.49	21.725	
2,300.0	2,285.2	2,273.6	2,264.2	5.9	5.2	158.30	-23.8	-84.6	230.2	220.1	10.11	22.769	
2,400.0	2,383.6	2,365.3	2,352.2	6.3	5.6	153.97	-39.7	-105.0	256.7	245.9	10.78	23.815	
2,500.0	2,482.1	2,457.4	2,439.8	6.7	6.0	149.93	-57.2	-127.5	285.6	274.1	11.48	24.868	
2,600.0	2,580.6	2,551.1	2,528.8	7.1	6.5	146.51	-75.1	-150.5	315.8	303.6	12.22	25.853	
2,700.0	2,679.0	2,644.8	2,617.9	7.5	7.0	143.67	-93.1	-173.6	346.9	334.0	12.96	26.780	
2,800.0	2,777.5	2,738.5	2,706.9	7.9	7.5	141.30	-111.1	-196.6	378.7	365.0	13.70	27.647	
2,900.0	2,875.9	2,832.3	2,796.0	8.2	8.0	139.29	-129.1	-219.7	411.0	396.5	14.44	28.454	
3,000.0	2,974.4	2,926.0	2,885.0	8.6	8.6	137.56	-147.1	-242.7	443.6	428.4	15.19	29.205	
3,100.0	3,072.9	3,019.7	2,974.0	9.0	9.1	136.07	-165.1	-265.8	476.6	460.7	15.94	29.901	
3,200.0	3,171.3	3,113.4	3,063.1	9.4	9.7	134.78	-183.0	-288.9	509.9	493.2	16.69	30.549	
3,300.0	3,269.8	3,207.1	3,152.1	9.8	10.2	133.64	-201.0	-311.9	543.3	525.8	17.44	31.151	
3,400.0	3,368.3	3,300.9	3,241.2	10.2	10.8	132.63	-219.0	-335.0	576.9	558.7	18.19	31.711	
3,500.0	3,466.7	3,394.6	3,330.2	10.6	11.4	131.73	-237.0	-358.0	610.7	591.7	18.95	32.232	
3,600.0	3,565.2	3,488.3	3,419.2	11.0	12.0	130.92	-255.0	-381.1	644.5	624.8	19.70	32.719	
3,700.0	3,663.7	3,582.0	3,508.3	11.4	12.5	130.20	-273.0	-404.1	678.5	658.0	20.45	33.173	
3,800.0	3,762.1	3,675.7	3,597.3	11.8	13.1	129.54	-290.9	-427.2	712.6	691.4	21.21	33.599	
3,900.0	3,860.6	3,769.5	3,686.4	12.2	13.7	128.94	-308.9	-450.2	746.7	724.7	21.96	33.997	
4,000.0	3,959.0	3,863.2	3,775.4	12.6	14.3	128.40	-326.9	-473.3	780.9	758.2	22.72	34.371	
4,100.0	4,057.5	3,956.9	3,864.4	13.0	14.9	127.90	-344.9	-496.4	815.2	791.7	23.48	34.723	
4,200.0	4,156.0	4,050.6	3,953.5	13.4	15.5	127.44	-362.9	-519.4	849.5	825.2	24.23	35.054	
4,300.0	4,254.4	4,144.3	4,042.5	13.8	16.1	127.02	-380.8	-542.5	883.8	858.8	24.99	35.366	
4,400.0	4,352.9	4,238.0	4,131.6	14.2	16.7	126.62	-398.8	-565.5	918.2	892.5	25.75	35.661	
4,500.0	4,451.4	4,331.8	4,220.6	14.6	17.3	126.26	-416.8	-588.6	952.7	926.2	26.51	35.939	
4,600.0	4,549.8	4,425.5	4,309.7	15.1	17.9	125.92	-434.8	-611.6	987.1	959.9	27.27	36.203	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-13)

Offset Site Error: 0.0 ft

Survey Program: 0-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	0.0	0.0	0.0	0.0	0.00	21.9	0.0	21.9				
100.0	100.0	99.0	99.0	0.1	0.1	0.00	21.9	0.0	21.9	21.6	0.22	97.739	
200.0	200.0	199.0	199.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.67	32.525	
300.0	300.0	299.0	299.0	0.6	0.6	0.00	21.9	0.0	21.9	20.7	1.12	19.489	
400.0	400.0	399.0	399.0	0.8	0.8	0.00	21.9	0.0	21.9	20.3	1.57	13.913	
500.0	500.0	499.0	499.0	1.0	1.0	0.00	21.9	0.0	21.9	19.8	2.02	10.818	
600.0	600.0	599.0	599.0	1.2	1.2	0.00	21.9	0.0	21.9	19.4	2.47	8.849	
700.0	700.0	699.0	699.0	1.5	1.5	0.00	21.9	0.0	21.9	18.9	2.92	7.487	
800.0	800.0	799.0	799.0	1.7	1.7	0.00	21.9	0.0	21.9	18.5	3.37	6.488	
900.0	900.0	899.0	899.0	1.9	1.9	0.00	21.9	0.0	21.9	18.0	3.82	5.724	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.00	21.9	0.0	21.9	17.6	4.27	5.121	CC, ES
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-146.36	21.9	0.0	23.3	18.6	4.69	4.964	
1,200.0	1,199.8	1,198.8	1,198.8	2.5	2.6	-152.31	21.9	0.0	27.8	22.7	5.10	5.456	
1,300.0	1,299.5	1,299.4	1,299.4	2.7	2.8	-160.41	20.2	-0.6	34.3	28.9	5.47	6.275	
1,400.0	1,398.7	1,399.9	1,399.8	2.9	3.0	-170.15	15.3	-2.2	42.2	36.4	5.82	7.243	
1,502.9	1,500.3	1,503.1	1,502.5	3.2	3.2	179.77	6.7	-5.1	52.6	46.4	6.20	8.482	
1,600.0	1,595.9	1,600.1	1,598.8	3.5	3.4	170.95	-4.6	-9.0	63.5	56.9	6.60	9.614	
1,700.0	1,694.4	1,699.8	1,697.3	3.8	3.6	162.21	-19.3	-14.0	74.7	67.6	7.08	10.554	
1,800.0	1,792.9	1,798.5	1,794.5	4.1	3.9	154.94	-35.3	-19.4	86.9	79.3	7.62	11.408	
1,900.0	1,891.3	1,897.3	1,891.8	4.5	4.1	149.51	-51.4	-24.8	100.2	92.0	8.20	12.214	
2,000.0	1,989.8	1,996.0	1,989.1	4.8	4.5	145.37	-67.4	-30.3	114.1	105.3	8.81	12.945	
2,100.0	2,088.2	2,094.7	2,086.4	5.2	4.8	142.13	-83.4	-35.7	128.4	119.0	9.45	13.594	
2,200.0	2,186.7	2,193.4	2,183.6	5.6	5.1	139.55	-99.4	-41.1	143.1	133.0	10.10	14.169	
2,300.0	2,285.2	2,292.2	2,280.9	5.9	5.4	137.45	-115.4	-46.6	158.1	147.3	10.77	14.676	
2,400.0	2,383.6	2,390.9	2,378.2	6.3	5.8	135.72	-131.4	-52.0	173.2	161.7	11.45	15.124	
2,500.0	2,482.1	2,489.6	2,475.4	6.7	6.1	134.26	-147.4	-57.4	188.4	176.3	12.14	15.522	
2,600.0	2,580.6	2,588.4	2,572.7	7.1	6.5	133.03	-163.5	-62.8	203.7	190.9	12.83	15.875	
2,700.0	2,679.0	2,687.1	2,670.0	7.5	6.8	131.96	-179.5	-68.3	219.2	205.6	13.54	16.190	
2,800.0	2,777.5	2,785.8	2,767.2	7.9	7.2	131.04	-195.5	-73.7	234.6	220.4	14.24	16.473	
2,900.0	2,875.9	2,884.5	2,864.5	8.2	7.6	130.23	-211.5	-79.1	250.2	235.2	14.96	16.728	
3,000.0	2,974.4	2,983.3	2,961.8	8.6	7.9	129.51	-227.5	-84.6	265.7	250.1	15.67	16.958	
3,100.0	3,072.9	3,082.0	3,059.0	9.0	8.3	128.88	-243.5	-90.0	281.4	265.0	16.39	17.167	
3,200.0	3,171.3	3,180.7	3,156.3	9.4	8.7	128.31	-259.6	-95.4	297.0	279.9	17.11	17.357	
3,300.0	3,269.8	3,279.5	3,253.6	9.8	9.1	127.79	-275.6	-100.9	312.7	294.8	17.84	17.531	
3,400.0	3,368.3	3,378.2	3,350.9	10.2	9.4	127.33	-291.6	-106.3	328.4	309.8	18.56	17.690	
3,500.0	3,466.7	3,476.9	3,448.1	10.6	9.8	126.91	-307.6	-111.7	344.1	324.8	19.29	17.837	
3,600.0	3,565.2	3,575.6	3,545.4	11.0	10.2	126.53	-323.6	-117.2	359.8	339.8	20.02	17.972	
3,700.0	3,663.7	3,674.4	3,642.7	11.4	10.6	126.17	-339.6	-122.6	375.5	354.8	20.75	18.097	
3,800.0	3,762.1	3,773.1	3,739.9	11.8	11.0	125.85	-355.6	-128.0	391.3	369.8	21.48	18.213	
3,900.0	3,860.6	3,871.8	3,837.2	12.2	11.3	125.55	-371.7	-133.5	407.0	384.8	22.22	18.321	
4,000.0	3,959.0	3,970.6	3,934.5	12.6	11.7	125.28	-387.7	-138.9	422.8	399.9	22.95	18.421	
4,100.0	4,057.5	4,069.3	4,031.7	13.0	12.1	125.02	-403.7	-144.3	438.6	414.9	23.69	18.515	
4,200.0	4,156.0	4,168.0	4,129.0	13.4	12.5	124.78	-419.7	-149.7	454.4	430.0	24.43	18.603	
4,300.0	4,254.4	4,266.7	4,226.3	13.8	12.9	124.56	-435.7	-155.2	470.2	445.0	25.16	18.685	
4,400.0	4,352.9	4,365.5	4,323.5	14.2	13.3	124.35	-451.7	-160.6	486.0	460.1	25.90	18.762	
4,500.0	4,451.4	4,464.2	4,420.8	14.6	13.7	124.15	-467.8	-166.0	501.8	475.1	26.64	18.835	
4,600.0	4,549.8	4,562.9	4,518.1	15.1	14.0	123.97	-483.8	-171.5	517.6	490.2	27.38	18.903	
4,700.0	4,648.3	4,661.7	4,615.4	15.5	14.4	123.80	-499.8	-176.9	533.4	505.3	28.12	18.968	
4,800.0	4,746.7	4,760.4	4,712.6	15.9	14.8	123.64	-515.8	-182.3	549.2	520.4	28.86	19.029	
4,900.0	4,845.2	4,859.1	4,809.9	16.3	15.2	123.48	-531.8	-187.8	565.1	535.5	29.60	19.087	
5,000.0	4,943.7	4,957.8	4,907.2	16.7	15.6	123.34	-547.8	-193.2	580.9	550.6	30.35	19.142	
5,100.0	5,042.1	5,056.6	5,004.4	17.1	16.0	123.20	-563.8	-198.6	596.7	565.6	31.09	19.194	

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 Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-13)

Offset Site Error: 0.0 ft

Survey Program: 0-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
5,158.4	5,099.7	5,118.6	5,065.6	17.3	16.2	123.17	-573.4	-201.9	605.8	574.3	31.49	19.235	
5,200.0	5,140.6	5,163.1	5,109.7	17.5	16.3	123.29	-579.4	-203.9	611.8	580.1	31.75	19.270	
5,300.0	5,239.6	5,270.7	5,216.5	17.7	16.6	123.60	-591.4	-208.0	624.0	591.7	32.27	19.336	
5,400.0	5,339.0	5,378.8	5,324.2	17.9	16.8	123.90	-599.6	-210.8	632.9	600.2	32.72	19.343	
5,500.0	5,438.7	5,487.1	5,432.4	18.1	17.0	124.20	-604.0	-212.2	638.5	605.4	33.10	19.293	
5,600.0	5,538.7	5,592.3	5,537.7	18.3	17.1	124.48	-604.7	-212.5	641.0	607.6	33.41	19.185	
5,661.3	5,600.0	5,653.6	5,599.0	18.4	17.2	-91.62	-604.7	-212.5	641.4	607.8	33.58	19.098	
5,700.0	5,638.7	5,692.3	5,637.7	18.4	17.2	-91.62	-604.7	-212.5	641.4	607.7	33.69	19.038	
5,800.0	5,738.7	5,792.3	5,737.7	18.6	17.4	-91.62	-604.7	-212.5	641.4	607.4	33.96	18.887	
5,900.0	5,838.7	5,893.2	5,838.6	18.7	17.5	-91.54	-603.8	-212.5	641.3	607.1	34.22	18.743	
5,997.8	5,936.5	5,991.4	5,935.5	18.8	17.5	-90.19	-588.7	-212.6	641.2	606.9	34.29	18.697	
6,000.0	5,938.7	5,993.6	5,937.5	18.8	17.5	-90.14	-588.2	-212.6	641.2	606.9	34.29	18.698	
6,038.6	5,977.2	6,030.2	5,972.6	18.9	17.4	-89.21	-577.8	-212.6	641.3	607.0	34.26	18.719	
6,050.0	5,988.7	6,040.7	5,982.6	18.9	17.4	-88.94	-574.3	-212.6	641.3	607.1	34.24	18.730	
6,100.0	6,038.5	6,086.2	6,024.7	18.9	17.3	-87.61	-557.2	-212.7	641.9	607.8	34.12	18.813	
6,150.0	6,087.8	6,130.6	6,064.2	18.9	17.2	-86.31	-537.0	-212.7	642.8	608.9	33.93	18.945	
6,200.0	6,136.1	6,174.0	6,101.0	18.9	17.1	-85.05	-514.0	-212.8	644.1	610.4	33.68	19.123	
6,250.0	6,182.9	6,216.5	6,135.1	18.8	16.9	-83.84	-488.6	-212.9	645.6	612.2	33.38	19.339	
6,300.0	6,227.8	6,258.2	6,166.4	18.7	16.8	-82.68	-461.1	-213.0	647.4	614.3	33.05	19.590	
6,350.0	6,270.4	6,300.0	6,195.5	18.6	16.6	-81.57	-431.1	-213.1	649.3	616.6	32.68	19.869	
6,400.0	6,310.3	6,339.7	6,220.8	18.4	16.5	-80.56	-400.5	-213.2	651.2	618.9	32.30	20.160	
6,450.0	6,347.2	6,379.6	6,243.8	18.3	16.3	-79.60	-367.9	-213.3	653.3	621.3	31.93	20.461	
6,500.0	6,380.6	6,419.1	6,264.1	18.1	16.2	-78.73	-334.1	-213.4	655.3	623.7	31.57	20.759	
6,550.0	6,410.4	6,458.1	6,281.5	17.9	16.1	-77.95	-299.2	-213.5	657.2	626.0	31.24	21.040	
6,600.0	6,436.1	6,500.0	6,297.3	17.8	15.9	-77.22	-260.4	-213.6	659.1	628.1	30.94	21.299	
6,650.0	6,457.6	6,535.2	6,308.1	17.6	15.8	-76.66	-226.8	-213.7	660.7	630.0	30.74	21.495	
6,700.0	6,474.7	6,582.5	6,320.4	17.4	15.8	-76.20	-181.2	-213.9	661.9	631.3	30.60	21.630	
6,720.4	6,480.4	6,602.9	6,325.7	17.3	15.7	-76.15	-161.5	-214.0	662.1	631.5	30.58	21.649	
6,800.0	6,501.0	6,673.4	6,343.1	17.1	15.7	-76.09	-93.2	-214.2	662.6	632.0	30.69	21.595	
6,820.4	6,506.3	6,689.0	6,346.1	17.1	15.7	-76.00	-77.9	-214.2	663.1	632.3	30.73	21.576	
6,850.0	6,513.1	6,711.4	6,349.5	17.0	15.8	-75.77	-55.7	-214.3	663.8	632.9	30.82	21.538	
6,900.0	6,520.9	6,750.0	6,353.1	16.9	15.8	-75.48	-17.3	-214.4	664.7	633.7	31.03	21.419	
6,950.0	6,524.0	6,789.3	6,354.0	16.9	15.9	-75.29	22.0	-214.6	665.4	634.0	31.35	21.223	
6,956.8	6,524.0	6,796.1	6,354.0	16.9	16.0	-75.29	28.7	-214.6	665.4	634.0	31.41	21.185	
7,000.0	6,524.0	6,839.3	6,354.0	16.9	16.2	-75.29	72.0	-214.7	665.6	633.7	31.82	20.914	
7,100.0	6,524.0	6,939.3	6,354.0	17.3	16.7	-75.30	172.0	-215.1	666.0	632.9	33.02	20.171	
7,200.0	6,524.0	7,039.3	6,354.0	18.2	17.5	-75.31	272.0	-215.4	666.3	631.8	34.57	19.274	
7,300.0	6,524.0	7,139.3	6,354.0	19.2	18.5	-75.32	372.0	-215.7	666.7	630.3	36.44	18.294	
7,400.0	6,524.0	7,239.3	6,354.0	20.3	19.6	-75.32	472.0	-216.1	667.1	628.5	38.59	17.287	
7,500.0	6,524.0	7,339.3	6,354.0	21.6	20.9	-75.33	572.0	-216.4	667.5	626.5	40.96	16.294	
7,600.0	6,524.0	7,439.3	6,354.0	22.9	22.2	-75.34	672.0	-216.7	667.9	624.3	43.53	15.342	
7,700.0	6,524.0	7,539.3	6,354.0	24.3	23.6	-75.35	772.0	-217.0	668.2	622.0	46.26	14.446	
7,800.0	6,524.0	7,639.3	6,354.0	25.8	25.1	-75.36	872.0	-217.4	668.6	619.5	49.12	13.612	
7,900.0	6,524.0	7,739.3	6,354.0	27.3	26.7	-75.37	972.0	-217.7	669.0	616.9	52.09	12.843	
8,000.0	6,524.0	7,839.3	6,354.0	28.9	28.2	-75.38	1,072.0	-218.0	669.4	614.2	55.16	12.136	
8,100.0	6,524.0	7,939.3	6,354.0	30.5	29.9	-75.38	1,172.0	-218.4	669.8	611.5	58.30	11.488	
8,200.0	6,524.0	8,039.3	6,354.0	32.2	31.5	-75.39	1,272.0	-218.7	670.1	608.6	61.51	10.895	
8,300.0	6,524.0	8,139.3	6,354.0	33.8	33.2	-75.40	1,372.0	-219.0	670.5	605.7	64.78	10.351	
8,400.0	6,524.0	8,239.3	6,354.0	35.5	34.9	-75.41	1,472.0	-219.3	670.9	602.8	68.10	9.852	
8,500.0	6,524.0	8,339.3	6,354.0	37.3	36.6	-75.42	1,572.0	-219.7	671.3	599.8	71.45	9.395	
8,600.0	6,524.0	8,439.3	6,354.0	39.0	38.4	-75.43	1,671.9	-220.0	671.7	596.8	74.85	8.974	
8,700.0	6,524.0	8,539.3	6,354.0	40.7	40.1	-75.44	1,771.9	-220.3	672.1	593.8	78.28	8.586	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope T34-P31-18HNB - Wellbore #1 - Plan #1 (10-7-13)

Offset Site Error: 0.0 ft

Survey Program: 0-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
8,800.0	6,524.0	8,639.3	6,354.0	42.5	41.9	-75.44	1,871.9	-220.7	672.4	590.7	81.73	8.227	
8,900.0	6,524.0	8,739.3	6,354.0	44.3	43.7	-75.45	1,971.9	-221.0	672.8	587.6	85.21	7.896	
9,000.0	6,524.0	8,839.3	6,354.0	46.1	45.5	-75.46	2,071.9	-221.3	673.2	584.5	88.71	7.589	
9,100.0	6,524.0	8,939.3	6,354.0	47.9	47.3	-75.47	2,171.9	-221.7	673.6	581.3	92.23	7.303	
9,200.0	6,524.0	9,039.3	6,354.0	49.7	49.1	-75.48	2,271.9	-222.0	674.0	578.2	95.76	7.038	
9,300.0	6,524.0	9,139.3	6,354.0	51.5	51.0	-75.49	2,371.9	-222.3	674.3	575.0	99.32	6.790	
9,400.0	6,524.0	9,239.3	6,354.0	53.3	52.8	-75.49	2,471.9	-222.6	674.7	571.8	102.88	6.558	
9,500.0	6,524.0	9,339.3	6,354.0	55.1	54.6	-75.50	2,571.9	-223.0	675.1	568.6	106.46	6.341	
9,600.0	6,524.0	9,439.3	6,354.0	57.0	56.5	-75.51	2,671.9	-223.3	675.5	565.4	110.05	6.138	
9,700.0	6,524.0	9,539.3	6,354.0	58.8	58.3	-75.52	2,771.9	-223.6	675.9	562.2	113.65	5.947	
9,800.0	6,524.0	9,639.3	6,354.0	60.7	60.2	-75.53	2,871.9	-224.0	676.2	559.0	117.25	5.767	
9,900.0	6,524.0	9,739.3	6,354.0	62.5	62.0	-75.54	2,971.9	-224.3	676.6	555.8	120.87	5.598	
10,000.0	6,524.0	9,839.3	6,354.0	64.4	63.9	-75.54	3,071.9	-224.6	677.0	552.5	124.49	5.438	
10,100.0	6,524.0	9,939.3	6,354.0	66.2	65.8	-75.55	3,171.9	-225.0	677.4	549.3	128.13	5.287	
10,200.0	6,524.0	10,039.3	6,354.0	68.1	67.6	-75.56	3,271.9	-225.3	677.8	546.0	131.76	5.144	
10,300.0	6,524.0	10,139.3	6,354.0	69.9	69.5	-75.57	3,371.9	-225.6	678.2	542.7	135.41	5.008	
10,400.0	6,524.0	10,239.3	6,354.0	71.8	71.4	-75.58	3,471.9	-225.9	678.5	539.5	139.06	4.880	
10,500.0	6,524.0	10,339.3	6,354.0	73.7	73.3	-75.59	3,571.9	-226.3	678.9	536.2	142.71	4.757	
10,600.0	6,524.0	10,439.3	6,354.0	75.5	75.1	-75.59	3,671.9	-226.6	679.3	532.9	146.37	4.641	
10,700.0	6,524.0	10,539.3	6,354.0	77.4	77.0	-75.60	3,771.9	-226.9	679.7	529.6	150.03	4.530	
10,800.0	6,524.0	10,639.3	6,354.0	79.3	78.9	-75.61	3,871.9	-227.3	680.1	526.4	153.70	4.425	
10,900.0	6,524.0	10,739.3	6,354.0	81.2	80.8	-75.62	3,971.9	-227.6	680.4	523.1	157.37	4.324	
11,000.0	6,524.0	10,839.3	6,354.0	83.1	82.7	-75.63	4,071.9	-227.9	680.8	519.8	161.05	4.227	
11,100.0	6,524.0	10,939.3	6,354.0	84.9	84.6	-75.64	4,171.9	-228.3	681.2	516.5	164.73	4.135	
11,133.7	6,524.0	10,973.0	6,354.0	85.6	85.2	-75.64	4,205.6	-228.4	681.3	515.4	165.97	4.105 SF	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope Y44-U41-18HNC - Wellbore #1 - Plan #1 (10-7-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference 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	180.00	-18.2	0.0	18.2	18.2	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-18.2	0.0	18.2	18.0	0.22	81.079	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-18.2	0.0	18.2	17.5	0.67	27.026	CC, ES
300.0	300.0	299.7	299.6	0.6	0.5	175.37	-19.0	1.5	19.1	18.0	1.11	17.233	
400.0	400.0	399.1	398.9	0.8	0.8	163.96	-21.4	6.1	22.3	20.7	1.55	14.396	
500.0	500.0	498.0	497.5	1.0	1.0	151.44	-25.3	13.8	28.9	26.9	2.02	14.346	
600.0	600.0	596.3	595.0	1.2	1.3	141.63	-30.7	24.3	39.5	37.0	2.51	15.756	
700.0	700.0	693.6	691.2	1.5	1.6	134.93	-37.6	37.7	54.0	51.0	3.02	17.881	
800.0	800.0	789.8	785.6	1.7	2.0	130.47	-45.9	53.8	72.2	68.6	3.55	20.316	
900.0	900.0	884.6	878.1	1.9	2.4	127.45	-55.5	72.4	93.8	89.7	4.10	22.854	
1,000.0	1,000.0	979.6	970.0	2.1	2.9	125.35	-66.3	93.5	118.5	113.8	4.68	25.324	
1,100.0	1,100.0	1,076.6	1,063.9	2.3	3.4	-20.02	-77.6	115.5	142.2	137.4	4.79	29.660	
1,200.0	1,199.8	1,174.4	1,158.4	2.5	3.9	-21.53	-89.1	137.7	162.9	157.6	5.22	31.196	
1,300.0	1,299.5	1,272.7	1,253.5	2.7	4.4	-23.11	-100.5	160.0	180.5	174.8	5.66	31.878	
1,400.0	1,398.7	1,371.4	1,348.9	2.9	5.0	-24.83	-112.1	182.4	195.0	188.9	6.12	31.879	
1,502.9	1,500.3	1,473.4	1,447.5	3.2	5.5	-26.80	-124.0	205.6	207.0	200.4	6.61	31.297	
1,600.0	1,595.9	1,569.7	1,540.6	3.5	6.1	-28.77	-135.2	227.4	217.0	209.9	7.12	30.475	
1,700.0	1,694.4	1,668.9	1,636.5	3.8	6.6	-30.61	-146.8	249.9	227.6	219.9	7.67	29.678	
1,800.0	1,792.9	1,768.0	1,732.4	4.1	7.1	-32.29	-158.4	272.4	238.3	230.1	8.24	28.931	
1,900.0	1,891.3	1,867.2	1,828.3	4.5	7.7	-33.83	-169.9	294.9	249.2	240.4	8.83	28.232	
2,000.0	1,989.8	1,966.4	1,924.2	4.8	8.2	-35.23	-181.5	317.5	260.3	250.9	9.44	27.580	
2,100.0	2,088.2	2,065.6	2,020.1	5.2	8.8	-36.52	-193.1	340.0	271.6	261.5	10.07	26.974	
2,200.0	2,186.7	2,164.8	2,116.0	5.6	9.3	-37.71	-204.7	362.5	283.0	272.2	10.71	26.412	
2,300.0	2,285.2	2,264.0	2,211.9	5.9	9.9	-38.80	-216.2	385.0	294.4	283.1	11.37	25.891	
2,400.0	2,383.6	2,363.2	2,307.8	6.3	10.4	-39.82	-227.8	407.5	306.0	294.0	12.04	25.408	
2,500.0	2,482.1	2,462.4	2,403.7	6.7	11.0	-40.76	-239.4	430.0	317.7	304.9	12.73	24.961	
2,600.0	2,580.6	2,561.5	2,499.6	7.1	11.5	-41.63	-251.0	452.5	329.4	316.0	13.42	24.547	
2,700.0	2,679.0	2,660.7	2,595.5	7.5	12.1	-42.44	-262.6	475.0	341.2	327.1	14.12	24.163	
2,800.0	2,777.5	2,759.9	2,691.5	7.9	12.6	-43.20	-274.1	497.5	353.1	338.3	14.83	23.807	
2,900.0	2,875.9	2,859.1	2,787.4	8.2	13.2	-43.91	-285.7	520.0	365.0	349.5	15.55	23.477	
3,000.0	2,974.4	2,958.3	2,883.3	8.6	13.7	-44.57	-297.3	542.6	377.0	360.8	16.27	23.170	
3,100.0	3,072.9	3,057.5	2,979.2	9.0	14.3	-45.20	-308.9	565.1	389.1	372.1	17.00	22.884	
3,200.0	3,171.3	3,156.7	3,075.1	9.4	14.8	-45.78	-320.4	587.6	401.1	383.4	17.74	22.617	
3,300.0	3,269.8	3,255.9	3,171.0	9.8	15.4	-46.33	-332.0	610.1	413.3	394.8	18.47	22.369	
3,400.0	3,368.3	3,355.0	3,266.9	10.2	15.9	-46.85	-343.6	632.6	425.4	406.2	19.22	22.136	
3,500.0	3,466.7	3,454.2	3,362.8	10.6	16.5	-47.34	-355.2	655.1	437.6	417.6	19.96	21.918	
3,600.0	3,565.2	3,553.4	3,458.7	11.0	17.0	-47.81	-366.8	677.6	449.8	429.1	20.71	21.714	
3,700.0	3,663.7	3,652.6	3,554.6	11.4	17.6	-48.25	-378.3	700.1	462.0	440.6	21.47	21.522	
3,800.0	3,762.1	3,751.8	3,650.5	11.8	18.1	-48.67	-389.9	722.6	474.3	452.1	22.22	21.342	
3,900.0	3,860.6	3,851.0	3,746.4	12.2	18.7	-49.06	-401.5	745.1	486.6	463.6	22.98	21.172	
4,000.0	3,959.0	3,950.2	3,842.3	12.6	19.2	-49.44	-413.1	767.7	498.9	475.2	23.74	21.012	
4,100.0	4,057.5	4,049.3	3,938.2	13.0	19.8	-49.80	-424.6	790.2	511.2	486.7	24.51	20.861	
4,200.0	4,156.0	4,148.5	4,034.1	13.4	20.3	-50.14	-436.2	812.7	523.6	498.3	25.27	20.718	
4,300.0	4,254.4	4,247.7	4,130.0	13.8	20.9	-50.47	-447.8	835.2	536.0	509.9	26.04	20.583	
4,400.0	4,352.9	4,346.9	4,225.9	14.2	21.4	-50.78	-459.4	857.7	548.3	521.5	26.81	20.455	
4,500.0	4,451.4	4,446.1	4,321.8	14.6	22.0	-51.07	-471.0	880.2	560.7	533.2	27.58	20.333	
4,600.0	4,549.8	4,545.3	4,417.7	15.1	22.5	-51.36	-482.5	902.7	573.2	544.8	28.35	20.218	
4,700.0	4,648.3	4,644.5	4,513.6	15.5	23.1	-51.63	-494.1	925.2	585.6	556.5	29.12	20.108	
4,800.0	4,746.7	4,743.7	4,609.5	15.9	23.6	-51.89	-505.7	947.7	598.0	568.1	29.90	20.003	
4,900.0	4,845.2	4,842.8	4,705.4	16.3	24.2	-52.14	-517.3	970.2	610.5	579.8	30.67	19.904	
5,000.0	4,943.7	4,950.1	4,809.2	16.7	24.7	-52.42	-529.7	994.3	622.7	591.3	31.46	19.792	
5,100.0	5,042.1	5,073.8	4,929.9	17.1	25.2	-52.88	-542.1	1,018.5	632.0	599.7	32.28	19.578	

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 Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope Y44-U41-18HNC - Wellbore #1 - Plan #1 (10-7-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference 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
5,158.4	5,099.7	5,146.4	5,001.1	17.3	25.4	-53.25	-548.3	1,030.6	635.6	602.9	32.76	19.404	
5,200.0	5,140.6	5,198.0	5,052.1	17.5	25.6	-53.56	-552.2	1,038.2	637.6	604.6	33.07	19.281	
5,300.0	5,239.6	5,322.4	5,175.3	17.7	25.9	-54.22	-559.9	1,053.1	641.2	607.5	33.70	19.029	
5,400.0	5,339.0	5,447.0	5,299.3	17.9	26.1	-54.75	-565.1	1,063.2	643.0	608.8	34.23	18.787	
5,500.0	5,438.7	5,571.5	5,423.7	18.1	26.3	-55.17	-567.9	1,068.6	643.0	608.4	34.66	18.553	
5,600.0	5,538.7	5,686.5	5,538.7	18.3	26.4	-55.44	-568.3	1,069.5	641.5	606.5	34.99	18.334	
5,661.3	5,600.0	5,747.8	5,600.0	18.4	26.5	88.37	-568.3	1,069.5	641.2	606.0	35.15	18.242	
5,700.0	5,638.7	5,786.4	5,638.7	18.4	26.5	88.37	-568.3	1,069.5	641.2	605.9	35.25	18.188	
5,800.0	5,738.7	5,886.4	5,738.7	18.6	26.6	88.37	-568.3	1,069.5	641.2	605.6	35.51	18.055	
5,900.0	5,838.7	5,986.4	5,838.7	18.7	26.7	88.37	-568.3	1,069.5	641.2	605.4	35.77	17.922	
5,912.0	5,850.7	5,998.4	5,850.7	18.7	26.7	88.37	-568.3	1,069.5	641.2	605.4	35.81	17.907	
6,000.0	5,938.7	6,083.5	5,935.5	18.8	26.8	88.01	-564.3	1,069.5	641.3	605.2	36.10	17.767	
6,038.6	5,977.2	6,119.6	5,971.2	18.9	26.8	87.50	-558.6	1,069.5	641.6	605.3	36.29	17.681	
6,050.0	5,988.7	6,130.2	5,981.5	18.9	26.8	87.27	-556.5	1,069.6	641.7	605.4	36.34	17.658	
6,100.0	6,038.5	6,175.9	6,025.8	18.9	26.7	86.45	-544.9	1,069.6	642.3	605.7	36.57	17.562	
6,150.0	6,087.8	6,221.0	6,068.2	18.9	26.7	85.66	-529.7	1,069.7	643.0	606.2	36.71	17.516	
6,200.0	6,136.1	6,265.5	6,108.6	18.9	26.6	84.92	-511.1	1,069.8	643.7	607.0	36.75	17.517	
6,250.0	6,182.9	6,309.4	6,146.8	18.8	26.6	84.21	-489.4	1,069.9	644.6	607.9	36.70	17.565	
6,300.0	6,227.8	6,350.0	6,180.4	18.7	26.5	83.59	-466.7	1,070.0	645.5	608.9	36.56	17.656	
6,350.0	6,270.4	6,396.0	6,216.1	18.6	26.4	82.96	-437.8	1,070.1	646.4	610.1	36.34	17.789	
6,400.0	6,310.3	6,438.7	6,246.9	18.4	26.3	82.42	-408.2	1,070.2	647.3	611.2	36.05	17.955	
6,450.0	6,347.2	6,481.0	6,275.0	18.3	26.2	81.94	-376.5	1,070.4	648.2	612.4	35.72	18.146	
6,500.0	6,380.6	6,523.1	6,300.2	18.1	26.1	81.52	-342.9	1,070.5	649.0	613.6	35.36	18.354	
6,550.0	6,410.4	6,565.0	6,322.6	17.9	25.9	81.17	-307.5	1,070.7	649.7	614.7	34.99	18.567	
6,600.0	6,436.1	6,606.7	6,341.9	17.8	25.8	80.90	-270.6	1,070.9	650.3	615.7	34.64	18.771	
6,650.0	6,457.6	6,650.0	6,358.8	17.6	25.7	80.68	-230.7	1,071.1	650.8	616.5	34.34	18.953	
6,700.0	6,474.7	6,689.7	6,371.4	17.4	25.6	80.56	-193.0	1,071.2	651.2	617.1	34.11	19.093	
6,720.4	6,480.4	6,707.8	6,376.2	17.3	25.5	80.52	-175.6	1,071.3	651.4	617.3	34.04	19.136	
6,800.0	6,501.0	6,787.3	6,396.8	17.1	25.3	80.53	-98.7	1,071.7	651.7	617.5	34.12	19.098	
6,820.4	6,506.3	6,806.6	6,401.7	17.1	25.3	80.53	-80.1	1,071.8	651.7	617.6	34.17	19.072	
6,850.0	6,513.1	6,831.1	6,407.2	17.0	25.3	80.50	-56.3	1,071.9	651.9	617.7	34.23	19.046	
6,900.0	6,520.9	6,872.5	6,414.0	16.9	25.2	80.51	-15.4	1,072.1	652.0	617.6	34.40	18.956	
6,950.0	6,524.0	6,913.9	6,417.5	16.9	25.1	80.60	25.9	1,072.3	652.0	617.4	34.67	18.806	
6,956.8	6,524.0	6,919.6	6,417.7	16.9	25.1	80.62	31.5	1,072.3	652.0	617.3	34.72	18.781	
6,962.8	6,524.0	6,924.6	6,417.8	16.9	25.1	80.63	36.5	1,072.3	652.0	617.2	34.77	18.754	
7,000.0	6,524.0	6,959.2	6,418.0	16.9	25.1	80.65	71.1	1,072.5	652.1	617.0	35.11	18.574	
7,100.0	6,524.0	7,059.2	6,418.0	17.3	25.0	80.65	171.1	1,072.9	652.5	616.2	36.32	17.965	
7,200.0	6,524.0	7,159.2	6,418.0	18.2	25.1	80.66	271.1	1,073.4	652.9	615.1	37.86	17.244	
7,300.0	6,524.0	7,259.2	6,418.0	19.2	25.3	80.66	371.1	1,073.9	653.3	613.6	39.71	16.451	
7,400.0	6,524.0	7,359.2	6,418.0	20.3	25.7	80.67	471.1	1,074.3	653.7	611.9	41.82	15.630	
7,500.0	6,524.0	7,459.2	6,418.0	21.6	26.3	80.67	571.1	1,074.8	654.1	609.9	44.16	14.812	
7,600.0	6,524.0	7,559.2	6,418.0	22.9	27.2	80.68	671.1	1,075.3	654.5	607.8	46.69	14.018	
7,700.0	6,524.0	7,659.2	6,418.0	24.3	28.2	80.69	771.1	1,075.7	654.9	605.5	49.38	13.262	
7,800.0	6,524.0	7,759.2	6,418.0	25.8	29.4	80.69	871.1	1,076.2	655.3	603.1	52.21	12.550	
7,900.0	6,524.0	7,859.2	6,418.0	27.3	30.7	80.70	971.1	1,076.7	655.7	600.5	55.16	11.887	
8,000.0	6,524.0	7,959.2	6,418.0	28.9	32.0	80.70	1,071.1	1,077.1	656.1	597.9	58.21	11.272	
8,100.0	6,524.0	8,059.2	6,418.0	30.5	33.5	80.71	1,171.1	1,077.6	656.5	595.1	61.34	10.703	
8,200.0	6,524.0	8,159.2	6,418.0	32.2	35.0	80.71	1,271.1	1,078.1	656.9	592.3	64.54	10.178	
8,300.0	6,524.0	8,259.2	6,418.0	33.8	36.5	80.72	1,371.1	1,078.5	657.3	589.5	67.80	9.694	
8,400.0	6,524.0	8,359.2	6,418.0	35.5	38.1	80.72	1,471.1	1,079.0	657.7	586.6	71.12	9.248	
8,500.0	6,524.0	8,459.2	6,418.0	37.3	39.7	80.73	1,571.1	1,079.5	658.1	583.6	74.48	8.836	
8,600.0	6,524.0	8,559.2	6,418.0	39.0	41.3	80.74	1,671.1	1,079.9	658.5	580.6	77.88	8.455	

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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 T44-P41-18HC	**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 T-18 Pad Sec.18-T5N-R62W - Antelope Y44-U41-18HNC - Wellbore #1 - Plan #1 (10-7-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference 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
8,700.0	6,524.0	8,659.2	6,418.0	40.7	43.0	80.74	1,771.1	1,080.4	658.9	577.5	81.32	8.102	
8,800.0	6,524.0	8,759.2	6,418.0	42.5	44.6	80.75	1,871.1	1,080.8	659.3	574.5	84.79	7.775	
8,900.0	6,524.0	8,859.2	6,418.0	44.3	46.3	80.75	1,971.1	1,081.3	659.7	571.4	88.29	7.472	
9,000.0	6,524.0	8,959.2	6,418.0	46.1	48.1	80.76	2,071.1	1,081.8	660.0	568.2	91.81	7.190	
9,100.0	6,524.0	9,059.2	6,418.0	47.9	49.8	80.76	2,171.1	1,082.2	660.4	565.1	95.35	6.927	
9,200.0	6,524.0	9,159.2	6,418.0	49.7	51.5	80.77	2,271.1	1,082.7	660.8	561.9	98.91	6.681	
9,300.0	6,524.0	9,259.2	6,418.0	51.5	53.3	80.78	2,371.1	1,083.2	661.2	558.7	102.49	6.452	
9,400.0	6,524.0	9,359.2	6,418.0	53.3	55.0	80.78	2,471.1	1,083.6	661.6	555.6	106.08	6.237	
9,500.0	6,524.0	9,459.2	6,418.0	55.1	56.8	80.79	2,571.1	1,084.1	662.0	552.3	109.69	6.036	
9,600.0	6,524.0	9,559.2	6,418.0	57.0	58.6	80.79	2,671.1	1,084.6	662.4	549.1	113.31	5.846	
9,700.0	6,524.0	9,659.2	6,418.0	58.8	60.4	80.80	2,771.0	1,085.0	662.8	545.9	116.94	5.668	
9,800.0	6,524.0	9,759.2	6,418.0	60.7	62.2	80.80	2,871.0	1,085.5	663.2	542.6	120.58	5.500	
9,900.0	6,524.0	9,859.2	6,418.0	62.5	64.0	80.81	2,971.0	1,086.0	663.6	539.4	124.23	5.342	
10,000.0	6,524.0	9,959.2	6,418.0	64.4	65.8	80.81	3,071.0	1,086.4	664.0	536.1	127.89	5.192	
10,100.0	6,524.0	10,059.2	6,418.0	66.2	67.6	80.82	3,171.0	1,086.9	664.4	532.8	131.56	5.050	
10,200.0	6,524.0	10,159.2	6,418.0	68.1	69.4	80.83	3,271.0	1,087.4	664.8	529.6	135.24	4.916	
10,300.0	6,524.0	10,259.2	6,418.0	69.9	71.3	80.83	3,371.0	1,087.8	665.2	526.3	138.92	4.788	
10,400.0	6,524.0	10,359.2	6,418.0	71.8	73.1	80.84	3,471.0	1,088.3	665.6	523.0	142.61	4.667	
10,500.0	6,524.0	10,459.2	6,418.0	73.7	74.9	80.84	3,571.0	1,088.8	666.0	519.7	146.31	4.552	
10,600.0	6,524.0	10,559.2	6,418.0	75.5	76.8	80.85	3,671.0	1,089.2	666.4	516.4	150.01	4.442	
10,700.0	6,524.0	10,659.2	6,418.0	77.4	78.6	80.85	3,771.0	1,089.7	666.8	513.1	153.71	4.338	
10,800.0	6,524.0	10,759.2	6,418.0	79.3	80.5	80.86	3,871.0	1,090.2	667.2	509.8	157.42	4.238	
10,900.0	6,524.0	10,859.2	6,418.0	81.2	82.3	80.86	3,971.0	1,090.6	667.6	506.4	161.14	4.143	
11,000.0	6,524.0	10,959.2	6,418.0	83.1	84.2	80.87	4,071.0	1,091.1	668.0	503.1	164.85	4.052	
11,100.0	6,524.0	11,059.1	6,418.0	84.9	86.0	80.87	4,171.0	1,091.5	668.4	499.8	168.58	3.965	
11,133.7	6,524.0	11,092.9	6,418.0	85.6	86.6	80.88	4,204.7	1,091.7	668.5	498.7	169.83	3.936	SF

Company:	BONANZA CREEK ENERGY OPERATING	**Local Co-ordinate Reference:**	Well Antelope T44-P41-18HC
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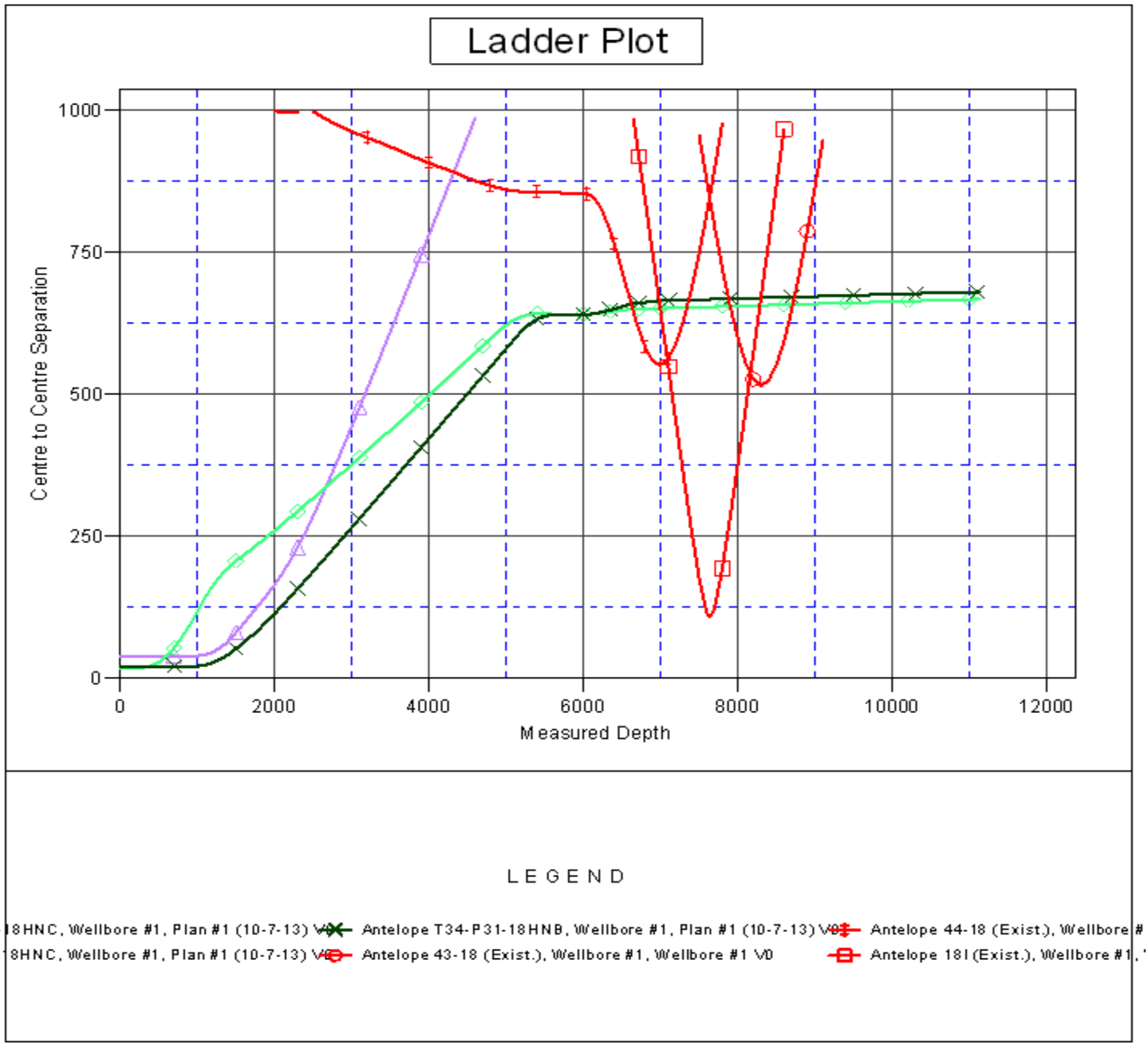
Reference Site:	Antelope T-18 Pad Sec.18-T5N-R62W	**MD Reference:**	WELL @ 4647.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Antelope T44-P41-18HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	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 T44-P41-18HC
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 T44-P41-18HC
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 T44-P41-18HC	**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 T44-P41-18HC
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°