

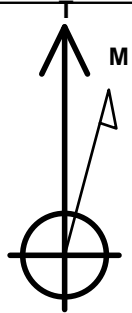
BONANZA CREEK ENERGY OPERATING

Well Name: **North Platte J-F-28HZ**

Surface Location: Peterson 14-28 Pad Sec.28-T5N-R63W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4551.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1377696.82 3293015.70 40.365410 -104.448430
 Original Well Elev WELL @ 4566.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE BH 460'FNL	1.0	4032.9	550.0	Polygon
HARDLINE SH 460'FSL	1.0	-320.6	550.0	Polygon
BHL 460'FNL & 1000'FWL	6321.0	4032.9	437.4	Point
T1 460'FSL & 1000'FWL	6321.0	-320.6	434.7	Point



Azimuths to True North
 Magnetic North: 8.54°

Magnetic Field
 Strength: 53032.2srT
 Dip Angle: 67.04°
 Date: 7/24/2012
 Model: IGRF2010

Peterson 14-28 Pad Sec.28-T5N-R63W
 North Platte J-F-28HZ
 Plan #1 (7-24-12)
 14:56, July 24 2012

ANNOTATIONS

TVD	MD	Annotation
600.0	600.0	KOP #1
5800.2	5887.5	KOP #2

South(-)/North(+) (1500 ft/in)

BHL 460'FNL & 1000'FWL

CASING PT -
 510'FSL & 1000'FWL

SHL 782'FSL
 & 568'FWL

North Platte J-F-28HZ

KOP #1

HARDLINE SH 460'FSL



BONANZA CREEK ENERGY OPERATING

SEC.28-T5N-R63W

Peterson 14-28 Pad Sec.28-T5N-R63W

North Platte J-F-28HZ

Wellbore #1

Plan: Plan #1 (7-24-12)

Standard Planning Report

24 July, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Project:	SEC.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	North Reference:	True
Well:	North Platte J-F-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-24-12)		

Project	SEC.28-T5N-R63W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Peterson 14-28 Pad Sec.28-T5N-R63W											
Site Position:						Northing:			1,377,751.47 ft			Latitude:			40.365560		
From:			Lat/Long			Easting:			3,293,015.05 ft			Longitude:			-104.448430		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.68 °		

Well	North Platte J-F-28HZ					
Well Position	+N/-S	-54.7 ft	Northing:	1,377,696.82 ft	Latitude:	40.365410
	+E/-W	0.0 ft	Easting:	3,293,015.70 ft	Longitude:	-104.448430
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,551.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/24/2012	8.54	67.04	53,032

Design	Plan #1 (7-24-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	6.19

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,177.1	11.54	151.24	1,173.2	-50.8	27.9	2.00	2.00	0.00	151.24	
5,110.2	11.54	151.24	5,026.8	-740.7	406.5	0.00	0.00	0.00	0.00	
5,687.3	0.00	0.00	5,600.0	-791.5	434.4	2.00	-2.00	0.00	180.00	
5,887.5	0.00	0.00	5,800.1	-791.5	434.4	0.00	0.00	0.00	0.00	
6,705.6	90.00	0.04	6,321.0	-270.6	434.7	11.00	11.00	0.00	0.04	
11,009.2	90.00	0.04	6,321.0	4,032.9	437.4	0.00	0.00	0.00	0.00	BHL 460'FNL & 100'

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Project:	SEC.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	North Reference:	True
Well:	North Platte J-F-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-24-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE BH 460'FNL - HARDLINE SH 460'FSL									
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
KOP #1									
700.0	2.00	151.24	700.0	-1.5	0.8	-1.4	2.00	2.00	0.00
800.0	4.00	151.24	799.8	-6.1	3.4	-5.7	2.00	2.00	0.00
900.0	6.00	151.24	899.5	-13.8	7.6	-12.9	2.00	2.00	0.00
1,000.0	8.00	151.24	998.7	-24.4	13.4	-22.9	2.00	2.00	0.00
1,100.0	10.00	151.24	1,097.5	-38.2	20.9	-35.7	2.00	2.00	0.00
1,177.1	11.54	151.24	1,173.2	-50.8	27.9	-47.5	2.00	2.00	0.00
1,200.0	11.54	151.24	1,195.6	-54.8	30.1	-51.2	0.00	0.00	0.00
1,300.0	11.54	151.24	1,293.6	-72.3	39.7	-67.6	0.00	0.00	0.00
1,400.0	11.54	151.24	1,391.6	-89.9	49.3	-84.0	0.00	0.00	0.00
1,500.0	11.54	151.24	1,489.6	-107.4	59.0	-100.4	0.00	0.00	0.00
1,600.0	11.54	151.24	1,587.6	-125.0	68.6	-116.8	0.00	0.00	0.00
1,700.0	11.54	151.24	1,685.5	-142.5	78.2	-133.2	0.00	0.00	0.00
1,800.0	11.54	151.24	1,783.5	-160.1	87.8	-149.6	0.00	0.00	0.00
1,900.0	11.54	151.24	1,881.5	-177.6	97.5	-166.0	0.00	0.00	0.00
2,000.0	11.54	151.24	1,979.5	-195.1	107.1	-182.4	0.00	0.00	0.00
2,100.0	11.54	151.24	2,077.4	-212.7	116.7	-198.8	0.00	0.00	0.00
2,200.0	11.54	151.24	2,175.4	-230.2	126.4	-215.2	0.00	0.00	0.00
2,300.0	11.54	151.24	2,273.4	-247.8	136.0	-231.7	0.00	0.00	0.00
2,400.0	11.54	151.24	2,371.4	-265.3	145.6	-248.1	0.00	0.00	0.00
2,500.0	11.54	151.24	2,469.4	-282.8	155.2	-264.5	0.00	0.00	0.00
2,600.0	11.54	151.24	2,567.3	-300.4	164.9	-280.9	0.00	0.00	0.00
2,700.0	11.54	151.24	2,665.3	-317.9	174.5	-297.3	0.00	0.00	0.00
2,800.0	11.54	151.24	2,763.3	-335.5	184.1	-313.7	0.00	0.00	0.00
2,900.0	11.54	151.24	2,861.3	-353.0	193.7	-330.1	0.00	0.00	0.00
3,000.0	11.54	151.24	2,959.2	-370.5	203.4	-346.5	0.00	0.00	0.00
3,100.0	11.54	151.24	3,057.2	-388.1	213.0	-362.9	0.00	0.00	0.00
3,200.0	11.54	151.24	3,155.2	-405.6	222.6	-379.3	0.00	0.00	0.00
3,300.0	11.54	151.24	3,253.2	-423.2	232.3	-395.7	0.00	0.00	0.00
3,369.2	11.54	151.24	3,321.0	-435.3	238.9	-407.0	0.00	0.00	0.00
PARKMAN									
3,400.0	11.54	151.24	3,351.1	-440.7	241.9	-412.1	0.00	0.00	0.00
3,500.0	11.54	151.24	3,449.1	-458.3	251.5	-428.5	0.00	0.00	0.00
3,600.0	11.54	151.24	3,547.1	-475.8	261.1	-444.9	0.00	0.00	0.00
3,700.0	11.54	151.24	3,645.1	-493.3	270.8	-461.3	0.00	0.00	0.00
3,800.0	11.54	151.24	3,743.1	-510.9	280.4	-477.7	0.00	0.00	0.00
3,900.0	11.54	151.24	3,841.0	-528.4	290.0	-494.1	0.00	0.00	0.00
4,000.0	11.54	151.24	3,939.0	-546.0	299.6	-510.5	0.00	0.00	0.00
4,083.7	11.54	151.24	4,021.0	-560.6	307.7	-524.2	0.00	0.00	0.00
SUSSEX									
4,100.0	11.54	151.24	4,037.0	-563.5	309.3	-526.9	0.00	0.00	0.00
4,200.0	11.54	151.24	4,135.0	-581.0	318.9	-543.3	0.00	0.00	0.00
4,300.0	11.54	151.24	4,232.9	-598.6	328.5	-559.7	0.00	0.00	0.00
4,400.0	11.54	151.24	4,330.9	-616.1	338.2	-576.1	0.00	0.00	0.00
4,500.0	11.54	151.24	4,428.9	-633.7	347.8	-592.5	0.00	0.00	0.00

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Project:	SEC.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	North Reference:	True
Well:	North Platte J-F-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-24-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.0	11.54	151.24	4,526.9	-651.2	357.4	-608.9	0.00	0.00	0.00
4,700.0	11.54	151.24	4,624.9	-668.8	367.0	-625.3	0.00	0.00	0.00
4,800.0	11.54	151.24	4,722.8	-686.3	376.7	-641.7	0.00	0.00	0.00
4,900.0	11.54	151.24	4,820.8	-703.8	386.3	-658.1	0.00	0.00	0.00
5,000.0	11.54	151.24	4,918.8	-721.4	395.9	-674.5	0.00	0.00	0.00
5,100.0	11.54	151.24	5,016.8	-738.9	405.5	-690.9	0.00	0.00	0.00
5,110.2	11.54	151.24	5,026.8	-740.7	406.5	-692.6	0.00	0.00	0.00
5,200.0	9.75	151.24	5,115.0	-755.3	414.5	-706.1	2.00	-2.00	0.00
5,300.0	7.75	151.24	5,213.8	-768.6	421.8	-718.6	2.00	-2.00	0.00
5,400.0	5.75	151.24	5,313.1	-778.9	427.5	-728.2	2.00	-2.00	0.00
5,500.0	3.75	151.24	5,412.8	-786.1	431.5	-735.0	2.00	-2.00	0.00
5,600.0	1.75	151.24	5,512.7	-790.3	433.8	-739.0	2.00	-2.00	0.00
5,687.3	0.00	0.00	5,600.0	-791.5	434.4	-740.0	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,612.7	-791.5	434.4	-740.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,712.7	-791.5	434.4	-740.0	0.00	0.00	0.00
5,887.5	0.00	0.00	5,800.2	-791.5	434.4	-740.0	0.00	0.00	0.00
KOP #2									
5,900.0	1.38	0.04	5,812.7	-791.3	434.4	-739.9	11.03	11.03	0.00
6,000.0	12.38	0.04	5,911.8	-779.4	434.4	-728.0	11.00	11.00	0.00
6,100.0	23.38	0.04	6,006.8	-748.7	434.4	-697.5	11.00	11.00	0.00
6,200.0	34.38	0.04	6,094.2	-700.5	434.5	-649.6	11.00	11.00	0.00
6,284.8	43.70	0.04	6,160.0	-647.2	434.5	-596.6	11.00	11.00	0.00
SHARON SPRINGS									
6,300.0	45.38	0.04	6,170.9	-636.5	434.5	-585.9	11.00	11.00	0.00
6,400.0	56.38	0.04	6,233.9	-559.0	434.5	-508.9	11.00	11.00	0.00
6,403.9	56.80	0.04	6,236.0	-555.8	434.5	-505.7	11.00	11.00	0.00
NIOBRARA A CHALK									
6,434.5	60.17	0.04	6,252.0	-529.7	434.6	-479.8	11.00	11.00	0.00
NIOBRARA A MARL									
6,500.0	67.38	0.04	6,280.9	-471.0	434.6	-421.4	11.00	11.00	0.00
6,598.4	78.20	0.04	6,310.0	-377.1	434.7	-328.0	11.00	11.00	0.00
NIOBRARA B CHALK									
6,600.0	78.38	0.04	6,310.3	-375.6	434.7	-326.5	11.00	11.00	0.00
6,655.9	84.53	0.04	6,318.6	-320.3	434.7	-271.6	11.00	11.00	0.00
T1 460'FSL & 1000'FWL									
6,700.0	89.38	0.04	6,321.0	-276.3	434.7	-227.8	11.00	11.00	0.00
6,702.8	89.38	0.04	6,321.0	-273.5	434.7	-225.0	0.00	0.00	0.00
NIOBRARA B TARGET									
6,705.6	89.99	0.04	6,321.0	-270.7	434.7	-222.2	22.18	22.18	0.00
7"									
6,800.0	90.00	0.04	6,321.0	-176.3	434.8	-128.4	0.01	0.01	0.00
6,900.0	90.00	0.04	6,321.0	-76.3	434.8	-28.9	0.00	0.00	0.00
7,000.0	90.00	0.04	6,321.0	23.7	434.9	70.5	0.00	0.00	0.00
7,100.0	90.00	0.04	6,321.0	123.7	435.0	169.9	0.00	0.00	0.00
7,200.0	90.00	0.04	6,321.0	223.7	435.0	269.3	0.00	0.00	0.00
7,300.0	90.00	0.04	6,321.0	323.7	435.1	368.8	0.00	0.00	0.00
7,400.0	90.00	0.04	6,321.0	423.7	435.2	468.2	0.00	0.00	0.00
7,500.0	90.00	0.04	6,321.0	523.7	435.2	567.6	0.00	0.00	0.00
7,600.0	90.00	0.04	6,321.0	623.7	435.3	667.0	0.00	0.00	0.00
7,700.0	90.00	0.04	6,321.0	723.7	435.4	766.5	0.00	0.00	0.00
7,800.0	90.00	0.04	6,321.0	823.7	435.4	865.9	0.00	0.00	0.00
7,900.0	90.00	0.04	6,321.0	923.7	435.5	965.3	0.00	0.00	0.00
8,000.0	90.00	0.04	6,321.0	1,023.7	435.5	1,064.7	0.00	0.00	0.00

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Project:	SEC.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	North Reference:	True
Well:	North Platte J-F-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (7-24-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,100.0	90.00	0.04	6,321.0	1,123.7	435.6	1,164.1	0.00	0.00	0.00
8,200.0	90.00	0.04	6,321.0	1,223.7	435.7	1,263.6	0.00	0.00	0.00
8,300.0	90.00	0.04	6,321.0	1,323.7	435.7	1,363.0	0.00	0.00	0.00
8,400.0	90.00	0.04	6,321.0	1,423.7	435.8	1,462.4	0.00	0.00	0.00
8,500.0	90.00	0.04	6,321.0	1,523.7	435.9	1,561.8	0.00	0.00	0.00
8,600.0	90.00	0.04	6,321.0	1,623.7	435.9	1,661.3	0.00	0.00	0.00
8,700.0	90.00	0.04	6,321.0	1,723.7	436.0	1,760.7	0.00	0.00	0.00
8,800.0	90.00	0.04	6,321.0	1,823.7	436.0	1,860.1	0.00	0.00	0.00
8,900.0	90.00	0.04	6,321.0	1,923.7	436.1	1,959.5	0.00	0.00	0.00
9,000.0	90.00	0.04	6,321.0	2,023.7	436.2	2,059.0	0.00	0.00	0.00
9,100.0	90.00	0.04	6,321.0	2,123.7	436.2	2,158.4	0.00	0.00	0.00
9,200.0	90.00	0.04	6,321.0	2,223.7	436.3	2,257.8	0.00	0.00	0.00
9,300.0	90.00	0.04	6,321.0	2,323.7	436.4	2,357.2	0.00	0.00	0.00
9,400.0	90.00	0.04	6,321.0	2,423.7	436.4	2,456.7	0.00	0.00	0.00
9,500.0	90.00	0.04	6,321.0	2,523.7	436.5	2,556.1	0.00	0.00	0.00
9,600.0	90.00	0.04	6,321.0	2,623.7	436.5	2,655.5	0.00	0.00	0.00
9,700.0	90.00	0.04	6,321.0	2,723.7	436.6	2,754.9	0.00	0.00	0.00
9,800.0	90.00	0.04	6,321.0	2,823.7	436.7	2,854.3	0.00	0.00	0.00
9,900.0	90.00	0.04	6,321.0	2,923.7	436.7	2,953.8	0.00	0.00	0.00
10,000.0	90.00	0.04	6,321.0	3,023.7	436.8	3,053.2	0.00	0.00	0.00
10,100.0	90.00	0.04	6,321.0	3,123.7	436.9	3,152.6	0.00	0.00	0.00
10,200.0	90.00	0.04	6,321.0	3,223.7	436.9	3,252.0	0.00	0.00	0.00
10,300.0	90.00	0.04	6,321.0	3,323.7	437.0	3,351.5	0.00	0.00	0.00
10,400.0	90.00	0.04	6,321.0	3,423.7	437.0	3,450.9	0.00	0.00	0.00
10,500.0	90.00	0.04	6,321.0	3,523.7	437.1	3,550.3	0.00	0.00	0.00
10,600.0	90.00	0.04	6,321.0	3,623.7	437.2	3,649.7	0.00	0.00	0.00
10,700.0	90.00	0.04	6,321.0	3,723.7	437.2	3,749.2	0.00	0.00	0.00
10,800.0	90.00	0.04	6,321.0	3,823.7	437.3	3,848.6	0.00	0.00	0.00
10,900.0	90.00	0.04	6,321.0	3,923.7	437.4	3,948.0	0.00	0.00	0.00
11,000.0	90.00	0.04	6,321.0	4,023.7	437.4	4,047.4	0.00	0.00	0.00
11,009.2	90.00	0.04	6,321.0	4,032.9	437.4	4,056.6	0.00	0.00	0.00
BHL 460'FNL & 1000'FWL									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
600.0	600.0	0.0	0.0	KOP #1	
5,887.5	5,800.2	-791.5	434.4	KOP #2	



BONANZA CREEK ENERGY OPERATING

SEC.28-T5N-R63W

Peterson 14-28 Pad Sec.28-T5N-R63W

North Platte J-F-28HZ

Wellbore #1

Plan #1 (7-24-12)

Anticollision Report

24 July, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (7-24-12)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 7/24/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,009.2	Plan #1 (7-24-12) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Peterson 14-28 Pad Sec.28-T5N-R63W						
Peterson 14-28 (Exist.) - Wellbore #1 - Wellbore #1	600.0	600.0	54.6	41.4	4.129	CC
Peterson 14-28 (Exist.) - Wellbore #1 - Wellbore #1	700.0	700.0	56.2	40.8	3.641	ES
Peterson 14-28 (Exist.) - Wellbore #1 - Wellbore #1	7,030.6	6,321.0	434.9	290.2	3.006	SF
Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)	200.0	200.0	21.9	21.2	32.417	CC
Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)	300.0	300.0	21.9	20.8	19.681	ES
Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)	7,646.8	6,417.6	244.6	201.4	5.655	SF

Offset Design													Offset Site Error:	0.0 ft
Peterson 14-28 Pad Sec.28-T5N-R63W - Peterson 14-28 (Exist.) - Wellbore #1 - Wellbore #1														
Survey Program: 6640-UNKNOWN													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	0.00	54.6	0.0	54.6					
100.0	100.0	100.0	100.0	0.1	2.0	0.00	54.6	0.0	54.6	52.5	2.11	25.867		
200.0	200.0	200.0	200.0	0.3	4.0	0.00	54.6	0.0	54.6	50.3	4.34	12.599		
300.0	300.0	300.0	300.0	0.6	6.0	0.00	54.6	0.0	54.6	48.1	6.56	8.328		
400.0	400.0	400.0	400.0	0.8	8.0	0.00	54.6	0.0	54.6	45.9	8.79	6.219		
500.0	500.0	500.0	500.0	1.0	10.0	0.00	54.6	0.0	54.6	43.6	11.01	4.963		
600.0	600.0	600.0	600.0	1.2	12.0	0.00	54.6	0.0	54.6	41.4	13.24	4.129	CC	
700.0	700.0	700.0	700.0	1.4	14.0	-152.08	54.6	0.0	56.2	40.8	15.43	3.641	ES	
800.0	799.8	799.8	799.8	1.6	16.0	-154.35	54.6	0.0	60.9	43.3	17.59	3.461		
900.0	899.5	899.5	899.5	1.8	18.0	-157.43	54.6	0.0	68.8	49.1	19.72	3.490		
1,000.0	998.7	998.7	998.7	2.1	20.0	-160.69	54.6	0.0	80.2	58.4	21.82	3.676		
1,100.0	1,097.5	1,097.5	1,097.5	2.4	21.9	-163.72	54.6	0.0	95.1	71.3	23.87	3.985		
1,177.1	1,173.2	1,173.2	1,173.2	2.6	23.5	-165.77	54.6	0.0	109.1	83.6	25.42	4.291		
1,200.0	1,195.6	1,195.6	1,195.6	2.7	23.9	-166.34	54.6	0.0	113.5	87.6	25.91	4.381		
1,300.0	1,293.6	1,293.6	1,293.6	3.1	25.9	-168.37	54.6	0.0	133.1	105.0	28.05	4.743		
1,400.0	1,391.6	1,391.6	1,391.6	3.5	27.8	-169.89	54.6	0.0	152.7	122.5	30.21	5.055		
1,500.0	1,489.6	1,489.6	1,489.6	3.9	29.8	-171.05	54.6	0.0	172.5	140.1	32.37	5.328		
1,600.0	1,587.6	1,587.6	1,587.6	4.3	31.8	-171.98	54.6	0.0	192.3	157.7	34.53	5.568		
1,700.0	1,685.5	1,685.5	1,685.5	4.7	33.7	-172.73	54.6	0.0	212.1	175.4	36.70	5.780		
1,800.0	1,783.5	1,783.5	1,783.5	5.1	35.7	-173.36	54.6	0.0	232.0	193.1	38.87	5.968		
1,900.0	1,881.5	1,881.5	1,881.5	5.6	37.6	-173.89	54.6	0.0	251.9	210.8	41.04	6.137		

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 North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 6640-UNKNOWN												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
2,000.0	1,979.5	1,979.5	1,979.5	6.0	39.6	-174.33	54.6	0.0	271.8	228.6	43.21	6.289	
2,100.0	2,077.4	2,077.4	2,077.4	6.4	41.5	-174.72	54.6	0.0	291.7	246.3	45.39	6.427	
2,200.0	2,175.4	2,175.4	2,175.4	6.9	43.5	-175.06	54.6	0.0	311.6	264.1	47.56	6.552	
2,300.0	2,273.4	2,273.4	2,273.4	7.3	45.5	-175.36	54.6	0.0	331.6	281.8	49.74	6.666	
2,400.0	2,371.4	2,371.4	2,371.4	7.7	47.4	-175.62	54.6	0.0	351.5	299.6	51.92	6.771	
2,500.0	2,469.4	2,469.4	2,469.4	8.2	49.4	-175.86	54.6	0.0	371.5	317.4	54.09	6.867	
2,600.0	2,567.3	2,567.3	2,567.3	8.6	51.3	-176.07	54.6	0.0	391.4	335.2	56.27	6.956	
2,700.0	2,665.3	2,665.3	2,665.3	9.1	53.3	-176.26	54.6	0.0	411.4	353.0	58.45	7.038	
2,800.0	2,763.3	2,763.3	2,763.3	9.5	55.3	-176.43	54.6	0.0	431.4	370.7	60.63	7.115	
2,900.0	2,861.3	2,861.3	2,861.3	10.0	57.2	-176.59	54.6	0.0	451.4	388.5	62.81	7.186	
3,000.0	2,959.2	2,959.2	2,959.2	10.4	59.2	-176.74	54.6	0.0	471.3	406.3	64.99	7.252	
3,100.0	3,057.2	3,057.2	3,057.2	10.8	61.1	-176.87	54.6	0.0	491.3	424.1	67.18	7.314	
3,200.0	3,155.2	3,155.2	3,155.2	11.3	63.1	-176.99	54.6	0.0	511.3	441.9	69.36	7.372	
3,300.0	3,253.2	3,253.2	3,253.2	11.7	65.1	-177.10	54.6	0.0	531.3	459.7	71.54	7.426	
3,400.0	3,351.1	3,351.1	3,351.1	12.2	67.0	-177.21	54.6	0.0	551.3	477.5	73.72	7.478	
3,500.0	3,449.1	3,449.1	3,449.1	12.6	69.0	-177.31	54.6	0.0	571.2	495.3	75.90	7.526	
3,600.0	3,547.1	3,547.1	3,547.1	13.1	70.9	-177.40	54.6	0.0	591.2	513.2	78.09	7.572	
3,700.0	3,645.1	3,645.1	3,645.1	13.5	72.9	-177.48	54.6	0.0	611.2	531.0	80.27	7.615	
3,800.0	3,743.1	3,743.1	3,743.1	14.0	74.9	-177.56	54.6	0.0	631.2	548.8	82.45	7.656	
3,900.0	3,841.0	3,841.0	3,841.0	14.4	76.8	-177.64	54.6	0.0	651.2	566.6	84.63	7.694	
4,000.0	3,939.0	3,939.0	3,939.0	14.9	78.8	-177.71	54.6	0.0	671.2	584.4	86.82	7.731	
4,100.0	4,037.0	4,037.0	4,037.0	15.3	80.7	-177.78	54.6	0.0	691.2	602.2	89.00	7.766	
4,200.0	4,135.0	4,135.0	4,135.0	15.8	82.7	-177.84	54.6	0.0	711.2	620.0	91.18	7.800	
4,300.0	4,232.9	4,232.9	4,232.9	16.2	84.7	-177.90	54.6	0.0	731.2	637.8	93.37	7.831	
4,400.0	4,330.9	4,330.9	4,330.9	16.7	86.6	-177.95	54.6	0.0	751.2	655.6	95.55	7.862	
4,500.0	4,428.9	4,428.9	4,428.9	17.1	88.6	-178.01	54.6	0.0	771.2	673.5	97.74	7.891	
4,600.0	4,526.9	4,526.9	4,526.9	17.6	90.5	-178.06	54.6	0.0	791.2	691.3	99.92	7.918	
4,700.0	4,624.9	4,624.9	4,624.9	18.0	92.5	-178.10	54.6	0.0	811.2	709.1	102.10	7.945	
4,800.0	4,722.8	4,722.8	4,722.8	18.5	94.5	-178.15	54.6	0.0	831.2	726.9	104.29	7.970	
4,900.0	4,820.8	4,820.8	4,820.8	18.9	96.4	-178.19	54.6	0.0	851.2	744.7	106.47	7.994	
5,000.0	4,918.8	4,918.8	4,918.8	19.4	98.4	-178.23	54.6	0.0	871.2	762.5	108.66	8.018	
5,100.0	5,016.8	5,016.8	5,016.8	19.8	100.3	-178.27	54.6	0.0	891.2	780.3	110.84	8.040	
5,110.2	5,026.8	5,026.8	5,026.8	19.9	100.5	-178.28	54.6	0.0	893.2	782.2	111.06	8.042	
5,200.0	5,115.0	5,115.0	5,115.0	20.2	102.3	-178.32	54.6	0.0	909.8	796.2	113.60	8.009	
5,300.0	5,213.8	5,213.8	5,213.8	20.5	104.3	-178.36	54.6	0.0	925.0	808.7	116.30	7.953	
5,400.0	5,313.1	5,313.1	5,313.1	20.7	106.3	-178.38	54.6	0.0	936.7	817.9	118.88	7.880	
5,500.0	5,412.8	5,412.8	5,412.8	20.9	108.3	-178.40	54.6	0.0	945.0	823.7	121.33	7.789	
5,600.0	5,512.7	5,512.7	5,512.7	21.0	110.3	-178.41	54.6	0.0	949.8	826.2	123.63	7.682	
5,687.3	5,600.0	5,600.0	5,600.0	21.1	112.0	-27.18	54.6	0.0	951.1	825.6	125.53	7.577	
5,700.0	5,612.7	5,612.7	5,612.7	21.2	112.3	-27.18	54.6	0.0	951.1	825.3	125.81	7.560	
5,800.0	5,712.7	5,712.7	5,712.7	21.3	114.3	-27.18	54.6	0.0	951.1	823.2	127.97	7.432	
5,887.5	5,800.1	5,800.1	5,800.1	21.4	116.0	-27.18	54.6	0.0	951.1	821.3	129.87	7.324	
5,900.0	5,812.7	5,812.7	5,812.7	21.4	116.3	-27.22	54.6	0.0	951.0	820.9	130.07	7.312	
5,950.0	5,862.5	5,862.5	5,862.5	21.4	117.3	-27.48	54.6	0.0	947.8	817.5	130.27	7.276	
6,000.0	5,911.8	5,911.8	5,911.8	21.4	118.2	-28.11	54.6	0.0	940.4	810.9	129.53	7.260	
6,050.0	5,960.0	5,960.0	5,960.0	21.3	119.2	-29.11	54.6	0.0	928.8	800.9	127.94	7.260	
6,100.0	6,006.8	6,006.8	6,006.8	21.2	120.1	-30.54	54.6	0.0	913.3	787.7	125.66	7.268	
6,150.0	6,051.7	6,051.7	6,051.7	21.0	121.0	-32.45	54.6	0.0	894.0	771.1	122.94	7.272	
6,200.0	6,094.2	6,094.2	6,094.2	20.8	121.9	-34.92	54.6	0.0	871.2	751.0	120.19	7.248	
6,250.0	6,134.1	6,134.1	6,134.1	20.6	122.7	-38.03	54.6	0.0	845.2	727.3	117.96	7.165	
6,300.0	6,170.9	6,170.9	6,170.9	20.4	123.4	-41.87	54.6	0.0	816.4	699.5	116.90	6.983	
6,350.0	6,204.2	6,204.2	6,204.2	20.2	124.1	-46.52	54.6	0.0	785.1	667.5	117.65	6.673	

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

Offset Design Peterson 14-28 Pad Sec.28-T5N-R63W - Peterson 14-28 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 6640-UNKNOWN													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)			
6,400.0	6,233.9	6,233.9	6,233.9	19.9	124.7	-52.01	54.6	0.0	752.0	631.4	120.56	6.237		
6,450.0	6,259.5	6,259.5	6,259.5	19.7	125.2	-58.27	54.6	0.0	717.4	592.0	125.39	5.721		
6,500.0	6,280.9	6,280.9	6,280.9	19.4	125.6	-65.08	54.6	0.0	682.0	550.8	131.22	5.198		
6,550.0	6,297.9	6,297.9	6,297.9	19.2	126.0	-72.06	54.6	0.0	646.5	509.8	136.74	4.728		
6,600.0	6,310.3	6,310.3	6,310.3	19.0	126.2	-78.74	54.6	0.0	611.6	470.7	140.86	4.341		
6,650.0	6,318.0	6,318.0	6,318.0	18.8	126.4	-84.67	54.6	0.0	577.9	434.8	143.15	4.037		
6,700.0	6,321.0	6,321.0	6,321.0	18.6	126.4	-89.53	54.6	0.0	546.3	402.5	143.89	3.797		
6,705.6	6,321.0	6,321.0	6,321.0	18.5	126.4	-90.00	54.6	0.0	542.9	399.0	143.90	3.773		
6,800.0	6,321.0	6,321.0	6,321.0	18.3	126.4	-90.00	54.6	0.0	492.3	348.4	143.90	3.421		
6,900.0	6,321.0	6,321.0	6,321.0	18.2	126.4	-90.00	54.6	0.0	454.1	310.0	144.11	3.151		
7,000.0	6,321.0	6,321.0	6,321.0	18.3	126.4	-90.00	54.6	0.0	436.0	291.5	144.52	3.017		
7,030.6	6,321.0	6,321.0	6,321.0	18.4	126.4	-90.00	54.6	0.0	434.9	290.2	144.71	3.006 SF		
7,100.0	6,321.0	6,321.0	6,321.0	18.8	126.4	-90.00	54.6	0.0	440.4	295.3	145.12	3.035		
7,200.0	6,321.0	6,321.0	6,321.0	19.5	126.4	-90.00	54.6	0.0	466.7	320.8	145.90	3.199		
7,300.0	6,321.0	6,321.0	6,321.0	20.4	126.4	-90.00	54.6	0.0	511.6	364.8	146.82	3.484		
7,400.0	6,321.0	6,321.0	6,321.0	21.5	126.4	-90.00	54.6	0.0	570.6	422.7	147.88	3.859		
7,500.0	6,321.0	6,321.0	6,321.0	22.7	126.4	-90.00	54.6	0.0	639.9	490.8	149.05	4.293		
7,600.0	6,321.0	6,321.0	6,321.0	24.0	126.4	-90.00	54.6	0.0	716.5	566.2	150.32	4.766		
7,700.0	6,321.0	6,321.0	6,321.0	25.4	126.4	-90.00	54.6	0.0	798.2	646.6	151.67	5.263		
7,800.0	6,321.0	6,321.0	6,321.0	26.8	126.4	-90.00	54.6	0.0	883.8	730.7	153.09	5.773		
7,900.0	6,321.0	6,321.0	6,321.0	28.3	126.4	-90.00	54.6	0.0	972.1	817.5	154.57	6.289		
8,000.0	6,321.0	6,321.0	6,321.0	29.9	126.4	-90.00	54.6	0.0	1,062.5	906.4	156.10	6.806		
8,100.0	6,321.0	6,321.0	6,321.0	31.5	126.4	-90.00	54.6	0.0	1,154.4	996.7	157.67	7.322		
8,200.0	6,321.0	6,321.0	6,321.0	33.1	126.4	-90.00	54.6	0.0	1,247.6	1,088.3	159.28	7.833		
8,300.0	6,321.0	6,321.0	6,321.0	34.7	126.4	-90.00	54.6	0.0	1,341.8	1,180.9	160.93	8.338		
8,400.0	6,321.0	6,321.0	6,321.0	36.4	126.4	-90.00	54.6	0.0	1,436.8	1,274.2	162.60	8.836		
8,500.0	6,321.0	6,321.0	6,321.0	38.1	126.4	-90.00	54.6	0.0	1,532.4	1,368.1	164.29	9.327		
8,600.0	6,321.0	6,321.0	6,321.0	39.8	126.4	-90.00	54.6	0.0	1,628.5	1,462.5	166.01	9.810		
8,700.0	6,321.0	6,321.0	6,321.0	41.6	126.4	-90.00	54.6	0.0	1,725.1	1,557.3	167.74	10.284		
8,800.0	6,321.0	6,321.0	6,321.0	43.3	126.4	-90.00	54.6	0.0	1,822.0	1,652.5	169.49	10.750		
8,900.0	6,321.0	6,321.0	6,321.0	45.1	126.4	-90.00	54.6	0.0	1,919.3	1,748.0	171.25	11.207		
9,000.0	6,321.0	6,321.0	6,321.0	46.8	126.4	-90.00	54.6	0.0	2,016.8	1,843.8	173.03	11.656		
9,100.0	6,321.0	6,321.0	6,321.0	48.6	126.4	-90.00	54.6	0.0	2,114.6	1,939.8	174.81	12.096		
9,200.0	6,321.0	6,321.0	6,321.0	50.4	126.4	-90.00	54.6	0.0	2,212.5	2,035.9	176.61	12.528		
9,300.0	6,321.0	6,321.0	6,321.0	52.2	126.4	-90.00	54.6	0.0	2,310.7	2,132.2	178.42	12.951		
9,400.0	6,321.0	6,321.0	6,321.0	54.0	126.4	-90.00	54.6	0.0	2,408.9	2,228.7	180.23	13.366		
9,500.0	6,321.0	6,321.0	6,321.0	55.8	126.4	-90.00	54.6	0.0	2,507.4	2,325.3	182.05	13.773		
9,600.0	6,321.0	6,321.0	6,321.0	57.7	126.4	-90.00	54.6	0.0	2,605.9	2,422.0	183.88	14.172		
9,700.0	6,321.0	6,321.0	6,321.0	59.5	126.4	-90.00	54.6	0.0	2,704.6	2,518.8	185.71	14.563		
9,800.0	6,321.0	6,321.0	6,321.0	61.3	126.4	-90.00	54.6	0.0	2,803.3	2,615.7	187.55	14.947		
9,900.0	6,321.0	6,321.0	6,321.0	63.2	126.4	-90.00	54.6	0.0	2,902.1	2,712.7	189.39	15.323		
10,000.0	6,321.0	6,321.0	6,321.0	65.0	126.4	-90.00	54.6	0.0	3,001.0	2,809.8	191.24	15.692		
10,100.0	6,321.0	6,321.0	6,321.0	66.9	126.4	-90.00	54.6	0.0	3,100.0	2,906.9	193.09	16.054		
10,200.0	6,321.0	6,321.0	6,321.0	68.7	126.4	-90.00	54.6	0.0	3,199.1	3,004.1	194.95	16.410		
10,300.0	6,321.0	6,321.0	6,321.0	70.6	126.4	-90.00	54.6	0.0	3,298.2	3,101.3	196.81	16.758		
10,400.0	6,321.0	6,321.0	6,321.0	72.4	126.4	-90.00	54.6	0.0	3,397.3	3,198.6	198.67	17.100		
10,500.0	6,321.0	6,321.0	6,321.0	74.3	126.4	-90.00	54.6	0.0	3,496.5	3,296.0	200.54	17.436		
10,600.0	6,321.0	6,321.0	6,321.0	76.2	126.4	-90.00	54.6	0.0	3,595.8	3,393.3	202.41	17.765		
10,700.0	6,321.0	6,321.0	6,321.0	78.0	126.4	-90.00	54.6	0.0	3,695.0	3,490.8	204.28	18.088		
10,800.0	6,321.0	6,321.0	6,321.0	79.9	126.4	-90.00	54.6	0.0	3,794.4	3,588.2	206.15	18.406		
10,900.0	6,321.0	6,321.0	6,321.0	81.8	126.4	-90.00	54.6	0.0	3,893.7	3,685.7	208.03	18.717		
11,009.2	6,321.0	6,321.0	6,321.0	83.8	126.4	-90.00	54.6	0.0	4,002.3	3,792.2	210.08	19.051		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Offset Design Peterson 14-28 Pad Sec.28-T5N-R63W - Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)													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	0.00	21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	21.9	0.0	21.9	21.6	0.22	97.250		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.67	32.417 CC		
227.7	227.7	227.7	227.7	0.4	0.4	0.35	21.9	0.1	21.9	21.1	0.80	27.464		
300.0	300.0	300.0	299.9	0.6	0.6	4.56	21.9	1.7	21.9	20.8	1.11	19.681 ES		
400.0	400.0	399.7	399.5	0.8	0.8	17.65	21.9	7.0	22.9	21.4	1.56	14.682		
500.0	500.0	498.7	498.2	1.0	1.0	34.55	22.2	15.3	27.1	25.0	2.03	13.360		
600.0	600.0	597.1	596.1	1.2	1.3	44.87	25.3	25.2	36.0	33.5	2.47	14.530		
700.0	700.0	694.9	693.0	1.4	1.6	-103.86	31.5	36.3	49.0	46.0	2.94	16.637		
800.0	799.8	791.7	788.5	1.6	1.9	-106.40	40.5	48.6	66.0	62.6	3.38	19.510		
900.0	899.5	886.7	881.9	1.8	2.2	-110.56	52.4	61.9	87.4	83.5	3.85	22.672		
1,000.0	998.7	982.0	975.0	2.1	2.6	-114.86	66.5	76.2	113.0	108.7	4.36	25.899		
1,100.0	1,097.5	1,077.5	1,068.4	2.4	3.0	-118.69	80.9	90.6	141.0	136.1	4.90	28.770		
1,177.1	1,173.2	1,150.7	1,139.9	2.6	3.3	-121.34	91.9	101.6	164.1	158.7	5.34	30.730		
1,200.0	1,195.6	1,172.3	1,161.0	2.7	3.4	-122.18	95.2	104.8	171.1	165.7	5.48	31.259		
1,300.0	1,293.6	1,266.8	1,253.4	3.1	3.8	-125.17	109.4	119.1	202.4	196.3	6.08	33.292		
1,400.0	1,391.6	1,361.4	1,345.7	3.5	4.3	-127.36	123.7	133.3	234.0	227.3	6.70	34.949		
1,500.0	1,489.6	1,455.9	1,438.1	3.9	4.7	-129.03	137.9	147.6	265.9	258.6	7.32	36.320		
1,600.0	1,587.6	1,550.5	1,530.5	4.3	5.1	-130.34	152.2	161.8	297.9	290.0	7.95	37.467		
1,700.0	1,685.5	1,645.0	1,622.8	4.7	5.5	-131.40	166.4	176.0	330.0	321.5	8.59	38.435		
1,800.0	1,783.5	1,739.5	1,715.2	5.1	5.9	-132.27	180.6	190.3	362.3	353.0	9.23	39.263		
1,900.0	1,881.5	1,834.1	1,807.6	5.6	6.4	-133.00	194.9	204.5	394.5	384.7	9.87	39.977		
2,000.0	1,979.5	1,928.6	1,899.9	6.0	6.8	-133.62	209.1	218.8	426.9	416.4	10.51	40.600		
2,100.0	2,077.4	2,023.1	1,992.3	6.4	7.2	-134.16	223.4	233.0	459.2	448.1	11.16	41.146		
2,200.0	2,175.4	2,117.7	2,084.7	6.9	7.7	-134.62	237.6	247.2	491.6	479.8	11.81	41.628		
2,300.0	2,273.4	2,212.2	2,177.0	7.3	8.1	-135.02	251.8	261.5	524.1	511.6	12.46	42.058		
2,400.0	2,371.4	2,306.7	2,269.4	7.7	8.5	-135.38	266.1	275.7	556.5	543.4	13.11	42.443		
2,500.0	2,469.4	2,401.3	2,361.7	8.2	8.9	-135.70	280.3	290.0	589.0	575.2	13.76	42.789		
2,600.0	2,567.3	2,495.8	2,454.1	8.6	9.4	-135.98	294.6	304.2	621.5	607.0	14.42	43.102		
2,700.0	2,665.3	2,590.4	2,546.5	9.1	9.8	-136.24	308.8	318.4	653.9	638.9	15.07	43.386		
2,800.0	2,763.3	2,684.9	2,638.8	9.5	10.2	-136.47	323.1	332.7	686.4	670.7	15.73	43.645		
2,900.0	2,861.3	2,779.4	2,731.2	10.0	10.7	-136.69	337.3	346.9	719.0	702.6	16.38	43.883		
3,000.0	2,959.2	2,874.0	2,823.6	10.4	11.1	-136.88	351.5	361.2	751.5	734.4	17.04	44.101		
3,100.0	3,057.2	2,968.5	2,915.9	10.8	11.5	-137.06	365.8	375.4	784.0	766.3	17.70	44.302		
3,200.0	3,155.2	3,063.0	3,008.3	11.3	12.0	-137.22	380.0	389.6	816.5	798.2	18.35	44.488		
3,300.0	3,253.2	3,157.6	3,100.7	11.7	12.4	-137.37	394.3	403.9	849.1	830.1	19.01	44.661		
3,400.0	3,351.1	3,252.1	3,193.0	12.2	12.8	-137.51	408.5	418.1	881.6	861.9	19.67	44.821		
3,500.0	3,449.1	3,346.6	3,285.4	12.6	13.3	-137.64	422.7	432.4	914.2	893.8	20.33	44.970		
3,600.0	3,547.1	3,441.2	3,377.8	13.1	13.7	-137.76	437.0	446.6	946.7	925.7	20.99	45.110		
3,700.0	3,645.1	3,535.7	3,470.1	13.5	14.1	-137.87	451.2	460.8	979.3	957.6	21.65	45.240		
3,800.0	3,743.1	3,630.3	3,562.5	14.0	14.6	-137.98	465.5	475.1	1,011.8	989.5	22.31	45.362		
3,900.0	3,841.0	3,724.8	3,654.9	14.4	15.0	-138.08	479.7	489.3	1,044.4	1,021.4	22.96	45.477		
4,000.0	3,939.0	3,819.3	3,747.2	14.9	15.4	-138.17	494.0	503.5	1,076.9	1,053.3	23.62	45.585		
4,100.0	4,037.0	3,913.9	3,839.6	15.3	15.9	-138.26	508.2	517.8	1,109.5	1,085.2	24.28	45.687		
4,200.0	4,135.0	4,008.4	3,932.0	15.8	16.3	-138.34	522.4	532.0	1,142.1	1,117.1	24.94	45.783		
4,300.0	4,232.9	4,102.9	4,024.3	16.2	16.7	-138.42	536.7	546.3	1,174.6	1,149.0	25.61	45.874		
4,400.0	4,330.9	4,197.5	4,116.7	16.7	17.2	-138.49	550.9	560.5	1,207.2	1,180.9	26.27	45.960		
4,500.0	4,428.9	4,292.0	4,209.1	17.1	17.6	-138.56	565.2	574.7	1,239.8	1,212.8	26.93	46.042		
4,600.0	4,526.9	4,386.5	4,301.4	17.6	18.0	-138.63	579.4	589.0	1,272.3	1,244.8	27.59	46.119		
4,700.0	4,624.9	4,481.1	4,393.8	18.0	18.5	-138.69	593.6	603.2	1,304.9	1,276.7	28.25	46.193		
4,800.0	4,722.8	4,575.6	4,486.2	18.5	18.9	-138.75	607.9	617.5	1,337.5	1,308.6	28.91	46.263		
4,900.0	4,820.8	4,670.1	4,578.5	18.9	19.3	-138.81	622.1	631.7	1,370.1	1,340.5	29.57	46.330		

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 North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Offset Design Peterson 14-28 Pad Sec.28-T5N-R63W - Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)													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		
5,000.0	4,918.8	4,821.4	4,727.0	19.4	19.8	-138.97	642.5	652.1	1,401.0	1,370.7	30.30	46.235		
5,100.0	5,016.8	4,984.3	4,888.3	19.8	20.3	-139.35	658.3	667.9	1,427.5	1,396.5	30.99	46.059		
5,110.2	5,026.8	5,001.1	4,905.0	19.9	20.3	-139.40	659.6	669.2	1,429.9	1,398.8	31.06	46.035		
5,200.0	5,115.0	5,150.8	5,054.3	20.2	20.6	-140.11	667.7	677.3	1,448.3	1,416.6	31.69	45.700		
5,300.0	5,213.8	5,310.4	5,213.8	20.5	20.8	-140.81	670.3	679.9	1,461.9	1,429.6	32.26	45.320		
5,400.0	5,313.1	5,409.7	5,313.1	20.7	20.9	-141.22	670.3	679.9	1,471.1	1,438.3	32.70	44.982		
5,500.0	5,412.8	5,509.4	5,412.8	20.9	21.1	-141.50	670.3	679.9	1,477.5	1,444.4	33.10	44.634		
5,600.0	5,512.7	5,609.3	5,512.7	21.0	21.2	-141.66	670.3	679.9	1,481.3	1,447.8	33.46	44.272		
5,687.3	5,600.0	5,696.6	5,600.0	21.1	21.3	9.53	670.3	679.9	1,482.3	1,448.6	33.74	43.932		
5,700.0	5,612.7	5,709.3	5,612.7	21.2	21.3	9.53	670.3	679.9	1,482.3	1,448.5	33.78	43.883		
5,800.0	5,712.7	5,809.3	5,712.7	21.3	21.4	9.53	670.3	679.9	1,482.3	1,448.2	34.07	43.504		
5,887.5	5,800.1	5,896.7	5,800.1	21.4	21.5	9.53	670.3	679.9	1,482.3	1,448.0	34.33	43.175		
5,900.0	5,812.7	5,909.3	5,812.7	21.4	21.6	9.50	670.3	679.9	1,482.2	1,447.8	34.37	43.129		
5,950.0	5,862.5	5,959.1	5,862.5	21.4	21.6	9.59	670.3	679.9	1,478.6	1,444.3	34.32	43.083		
6,000.0	5,911.8	6,008.4	5,911.8	21.4	21.7	9.80	670.3	679.9	1,470.4	1,436.4	33.99	43.257		
6,050.0	5,960.0	6,056.6	5,960.0	21.3	21.7	10.14	670.3	679.9	1,457.5	1,424.1	33.39	43.648		
6,100.0	6,006.8	6,103.4	6,006.8	21.2	21.8	10.63	670.3	679.9	1,440.2	1,407.6	32.54	44.259		
6,150.0	6,051.7	6,148.3	6,051.7	21.0	21.9	11.31	670.3	679.9	1,418.5	1,387.0	31.46	45.089		
6,200.0	6,094.2	6,190.8	6,094.2	20.8	21.9	12.20	670.3	679.9	1,392.7	1,362.5	30.19	46.130		
6,250.0	6,134.1	6,230.7	6,134.1	20.6	22.0	13.37	670.3	679.9	1,363.0	1,334.2	28.79	47.346		
6,300.0	6,170.9	6,267.5	6,170.9	20.4	22.0	14.92	670.3	679.9	1,329.7	1,302.4	27.33	48.647		
6,350.0	6,204.2	6,300.8	6,204.2	20.2	22.1	16.98	670.3	679.9	1,293.1	1,267.2	25.95	49.825		
6,400.0	6,233.9	6,330.5	6,233.9	19.9	22.1	19.76	670.3	679.9	1,253.6	1,228.8	24.84	50.464		
6,450.0	6,259.5	6,356.1	6,259.5	19.7	22.1	23.62	670.3	679.9	1,211.6	1,187.3	24.30	49.856		
6,500.0	6,280.9	6,377.5	6,280.9	19.4	22.2	29.12	670.3	679.9	1,167.4	1,142.6	24.77	47.127		
6,550.0	6,297.9	6,394.5	6,297.9	19.2	22.2	37.20	670.3	679.9	1,121.5	1,094.7	26.75	41.917		
6,600.0	6,310.3	6,406.9	6,310.3	19.0	22.2	49.26	670.3	679.9	1,074.3	1,043.8	30.43	35.308		
6,650.0	6,318.0	6,414.6	6,318.0	18.8	22.2	66.52	670.3	679.9	1,026.2	991.6	34.63	29.634		
6,700.0	6,321.0	6,417.6	6,321.0	18.6	22.2	87.60	670.3	679.9	977.9	941.6	36.29	26.944		
6,705.6	6,321.0	6,417.6	6,321.0	18.5	22.2	90.00	670.3	679.9	972.4	936.2	36.21	26.858		
6,800.0	6,321.0	6,417.6	6,321.0	18.3	22.2	90.00	670.3	679.9	881.4	845.2	36.21	24.342		
6,900.0	6,321.0	6,417.6	6,321.0	18.2	22.2	90.00	670.3	679.9	785.8	749.4	36.42	21.578		
7,000.0	6,321.0	6,417.6	6,321.0	18.3	22.2	90.00	670.3	679.9	691.5	654.7	36.83	18.776		
7,100.0	6,321.0	6,417.6	6,321.0	18.8	22.2	90.00	670.3	679.9	599.0	561.6	37.43	16.004		
7,200.0	6,321.0	6,417.6	6,321.0	19.5	22.2	90.00	670.3	679.9	509.4	471.2	38.20	13.334		
7,300.0	6,321.0	6,417.6	6,321.0	20.4	22.2	90.00	670.3	679.9	424.4	385.2	39.12	10.846		
7,400.0	6,321.0	6,417.6	6,321.0	21.5	22.2	90.00	670.3	679.9	347.5	307.3	40.18	8.647		
7,500.0	6,321.0	6,417.6	6,321.0	22.7	22.2	90.00	670.3	679.9	285.3	243.9	41.35	6.898		
7,600.0	6,321.0	6,417.6	6,321.0	24.0	22.2	90.00	670.3	679.9	249.0	206.4	42.62	5.843		
7,646.8	6,321.0	6,417.6	6,321.0	24.7	22.2	90.00	670.3	679.9	244.6	201.4	43.25	5.655 SF		
7,700.0	6,321.0	6,417.6	6,321.0	25.4	22.2	90.00	670.3	679.9	250.3	206.4	43.97	5.693		
7,800.0	6,321.0	6,417.6	6,321.0	26.8	22.2	90.00	670.3	679.9	288.6	243.2	45.39	6.359		
7,900.0	6,321.0	6,417.6	6,321.0	28.3	22.2	90.00	670.3	679.9	352.1	305.2	46.87	7.511		
8,000.0	6,321.0	6,417.6	6,321.0	29.9	22.2	90.00	670.3	679.9	429.6	381.2	48.40	8.876		
8,100.0	6,321.0	6,417.6	6,321.0	31.5	22.2	90.00	670.3	679.9	515.0	465.0	49.98	10.305		
8,200.0	6,321.0	6,417.6	6,321.0	33.1	22.2	90.00	670.3	679.9	604.9	553.3	51.59	11.725		
8,300.0	6,321.0	6,417.6	6,321.0	34.7	22.2	90.00	670.3	679.9	697.5	644.3	53.23	13.103		
8,400.0	6,321.0	6,417.6	6,321.0	36.4	22.2	90.00	670.3	679.9	791.9	737.0	54.90	14.424		
8,500.0	6,321.0	6,417.6	6,321.0	38.1	22.2	90.00	670.3	679.9	887.6	831.0	56.60	15.683		
8,600.0	6,321.0	6,417.6	6,321.0	39.8	22.2	90.00	670.3	679.9	984.1	925.8	58.31	16.876		
8,700.0	6,321.0	6,417.6	6,321.0	41.6	22.2	90.00	670.3	679.9	1,081.3	1,021.2	60.05	18.007		
8,800.0	6,321.0	6,417.6	6,321.0	43.3	22.2	90.00	670.3	679.9	1,178.9	1,117.1	61.79	19.077		

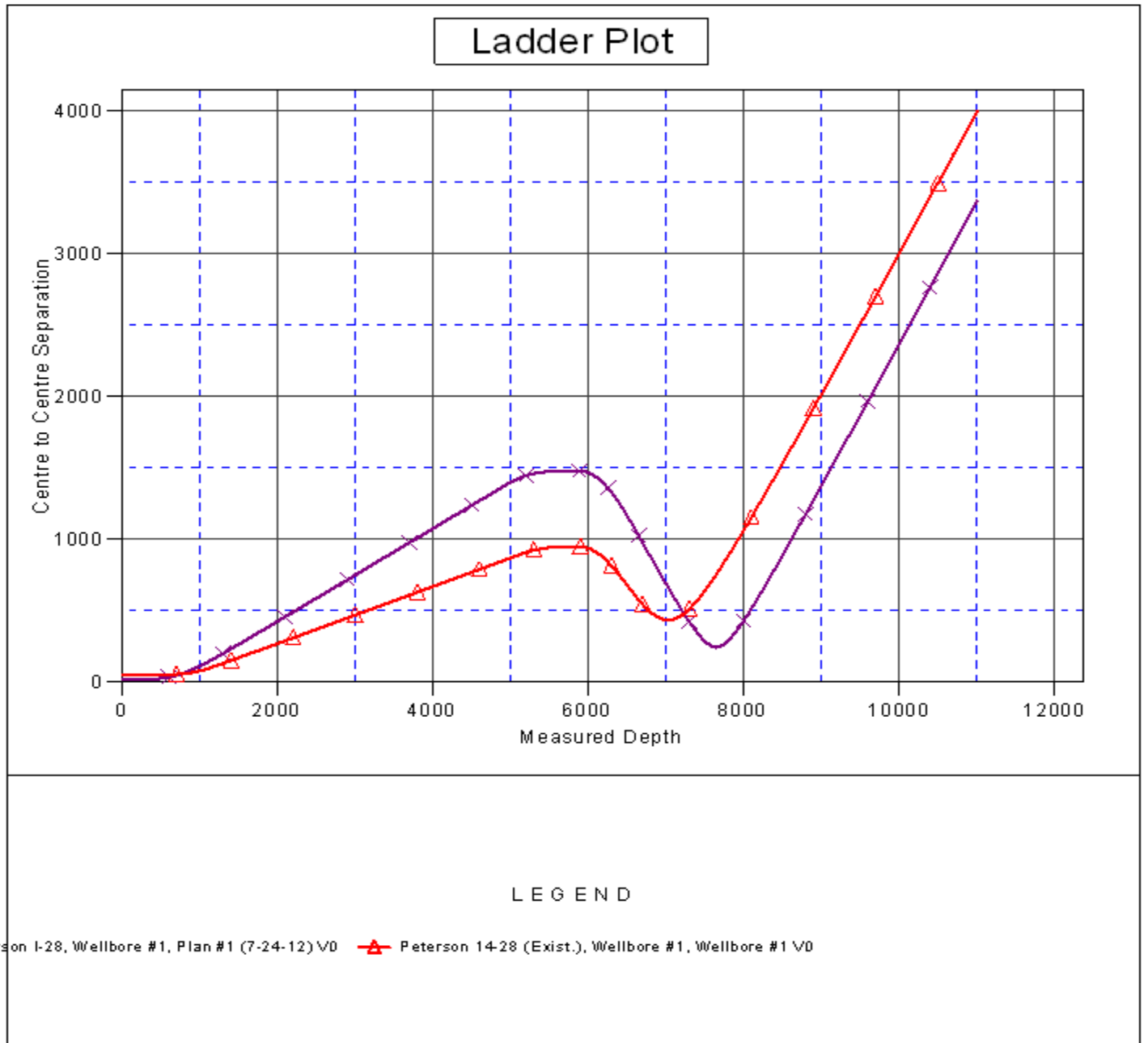
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Offset Design Peterson 14-28 Pad Sec.28-T5N-R63W - Peterson I-28 - Wellbore #1 - Plan #1 (7-24-12)												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
8,900.0	6,321.0	6,417.6	6,321.0	45.1	22.2	90.00	670.3	679.9	1,276.9	1,213.3	63.56	20.090	
9,000.0	6,321.0	6,417.6	6,321.0	46.8	22.2	90.00	670.3	679.9	1,375.2	1,309.8	65.33	21.048	
9,100.0	6,321.0	6,417.6	6,321.0	48.6	22.2	90.00	670.3	679.9	1,473.7	1,406.5	67.12	21.956	
9,200.0	6,321.0	6,417.6	6,321.0	50.4	22.2	90.00	670.3	679.9	1,572.4	1,503.4	68.92	22.815	
9,300.0	6,321.0	6,417.6	6,321.0	52.2	22.2	90.00	670.3	679.9	1,671.2	1,600.5	70.72	23.631	
9,400.0	6,321.0	6,417.6	6,321.0	54.0	22.2	90.00	670.3	679.9	1,770.2	1,697.7	72.54	24.405	
9,500.0	6,321.0	6,417.6	6,321.0	55.8	22.2	90.00	670.3	679.9	1,869.3	1,794.9	74.36	25.140	
9,600.0	6,321.0	6,417.6	6,321.0	57.7	22.2	90.00	670.3	679.9	1,968.5	1,892.3	76.18	25.838	
9,700.0	6,321.0	6,417.6	6,321.0	59.5	22.2	90.00	670.3	679.9	2,067.7	1,989.7	78.02	26.504	
9,800.0	6,321.0	6,417.6	6,321.0	61.3	22.2	90.00	670.3	679.9	2,167.1	2,087.2	79.86	27.137	
9,900.0	6,321.0	6,417.6	6,321.0	63.2	22.2	90.00	670.3	679.9	2,266.5	2,184.8	81.70	27.741	
10,000.0	6,321.0	6,417.6	6,321.0	65.0	22.2	90.00	670.3	679.9	2,365.9	2,282.4	83.55	28.318	
10,100.0	6,321.0	6,417.6	6,321.0	66.9	22.2	90.00	670.3	679.9	2,465.4	2,380.0	85.40	28.869	
10,200.0	6,321.0	6,417.6	6,321.0	68.7	22.2	90.00	670.3	679.9	2,564.9	2,477.7	87.26	29.395	
10,300.0	6,321.0	6,417.6	6,321.0	70.6	22.2	90.00	670.3	679.9	2,664.5	2,575.4	89.12	29.899	
10,400.0	6,321.0	6,417.6	6,321.0	72.4	22.2	90.00	670.3	679.9	2,764.1	2,673.1	90.98	30.381	
10,500.0	6,321.0	6,417.6	6,321.0	74.3	22.2	90.00	670.3	679.9	2,863.7	2,770.8	92.84	30.844	
10,600.0	6,321.0	6,417.6	6,321.0	76.2	22.2	90.00	670.3	679.9	2,963.3	2,868.6	94.71	31.287	
10,700.0	6,321.0	6,417.6	6,321.0	78.0	22.2	90.00	670.3	679.9	3,063.0	2,966.4	96.58	31.713	
10,800.0	6,321.0	6,417.6	6,321.0	79.9	22.2	90.00	670.3	679.9	3,162.7	3,064.2	98.46	32.122	
10,900.0	6,321.0	6,417.6	6,321.0	81.8	22.2	90.00	670.3	679.9	3,262.4	3,162.1	100.33	32.516	
11,009.2	6,321.0	6,417.6	6,321.0	83.8	22.2	90.00	670.3	679.9	3,371.3	3,268.9	102.38	32.928	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte J-F-28HZ	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 (7-24-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4566.0ft (Original Well Elev) Coordinates are relative to: North Platte J-F-28HZ
 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: 0.68°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte J-F-28HZ
Project:	SEC.28-T5N-R63W	TVD Reference:	WELL @ 4566.0ft (Original Well Elev)
Reference Site:	Peterson 14-28 Pad Sec.28-T5N-R63W	MD Reference:	WELL @ 4566.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
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Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
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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: 0.68°

