

BONANZA CREEK ENERGY OPERATING

Well Name: **North Platte Federal A-E-22HC**

Surface Location: North Platte F-22 Pad Sec.22-T5N-R63W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

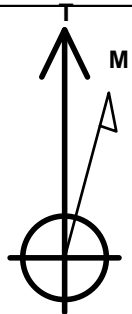
Ground Elevation: 4658.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1386890.24	3298926.55	40.390450	-104.426820	

RKB - 13' WELL @ 4671.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 617'FNL & 1205'FWL	1.0	0.0	0.0	Point
BHL 470'FSL & 10'FWL	6657.0	-4176.4	-1190.2	Point
T1 531'FNL & 10'FWL	6657.0	95.5	-1194.5	Point



Azimuths to True North
Magnetic North: 8.36°

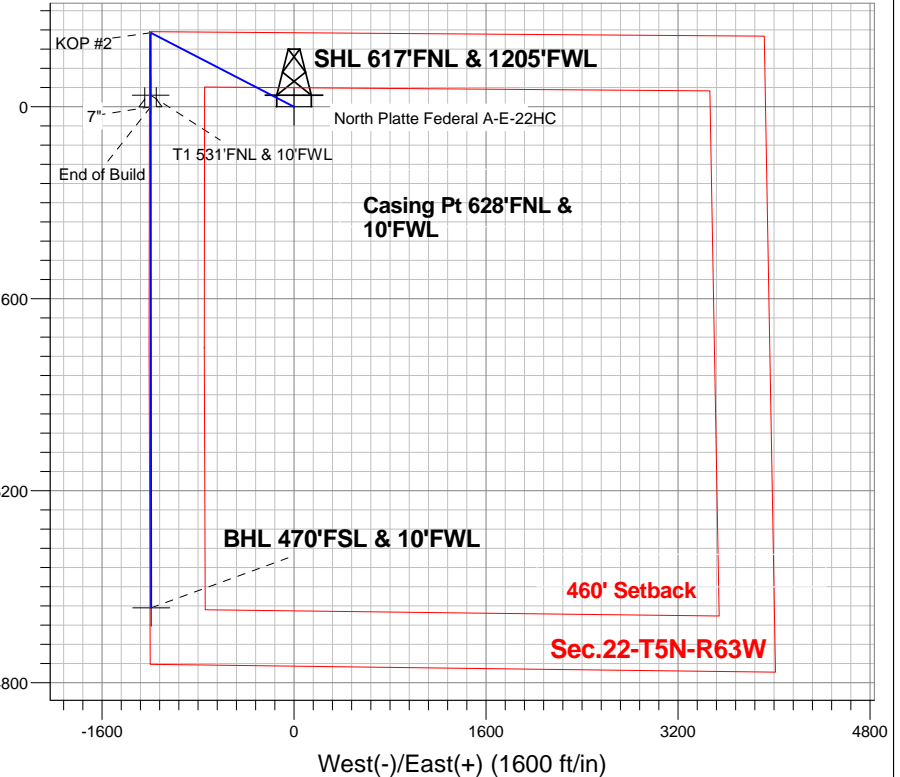
Magnetic Field
Strength: 52908.9nT
Dip Angle: 67.01°
Date: 11/12/2013
Model: IGRF2010

North Platte F-22 Pad Sec.22-T5N-R63W
North Platte Federal A-E-22HC
Plan #1 (11-12-13)
15:26, November 20 2013

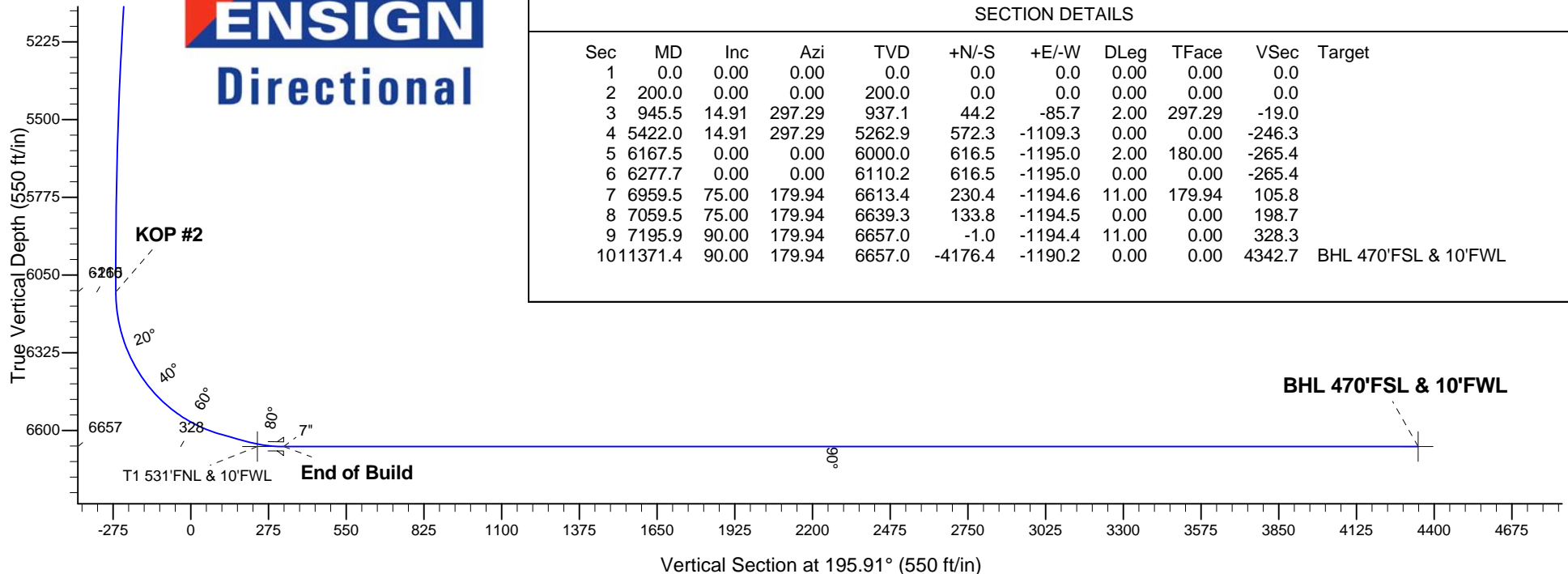
ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6110.2	6277.7	KOP #2
6657.0	7195.9	End of Build

South(-)/North(+) (1600 ft/in)



ENSIGN
Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	945.5	14.91	297.29	937.1	44.2	-85.7	2.00	297.29	-19.0	
4	5422.0	14.91	297.29	5262.9	572.3	-1109.3	0.00	0.00	-246.3	
5	6167.5	0.00	0.00	6000.0	616.5	-1195.0	2.00	180.00	-265.4	
6	6277.7	0.00	0.00	6110.2	616.5	-1195.0	0.00	0.00	-265.4	
7	6959.5	75.00	179.94	6613.4	230.4	-1194.6	11.00	179.94	105.8	
8	7059.5	75.00	179.94	6639.3	133.8	-1194.5	0.00	0.00	198.7	
9	7195.9	90.00	179.94	6657.0	-1.0	-1194.4	11.00	0.00	328.3	
10	11371.4	90.00	179.94	6657.0	-4176.4	-1190.2	0.00	0.00	4342.7	BHL 470'FSL & 10'FWL



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

North Platte F-22 Pad Sec.22-T5N-R63W

North Platte Federal A-E-22HC

Wellbore #1

Plan: Plan #1 (11-12-13)

Standard Planning Report

20 November, 2013

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
945.5	14.91	297.29	937.1	44.2	-85.7	2.00	2.00	0.00	297.29	
5,422.0	14.91	297.29	5,262.9	572.3	-1,109.3	0.00	0.00	0.00	0.00	
6,167.5	0.00	0.00	6,000.0	616.5	-1,195.0	2.00	-2.00	0.00	180.00	
6,277.7	0.00	0.00	6,110.2	616.5	-1,195.0	0.00	0.00	0.00	0.00	
6,959.5	75.00	179.94	6,613.4	230.4	-1,194.6	11.00	11.00	0.00	179.94	
7,059.5	75.00	179.94	6,639.3	133.8	-1,194.5	0.00	0.00	0.00	0.00	
7,195.9	90.00	179.94	6,657.0	-1.0	-1,194.4	11.00	11.00	0.00	0.00	
11,371.4	90.00	179.94	6,657.0	-4,176.4	-1,190.2	0.00	0.00	0.00	0.00	BHL 470'FSL & 10'

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal A-E-22HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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 617'FNL & 1205'FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
300.0	2.00	297.29	300.0	0.8	-1.6	-0.3	2.00	2.00	0.00
400.0	4.00	297.29	399.8	3.2	-6.2	-1.4	2.00	2.00	0.00
500.0	6.00	297.29	499.5	7.2	-13.9	-3.1	2.00	2.00	0.00
600.0	8.00	297.29	598.7	12.8	-24.8	-5.5	2.00	2.00	0.00
700.0	10.00	297.29	697.5	20.0	-38.7	-8.6	2.00	2.00	0.00
800.0	12.00	297.29	795.6	28.7	-55.6	-12.4	2.00	2.00	0.00
900.0	14.00	297.29	893.1	39.0	-75.6	-16.8	2.00	2.00	0.00
945.5	14.91	297.29	937.1	44.2	-85.7	-19.0	2.00	2.00	0.00
1,000.0	14.91	297.29	989.8	50.7	-98.2	-21.8	0.00	0.00	0.00
1,100.0	14.91	297.29	1,086.4	62.4	-121.0	-26.9	0.00	0.00	0.00
1,200.0	14.91	297.29	1,183.0	74.2	-143.9	-32.0	0.00	0.00	0.00
1,300.0	14.91	297.29	1,279.7	86.0	-166.8	-37.0	0.00	0.00	0.00
1,400.0	14.91	297.29	1,376.3	97.8	-189.6	-42.1	0.00	0.00	0.00
1,500.0	14.91	297.29	1,472.9	109.6	-212.5	-47.2	0.00	0.00	0.00
1,600.0	14.91	297.29	1,569.6	121.4	-235.4	-52.3	0.00	0.00	0.00
1,700.0	14.91	297.29	1,666.2	133.2	-258.2	-57.3	0.00	0.00	0.00
1,800.0	14.91	297.29	1,762.8	145.0	-281.1	-62.4	0.00	0.00	0.00
1,900.0	14.91	297.29	1,859.5	156.8	-304.0	-67.5	0.00	0.00	0.00
2,000.0	14.91	297.29	1,956.1	168.6	-326.8	-72.6	0.00	0.00	0.00
2,100.0	14.91	297.29	2,052.7	180.4	-349.7	-77.7	0.00	0.00	0.00
2,200.0	14.91	297.29	2,149.4	192.2	-372.6	-82.7	0.00	0.00	0.00
2,300.0	14.91	297.29	2,246.0	204.0	-395.4	-87.8	0.00	0.00	0.00
2,400.0	14.91	297.29	2,342.6	215.8	-418.3	-92.9	0.00	0.00	0.00
2,500.0	14.91	297.29	2,439.3	227.6	-441.2	-98.0	0.00	0.00	0.00
2,600.0	14.91	297.29	2,535.9	239.4	-464.0	-103.0	0.00	0.00	0.00
2,700.0	14.91	297.29	2,632.5	251.2	-486.9	-108.1	0.00	0.00	0.00
2,800.0	14.91	297.29	2,729.2	263.0	-509.8	-113.2	0.00	0.00	0.00
2,900.0	14.91	297.29	2,825.8	274.8	-532.6	-118.3	0.00	0.00	0.00
3,000.0	14.91	297.29	2,922.4	286.6	-555.5	-123.4	0.00	0.00	0.00
3,100.0	14.91	297.29	3,019.1	298.4	-578.4	-128.4	0.00	0.00	0.00
3,200.0	14.91	297.29	3,115.7	310.2	-601.2	-133.5	0.00	0.00	0.00
3,300.0	14.91	297.29	3,212.3	322.0	-624.1	-138.6	0.00	0.00	0.00
3,400.0	14.91	297.29	3,309.0	333.8	-646.9	-143.7	0.00	0.00	0.00
3,500.0	14.91	297.29	3,405.6	345.6	-669.8	-148.7	0.00	0.00	0.00
3,600.0	14.91	297.29	3,502.2	357.4	-692.7	-153.8	0.00	0.00	0.00
3,700.0	14.91	297.29	3,598.9	369.1	-715.5	-158.9	0.00	0.00	0.00
3,800.0	14.91	297.29	3,695.5	380.9	-738.4	-164.0	0.00	0.00	0.00
3,900.0	14.91	297.29	3,792.1	392.7	-761.3	-169.1	0.00	0.00	0.00
4,000.0	14.91	297.29	3,888.8	404.5	-784.1	-174.1	0.00	0.00	0.00
4,100.0	14.91	297.29	3,985.4	416.3	-807.0	-179.2	0.00	0.00	0.00
4,200.0	14.91	297.29	4,082.1	428.1	-829.9	-184.3	0.00	0.00	0.00
4,300.0	14.91	297.29	4,178.7	439.9	-852.7	-189.4	0.00	0.00	0.00
4,400.0	14.91	297.29	4,275.3	451.7	-875.6	-194.4	0.00	0.00	0.00
4,500.0	14.91	297.29	4,372.0	463.5	-898.5	-199.5	0.00	0.00	0.00
4,600.0	14.91	297.29	4,468.6	475.3	-921.3	-204.6	0.00	0.00	0.00
4,700.0	14.91	297.29	4,565.2	487.1	-944.2	-209.7	0.00	0.00	0.00
4,800.0	14.91	297.29	4,661.9	498.9	-967.1	-214.8	0.00	0.00	0.00
4,900.0	14.91	297.29	4,758.5	510.7	-989.9	-219.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
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Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal A-E-22HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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	14.91	297.29	4,855.1	522.5	-1,012.8	-224.9	0.00	0.00	0.00
5,100.0	14.91	297.29	4,951.8	534.3	-1,035.7	-230.0	0.00	0.00	0.00
5,200.0	14.91	297.29	5,048.4	546.1	-1,058.5	-235.1	0.00	0.00	0.00
5,300.0	14.91	297.29	5,145.0	557.9	-1,081.4	-240.1	0.00	0.00	0.00
5,400.0	14.91	297.29	5,241.7	569.7	-1,104.3	-245.2	0.00	0.00	0.00
5,422.0	14.91	297.29	5,262.9	572.3	-1,109.3	-246.3	0.00	0.00	0.00
5,500.0	13.35	297.29	5,338.5	581.0	-1,126.2	-250.1	2.00	-2.00	0.00
5,600.0	11.35	297.29	5,436.2	590.8	-1,145.2	-254.3	2.00	-2.00	0.00
5,700.0	9.35	297.29	5,534.6	599.1	-1,161.2	-257.9	2.00	-2.00	0.00
5,800.0	7.35	297.29	5,633.5	605.7	-1,174.1	-260.7	2.00	-2.00	0.00
5,900.0	5.35	297.29	5,732.9	610.8	-1,183.9	-262.9	2.00	-2.00	0.00
6,000.0	3.35	297.29	5,832.6	614.3	-1,190.7	-264.4	2.00	-2.00	0.00
6,100.0	1.35	297.29	5,932.5	616.1	-1,194.3	-265.2	2.00	-2.00	0.00
6,167.5	0.00	0.00	6,000.0	616.5	-1,195.0	-265.4	2.00	-2.00	0.00
6,200.0	0.00	0.00	6,032.5	616.5	-1,195.0	-265.4	0.00	0.00	0.00
6,277.7	0.00	0.00	6,110.2	616.5	-1,195.0	-265.4	0.00	0.00	0.00
KOP #2									
6,300.0	2.45	179.94	6,132.5	616.0	-1,195.0	-264.9	10.99	10.99	0.00
6,400.0	13.45	179.94	6,231.4	602.2	-1,195.0	-251.6	11.00	11.00	0.00
6,500.0	24.45	179.94	6,325.8	569.8	-1,195.0	-220.5	11.00	11.00	0.00
6,600.0	35.45	179.94	6,412.4	519.9	-1,194.9	-172.5	11.00	11.00	0.00
6,700.0	46.45	179.94	6,487.8	454.5	-1,194.8	-109.6	11.00	11.00	0.00
6,800.0	57.45	179.94	6,549.3	375.9	-1,194.8	-34.0	11.00	11.00	0.00
6,900.0	68.45	179.94	6,594.7	286.9	-1,194.7	51.5	11.00	11.00	0.00
6,959.5	75.00	179.94	6,613.4	230.4	-1,194.6	105.8	11.00	11.00	0.00
7,000.0	75.00	179.94	6,623.8	191.4	-1,194.6	143.4	0.00	0.00	0.00
7,059.5	75.00	179.94	6,639.3	133.8	-1,194.5	198.7	0.00	0.00	0.00
7,100.0	79.45	179.94	6,648.2	94.4	-1,194.5	236.6	11.00	11.00	0.00
T1 531'FNL & 10'FWL									
7,195.9	90.00	179.94	6,657.0	-1.0	-1,194.4	328.3	11.00	11.00	0.00
End of Build - 7"									
7,200.0	90.00	179.94	6,657.0	-5.1	-1,194.4	332.2	0.01	0.01	0.00
7,300.0	90.00	179.94	6,657.0	-105.1	-1,194.3	428.4	0.00	0.00	0.00
7,400.0	90.00	179.94	6,657.0	-205.1	-1,194.2	524.5	0.00	0.00	0.00
7,500.0	90.00	179.94	6,657.0	-305.1	-1,194.1	620.6	0.00	0.00	0.00
7,600.0	90.00	179.94	6,657.0	-405.1	-1,194.0	716.8	0.00	0.00	0.00
7,700.0	90.00	179.94	6,657.0	-505.1	-1,193.9	812.9	0.00	0.00	0.00
7,800.0	90.00	179.94	6,657.0	-605.1	-1,193.8	909.1	0.00	0.00	0.00
7,900.0	90.00	179.94	6,657.0	-705.1	-1,193.7	1,005.2	0.00	0.00	0.00
8,000.0	90.00	179.94	6,657.0	-805.1	-1,193.6	1,101.4	0.00	0.00	0.00
8,100.0	90.00	179.94	6,657.0	-905.1	-1,193.5	1,197.5	0.00	0.00	0.00
8,200.0	90.00	179.94	6,657.0	-1,005.1	-1,193.4	1,293.6	0.00	0.00	0.00
8,300.0	90.00	179.94	6,657.0	-1,105.1	-1,193.3	1,389.8	0.00	0.00	0.00
8,400.0	90.00	179.94	6,657.0	-1,205.1	-1,193.2	1,485.9	0.00	0.00	0.00
8,500.0	90.00	179.94	6,657.0	-1,305.1	-1,193.1	1,582.1	0.00	0.00	0.00
8,600.0	90.00	179.94	6,657.0	-1,405.1	-1,193.0	1,678.2	0.00	0.00	0.00
8,700.0	90.00	179.94	6,657.0	-1,505.1	-1,192.9	1,774.4	0.00	0.00	0.00
8,800.0	90.00	179.94	6,657.0	-1,605.1	-1,192.8	1,870.5	0.00	0.00	0.00
8,900.0	90.00	179.94	6,657.0	-1,705.1	-1,192.7	1,966.7	0.00	0.00	0.00
9,000.0	90.00	179.94	6,657.0	-1,805.1	-1,192.6	2,062.8	0.00	0.00	0.00
9,100.0	90.00	179.94	6,657.0	-1,905.1	-1,192.5	2,158.9	0.00	0.00	0.00
9,200.0	90.00	179.94	6,657.0	-2,005.1	-1,192.4	2,255.1	0.00	0.00	0.00
9,300.0	90.00	179.94	6,657.0	-2,105.1	-1,192.3	2,351.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal A-E-22HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

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)	
9,400.0	90.00	179.94	6,657.0	-2,205.1	-1,192.2	2,447.4	0.00	0.00	0.00	
9,500.0	90.00	179.94	6,657.0	-2,305.1	-1,192.1	2,543.5	0.00	0.00	0.00	
9,600.0	90.00	179.94	6,657.0	-2,405.1	-1,192.0	2,639.7	0.00	0.00	0.00	
9,700.0	90.00	179.94	6,657.0	-2,505.1	-1,191.9	2,735.8	0.00	0.00	0.00	
9,800.0	90.00	179.94	6,657.0	-2,605.1	-1,191.8	2,831.9	0.00	0.00	0.00	
9,900.0	90.00	179.94	6,657.0	-2,705.1	-1,191.7	2,928.1	0.00	0.00	0.00	
10,000.0	90.00	179.94	6,657.0	-2,805.1	-1,191.6	3,024.2	0.00	0.00	0.00	
10,100.0	90.00	179.94	6,657.0	-2,905.1	-1,191.5	3,120.4	0.00	0.00	0.00	
10,200.0	90.00	179.94	6,657.0	-3,005.1	-1,191.4	3,216.5	0.00	0.00	0.00	
10,300.0	90.00	179.94	6,657.0	-3,105.1	-1,191.3	3,312.7	0.00	0.00	0.00	
10,400.0	90.00	179.94	6,657.0	-3,205.1	-1,191.2	3,408.8	0.00	0.00	0.00	
10,500.0	90.00	179.94	6,657.0	-3,305.1	-1,191.1	3,504.9	0.00	0.00	0.00	
10,600.0	90.00	179.94	6,657.0	-3,405.1	-1,191.0	3,601.1	0.00	0.00	0.00	
10,700.0	90.00	179.94	6,657.0	-3,505.1	-1,190.9	3,697.2	0.00	0.00	0.00	
10,800.0	90.00	179.94	6,657.0	-3,605.1	-1,190.8	3,793.4	0.00	0.00	0.00	
10,900.0	90.00	179.94	6,657.0	-3,705.1	-1,190.7	3,889.5	0.00	0.00	0.00	
11,000.0	90.00	179.94	6,657.0	-3,805.1	-1,190.6	3,985.7	0.00	0.00	0.00	
11,100.0	90.00	179.94	6,657.0	-3,905.1	-1,190.5	4,081.8	0.00	0.00	0.00	
11,200.0	90.00	179.94	6,657.0	-4,005.1	-1,190.4	4,178.0	0.00	0.00	0.00	
11,300.0	90.00	179.94	6,657.0	-4,105.1	-1,190.3	4,274.1	0.00	0.00	0.00	
11,371.4	90.00	179.94	6,657.0	-4,176.4	-1,190.2	4,342.7	0.00	0.00	0.00	
BHL 470'FSL & 10'FWL										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
BHL 470'FSL & 10'FV - hit/miss target - Shape - Point	0.00	0.00	6,657.0	-4,176.4	-1,190.2	1,382,699.89	3,297,787.02	40.378986	-104.431092	
SHL 617'FNL & 1205' - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,386,890.25	3,298,926.55	40.390450	-104.426820	
T1 531'FNL & 10'FWL - plan misses target center by 8.9ft at 7100.0ft MD (6648.2 TVD, 94.4 N, -1194.5 E) - Point	0.00	0.00	6,657.0	95.5	-1,194.5	1,386,971.26	3,297,731.07	40.390712	-104.431108	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,195.9	6,657.0	7"	7	7-1/2	

Database:	Landmark	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Project:	SEC.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site:	North Platte F-22 Pad Sec.22-T5N-R63W	North Reference:	True
Well:	North Platte Federal A-E-22HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-12-13)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
200.0	200.0	0.0	0.0	KOP #1	
6,277.7	6,110.2	616.5	-1,195.0	KOP #2	
7,195.9	6,657.0	-1.0	-1,194.4	End of Build	



BONANZA CREEK ENERGY OPERATING

SEC.22-T5N-R63W

North Platte F-22 Pad Sec.22-T5N-R63W

North Platte Federal A-E-22HC

Wellbore #1

Plan #1 (11-12-13)

Anticollision Report

20 November, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
1,700.0	1,666.2	1,710.4	1,700.4	6.7	4.3	178.09	49.4	-81.4	198.8	190.8	7.96	24.984	
1,800.0	1,762.8	1,809.9	1,798.1	7.3	4.7	176.34	63.4	-94.2	207.1	198.6	8.52	24.299	
1,900.0	1,859.5	1,909.3	1,895.7	7.8	5.1	174.73	77.4	-107.1	215.6	206.4	9.10	23.676	
2,000.0	1,956.1	2,008.8	1,993.3	8.4	5.5	173.24	91.4	-119.9	224.2	214.5	9.70	23.105	
2,100.0	2,052.7	2,108.3	2,091.0	8.9	5.9	171.86	105.4	-132.7	232.9	222.6	10.32	22.580	
2,200.0	2,149.4	2,207.7	2,188.6	9.5	6.3	170.59	119.4	-145.5	241.8	230.9	10.94	22.096	
2,300.0	2,246.0	2,307.2	2,286.3	10.0	6.7	169.40	133.4	-158.3	250.8	239.2	11.58	21.650	
2,400.0	2,342.6	2,406.7	2,383.9	10.5	7.1	168.29	147.4	-171.1	259.9	247.7	12.24	21.238	
2,500.0	2,439.3	2,506.1	2,481.5	11.1	7.5	167.26	161.4	-184.0	269.1	256.2	12.90	20.856	
2,600.0	2,535.9	2,605.6	2,579.2	11.6	7.9	166.30	175.4	-196.8	278.4	264.8	13.58	20.502	
2,700.0	2,632.5	2,705.1	2,676.8	12.2	8.3	165.40	189.4	-209.6	287.7	273.4	14.26	20.174	
2,800.0	2,729.2	2,804.5	2,774.4	12.7	8.7	164.56	203.3	-222.4	297.1	282.2	14.95	19.869	
2,900.0	2,825.8	2,904.0	2,872.1	13.3	9.1	163.77	217.3	-235.2	306.6	290.9	15.65	19.585	
3,000.0	2,922.4	3,003.5	2,969.7	13.8	9.6	163.02	231.3	-248.0	316.1	299.7	16.36	19.321	
3,100.0	3,019.1	3,102.9	3,067.4	14.4	10.0	162.32	245.3	-260.8	325.7	308.6	17.07	19.074	
3,200.0	3,115.7	3,202.4	3,165.0	14.9	10.4	161.66	259.3	-273.7	335.3	317.5	17.79	18.843	
3,300.0	3,212.3	3,301.8	3,262.6	15.5	10.8	161.04	273.3	-286.5	344.9	326.4	18.52	18.628	
3,400.0	3,309.0	3,401.3	3,360.3	16.0	11.2	160.45	287.3	-299.3	354.6	335.4	19.25	18.426	
3,500.0	3,405.6	3,500.8	3,457.9	16.6	11.6	159.89	301.3	-312.1	364.4	344.4	19.98	18.236	
3,600.0	3,502.2	3,600.2	3,555.5	17.1	12.1	159.36	315.3	-324.9	374.1	353.4	20.72	18.058	
3,700.0	3,598.9	3,699.7	3,653.2	17.7	12.5	158.86	329.3	-337.7	383.9	362.5	21.46	17.891	
3,800.0	3,695.5	3,799.2	3,750.8	18.2	12.9	158.39	343.3	-350.6	393.7	371.5	22.20	17.733	
3,900.0	3,792.1	3,898.6	3,848.5	18.8	13.3	157.93	357.3	-363.4	403.6	380.6	22.95	17.585	
4,000.0	3,888.8	3,998.1	3,946.1	19.3	13.7	157.50	371.2	-376.2	413.4	389.7	23.70	17.445	
4,100.0	3,985.4	4,097.6	4,043.7	19.9	14.1	157.09	385.2	-389.0	423.3	398.9	24.45	17.312	
4,200.0	4,082.1	4,197.0	4,141.4	20.4	14.6	156.69	399.2	-401.8	433.3	408.0	25.21	17.187	
4,300.0	4,178.7	4,296.5	4,239.0	21.0	15.0	156.32	413.2	-414.6	443.2	417.2	25.97	17.068	
4,400.0	4,275.3	4,396.0	4,336.7	21.5	15.4	155.96	427.2	-427.4	453.1	426.4	26.73	16.955	
4,500.0	4,372.0	4,495.4	4,434.3	22.1	15.8	155.61	441.2	-440.3	463.1	435.6	27.49	16.848	
4,600.0	4,468.6	4,594.9	4,531.9	22.6	16.2	155.29	455.2	-453.1	473.1	444.8	28.25	16.746	
4,700.0	4,565.2	4,694.4	4,629.6	23.2	16.7	154.97	469.2	-465.9	483.1	454.1	29.02	16.649	
4,800.0	4,661.9	4,793.8	4,727.2	23.7	17.1	154.67	483.2	-478.7	493.1	463.3	29.78	16.557	
4,900.0	4,758.5	4,893.3	4,824.8	24.3	17.5	154.38	497.2	-491.5	503.1	472.6	30.55	16.469	
5,000.0	4,855.1	4,992.7	4,922.5	24.8	17.9	154.10	511.2	-504.3	513.2	481.8	31.32	16.385	
5,100.0	4,951.8	5,092.2	5,020.1	25.4	18.3	153.83	525.2	-517.2	523.2	491.1	32.09	16.305	
5,200.0	5,048.4	5,191.7	5,117.8	25.9	18.8	153.57	539.1	-530.0	533.3	500.4	32.86	16.229	
5,300.0	5,145.0	5,291.1	5,215.4	26.5	19.2	153.32	553.1	-542.8	543.3	509.7	33.63	16.155	
5,400.0	5,241.7	5,390.6	5,313.0	27.0	19.6	153.08	567.1	-555.6	553.4	519.0	34.41	16.085	
5,500.0	5,338.5	5,483.2	5,404.1	27.5	20.0	152.92	579.8	-567.2	562.9	527.8	35.13	16.025	
5,600.0	5,436.2	5,571.0	5,490.7	27.9	20.2	152.84	590.1	-576.6	571.3	535.6	35.69	16.006	
5,700.0	5,534.6	5,658.8	5,577.8	28.2	20.5	152.80	598.3	-584.2	578.7	542.5	36.17	15.999	
5,800.0	5,633.5	5,746.5	5,665.1	28.5	20.6	152.81	604.6	-589.9	585.1	548.5	36.56	16.001	
5,900.0	5,732.9	5,834.2	5,752.5	28.7	20.8	152.88	608.9	-593.9	590.4	553.5	36.87	16.012	
6,000.0	5,832.6	5,921.8	5,840.1	28.9	20.9	152.98	611.3	-596.0	594.7	557.6	37.10	16.030	
6,100.0	5,932.5	6,013.2	5,931.5	29.0	21.1	153.13	611.7	-596.4	597.9	560.6	37.25	16.049	
6,200.0	6,032.5	6,112.8	6,031.1	29.1	21.2	153.22	611.0	-596.4	598.6	561.2	37.40	16.064	
6,300.0	6,132.5	6,209.3	6,126.5	29.2	21.2	-88.12	597.2	-596.4	598.9	561.8	37.13	16.132	
6,400.0	6,231.4	6,302.1	6,214.2	29.2	21.0	-86.36	567.5	-596.3	599.9	563.5	36.41	16.475	
6,500.0	6,325.8	6,392.2	6,293.1	29.1	20.8	-84.74	524.3	-596.1	601.4	565.8	35.55	16.916	
6,600.0	6,412.4	6,480.1	6,361.9	28.9	20.5	-83.31	469.6	-596.0	603.1	568.4	34.66	17.401	
6,700.0	6,487.8	6,566.3	6,419.4	28.7	20.1	-82.11	405.5	-595.7	604.9	571.0	33.85	17.871	
6,800.0	6,549.3	6,650.0	6,464.3	28.4	19.8	-81.17	335.0	-595.5	606.5	573.3	33.20	18.266	

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 Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal 11-14-22HNC - Wellbore #1 - Plan #1 (Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,900.0	6,594.7	6,735.2	6,498.0	28.1	19.4	-80.50	256.8	-595.2	607.8	575.0	32.79	18.535	
7,000.0	6,623.8	6,828.8	6,523.2	27.8	19.1	-80.27	166.7	-594.9	608.4	575.8	32.61	18.654	
7,100.0	6,648.2	6,918.6	6,544.0	27.5	18.7	-80.13	79.4	-594.6	608.9	576.1	32.72	18.611	
7,200.0	6,657.0	7,004.1	6,551.0	27.4	18.5	-80.07	-5.7	-594.3	609.2	576.0	33.17	18.365	
7,207.7	6,657.0	7,009.1	6,551.0	27.4	18.5	-80.07	-10.7	-594.3	609.2	576.0	33.21	18.341	
7,300.0	6,657.0	7,101.4	6,551.0	27.3	18.3	-80.08	-103.0	-594.0	609.4	575.5	33.85	18.005	
7,400.0	6,657.0	7,201.4	6,551.0	27.3	18.2	-80.08	-203.0	-593.7	609.6	574.7	34.93	17.454	
7,500.0	6,657.0	7,301.4	6,551.0	27.5	18.8	-80.09	-303.0	-593.3	609.9	573.5	36.38	16.766	
7,600.0	6,657.0	7,401.4	6,551.0	27.8	19.8	-80.09	-403.0	-593.0	610.1	572.0	38.15	15.993	
7,700.0	6,657.0	7,501.4	6,551.0	28.2	20.9	-80.09	-503.0	-592.6	610.3	570.1	40.20	15.182	
7,800.0	6,657.0	7,601.4	6,551.0	28.8	22.1	-80.10	-603.0	-592.3	610.6	568.1	42.50	14.367	
7,900.0	6,657.0	7,701.4	6,551.0	29.6	23.5	-80.10	-703.0	-592.0	610.8	565.8	45.00	13.575	
8,000.0	6,657.0	7,801.4	6,551.0	30.5	24.8	-80.11	-803.0	-591.6	611.1	563.4	47.67	12.820	
8,100.0	6,657.0	7,901.4	6,551.0	31.6	26.3	-80.11	-903.0	-591.3	611.3	560.8	50.48	12.110	
8,200.0	6,657.0	8,001.4	6,551.0	32.8	27.8	-80.11	-1,003.0	-590.9	611.5	558.1	53.42	11.448	
8,300.0	6,657.0	8,101.4	6,551.0	34.0	29.3	-80.12	-1,103.0	-590.6	611.8	555.3	56.46	10.836	
8,400.0	6,657.0	8,201.4	6,551.0	35.4	30.9	-80.12	-1,203.0	-590.2	612.0	552.4	59.58	10.272	
8,500.0	6,657.0	8,301.4	6,551.0	36.8	32.5	-80.13	-1,303.0	-589.9	612.3	549.5	62.78	9.752	
8,600.0	6,657.0	8,401.4	6,551.0	38.2	34.2	-80.13	-1,403.0	-589.6	612.5	546.4	66.04	9.274	
8,700.0	6,657.0	8,501.4	6,551.0	39.7	35.8	-80.13	-1,503.0	-589.2	612.7	543.4	69.36	8.834	
8,800.0	6,657.0	8,601.4	6,551.0	41.3	37.5	-80.14	-1,603.0	-588.9	613.0	540.2	72.73	8.428	
8,900.0	6,657.0	8,701.4	6,551.0	42.8	39.2	-80.14	-1,703.0	-588.5	613.2	537.1	76.13	8.055	
9,000.0	6,657.0	8,801.4	6,551.0	44.4	41.0	-80.14	-1,803.0	-588.2	613.4	533.9	79.57	7.709	
9,100.0	6,657.0	8,901.4	6,551.0	46.1	42.7	-80.15	-1,903.0	-587.9	613.7	530.6	83.04	7.390	
9,200.0	6,657.0	9,001.4	6,551.0	47.7	44.5	-80.15	-2,003.0	-587.5	613.9	527.4	86.54	7.094	
9,300.0	6,657.0	9,101.4	6,551.0	49.4	46.2	-80.16	-2,103.0	-587.2	614.2	524.1	90.07	6.819	
9,400.0	6,657.0	9,201.4	6,551.0	51.1	48.0	-80.16	-2,203.0	-586.8	614.4	520.8	93.61	6.563	
9,500.0	6,657.0	9,301.4	6,551.0	52.8	49.8	-80.16	-2,303.0	-586.5	614.6	517.5	97.17	6.325	
9,600.0	6,657.0	9,401.4	6,551.0	54.5	51.6	-80.17	-2,403.0	-586.1	614.9	514.1	100.76	6.103	
9,700.0	6,657.0	9,501.4	6,551.0	56.3	53.4	-80.17	-2,503.0	-585.8	615.1	510.8	104.35	5.895	
9,800.0	6,657.0	9,601.4	6,551.0	58.0	55.2	-80.18	-2,603.0	-585.5	615.3	507.4	107.96	5.700	
9,900.0	6,657.0	9,701.4	6,551.0	59.8	57.1	-80.18	-2,703.0	-585.1	615.6	504.0	111.59	5.517	
10,000.0	6,657.0	9,801.4	6,551.0	61.5	58.9	-80.18	-2,803.0	-584.8	615.8	500.6	115.22	5.345	
10,100.0	6,657.0	9,901.4	6,551.0	63.3	60.7	-80.19	-2,903.0	-584.4	616.1	497.2	118.86	5.183	
10,200.0	6,657.0	10,001.4	6,551.0	65.1	62.6	-80.19	-3,003.0	-584.1	616.3	493.8	122.52	5.030	
10,300.0	6,657.0	10,101.4	6,551.0	66.9	64.4	-80.19	-3,103.0	-583.8	616.5	490.4	126.18	4.886	
10,400.0	6,657.0	10,201.4	6,551.0	68.7	66.3	-80.20	-3,203.0	-583.4	616.8	486.9	129.85	4.750	
10,500.0	6,657.0	10,301.4	6,551.0	70.5	68.1	-80.20	-3,303.0	-583.1	617.0	483.5	133.53	4.621	
10,600.0	6,657.0	10,401.4	6,551.0	72.3	70.0	-80.21	-3,403.0	-582.7	617.3	480.0	137.21	4.499	
10,700.0	6,657.0	10,501.4	6,551.0	74.1	71.8	-80.21	-3,503.0	-582.4	617.5	476.6	140.90	4.382	
10,800.0	6,657.0	10,601.4	6,551.0	75.9	73.7	-80.21	-3,603.0	-582.0	617.7	473.1	144.60	4.272	
10,900.0	6,657.0	10,701.4	6,551.0	77.8	75.5	-80.22	-3,703.0	-581.7	618.0	469.7	148.30	4.167	
11,000.0	6,657.0	10,801.4	6,551.0	79.6	77.4	-80.22	-3,803.0	-581.4	618.2	466.2	152.00	4.067	
11,100.0	6,657.0	10,901.4	6,551.0	81.4	79.3	-80.22	-3,903.0	-581.0	618.4	462.7	155.71	3.972	
11,200.0	6,657.0	11,001.4	6,551.0	83.3	81.2	-80.23	-4,003.0	-580.7	618.7	459.3	159.43	3.881	
11,300.0	6,657.0	11,101.4	6,551.0	85.1	83.0	-80.23	-4,103.0	-580.3	618.9	455.8	163.15	3.794	
11,371.4	6,657.0	11,172.8	6,551.0	86.4	84.4	-80.24	-4,174.3	-580.1	619.1	453.3	165.80	3.734 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal A11-E14-22HNB - Wellbore #1 - Plan #													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	179.20	-20.0	0.3	20.1					
100.0	100.0	99.0	99.0	0.1	0.1	179.20	-20.0	0.3	20.0	19.8	0.22	89.602		
200.0	200.0	199.0	199.0	0.3	0.3	179.20	-20.0	0.3	20.0	19.4	0.67	29.818 CC, ES		
300.0	300.0	299.0	299.0	0.6	0.6	-122.29	-20.0	0.3	20.9	19.8	1.12	18.694		
400.0	399.8	398.8	398.8	0.8	0.8	-132.80	-20.0	0.3	24.1	22.5	1.58	15.315		
500.0	499.5	499.4	499.3	1.0	1.0	-143.30	-19.0	-1.1	29.2	27.2	2.04	14.348		
600.0	598.7	600.1	600.0	1.3	1.2	-151.28	-16.0	-5.4	34.7	32.2	2.50	13.922		
700.0	697.5	701.1	700.6	1.7	1.5	-157.66	-10.8	-12.6	40.6	37.6	2.96	13.703		
800.0	795.6	802.4	801.1	2.0	1.8	-163.00	-3.6	-22.7	46.6	43.2	3.43	13.595		
900.0	893.1	903.9	901.3	2.5	2.1	-167.64	5.7	-35.7	52.8	48.9	3.90	13.548		
1,000.0	989.8	1,005.6	1,001.1	3.0	2.4	-171.71	17.1	-51.6	58.7	54.4	4.39	13.387		
1,100.0	1,086.4	1,106.3	1,099.3	3.5	2.9	-175.17	30.0	-69.7	62.3	57.4	4.90	12.733		
1,200.0	1,183.0	1,206.2	1,196.7	4.0	3.3	-178.24	43.0	-87.8	65.8	60.4	5.42	12.155		
1,300.0	1,279.7	1,306.1	1,294.0	4.6	3.7	179.01	56.0	-106.0	69.5	63.6	5.96	11.670		
1,400.0	1,376.3	1,405.9	1,391.4	5.1	4.2	176.53	69.0	-124.1	73.4	66.8	6.52	11.256		
1,500.0	1,472.9	1,505.8	1,488.7	5.6	4.7	174.31	82.0	-142.3	77.3	70.2	7.10	10.889		
1,600.0	1,569.6	1,605.7	1,586.1	6.2	5.1	172.31	95.0	-160.4	81.4	73.7	7.70	10.562		
1,700.0	1,666.2	1,705.6	1,683.4	6.7	5.6	170.49	108.0	-178.6	85.5	77.2	8.33	10.268		
1,800.0	1,762.8	1,805.5	1,780.8	7.3	6.1	168.85	121.0	-196.7	89.7	80.8	8.97	10.002		
1,900.0	1,859.5	1,905.3	1,878.1	7.8	6.5	167.36	134.0	-214.9	94.0	84.4	9.63	9.761		
2,000.0	1,956.1	2,005.2	1,975.5	8.4	7.0	165.99	147.0	-233.0	98.4	88.1	10.31	9.542		
2,100.0	2,052.7	2,105.1	2,072.8	8.9	7.5	164.75	160.0	-251.2	102.8	91.8	11.00	9.343		
2,200.0	2,149.4	2,205.0	2,170.2	9.5	8.0	163.60	173.0	-269.3	107.2	95.5	11.71	9.161		
2,300.0	2,246.0	2,304.9	2,267.5	10.0	8.4	162.55	186.0	-287.5	111.7	99.3	12.42	8.995		
2,400.0	2,342.6	2,404.7	2,364.9	10.5	8.9	161.58	199.0	-305.6	116.2	103.1	13.14	8.843		
2,500.0	2,439.3	2,504.6	2,462.3	11.1	9.4	160.68	212.0	-323.8	120.8	106.9	13.88	8.704		
2,600.0	2,535.9	2,604.5	2,559.6	11.6	9.9	159.85	225.0	-342.0	125.4	110.8	14.62	8.576		
2,700.0	2,632.5	2,704.4	2,657.0	12.2	10.4	159.07	238.0	-360.1	130.0	114.6	15.37	8.458		
2,800.0	2,729.2	2,804.3	2,754.3	12.7	10.8	158.35	251.0	-378.3	134.6	118.5	16.12	8.349		
2,900.0	2,825.8	2,904.1	2,851.7	13.3	11.3	157.68	264.0	-396.4	139.3	122.4	16.88	8.248		
3,000.0	2,922.4	3,004.0	2,949.0	13.8	11.8	157.05	277.0	-414.6	143.9	126.3	17.65	8.155		
3,100.0	3,019.1	3,103.9	3,046.4	14.4	12.3	156.46	290.0	-432.7	148.6	130.2	18.42	8.069		
3,200.0	3,115.7	3,203.8	3,143.7	14.9	12.8	155.90	302.9	-450.9	153.3	134.1	19.19	7.988		
3,300.0	3,212.3	3,303.7	3,241.1	15.5	13.2	155.38	315.9	-469.0	158.0	138.0	19.97	7.913		
3,400.0	3,309.0	3,403.5	3,338.4	16.0	13.7	154.89	328.9	-487.2	162.7	142.0	20.75	7.843		
3,500.0	3,405.6	3,503.4	3,435.8	16.6	14.2	154.43	341.9	-505.3	167.4	145.9	21.53	7.778		
3,600.0	3,502.2	3,603.3	3,533.1	17.1	14.7	153.99	354.9	-523.5	172.2	149.9	22.31	7.716		
3,700.0	3,598.9	3,703.2	3,630.5	17.7	15.2	153.58	367.9	-541.6	176.9	153.8	23.10	7.659		
3,800.0	3,695.5	3,803.0	3,727.8	18.2	15.7	153.18	380.9	-559.8	181.7	157.8	23.89	7.605		
3,900.0	3,792.1	3,902.9	3,825.2	18.8	16.1	152.81	393.9	-577.9	186.5	161.8	24.68	7.554		
4,000.0	3,888.8	4,002.8	3,922.5	19.3	16.6	152.46	406.9	-596.1	191.2	165.8	25.48	7.506		
4,100.0	3,985.4	4,102.7	4,019.9	19.9	17.1	152.12	419.9	-614.3	196.0	169.7	26.27	7.461		
4,200.0	4,082.1	4,202.6	4,117.2	20.4	17.6	151.80	432.9	-632.4	200.8	173.7	27.07	7.418		
4,300.0	4,178.7	4,302.4	4,214.6	21.0	18.1	151.50	445.9	-650.6	205.6	177.7	27.87	7.378		
4,400.0	4,275.3	4,402.3	4,311.9	21.5	18.6	151.20	458.9	-668.7	210.4	181.7	28.67	7.339		
4,500.0	4,372.0	4,502.2	4,409.3	22.1	19.0	150.92	471.9	-686.9	215.2	185.7	29.47	7.303		
4,600.0	4,468.6	4,602.1	4,506.6	22.6	19.5	150.66	484.9	-705.0	220.0	189.8	30.27	7.268		
4,700.0	4,565.2	4,702.0	4,604.0	23.2	20.0	150.40	497.9	-723.2	224.8	193.8	31.07	7.235		
4,800.0	4,661.9	4,801.8	4,701.3	23.7	20.5	150.16	510.9	-741.3	229.7	197.8	31.88	7.204		
4,900.0	4,758.5	4,901.7	4,798.7	24.3	21.0	149.92	523.9	-759.5	234.5	201.8	32.68	7.174		
5,000.0	4,855.1	5,001.6	4,896.0	24.8	21.5	149.70	536.9	-777.6	239.3	205.8	33.49	7.146		
5,100.0	4,951.8	5,101.5	4,993.4	25.4	21.9	149.48	549.9	-795.8	244.1	209.8	34.30	7.119		

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 Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.0	5,048.4	5,201.4	5,090.8	25.9	22.4	149.28	562.9	-813.9	249.0	213.9	35.10	7.093	
5,300.0	5,145.0	5,300.0	5,186.9	26.5	22.9	149.10	575.6	-831.8	253.9	218.0	35.89	7.075	
5,400.0	5,241.7	5,392.6	5,277.7	27.0	23.2	149.25	586.3	-846.7	260.8	224.3	36.46	7.151	
5,500.0	5,338.5	5,485.5	5,369.3	27.5	23.5	149.76	595.3	-859.2	269.2	232.4	36.87	7.301	
5,600.0	5,436.2	5,578.2	5,461.1	27.9	23.7	150.32	602.6	-869.4	277.3	240.1	37.17	7.461	
5,700.0	5,534.6	5,670.7	5,553.1	28.2	23.9	150.88	608.1	-877.1	284.9	247.5	37.39	7.621	
5,800.0	5,633.5	5,763.0	5,645.2	28.5	24.1	151.46	611.8	-882.3	292.1	254.6	37.53	7.784	
5,900.0	5,732.9	5,855.0	5,737.2	28.7	24.2	152.06	613.9	-885.2	298.8	261.2	37.59	7.950	
6,000.0	5,832.6	5,949.5	5,831.6	28.9	24.3	152.67	614.3	-885.7	304.9	267.3	37.59	8.112	
6,100.0	5,932.5	6,049.4	5,931.5	29.0	24.4	153.05	614.3	-885.7	308.6	270.9	37.64	8.199	
6,200.0	6,032.5	6,147.9	6,029.6	29.1	24.5	91.91	606.2	-885.7	309.5	272.3	37.14	8.332	
6,300.0	6,132.5	6,240.3	6,118.7	29.2	24.4	-83.57	582.0	-885.6	311.5	275.9	35.63	8.742	
6,400.0	6,231.4	6,327.2	6,197.3	29.2	24.2	-78.42	545.3	-885.6	316.4	282.6	33.80	9.360	
6,500.0	6,325.8	6,410.8	6,266.1	29.1	24.0	-73.81	498.1	-885.4	323.1	290.9	32.20	10.034	
6,600.0	6,412.4	6,491.7	6,324.8	28.9	23.7	-69.86	442.5	-885.3	330.7	299.9	30.79	10.741	
6,700.0	6,487.8	6,570.5	6,373.0	28.7	23.4	-66.63	380.2	-885.1	338.2	308.7	29.50	11.465	
6,800.0	6,549.3	6,650.0	6,411.6	28.4	23.1	-64.09	310.8	-885.0	344.8	316.5	28.35	12.162	
6,900.0	6,594.7	6,724.2	6,437.6	28.1	22.9	-62.40	241.4	-884.8	349.9	322.3	27.59	12.681	
7,000.0	6,623.8	6,819.7	6,462.5	27.8	22.6	-61.85	149.2	-884.6	351.5	324.1	27.47	12.795	
7,100.0	6,648.2	6,900.0	6,479.7	27.5	22.3	-61.40	70.8	-884.4	353.2	325.6	27.60	12.799	
7,200.0	6,657.0	6,975.4	6,485.0	27.4	22.2	-61.13	-4.3	-884.2	354.2	326.0	28.19	12.564	
7,300.0	6,657.0	7,075.4	6,485.0	27.3	22.0	-61.14	-104.3	-884.0	354.3	325.5	28.77	12.316	
7,400.0	6,657.0	7,175.4	6,485.0	27.3	22.1	-61.15	-204.3	-883.7	354.4	324.7	29.72	11.926	
7,500.0	6,657.0	7,275.4	6,485.0	27.5	22.3	-61.17	-304.3	-883.5	354.6	323.5	31.03	11.428	
7,600.0	6,657.0	7,375.4	6,485.0	27.8	22.7	-61.18	-404.3	-883.2	354.7	322.0	32.64	10.866	
7,700.0	6,657.0	7,475.4	6,485.0	28.2	23.5	-61.19	-504.3	-883.0	354.8	320.3	34.53	10.276	
7,800.0	6,657.0	7,575.4	6,485.0	28.8	24.4	-61.20	-604.3	-882.7	354.9	318.3	36.65	9.686	
7,900.0	6,657.0	7,675.4	6,485.0	29.6	25.5	-61.21	-704.3	-882.5	355.1	316.1	38.95	9.116	
8,000.0	6,657.0	7,775.4	6,485.0	30.5	26.8	-61.22	-804.3	-882.3	355.2	313.8	41.42	8.577	
8,100.0	6,657.0	7,875.4	6,485.0	31.6	28.1	-61.23	-904.3	-882.0	355.3	311.3	44.01	8.073	
8,200.0	6,657.0	7,975.4	6,485.0	32.8	29.5	-61.24	-1,004.3	-881.8	355.5	308.7	46.72	7.608	
8,300.0	6,657.0	8,075.4	6,485.0	34.0	31.0	-61.26	-1,104.3	-881.5	355.6	306.1	49.52	7.181	
8,400.0	6,657.0	8,175.4	6,485.0	35.4	32.5	-61.27	-1,204.3	-881.3	355.7	303.3	52.40	6.789	
8,500.0	6,657.0	8,275.4	6,485.0	36.8	34.0	-61.28	-1,304.3	-881.0	355.8	300.5	55.34	6.430	
8,600.0	6,657.0	8,375.4	6,485.0	38.2	35.6	-61.29	-1,404.3	-880.8	356.0	297.6	58.34	6.101	
8,700.0	6,657.0	8,475.4	6,485.0	39.7	37.2	-61.30	-1,504.3	-880.5	356.1	294.7	61.39	5.801	
8,800.0	6,657.0	8,575.4	6,485.0	41.3	38.9	-61.31	-1,604.3	-880.3	356.2	291.7	64.48	5.525	
8,900.0	6,657.0	8,675.4	6,485.0	42.8	40.6	-61.32	-1,704.3	-880.1	356.3	288.7	67.60	5.271	
9,000.0	6,657.0	8,775.4	6,485.0	44.4	42.3	-61.33	-1,804.3	-879.8	356.5	285.7	70.76	5.038	
9,100.0	6,657.0	8,875.4	6,485.0	46.1	44.0	-61.35	-1,904.3	-879.6	356.6	282.7	73.94	4.823	
9,200.0	6,657.0	8,975.4	6,485.0	47.7	45.7	-61.36	-2,004.3	-879.3	356.7	279.6	77.15	4.624	
9,300.0	6,657.0	9,075.4	6,485.0	49.4	47.4	-61.37	-2,104.3	-879.1	356.9	276.5	80.37	4.440	
9,400.0	6,657.0	9,175.4	6,485.0	51.1	49.2	-61.38	-2,204.3	-878.8	357.0	273.4	83.62	4.269	
9,500.0	6,657.0	9,275.4	6,485.0	52.8	50.9	-61.39	-2,304.3	-878.6	357.1	270.2	86.88	4.110	
9,600.0	6,657.0	9,375.4	6,485.0	54.5	52.7	-61.40	-2,404.3	-878.3	357.2	267.1	90.16	3.962	
9,700.0	6,657.0	9,475.4	6,485.0	56.3	54.5	-61.41	-2,504.3	-878.1	357.4	263.9	93.45	3.824	
9,800.0	6,657.0	9,575.4	6,485.0	58.0	56.3	-61.42	-2,604.3	-877.8	357.5	260.7	96.75	3.695	
9,900.0	6,657.0	9,675.4	6,485.0	59.8	58.1	-61.43	-2,704.3	-877.6	357.6	257.5	100.07	3.574	
10,000.0	6,657.0	9,775.4	6,485.0	61.5	59.9	-61.45	-2,804.3	-877.4	357.7	254.4	103.39	3.460	
10,100.0	6,657.0	9,875.4	6,485.0	63.3	61.7	-61.46	-2,904.3	-877.1	357.9	251.1	106.72	3.353	
10,200.0	6,657.0	9,975.4	6,485.0	65.1	63.5	-61.47	-3,004.3	-876.9	358.0	247.9	110.06	3.253	
10,300.0	6,657.0	10,075.4	6,485.0	66.9	65.4	-61.48	-3,104.3	-876.6	358.1	244.7	113.41	3.158	

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 Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal A11-E14-22HNB - Wellbore #1 - Plan #												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
10,400.0	6,657.0	10,175.4	6,485.0	68.7	67.2	-61.49	-3,204.3	-876.4	358.2	241.5	116.77	3.068	
10,500.0	6,657.0	10,275.4	6,485.0	70.5	69.0	-61.50	-3,304.3	-876.1	358.4	238.2	120.13	2.983	
10,600.0	6,657.0	10,375.4	6,485.0	72.3	70.9	-61.51	-3,404.3	-875.9	358.5	235.0	123.50	2.903	
10,700.0	6,657.0	10,475.4	6,485.0	74.1	72.7	-61.52	-3,504.3	-875.6	358.6	231.8	126.87	2.827	
10,800.0	6,657.0	10,575.4	6,485.0	75.9	74.6	-61.53	-3,604.3	-875.4	358.8	228.5	130.25	2.754	
10,900.0	6,657.0	10,675.4	6,485.0	77.8	76.4	-61.54	-3,704.3	-875.2	358.9	225.3	133.63	2.686	
11,000.0	6,657.0	10,775.4	6,485.0	79.6	78.3	-61.56	-3,804.3	-874.9	359.0	222.0	137.02	2.620	
11,100.0	6,657.0	10,875.4	6,485.0	81.4	80.1	-61.57	-3,904.3	-874.7	359.1	218.7	140.42	2.558	
11,200.0	6,657.0	10,975.4	6,485.0	83.3	82.0	-61.58	-4,004.3	-874.4	359.3	215.5	143.81	2.498	
11,300.0	6,657.0	11,075.4	6,485.0	85.1	83.8	-61.59	-4,104.3	-874.2	359.4	212.2	147.21	2.441	
11,371.4	6,657.0	11,146.7	6,485.0	86.4	85.2	-61.60	-4,175.7	-874.0	359.5	209.8	149.64	2.402 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
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	2.0	2.0	0.0	0.0	179.40	-80.1	0.8	80.2	80.2	0.00	N/A	
100.0	100.0	102.0	102.0	0.1	0.1	179.40	-80.1	0.8	80.2	79.9	0.23	349.614	
200.0	200.0	202.0	202.0	0.3	0.3	179.40	-80.1	0.8	80.2	79.5	0.68	118.081 CC, ES	
300.0	300.0	302.0	302.0	0.6	0.6	-118.96	-80.1	0.8	81.0	79.9	1.13	71.967	
400.0	399.8	401.8	401.8	0.8	0.8	-122.05	-80.1	0.8	83.6	82.1	1.58	52.938	
500.0	499.5	501.5	501.5	1.0	1.0	-126.74	-80.1	0.8	88.6	86.5	2.05	43.145	
600.0	598.7	600.7	600.7	1.3	1.2	-132.42	-80.1	0.8	96.4	93.9	2.54	37.893	
700.0	697.5	699.5	699.5	1.7	1.5	-138.40	-80.1	0.8	107.6	104.6	3.05	35.332	
800.0	795.6	797.6	797.6	2.0	1.7	-144.11	-80.1	0.8	122.6	119.1	3.55	34.530	
900.0	893.1	895.1	895.1	2.5	1.9	-149.22	-80.1	0.8	141.6	137.5	4.05	34.927	
1,000.0	989.8	991.8	991.8	3.0	2.1	-153.64	-80.1	0.8	164.1	159.5	4.55	36.056	
1,100.0	1,086.4	1,088.4	1,088.4	3.5	2.3	-157.12	-80.1	0.8	187.6	182.5	5.04	37.227	
1,200.0	1,183.0	1,185.0	1,185.0	4.0	2.6	-159.82	-80.1	0.8	211.6	206.1	5.52	38.306	
1,300.0	1,279.7	1,281.7	1,281.7	4.6	2.8	-161.96	-80.1	0.8	236.0	230.0	6.01	39.278	
1,400.0	1,376.3	1,378.3	1,378.3	5.1	3.0	-163.71	-80.1	0.8	260.7	254.2	6.49	40.145	
1,500.0	1,472.9	1,474.9	1,474.9	5.6	3.2	-165.16	-80.1	0.8	285.5	278.6	6.98	40.916	
1,600.0	1,569.6	1,571.6	1,571.6	6.2	3.4	-166.37	-80.1	0.8	310.5	303.1	7.46	41.602	
1,700.0	1,666.2	1,675.8	1,675.8	6.7	3.7	-167.57	-79.2	0.5	334.9	326.9	7.96	42.070	
1,800.0	1,762.8	1,784.4	1,784.3	7.3	3.9	-168.97	-74.6	-1.2	356.3	347.9	8.45	42.170	
1,900.0	1,859.5	1,894.1	1,893.6	7.8	4.1	-170.56	-66.0	-4.3	374.8	365.9	8.94	41.937	
2,000.0	1,956.1	2,004.5	2,003.1	8.4	4.4	-172.35	-53.3	-8.8	390.4	381.0	9.43	41.407	
2,100.0	2,052.7	2,115.3	2,112.6	8.9	4.7	-174.35	-36.7	-14.9	403.2	393.3	9.93	40.607	
2,200.0	2,149.4	2,220.1	2,215.4	9.5	5.0	-176.43	-17.7	-21.7	413.8	403.3	10.44	39.637	
2,300.0	2,246.0	2,318.6	2,311.9	10.0	5.3	-178.32	0.7	-28.4	424.4	413.5	10.96	38.720	
2,400.0	2,342.6	2,417.0	2,408.4	10.5	5.6	179.89	19.0	-35.0	435.6	424.0	11.51	37.856	
2,500.0	2,439.3	2,515.5	2,504.9	11.1	5.9	178.18	37.4	-41.6	447.1	435.0	12.08	37.024	
2,600.0	2,535.9	2,613.9	2,601.4	11.6	6.3	176.55	55.7	-48.2	459.0	446.3	12.67	36.231	
2,700.0	2,632.5	2,712.4	2,697.9	12.2	6.6	175.01	74.0	-54.9	471.2	457.9	13.28	35.474	
2,800.0	2,729.2	2,810.8	2,794.4	12.7	7.0	173.55	92.4	-61.5	483.8	469.9	13.92	34.753	
2,900.0	2,825.8	2,909.3	2,890.9	13.3	7.4	172.16	110.7	-68.1	496.6	482.1	14.58	34.067	
3,000.0	2,922.4	3,007.7	2,987.4	13.8	7.7	170.84	129.1	-74.7	509.8	494.5	15.26	33.417	
3,100.0	3,019.1	3,106.2	3,083.9	14.4	8.1	169.59	147.4	-81.4	523.2	507.2	15.95	32.801	
3,200.0	3,115.7	3,204.6	3,180.4	14.9	8.5	168.40	165.7	-88.0	536.8	520.2	16.66	32.219	
3,300.0	3,212.3	3,303.1	3,276.9	15.5	8.9	167.26	184.1	-94.6	550.7	533.3	17.39	31.670	
3,400.0	3,309.0	3,401.6	3,373.4	16.0	9.3	166.19	202.4	-101.2	564.7	546.6	18.13	31.152	
3,500.0	3,405.6	3,500.0	3,469.9	16.6	9.7	165.16	220.8	-107.9	579.0	560.1	18.88	30.664	
3,600.0	3,502.2	3,598.5	3,566.4	17.1	10.1	164.19	239.1	-114.5	593.4	573.8	19.65	30.204	
3,700.0	3,598.9	3,696.9	3,662.9	17.7	10.5	163.26	257.5	-121.1	608.0	587.6	20.42	29.772	
3,800.0	3,695.5	3,795.4	3,759.4	18.2	10.9	162.37	275.8	-127.7	622.7	601.5	21.21	29.365	
3,900.0	3,792.1	3,893.8	3,855.9	18.8	11.3	161.52	294.1	-134.4	637.6	615.6	22.00	28.982	
4,000.0	3,888.8	3,992.3	3,952.4	19.3	11.7	160.72	312.5	-141.0	652.6	629.8	22.80	28.622	
4,100.0	3,985.4	4,090.7	4,048.9	19.9	12.1	159.95	330.8	-147.6	667.7	644.1	23.61	28.282	
4,200.0	4,082.1	4,189.2	4,145.4	20.4	12.5	159.21	349.2	-154.2	683.0	658.6	24.42	27.963	
4,300.0	4,178.7	4,287.7	4,241.9	21.0	12.9	158.50	367.5	-160.9	698.3	673.1	25.25	27.662	
4,400.0	4,275.3	4,386.1	4,338.5	21.5	13.3	157.83	385.8	-167.5	713.8	687.7	26.07	27.378	
4,500.0	4,372.0	4,484.6	4,435.0	22.1	13.7	157.18	404.2	-174.1	729.3	702.4	26.90	27.111	
4,600.0	4,468.6	4,583.0	4,531.5	22.6	14.1	156.56	422.5	-180.7	745.0	717.2	27.74	26.858	
4,700.0	4,565.2	4,681.5	4,628.0	23.2	14.5	155.97	440.9	-187.4	760.7	732.1	28.58	26.620	
4,800.0	4,661.9	4,779.9	4,724.5	23.7	15.0	155.40	459.2	-194.0	776.5	747.0	29.42	26.394	
4,900.0	4,758.5	4,878.4	4,821.0	24.3	15.4	154.85	477.5	-200.6	792.3	762.1	30.26	26.180	
5,000.0	4,855.1	4,976.8	4,917.5	24.8	15.8	154.33	495.9	-207.2	808.2	777.1	31.11	25.978	
5,100.0	4,951.8	5,075.3	5,014.0	25.4	16.2	153.82	514.2	-213.9	824.2	792.3	31.96	25.787	

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 Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.0	5,048.4	5,173.8	5,110.5	25.9	16.6	153.33	532.6	-220.5	840.3	807.5	32.82	25.605	
5,300.0	5,145.0	5,272.2	5,207.0	26.5	17.0	152.87	550.9	-227.1	856.4	822.7	33.67	25.432	
5,400.0	5,241.7	5,363.7	5,296.9	27.0	17.3	152.49	567.3	-233.0	872.8	838.4	34.42	25.356	
5,500.0	5,338.5	5,452.8	5,384.8	27.5	17.6	152.40	580.7	-237.9	889.4	854.3	35.09	25.344	
5,600.0	5,436.2	5,542.2	5,473.4	27.9	17.8	152.40	591.6	-241.8	904.1	868.4	35.66	25.354	
5,700.0	5,534.6	5,631.7	5,562.4	28.2	18.0	152.47	599.9	-244.8	916.7	880.6	36.13	25.370	
5,800.0	5,633.5	5,721.3	5,651.9	28.5	18.2	152.59	605.5	-246.9	927.4	890.8	36.52	25.394	
5,900.0	5,732.9	5,811.0	5,741.5	28.7	18.4	152.76	608.6	-248.0	936.0	899.2	36.81	25.424	
6,000.0	5,832.6	5,904.1	5,834.6	28.9	18.5	152.98	609.2	-248.2	942.5	905.5	37.03	25.452	
6,100.0	5,932.5	6,004.0	5,934.5	29.0	18.6	153.13	609.2	-248.2	946.2	908.9	37.24	25.408	
6,200.0	6,032.5	6,101.0	6,031.0	29.1	18.7	90.92	601.4	-248.1	947.0	909.8	37.22	25.441	
6,300.0	6,132.5	6,192.0	6,118.9	29.2	18.6	-87.60	577.9	-248.0	947.9	911.0	36.88	25.703	
6,400.0	6,231.4	6,277.9	6,196.8	29.2	18.3	-85.90	542.1	-247.8	949.8	913.6	36.21	26.232	
6,500.0	6,325.8	6,360.5	6,265.3	29.1	18.0	-84.34	496.1	-247.6	952.3	916.9	35.40	26.903	
6,600.0	6,412.4	6,440.7	6,324.0	28.9	17.7	-82.96	441.5	-247.3	955.1	920.6	34.55	27.647	
6,700.0	6,487.8	6,519.1	6,372.6	28.7	17.3	-81.79	380.2	-247.0	958.0	924.2	33.75	28.381	
6,800.0	6,549.3	6,600.0	6,412.6	28.4	17.0	-80.84	309.9	-246.6	960.5	927.4	33.08	29.039	
6,900.0	6,594.7	6,672.1	6,438.7	28.1	16.7	-80.22	242.8	-246.3	962.5	929.8	32.66	29.472	
7,000.0	6,623.8	6,765.4	6,463.2	27.8	16.4	-80.00	152.7	-245.8	963.4	931.0	32.44	29.695	
7,100.0	6,648.2	6,850.0	6,482.0	27.5	16.3	-79.85	70.3	-245.4	964.2	931.7	32.49	29.674	
7,200.0	6,657.0	6,922.8	6,488.0	27.4	16.3	-79.79	-2.1	-245.0	964.7	931.8	32.89	29.332	
7,300.0	6,657.0	7,020.7	6,488.0	27.3	16.5	-79.79	-100.1	-244.5	965.1	931.5	33.55	28.769	
7,400.0	6,657.0	7,120.7	6,488.0	27.3	17.0	-79.80	-200.1	-243.9	965.5	930.9	34.60	27.906	
7,500.0	6,657.0	7,220.7	6,488.0	27.5	17.7	-79.80	-300.1	-243.4	965.9	929.9	36.02	26.815	
7,600.0	6,657.0	7,320.7	6,488.0	27.8	18.6	-79.81	-400.1	-242.9	966.3	928.6	37.77	25.583	
7,700.0	6,657.0	7,420.7	6,488.0	28.2	19.7	-79.81	-500.1	-242.4	966.8	926.9	39.81	24.283	
7,800.0	6,657.0	7,520.7	6,488.0	28.8	20.9	-79.82	-600.1	-241.9	967.2	925.1	42.09	22.977	
7,900.0	6,657.0	7,620.7	6,488.0	29.6	22.1	-79.82	-700.1	-241.3	967.6	923.0	44.58	21.703	
8,000.0	6,657.0	7,720.7	6,488.0	30.5	23.5	-79.83	-800.1	-240.8	968.0	920.8	47.25	20.489	
8,100.0	6,657.0	7,820.7	6,488.0	31.6	25.0	-79.83	-900.1	-240.3	968.4	918.4	50.05	19.347	
8,200.0	6,657.0	7,920.7	6,488.0	32.8	26.5	-79.83	-1,000.1	-239.8	968.8	915.8	52.99	18.284	
8,300.0	6,657.0	8,020.7	6,488.0	34.0	28.0	-79.84	-1,100.1	-239.3	969.2	913.2	56.02	17.301	
8,400.0	6,657.0	8,120.7	6,488.0	35.4	29.6	-79.84	-1,200.1	-238.7	969.7	910.5	59.15	16.394	
8,500.0	6,657.0	8,220.7	6,488.0	36.8	31.2	-79.85	-1,300.1	-238.2	970.1	907.7	62.34	15.560	
8,600.0	6,657.0	8,320.7	6,488.0	38.2	32.9	-79.85	-1,400.1	-237.7	970.5	904.9	65.61	14.793	
8,700.0	6,657.0	8,420.7	6,488.0	39.7	34.6	-79.86	-1,500.1	-237.2	970.9	902.0	68.92	14.087	
8,800.0	6,657.0	8,520.7	6,488.0	41.3	36.3	-79.86	-1,600.1	-236.7	971.3	899.0	72.29	13.437	
8,900.0	6,657.0	8,620.7	6,488.0	42.8	38.0	-79.86	-1,700.1	-236.1	971.7	896.0	75.69	12.838	
9,000.0	6,657.0	8,720.7	6,488.0	44.4	39.8	-79.87	-1,800.1	-235.6	972.1	893.0	79.13	12.285	
9,100.0	6,657.0	8,820.7	6,488.0	46.1	41.6	-79.87	-1,900.1	-235.1	972.6	890.0	82.60	11.774	
9,200.0	6,657.0	8,920.7	6,488.0	47.7	43.3	-79.88	-2,000.1	-234.6	973.0	886.9	86.10	11.301	
9,300.0	6,657.0	9,020.7	6,488.0	49.4	45.1	-79.88	-2,100.1	-234.0	973.4	883.8	89.62	10.861	
9,400.0	6,657.0	9,120.7	6,488.0	51.1	46.9	-79.89	-2,200.1	-233.5	973.8	880.6	93.17	10.452	
9,500.0	6,657.0	9,220.7	6,488.0	52.8	48.7	-79.89	-2,300.1	-233.0	974.2	877.5	96.73	10.071	
9,600.0	6,657.0	9,320.7	6,488.0	54.5	50.5	-79.90	-2,400.1	-232.5	974.6	874.3	100.31	9.716	
9,700.0	6,657.0	9,420.7	6,488.0	56.3	52.4	-79.90	-2,500.1	-232.0	975.0	871.1	103.91	9.384	
9,800.0	6,657.0	9,520.7	6,488.0	58.0	54.2	-79.90	-2,600.1	-231.4	975.5	867.9	107.52	9.073	
9,900.0	6,657.0	9,620.7	6,488.0	59.8	56.0	-79.91	-2,700.1	-230.9	975.9	864.7	111.14	8.781	
10,000.0	6,657.0	9,720.7	6,488.0	61.5	57.9	-79.91	-2,800.1	-230.4	976.3	861.5	114.77	8.506	
10,100.0	6,657.0	9,820.7	6,488.0	63.3	59.7	-79.92	-2,900.0	-229.9	976.7	858.3	118.41	8.248	
10,200.0	6,657.0	9,920.7	6,488.0	65.1	61.6	-79.92	-3,000.0	-229.4	977.1	855.1	122.07	8.005	
10,300.0	6,657.0	10,020.7	6,488.0	66.9	63.4	-79.93	-3,100.0	-228.8	977.5	851.8	125.73	7.775	

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 Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F11-J14-22HNB - Wellbore #1 - Plan #												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
10,400.0	6,657.0	10,120.7	6,488.0	68.7	65.3	-79.93	-3,200.0	-228.3	977.9	848.5	129.40	7.558	
10,500.0	6,657.0	10,220.7	6,488.0	70.5	67.2	-79.93	-3,300.0	-227.8	978.4	845.3	133.08	7.352	
10,600.0	6,657.0	10,320.7	6,488.0	72.3	69.0	-79.94	-3,400.0	-227.3	978.8	842.0	136.76	7.157	
10,700.0	6,657.0	10,420.7	6,488.0	74.1	70.9	-79.94	-3,500.0	-226.8	979.2	838.7	140.45	6.972	
10,800.0	6,657.0	10,520.7	6,488.0	75.9	72.8	-79.95	-3,600.0	-226.2	979.6	835.5	144.14	6.796	
10,900.0	6,657.0	10,620.7	6,488.0	77.8	74.7	-79.95	-3,700.0	-225.7	980.0	832.2	147.84	6.629	
11,000.0	6,657.0	10,720.7	6,488.0	79.6	76.5	-79.96	-3,800.0	-225.2	980.4	828.9	151.55	6.470	
11,100.0	6,657.0	10,820.7	6,488.0	81.4	78.4	-79.96	-3,900.0	-224.7	980.9	825.6	155.26	6.318	
11,200.0	6,657.0	10,920.7	6,488.0	83.3	80.3	-79.96	-4,000.0	-224.1	981.3	822.3	158.97	6.173	
11,300.0	6,657.0	11,020.7	6,488.0	85.1	82.2	-79.97	-4,100.0	-223.6	981.7	819.0	162.69	6.034	
11,371.4	6,657.0	11,092.1	6,488.0	86.4	83.5	-79.97	-4,171.4	-223.3	982.0	816.6	165.34	5.939 SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F21-J24-22HNB - Wellbore #1 - Plan #													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
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	179.47	-60.1	0.6	60.1					
100.0	100.0	100.0	100.0	0.1	0.1	179.47	-60.1	0.6	60.1	59.9	0.22	267.451		
200.0	200.0	200.0	200.0	0.3	0.3	179.47	-60.1	0.6	60.1	59.4	0.67	89.150 CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-119.26	-60.1	0.6	60.9	59.8	1.12	54.377		
400.0	399.8	399.8	399.8	0.8	0.8	-123.32	-60.1	0.6	63.7	62.1	1.58	40.405		
500.0	499.5	499.5	499.5	1.0	1.0	-129.30	-60.1	0.6	68.9	66.8	2.05	33.612		
600.0	598.7	598.7	598.7	1.3	1.2	-136.17	-60.1	0.6	77.2	74.6	2.54	30.436		
700.0	697.5	697.5	697.5	1.7	1.5	-142.98	-60.1	0.6	89.2	86.1	3.03	29.436 SF		
800.0	795.6	795.6	795.6	2.0	1.7	-149.06	-60.1	0.6	105.1	101.6	3.52	29.844		
900.0	893.1	893.1	893.1	2.5	1.9	-154.16	-60.1	0.6	125.0	121.0	4.01	31.180		
1,000.0	989.8	989.8	989.8	3.0	2.1	-158.34	-60.1	0.6	148.4	143.9	4.49	33.027		
1,100.0	1,086.4	1,086.4	1,086.4	3.5	2.3	-161.48	-60.1	0.6	172.6	167.7	4.97	34.714		
1,200.0	1,183.0	1,183.0	1,183.0	4.0	2.5	-163.85	-60.1	0.6	197.3	191.8	5.45	36.171		
1,300.0	1,279.7	1,279.7	1,279.7	4.6	2.8	-165.69	-60.1	0.6	222.2	216.2	5.94	37.427		
1,400.0	1,376.3	1,376.3	1,376.3	5.1	3.0	-167.16	-60.1	0.6	247.2	240.8	6.42	38.513		
1,500.0	1,472.9	1,473.9	1,473.9	5.6	3.2	-168.58	-59.3	1.0	272.3	265.4	6.90	39.462		
1,600.0	1,569.6	1,571.6	1,571.5	6.2	3.4	-170.39	-55.7	3.2	297.1	289.7	7.37	40.324		
1,700.0	1,666.2	1,668.8	1,668.4	6.7	3.6	-172.52	-49.2	6.9	321.9	314.1	7.83	41.106		
1,800.0	1,762.8	1,765.2	1,764.3	7.3	3.9	-174.88	-40.1	12.3	346.9	338.6	8.30	41.802		
1,900.0	1,859.5	1,860.8	1,858.8	7.8	4.1	-177.41	-28.2	19.3	372.5	363.7	8.79	42.393		
2,000.0	1,956.1	1,955.2	1,951.8	8.4	4.4	179.94	-13.9	27.7	398.8	389.5	9.30	42.877		
2,100.0	2,052.7	2,049.6	2,044.3	8.9	4.6	177.35	2.2	37.1	426.0	416.1	9.86	43.220		
2,200.0	2,149.4	2,144.0	2,136.9	9.5	4.9	175.05	18.2	46.6	454.0	443.5	10.44	43.467		
2,300.0	2,246.0	2,238.5	2,229.5	10.0	5.3	173.02	34.3	56.0	482.5	471.5	11.06	43.635		
2,400.0	2,342.6	2,333.0	2,322.1	10.5	5.6	171.21	50.3	65.4	511.6	499.9	11.69	43.758		
2,500.0	2,439.3	2,427.4	2,414.7	11.1	5.9	169.59	66.4	74.8	541.2	528.8	12.34	43.838		
2,600.0	2,535.9	2,521.9	2,507.3	11.6	6.3	168.14	82.5	84.3	571.0	558.0	13.01	43.891		
2,700.0	2,632.5	2,616.3	2,599.9	12.2	6.6	166.83	98.5	93.7	601.2	587.5	13.69	43.925		
2,800.0	2,729.2	2,710.8	2,692.5	12.7	7.0	165.64	114.6	103.1	631.7	617.3	14.37	43.945		
2,900.0	2,825.8	2,805.3	2,785.1	13.3	7.3	164.57	130.7	112.6	662.3	647.3	15.07	43.958		
3,000.0	2,922.4	2,899.7	2,877.7	13.8	7.7	163.58	146.7	122.0	693.2	677.5	15.77	43.964		
3,100.0	3,019.1	2,994.2	2,970.3	14.4	8.1	162.68	162.8	131.4	724.3	707.8	16.47	43.967		
3,200.0	3,115.7	3,088.6	3,062.9	14.9	8.4	161.85	178.8	140.9	755.5	738.3	17.18	43.967		
3,300.0	3,212.3	3,183.1	3,155.5	15.5	8.8	161.09	194.9	150.3	786.8	768.9	17.90	43.966		
3,400.0	3,309.0	3,277.6	3,248.1	16.0	9.2	160.38	211.0	159.7	818.2	799.6	18.61	43.965		
3,500.0	3,405.6	3,372.0	3,340.7	16.6	9.6	159.73	227.0	169.2	849.8	830.5	19.33	43.964		
3,600.0	3,502.2	3,466.5	3,433.3	17.1	10.0	159.12	243.1	178.6	881.4	861.4	20.05	43.963		
3,700.0	3,598.9	3,560.9	3,525.9	17.7	10.4	158.56	259.1	188.0	913.2	892.4	20.77	43.963		
3,800.0	3,695.5	3,655.4	3,618.5	18.2	10.7	158.03	275.2	197.4	945.0	923.5	21.49	43.963		
3,900.0	3,792.1	3,749.8	3,711.2	18.8	11.1	157.54	291.3	206.9	976.8	954.6	22.22	43.963		

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Offset Design North Platte F-22 Pad Sec.22-T5N-R63W - North Platte Federal F-J-22HNC - Wellbore #1 - Plan #1 (11													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	4.0	4.0	0.0	0.0	179.52	-100.2	0.8	100.2	100.2	0.00	N/A		
100.0	100.0	104.0	104.0	0.1	0.1	179.52	-100.2	0.8	100.2	100.0	0.23	428.622		
200.0	200.0	204.0	204.0	0.3	0.3	179.52	-100.2	0.8	100.2	99.5	0.68	146.634 CC, ES		
300.0	300.0	304.0	304.0	0.6	0.6	-118.63	-100.2	0.8	101.0	99.9	1.13	89.417		
400.0	399.8	403.8	403.8	0.8	0.8	-121.12	-100.2	0.8	103.6	102.0	1.58	65.407		
500.0	499.5	503.5	503.5	1.0	1.0	-124.98	-100.2	0.8	108.4	106.3	2.06	52.675		
600.0	598.7	602.7	602.7	1.3	1.2	-129.79	-100.2	0.8	115.8	113.3	2.55	45.410		
700.0	697.5	701.5	701.5	1.7	1.5	-135.06	-100.2	0.8	126.5	123.4	3.06	41.340		
800.0	795.6	799.6	799.6	2.0	1.7	-140.33	-100.2	0.8	140.7	137.1	3.58	39.358		
900.0	893.1	897.1	897.1	2.5	1.9	-145.26	-100.2	0.8	158.8	154.7	4.09	38.816		
1,000.0	989.8	993.8	993.8	3.0	2.1	-149.72	-100.2	0.8	180.4	175.8	4.60	39.211		
1,100.0	1,086.4	1,090.4	1,090.4	3.5	2.3	-153.36	-100.2	0.8	203.2	198.1	5.10	39.839		
1,200.0	1,183.0	1,187.0	1,187.0	4.0	2.6	-156.26	-100.2	0.8	226.7	221.1	5.59	40.516		
1,300.0	1,279.7	1,283.7	1,283.7	4.6	2.8	-158.62	-100.2	0.8	250.6	244.5	6.08	41.183		
1,400.0	1,376.3	1,380.3	1,380.3	5.1	3.0	-160.57	-100.2	0.8	274.8	268.2	6.57	41.814		
1,500.0	1,472.9	1,476.9	1,476.9	5.6	3.2	-162.20	-100.2	0.8	299.2	292.2	7.06	42.398		
1,600.0	1,569.6	1,573.6	1,573.6	6.2	3.4	-163.59	-100.2	0.8	323.9	316.4	7.54	42.934		
1,700.0	1,666.2	1,670.2	1,670.2	6.7	3.6	-164.78	-100.2	0.8	348.7	340.7	8.03	43.423		
1,800.0	1,762.8	1,766.8	1,766.8	7.3	3.9	-165.82	-100.2	0.8	373.7	365.1	8.52	43.868		
1,900.0	1,859.5	1,863.5	1,863.5	7.8	4.1	-166.72	-100.2	0.8	398.7	389.7	9.01	44.273		
2,000.0	1,956.1	1,960.1	1,960.1	8.4	4.3	-167.52	-100.2	0.8	423.8	414.3	9.49	44.642		
2,100.0	2,052.7	2,062.0	2,062.0	8.9	4.5	-168.34	-99.5	0.9	448.7	438.7	9.99	44.917		
2,200.0	2,149.4	2,168.1	2,168.0	9.5	4.8	-169.47	-95.3	1.3	471.9	461.4	10.48	45.043		
2,300.0	2,246.0	2,274.5	2,274.0	10.0	5.0	-170.89	-87.1	2.1	493.4	482.4	10.95	45.039		
2,400.0	2,342.6	2,380.8	2,379.7	10.5	5.2	-172.57	-75.0	3.4	513.3	501.9	11.43	44.906		
2,500.0	2,439.3	2,486.9	2,484.6	11.1	5.5	-174.49	-59.1	5.0	531.9	520.0	11.92	44.639		
2,600.0	2,535.9	2,592.5	2,588.2	11.6	5.8	-176.62	-39.5	6.9	549.5	537.0	12.43	44.220		
2,700.0	2,632.5	2,690.3	2,683.9	12.2	6.1	-178.69	-18.9	9.0	566.7	553.7	12.95	43.753		
2,800.0	2,729.2	2,786.8	2,778.2	12.7	6.4	179.38	1.3	11.0	584.6	571.1	13.51	43.270		
2,900.0	2,825.8	2,883.2	2,872.5	13.3	6.7	177.56	21.6	13.1	603.1	589.0	14.10	42.770		
3,000.0	2,922.4	2,979.7	2,966.7	13.8	7.0	175.85	41.9	15.1	622.2	607.4	14.72	42.268		
3,100.0	3,019.1	3,076.1	3,061.0	14.4	7.3	174.25	62.1	17.1	641.8	626.4	15.37	41.767		
3,200.0	3,115.7	3,172.6	3,155.3	14.9	7.7	172.73	82.4	19.2	661.8	645.8	16.04	41.274		
3,300.0	3,212.3	3,269.0	3,249.6	15.5	8.0	171.30	102.6	21.2	682.4	665.6	16.73	40.794		
3,400.0	3,309.0	3,365.5	3,343.8	16.0	8.4	169.96	122.9	23.2	703.3	685.8	17.44	40.329		
3,500.0	3,405.6	3,461.9	3,438.1	16.6	8.8	168.69	143.2	25.3	724.5	706.4	18.17	39.882		
3,600.0	3,502.2	3,558.4	3,532.4	17.1	9.1	167.49	163.4	27.3	746.1	727.2	18.91	39.456		
3,700.0	3,598.9	3,654.8	3,626.7	17.7	9.5	166.36	183.7	29.4	768.0	748.3	19.67	39.050		
3,800.0	3,695.5	3,751.3	3,720.9	18.2	9.9	165.28	204.0	31.4	790.2	769.7	20.44	38.665		
3,900.0	3,792.1	3,847.7	3,815.2	18.8	10.3	164.27	224.2	33.4	812.6	791.4	21.22	38.302		
4,000.0	3,888.8	3,944.2	3,909.5	19.3	10.7	163.31	244.5	35.5	835.2	813.2	22.00	37.959		
4,100.0	3,985.4	4,040.6	4,003.8	19.9	11.1	162.40	264.8	37.5	858.1	835.3	22.80	37.636		
4,200.0	4,082.1	4,137.1	4,098.0	20.4	11.5	161.54	285.0	39.5	881.2	857.6	23.60	37.332		
4,300.0	4,178.7	4,233.5	4,192.3	21.0	11.9	160.72	305.3	41.6	904.4	880.0	24.41	37.046		
4,400.0	4,275.3	4,330.0	4,286.6	21.5	12.3	159.94	325.6	43.6	927.9	902.6	25.23	36.777		
4,500.0	4,372.0	4,426.4	4,380.9	22.1	12.7	159.20	345.8	45.6	951.4	925.4	26.05	36.524		
4,600.0	4,468.6	4,522.9	4,475.1	22.6	13.1	158.50	366.1	47.7	975.1	948.3	26.87	36.287		
4,700.0	4,565.2	4,619.3	4,569.4	23.2	13.5	157.82	386.4	49.7	999.0	971.3	27.70	36.064 SF		

Reference Depths are relative to WELL @ 4671.0ft (RKB - 13')	Coordinates are relative to: North Platte Federal A-E-22HC
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: 0.69°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well North Platte Federal A-E-22HC
Project:	SEC.22-T5N-R63W	TVD Reference:	WELL @ 4671.0ft (RKB - 13')
Reference Site:	North Platte F-22 Pad Sec.22-T5N-R63W	MD Reference:	WELL @ 4671.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte Federal A-E-22HC	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 (11-12-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4671.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: North Platte Federal A-E-22HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.69°

