

BONANZA CREEK ENERGY OPERATING

Well Name: **LATHAM 14-11-12HZ**

Surface Location: LATHAM 14-12 PAD S12-4N-63W

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

Ground Elevation: 4570.0

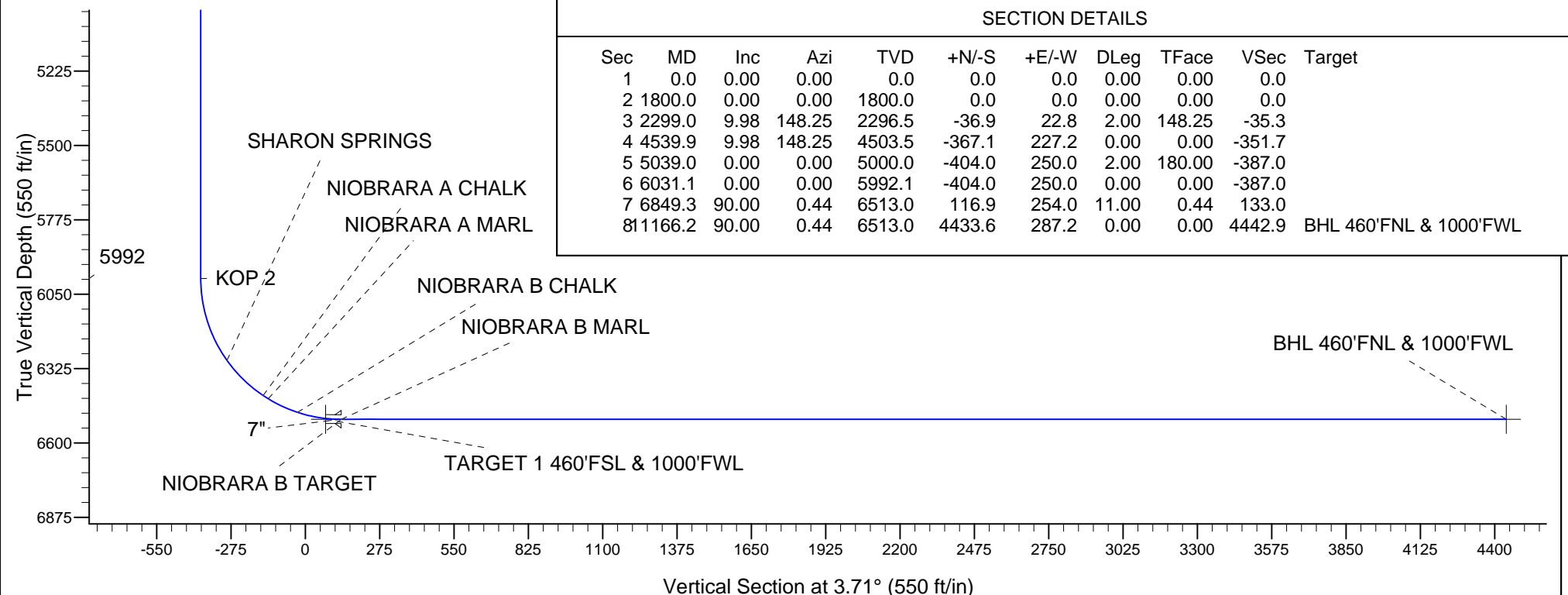
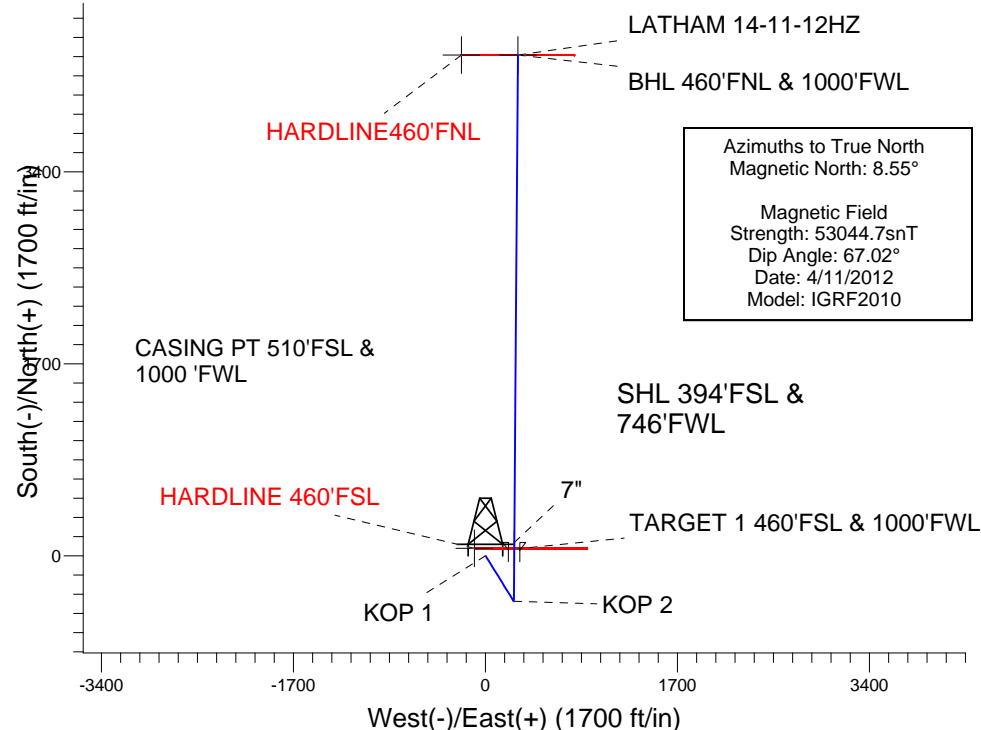
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1361729.04	3308608.97	40.321060	-104.393190	

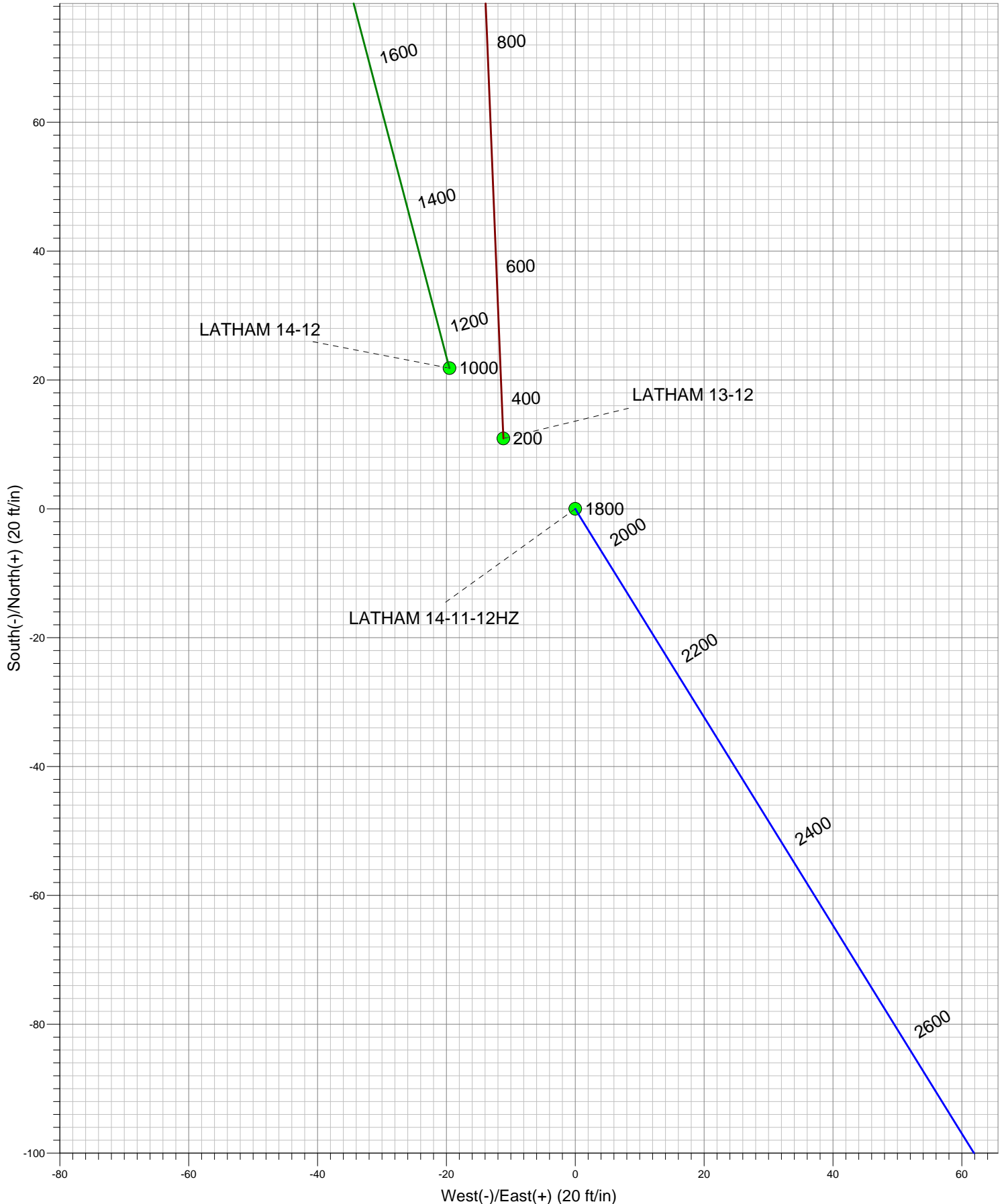
KB EST 15' RKB @ 4585.0ft (KB EST 15')

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HARDLINE 460'FSL	2.0	66.0	-100.0	40.321241	-104.393549	Polygon
HARDLINE460'FNL	2.0	4433.0	-213.0	40.333228	-104.393954	Polygon
BHL 460'FNL & 1000'FWL	6513.0	4433.6	287.2	40.333230	-104.392160	Point
TARGET 1 460'FSL & 1000'FWL	6513.0	58.3	253.8	40.321220	-104.392280	Point

LATHAM 14-12 PAD S12-4N-63W
LATHAM 14-11-12HZ
PLAN 1 (APRIL 11, 2012)
14:23, April 12 2012







Directional

BONANZA CREEK ENERGY OPERATING

SEC.12-T4N-R63W

LATHAM 14-12 PAD S12-4N-63W

LATHAM 14-11-12HZ

Wellbore #1

Plan: PLAN 1 (APRIL 11, 2012)

Standard Planning Report

12 April, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Project:	SEC.12-T4N-R63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site:	LATHAM 14-12 PAD S12-4N-63W	North Reference:	True
Well:	LATHAM 14-11-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APRIL 11, 2012)		

Project	SEC.12-T4N-R63W		
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

Well	LATHAM 14-11-12HZ			
Well Position	+N/-S	0.0 ft	Northing:	1,361,729.04 ft
	+E/-W	0.0 ft	Easting:	3,308,608.97 ft
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft
			Latitude:	40.321060
			Longitude:	-104.393190
			Ground Level:	4,570.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/11/2012	8.55	67.02	53,045

Design	PLAN 1 (APRIL 11, 2012)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	3.71

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,299.0	9.98	148.25	2,296.5	-36.9	22.8	2.00	2.00	0.00	148.25	
4,539.9	9.98	148.25	4,503.5	-367.1	227.2	0.00	0.00	0.00	0.00	
5,039.0	0.00	0.00	5,000.0	-404.0	250.0	2.00	-2.00	0.00	180.00	
6,031.1	0.00	0.00	5,992.1	-404.0	250.0	0.00	0.00	0.00	0.00	
6,849.3	90.00	0.44	6,513.0	116.9	254.0	11.00	11.00	0.00	0.44	
11,166.2	90.00	0.44	6,513.0	4,433.6	287.2	0.00	0.00	0.00	0.00	BHL 460'FNL & 100'

Database:	Landmark	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Project:	SEC.12-T4N-R63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site:	LATHAM 14-12 PAD S12-4N-63W	North Reference:	True
Well:	LATHAM 14-11-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APRIL 11, 2012)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP 1									
1,900.0	2.00	148.25	1,900.0	-1.5	0.9	-1.4	2.00	2.00	0.00
2,000.0	4.00	148.25	1,999.8	-5.9	3.7	-5.7	2.00	2.00	0.00
2,100.0	6.00	148.25	2,099.5	-13.3	8.3	-12.8	2.00	2.00	0.00
2,200.0	8.00	148.25	2,198.7	-23.7	14.7	-22.7	2.00	2.00	0.00
2,299.0	9.98	148.25	2,296.5	-36.9	22.8	-35.3	2.00	2.00	0.00
2,300.0	9.98	148.25	2,297.5	-37.0	22.9	-35.5	0.00	0.00	0.00
2,400.0	9.98	148.25	2,396.0	-51.7	32.0	-49.6	0.00	0.00	0.00
2,500.0	9.98	148.25	2,494.4	-66.5	41.1	-63.7	0.00	0.00	0.00
2,600.0	9.98	148.25	2,592.9	-81.2	50.3	-77.8	0.00	0.00	0.00
2,700.0	9.98	148.25	2,691.4	-96.0	59.4	-91.9	0.00	0.00	0.00
2,800.0	9.98	148.25	2,789.9	-110.7	68.5	-106.0	0.00	0.00	0.00
2,900.0	9.98	148.25	2,888.4	-125.4	77.6	-120.2	0.00	0.00	0.00
3,000.0	9.98	148.25	2,986.9	-140.2	86.7	-134.3	0.00	0.00	0.00
3,100.0	9.98	148.25	3,085.4	-154.9	95.9	-148.4	0.00	0.00	0.00
3,200.0	9.98	148.25	3,183.8	-169.7	105.0	-162.5	0.00	0.00	0.00
3,300.0	9.98	148.25	3,282.3	-184.4	114.1	-176.6	0.00	0.00	0.00
3,400.0	9.98	148.25	3,380.8	-199.1	123.2	-190.7	0.00	0.00	0.00
3,500.0	9.98	148.25	3,479.3	-213.9	132.3	-204.9	0.00	0.00	0.00
3,536.2	9.98	148.25	3,515.0	-219.2	135.6	-210.0	0.00	0.00	0.00
PARKMAN									
3,600.0	9.98	148.25	3,577.8	-228.6	141.5	-219.0	0.00	0.00	0.00
3,700.0	9.98	148.25	3,676.3	-243.3	150.6	-233.1	0.00	0.00	0.00
3,800.0	9.98	148.25	3,774.8	-258.1	159.7	-247.2	0.00	0.00	0.00
3,900.0	9.98	148.25	3,873.3	-272.8	168.8	-261.3	0.00	0.00	0.00
4,000.0	9.98	148.25	3,971.7	-287.6	177.9	-275.5	0.00	0.00	0.00
4,100.0	9.98	148.25	4,070.2	-302.3	187.1	-289.6	0.00	0.00	0.00
4,200.0	9.98	148.25	4,168.7	-317.0	196.2	-303.7	0.00	0.00	0.00
4,300.0	9.98	148.25	4,267.2	-331.8	205.3	-317.8	0.00	0.00	0.00
4,400.0	9.98	148.25	4,365.7	-346.5	214.4	-331.9	0.00	0.00	0.00
4,500.0	9.98	148.25	4,464.2	-361.2	223.5	-346.0	0.00	0.00	0.00
4,539.9	9.98	148.25	4,503.5	-367.1	227.2	-351.7	0.00	0.00	0.00
4,600.0	8.78	148.25	4,562.8	-375.5	232.3	-359.7	2.00	-2.00	0.00
4,700.0	6.78	148.25	4,661.8	-387.0	239.5	-370.7	2.00	-2.00	0.00
4,800.0	4.78	148.25	4,761.3	-395.5	244.8	-378.9	2.00	-2.00	0.00

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Wellbore:	Wellbore #1		
Design:	PLAN 1 (APRIL 11, 2012)		

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)
4,900.0	2.78	148.25	4,861.1	-401.1	248.2	-384.3	2.00	-2.00	0.00
5,000.0	0.78	148.25	4,961.0	-403.8	249.9	-386.8	2.00	-2.00	0.00
5,039.0	0.00	0.00	5,000.0	-404.0	250.0	-387.0	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,061.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,161.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,261.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,361.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,461.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,561.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,661.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,761.0	-404.0	250.0	-387.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,861.0	-404.0	250.0	-387.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,961.0	-404.0	250.0	-387.0	0.00	0.00	0.00
6,031.0	0.00	0.00	5,992.0	-404.0	250.0	-387.0	0.00	0.00	0.00
KOP 2									
6,031.1	0.00	0.00	5,992.1	-404.0	250.0	-387.0	0.00	0.00	0.00
6,100.0	7.58	0.44	6,060.8	-399.4	250.0	-382.5	11.00	11.00	0.00
6,200.0	18.58	0.44	6,158.1	-376.9	250.2	-359.9	11.00	11.00	0.00
6,300.0	29.58	0.44	6,249.3	-336.1	250.5	-319.2	11.00	11.00	0.00
6,354.3	35.55	0.44	6,295.0	-306.9	250.7	-290.0	11.00	11.00	0.00
SHARON SPRINGS									
6,400.0	40.58	0.44	6,331.0	-278.7	251.0	-261.9	11.00	11.00	0.00
6,500.0	51.58	0.44	6,400.2	-206.8	251.5	-190.1	11.00	11.00	0.00
6,542.1	56.21	0.44	6,425.0	-172.8	251.8	-156.2	11.00	11.00	0.00
NIOBRARA A CHALK									
6,564.4	58.66	0.44	6,437.0	-154.1	251.9	-137.4	11.00	11.00	0.00
NIOBRARA A MARL									
6,600.0	62.58	0.44	6,454.5	-123.0	252.2	-106.4	11.00	11.00	0.00
6,684.0	71.82	0.44	6,487.0	-45.6	252.8	-29.2	11.00	11.00	0.00
NIOBRARA B CHALK									
6,700.0	73.58	0.44	6,491.8	-30.4	252.9	-14.0	11.00	11.00	0.00
6,800.0	84.58	0.44	6,510.7	67.7	253.6	83.9	11.00	11.00	0.00
6,849.0	89.97	0.44	6,513.0	116.6	254.0	132.8	11.00	11.00	0.00
7"									
6,849.3	90.00	0.44	6,513.0	116.9	254.0	133.0	11.00	11.00	0.00
NIOBRARA B TARGET - NIOBRARA B MARL									
6,900.0	90.00	0.44	6,513.0	167.6	254.4	183.7	0.00	0.00	0.00
7,000.0	90.00	0.44	6,513.0	267.6	255.2	283.5	0.00	0.00	0.00
7,100.0	90.00	0.44	6,513.0	367.6	255.9	383.4	0.00	0.00	0.00
7,200.0	90.00	0.44	6,513.0	467.6	256.7	483.2	0.00	0.00	0.00
7,300.0	90.00	0.44	6,513.0	567.6	257.5	583.0	0.00	0.00	0.00
7,400.0	90.00	0.44	6,513.0	667.6	258.2	682.9	0.00	0.00	0.00
7,500.0	90.00	0.44	6,513.0	767.6	259.0	782.7	0.00	0.00	0.00
7,600.0	90.00	0.44	6,513.0	867.6	259.8	882.5	0.00	0.00	0.00
7,700.0	90.00	0.44	6,513.0	967.6	260.5	982.4	0.00	0.00	0.00
7,800.0	90.00	0.44	6,513.0	1,067.6	261.3	1,082.2	0.00	0.00	0.00
7,900.0	90.00	0.44	6,513.0	1,167.6	262.1	1,182.1	0.00	0.00	0.00
8,000.0	90.00	0.44	6,513.0	1,267.6	262.8	1,281.9	0.00	0.00	0.00
8,100.0	90.00	0.44	6,513.0	1,367.6	263.6	1,381.7	0.00	0.00	0.00
8,200.0	90.00	0.44	6,513.0	1,467.6	264.4	1,481.6	0.00	0.00	0.00
8,300.0	90.00	0.44	6,513.0	1,567.5	265.1	1,581.4	0.00	0.00	0.00
8,400.0	90.00	0.44	6,513.0	1,667.5	265.9	1,681.2	0.00	0.00	0.00
8,500.0	90.00	0.44	6,513.0	1,767.5	266.7	1,781.1	0.00	0.00	0.00

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,600.0	90.00	0.44	6,513.0	1,867.5	267.4	1,880.9	0.00	0.00	0.00	
8,700.0	90.00	0.44	6,513.0	1,967.5	268.2	1,980.8	0.00	0.00	0.00	
8,800.0	90.00	0.44	6,513.0	2,067.5	269.0	2,080.6	0.00	0.00	0.00	
8,900.0	90.00	0.44	6,513.0	2,167.5	269.8	2,180.4	0.00	0.00	0.00	
9,000.0	90.00	0.44	6,513.0	2,267.5	270.5	2,280.3	0.00	0.00	0.00	
9,100.0	90.00	0.44	6,513.0	2,367.5	271.3	2,380.1	0.00	0.00	0.00	
9,200.0	90.00	0.44	6,513.0	2,467.5	272.1	2,479.9	0.00	0.00	0.00	
9,300.0	90.00	0.44	6,513.0	2,567.5	272.8	2,579.8	0.00	0.00	0.00	
9,400.0	90.00	0.44	6,513.0	2,667.5	273.6	2,679.6	0.00	0.00	0.00	
9,500.0	90.00	0.44	6,513.0	2,767.5	274.4	2,779.5	0.00	0.00	0.00	
9,600.0	90.00	0.44	6,513.0	2,867.5	275.1	2,879.3	0.00	0.00	0.00	
9,700.0	90.00	0.44	6,513.0	2,967.5	275.9	2,979.1	0.00	0.00	0.00	
9,800.0	90.00	0.44	6,513.0	3,067.5	276.7	3,079.0	0.00	0.00	0.00	
9,900.0	90.00	0.44	6,513.0	3,167.5	277.4	3,178.8	0.00	0.00	0.00	
10,000.0	90.00	0.44	6,513.0	3,267.5	278.2	3,278.6	0.00	0.00	0.00	
10,100.0	90.00	0.44	6,513.0	3,367.5	279.0	3,378.5	0.00	0.00	0.00	
10,200.0	90.00	0.44	6,513.0	3,467.5	279.7	3,478.3	0.00	0.00	0.00	
10,300.0	90.00	0.44	6,513.0	3,567.5	280.5	3,578.2	0.00	0.00	0.00	
10,400.0	90.00	0.44	6,513.0	3,667.5	281.3	3,678.0	0.00	0.00	0.00	
10,500.0	90.00	0.44	6,513.0	3,767.5	282.0	3,777.8	0.00	0.00	0.00	
10,600.0	90.00	0.44	6,513.0	3,867.5	282.8	3,877.7	0.00	0.00	0.00	
10,700.0	90.00	0.44	6,513.0	3,967.5	283.6	3,977.5	0.00	0.00	0.00	
10,800.0	90.00	0.44	6,513.0	4,067.5	284.3	4,077.3	0.00	0.00	0.00	
10,900.0	90.00	0.44	6,513.0	4,167.5	285.1	4,177.2	0.00	0.00	0.00	
11,000.0	90.00	0.44	6,513.0	4,267.5	285.9	4,277.0	0.00	0.00	0.00	
11,100.0	90.00	0.44	6,513.0	4,367.5	286.7	4,376.9	0.00	0.00	0.00	
11,166.2	90.00	0.44	6,513.0	4,433.6	287.2	4,442.9	0.00	0.00	0.00	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,536.2	3,515.0	PARKMAN		0.00	
	6,354.3	6,295.0	SHARON SPRINGS		0.00	
	6,542.1	6,425.0	NIOBRARA A CHALK		0.00	
	6,564.4	6,437.0	NIOBRARA A MARL		0.00	
	6,684.0	6,487.0	NIOBRARA B CHALK		0.00	
	6,849.3	6,513.0	NIOBRARA B TARGET		0.00	
	6,849.3	6,513.0	NIOBRARA B MARL		0.00	
		6,557.0	NIOBRARA C CHALK		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Project:	SEC.12-T4N-R63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site:	LATHAM 14-12 PAD S12-4N-63W	North Reference:	True
Well:	LATHAM 14-11-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN 1 (APRIL 11, 2012)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,800.0	1,800.0	0.0	0.0	KOP 1	
6,031.0	5,992.0	-404.0	250.0	KOP 2	



Directional

BONANZA CREEK ENERGY OPERATING

SEC.12-T4N-R63W

LATHAM 14-12 PAD S12-4N-63W

LATHAM 14-11-12HZ

Wellbore #1

PLAN 1 (APRIL 11, 2012)

Anticollision Report

12 April, 2012

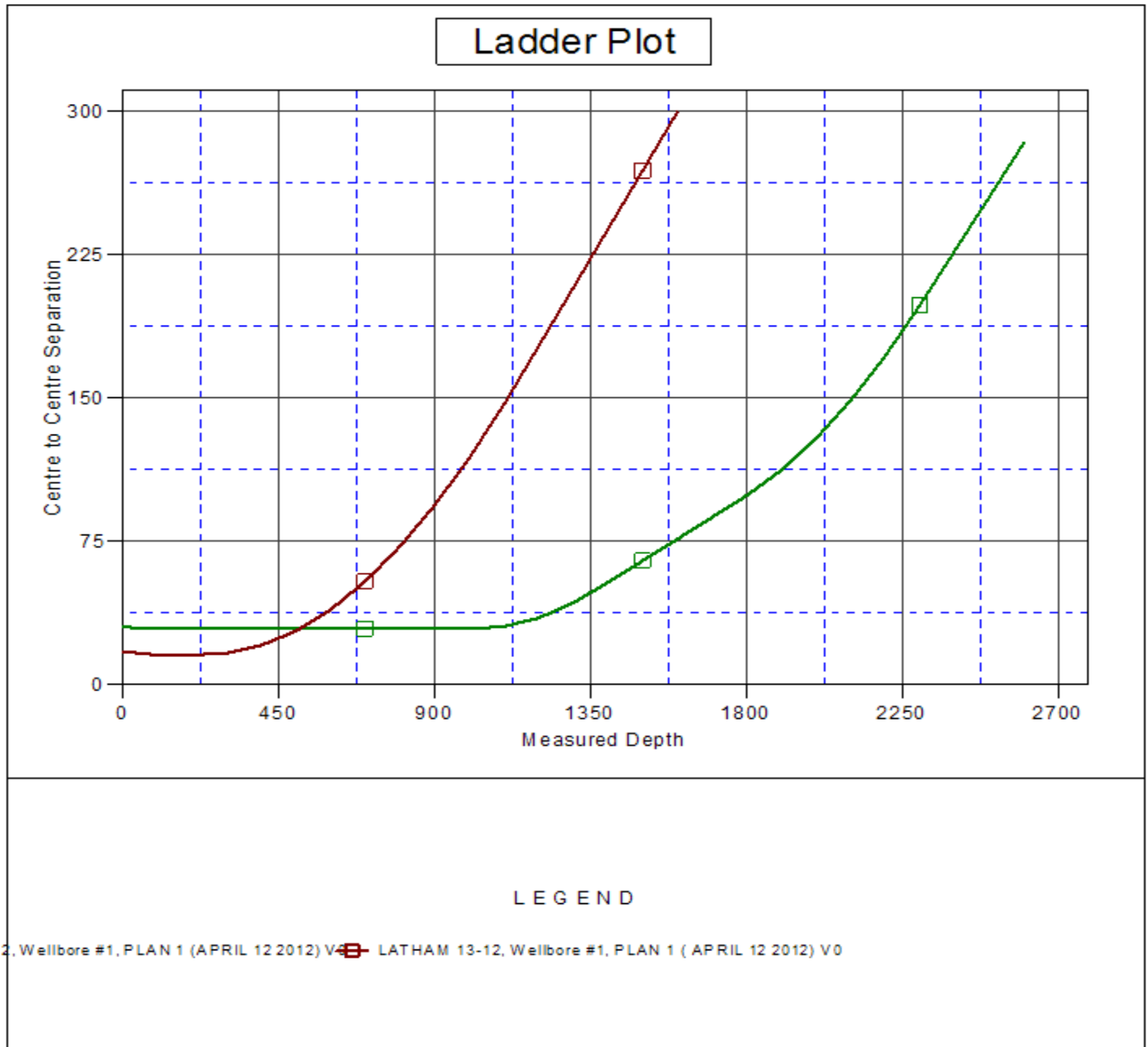
Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Project:	SEC.12-T4N-R63W	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Reference Site:	LATHAM 14-12 PAD S12-4N-63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LATHAM 14-11-12HZ	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 (APRIL 11, 2012)	Offset TVD Reference:	Offset Datum

Offset Design LATHAM 14-12 PAD S12-4N-63W - LATHAM 14-12 - Wellbore #1 - PLAN 1 (APRIL 12 2012)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-41.78	21.9	-19.5	30.4				
100.0	100.0	92.0	92.0	0.1	0.1	-41.78	21.9	-19.5	29.3	29.1	0.22	135.775	
200.0	200.0	192.0	192.0	0.3	0.3	-41.78	21.9	-19.5	29.3	28.6	0.66	44.642	
300.0	300.0	292.0	292.0	0.6	0.5	-41.78	21.9	-19.5	29.3	28.2	1.11	26.495	
400.0	400.0	392.0	392.0	0.8	0.8	-41.78	21.9	-19.5	29.3	27.7	1.56	18.837	
500.0	500.0	492.0	492.0	1.0	1.0	-41.78	21.9	-19.5	29.3	27.3	2.00	14.614	
600.0	600.0	592.0	592.0	1.2	1.2	-41.78	21.9	-19.5	29.3	26.8	2.45	11.937	
700.0	700.0	692.0	692.0	1.5	1.4	-41.78	21.9	-19.5	29.3	26.4	2.90	10.089	
800.0	800.0	792.0	792.0	1.7	1.7	-41.78	21.9	-19.5	29.3	25.9	3.35	8.737	
900.0	900.0	892.0	892.0	1.9	1.9	-41.78	21.9	-19.5	29.3	25.5	3.80	7.704	
1,000.0	1,000.0	992.0	992.0	2.1	2.1	-41.78	21.9	-19.5	29.3	25.0	4.25	6.890 CC, ES	
1,100.0	1,100.0	1,091.1	1,091.1	2.4	2.3	-40.54	23.3	-19.9	30.6	25.9	4.70	6.512 SF	
1,200.0	1,200.0	1,190.0	1,189.8	2.6	2.6	-37.08	27.9	-21.1	35.1	29.9	5.15	6.814	
1,300.0	1,300.0	1,288.4	1,287.9	2.8	2.8	-32.89	35.9	-23.2	42.9	37.3	5.60	7.663	
1,400.0	1,400.0	1,387.1	1,386.0	3.0	3.0	-29.18	46.6	-26.0	53.7	47.7	6.06	8.869	
1,500.0	1,500.0	1,486.4	1,484.6	3.3	3.3	-26.63	57.7	-28.9	65.0	58.5	6.51	9.980	
1,600.0	1,600.0	1,585.8	1,583.3	3.5	3.5	-24.84	68.8	-31.9	76.3	69.4	6.97	10.954	
1,700.0	1,700.0	1,685.1	1,682.0	3.7	3.8	-23.51	79.9	-34.8	87.7	80.3	7.43	11.810	
1,800.0	1,800.0	1,784.4	1,780.6	3.9	4.1	-22.49	91.0	-37.7	99.2	91.3	7.89	12.566	
1,900.0	1,900.0	1,883.5	1,879.1	4.1	4.4	-170.05	102.1	-40.6	112.4	104.1	8.28	13.570	
2,000.0	1,999.8	1,982.1	1,977.0	4.3	4.6	-169.76	113.2	-43.5	129.0	120.3	8.67	14.874	
2,100.0	2,099.5	2,080.1	2,074.4	4.5	4.9	-169.75	124.1	-46.4	148.9	139.9	9.05	16.451	
2,200.0	2,198.7	2,177.4	2,170.9	4.7	5.2	-169.93	135.0	-49.2	172.2	162.8	9.43	18.271	
2,300.0	2,297.5	2,273.7	2,266.7	4.9	5.5	-170.21	145.8	-52.1	198.9	189.1	9.79	20.309	
2,400.0	2,396.0	2,369.6	2,361.9	5.2	5.8	-170.58	156.5	-54.9	227.2	216.9	10.21	22.254	
2,500.0	2,494.4	2,465.5	2,457.2	5.4	6.0	-170.86	167.2	-57.7	255.4	244.8	10.63	24.034	
2,600.0	2,592.9	2,561.5	2,552.5	5.7	6.3	-171.09	178.0	-60.5	283.7	272.7	11.05	25.668	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Project:	SEC.12-T4N-R63W	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Reference Site:	LATHAM 14-12 PAD S12-4N-63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LATHAM 14-11-12HZ	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 (APRIL 11, 2012)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 4585.0ft (KB EST 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: LATHAM 14-11-12HZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.72°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well LATHAM 14-11-12HZ
Project:	SEC.12-T4N-R63W	TVD Reference:	RKB @ 4585.0ft (KB EST 15')
Reference Site:	LATHAM 14-12 PAD S12-4N-63W	MD Reference:	RKB @ 4585.0ft (KB EST 15')
Site Error:	0.0ft	North Reference:	True
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