

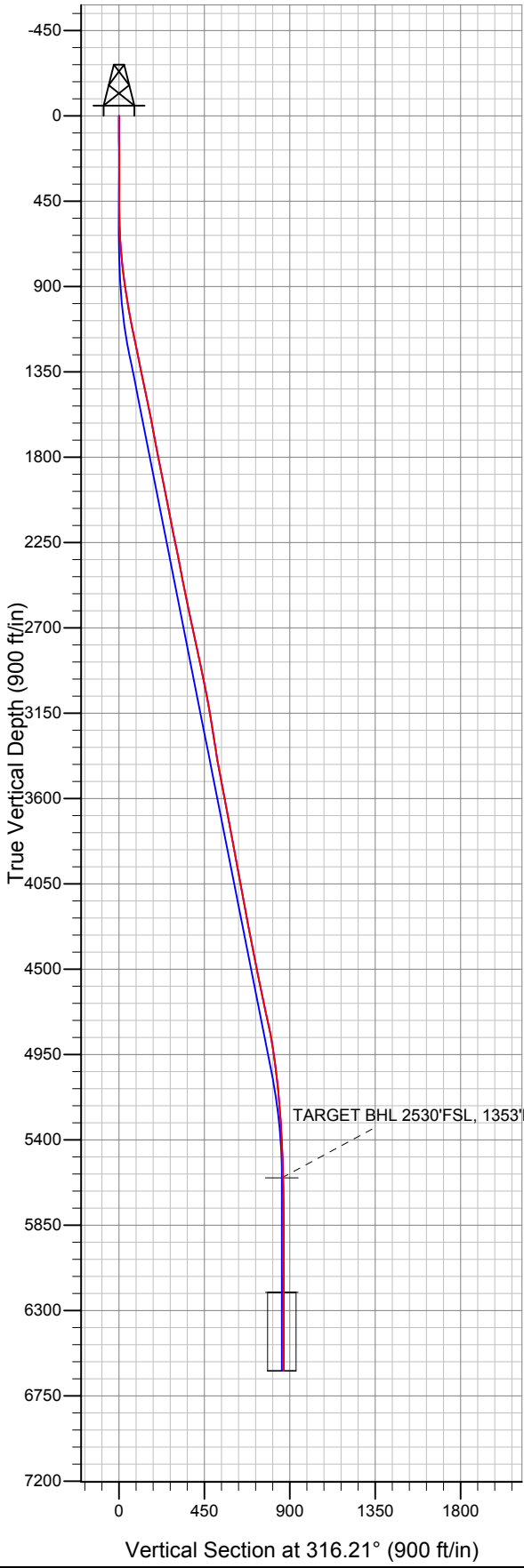
Well Name: **Latham R-1**

Surface Location: Latham 43-1 Pad Sec.1-T4N-R63W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

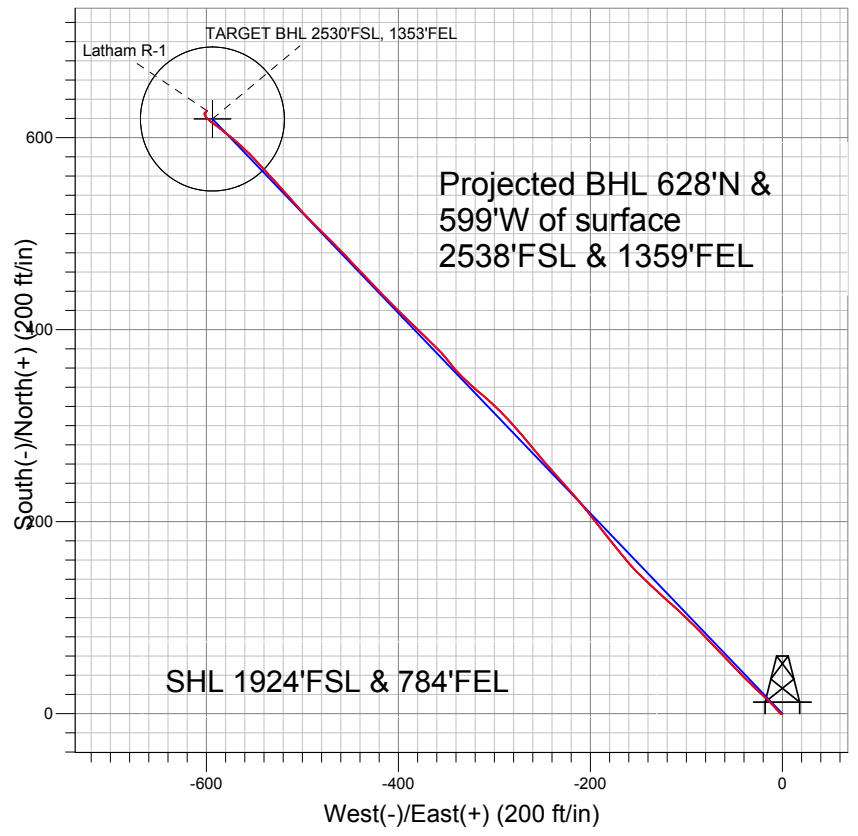
Ground Elevation: 4544.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1368525.44	3312237.49	40.339590	-104.379870	

Original Well Elev WELL @ 4559.0ft (Original Well Elev)



BONANZA CREEK ENERGY OPERATING



LEGEND

- Latham R-1, Wellbore #1, Plan #1 (7-13-12) R V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 6698'MD & 6618'TVD @ 868'VS
 0.2 deg Inc 39.3 deg AZ

Project: SEC.1-T4N-R63W
 Site: Latham 43-1 Pad Sec.1-T4N-R63W
 Well: Latham R-1
 Plan: Wellbore #1



Directional

BONANZA CREEK ENERGY OPERATING

SEC.1-T4N-R63W

Latham 43-1 Pad Sec.1-T4N-R63W

Latham R-1

Wellbore #1

Survey: Survey #1

Standard Survey Report

22 August, 2012

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Latham R-1
Project:	SEC.1-T4N-R63W	TVD Reference:	WELL @ 4559.0ft (Original Well Elev)
Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Well:	Latham R-1	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.1-T4N-R63W, Weld County, Colorado		
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	Latham 43-1 Pad Sec.1-T4N-R63W				
Site Position:		Northing:	1,368,529.49 ft	Latitude:	40.339600
From:	Lat/Long	Easting:	3,312,268.11 ft	Longitude:	-104.379760
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.72 °

Well	Latham R-1					
Well Position	+N/-S	0.0 ft	Northing:	1,368,525.44 ft	Latitude:	40.339590
	+E/-W	0.0 ft	Easting:	3,312,237.49 ft	Longitude:	-104.379870
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,544.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/13/2012	8.51	67.03	53,029

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	316.21	

Survey Program	Date	8/22/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
122.0	6,698.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
122.0	0.80	262.90	122.0	-0.1	-0.8	0.5	0.66	0.66	0.00	
208.0	0.20	0.60	208.0	0.0	-1.4	1.0	0.99	-0.70	113.60	
297.0	0.00	180.10	297.0	0.1	-1.4	1.1	0.22	-0.22	0.00	
389.0	0.40	205.60	389.0	-0.2	-1.6	1.0	0.43	0.43	0.00	
488.0	0.20	322.10	488.0	-0.3	-1.8	1.0	0.53	-0.20	117.68	
611.0	2.80	318.40	610.9	2.1	-4.0	4.2	2.11	2.11	-3.01	
734.0	5.10	318.40	733.6	8.4	-9.6	12.7	1.87	1.87	0.00	
859.0	7.20	311.80	857.9	17.8	-19.1	26.1	1.77	1.68	-5.28	
984.0	9.70	314.20	981.5	30.4	-32.5	44.4	2.02	2.00	1.92	
1,109.0	11.30	316.30	1,104.5	46.6	-48.5	67.2	1.32	1.28	1.68	
1,234.0	11.60	316.50	1,227.0	64.5	-65.6	92.0	0.24	0.24	0.16	
1,360.0	11.70	316.10	1,350.4	82.9	-83.2	117.4	0.10	0.08	-0.32	

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Site:	Latham 43-1 Pad Sec.1-T4N-R63W	MD Reference:	WELL @ 4559.0ft (Original Well Elev)
Well:	Latham R-1	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
1,484.0	11.60	312.60	1,471.8	100.4	-101.1	142.5	0.58	-0.08	-2.82
1,609.0	11.30	313.00	1,594.3	117.3	-119.3	167.2	0.25	-0.24	0.32
1,734.0	10.80	311.80	1,717.0	133.4	-137.0	191.1	0.44	-0.40	-0.96
1,859.0	10.80	316.50	1,839.8	149.7	-153.8	214.5	0.70	0.00	3.76
1,983.0	12.00	322.30	1,961.4	168.4	-169.7	239.0	1.34	0.97	4.68
2,107.0	10.60	320.40	2,082.9	187.3	-184.8	263.1	1.17	-1.13	-1.53
2,231.0	11.50	323.00	2,204.6	206.0	-199.5	286.8	0.83	0.73	2.10
2,356.0	11.40	318.40	2,327.2	225.2	-215.2	311.5	0.73	-0.08	-3.68
2,480.0	10.80	318.40	2,448.8	243.0	-231.1	335.4	0.48	-0.48	0.00
2,605.0	12.30	319.00	2,571.3	261.9	-247.6	360.4	1.20	1.20	0.48
2,730.0	11.80	320.90	2,693.6	281.8	-264.4	386.4	0.51	-0.40	1.52
2,855.0	11.60	318.30	2,816.0	301.1	-280.8	411.7	0.45	-0.16	-2.08
2,981.0	12.50	312.60	2,939.2	319.8	-299.3	438.0	1.18	0.71	-4.52
3,104.0	10.60	310.70	3,059.7	336.2	-317.7	462.5	1.58	-1.54	-1.54
3,230.0	9.40	314.00	3,183.8	350.9	-333.8	484.3	1.06	-0.95	2.62
3,355.0	8.60	323.70	3,307.2	365.5	-346.7	503.8	1.37	-0.64	7.76
3,480.0	10.40	314.90	3,430.5	381.0	-360.2	524.4	1.85	1.44	-7.04
3,605.0	10.80	313.50	3,553.4	397.1	-376.7	547.3	0.38	0.32	-1.12
3,730.0	10.60	313.70	3,676.2	413.1	-393.5	570.5	0.16	-0.16	0.16
3,854.0	10.80	316.70	3,798.1	429.4	-409.8	593.5	0.48	0.16	2.42
3,979.0	10.20	315.60	3,921.0	445.8	-425.5	616.3	0.51	-0.48	-0.88
4,102.0	10.20	316.90	4,042.0	461.6	-440.6	638.1	0.19	0.00	1.06
4,227.0	11.30	315.80	4,164.8	478.4	-456.7	661.4	0.90	0.88	-0.88
4,353.0	10.80	316.70	4,288.5	495.9	-473.4	685.6	0.42	-0.40	0.71
4,478.0	10.30	312.60	4,411.4	512.0	-489.7	708.4	0.72	-0.40	-3.28
4,603.0	12.30	319.30	4,534.0	529.6	-506.6	732.9	1.91	1.60	5.36
4,729.0	11.40	317.20	4,657.3	548.9	-523.8	758.7	0.79	-0.71	-1.67
4,854.0	12.60	318.10	4,779.5	568.1	-541.3	784.7	0.97	0.96	0.72
4,979.0	8.90	314.60	4,902.3	585.1	-557.3	808.0	3.00	-2.96	-2.80
5,103.0	7.80	310.00	5,025.0	597.2	-570.5	826.0	1.04	-0.89	-3.71
5,228.0	5.50	307.20	5,149.2	606.3	-581.8	840.3	1.86	-1.84	-2.24
5,353.0	3.70	307.50	5,273.8	612.4	-589.8	850.2	1.44	-1.44	0.24
5,476.0	2.60	303.00	5,396.6	616.3	-595.3	856.8	0.92	-0.89	-3.66
5,601.0	2.50	321.10	5,521.4	620.0	-599.4	862.3	0.65	-0.08	14.48
5,679.4	1.42	325.82	5,599.8	622.1	-601.0	865.0	1.39	-1.37	6.02
TARGET BHL 2530'FSL, 1353'FEL									
5,726.0	0.80	334.60	5,646.4	622.9	-601.5	865.9	1.39	-1.34	18.85
5,852.0	0.40	344.30	5,772.4	624.1	-601.9	867.1	0.33	-0.32	7.70
5,977.0	0.50	357.30	5,897.4	625.1	-602.1	867.9	0.11	0.08	10.40
6,102.0	0.40	63.00	6,022.4	625.8	-601.7	868.2	0.40	-0.08	52.56
6,227.0	0.40	61.00	6,147.4	626.2	-601.0	867.9	0.01	0.00	-1.60
6,283.6	0.30	35.63	6,204.0	626.4	-600.7	867.9	0.32	-0.18	-44.81
TARGET CIRCLE 2530'FSL & 1353'FEL									
6,352.0	0.30	352.00	6,272.4	626.8	-600.6	868.1	0.32	0.01	-63.80
6,478.0	0.40	71.80	6,398.4	627.2	-600.3	868.2	0.36	0.08	63.33
6,652.0	0.20	39.30	6,572.4	627.6	-599.5	867.9	0.15	-0.11	-18.68
6,698.0	0.20	39.30	6,618.4	627.8	-599.4	868.0	0.00	0.00	0.00

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Checked By: _____ Approved By: _____ Date: _____