

# BONANZA CREEK ENERGY OPERATING

Well Name: **Latham P-T-1HZ**

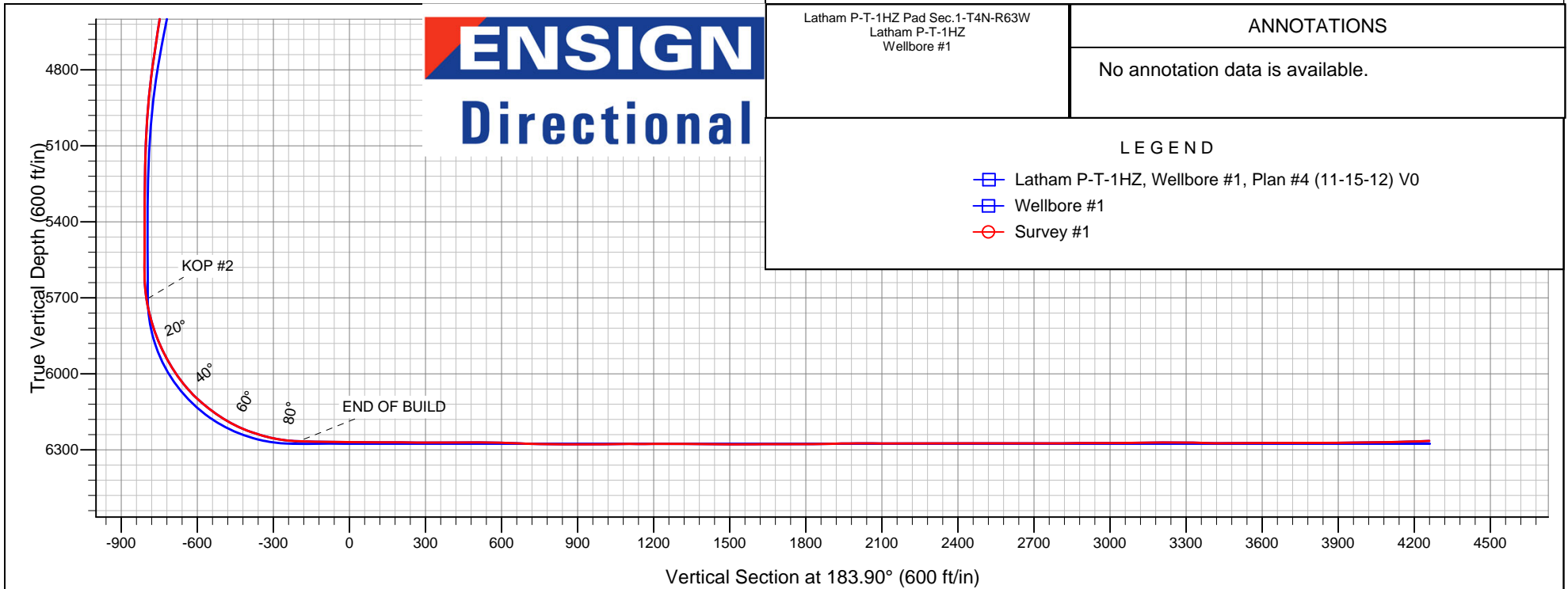
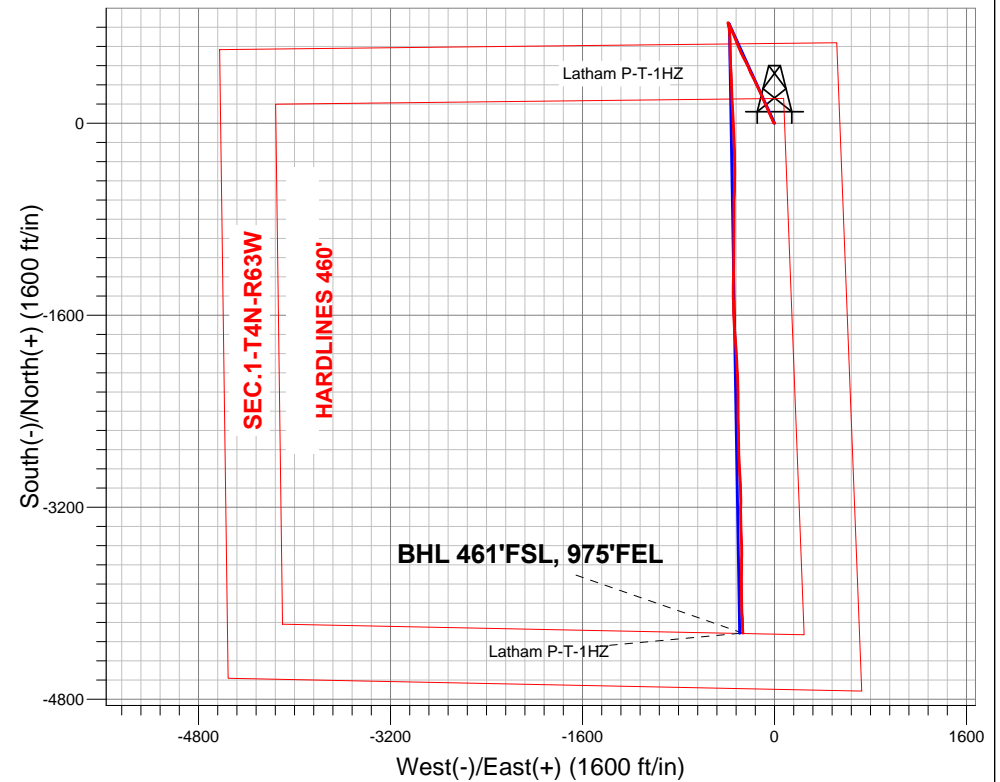
Surface Location: Latham P-T-1HZ Pad Sec.1-T4N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4545.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1371317.36	3312333.24	40.347250	-104.379400	
KB ENSIGN 132 13' RKB @ 4558.0ft (KB ENSIGN 132 13')						

## FINAL SURVEY

Projected Bottom Hole Location  
11180' MD 6266' TVD 4250' S & 264' W of  
SHL  
91.8 degree Incl @ 177.4 degree AZM





## **Directional**

# **BONANZA CREEK ENERGY OPERATING**

**SEC.1-T4N-R63W**

**Latham P-T-1HZ Pad Sec.1-T4N-R63W**

**Latham P-T-1HZ**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**06 December, 2012**



<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham P-T-1HZ
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Site:</b>	Latham P-T-1HZ Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Well:</b>	Latham P-T-1HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
833.0	4.10	336.30	832.8	8.9	-9.3	-8.2	1.77	1.77	0.83
928.0	6.20	336.00	927.4	16.7	-12.7	-15.8	2.21	2.21	-0.32
1,023.0	8.40	336.00	1,021.6	27.7	-17.6	-26.5	2.32	2.32	0.00
1,114.0	10.60	336.20	1,111.3	41.5	-23.7	-39.7	2.42	2.42	0.22
1,206.0	12.40	337.60	1,201.5	58.3	-30.9	-56.1	1.98	1.96	1.52
1,297.0	13.20	336.00	1,290.2	76.9	-38.8	-74.0	0.96	0.88	-1.76
1,388.0	13.60	336.50	1,378.8	96.2	-47.3	-92.7	0.46	0.44	0.55
1,480.0	13.40	335.80	1,468.2	115.8	-56.0	-111.7	0.28	-0.22	-0.76
1,572.0	13.00	335.30	1,557.8	134.9	-64.7	-130.2	0.45	-0.43	-0.54
1,664.0	12.50	335.50	1,647.5	153.4	-73.2	-148.1	0.55	-0.54	0.22
1,754.0	12.00	336.90	1,735.5	170.9	-80.9	-165.0	0.65	-0.56	1.56
1,845.0	11.70	336.70	1,824.5	188.0	-88.2	-181.6	0.33	-0.33	-0.22
1,939.0	12.00	334.10	1,916.5	205.6	-96.3	-198.5	0.65	0.32	-2.77
2,033.0	12.80	334.20	2,008.3	223.7	-105.1	-216.1	0.85	0.85	0.11
2,127.0	12.80	334.40	2,100.0	242.5	-114.1	-234.2	0.05	0.00	0.21
2,221.0	13.10	337.40	2,191.6	261.7	-122.7	-252.8	0.78	0.32	3.19
2,315.0	12.70	337.60	2,283.2	281.1	-130.7	-271.6	0.43	-0.43	0.21
2,409.0	13.40	336.21	2,374.8	300.6	-139.1	-290.5	0.82	0.74	-1.48
2,503.0	13.50	332.80	2,466.2	320.4	-148.5	-309.5	0.85	0.11	-3.63
2,597.0	14.10	333.90	2,557.5	340.4	-158.5	-328.8	0.70	0.64	1.17
2,690.0	14.80	333.70	2,647.6	361.2	-168.8	-348.9	0.75	0.75	-0.22
2,783.0	14.90	333.00	2,737.5	382.5	-179.5	-369.4	0.22	0.11	-0.75
2,877.0	13.50	334.80	2,828.6	403.2	-189.6	-389.4	1.56	-1.49	1.91
2,971.0	13.20	334.20	2,920.0	422.8	-199.0	-408.3	0.35	-0.32	-0.64
3,062.0	11.70	337.00	3,008.9	440.7	-207.1	-425.6	1.78	-1.65	3.08
3,156.0	10.70	337.60	3,101.1	457.5	-214.1	-441.9	1.07	-1.06	0.64
3,247.0	11.10	333.90	3,190.5	473.2	-221.2	-457.0	0.89	0.44	-4.07
3,343.0	12.20	334.10	3,284.5	490.6	-229.7	-473.8	1.15	1.15	0.21
3,437.0	13.50	334.20	3,376.1	509.4	-238.8	-492.0	1.38	1.38	0.11
3,531.0	14.90	333.00	3,467.3	530.1	-249.1	-511.9	1.52	1.49	-1.28
3,624.0	15.70	331.20	3,557.0	551.7	-260.6	-532.7	1.00	0.86	-1.94
3,716.0	15.00	333.50	3,645.7	573.3	-271.9	-553.5	1.01	-0.76	2.50
3,810.0	14.80	336.30	3,736.5	595.2	-282.1	-574.6	0.79	-0.21	2.98
3,904.0	14.50	336.20	3,827.5	617.0	-291.7	-595.7	0.32	-0.32	-0.11
3,996.0	13.00	338.30	3,916.8	637.1	-300.2	-615.2	1.72	-1.63	2.28
4,090.0	13.70	338.30	4,008.3	657.3	-308.2	-634.8	0.74	0.74	0.00
4,184.0	14.20	337.90	4,099.5	678.3	-316.7	-655.2	0.54	0.53	-0.43
4,277.0	13.90	338.50	4,189.7	699.3	-325.0	-675.5	0.36	-0.32	0.65
4,369.0	12.70	336.90	4,279.3	718.8	-333.1	-694.5	1.36	-1.30	-1.74
4,463.0	11.30	337.00	4,371.2	736.8	-340.7	-711.9	1.49	-1.49	0.11
4,557.0	10.70	337.00	4,463.5	753.3	-347.7	-727.9	0.64	-0.64	0.00
4,650.0	9.70	336.00	4,555.0	768.4	-354.3	-742.6	1.09	-1.08	-1.08
4,744.0	9.20	336.70	4,647.7	782.6	-360.5	-756.2	0.55	-0.53	0.74
4,838.0	9.50	335.50	4,740.5	796.5	-366.7	-769.7	0.38	0.32	-1.28
4,932.0	8.10	335.60	4,833.4	809.6	-372.6	-782.4	1.49	-1.49	0.11
5,026.0	5.80	335.60	4,926.7	820.0	-377.3	-792.4	2.45	-2.45	0.00
5,120.0	4.10	336.20	5,020.3	827.4	-380.6	-799.6	1.81	-1.81	0.64
5,213.0	2.60	327.60	5,113.2	832.2	-383.1	-804.2	1.70	-1.61	-9.25
5,307.0	1.10	314.90	5,207.1	834.6	-384.9	-806.5	1.64	-1.60	-13.51
5,401.0	0.50	287.70	5,301.1	835.4	-385.9	-807.2	0.74	-0.64	-28.94
5,494.0	0.70	295.00	5,394.1	835.8	-386.8	-807.5	0.23	0.22	7.85
5,588.0	0.80	318.80	5,488.1	836.5	-387.8	-808.2	0.35	0.11	25.32
5,651.0	0.40	316.10	5,551.1	837.0	-388.2	-808.6	0.64	-0.63	-4.29
5,682.0	0.40	298.50	5,582.1	837.1	-388.4	-808.8	0.39	0.00	-56.77

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham P-T-1HZ
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Site:</b>	Latham P-T-1HZ Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Well:</b>	Latham P-T-1HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
5,713.0	1.20	185.80	5,613.1	836.9	-388.5	-808.5	4.53	2.58	-363.55
5,744.0	3.60	171.20	5,644.1	835.6	-388.4	-807.2	7.93	7.74	-47.10
5,776.0	6.60	166.10	5,675.9	832.8	-387.8	-804.5	9.47	9.38	-15.94
5,807.0	9.40	166.10	5,706.6	828.6	-386.8	-800.4	9.03	9.03	0.00
5,838.0	12.40	165.00	5,737.1	822.9	-385.3	-794.8	9.70	9.68	-3.55
5,870.0	14.90	166.10	5,768.2	815.6	-383.4	-787.6	7.85	7.81	3.44
5,901.0	17.00	167.50	5,798.0	807.3	-381.5	-779.5	6.89	6.77	4.52
5,933.0	19.30	169.80	5,828.4	797.6	-379.5	-769.9	7.53	7.19	7.19
5,964.0	21.80	171.40	5,857.4	786.8	-377.8	-759.3	8.26	8.06	5.16
5,995.0	24.20	174.00	5,885.9	774.8	-376.2	-747.4	8.41	7.74	8.39
6,027.0	26.70	175.50	5,914.8	761.1	-375.0	-733.8	8.07	7.81	4.69
6,058.0	28.80	175.80	5,942.2	746.7	-373.9	-719.5	6.79	6.77	0.97
6,089.0	31.20	176.50	5,969.1	731.3	-372.9	-704.2	7.82	7.74	2.26
6,121.0	33.90	177.40	5,996.1	714.1	-371.9	-687.1	8.57	8.44	2.81
6,152.0	36.90	179.30	6,021.3	696.1	-371.4	-669.2	10.31	9.68	6.13
6,184.0	39.90	178.80	6,046.4	676.2	-371.1	-649.4	9.43	9.38	-1.56
6,215.0	42.80	178.60	6,069.7	655.8	-370.6	-629.0	9.36	9.35	-0.65
6,246.0	45.80	177.60	6,091.9	634.1	-369.9	-607.5	9.94	9.68	-3.23
6,278.0	49.20	178.30	6,113.5	610.6	-369.1	-584.0	10.75	10.63	2.19
6,309.0	52.30	179.30	6,133.1	586.6	-368.6	-560.1	10.31	10.00	3.23
6,340.0	54.30	178.80	6,151.6	561.7	-368.2	-535.4	6.58	6.45	-1.61
6,372.0	57.00	179.30	6,169.7	535.3	-367.7	-509.0	8.54	8.44	1.56
6,403.0	59.70	178.10	6,185.9	508.9	-367.1	-482.8	9.31	8.71	-3.87
6,434.0	62.50	177.60	6,200.9	481.8	-366.1	-455.8	9.14	9.03	-1.61
6,465.0	66.20	176.70	6,214.3	453.9	-364.7	-428.0	12.22	11.94	-2.90
6,497.0	70.00	177.40	6,226.3	424.3	-363.2	-398.6	12.05	11.88	2.19
6,528.0	72.70	176.70	6,236.2	394.9	-361.7	-369.4	8.97	8.71	-2.26
6,559.0	73.90	177.00	6,245.1	365.3	-360.1	-339.9	3.98	3.87	0.97
6,590.0	77.20	178.30	6,252.8	335.3	-358.8	-310.1	11.39	10.65	4.19
6,621.0	80.90	179.50	6,258.7	304.9	-358.2	-279.8	12.53	11.94	3.87
6,652.0	83.50	177.40	6,262.9	274.2	-357.4	-249.2	10.74	8.39	-6.77
6,683.0	86.20	177.90	6,265.7	243.3	-356.1	-218.5	8.86	8.71	1.61
6,714.0	88.30	178.10	6,267.2	212.4	-355.1	-187.7	6.80	6.77	0.65
6,725.8	88.72	177.64	6,267.5	200.6	-354.6	-176.0	5.25	3.55	-3.87
<b>T1 460°FNL, 900°FEL</b>									
6,745.0	89.40	176.90	6,267.8	181.4	-353.7	-156.9	5.25	3.55	-3.87
6,776.0	89.30	176.50	6,268.2	150.5	-351.9	-126.2	1.33	-0.32	-1.29
6,807.0	89.10	176.50	6,268.6	119.5	-350.0	-95.4	0.65	-0.65	0.00
6,838.0	88.80	177.90	6,269.2	88.6	-348.5	-64.7	4.62	-0.97	4.52
6,862.0	88.80	176.70	6,269.7	64.6	-347.4	-40.8	5.00	0.00	-5.00
6,923.0	89.60	177.00	6,270.5	3.7	-344.0	19.7	1.40	1.31	0.49
6,954.0	90.00	177.70	6,270.6	-27.3	-342.6	50.5	2.60	1.29	2.26
6,985.0	90.60	176.90	6,270.5	-58.2	-341.1	81.3	3.23	1.94	-2.58
7,016.0	89.50	177.00	6,270.4	-89.2	-339.5	112.1	3.56	-3.55	0.32
7,045.0	89.60	177.20	6,270.7	-118.1	-338.0	140.9	0.77	0.34	0.69
7,077.0	90.10	177.20	6,270.7	-150.1	-336.5	172.7	1.56	1.56	0.00
7,108.0	89.10	179.30	6,271.0	-181.1	-335.5	203.5	7.50	-3.23	6.77
7,139.0	89.30	179.30	6,271.4	-212.1	-335.1	234.4	0.65	0.65	0.00
7,170.0	89.70	178.60	6,271.7	-243.1	-334.6	265.3	2.60	1.29	-2.26
7,201.0	90.40	179.30	6,271.6	-274.1	-334.0	296.2	3.19	2.26	2.26
7,232.0	90.00	178.80	6,271.5	-305.1	-333.5	327.1	2.07	-1.29	-1.61
7,263.0	90.30	179.30	6,271.4	-336.1	-333.0	357.9	1.88	0.97	1.61
7,295.0	89.90	179.90	6,271.4	-368.1	-332.8	389.9	2.25	-1.25	1.88
7,326.0	89.40	179.70	6,271.6	-399.1	-332.6	420.8	1.74	-1.61	-0.65

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<b>Well:</b>	Latham P-T-1HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

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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)	
7,357.0	89.80	180.00	6,271.8	-430.1	-332.6	451.7	1.61	1.29	0.97	
7,388.0	90.70	180.40	6,271.7	-461.1	-332.7	482.6	3.18	2.90	1.29	
7,419.0	90.00	180.90	6,271.5	-492.1	-333.0	513.6	2.77	-2.26	1.61	
7,450.0	90.20	181.40	6,271.4	-523.1	-333.6	544.5	1.74	0.65	1.61	
7,481.0	89.10	182.00	6,271.6	-554.0	-334.6	575.5	4.04	-3.55	1.94	
7,512.0	88.00	180.70	6,272.4	-585.0	-335.3	606.5	5.49	-3.55	-4.19	
7,544.0	87.80	181.40	6,273.6	-617.0	-335.9	638.4	2.27	-0.63	2.19	
7,575.0	87.90	181.30	6,274.7	-648.0	-336.6	669.4	0.46	0.32	-0.32	
7,606.0	88.00	180.50	6,275.8	-678.9	-337.1	700.3	2.60	0.32	-2.58	
7,637.0	88.60	180.70	6,276.8	-709.9	-337.4	731.2	2.04	1.94	0.65	
7,684.0	89.20	180.90	6,277.7	-756.9	-338.1	778.2	1.35	1.28	0.43	
7,731.0	89.50	179.80	6,278.2	-803.9	-338.4	825.1	2.43	0.64	-2.34	
7,763.0	89.60	179.80	6,278.4	-835.9	-338.3	857.0	0.31	0.31	0.00	
7,794.0	89.20	179.10	6,278.8	-866.9	-338.0	887.9	2.60	-1.29	-2.26	
7,824.0	89.80	180.00	6,279.0	-896.9	-337.7	917.8	3.61	2.00	3.00	
7,854.0	90.90	179.80	6,278.8	-926.9	-337.7	947.7	3.73	3.67	-0.67	
7,886.0	91.30	179.70	6,278.2	-958.9	-337.5	979.6	1.29	1.25	-0.31	
7,917.0	90.70	180.70	6,277.7	-989.9	-337.6	1,010.6	3.76	-1.94	3.23	
7,948.0	91.40	180.50	6,277.1	-1,020.9	-338.0	1,041.5	2.35	2.26	-0.65	
7,979.0	90.10	180.70	6,276.7	-1,051.9	-338.3	1,072.4	4.24	-4.19	0.65	
8,011.0	89.20	180.20	6,276.9	-1,083.9	-338.5	1,104.4	3.22	-2.81	-1.56	
8,042.0	89.80	182.00	6,277.2	-1,114.9	-339.1	1,135.3	6.12	1.94	5.81	
8,073.0	90.70	180.50	6,277.0	-1,145.9	-339.8	1,166.3	5.64	2.90	-4.84	
8,104.0	90.50	181.30	6,276.7	-1,176.8	-340.3	1,197.3	2.66	-0.65	2.58	
8,135.0	89.60	181.30	6,276.7	-1,207.8	-341.0	1,228.2	2.90	-2.90	0.00	
8,165.0	89.40	181.40	6,277.0	-1,237.8	-341.7	1,258.2	0.75	-0.67	0.33	
8,197.0	89.10	181.30	6,277.4	-1,269.8	-342.5	1,290.2	0.99	-0.94	-0.31	
8,227.0	89.90	180.40	6,277.6	-1,299.8	-342.9	1,320.1	4.01	2.67	-3.00	
8,259.0	90.70	181.30	6,277.5	-1,331.8	-343.4	1,352.1	3.76	2.50	2.81	
8,290.0	90.40	180.00	6,277.2	-1,362.8	-343.7	1,383.0	4.30	-0.97	-4.19	
8,321.0	89.10	179.80	6,277.3	-1,393.8	-343.7	1,414.0	4.24	-4.19	-0.65	
8,353.0	89.20	179.50	6,277.8	-1,425.8	-343.5	1,445.9	0.99	0.31	-0.94	
8,384.0	89.30	178.80	6,278.2	-1,456.8	-343.0	1,476.8	2.28	0.32	-2.26	
8,415.0	89.30	179.50	6,278.6	-1,487.8	-342.6	1,507.6	2.26	0.00	2.26	
8,446.0	89.30	178.10	6,278.9	-1,518.8	-341.9	1,538.5	4.52	0.00	-4.52	
8,477.0	90.40	177.90	6,279.0	-1,549.8	-340.8	1,569.4	3.61	3.55	-0.65	
8,508.0	91.30	179.70	6,278.6	-1,580.7	-340.2	1,600.2	6.49	2.90	5.81	
8,538.0	90.70	178.80	6,278.0	-1,610.7	-339.8	1,630.1	3.61	-2.00	-3.00	
8,569.0	89.40	176.50	6,278.0	-1,641.7	-338.5	1,660.9	8.52	-4.19	-7.42	
8,601.0	90.50	176.50	6,278.0	-1,673.6	-336.6	1,692.7	3.44	3.44	0.00	
8,632.0	90.30	176.70	6,277.8	-1,704.6	-334.7	1,723.4	0.91	-0.65	0.65	
8,663.0	89.70	175.50	6,277.8	-1,735.5	-332.6	1,754.1	4.33	-1.94	-3.87	
8,694.0	89.50	174.20	6,278.0	-1,766.4	-329.8	1,784.7	4.24	-0.65	-4.19	
8,725.0	90.20	176.30	6,278.1	-1,797.3	-327.3	1,815.4	7.14	2.26	6.77	
8,757.0	91.50	175.70	6,277.7	-1,829.2	-325.0	1,847.1	4.47	4.06	-1.88	
8,788.0	92.00	175.80	6,276.7	-1,860.1	-322.7	1,877.7	1.64	1.61	0.32	
8,819.0	90.70	176.00	6,276.0	-1,891.0	-320.5	1,908.4	4.24	-4.19	0.65	
8,851.0	90.70	176.00	6,275.6	-1,922.9	-318.3	1,940.1	0.00	0.00	0.00	
8,882.0	90.60	177.20	6,275.2	-1,953.9	-316.5	1,970.9	3.88	-0.32	3.87	
8,913.0	90.70	176.50	6,274.9	-1,984.8	-314.7	2,001.6	2.28	0.32	-2.26	
8,944.0	89.30	177.00	6,274.9	-2,015.8	-313.0	2,032.4	4.80	-4.52	1.61	
8,976.0	89.70	177.20	6,275.2	-2,047.7	-311.4	2,064.2	1.40	1.25	0.63	
9,007.0	89.80	177.40	6,275.3	-2,078.7	-309.9	2,095.0	0.72	0.32	0.65	
9,038.0	89.30	176.90	6,275.5	-2,109.7	-308.4	2,125.8	2.28	-1.61	-1.61	

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham P-T-1HZ
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Site:</b>	Latham P-T-1HZ Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Well:</b>	Latham P-T-1HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
9,070.0	90.00	178.30	6,275.7	-2,141.6	-307.0	2,157.6	4.89	2.19	4.38
9,101.0	90.90	177.70	6,275.5	-2,172.6	-305.9	2,188.4	3.49	2.90	-1.94
9,133.0	89.60	178.10	6,275.4	-2,204.6	-304.8	2,220.2	4.25	-4.06	1.25
9,164.0	89.70	178.60	6,275.5	-2,235.6	-303.9	2,251.1	1.64	0.32	1.61
9,195.0	90.00	179.80	6,275.6	-2,266.6	-303.5	2,282.0	3.99	0.97	3.87
9,227.0	91.30	179.80	6,275.3	-2,298.6	-303.3	2,313.9	4.06	4.06	0.00
9,258.0	89.50	180.20	6,275.0	-2,329.6	-303.3	2,344.8	5.95	-5.81	1.29
9,289.0	90.00	180.70	6,275.2	-2,360.6	-303.6	2,375.7	2.28	1.61	1.61
9,321.0	90.80	181.10	6,275.0	-2,392.6	-304.1	2,407.7	2.80	2.50	1.25
9,352.0	89.50	178.30	6,274.9	-2,423.6	-303.9	2,438.6	9.96	-4.19	-9.03
9,383.0	90.00	179.10	6,275.0	-2,454.5	-303.2	2,469.5	3.04	1.61	2.58
9,413.0	90.90	179.00	6,274.8	-2,484.5	-302.7	2,499.4	3.02	3.00	-0.33
9,445.0	89.60	178.40	6,274.6	-2,516.5	-302.0	2,531.2	4.47	-4.06	-1.88
9,476.0	90.00	179.10	6,274.7	-2,547.5	-301.3	2,562.1	2.60	1.29	2.26
9,507.0	90.90	180.40	6,274.5	-2,578.5	-301.2	2,593.0	5.10	2.90	4.19
9,538.0	90.30	177.60	6,274.2	-2,609.5	-300.6	2,623.9	9.24	-1.94	-9.03
9,570.0	89.30	179.30	6,274.3	-2,641.5	-299.8	2,655.8	6.16	-3.13	5.31
9,602.0	89.30	178.80	6,274.7	-2,673.5	-299.2	2,687.7	1.56	0.00	-1.56
9,633.0	90.00	179.30	6,274.9	-2,704.5	-298.7	2,718.5	2.77	2.26	1.61
9,664.0	90.30	178.60	6,274.8	-2,735.5	-298.2	2,749.4	2.46	0.97	-2.26
9,695.0	89.90	177.40	6,274.7	-2,766.5	-297.1	2,780.3	4.08	-1.29	-3.87
9,726.0	90.40	177.40	6,274.6	-2,797.4	-295.7	2,811.1	1.61	1.61	0.00
9,758.0	90.90	179.30	6,274.3	-2,829.4	-294.8	2,842.9	6.14	1.56	5.94
9,789.0	90.70	177.00	6,273.9	-2,860.4	-293.8	2,873.7	7.45	-0.65	-7.42
9,820.0	90.20	176.30	6,273.6	-2,891.3	-291.9	2,904.5	2.77	-1.61	-2.26
9,852.0	90.20	176.90	6,273.5	-2,923.3	-290.0	2,936.2	1.87	0.00	1.88
9,883.0	90.10	176.20	6,273.4	-2,954.2	-288.2	2,967.0	2.28	-0.32	-2.26
9,914.0	90.30	175.80	6,273.3	-2,985.1	-286.0	2,997.7	1.44	0.65	-1.29
9,946.0	90.50	176.50	6,273.1	-3,017.1	-283.9	3,029.4	2.27	0.63	2.19
9,977.0	90.00	178.30	6,272.9	-3,048.0	-282.5	3,060.2	6.03	-1.61	5.81
10,024.0	90.30	180.40	6,272.8	-3,095.0	-281.9	3,107.0	4.51	0.64	4.47
10,071.0	91.20	180.40	6,272.2	-3,142.0	-282.3	3,154.0	1.91	1.91	0.00
10,118.0	91.20	180.20	6,271.2	-3,189.0	-282.5	3,200.8	0.43	0.00	-0.43
10,165.0	89.30	179.10	6,271.0	-3,236.0	-282.2	3,247.7	4.67	-4.04	-2.34
10,212.0	88.50	179.30	6,271.9	-3,283.0	-281.6	3,294.5	1.75	-1.70	0.43
10,259.0	88.60	177.90	6,273.1	-3,330.0	-280.4	3,341.3	2.99	0.21	-2.98
10,306.0	89.30	178.40	6,274.0	-3,376.9	-278.9	3,388.1	1.83	1.49	1.06
10,353.0	90.30	178.60	6,274.1	-3,423.9	-277.7	3,434.9	2.17	2.13	0.43
10,400.0	90.20	177.60	6,273.9	-3,470.9	-276.1	3,481.6	2.14	-0.21	-2.13
10,447.0	90.20	177.70	6,273.8	-3,517.9	-274.2	3,528.4	0.21	0.00	0.21
10,494.0	90.40	180.40	6,273.5	-3,564.8	-273.4	3,575.2	5.76	0.43	5.74
10,542.0	89.90	181.10	6,273.4	-3,612.8	-274.0	3,623.1	1.79	-1.04	1.46
10,589.0	90.40	180.00	6,273.3	-3,659.8	-274.5	3,670.0	2.57	1.06	-2.34
10,635.0	90.10	179.50	6,273.1	-3,705.8	-274.3	3,715.9	1.27	-0.65	-1.09
10,682.0	89.60	181.60	6,273.2	-3,752.8	-274.7	3,762.8	4.59	-1.06	4.47
10,729.0	90.70	181.60	6,273.1	-3,799.8	-276.0	3,809.8	2.34	2.34	0.00
10,776.0	90.40	180.70	6,272.6	-3,846.8	-277.0	3,856.7	2.02	-0.64	-1.91
10,822.0	89.90	178.10	6,272.5	-3,892.8	-276.5	3,902.6	5.76	-1.09	-5.65
10,869.0	90.40	178.10	6,272.4	-3,939.8	-274.9	3,949.3	1.06	1.06	0.00
10,915.0	91.20	178.80	6,271.7	-3,985.7	-273.7	3,995.1	2.31	1.74	1.52
10,962.0	90.70	178.30	6,271.0	-4,032.7	-272.5	4,041.9	1.50	-1.06	-1.06
11,008.0	91.00	177.40	6,270.3	-4,078.7	-270.8	4,087.7	2.06	0.65	-1.96
11,055.0	91.50	178.10	6,269.2	-4,125.6	-268.9	4,134.4	1.83	1.06	1.49
11,102.0	91.60	178.10	6,268.0	-4,172.6	-267.4	4,181.1	0.21	0.21	0.00

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Latham P-T-1HZ
<b>Project:</b>	SEC.1-T4N-R63W	<b>TVD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Site:</b>	Latham P-T-1HZ Pad Sec.1-T4N-R63W	<b>MD Reference:</b>	RKB @ 4558.0ft (KB ENSIGN 132 13')
<b>Well:</b>	Latham P-T-1HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
11,129.0	91.80	177.40	6,267.2	-4,199.6	-266.3	4,207.9	2.70	0.74	-2.59
11,179.5	91.80	177.40	6,265.6	-4,250.0	-264.0	4,258.1	0.00	0.00	0.00
<b>BHL 460'FSL, 1000'FEL</b>									
11,180.0	91.80	177.40	6,265.6	-4,250.5	-264.0	4,258.6	0.00	0.00	0.00

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_