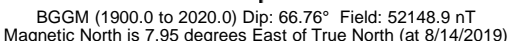


Location:	COLORADO	Slot:	SLOT#12 LATHAM P-T-14HNC (359FNL & 453FEL,SEC.14)
Field:	WELD COUNTY (NAD83/TRUE)	Well:	LATHAM P-T-14HNC
Facility:	SEC.14-T04N-R63W	Wellbore:	LATHAM P-T-14HNC ST01 PWB
Plot reference wellpath is LATHAM P-T-14HNC ST01 (REV-B.0) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	
True vertical depths are referenced to AKITA 519 (4603.3'GL+17KB @ 4620.3') (RKB)		North Reference: True north	
Measured depths are referenced to AKITA 519 (4603.3'GL+17KB @ 4620.3') (RKB)		Scale: True distance	
AKITA 519 (4603.3'GL+17KB @ 4620.3') (RKB) to Mean Sea Level: 4620.3 feet		Depths are in feet	
Mean Sea Level to Ground level (At Slot: SLOT#12 LATHAM P-T-14HNC (359FNL & 453FEL,SEC.14)): 0 feet		Created by: hmanisab on 2019-08-19	
Coordinates are in feet referenced to Slot		Database: WA DENVER	

Survey Program					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1572.00	BHI NavTrak	BHI NavTrak (Rotating)	BHI NAVITRAK MWD 13.5' (ROTATING)<124-1572>	LATHAM P-T-14HNC AWB
1572.00	3874.00	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)	BHI ATC 8.5' (SHORT)<1674'-4401'>	LATHAM P-T-14HNC AWB
3874.00	11413.95	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		LATHAM P-T-14HNC ST01 PWB

Targets								
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
LATHAM P-T-14HNC BHL PLAT (470FSL & 1278FEL SEC.14)		6410.00	-4460.44	-792.59	3306681.74	1356496.92	40°18'24.352"N	104°24'01.202"W
LATHAM P-T-14HNC BHL REV-1 (470FSL & 1278FEL SEC.14)	11413.95	6410.00	-4460.44	-792.59	3306681.74	1356496.92	40°18'24.352"N	104°24'01.202"W
LATHAM P-T-14HNC LP PLAT (260FNL & 1285FEL SEC.14)		6410.00	81.76	-832.80	3306585.07	1361038.06	40°19'09.237"N	104°24'01.723"W
LATHAM P-T-14HNC LP REV-1 (260FNL & 1285FEL SEC.14)	6871.57	6410.00	81.76	-832.80	3306585.07	1361038.06	40°19'09.237"N	104°24'01.723"W
SEC.14-T04N-R63W (470FSL-260FOL)		16619.30	-224.05	-2177.19	3305269.76	1356894.84	40°18'46.243"N	104°24'19.076"W
SEC.14-T04N-R63W		16620.30	-2324.01	-2176.00	3305271.94	1356815.06	40°18'45.463"N	104°24'18.061"W



To correct azimuth from Magnetic to True add 7.95 degrees

BAKER HUGHES
a GE company



 **BONANZA CREEK**

Scale 1 inch = 500

Easting (ft)

SEC.14 TOWN R63W (470'FSL, 260'FOL)

LATHAM P-T-14HNC LP REV-1 (260'FNL & 1285'FEL, SEC.14)

LATHAM P-T-14HNC BHL REV-1 (470'FSL & 1278'FEL, SEC.14)

Slot#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)

Northing (ft)



Planned Wellpath Report

LATHAM P-T-14HNC ST01 (REV-B.0) PWP

Page 1 of 3



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL,SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-T-14HNC ST01 PWB
Facility	SEC.14-T04N-R63W	Sidetrack from	LATHAM P-T-14HNC AWP at 3874.00 MD

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Hanisab
Scale	0.999958	Report Generated	8/19/2019 at 10:35:45 AM
Convergence at slot	0.71° East	Database/Source file	WA DENVER/LATHAM_P-T-14HNC_ST01_REV-B.0_PWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-171.20	-272.47	3307418.78	1360966.67	40°19'08.429"N	104°23'50.972"W
Facility Reference Pt			3307689.09	1361141.24	40°19'10.121"N	104°23'47.454"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

WELLPATH DATUM			
Calculation method	Minimum curvature	AKITA 519 (4603.3'GL+17'KB@4620.3') (RKB) to Facility Vertical Datum	4620.30ft
Horizontal Reference Pt	Slot	AKITA 519 (4603.3'GL+17'KB@4620.3') (RKB) to Mean Sea Level	4620.30ft
Vertical Reference Pt	AKITA 519 (4603.3'GL+17'KB@4620.3') (RKB)	AKITA 519 (4603.3'GL+17'KB@4620.3') (RKB) to Ground Level at Slot (SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL,SEC.14))	4620.30ft
MD Reference Pt	AKITA 519 (4603.3'GL+17'KB@4620.3') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	190.08°



Planned Wellpath Report

LATHAM P-T-14HNC ST01 (REV-B.0) PWP

Page 2 of 3



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL,SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-T-14HNC ST01 PWB
Facility	SEC.14-T04N-R63W	Sidetrack from	LATHAM P-T-14HNC AWP at 3874.00 MD

WELLPATH DATA (132 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	294.740	0.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
17.00	0.000	294.740	17.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
124.00	0.410	294.740	124.00	-0.10	0.16	-0.35	40°19'08.431"N	104°23'50.976"W	0.38	
299.00	0.480	359.020	298.99	-0.97	1.16	-0.93	40°19'08.441"N	104°23'50.984"W	0.27	
474.00	0.240	324.590	473.99	-1.95	2.19	-1.15	40°19'08.451"N	104°23'50.986"W	0.18	
560.00	0.250	50.380	559.99	-2.22	2.45	-1.11	40°19'08.453"N	104°23'50.986"W	0.39	
648.00	0.100	60.510	647.99	-2.42	2.61	-0.90	40°19'08.455"N	104°23'50.983"W	0.17	
737.00	0.370	43.370	736.99	-2.71	2.86	-0.63	40°19'08.457"N	104°23'50.980"W	0.31	
910.00	0.140	178.370	909.99	-2.97	3.06	-0.24	40°19'08.459"N	104°23'50.975"W	0.28	
998.00	0.250	226.130	997.99	-2.71	2.81	-0.38	40°19'08.457"N	104°23'50.977"W	0.21	
1085.00	0.160	277.370	1084.99	-2.55	2.70	-0.64	40°19'08.456"N	104°23'50.980"W	0.22	
1261.00	0.280	219.180	1260.99	-2.16	2.40	-1.15	40°19'08.453"N	104°23'50.986"W	0.14	
1438.00	0.340	301.900	1437.98	-1.98	2.34	-1.87	40°19'08.452"N	104°23'50.996"W	0.23	
1482.00	0.280	310.100	1481.98	-2.08	2.48	-2.06	40°19'08.454"N	104°23'50.998"W	0.17	
1572.00	0.130	170.270	1571.98	-2.09	2.52	-2.22	40°19'08.454"N	104°23'51.000"W	0.43	
1674.00	0.670	29.990	1673.98	-2.54	2.92	-1.90	40°19'08.458"N	104°23'50.996"W	0.76	
1763.00	0.830	48.620	1762.97	-3.54	3.80	-1.15	40°19'08.467"N	104°23'50.986"W	0.33	
1850.00	1.730	353.520	1849.95	-5.29	5.52	-0.83	40°19'08.484"N	104°23'50.982"W	1.64	
1939.00	4.200	335.020	1938.83	-9.25	9.81	-2.36	40°19'08.526"N	104°23'51.002"W	2.94	
2026.00	8.670	307.220	2025.28	-14.85	16.67	-8.93	40°19'08.594"N	104°23'51.087"W	6.12	
2114.00	10.670	302.120	2112.02	-20.93	25.01	-21.11	40°19'08.676"N	104°23'51.244"W	2.47	
2202.00	11.880	304.950	2198.33	-27.80	34.53	-35.44	40°19'08.770"N	104°23'51.429"W	1.51	
2290.00	13.620	309.380	2284.15	-36.68	46.30	-50.87	40°19'08.887"N	104°23'51.628"W	2.27	
2378.00	14.850	309.240	2369.45	-47.25	60.01	-67.62	40°19'09.022"N	104°23'51.845"W	1.40	
2467.00	14.560	309.510	2455.54	-58.31	74.34	-85.08	40°19'09.164"N	104°23'52.070"W	0.33	
2554.00	14.650	309.640	2539.72	-69.11	88.31	-101.99	40°19'09.302"N	104°23'52.288"W	0.11	
2642.00	14.660	311.830	2624.86	-80.46	102.84	-118.86	40°19'09.445"N	104°23'52.506"W	0.63	
2729.00	14.620	312.560	2709.04	-92.15	117.61	-135.15	40°19'09.591"N	104°23'52.716"W	0.22	
2816.00	14.350	313.160	2793.27	-103.93	132.41	-151.10	40°19'09.738"N	104°23'52.922"W	0.36	
2905.00	14.920	313.930	2879.38	-116.34	147.90	-167.39	40°19'09.891"N	104°23'53.133"W	0.68	
2993.00	14.160	312.710	2964.57	-128.45	163.06	-183.46	40°19'10.041"N	104°23'53.340"W	0.93	
3081.00	12.590	312.550	3050.18	-139.41	176.85	-198.44	40°19'10.177"N	104°23'53.533"W	1.78	
3168.00	13.000	312.780	3135.02	-149.78	189.91	-212.61	40°19'10.306"N	104°23'53.716"W	0.47	
3256.00	11.300	312.530	3221.04	-159.76	202.46	-226.22	40°19'10.430"N	104°23'53.892"W	1.93	
3345.00	13.350	313.020	3307.99	-170.03	215.37	-240.16	40°19'10.557"N	104°23'54.072"W	2.31	

WELLPATH DATA (132 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3402.63†	13.832	311.252	3364.00	-177.21	224.45	-250.21	40°19'10.647"N	104°23'54.202"W	1.10	Parkman
3434.00	14.100	310.340	3394.44	-181.08	229.39	-255.94	40°19'10.696"N	104°23'54.276"W	1.10	
3522.00	15.570	312.290	3479.51	-192.78	244.28	-272.85	40°19'10.843"N	104°23'54.494"W	1.76	
3610.00	16.220	312.230	3564.14	-205.61	260.49	-290.68	40°19'11.003"N	104°23'54.724"W	0.74	
3698.00	16.420	313.800	3648.60	-219.06	277.36	-308.76	40°19'11.170"N	104°23'54.958"W	0.55	
3786.00	14.900	312.200	3733.33	-231.98	293.57	-326.12	40°19'11.330"N	104°23'55.182"W	1.80	
3874.00	15.090	310.050	3818.33	-243.72	308.54	-343.27	40°19'11.478"N	104°23'55.403"W	0.67	Tie On
3974.00†	11.090	310.015	3915.72	-255.03	323.10	-360.61	40°19'11.622"N	104°23'55.627"W	4.00	
4001.25	10.000	310.000	3942.51	-257.52	326.31	-364.43	40°19'11.654"N	104°23'55.676"W	4.00	End of 3D Arc
4074.00†	10.000	310.000	4014.15	-263.82	334.43	-374.11	40°19'11.734"N	104°23'55.801"W	0.00	
4174.00†	10.000	310.000	4112.63	-272.48	345.59	-387.41	40°19'11.844"N	104°23'55.973"W	0.00	
4274.00†	10.000	310.000	4211.11	-281.15	356.75	-400.71	40°19'11.955"N	104°23'56.145"W	0.00	
4374.00†	10.000	310.000	4309.59	-289.81	367.91	-414.01	40°19'12.065"N	104°23'56.317"W	0.00	
4474.00†	10.000	310.000	4408.07	-298.47	379.08	-427.32	40°19'12.175"N	104°23'56.488"W	0.00	
4501.25	10.000	310.000	4434.91	-300.83	382.12	-430.94	40°19'12.205"N	104°23'56.535"W	0.00	End of Tangent
4574.00†	12.867	312.519	4506.21	-308.33	391.65	-441.75	40°19'12.299"N	104°23'56.675"W	4.00	
4668.15	16.600	314.500	4597.24	-321.56	408.17	-459.08	40°19'12.463"N	104°23'56.898"W	4.00	End of 3D Arc
4674.00†	16.599	314.501	4602.85	-322.51	409.34	-460.27	40°19'12.474"N	104°23'56.914"W	0.02	
4774.00†	16.574	314.513	4698.69	-338.65	429.35	-480.63	40°19'12.672"N	104°23'57.177"W	0.02	
4874.00†	16.550	314.525	4794.54	-354.77	449.34	-500.95	40°19'12.869"N	104°23'57.439"W	0.02	
4974.00†	16.525	314.537	4890.41	-370.87	469.30	-521.24	40°19'13.067"N	104°23'57.701"W	0.02	
5074.00†	16.501	314.549	4986.28	-386.96	489.24	-541.50	40°19'13.264"N	104°23'57.962"W	0.02	
5174.00†	16.477	314.561	5082.17	-403.02	509.15	-561.73	40°19'13.460"N	104°23'58.224"W	0.02	
5274.00†	16.452	314.573	5178.07	-419.07	529.04	-581.92	40°19'13.657"N	104°23'58.484"W	0.02	
5374.00†	16.428	314.585	5273.98	-435.11	548.91	-602.08	40°19'13.853"N	104°23'58.745"W	0.02	
5474.00†	16.404	314.597	5369.90	-451.12	568.75	-622.20	40°19'14.049"N	104°23'59.004"W	0.02	
5574.00†	16.379	314.609	5465.84	-467.11	588.56	-642.30	40°19'14.245"N	104°23'59.264"W	0.02	
5674.00†	16.355	314.621	5561.79	-483.09	608.35	-662.35	40°19'14.441"N	104°23'59.523"W	0.02	
5774.00†	16.330	314.634	5657.75	-499.05	628.12	-682.38	40°19'14.636"N	104°23'59.781"W	0.02	
5856.73	16.310	314.644	5737.14	-512.24	644.45	-698.92	40°19'14.797"N	104°23'59.995"W	0.02	End of 3D Arc
5874.00†	15.161	309.886	5753.77	-514.74	647.61	-702.38	40°19'14.829"N	104°24'00.040"W	10.00	
5974.00†	11.663	268.292	5851.24	-519.18	655.71	-722.57	40°19'14.909"N	104°24'00.300"W	10.00	
6074.00†	15.473	227.693	5948.65	-506.52	646.41	-742.59	40°19'14.817"N	104°24'00.559"W	10.00	
6174.00†	23.238	208.217	6043.02	-477.13	619.98	-761.83	40°19'14.556"N	104°24'00.807"W	10.00	
6208.11†	26.223	204.262	6074.00	-463.43	607.17	-768.11	40°19'14.429"N	104°24'00.888"W	10.00	Sharon Springs
6274.00†	32.213	198.612	6131.49	-431.91	577.23	-779.71	40°19'14.133"N	104°24'01.038"W	10.00	
6298.56†	34.497	196.968	6152.00	-418.53	564.37	-783.83	40°19'14.006"N	104°24'01.091"W	10.00	Sharon Springs "A"
6351.14†	39.448	194.018	6194.00	-387.06	533.90	-792.23	40°19'13.705"N	104°24'01.199"W	10.00	Sharon Springs "B"
6374.00†	41.620	192.923	6211.37	-372.23	519.45	-795.68	40°19'13.562"N	104°24'01.244"W	10.00	
6427.89†	46.778	190.676	6250.00	-334.70	482.68	-803.33	40°19'13.199"N	104°24'01.343"W	10.00	Niobrara "A" Chalk
6442.69†	48.201	190.125	6260.00	-323.79	471.95	-805.30	40°19'13.093"N	104°24'01.368"W	10.00	Niobrara "A" Marl
6474.00†	51.219	189.037	6280.24	-299.91	448.41	-809.27	40°19'12.860"N	104°24'01.419"W	10.00	
6533.28†	56.960	187.206	6315.00	-251.95	400.90	-816.02	40°19'12.391"N	104°24'01.507"W	10.00	Niobrara "B" Chalk
6574.00†	60.916	186.084	6336.01	-217.14	366.26	-820.05	40°19'12.048"N	104°24'01.558"W	10.00	
6582.32†	61.726	185.865	6340.00	-209.86	359.00	-820.81	40°19'11.977"N	104°24'01.568"W	10.00	Niobrara "B" Marl
6674.00†	70.667	183.645	6376.97	-126.44	275.49	-827.70	40°19'11.151"N	104°24'01.657"W	10.00	
6726.06†	75.756	182.496	6392.00	-76.98	225.74	-830.36	40°19'10.660"N	104°24'01.692"W	10.00	Niobrara "C" Chalk
6774.00†	80.446	181.483	6401.88	-30.56	178.87	-831.98	40°19'10.197"N	104°24'01.713"W	10.00	
6871.57	90.000	179.493	6410.00†	65.20	81.76	-832.80	40°19'09.237"N	104°24'01.723"W	10.00	End of 3D Arc
6874.00†	90.000	179.493	6410.00	67.59	79.33	-832.78	40°19'09.213"N	104°24'01.723"W	0.00	

WELLPATH DATA (132 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6974.00†	90.000	179.493	6410.00	165.89	-20.66	-831.89	40°19'08.225"N	104°24'01.711"W	0.00	
7074.00†	90.000	179.493	6410.00	264.18	-120.66	-831.01	40°19'07.237"N	104°24'01.700"W	0.00	
7174.00†	90.000	179.493	6410.00	362.48	-220.66	-830.12	40°19'06.249"N	104°24'01.688"W	0.00	
7274.00†	90.000	179.493	6410.00	460.78	-320.65	-829.24	40°19'05.260"N	104°24'01.677"W	0.00	
7374.00†	90.000	179.493	6410.00	559.08	-420.65	-828.35	40°19'04.272"N	104°24'01.665"W	0.00	
7474.00†	90.000	179.493	6410.00	657.38	-520.64	-827.47	40°19'03.284"N	104°24'01.654"W	0.00	
7574.00†	90.000	179.493	6410.00	755.68	-620.64	-826.58	40°19'02.296"N	104°24'01.642"W	0.00	
7674.00†	90.000	179.493	6410.00	853.98	-720.64	-825.70	40°19'01.308"N	104°24'01.631"W	0.00	
7774.00†	90.000	179.493	6410.00	952.28	-820.63	-824.81	40°19'00.320"N	104°24'01.619"W	0.00	
7874.00†	90.000	179.493	6410.00	1050.58	-920.63	-823.93	40°18'59.332"N	104°24'01.608"W	0.00	
7974.00†	90.000	179.493	6410.00	1148.88	-1020.62	-823.04	40°18'58.343"N	104°24'01.597"W	0.00	
8074.00†	90.000	179.493	6410.00	1247.17	-1120.62	-822.15	40°18'57.355"N	104°24'01.585"W	0.00	
8174.00†	90.000	179.493	6410.00	1345.47	-1220.62	-821.27	40°18'56.367"N	104°24'01.574"W	0.00	
8274.00†	90.000	179.493	6410.00	1443.77	-1320.61	-820.38	40°18'55.379"N	104°24'01.562"W	0.00	
8374.00†	90.000	179.493	6410.00	1542.07	-1420.61	-819.50	40°18'54.391"N	104°24'01.551"W	0.00	
8474.00†	90.000	179.493	6410.00	1640.37	-1520.60	-818.61	40°18'53.403"N	104°24'01.539"W	0.00	
8574.00†	90.000	179.493	6410.00	1738.67	-1620.60	-817.73	40°18'52.415"N	104°24'01.528"W	0.00	
8674.00†	90.000	179.493	6410.00	1836.97	-1720.60	-816.84	40°18'51.427"N	104°24'01.516"W	0.00	
8774.00†	90.000	179.493	6410.00	1935.27	-1820.59	-815.96	40°18'50.438"N	104°24'01.505"W	0.00	
8874.00†	90.000	179.493	6410.00	2033.57	-1920.59	-815.07	40°18'49.450"N	104°24'01.493"W	0.00	
8974.00†	90.000	179.493	6410.00	2131.87	-2020.58	-814.19	40°18'48.462"N	104°24'01.482"W	0.00	
9074.00†	90.000	179.493	6410.00	2230.16	-2120.58	-813.30	40°18'47.474"N	104°24'01.470"W	0.00	
9142.76†	90.000	179.493	6410.00	2297.75	-2189.34	-812.69	40°18'46.795"N	104°24'01.462"W	0.00	Niobrara "C" Target
9174.00†	90.000	179.493	6410.00	2328.46	-2220.58	-812.42	40°18'46.486"N	104°24'01.459"W	0.00	
9274.00†	90.000	179.493	6410.00	2426.76	-2320.57	-811.53	40°18'45.498"N	104°24'01.447"W	0.00	
9374.00†	90.000	179.493	6410.00	2525.06	-2420.57	-810.65	40°18'44.510"N	104°24'01.436"W	0.00	
9474.00†	90.000	179.493	6410.00	2623.36	-2520.57	-809.76	40°18'43.521"N	104°24'01.424"W	0.00	
9574.00†	90.000	179.493	6410.00	2721.66	-2620.56	-808.88	40°18'42.533"N	104°24'01.413"W	0.00	
9674.00†	90.000	179.493	6410.00	2819.96	-2720.56	-807.99	40°18'41.545"N	104°24'01.402"W	0.00	
9774.00†	90.000	179.493	6410.00	2918.26	-2820.55	-807.11	40°18'40.557"N	104°24'01.390"W	0.00	
9874.00†	90.000	179.493	6410.00	3016.56	-2920.55	-806.22	40°18'39.569"N	104°24'01.379"W	0.00	
9974.00†	90.000	179.493	6410.00	3114.85	-3020.55	-805.34	40°18'38.581"N	104°24'01.367"W	0.00	
10074.00†	90.000	179.493	6410.00	3213.15	-3120.54	-804.45	40°18'37.593"N	104°24'01.356"W	0.00	
10174.00†	90.000	179.493	6410.00	3311.45	-3220.54	-803.56	40°18'36.604"N	104°24'01.344"W	0.00	
10274.00†	90.000	179.493	6410.00	3409.75	-3320.53	-802.68	40°18'35.616"N	104°24'01.333"W	0.00	
10374.00†	90.000	179.493	6410.00	3508.05	-3420.53	-801.79	40°18'34.628"N	104°24'01.321"W	0.00	
10474.00†	90.000	179.493	6410.00	3606.35	-3520.53	-800.91	40°18'33.640"N	104°24'01.310"W	0.00	
10574.00†	90.000	179.493	6410.00	3704.65	-3620.52	-800.02	40°18'32.652"N	104°24'01.298"W	0.00	
10674.00†	90.000	179.493	6410.00	3802.95	-3720.52	-799.14	40°18'31.664"N	104°24'01.287"W	0.00	
10774.00†	90.000	179.493	6410.00	3901.25	-3820.51	-798.25	40°18'30.676"N	104°24'01.275"W	0.00	
10874.00†	90.000	179.493	6410.00	3999.55	-3920.51	-797.37	40°18'29.687"N	104°24'01.264"W	0.00	
10974.00†	90.000	179.493	6410.00	4097.84	-4020.51	-796.48	40°18'28.699"N	104°24'01.252"W	0.00	
11074.00†	90.000	179.493	6410.00	4196.14	-4120.50	-795.60	40°18'27.711"N	104°24'01.241"W	0.00	
11174.00†	90.000	179.493	6410.00	4294.44	-4220.50	-794.71	40°18'26.723"N	104°24'01.230"W	0.00	
11274.00†	90.000	179.493	6410.00	4392.74	-4320.49	-793.83	40°18'25.735"N	104°24'01.218"W	0.00	
11374.00†	90.000	179.493	6410.00	4491.04	-4420.49	-792.94	40°18'24.747"N	104°24'01.207"W	0.00	
11413.95	90.000	179.493	6410.00 ²	4530.31	-4460.44	-792.59	40°18'24.352"N	104°24'01.202"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: LATHAM P-T-14HNC ST01 PWB Ref Wellpath: LATHAM P-T-14HNC ST01 (REV-B.0) PWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
8.5in Open Hole	3874.00	11413.95	7539.95	3818.33	6410.00	308.54	-343.27	-4460.44	-792.59

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LATHAM P-T-14HNC BHL PLAT (470'FSL & 1278'FEL,SEC.14)		6410.00	-4460.44	-792.59	3306681.74	1356496.92	40°18'24.352"N	104°24'01.202"W	point
2) LATHAM P-T-14HNC BHL REV-1 (470'FSL & 1278'FEL,SEC.14)	11413.95	6410.00	-4460.44	-792.59	3306681.74	1356496.92	40°18'24.352"N	104°24'01.202"W	point
LATHAM P-T-14HNC LP PLAT (260'FNL & 1285'FEL,SEC.14)		6410.00	81.76	-832.80	3306585.07	1361038.06	40°19'09.237"N	104°24'01.723"W	point
1) LATHAM P-T-14HNC LP REV-1 (260'FNL & 1285'FEL,SEC.14)	6871.57	6410.00	81.76	-832.80	3306585.07	1361038.06	40°19'09.237"N	104°24'01.723"W	point
SEC.14-T04N-R63W (470'FSL,260'FOL)		16619.30	-2245.03	-2177.19	3305269.76	1358694.84	40°18'46.243"N	104°24'19.076"W	polygon
SEC.14-T04N-R63W		16620.30	-2324.01	-2176.00	3305271.94	1358615.89	40°18'45.463"N	104°24'19.061"W	polygon

SURVEY PROGRAM - Ref Wellbore: LATHAM P-T-14HNC ST01 PWB Ref Wellpath: LATHAM P-T-14HNC ST01 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1572.00	BHI NaviTrak (Rotating)	BHI NAVITRAK MWD 13.5" (ROTATING)<124-1572>	LATHAM P-T-14HNC AWB
1572.00	3874.00	BHI AutoTrak Curve (Short)	BHI ATC 8.5" (SHORT)<1674'-4401'>	LATHAM P-T-14HNC AWB
3874.00	11413.95	BHI AutoTrak Curve (Short)		LATHAM P-T-14HNC ST01 PWB



Planned Wellpath Report

LATHAM P-T-14HNC ST01 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL,SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-T-14HNC ST01 PWB
Facility	SEC.14-T04N-R63W	Sidetrack from	LATHAM P-T-14HNC AWP at 3874.00 MD

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3402.63	13.832	311.252	3364.00	Parkman
6208.11	26.223	204.262	6074.00	Sharon Springs
6298.56	34.497	196.968	6152.00	Sharon Springs "A"
6351.14	39.448	194.018	6194.00	Sharon Springs "B"
6427.89	46.778	190.676	6250.00	Niobrara "A" Chalk
6442.69	48.201	190.125	6260.00	Niobrara "A" Marl
6533.28	56.960	187.206	6315.00	Niobrara "B" Chalk
6582.32	61.726	185.865	6340.00	Niobrara "B" Marl
6726.06	75.756	182.496	6392.00	Niobrara "C" Chalk
9142.76	90.000	179.493	6410.00	Niobrara "C" Target