

# BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)  
Field: WELD COUNTY Well: LATHAM P-T-14HNC  
Facility: SEC.14-T4N-R63W Wellbore: LATHAM P-T-14HNC PWB

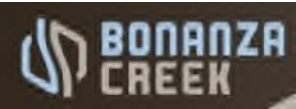
Plot reference wellpath is LATHAM P-T-14HNC (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4620 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)): 0 feet	Created by: doddanna on 2018-09-21
Coordinates are in feet referenced to Slot	Database: WellArchitectDB2

## Location Information

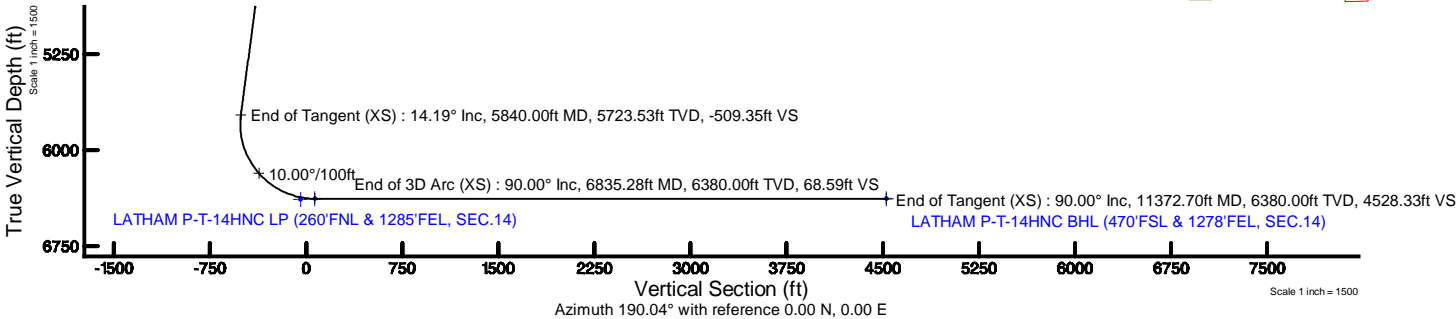
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T4N-R63W			3307689.092	1361141.238	40°19'10.121"N	104°23'47.454"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)	-171.22	-272.50	3307418.752	1360966.645	40°19'08.429"N	104°23'50.972"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14))					4620ft	
Mean Sea Level to Ground level (At Slot: SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14))					0ft	
RIG (17) (RKB) to Mean Sea Level					4620ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		LATHAM P-T-14HNC PWB
1550.00	11372.70	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM P-T-14HNC PWB



BGM (1900.0 to 2019.0) Dip: 66.81° Field: 52277.8 nT  
Magnetic North is 8.06 degrees East of True North (at 9/19/2018)  
To correct azimuth from Magnetic to True add 8.06 degrees

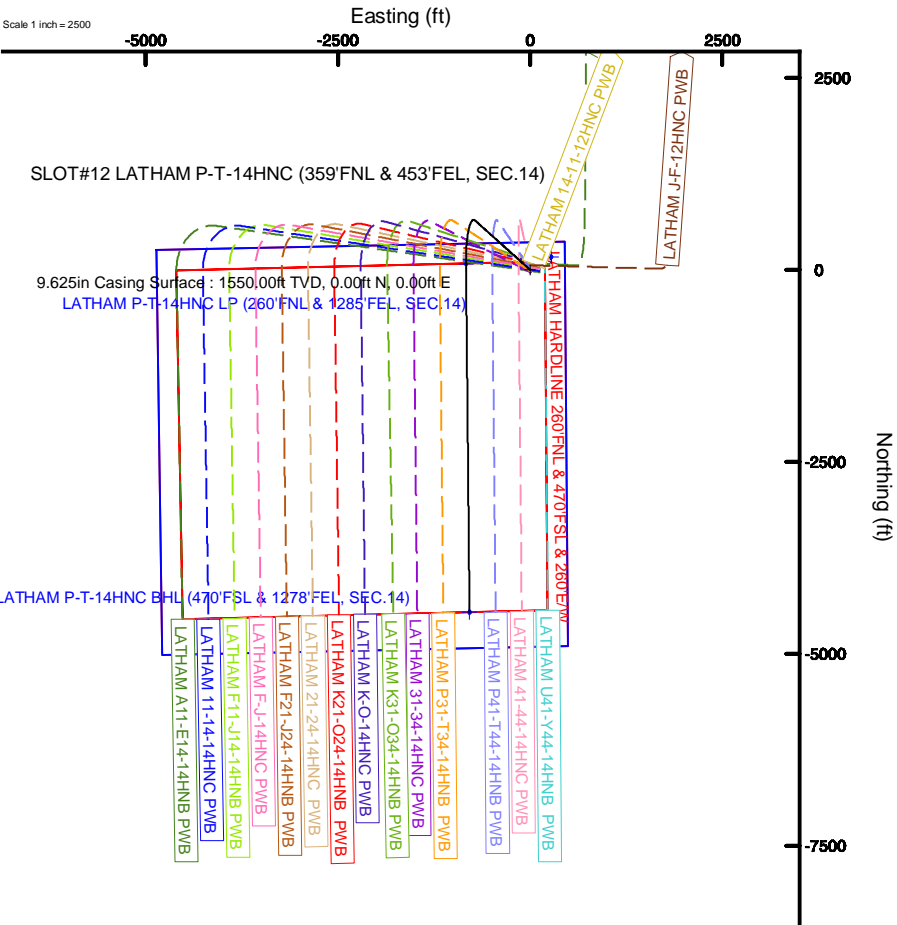


## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	311.896	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	311.896	1550.00	0.00	0.00	0.00	0.00
End of Build (XS)	2259.49	14.190	311.896	2252.26	58.37	-65.06	2.00	-46.13
End of Tangent (XS)	5840.00	14.190	311.896	5723.53	644.49	-718.40	0.00	-509.35
End of 3D Arc (XS)	6835.28	90.000	179.424	6380.00	78.23	-835.15	10.00	68.59
End of Tangent (XS)	11372.70	90.000	179.424	6380.00	-4458.96	-789.57	0.00	4528.33

## Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
11372.70	90.000	179.424	6380.00	-4458.96	-789.57	3306684.72	1356498.41	40°18'24.366"N	104°24'01.163"W





# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Bushjamh
Scale	0.999958	Report Generated	9/20/2018 at 2:56:35 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/LATHAM P-T-14HNC (REV-A.0) PWP PR.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-171.22	-272.50	3307418.75	1360966.65	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	RIG (17') (RKB) to Facility Vertical Datum	4620.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4620.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14))	4620.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	190.04°



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (120 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	311.896	0.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
17.00	0.000	311.896	17.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	Tie On
117.00†	0.000	311.896	117.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
217.00†	0.000	311.896	217.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
317.00†	0.000	311.896	317.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
417.00†	0.000	311.896	417.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
517.00†	0.000	311.896	517.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
617.00†	0.000	311.896	617.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
717.00†	0.000	311.896	717.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
817.00†	0.000	311.896	817.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
917.00†	0.000	311.896	917.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1017.00†	0.000	311.896	1017.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1117.00†	0.000	311.896	1117.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1217.00†	0.000	311.896	1217.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1317.00†	0.000	311.896	1317.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1417.00†	0.000	311.896	1417.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1517.00†	0.000	311.896	1517.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	
1550.00	0.000	311.896	1550.00	0.00	0.00	0.00	40°19'08.429"N	104°23'50.972"W	0.00	End of Tangent
1617.00†	1.340	311.896	1616.99	-0.41	0.52	-0.58	40°19'08.434"N	104°23'50.980"W	2.00	
1717.00†	3.340	311.896	1716.91	-2.57	3.25	-3.62	40°19'08.461"N	104°23'51.019"W	2.00	
1817.00†	5.340	311.896	1816.61	-6.56	8.30	-9.25	40°19'08.511"N	104°23'51.091"W	2.00	
1917.00†	7.340	311.896	1916.00	-12.39	15.68	-17.47	40°19'08.584"N	104°23'51.198"W	2.00	
2017.00†	9.340	311.896	2014.93	-20.04	25.36	-28.27	40°19'08.680"N	104°23'51.337"W	2.00	
2117.00†	11.340	311.896	2113.31	-29.52	37.35	-41.63	40°19'08.798"N	104°23'51.509"W	2.00	
2217.00†	13.340	311.896	2210.99	-40.79	51.62	-57.54	40°19'08.939"N	104°23'51.715"W	2.00	
2259.49	14.190	311.896	2252.26	-46.13	58.37	-65.06	40°19'09.006"N	104°23'51.812"W	2.00	End of Build (XS)
2317.00†	14.190	311.896	2308.01	-53.57	67.78	-75.56	40°19'09.099"N	104°23'51.947"W	0.00	
2417.00†	14.190	311.896	2404.96	-66.51	84.15	-93.80	40°19'09.261"N	104°23'52.183"W	0.00	
2517.00†	14.190	311.896	2501.91	-79.45	100.52	-112.05	40°19'09.422"N	104°23'52.419"W	0.00	
2617.00†	14.190	311.896	2598.86	-92.38	116.89	-130.30	40°19'09.584"N	104°23'52.654"W	0.00	



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (120 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	14.190	311.896	2695.81	-105.32	133.26	-148.54	40°19'09.746"N	104°23'52.890"W	0.00	
2817.00†	14.190	311.896	2792.76	-118.26	149.63	-166.79	40°19'09.908"N	104°23'53.125"W	0.00	
2917.00†	14.190	311.896	2889.71	-131.19	166.00	-185.04	40°19'10.069"N	104°23'53.361"W	0.00	
3017.00†	14.190	311.896	2986.66	-144.13	182.37	-203.29	40°19'10.231"N	104°23'53.596"W	0.00	
3117.00†	14.190	311.896	3083.61	-157.07	198.74	-221.53	40°19'10.393"N	104°23'53.832"W	0.00	
3217.00†	14.190	311.896	3180.55	-170.01	215.11	-239.78	40°19'10.555"N	104°23'54.068"W	0.00	
3317.00†	14.190	311.896	3277.50	-182.94	231.48	-258.03	40°19'10.716"N	104°23'54.303"W	0.00	
3417.00†	14.190	311.896	3374.45	-195.88	247.85	-276.27	40°19'10.878"N	104°23'54.539"W	0.00	
3517.00†	14.190	311.896	3471.40	-208.82	264.22	-294.52	40°19'11.040"N	104°23'54.774"W	0.00	
3617.00†	14.190	311.896	3568.35	-221.76	280.59	-312.77	40°19'11.202"N	104°23'55.010"W	0.00	
3717.00†	14.190	311.896	3665.30	-234.69	296.96	-331.01	40°19'11.363"N	104°23'55.245"W	0.00	
3817.00†	14.190	311.896	3762.25	-247.63	313.33	-349.26	40°19'11.525"N	104°23'55.481"W	0.00	
3917.00†	14.190	311.896	3859.20	-260.57	329.70	-367.51	40°19'11.687"N	104°23'55.717"W	0.00	
4017.00†	14.190	311.896	3956.15	-273.51	346.07	-385.75	40°19'11.849"N	104°23'55.952"W	0.00	
4117.00†	14.190	311.896	4053.09	-286.44	362.44	-404.00	40°19'12.010"N	104°23'56.188"W	0.00	
4217.00†	14.190	311.896	4150.04	-299.38	378.81	-422.25	40°19'12.172"N	104°23'56.423"W	0.00	
4317.00†	14.190	311.896	4246.99	-312.32	395.18	-440.50	40°19'12.334"N	104°23'56.659"W	0.00	
4417.00†	14.190	311.896	4343.94	-325.25	411.55	-458.74	40°19'12.496"N	104°23'56.894"W	0.00	
4517.00†	14.190	311.896	4440.89	-338.19	427.92	-476.99	40°19'12.658"N	104°23'57.130"W	0.00	
4617.00†	14.190	311.896	4537.84	-351.13	444.28	-495.24	40°19'12.819"N	104°23'57.366"W	0.00	
4717.00†	14.190	311.896	4634.79	-364.07	460.65	-513.48	40°19'12.981"N	104°23'57.601"W	0.00	
4817.00†	14.190	311.896	4731.74	-377.00	477.02	-531.73	40°19'13.143"N	104°23'57.837"W	0.00	
4917.00†	14.190	311.896	4828.69	-389.94	493.39	-549.98	40°19'13.305"N	104°23'58.072"W	0.00	
5017.00†	14.190	311.896	4925.63	-402.88	509.76	-568.22	40°19'13.466"N	104°23'58.308"W	0.00	
5117.00†	14.190	311.896	5022.58	-415.82	526.13	-586.47	40°19'13.628"N	104°23'58.543"W	0.00	
5217.00†	14.190	311.896	5119.53	-428.75	542.50	-604.72	40°19'13.790"N	104°23'58.779"W	0.00	
5317.00†	14.190	311.896	5216.48	-441.69	558.87	-622.97	40°19'13.952"N	104°23'59.015"W	0.00	
5417.00†	14.190	311.896	5313.43	-454.63	575.24	-641.21	40°19'14.113"N	104°23'59.250"W	0.00	
5517.00†	14.190	311.896	5410.38	-467.57	591.61	-659.46	40°19'14.275"N	104°23'59.486"W	0.00	
5617.00†	14.190	311.896	5507.33	-480.50	607.98	-677.71	40°19'14.437"N	104°23'59.721"W	0.00	



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (120 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	14.190	311.896	5604.28	-493.44	624.35	-695.95	40°19'14.599"N	104°23'59.957"W	0.00	
5817.00†	14.190	311.896	5701.23	-506.38	640.72	-714.20	40°19'14.760"N	104°24'00.193"W	0.00	
5840.00	14.190	311.896	5723.53	-509.35	644.49	-718.40	40°19'14.798"N	104°24'00.247"W	0.00	End of Tangent (XS)
5917.00†	10.720	279.298	5798.79	-514.25	651.96	-732.51	40°19'14.871"N	104°24'00.429"W	10.00	
6017.00†	13.328	231.354	5896.82	-505.45	646.25	-750.74	40°19'14.815"N	104°24'00.664"W	10.00	
6117.00†	20.930	208.610	5992.42	-479.79	623.31	-768.34	40°19'14.588"N	104°24'00.891"W	10.00	
6217.00†	29.935	198.322	6082.68	-438.06	583.84	-784.78	40°19'14.198"N	104°24'01.104"W	10.00	
6317.00†	39.391	192.552	6164.86	-381.53	529.04	-799.55	40°19'13.657"N	104°24'01.294"W	10.00	
6417.00†	49.036	188.743	6236.46	-311.91	460.58	-812.22	40°19'12.980"N	104°24'01.458"W	10.00	
6517.00†	58.773	185.917	6295.31	-231.31	380.53	-822.39	40°19'12.189"N	104°24'01.589"W	10.00	
6617.00†	68.561	183.624	6339.62	-142.19	291.33	-829.76	40°19'11.308"N	104°24'01.684"W	10.00	
6717.00†	78.376	181.623	6368.04	-47.25	195.69	-834.10	40°19'10.363"N	104°24'01.740"W	10.00	
6817.00†	88.203	179.760	6379.71	50.62	96.50	-835.28	40°19'09.382"N	104°24'01.755"W	10.00	
6835.28	90.000	179.424	6380.00†	68.59	78.23	-835.15	40°19'09.202"N	104°24'01.754"W	10.00	End of 3D Arc (XS)
6917.00†	90.000	179.424	6380.00	148.91	-3.49	-834.33	40°19'08.394"N	104°24'01.743"W	0.00	
7017.00†	90.000	179.424	6380.00	247.20	-103.48	-833.33	40°19'07.406"N	104°24'01.730"W	0.00	
7117.00†	90.000	179.424	6380.00	345.49	-203.48	-832.32	40°19'06.418"N	104°24'01.717"W	0.00	
7217.00†	90.000	179.424	6380.00	443.77	-303.47	-831.32	40°19'05.430"N	104°24'01.704"W	0.00	
7317.00†	90.000	179.424	6380.00	542.06	-403.47	-830.31	40°19'04.442"N	104°24'01.691"W	0.00	
7417.00†	90.000	179.424	6380.00	640.35	-503.46	-829.31	40°19'03.454"N	104°24'01.678"W	0.00	
7517.00†	90.000	179.424	6380.00	738.64	-603.46	-828.30	40°19'02.466"N	104°24'01.665"W	0.00	
7617.00†	90.000	179.424	6380.00	836.93	-703.45	-827.30	40°19'01.477"N	104°24'01.652"W	0.00	
7717.00†	90.000	179.424	6380.00	935.21	-803.45	-826.29	40°19'00.489"N	104°24'01.639"W	0.00	
7817.00†	90.000	179.424	6380.00	1033.50	-903.44	-825.29	40°18'59.501"N	104°24'01.626"W	0.00	
7917.00†	90.000	179.424	6380.00	1131.79	-1003.44	-824.28	40°18'58.513"N	104°24'01.613"W	0.00	
8017.00†	90.000	179.424	6380.00	1230.08	-1103.43	-823.28	40°18'57.525"N	104°24'01.600"W	0.00	
8117.00†	90.000	179.424	6380.00	1328.37	-1203.43	-822.27	40°18'56.537"N	104°24'01.587"W	0.00	
8217.00†	90.000	179.424	6380.00	1426.65	-1303.42	-821.27	40°18'55.549"N	104°24'01.574"W	0.00	
8317.00†	90.000	179.424	6380.00	1524.94	-1403.42	-820.26	40°18'54.561"N	104°24'01.561"W	0.00	
8417.00†	90.000	179.424	6380.00	1623.23	-1503.41	-819.26	40°18'53.572"N	104°24'01.548"W	0.00	



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (120 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	179.424	6380.00	1721.52	-1603.41	-818.26	40°18'52.584"N	104°24'01.535"W	0.00	
8617.00†	90.000	179.424	6380.00	1819.81	-1703.40	-817.25	40°18'51.596"N	104°24'01.522"W	0.00	
8717.00†	90.000	179.424	6380.00	1918.09	-1803.40	-816.25	40°18'50.608"N	104°24'01.509"W	0.00	
8817.00†	90.000	179.424	6380.00	2016.38	-1903.39	-815.24	40°18'49.620"N	104°24'01.496"W	0.00	
8917.00†	90.000	179.424	6380.00	2114.67	-2003.39	-814.24	40°18'48.632"N	104°24'01.483"W	0.00	
9017.00†	90.000	179.424	6380.00	2212.96	-2103.38	-813.23	40°18'47.644"N	104°24'01.470"W	0.00	
9117.00†	90.000	179.424	6380.00	2311.25	-2203.38	-812.23	40°18'46.656"N	104°24'01.457"W	0.00	
9217.00†	90.000	179.424	6380.00	2409.53	-2303.37	-811.22	40°18'45.667"N	104°24'01.444"W	0.00	
9317.00†	90.000	179.424	6380.00	2507.82	-2403.37	-810.22	40°18'44.679"N	104°24'01.431"W	0.00	
9417.00†	90.000	179.424	6380.00	2606.11	-2503.36	-809.21	40°18'43.691"N	104°24'01.418"W	0.00	
9517.00†	90.000	179.424	6380.00	2704.40	-2603.36	-808.21	40°18'42.703"N	104°24'01.405"W	0.00	
9617.00†	90.000	179.424	6380.00	2802.69	-2703.35	-807.20	40°18'41.715"N	104°24'01.392"W	0.00	
9717.00†	90.000	179.424	6380.00	2900.97	-2803.35	-806.20	40°18'40.727"N	104°24'01.379"W	0.00	
9817.00†	90.000	179.424	6380.00	2999.26	-2903.34	-805.19	40°18'39.739"N	104°24'01.366"W	0.00	
9917.00†	90.000	179.424	6380.00	3097.55	-3003.34	-804.19	40°18'38.751"N	104°24'01.353"W	0.00	
10017.00†	90.000	179.424	6380.00	3195.84	-3103.33	-803.19	40°18'37.762"N	104°24'01.340"W	0.00	
10117.00†	90.000	179.424	6380.00	3294.13	-3203.33	-802.18	40°18'36.774"N	104°24'01.327"W	0.00	
10217.00†	90.000	179.424	6380.00	3392.41	-3303.32	-801.18	40°18'35.786"N	104°24'01.314"W	0.00	
10317.00†	90.000	179.424	6380.00	3490.70	-3403.32	-800.17	40°18'34.798"N	104°24'01.301"W	0.00	
10417.00†	90.000	179.424	6380.00	3588.99	-3503.31	-799.17	40°18'33.810"N	104°24'01.288"W	0.00	
10517.00†	90.000	179.424	6380.00	3687.28	-3603.31	-798.16	40°18'32.822"N	104°24'01.275"W	0.00	
10617.00†	90.000	179.424	6380.00	3785.57	-3703.30	-797.16	40°18'31.834"N	104°24'01.262"W	0.00	
10717.00†	90.000	179.424	6380.00	3883.86	-3803.30	-796.15	40°18'30.846"N	104°24'01.249"W	0.00	
10817.00†	90.000	179.424	6380.00	3982.14	-3903.29	-795.15	40°18'29.857"N	104°24'01.236"W	0.00	
10917.00†	90.000	179.424	6380.00	4080.43	-4003.29	-794.14	40°18'28.869"N	104°24'01.223"W	0.00	
11017.00†	90.000	179.424	6380.00	4178.72	-4103.28	-793.14	40°18'27.881"N	104°24'01.210"W	0.00	
11117.00†	90.000	179.424	6380.00	4277.01	-4203.28	-792.13	40°18'26.893"N	104°24'01.197"W	0.00	
11217.00†	90.000	179.424	6380.00	4375.30	-4303.27	-791.13	40°18'25.905"N	104°24'01.184"W	0.00	
11317.00†	90.000	179.424	6380.00	4473.58	-4403.27	-790.12	40°18'24.917"N	104°24'01.171"W	0.00	
11372.70	90.000	179.424	6380.00 <sup>2</sup>	4528.33	-4458.96	-789.57	40°18'24.366"N	104°24'01.163"W	0.00	End of Tangent (XS)



HOLE & CASING SECTIONS - Ref Wellbore: LATHAM P-T-14HNC PWB      Ref Wellpath: LATHAM P-T-14HNC (REV-A.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]
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1550.00	0.00	0.00	0.00	0.00

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LATHAM SECTION 14		-1.00	171.21	272.50	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM P-T-14HNC BHL (470'FSL & 1278'FEL, SEC.14)	11372.70	6380.00	-4458.96	-789.57	3306684.72	1356498.41	40°18'24.366"N	104°24'01.163"W	point
1) LATHAM P-T-14HNC LP (260'FNL & 1285'FEL, SEC.14)	6835.28	6380.00	78.23	-835.15	3306582.73	1361034.48	40°19'09.202"N	104°24'01.754"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	45.03	0.00	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon

SURVEY PROGRAM - Ref Wellbore: LATHAM P-T-14HNC PWB      Ref Wellpath: LATHAM P-T-14HNC (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating+Axial Corr)		LATHAM P-T-14HNC PWB
1550.00	11372.70	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM P-T-14HNC PWB



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#12 LATHAM P-T-14HNC (359'FNL & 453'FEL, SEC.14)
Area	COLORADO	Well	LATHAM P-T-14HNC
Field	WELD COUNTY	Wellbore	LATHAM P-T-14HNC PWB
Facility	SEC.14-T4N-R63W		

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	311.896	17.00	Tie On
1550.00	0.000	311.896	1550.00	End of Tangent
2259.49	14.190	311.896	2252.26	End of Build (XS)
5840.00	14.190	311.896	5723.53	End of Tangent (XS)
6835.28	90.000	179.424	6380.00	End of 3D Arc (XS)
11372.70	90.000	179.424	6380.00	End of Tangent (XS)