

BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)  
Field: WELD COUNTY Well: LATHAM F-J-14HNC  
Facility: SEC.14-T4N-R63W Wellbore: LATHAM F-J-14HNC PWB

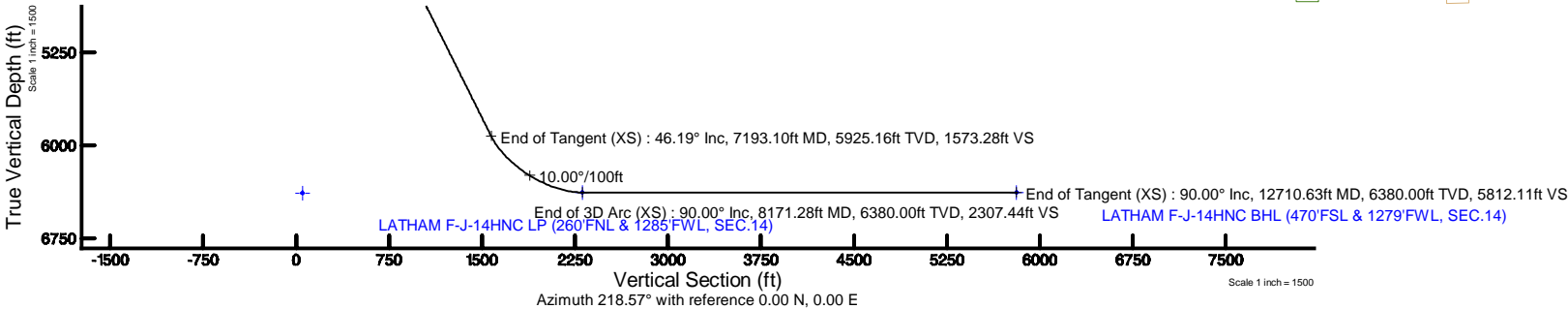
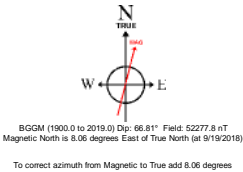
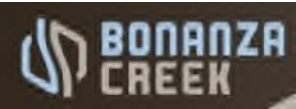
Plot reference wellpath is LATHAM F-J-14HNC (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4620 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'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#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)	-156.25	-152.52	3307538.536	1360983.113	40°19'08.577"N	104°23'49.423"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14))					4620ft	
Mean Sea Level to Ground level (At Slot: SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'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 F-J-14HNC PWB
1550.00	12710.63	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM F-J-14HNC PWB

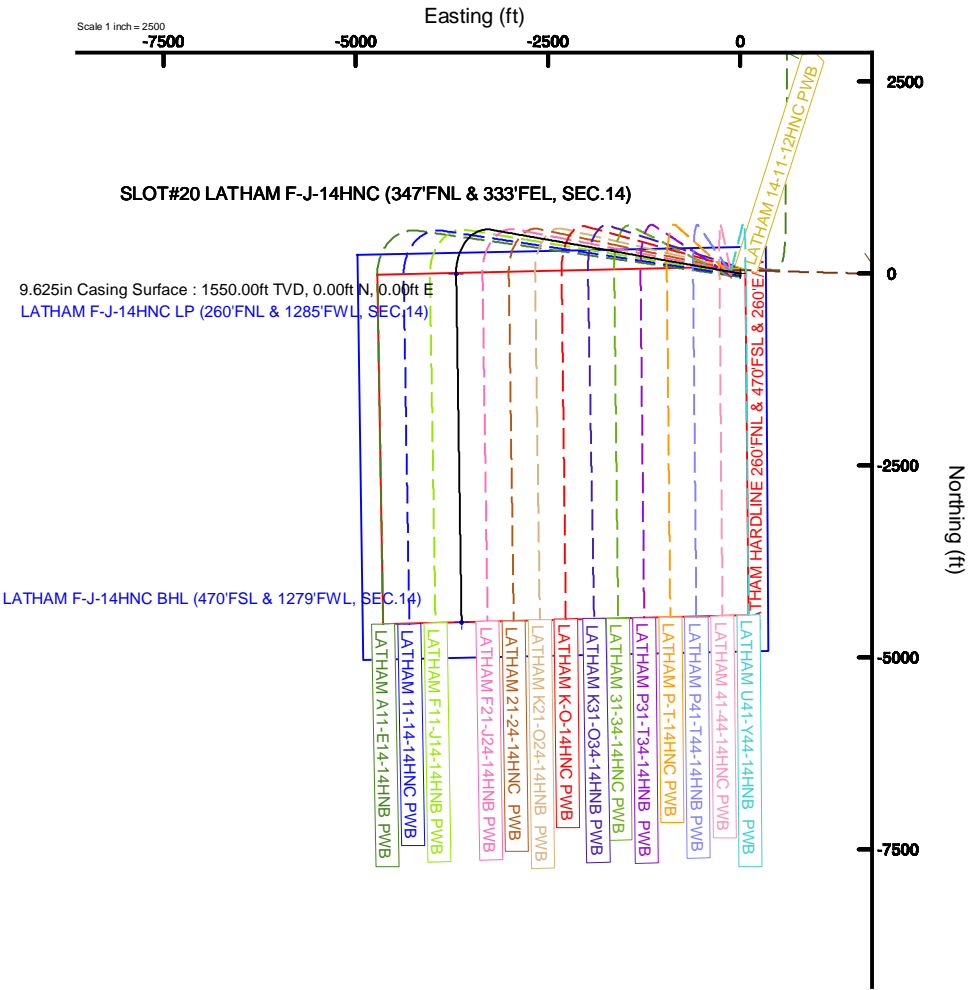


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	279.979	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	279.979	1550.00	0.00	0.00	0.00	0.00
End of Build (XS)	3859.42	46.188	279.979	3617.29	152.76	-868.19	2.00	421.91
End of Tangent (XS)	7193.10	46.188	279.979	5925.16	569.65	-3237.44	0.00	1573.28
End of 3D Arc (XS)	8171.28	90.000	179.114	6380.00	-5.12	-3694.21	10.00	2307.44
End of Tangent (XS)	12710.63	90.000	179.114	6380.00	-4543.92	-3624.01	0.00	5812.11

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
12710.63	90.000	179.114	6380.00	-4543.92	-3624.01	3303971.48	1356394.67	40°18'23.672"N	104°24'36.200"W





# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-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 2:59:20 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/ LATHAM F-J-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	-156.25	-152.52	3307538.54	1360983.11	40°19'08.577"N	104°23'49.423"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#20 LATHAM F-J-14HNC (347'FNL & 333'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	218.57°



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (133 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	279.979	0.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
17.00	0.000	279.979	17.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	Tie On
117.00†	0.000	279.979	117.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
217.00†	0.000	279.979	217.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
317.00†	0.000	279.979	317.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
417.00†	0.000	279.979	417.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
517.00†	0.000	279.979	517.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
617.00†	0.000	279.979	617.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
717.00†	0.000	279.979	717.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
817.00†	0.000	279.979	817.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
917.00†	0.000	279.979	917.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1017.00†	0.000	279.979	1017.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1117.00†	0.000	279.979	1117.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1217.00†	0.000	279.979	1217.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1317.00†	0.000	279.979	1317.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1417.00†	0.000	279.979	1417.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1517.00†	0.000	279.979	1517.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	
1550.00	0.000	279.979	1550.00	0.00	0.00	0.00	40°19'08.577"N	104°23'49.423"W	0.00	End of Tangent
1617.00†	1.340	279.979	1616.99	0.37	0.14	-0.77	40°19'08.578"N	104°23'49.433"W	2.00	
1717.00†	3.340	279.979	1716.91	2.33	0.84	-4.79	40°19'08.585"N	104°23'49.485"W	2.00	
1817.00†	5.340	279.979	1816.61	5.95	2.15	-12.25	40°19'08.598"N	104°23'49.581"W	2.00	
1917.00†	7.340	279.979	1916.00	11.24	4.07	-23.12	40°19'08.617"N	104°23'49.721"W	2.00	
2017.00†	9.340	279.979	2014.93	18.18	6.58	-37.40	40°19'08.642"N	104°23'49.906"W	2.00	
2117.00†	11.340	279.979	2113.31	26.77	9.69	-55.08	40°19'08.673"N	104°23'50.134"W	2.00	
2217.00†	13.340	279.979	2210.99	37.00	13.40	-76.13	40°19'08.709"N	104°23'50.406"W	2.00	
2317.00†	15.340	279.979	2307.87	48.85	17.69	-100.52	40°19'08.752"N	104°23'50.721"W	2.00	
2417.00†	17.340	279.979	2403.83	62.31	22.56	-128.23	40°19'08.800"N	104°23'51.078"W	2.00	
2517.00†	19.340	279.979	2498.74	77.37	28.01	-159.21	40°19'08.854"N	104°23'51.478"W	2.00	
2617.00†	21.340	279.979	2592.50	94.01	34.04	-193.45	40°19'08.913"N	104°23'51.920"W	2.00	
2717.00†	23.340	279.979	2684.99	112.20	40.62	-230.88	40°19'08.978"N	104°23'52.404"W	2.00	



# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2817.00†	25.340	279.979	2776.10	131.92	47.77	-271.47	40°19'09.049"N	104°23'52.928"W	2.00	
2917.00†	27.340	279.979	2865.71	153.16	55.46	-315.16	40°19'09.125"N	104°23'53.492"W	2.00	
3017.00†	29.340	279.979	2953.72	175.88	63.68	-361.91	40°19'09.206"N	104°23'54.095"W	2.00	
3117.00†	31.340	279.979	3040.02	200.05	72.43	-411.66	40°19'09.293"N	104°23'54.738"W	2.00	
3217.00†	33.340	279.979	3124.51	225.65	81.70	-464.34	40°19'09.384"N	104°23'55.418"W	2.00	
3317.00†	35.340	279.979	3207.07	252.65	91.48	-519.90	40°19'09.481"N	104°23'56.135"W	2.00	
3417.00†	37.340	279.979	3287.62	281.01	101.75	-578.25	40°19'09.582"N	104°23'56.888"W	2.00	
3517.00†	39.340	279.979	3366.05	310.70	112.50	-639.35	40°19'09.689"N	104°23'57.677"W	2.00	
3617.00†	41.340	279.979	3442.27	341.68	123.71	-703.10	40°19'09.799"N	104°23'58.500"W	2.00	
3717.00†	43.340	279.979	3516.18	373.91	135.39	-769.43	40°19'09.915"N	104°23'59.356"W	2.00	
3817.00†	45.340	279.979	3587.70	407.36	147.50	-838.26	40°19'10.034"N	104°24'00.245"W	2.00	
3859.42	46.188	279.979	3617.29	421.91	152.76	-868.19	40°19'10.086"N	104°24'00.631"W	2.00	End of Build (XS)
3917.00†	46.188	279.979	3657.15	441.80	159.96	-909.11	40°19'10.158"N	104°24'01.160"W	0.00	
4017.00†	46.188	279.979	3726.38	476.33	172.47	-980.18	40°19'10.281"N	104°24'02.077"W	0.00	
4117.00†	46.188	279.979	3795.61	510.87	184.97	-1051.25	40°19'10.405"N	104°24'02.995"W	0.00	
4217.00†	46.188	279.979	3864.84	545.41	197.48	-1122.32	40°19'10.528"N	104°24'03.912"W	0.00	
4317.00†	46.188	279.979	3934.07	579.95	209.99	-1193.39	40°19'10.652"N	104°24'04.830"W	0.00	
4417.00†	46.188	279.979	4003.30	614.48	222.49	-1264.46	40°19'10.775"N	104°24'05.747"W	0.00	
4517.00†	46.188	279.979	4072.53	649.02	235.00	-1335.53	40°19'10.899"N	104°24'06.665"W	0.00	
4617.00†	46.188	279.979	4141.75	683.56	247.50	-1406.60	40°19'11.022"N	104°24'07.582"W	0.00	
4717.00†	46.188	279.979	4210.98	718.10	260.01	-1477.67	40°19'11.146"N	104°24'08.500"W	0.00	
4817.00†	46.188	279.979	4280.21	752.63	272.51	-1548.74	40°19'11.269"N	104°24'09.417"W	0.00	
4917.00†	46.188	279.979	4349.44	787.17	285.02	-1619.81	40°19'11.393"N	104°24'10.335"W	0.00	
5017.00†	46.188	279.979	4418.67	821.71	297.52	-1690.88	40°19'11.516"N	104°24'11.252"W	0.00	
5117.00†	46.188	279.979	4487.90	856.25	310.03	-1761.95	40°19'11.640"N	104°24'12.170"W	0.00	
5217.00†	46.188	279.979	4557.13	890.78	322.53	-1833.02	40°19'11.764"N	104°24'13.087"W	0.00	
5317.00†	46.188	279.979	4626.36	925.32	335.04	-1904.09	40°19'11.887"N	104°24'14.005"W	0.00	
5417.00†	46.188	279.979	4695.59	959.86	347.54	-1975.16	40°19'12.011"N	104°24'14.923"W	0.00	
5517.00†	46.188	279.979	4764.82	994.40	360.05	-2046.23	40°19'12.134"N	104°24'15.840"W	0.00	
5617.00†	46.188	279.979	4834.04	1028.93	372.55	-2117.30	40°19'12.258"N	104°24'16.758"W	0.00	



# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	46.188	279.979	4903.27	1063.47	385.06	-2188.37	40°19'12.381"N	104°24'17.675"W	0.00	
5817.00†	46.188	279.979	4972.50	1098.01	397.56	-2259.44	40°19'12.505"N	104°24'18.593"W	0.00	
5917.00†	46.188	279.979	5041.73	1132.55	410.07	-2330.51	40°19'12.628"N	104°24'19.510"W	0.00	
6017.00†	46.188	279.979	5110.96	1167.08	422.57	-2401.58	40°19'12.752"N	104°24'20.428"W	0.00	
6117.00†	46.188	279.979	5180.19	1201.62	435.08	-2472.65	40°19'12.875"N	104°24'21.345"W	0.00	
6217.00†	46.188	279.979	5249.42	1236.16	447.59	-2543.72	40°19'12.999"N	104°24'22.263"W	0.00	
6317.00†	46.188	279.979	5318.65	1270.70	460.09	-2614.79	40°19'13.122"N	104°24'23.180"W	0.00	
6417.00†	46.188	279.979	5387.88	1305.23	472.60	-2685.86	40°19'13.246"N	104°24'24.098"W	0.00	
6517.00†	46.188	279.979	5457.11	1339.77	485.10	-2756.93	40°19'13.369"N	104°24'25.015"W	0.00	
6617.00†	46.188	279.979	5526.34	1374.31	497.61	-2828.00	40°19'13.493"N	104°24'25.933"W	0.00	
6717.00†	46.188	279.979	5595.56	1408.85	510.11	-2899.07	40°19'13.616"N	104°24'26.851"W	0.00	
6817.00†	46.188	279.979	5664.79	1443.38	522.62	-2970.14	40°19'13.740"N	104°24'27.768"W	0.00	
6917.00†	46.188	279.979	5734.02	1477.92	535.12	-3041.21	40°19'13.863"N	104°24'28.686"W	0.00	
7017.00†	46.188	279.979	5803.25	1512.46	547.63	-3112.28	40°19'13.987"N	104°24'29.603"W	0.00	
7117.00†	46.188	279.979	5872.48	1547.00	560.13	-3183.35	40°19'14.110"N	104°24'30.521"W	0.00	
7193.10	46.188	279.979	5925.16	1573.28	569.65	-3237.44	40°19'14.204"N	104°24'31.219"W	0.00	End of Tangent (XS)
7217.00†	45.921	276.680	5941.75	1581.94	572.14	-3254.46	40°19'14.229"N	104°24'31.439"W	10.00	
7317.00†	45.848	262.735	6011.54	1626.77	571.78	-3325.90	40°19'14.225"N	104°24'32.361"W	10.00	
7417.00†	47.444	249.142	6080.36	1684.36	554.09	-3396.09	40°19'14.050"N	104°24'33.267"W	10.00	
7517.00†	50.543	236.527	6146.12	1752.98	519.59	-3462.87	40°19'13.709"N	104°24'34.129"W	10.00	
7617.00†	54.873	225.183	6206.81	1830.52	469.35	-3524.24	40°19'13.213"N	104°24'34.922"W	10.00	
7717.00†	60.146	215.097	6260.61	1914.64	404.88	-3578.32	40°19'12.575"N	104°24'35.620"W	10.00	
7817.00†	66.104	206.085	6305.87	2002.78	328.15	-3623.47	40°19'11.817"N	104°24'36.202"W	10.00	
7917.00†	72.540	197.897	6341.21	2092.27	241.48	-3658.31	40°19'10.961"N	104°24'36.652"W	10.00	
8017.00†	79.287	190.281	6365.57	2180.37	147.52	-3681.80	40°19'10.032"N	104°24'36.955"W	10.00	
8117.00†	86.210	183.002	6378.20	2264.43	49.10	-3693.21	40°19'09.060"N	104°24'37.102"W	10.00	
8171.28	90.000	179.114	6380.00 <sup>†</sup>	2307.44	-5.12	-3694.21	40°19'08.524"N	104°24'37.115"W	10.00	End of 3D Arc (XS)
8217.00†	90.000	179.114	6380.00	2342.74	-50.83	-3693.50	40°19'08.072"N	104°24'37.106"W	0.00	
8317.00†	90.000	179.114	6380.00	2419.95	-150.82	-3691.96	40°19'07.084"N	104°24'37.086"W	0.00	
8417.00†	90.000	179.114	6380.00	2497.15	-250.81	-3690.41	40°19'06.096"N	104°24'37.065"W	0.00	



# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (133 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	179.114	6380.00	2574.36	-350.79	-3688.86	40°19'05.108"N	104°24'37.045"W	0.00	
8617.00†	90.000	179.114	6380.00	2651.57	-450.78	-3687.32	40°19'04.120"N	104°24'37.025"W	0.00	
8717.00†	90.000	179.114	6380.00	2728.77	-550.77	-3685.77	40°19'03.132"N	104°24'37.005"W	0.00	
8817.00†	90.000	179.114	6380.00	2805.98	-650.76	-3684.22	40°19'02.144"N	104°24'36.985"W	0.00	
8917.00†	90.000	179.114	6380.00	2883.18	-750.75	-3682.68	40°19'01.156"N	104°24'36.965"W	0.00	
9017.00†	90.000	179.114	6380.00	2960.39	-850.74	-3681.13	40°19'00.168"N	104°24'36.944"W	0.00	
9117.00†	90.000	179.114	6380.00	3037.60	-950.72	-3679.58	40°18'59.179"N	104°24'36.924"W	0.00	
9217.00†	90.000	179.114	6380.00	3114.80	-1050.71	-3678.04	40°18'58.191"N	104°24'36.904"W	0.00	
9317.00†	90.000	179.114	6380.00	3192.01	-1150.70	-3676.49	40°18'57.203"N	104°24'36.884"W	0.00	
9417.00†	90.000	179.114	6380.00	3269.22	-1250.69	-3674.95	40°18'56.215"N	104°24'36.864"W	0.00	
9517.00†	90.000	179.114	6380.00	3346.42	-1350.68	-3673.40	40°18'55.227"N	104°24'36.844"W	0.00	
9617.00†	90.000	179.114	6380.00	3423.63	-1450.66	-3671.85	40°18'54.239"N	104°24'36.824"W	0.00	
9717.00†	90.000	179.114	6380.00	3500.84	-1550.65	-3670.31	40°18'53.251"N	104°24'36.803"W	0.00	
9817.00†	90.000	179.114	6380.00	3578.04	-1650.64	-3668.76	40°18'52.263"N	104°24'36.783"W	0.00	
9917.00†	90.000	179.114	6380.00	3655.25	-1750.63	-3667.21	40°18'51.275"N	104°24'36.763"W	0.00	
10017.00†	90.000	179.114	6380.00	3732.46	-1850.62	-3665.67	40°18'50.287"N	104°24'36.743"W	0.00	
10117.00†	90.000	179.114	6380.00	3809.66	-1950.60	-3664.12	40°18'49.299"N	104°24'36.723"W	0.00	
10217.00†	90.000	179.114	6380.00	3886.87	-2050.59	-3662.57	40°18'48.311"N	104°24'36.703"W	0.00	
10317.00†	90.000	179.114	6380.00	3964.08	-2150.58	-3661.03	40°18'47.323"N	104°24'36.682"W	0.00	
10417.00†	90.000	179.114	6380.00	4041.28	-2250.57	-3659.48	40°18'46.335"N	104°24'36.662"W	0.00	
10517.00†	90.000	179.114	6380.00	4118.49	-2350.56	-3657.93	40°18'45.347"N	104°24'36.642"W	0.00	
10617.00†	90.000	179.114	6380.00	4195.70	-2450.54	-3656.39	40°18'44.359"N	104°24'36.622"W	0.00	
10717.00†	90.000	179.114	6380.00	4272.90	-2550.53	-3654.84	40°18'43.371"N	104°24'36.602"W	0.00	
10817.00†	90.000	179.114	6380.00	4350.11	-2650.52	-3653.29	40°18'42.382"N	104°24'36.582"W	0.00	
10917.00†	90.000	179.114	6380.00	4427.32	-2750.51	-3651.75	40°18'41.394"N	104°24'36.562"W	0.00	
11017.00†	90.000	179.114	6380.00	4504.52	-2850.50	-3650.20	40°18'40.406"N	104°24'36.541"W	0.00	
11117.00†	90.000	179.114	6380.00	4581.73	-2950.48	-3648.66	40°18'39.418"N	104°24'36.521"W	0.00	
11217.00†	90.000	179.114	6380.00	4658.94	-3050.47	-3647.11	40°18'38.430"N	104°24'36.501"W	0.00	
11317.00†	90.000	179.114	6380.00	4736.14	-3150.46	-3645.56	40°18'37.442"N	104°24'36.481"W	0.00	
11417.00†	90.000	179.114	6380.00	4813.35	-3250.45	-3644.02	40°18'36.454"N	104°24'36.461"W	0.00	





# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11517.00†	90.000	179.114	6380.00	4890.56	-3350.44	-3642.47	40°18'35.466"N	104°24'36.441"W	0.00	
11617.00†	90.000	179.114	6380.00	4967.76	-3450.42	-3640.92	40°18'34.478"N	104°24'36.420"W	0.00	
11717.00†	90.000	179.114	6380.00	5044.97	-3550.41	-3639.38	40°18'33.490"N	104°24'36.400"W	0.00	
11817.00†	90.000	179.114	6380.00	5122.17	-3650.40	-3637.83	40°18'32.502"N	104°24'36.380"W	0.00	
11917.00†	90.000	179.114	6380.00	5199.38	-3750.39	-3636.28	40°18'31.514"N	104°24'36.360"W	0.00	
12017.00†	90.000	179.114	6380.00	5276.59	-3850.38	-3634.74	40°18'30.526"N	104°24'36.340"W	0.00	
12117.00†	90.000	179.114	6380.00	5353.79	-3950.36	-3633.19	40°18'29.538"N	104°24'36.320"W	0.00	
12217.00†	90.000	179.114	6380.00	5431.00	-4050.35	-3631.64	40°18'28.550"N	104°24'36.300"W	0.00	
12317.00†	90.000	179.114	6380.00	5508.21	-4150.34	-3630.10	40°18'27.562"N	104°24'36.279"W	0.00	
12417.00†	90.000	179.114	6380.00	5585.41	-4250.33	-3628.55	40°18'26.574"N	104°24'36.259"W	0.00	
12517.00†	90.000	179.114	6380.00	5662.62	-4350.32	-3627.00	40°18'25.585"N	104°24'36.239"W	0.00	
12617.00†	90.000	179.114	6380.00	5739.83	-4450.30	-3625.46	40°18'24.597"N	104°24'36.219"W	0.00	
12710.63	90.000	179.114	6380.00 <sup>2</sup>	5812.11	-4543.92	-3624.01	40°18'23.672"N	104°24'36.200"W	0.00	End of Tangent (XS)

## HOLE & CASING SECTIONS - Ref Wellbore: LATHAM F-J-14HNC PWB Ref Wellpath: LATHAM F-J-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



# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## 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	156.23	152.52	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM F-J-14HNC BHL (470'FSL & 1279'FWL, SEC.14)	12710.63	6380.00	-4543.92	-3624.01	3303971.48	1356394.67	40°18'23.672"N	104°24'36.200"W	point
1) LATHAM F-J-14HNC LP (260'FNL & 1285'FWL, SEC.14)	8171.28	6380.00	-5.12	-3694.21	3303844.84	1360932.05	40°19'08.524"N	104°24'37.115"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	30.06	-119.99	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon

## SURVEY PROGRAM - Ref Wellbore: LATHAM F-J-14HNC PWB Ref Wellpath: LATHAM F-J-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 F-J-14HNC PWB
1550.00	12710.63	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM F-J-14HNC PWB





# Planned Wellpath Report

LATHAM F-J-14HNC (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#20 LATHAM F-J-14HNC (347'FNL & 333'FEL, SEC.14)
Area	COLORADO	Well	LATHAM F-J-14HNC
Field	WELD COUNTY	Wellbore	LATHAM F-J-14HNC PWB
Facility	SEC.14-T4N-R63W		

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	279.979	17.00	Tie On
1550.00	0.000	279.979	1550.00	End of Tangent
3859.42	46.188	279.979	3617.29	End of Build (XS)
7193.10	46.188	279.979	5925.16	End of Tangent (XS)
8171.28	90.000	179.114	6380.00	End of 3D Arc (XS)
12710.63	90.000	179.114	6380.00	End of Tangent (XS)