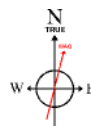


Location:	COLORADO	Slot:	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Field:	WELD COUNTY	Well:	LATHAM K-O-14HNC
Facility:	SEC.14-T4N-R63W	Wellbore:	LATHAM K-O-14HNC PWB

Plot reference wellpath is LATHAM K-O-14#NC (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: SLOTH#16 LATHAM K-O-14#NC (287FNL & 332FEL, SEC. 14): 0 feet	Created by: doddanna on 2018-09-21
Coordinates are in feet referenced to Slot	Database: WellArchitect:IDB2

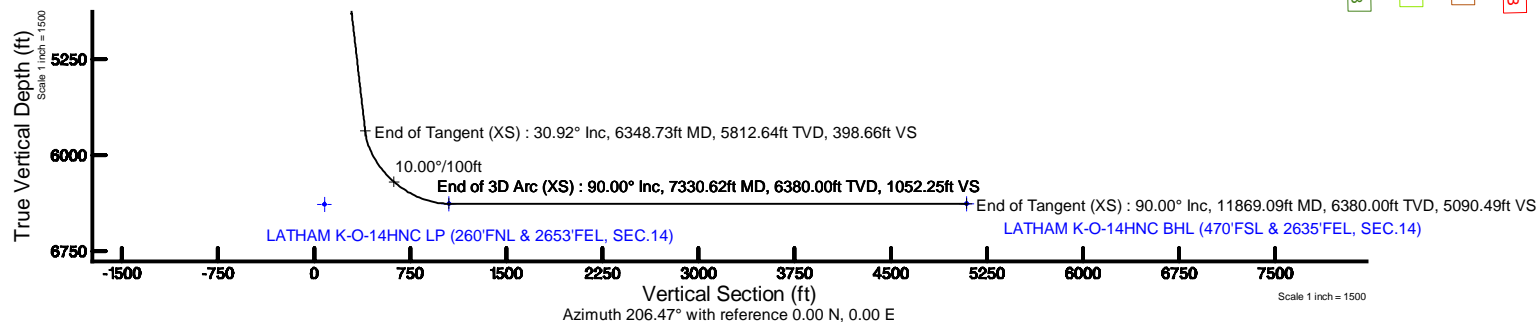
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T4N-R63W			3307689.092	1361141.238	40°19'10.121"N	104°23'47.454"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)	-96.34	-152.44	3307537.868	1361043.015	40°19'09.169"N	104°23'49.422"W
RIG (17) (RKB) to Ground level (At Slot: SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14))					4620ft	
Mean Sea Level to Ground level (At Slot: SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14))					0ft	
RIG (17) (RKB) to Mean Sea Level					4620ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		LATHAM K-O-14HNC PWB
1550.00	11869.09	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K-O-14HNC PWB



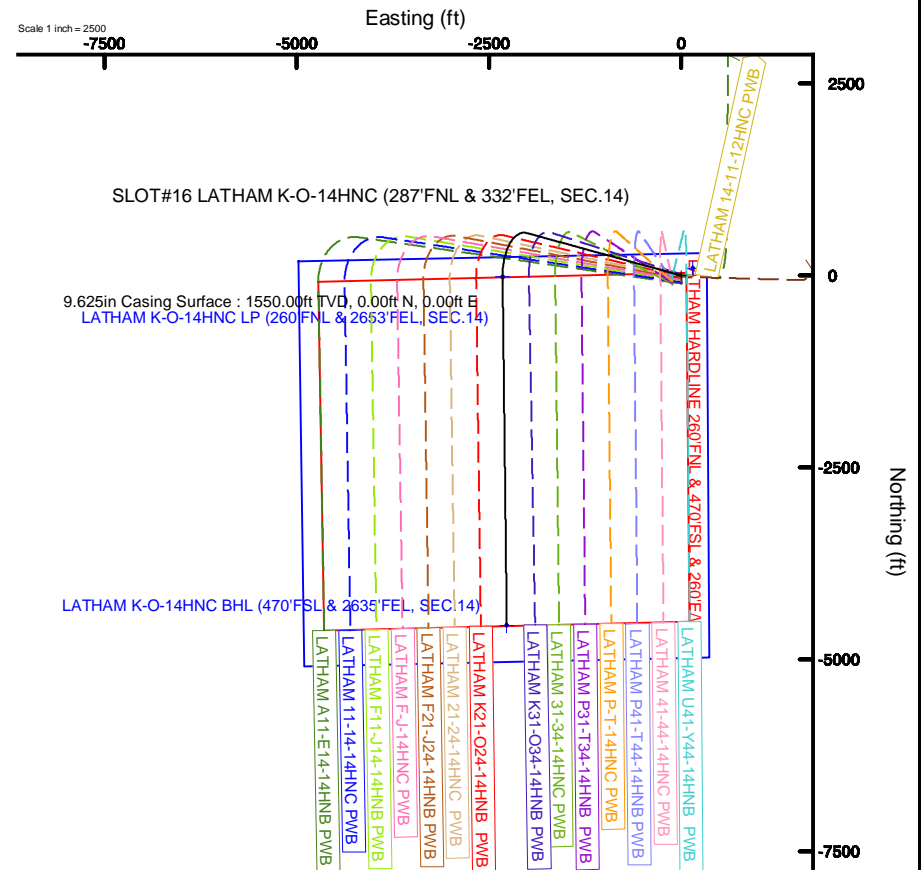
BGGM (1900.0 to 2019.0) Dip: 66.81° Field: 52277.8 nT
Magnetic North is 8.06 degrees East of True North (at 9/19/2018)

To correct azimuth from Magnetic to True add 8.06 degrees



Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	285.407	17.00	0.00	0.00	0.00	0.00
End of Tangent	1550.00	0.000	285.407	1550.00	0.00	0.00	0.00	0.00
End of Build (XS)	3095.77	30.915	285.407	3021.85	108.13	-392.39	2.00	78.07
End of Tangent (XS)	6348.73	30.915	285.407	5812.64	552.14	-2003.61	0.00	398.66
End of 3D Arc (XS)	7330.62	90.000	179.311	6380.00	-18.86	-2323.21	10.00	1052.25
End of Tangent (XS)	11869.09	90.000	179.311	6380.00	-4557.01	-2268.65	0.00	5090.49

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
11869.09	90.000	179.311	6380.00	-4557.01	-2268.65	3305326.17	1356458.34	40°18'24.137"N	104°24'18.705"W





Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 1 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-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 2:57:48 PM
Convergence at slot	0.71° East	Database/Source file	WellArchitectDB2/LATHAM K-O-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	-96.34	-152.44	3307537.87	1361043.02	40°19'09.169"N	104°23'49.422"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#16 LATHAM K-O-14HNC (287'FNL & 332'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	206.47°



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 2 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (125 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	285.407	0.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
17.00	0.000	285.407	17.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	Tie On
117.00†	0.000	285.407	117.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
217.00†	0.000	285.407	217.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
317.00†	0.000	285.407	317.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
417.00†	0.000	285.407	417.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
517.00†	0.000	285.407	517.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
617.00†	0.000	285.407	617.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
717.00†	0.000	285.407	717.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
817.00†	0.000	285.407	817.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
917.00†	0.000	285.407	917.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1017.00†	0.000	285.407	1017.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1117.00†	0.000	285.407	1117.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1217.00†	0.000	285.407	1217.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1317.00†	0.000	285.407	1317.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1417.00†	0.000	285.407	1417.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1517.00†	0.000	285.407	1517.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	
1550.00	0.000	285.407	1550.00	0.00	0.00	0.00	40°19'09.169"N	104°23'49.422"W	0.00	End of Tangent
1617.00†	1.340	285.407	1616.99	0.15	0.21	-0.76	40°19'09.171"N	104°23'49.432"W	2.00	
1717.00†	3.340	285.407	1716.91	0.93	1.29	-4.69	40°19'09.182"N	104°23'49.483"W	2.00	
1817.00†	5.340	285.407	1816.61	2.38	3.30	-11.99	40°19'09.202"N	104°23'49.577"W	2.00	
1917.00†	7.340	285.407	1916.00	4.50	6.24	-22.63	40°19'09.231"N	104°23'49.714"W	2.00	
2017.00†	9.340	285.407	2014.93	7.29	10.09	-36.61	40°19'09.269"N	104°23'49.895"W	2.00	
2117.00†	11.340	285.407	2113.31	10.73	14.86	-53.92	40°19'09.316"N	104°23'50.118"W	2.00	
2217.00†	13.340	285.407	2210.99	14.83	20.54	-74.52	40°19'09.372"N	104°23'50.384"W	2.00	
2317.00†	15.340	285.407	2307.87	19.58	27.12	-98.40	40°19'09.437"N	104°23'50.692"W	2.00	
2417.00†	17.340	285.407	2403.83	24.97	34.59	-125.52	40°19'09.511"N	104°23'51.042"W	2.00	
2517.00†	19.340	285.407	2498.74	31.01	42.95	-155.85	40°19'09.593"N	104°23'51.434"W	2.00	
2617.00†	21.340	285.407	2592.50	37.68	52.18	-189.36	40°19'09.685"N	104°23'51.867"W	2.00	
2717.00†	23.340	285.407	2684.99	44.97	62.28	-226.00	40°19'09.784"N	104°23'52.340"W	2.00	



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 3 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (125 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	285.407	2776.10	52.87	73.23	-265.73	40°19'09.893"N	104°23'52.853"W	2.00	
2917.00†	27.340	285.407	2865.71	61.38	85.02	-308.51	40°19'10.009"N	104°23'53.405"W	2.00	
3017.00†	29.340	285.407	2953.72	70.49	97.63	-354.27	40°19'10.134"N	104°23'53.996"W	2.00	
3095.77	30.915	285.407	3021.85	78.07	108.13	-392.39	40°19'10.237"N	104°23'54.488"W	2.00	End of Build (XS)
3117.00†	30.915	285.407	3040.06	80.17	111.03	-402.90	40°19'10.266"N	104°23'54.623"W	0.00	
3217.00†	30.915	285.407	3125.85	90.02	124.68	-452.43	40°19'10.401"N	104°23'55.263"W	0.00	
3317.00†	30.915	285.407	3211.65	99.88	138.33	-501.96	40°19'10.536"N	104°23'55.902"W	0.00	
3417.00†	30.915	285.407	3297.44	109.73	151.98	-551.49	40°19'10.671"N	104°23'56.542"W	0.00	
3517.00†	30.915	285.407	3383.23	119.59	165.63	-601.02	40°19'10.806"N	104°23'57.181"W	0.00	
3617.00†	30.915	285.407	3469.02	129.44	179.27	-650.55	40°19'10.940"N	104°23'57.821"W	0.00	
3717.00†	30.915	285.407	3554.82	139.30	192.92	-700.08	40°19'11.075"N	104°23'58.460"W	0.00	
3817.00†	30.915	285.407	3640.61	149.15	206.57	-749.62	40°19'11.210"N	104°23'59.100"W	0.00	
3917.00†	30.915	285.407	3726.40	159.01	220.22	-799.15	40°19'11.345"N	104°23'59.739"W	0.00	
4017.00†	30.915	285.407	3812.20	168.86	233.87	-848.68	40°19'11.480"N	104°24'00.378"W	0.00	
4117.00†	30.915	285.407	3897.99	178.72	247.52	-898.21	40°19'11.615"N	104°24'01.018"W	0.00	
4217.00†	30.915	285.407	3983.78	188.57	261.17	-947.74	40°19'11.750"N	104°24'01.657"W	0.00	
4317.00†	30.915	285.407	4069.57	198.43	274.82	-997.27	40°19'11.885"N	104°24'02.297"W	0.00	
4417.00†	30.915	285.407	4155.37	208.28	288.47	-1046.80	40°19'12.019"N	104°24'02.936"W	0.00	
4517.00†	30.915	285.407	4241.16	218.14	302.12	-1096.33	40°19'12.154"N	104°24'03.576"W	0.00	
4617.00†	30.915	285.407	4326.95	227.99	315.77	-1145.86	40°19'12.289"N	104°24'04.215"W	0.00	
4717.00†	30.915	285.407	4412.74	237.85	329.42	-1195.40	40°19'12.424"N	104°24'04.855"W	0.00	
4817.00†	30.915	285.407	4498.54	247.70	343.07	-1244.93	40°19'12.559"N	104°24'05.494"W	0.00	
4917.00†	30.915	285.407	4584.33	257.56	356.72	-1294.46	40°19'12.694"N	104°24'06.134"W	0.00	
5017.00†	30.915	285.407	4670.12	267.42	370.37	-1343.99	40°19'12.829"N	104°24'06.773"W	0.00	
5117.00†	30.915	285.407	4755.91	277.27	384.02	-1393.52	40°19'12.963"N	104°24'07.413"W	0.00	
5217.00†	30.915	285.407	4841.71	287.13	397.67	-1443.05	40°19'13.098"N	104°24'08.052"W	0.00	
5317.00†	30.915	285.407	4927.50	296.98	411.31	-1492.58	40°19'13.233"N	104°24'08.691"W	0.00	
5417.00†	30.915	285.407	5013.29	306.84	424.96	-1542.11	40°19'13.368"N	104°24'09.331"W	0.00	
5517.00†	30.915	285.407	5099.08	316.69	438.61	-1591.64	40°19'13.503"N	104°24'09.970"W	0.00	
5617.00†	30.915	285.407	5184.88	326.55	452.26	-1641.17	40°19'13.638"N	104°24'10.610"W	0.00	



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 4 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5717.00†	30.915	285.407	5270.67	336.40	465.91	-1690.71	40°19'13.772"N	104°24'11.249"W	0.00	
5817.00†	30.915	285.407	5356.46	346.26	479.56	-1740.24	40°19'13.907"N	104°24'11.889"W	0.00	
5917.00†	30.915	285.407	5442.25	356.11	493.21	-1789.77	40°19'14.042"N	104°24'12.528"W	0.00	
6017.00†	30.915	285.407	5528.05	365.97	506.86	-1839.30	40°19'14.177"N	104°24'13.168"W	0.00	
6117.00†	30.915	285.407	5613.84	375.82	520.51	-1888.83	40°19'14.312"N	104°24'13.807"W	0.00	
6217.00†	30.915	285.407	5699.63	385.68	534.16	-1938.36	40°19'14.447"N	104°24'14.447"W	0.00	
6317.00†	30.915	285.407	5785.43	395.53	547.81	-1987.89	40°19'14.582"N	104°24'15.086"W	0.00	
6348.73	30.915	285.407	5812.64	398.66	552.14	-2003.61	40°19'14.624"N	104°24'15.289"W	0.00	End of Tangent (XS)
6417.00†	29.943	272.040	5871.58	409.08	557.41	-2037.58	40°19'14.676"N	104°24'15.728"W	10.00	
6517.00†	31.026	252.369	5957.97	437.41	550.48	-2087.21	40°19'14.608"N	104°24'16.368"W	10.00	
6617.00†	34.784	235.241	6042.10	480.45	526.35	-2135.33	40°19'14.369"N	104°24'16.990"W	10.00	
6717.00†	40.472	221.715	6121.40	536.91	485.76	-2180.47	40°19'13.968"N	104°24'17.572"W	10.00	
6817.00†	47.388	211.270	6193.47	605.06	429.94	-2221.27	40°19'13.417"N	104°24'18.099"W	10.00	
6917.00†	55.057	203.017	6256.12	682.84	360.58	-2256.49	40°19'12.731"N	104°24'18.554"W	10.00	
7017.00†	63.186	196.218	6307.44	767.88	279.81	-2285.05	40°19'11.933"N	104°24'18.922"W	10.00	
7117.00†	71.596	190.349	6345.88	857.60	190.06	-2306.09	40°19'11.046"N	104°24'19.194"W	10.00	
7217.00†	80.168	185.034	6370.27	949.27	94.07	-2318.97	40°19'10.098"N	104°24'19.360"W	10.00	
7317.00†	88.820	179.990	6379.86	1040.10	-5.25	-2323.29	40°19'09.116"N	104°24'19.416"W	10.00	
7330.62	90.000	179.311	6380.00†	1052.25	-18.86	-2323.21	40°19'08.982"N	104°24'19.415"W	10.00	End of 3D Arc (XS)
7417.00†	90.000	179.311	6380.00	1129.12	-105.24	-2322.17	40°19'08.128"N	104°24'19.401"W	0.00	
7517.00†	90.000	179.311	6380.00	1218.10	-205.23	-2320.97	40°19'07.140"N	104°24'19.385"W	0.00	
7617.00†	90.000	179.311	6380.00	1307.07	-305.22	-2319.77	40°19'06.152"N	104°24'19.370"W	0.00	
7717.00†	90.000	179.311	6380.00	1396.05	-405.22	-2318.57	40°19'05.164"N	104°24'19.354"W	0.00	
7817.00†	90.000	179.311	6380.00	1485.03	-505.21	-2317.36	40°19'04.176"N	104°24'19.338"W	0.00	
7917.00†	90.000	179.311	6380.00	1574.01	-605.20	-2316.16	40°19'03.187"N	104°24'19.323"W	0.00	
8017.00†	90.000	179.311	6380.00	1662.99	-705.20	-2314.96	40°19'02.199"N	104°24'19.307"W	0.00	
8117.00†	90.000	179.311	6380.00	1751.96	-805.19	-2313.76	40°19'01.211"N	104°24'19.292"W	0.00	
8217.00†	90.000	179.311	6380.00	1840.94	-905.18	-2312.55	40°19'00.223"N	104°24'19.276"W	0.00	
8317.00†	90.000	179.311	6380.00	1929.92	-1005.17	-2311.35	40°18'59.235"N	104°24'19.260"W	0.00	
8417.00†	90.000	179.311	6380.00	2018.90	-1105.17	-2310.15	40°18'58.247"N	104°24'19.245"W	0.00	



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 5 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (125 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	179.311	6380.00	2107.87	-1205.16	-2308.95	40°18'57.259"N	104°24'19.229"W	0.00	
8617.00†	90.000	179.311	6380.00	2196.85	-1305.15	-2307.75	40°18'56.271"N	104°24'19.213"W	0.00	
8717.00†	90.000	179.311	6380.00	2285.83	-1405.14	-2306.54	40°18'55.283"N	104°24'19.198"W	0.00	
8817.00†	90.000	179.311	6380.00	2374.81	-1505.14	-2305.34	40°18'54.295"N	104°24'19.182"W	0.00	
8917.00†	90.000	179.311	6380.00	2463.79	-1605.13	-2304.14	40°18'53.306"N	104°24'19.166"W	0.00	
9017.00†	90.000	179.311	6380.00	2552.76	-1705.12	-2302.94	40°18'52.318"N	104°24'19.151"W	0.00	
9117.00†	90.000	179.311	6380.00	2641.74	-1805.12	-2301.73	40°18'51.330"N	104°24'19.135"W	0.00	
9217.00†	90.000	179.311	6380.00	2730.72	-1905.11	-2300.53	40°18'50.342"N	104°24'19.119"W	0.00	
9317.00†	90.000	179.311	6380.00	2819.70	-2005.10	-2299.33	40°18'49.354"N	104°24'19.104"W	0.00	
9417.00†	90.000	179.311	6380.00	2908.67	-2105.09	-2298.13	40°18'48.366"N	104°24'19.088"W	0.00	
9517.00†	90.000	179.311	6380.00	2997.65	-2205.09	-2296.93	40°18'47.378"N	104°24'19.073"W	0.00	
9617.00†	90.000	179.311	6380.00	3086.63	-2305.08	-2295.72	40°18'46.390"N	104°24'19.057"W	0.00	
9717.00†	90.000	179.311	6380.00	3175.61	-2405.07	-2294.52	40°18'45.402"N	104°24'19.041"W	0.00	
9817.00†	90.000	179.311	6380.00	3264.59	-2505.07	-2293.32	40°18'44.413"N	104°24'19.026"W	0.00	
9917.00†	90.000	179.311	6380.00	3353.56	-2605.06	-2292.12	40°18'43.425"N	104°24'19.010"W	0.00	
10017.00†	90.000	179.311	6380.00	3442.54	-2705.05	-2290.92	40°18'42.437"N	104°24'18.994"W	0.00	
10117.00†	90.000	179.311	6380.00	3531.52	-2805.04	-2289.71	40°18'41.449"N	104°24'18.979"W	0.00	
10217.00†	90.000	179.311	6380.00	3620.50	-2905.04	-2288.51	40°18'40.461"N	104°24'18.963"W	0.00	
10317.00†	90.000	179.311	6380.00	3709.47	-3005.03	-2287.31	40°18'39.473"N	104°24'18.947"W	0.00	
10417.00†	90.000	179.311	6380.00	3798.45	-3105.02	-2286.11	40°18'38.485"N	104°24'18.932"W	0.00	
10517.00†	90.000	179.311	6380.00	3887.43	-3205.01	-2284.90	40°18'37.497"N	104°24'18.916"W	0.00	
10617.00†	90.000	179.311	6380.00	3976.41	-3305.01	-2283.70	40°18'36.509"N	104°24'18.901"W	0.00	
10717.00†	90.000	179.311	6380.00	4065.39	-3405.00	-2282.50	40°18'35.520"N	104°24'18.885"W	0.00	
10817.00†	90.000	179.311	6380.00	4154.36	-3504.99	-2281.30	40°18'34.532"N	104°24'18.869"W	0.00	
10917.00†	90.000	179.311	6380.00	4243.34	-3604.99	-2280.10	40°18'33.544"N	104°24'18.854"W	0.00	
11017.00†	90.000	179.311	6380.00	4332.32	-3704.98	-2278.89	40°18'32.556"N	104°24'18.838"W	0.00	
11117.00†	90.000	179.311	6380.00	4421.30	-3804.97	-2277.69	40°18'31.568"N	104°24'18.822"W	0.00	
11217.00†	90.000	179.311	6380.00	4510.27	-3904.96	-2276.49	40°18'30.580"N	104°24'18.807"W	0.00	
11317.00†	90.000	179.311	6380.00	4599.25	-4004.96	-2275.29	40°18'29.592"N	104°24'18.791"W	0.00	
11417.00†	90.000	179.311	6380.00	4688.23	-4104.95	-2274.08	40°18'28.604"N	104°24'18.775"W	0.00	



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 6 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

WELLPATH DATA (125 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	179.311	6380.00	4777.21	-4204.94	-2272.88	40°18'27.616"N	104°24'18.760"W	0.00	
11617.00†	90.000	179.311	6380.00	4866.19	-4304.94	-2271.68	40°18'26.628"N	104°24'18.744"W	0.00	
11717.00†	90.000	179.311	6380.00	4955.16	-4404.93	-2270.48	40°18'25.639"N	104°24'18.729"W	0.00	
11817.00†	90.000	179.311	6380.00	5044.14	-4504.92	-2269.28	40°18'24.651"N	104°24'18.713"W	0.00	
11869.09	90.000	179.311	6380.00 ²	5090.49	-4557.01	-2268.65	40°18'24.137"N	104°24'18.705"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS - Ref Wellbore: LATHAM K-O-14HNC PWB Ref Wellpath: LATHAM K-O-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	96.32	152.44	3307689.09	1361141.22	40°19'10.121"N	104°23'47.454"W	polygon
2) LATHAM K-O-14HNC BHL (470'FSL & 2635'FEL, SEC.14)	11869.09	6380.00	-4557.01	-2268.65	3305326.17	1356458.34	40°18'24.137"N	104°24'18.705"W	point
1) LATHAM K-O-14HNC LP (260'FNL & 2653'FEL, SEC.14)	7330.62	6380.00	-18.86	-2323.21	3305215.18	1360995.26	40°19'08.982"N	104°24'19.415"W	point
LATHAM HARDLINE 260'FNL & 470'FSL & 260'E/W		6385.00	-29.85	-120.06	3307418.19	1361011.67	40°19'08.874"N	104°23'50.972"W	polygon



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 7 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

SURVEY PROGRAM - Ref Wellbore: LATHAM K-O-14HNC PWB Ref Wellpath: LATHAM K-O-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 K-O-14HNC PWB
1550.00	11869.09	BHI AutoTrak Curve (Axial Corr, Short spacing)		LATHAM K-O-14HNC PWB



Planned Wellpath Report

LATHAM K-O-14HNC (REV-A.0) PWP

Page 8 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 LATHAM K-O-14HNC (287'FNL & 332'FEL, SEC.14)
Area	COLORADO	Well	LATHAM K-O-14HNC
Field	WELD COUNTY	Wellbore	LATHAM K-O-14HNC PWB
Facility	SEC.14-T4N-R63W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	285.407	17.00	Tie On
1550.00	0.000	285.407	1550.00	End of Tangent
3095.77	30.915	285.407	3021.85	End of Build (XS)
6348.73	30.915	285.407	5812.64	End of Tangent (XS)
7330.62	90.000	179.311	6380.00	End of 3D Arc (XS)
11869.09	90.000	179.311	6380.00	End of Tangent (XS)