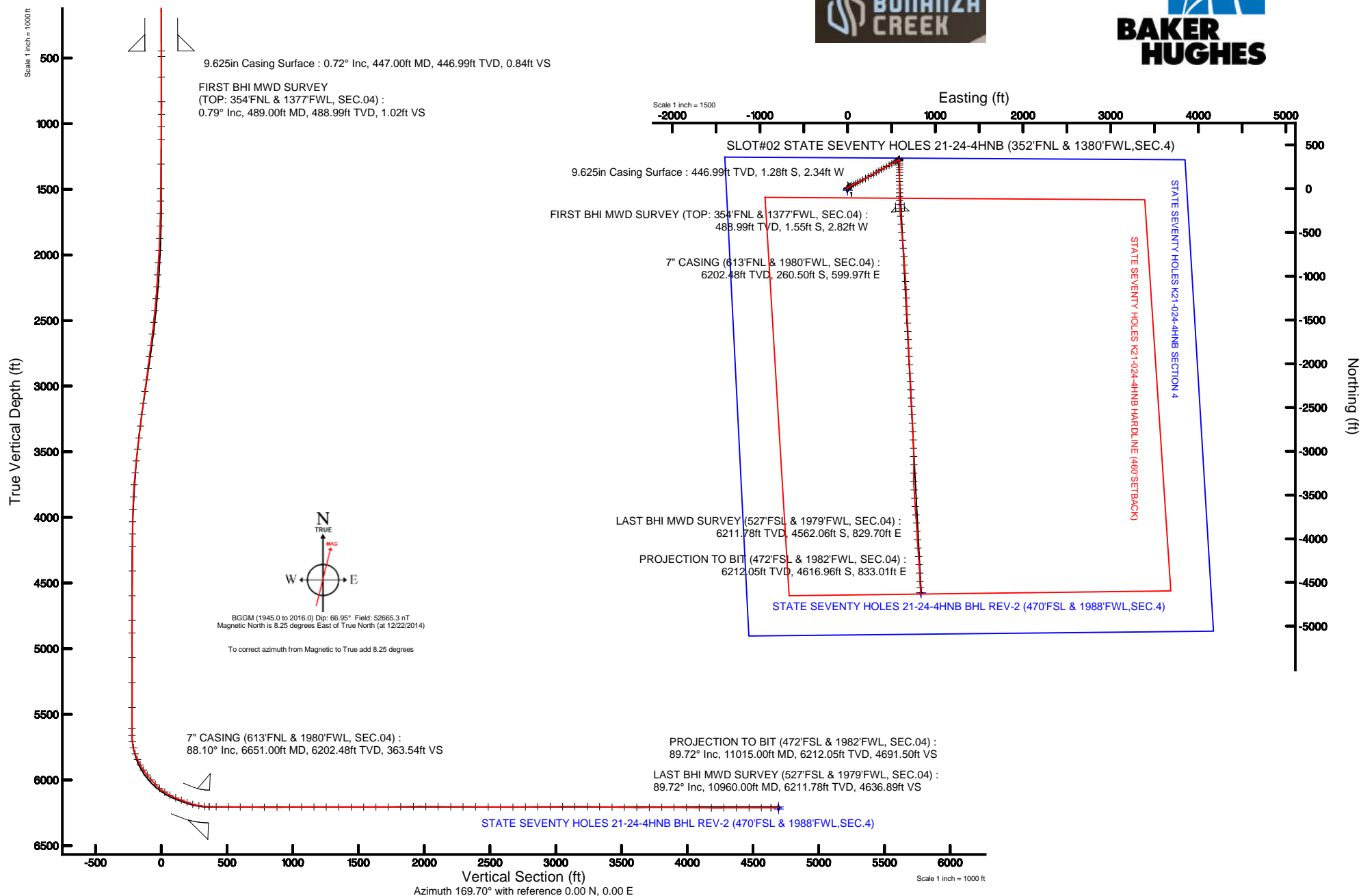


# BONANZA CREEK OIL COMPANY

Location: COLORADO Slot: SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4)  
Field: WELD COUNTY Well: STATE SEVENTY HOLES 21-24-4HNB  
Facility: SEC.04-T4N-R62W Wellbore: STATE SEVENTY HOLES 21-24-4HNB PWB

Plot reference wellpath is STATE SEVENTY HOLES 21-24-4HNB (REV-B.0) PWP

True vertical depths are referenced to FRONTIER 4 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to FRONTIER 4 (RKB)	North Reference: True north
FRONTIER 4 (RKB) to Mean Sea Level: 4574 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingnjmr on 3/27/2015





# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWB
Facility	SEC.04-T4N-R62W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Ingmjmr
Scale	0.999958	Report Generated	3/27/2015 at 1:05:22 PM
Convergence at slot	0.75° East	Database/Source file	Denver/STATE_SEVENTY_HOLES_21-24-4HNB_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	18.22	0.00	3324450.63	1371735.79	40°20'52.692"N	104°20'09.276"W
Facility Reference Pt			3324450.87	1371717.58	40°20'52.512"N	104°20'09.276"W
Field Reference Pt			3335925.10	1457282.25	40°34'56.460"N	104°17'26.016"W

## WELLPATH DATUM

Calculation method	Minimum curvature	FRONTIER 4 (RKB) to Facility Vertical Datum	4574.00ft
Horizontal Reference Pt	Slot	FRONTIER 4 (RKB) to Mean Sea Level	4574.00ft
Vertical Reference Pt	FRONTIER 4 (RKB)	FRONTIER 4 (RKB) to Mud Line at Slot (SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL,SEC.4))	4574.00ft
MD Reference Pt	FRONTIER 4 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	169.70°



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWB
Facility	SEC.04-T4N-R62W		

## WELLPATH DATA (115 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	241.310	0.00	0.00	0.00	0.00	0.00	
22.00	0.000	241.310	22.00	0.00	0.00	0.00	0.00	
489.00	0.790	241.310	488.99	1.02	-1.55	-2.82	0.17	FIRST BHI MWD SURVEY (TOP: 354'FNL & 1377'FWL, SEC.04)
646.00	0.740	244.180	645.97	1.63	-2.51	-4.69	0.04	
834.00	1.020	247.250	833.95	2.31	-3.68	-7.32	0.15	
930.00	0.850	20.020	929.94	1.88	-3.34	-7.87	1.79	
1024.00	0.750	23.720	1023.93	0.77	-2.13	-7.38	0.12	
1119.00	0.750	21.160	1118.93	-0.27	-0.98	-6.91	0.04	
1308.00	0.680	9.820	1307.91	-2.38	1.28	-6.27	0.08	
1496.00	0.550	7.530	1495.90	-4.29	3.28	-5.96	0.07	
1591.00	1.260	60.190	1590.89	-5.07	4.25	-4.99	1.08	
1685.00	2.650	51.520	1684.83	-6.44	6.11	-2.40	1.51	
1780.00	4.100	52.720	1779.67	-9.02	9.54	2.03	1.53	
1874.00	6.150	59.160	1873.29	-12.31	14.15	9.02	2.26	
1968.00	8.300	56.360	1966.53	-16.77	20.49	19.00	2.32	
2062.00	10.210	60.090	2059.31	-22.26	28.41	31.87	2.13	
2157.00	11.840	63.330	2152.55	-27.83	36.98	47.88	1.83	
2251.00	14.450	64.070	2244.08	-33.71	46.44	67.05	2.78	
2345.00	16.170	63.200	2334.74	-40.59	57.47	89.28	1.85	
2440.00	18.370	62.410	2425.45	-48.80	70.37	114.36	2.33	
2534.00	20.110	63.510	2514.20	-57.71	84.44	141.95	1.89	
2628.00	21.790	62.670	2601.98	-67.33	99.66	171.91	1.82	
2723.00	23.890	61.040	2689.53	-78.65	117.07	204.41	2.31	
2817.00	21.910	61.860	2776.12	-90.12	134.56	236.53	2.13	
2911.00	21.270	61.090	2863.52	-100.93	151.07	266.93	0.74	
3006.00	21.790	59.320	2951.89	-112.57	168.40	297.17	0.88	
3101.00	20.810	58.350	3040.40	-124.86	186.25	326.70	1.10	
3196.00	21.540	60.110	3128.99	-136.86	203.80	356.19	1.02	
3290.00	19.650	60.920	3216.98	-147.73	220.08	384.97	2.03	
3384.00	20.750	60.800	3305.19	-158.22	235.89	413.32	1.17	



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWP
Facility	SEC.04-T4N-R62W		

## WELLPATH DATA (115 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3479.00	21.970	61.710	3393.67	-169.16	252.52	443.66	1.33	
3573.00	21.540	61.740	3480.97	-179.91	269.02	474.34	0.46	
3667.00	19.200	62.100	3569.09	-189.91	284.43	503.20	2.49	
3762.00	15.330	60.500	3659.79	-198.77	297.93	527.95	4.10	
3856.00	12.360	61.490	3751.05	-206.00	308.85	547.61	3.17	
3951.00	9.300	61.480	3844.35	-211.58	317.37	563.29	3.22	
4046.00	5.680	58.700	3938.52	-215.67	323.48	574.05	3.83	
4140.00	3.000	66.740	4032.24	-217.89	326.87	580.29	2.92	
4234.00	1.300	83.870	4126.17	-218.36	327.96	583.61	1.91	
4329.00	0.240	236.410	4221.17	-218.21	327.96	584.52	1.60	
4516.00	0.810	355.040	4408.16	-219.37	329.06	584.08	0.51	
4705.00	0.350	43.780	4597.15	-221.04	330.81	584.36	0.34	
4893.00	1.000	32.370	4785.14	-222.58	332.61	585.64	0.35	
4988.00	0.910	94.350	4880.13	-223.00	333.25	586.83	1.04	
5177.00	0.240	161.340	5069.12	-222.23	332.76	588.45	0.45	
5367.00	0.220	65.680	5259.12	-221.92	332.54	588.91	0.18	
5556.00	0.910	57.340	5448.11	-222.58	333.50	590.51	0.37	
5718.00	0.850	40.610	5610.09	-223.83	335.10	592.37	0.16	
5769.00	1.050	119.800	5661.08	-223.77	335.16	593.03	2.39	
5817.00	7.050	177.510	5708.95	-220.56	331.99	593.54	13.64	
5864.00	13.720	178.770	5755.15	-212.19	323.53	593.78	14.20	
5911.00	19.890	181.400	5800.13	-198.84	309.95	593.70	13.22	
5958.00	25.620	179.030	5843.45	-180.97	291.78	593.68	12.34	
6005.00	30.160	182.360	5884.98	-159.41	269.81	593.37	10.21	
6052.00	34.150	178.640	5924.77	-134.85	244.81	593.19	9.47	
6099.00	38.550	179.870	5962.62	-107.39	216.97	593.54	9.49	
6146.00	41.940	182.940	5998.49	-77.67	186.62	592.77	8.35	
6194.00	45.350	182.920	6033.22	-45.43	153.54	591.07	7.10	
6241.00	49.800	180.190	6064.92	-11.48	118.88	590.16	10.39	
6288.00	56.790	176.920	6093.00	25.73	81.24	591.16	15.88	



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWP
Facility	SEC.04-T4N-R62W		

## WELLPATH DATA (115 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6335.00	63.040	178.110	6116.55	65.99	40.63	592.91	13.48	
6383.00	67.900	179.950	6136.47	109.07	-3.01	593.64	10.71	
6430.00	69.260	179.800	6153.64	152.13	-46.77	593.73	2.91	
6478.00	69.340	179.720	6170.60	196.34	-91.67	593.92	0.23	
6525.00	73.610	179.430	6185.53	240.24	-136.22	594.25	9.10	
6572.00	80.280	177.650	6196.14	285.45	-181.96	595.43	14.66	
6618.00	87.240	176.350	6201.14	330.78	-227.60	597.82	15.39	
6651.00†	88.102	176.189	6202.48	363.54	-260.50	599.97	2.66	7" CASING (613'FNL & 1980'FWL, SEC.04)
6706.00	89.540	175.920	6203.61	418.19	-315.36	603.75	2.66	
6799.00	89.110	175.980	6204.71	510.63	-408.12	610.32	0.47	
6890.00	90.280	175.030	6205.19	601.16	-498.83	617.45	1.66	
6982.00	88.090	174.010	6206.50	692.82	-590.40	626.23	2.63	
7074.00	89.140	174.910	6208.73	784.47	-681.94	635.11	1.50	
7170.00	90.860	176.270	6208.73	879.96	-777.65	642.49	2.28	
7265.00	91.510	175.820	6206.76	974.36	-872.40	649.05	0.83	
7358.00	90.060	176.010	6205.49	1066.80	-965.15	655.67	1.57	
7453.00	89.850	176.820	6205.56	1161.15	-1059.97	661.61	0.88	
7548.00	89.230	178.120	6206.32	1255.27	-1154.87	665.80	1.52	
7644.00	89.890	177.550	6207.06	1350.31	-1250.80	669.43	0.91	
7739.00	89.510	177.390	6207.56	1444.43	-1345.70	673.62	0.43	
7834.00	90.620	177.360	6207.45	1538.58	-1440.60	677.97	1.17	
7928.00	89.720	176.550	6207.17	1631.83	-1534.47	682.97	1.29	
8023.00	91.580	178.110	6206.09	1725.97	-1629.35	687.39	2.56	
8119.00	91.170	177.630	6203.79	1820.97	-1725.26	690.96	0.66	
8216.00	91.080	177.680	6201.89	1917.02	-1822.16	694.93	0.11	
8311.00	89.110	176.680	6201.73	2011.21	-1917.04	699.60	2.33	
8406.00	89.260	176.050	6203.08	2105.56	-2011.83	705.62	0.68	
8502.00	90.310	176.840	6203.44	2200.89	-2107.65	711.58	1.37	
8597.00	89.380	177.160	6203.70	2295.12	-2202.52	716.55	1.04	
8693.00	89.040	176.610	6205.02	2390.36	-2298.36	721.76	0.67	



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWB
Facility	SEC.04-T4N-R62W		

## WELLPATH DATA (115 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8789.00	89.570	177.920	6206.18	2485.51	-2394.25	726.34	1.47	
8884.00	89.320	177.080	6207.11	2579.63	-2489.15	730.49	0.92	
8979.00	90.710	177.470	6207.08	2673.80	-2584.04	735.00	1.52	
9075.00	90.770	177.140	6205.84	2768.95	-2679.92	739.52	0.35	
9170.00	91.170	177.550	6204.23	2863.09	-2774.81	743.92	0.60	
9266.00	89.880	177.700	6203.35	2958.17	-2870.72	747.90	1.35	
9361.00	90.650	178.100	6202.91	3052.20	-2965.65	751.38	0.91	
9456.00	89.750	178.680	6202.58	3146.10	-3060.62	754.05	1.13	
9551.00	89.660	180.210	6203.07	3239.73	-3155.61	754.97	1.61	
9647.00	88.620	181.090	6204.51	3333.97	-3251.59	753.88	1.42	
9742.00	88.270	178.470	6207.09	3427.46	-3346.54	754.24	2.78	
9837.00	89.480	176.290	6208.96	3521.59	-3441.42	758.58	2.62	
9933.00	89.290	176.110	6209.99	3616.97	-3537.20	764.95	0.27	
10028.00	91.200	176.350	6209.58	3711.34	-3631.99	771.19	2.03	
10124.00	89.820	175.430	6208.73	3806.78	-3727.74	778.07	1.73	
10217.00	89.540	176.150	6209.24	3899.25	-3820.48	784.90	0.83	
10313.00	88.890	176.460	6210.56	3994.61	-3916.27	791.08	0.75	
10409.00	89.140	176.610	6212.21	4089.91	-4012.08	796.89	0.30	
10504.00	89.570	176.180	6213.28	4184.26	-4106.89	802.86	0.64	
10599.00	90.800	176.150	6212.97	4278.65	-4201.68	809.21	1.30	
10695.00	89.940	175.600	6212.35	4374.09	-4297.42	816.12	1.06	
10791.00	89.750	177.610	6212.61	4469.39	-4393.25	821.80	2.10	
10886.00	90.830	177.500	6212.13	4563.50	-4488.16	825.86	1.14	
10960.00	89.720	176.550	6211.78	4636.89	-4562.06	829.70	1.97	LAST BHI MWD SURVEY (527'FSL & 1979'FWL, SEC.04)
11015.00	89.720	176.550	6212.05	4691.50	-4616.96	833.01	0.00	PROJECTION TO BIT (472'FSL & 1982'FWL, SEC.04)



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL,SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWB
Facility	SEC.04-T4N-R62W		

## HOLE & CASING SECTIONS -

Ref Wellbore: STATE SEVENTY HOLES 21-24-4HNB AWB Ref Wellpath: STATE SEVENTY HOLES 21-24-4HNB AWP

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	22.00	447.00	425.00	22.00	446.99	0.00	0.00	-1.28	-2.34
8.75in Open Hole	447.00	6660.00	6213.00	446.99	6202.76	-1.28	-2.34	-269.48	600.57
7in Casing Intermediate	22.00	6651.00	6629.00	22.00	6202.48	0.00	0.00	-260.50	599.97
6in Open Hole	6660.00	11015.00	4355.00	6202.76	6212.05	-269.48	600.57	-4616.96	833.01

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
STATE SEVENTY HOLES K21-024-4HNB SECTION 4	0.00	-18.22	0.00	3324450.86	1371717.58	40°20'52.512"N	104°20'09.276"W	polygon
STATE SEVENTY HOLES 21-24-4HNB BHL REV-2 (470'FSL & 1988'FWL,SEC.4)	6206.00	-4619.42	839.15	3325350.30	1367127.99	40°20'07.044"N	104°19'58.440"W	point
STATE SEVENTY HOLES 21-24-4HNB BHL REV-1 (470'FSL & 1988'FWL,SEC.4)	6222.00	-4619.42	839.15	3325350.31	1367127.99	40°20'07.044"N	104°19'58.440"W	point
STATE SEVENTY HOLES 21-24-4HNB LANDING	6222.00	-182.15	596.50	3325049.44	1371561.50	40°20'50.892"N	104°20'01.572"W	point
STATE SEVENTY HOLES K21-024-4HNB HARDLINE (460'SETBACK)	6222.00	-18.22	0.00	3324450.86	1371717.58	40°20'52.512"N	104°20'09.276"W	polygon

## WELLPATH COMPOSITION -

Ref Wellbore: STATE SEVENTY HOLES 21-24-4HNB AWB Ref Wellpath: STATE SEVENTY HOLES 21-24-4HNB AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	6618.00	NaviTrak (MagCorr)	BHI/Navitrak MWD 8.75" Hole <489'-6618'>	STATE SEVENTY HOLES 21-24-4HNB AWB
6618.00	10960.00	NaviTrak (MagCorr)	BHI/Navitrak MagCorr MWD 6.125" Hole <6706'-10960'>	STATE SEVENTY HOLES 21-24-4HNB AWB
10960.00	11015.00	Blind Drilling (std)	Projection to bit	STATE SEVENTY HOLES 21-24-4HNB AWB



# Actual Wellpath Report

STATE SEVENTY HOLES 21-24-4HNB AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 STATE SEVENTY HOLES 21-24-4HNB (352'FNL & 1380'FWL, SEC.4)
Area	COLORADO	Well	STATE SEVENTY HOLES 21-24-4HNB
Field	WELD COUNTY	Wellbore	STATE SEVENTY HOLES 21-24-4HNB AWP
Facility	SEC.04-T4N-R62W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
489.00	0.790	241.310	488.99	FIRST BHI MWD SURVEY (TOP: 354'FNL & 1377'FWL, SEC.04)
6651.00	88.102	176.189	6202.48	7" CASING (613'FNL & 1980'FWL, SEC.04)
10960.00	89.720	176.550	6211.78	LAST BHI MWD SURVEY (527'FSL & 1979'FWL, SEC.04)
11015.00	89.720	176.550	6212.05	PROJECTION TO BIT (472'FSL & 1982'FWL, SEC.04)