



BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 320H

Slot: No.320H SHL
Well: No.320H
Wellbore: No.320H PWB

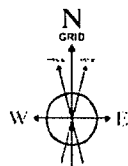


15-39810

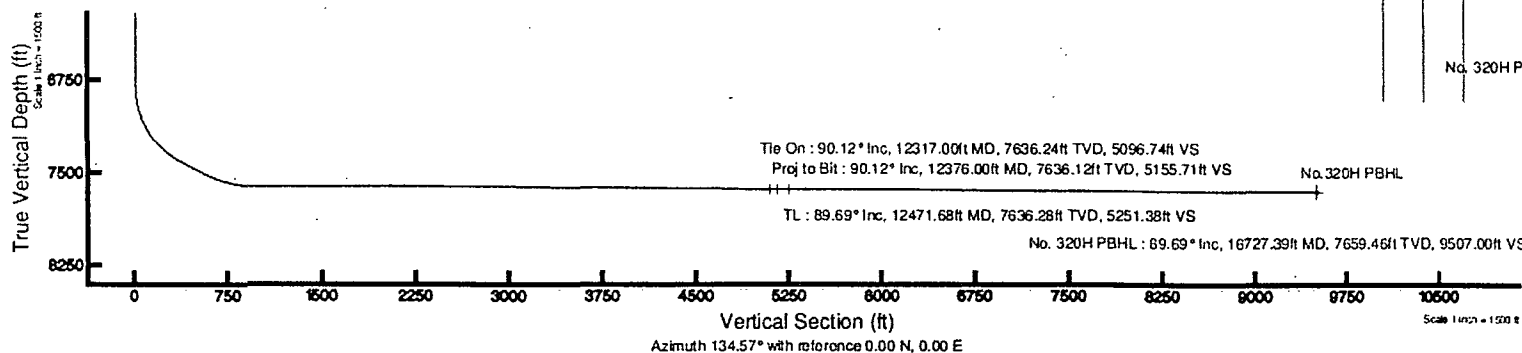
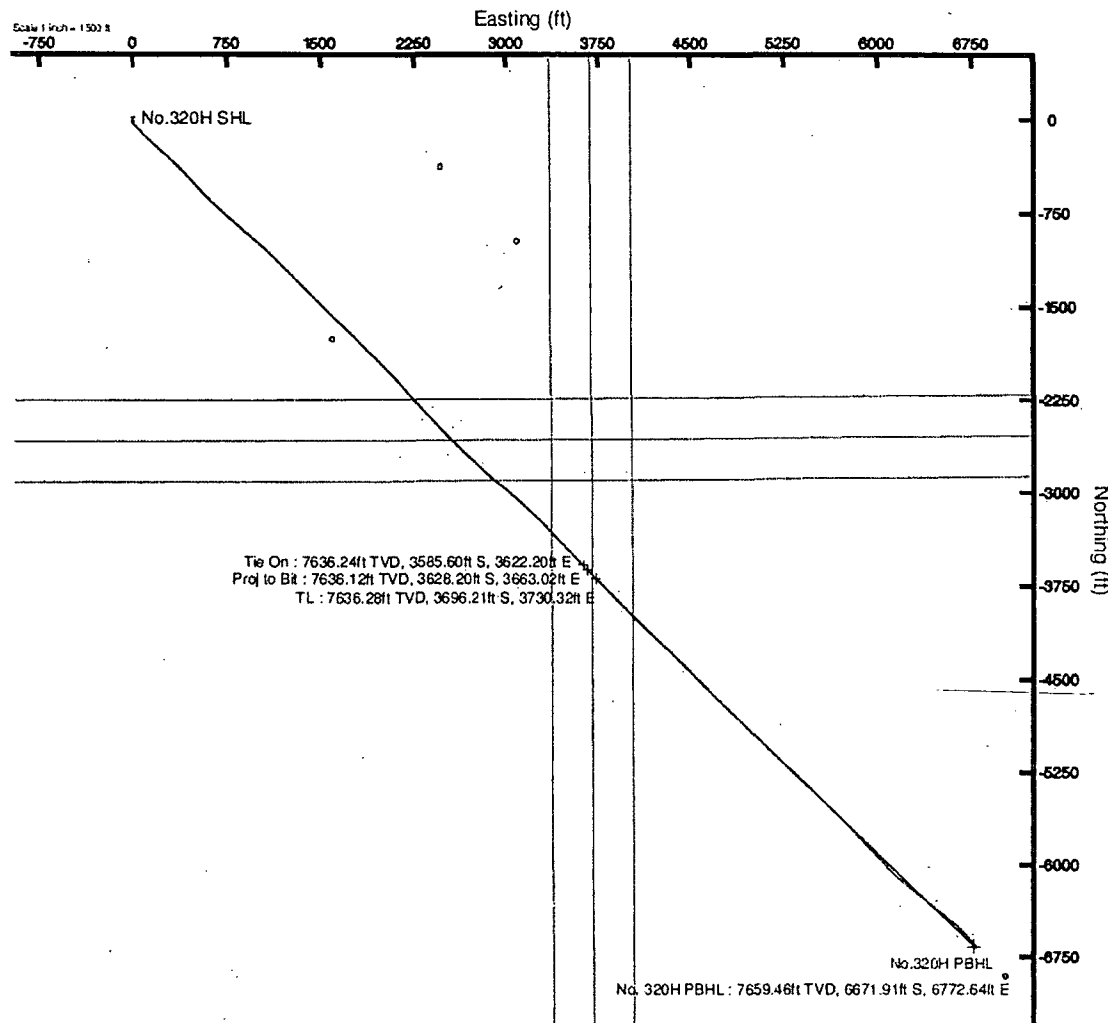
Well Profile Data

Design Comment	M/D (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	12317.00	90.120	136.230	7636.24	-3585.60	3622.20	0.00	5096.74
Proj to Bit	12376.00	90.120	136.230	7636.12	-3628.20	3663.02	0.00	5155.71
TL	12471.68	89.688	134.368	7636.28	-3696.21	3730.32	2.00	5251.38
No. 320H PWB HL	16727.39	89.688	134.368	7659.46	-6671.91	6772.64	0.00	9507.00

Plot reference wellbore is No. 320H	
Total vertical depths are referenced to Rig on No. 320H SHL (N-B)	Grid System: NAD83 - TM New Mexico SP, Eastern Zone 2003 U.S. Feet
Measured depths are referenced to Rig on No. 320H SHL (N-B)	North Reference: Grid north
Rig on No. 320H SHL (N-B) to Mean Sea Level: 33.69 feet	Scale: True distance
Mean Sea Level to Mud Line (At Slot: No. 320H SHL): 0.04 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentry on 09/24/2012



BGGM (1945.0 to 2014.0) Dip: 60.08° Field: 46454.8 nT
Magnetic North is 7.88 degrees East of True North (at 09/24/2012)
Grid North is 0.24 degrees East of True North
To correct azimuth from True to Grid subtract 0.24 degrees
To correct azimuth from Magnetic to Grid add 7.44 degrees
For example: if the Magnetic North Azimuth = 90 dogs, then the Grid North Azimuth = 90 + 7.44 = 97.44





Actual Wellpath Report

No.320H AWP

Page 1 of 7

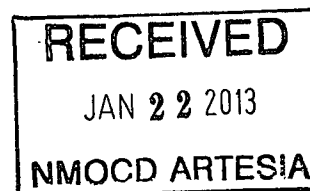


REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999931	Report Generated	10/03/2012 at 6:16:13 AM
Convergence at slot	0.24° East	Database/Source file	WA Midland/No.320H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	637376.51	453679.56	32°14'47.403"N	103°53'20.345"W
Facility Reference Pt			637376.51	453679.56	32°14'47.403"N	103°53'20.345"W
Field Reference Pt			630272.49	405347.85	32°06'49.387"N	103°54'45.266"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No.320H SHL (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Rig on No.320H SHL (KB) to Mean Sea Level	3386.00ft
Vertical Reference Pt	Rig on No.320H SHL (KB)	Rig on No.320H SHL (KB) to Mud Line at Slot (No.320H SHL)	22.00ft
MD Reference Pt	Rig on No.320H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	134.57°





Actual Wellpath Report

No.320H AWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

WELLPATH DATA (207 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	222.340	0.00	0.00	0.00	0.00	637376.51	453679.56	32°14'47.403"N	103°53'20.345"W	0.00	
692.00	1.260	222.340	691.94	0.30	-5.62	-5.12	637371.39	453673.94	32°14'47.347"N	103°53'20.405"W	0.18	
784.00	1.050	216.980	783.93	0.45	-7.05	-6.31	637370.20	453672.52	32°14'47.333"N	103°53'20.419"W	0.26	
877.00	1.090	224.440	876.91	0.56	-8.36	-7.44	637369.07	453671.20	32°14'47.320"N	103°53'20.432"W	0.16	
974.00	0.850	227.080	973.90	0.53	-9.51	-8.62	637367.89	453670.05	32°14'47.309"N	103°53'20.446"W	0.25	
1069.00	0.730	228.660	1068.89	0.46	-10.39	-9.59	637366.92	453669.18	32°14'47.300"N	103°53'20.457"W	0.13	
1164.00	0.630	226.490	1163.88	0.40	-11.14	-10.42	637366.09	453668.42	32°14'47.293"N	103°53'20.467"W	0.11	
1258.00	0.470	210.860	1257.88	0.47	-11.83	-10.99	637365.52	453667.73	32°14'47.286"N	103°53'20.474"W	0.23	
1353.00	0.430	199.680	1352.87	0.71	-12.50	-11.31	637365.20	453667.06	32°14'47.280"N	103°53'20.478"W	0.10	
1447.00	0.310	193.310	1446.87	0.99	-13.08	-11.49	637365.02	453666.48	32°14'47.274"N	103°53'20.480"W	0.13	
1542.00	0.310	181.080	1541.87	1.30	-13.59	-11.56	637364.96	453665.97	32°14'47.269"N	103°53'20.480"W	0.07	
1636.00	0.250	147.180	1635.87	1.68	-14.02	-11.45	637365.06	453665.55	32°14'47.265"N	103°53'20.479"W	0.18	
1730.00	0.160	123.420	1729.87	2.01	-14.26	-11.23	637365.28	453665.30	32°14'47.262"N	103°53'20.477"W	0.13	
1825.00	0.280	120.610	1824.87	2.36	-14.45	-10.92	637365.59	453665.11	32°14'47.260"N	103°53'20.473"W	0.13	
1919.00	0.250	86.510	1918.87	2.72	-14.56	-10.52	637366.00	453665.01	32°14'47.259"N	103°53'20.468"W	0.17	
2014.00	0.220	99.100	2013.86	3.01	-14.57	-10.13	637366.38	453664.99	32°14'47.259"N	103°53'20.464"W	0.06	
2109.00	0.220	44.560	2108.86	3.16	-14.47	-9.82	637366.69	453665.09	32°14'47.260"N	103°53'20.460"W	0.21	
2204.00	0.350	27.050	2203.86	3.07	-14.08	-9.56	637366.95	453665.48	32°14'47.264"N	103°53'20.457"W	0.16	
2298.00	0.400	47.780	2297.86	3.00	-13.61	-9.19	637367.32	453665.96	32°14'47.268"N	103°53'20.453"W	0.15	
2393.00	0.510	36.620	2392.86	2.96	-13.04	-8.69	637367.82	453666.52	32°14'47.274"N	103°53'20.447"W	0.15	
2487.00	0.410	44.060	2486.86	2.90	-12.47	-8.21	637368.31	453667.09	32°14'47.280"N	103°53'20.441"W	0.12	
2582.00	0.220	15.300	2581.85	2.81	-12.05	-7.92	637368.59	453667.51	32°14'47.284"N	103°53'20.438"W	0.25	
2676.00	0.100	21.030	2675.85	2.69	-11.80	-7.84	637368.67	453667.77	32°14'47.286"N	103°53'20.437"W	0.13	
2771.00	0.160	91.300	2770.85	2.75	-11.72	-7.68	637368.83	453667.84	32°14'47.287"N	103°53'20.435"W	0.17	
2865.00	0.250	30.280	2864.85	2.80	-11.55	-7.45	637369.06	453668.01	32°14'47.289"N	103°53'20.432"W	0.24	
2960.00	0.140	49.140	2959.85	2.76	-11.29	-7.25	637369.26	453668.27	32°14'47.291"N	103°53'20.430"W	0.13	
3054.00	0.290	89.620	3053.85	2.93	-11.22	-6.93	637369.58	453668.35	32°14'47.292"N	103°53'20.426"W	0.22	
3148.00	0.440	127.740	3147.85	3.46	-11.43	-6.41	637370.10	453668.13	32°14'47.290"N	103°53'20.420"W	0.30	
3243.00	0.650	124.960	3242.85	4.35	-11.97	-5.68	637370.83	453667.59	32°14'47.285"N	103°53'20.412"W	0.22	
3337.00	0.580	112.180	3336.84	5.32	-12.45	-4.80	637371.71	453667.11	32°14'47.280"N	103°53'20.402"W	0.16	
3431.00	0.630	139.210	3430.83	6.27	-13.02	-4.02	637372.49	453666.54	32°14'47.274"N	103°53'20.393"W	0.31	
3526.00	0.650	132.210	3525.83	7.33	-13.78	-3.28	637373.23	453665.78	32°14'47.267"N	103°53'20.384"W	0.08	
3620.00	0.550	138.640	3619.82	8.32	-14.48	-2.59	637373.92	453665.08	32°14'47.260"N	103°53'20.376"W	0.13	
3714.00	0.290	129.650	3713.82	9.00	-14.97	-2.11	637374.40	453664.59	32°14'47.255"N	103°53'20.370"W	0.28	
3730.00	0.250	155.980	3729.82	9.08	-15.03	-2.06	637374.45	453664.54	32°14'47.254"N	103°53'20.370"W	0.81	
3796.00	0.180	140.850	3795.82	9.31	-15.24	-1.94	637374.57	453664.32	32°14'47.252"N	103°53'20.368"W	0.14	
3892.00	0.140	98.170	3891.82	9.56	-15.37	-1.73	637374.78	453664.19	32°14'47.251"N	103°53'20.366"W	0.13	
3986.00	0.070	178.320	3985.82	9.69	-15.44	-1.61	637374.90	453664.12	32°14'47.250"N	103°53'20.365"W	0.15	
4081.00	0.100	243.040	4080.82	9.71	-15.54	-1.68	637374.83	453664.02	32°14'47.249"N	103°53'20.366"W	0.10	
4175.00	0.000	323.090	4174.82	9.68	-15.58	-1.76	637374.75	453663.98	32°14'47.249"N	103°53'20.366"W	0.11	
4269.00	0.100	347.840	4268.82	9.61	-15.50	-1.77	637374.74	453664.06	32°14'47.249"N	103°53'20.367"W	0.11	
4363.00	0.210	112.440	4362.82	9.70	-15.48	-1.63	637374.88	453664.08	32°14'47.250"N	103°53'20.365"W	0.30	
4458.00	0.100	134.150	4457.82	9.95	-15.61	-1.41	637375.10	453663.95	32°14'47.248"N	103°53'20.362"W	0.13	
4552.00	0.160	72.270	4551.82	10.09	-15.62	-1.23	637375.28	453663.94	32°14'47.248"N	103°53'20.360"W	0.15	
4646.00	0.250	136.010	4645.82	10.36	-15.73	-0.96	637375.55	453663.83	32°14'47.247"N	103°53'20.357"W	0.24	



Actual Wellpath Report

No.320H AWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

WELLPATH DATA (207 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TYD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4741.00	0.220	117.930	4740.82	10.74	-15.97	-0.65	637375.86	453663.60	32°14'47.245"N	103°53'20.354"W	0.08	
4835.00	0.210	147.460	4834.82	11.08	-16.20	-0.40	637376.11	453663.37	32°14'47.243"N	103°53'20.351"W	0.12	
4929.00	0.160	173.400	4928.82	11.35	-16.47	-0.29	637376.22	453663.09	32°14'47.240"N	103°53'20.349"W	0.10	
5024.00	0.220	194.500	5023.82	11.54	-16.78	-0.32	637376.19	453662.78	32°14'47.237"N	103°53'20.350"W	0.10	
5118.00	0.300	248.760	5117.82	11.53	-17.04	-0.60	637375.91	453662.52	32°14'47.234"N	103°53'20.353"W	0.26	
5213.00	0.350	254.720	5212.81	11.29	-17.21	-1.11	637375.40	453662.35	32°14'47.232"N	103°53'20.359"W	0.06	
5308.00	0.210	279.130	5307.81	11.00	-17.26	-1.56	637374.95	453662.30	32°14'47.232"N	103°53'20.364"W	0.19	
5402.00	0.380	255.610	5401.81	10.70	-17.31	-2.03	637374.48	453662.25	32°14'47.232"N	103°53'20.370"W	0.22	
5496.00	0.160	219.920	5495.81	10.55	-17.49	-2.42	637374.09	453662.07	32°14'47.230"N	103°53'20.374"W	0.28	
5591.00	0.310	221.780	5590.81	10.57	-17.78	-2.68	637373.83	453661.78	32°14'47.227"N	103°53'20.377"W	0.16	
5685.00	0.070	298.600	5684.81	10.53	-17.94	-2.90	637373.61	453661.62	32°14'47.225"N	103°53'20.380"W	0.32	
5780.00	0.160	263.430	5779.81	10.39	-17.93	-3.08	637373.43	453661.63	32°14'47.225"N	103°53'20.382"W	0.12	
5874.00	0.070	61.030	5873.81	10.32	-17.92	-3.16	637373.35	453661.64	32°14'47.226"N	103°53'20.383"W	0.24	
5969.00	0.290	268.990	5968.81	10.17	-17.89	-3.35	637373.16	453661.67	32°14'47.226"N	103°53'20.385"W	0.37	
6063.00	0.360	265.110	6062.81	9.81	-17.92	-3.88	637372.63	453661.64	32°14'47.226"N	103°53'20.391"W	0.08	
6157.00	0.200	199.260	6156.81	9.69	-18.10	-4.23	637372.28	453661.46	32°14'47.224"N	103°53'20.395"W	0.35	
6252.00	0.380	215.040	6251.80	9.81	-18.52	-4.47	637372.04	453661.04	32°14'47.220"N	103°53'20.398"W	0.21	
6346.00	0.410	223.360	6345.80	9.87	-19.02	-4.88	637371.64	453660.54	32°14'47.215"N	103°53'20.403"W	0.07	
6441.00	0.220	228.990	6440.80	9.87	-19.38	-5.25	637371.26	453660.18	32°14'47.211"N	103°53'20.407"W	0.20	
6535.00	0.630	206.360	6534.80	10.01	-19.97	-5.61	637370.90	453659.60	32°14'47.205"N	103°53'20.411"W	0.46	
6630.00	0.550	206.050	6629.79	10.32	-20.84	-6.04	637370.47	453658.72	32°14'47.197"N	103°53'20.417"W	0.08	
6724.00	0.470	201.600	6723.79	10.62	-21.61	-6.38	637370.13	453657.95	32°14'47.189"N	103°53'20.421"W	0.09	
6756.00	0.560	214.260	6755.79	10.69	-21.86	-6.52	637369.99	453657.70	32°14'47.187"N	103°53'20.422"W	0.45	
6787.00	1.570	158.770	6786.78	11.11	-22.38	-6.45	637370.06	453657.18	32°14'47.182"N	103°53'20.421"W	4.31	
6819.00	3.090	151.050	6818.76	12.34	-23.54	-5.88	637370.63	453656.02	32°14'47.170"N	103°53'20.415"W	4.84	
6850.00	4.860	144.150	6849.68	14.43	-25.34	-4.70	637371.81	453654.22	32°14'47.152"N	103°53'20.401"W	5.90	
6882.00	7.000	142.030	6881.51	17.70	-27.97	-2.71	637373.80	453651.59	32°14'47.126"N	103°53'20.378"W	6.72	
6914.00	9.090	138.210	6913.19	22.16	-31.40	0.18	637376.69	453648.17	32°14'47.092"N	103°53'20.345"W	6.74	
6945.00	11.070	137.210	6943.71	27.58	-35.41	3.83	637380.34	453644.16	32°14'47.052"N	103°53'20.302"W	6.41	
6977.00	13.500	137.000	6974.98	34.38	-40.39	8.47	637384.97	453639.17	32°14'47.003"N	103°53'20.249"W	7.60	
7008.00	16.540	136.630	7004.91	42.41	-46.25	13.96	637390.47	453633.31	32°14'46.945"N	103°53'20.185"W	9.81	
7039.00	19.060	137.310	7034.43	51.87	-53.18	20.43	637396.94	453626.39	32°14'46.876"N	103°53'20.110"W	8.16	
7071.00	21.170	136.790	7064.47	62.87	-61.23	27.93	637404.44	453618.33	32°14'46.796"N	103°53'20.023"W	6.62	
7102.00	23.990	134.610	7093.09	74.76	-69.74	36.25	637412.76	453609.83	32°14'46.711"N	103°53'19.927"W	9.49	
7134.00	26.150	136.540	7122.08	88.32	-79.43	45.73	637422.24	453600.14	32°14'46.615"N	103°53'19.817"W	7.22	
7166.00	28.370	136.760	7150.52	102.97	-90.09	55.79	637432.30	453589.48	32°14'46.509"N	103°53'19.700"W	6.94	
7197.00	31.130	136.150	7177.43	118.34	-101.23	66.39	637442.89	453578.34	32°14'46.398"N	103°53'19.577"W	8.96	
7229.00	34.320	135.640	7204.35	135.63	-113.65	78.43	637454.93	453565.92	32°14'46.275"N	103°53'19.437"W	10.01	
7260.00	37.250	135.860	7229.50	153.75	-126.63	91.08	637467.58	453552.94	32°14'46.146"N	103°53'19.291"W	9.46	
7292.00	40.460	134.590	7254.41	173.82	-140.88	105.22	637481.72	453538.69	32°14'46.004"N	103°53'19.127"W	10.34	
7323.00	43.950	133.900	7277.37	194.64	-155.40	120.14	637496.64	453524.17	32°14'45.860"N	103°53'18.954"W	11.36	
7355.00	46.340	132.880	7299.94	217.32	-170.98	136.62	637513.12	453508.59	32°14'45.705"N	103°53'18.763"W	7.80	
7386.00	48.360	131.340	7320.94	240.10	-186.26	153.54	637530.04	453493.31	32°14'45.553"N	103°53'18.566"W	7.47	
7418.00	51.350	130.950	7341.57	264.51	-202.36	171.96	637548.46	453477.22	32°14'45.393"N	103°53'18.353"W	9.39	
7449.00	53.240	131.170	7360.53	288.99	-218.47	190.45	637566.95	453461.11	32°14'45.233"N	103°53'18.138"W	6.12	



Actual Wellpath Report

No.320H AWP

Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

WELLPATH DATA (207 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7481.00	56.040	132.550	7379.05	315.06	-235.88	209.88	637586.38	453443.69	32°14'45.060"N	103°53'17.913"W	9.43	
7512.00	58.630	132.690	7395.78	341.14	-253.55	229.08	637605.58	453426.03	32°14'44.884"N	103°53'17.690"W	8.36	
7544.00	60.920	134.300	7411.89	368.78	-272.58	249.14	637625.63	453407.00	32°14'44.695"N	103°53'17.458"W	8.37	
7575.00	62.240	134.090	7426.64	396.04	-291.59	268.68	637645.18	453387.99	32°14'44.506"N	103°53'17.231"W	4.30	
7607.00	62.560	134.470	7441.47	424.40	-311.39	288.99	637665.48	453368.19	32°14'44.310"N	103°53'16.995"W	1.45	
7638.00	62.920	133.960	7455.67	451.96	-330.60	308.74	637685.23	453348.98	32°14'44.119"N	103°53'16.766"W	1.87	
7670.00	63.470	133.760	7470.10	480.51	-350.39	329.33	637705.82	453329.19	32°14'43.922"N	103°53'16.528"W	1.81	
7701.00	63.790	134.160	7483.87	508.29	-369.67	349.32	637725.81	453309.91	32°14'43.730"N	103°53'16.296"W	1.55	
7713.00	64.010	134.350	7489.14	519.06	-377.19	357.04	637733.53	453302.39	32°14'43.656"N	103°53'16.206"W	2.32	
7770.00	64.680	136.040	7513.82	570.44	-413.65	393.25	637769.73	453265.94	32°14'43.293"N	103°53'15.787"W	2.92	
7794.00	64.970	136.750	7524.03	592.15	-429.38	408.23	637784.71	453250.21	32°14'43.137"N	103°53'15.613"W	2.94	
7826.00	65.410	137.200	7537.46	621.17	-450.61	428.05	637804.53	453228.98	32°14'42.926"N	103°53'15.383"W	1.88	
7857.00	67.980	137.100	7549.72	649.61	-471.48	447.41	637823.88	453208.11	32°14'42.719"N	103°53'15.159"W	8.30	
7887.00	70.690	137.140	7560.31	677.65	-492.05	466.51	637842.98	453187.54	32°14'42.515"N	103°53'14.937"W	9.03	
7918.00	73.160	137.630	7569.93	707.08	-513.74	486.46	637862.93	453165.86	32°14'42.299"N	103°53'14.706"W	8.11	
7949.00	74.840	137.990	7578.47	736.83	-535.82	506.47	637882.94	453143.78	32°14'42.080"N	103°53'14.474"W	5.53	
7980.00	76.300	137.910	7586.20	766.80	-558.11	526.58	637903.05	453121.49	32°14'41.858"N	103°53'14.241"W	4.72	
8011.00	77.810	136.680	7593.14	796.97	-580.31	547.07	637923.54	453099.29	32°14'41.638"N	103°53'14.004"W	6.22	
8042.00	79.450	135.700	7599.25	827.35	-602.24	568.10	637944.57	453077.37	32°14'41.420"N	103°53'13.760"W	6.13	
8073.00	80.830	135.300	7604.56	857.89	-624.02	589.51	637965.98	453055.58	32°14'41.204"N	103°53'13.512"W	4.63	
8104.00	82.070	134.790	7609.17	888.54	-645.71	611.17	637987.64	453033.89	32°14'40.988"N	103°53'13.260"W	4.32	
8135.00	83.260	134.040	7613.13	919.29	-667.23	633.13	638009.60	453012.38	32°14'40.774"N	103°53'13.006"W	4.53	
8166.00	85.120	133.540	7616.27	950.13	-688.57	655.39	638031.86	452991.04	32°14'40.562"N	103°53'12.748"W	6.21	
8197.00	87.350	133.260	7618.30	981.05	-709.82	677.87	638054.33	452969.79	32°14'40.351"N	103°53'12.487"W	7.25	
8229.00	89.070	133.030	7619.30	1013.02	-731.70	701.20	638077.66	452947.92	32°14'40.134"N	103°53'12.216"W	5.42	
8260.00	90.990	133.140	7619.29	1044.01	-752.87	723.84	638100.30	452926.74	32°14'39.923"N	103°53'11.954"W	6.20	
8291.00	90.060	132.040	7619.00	1074.99	-773.85	746.66	638123.12	452905.77	32°14'39.715"N	103°53'11.689"W	4.65	
8384.00	90.190	131.140	7618.80	1167.86	-835.58	816.22	638192.67	452844.04	32°14'39.101"N	103°53'10.882"W	0.98	
8476.00	90.190	130.440	7618.49	1259.66	-895.68	885.87	638262.32	452783.94	32°14'38.503"N	103°53'10.074"W	0.76	
8569.00	89.320	130.060	7618.89	1352.40	-955.77	956.85	638333.29	452723.86	32°14'37.906"N	103°53'09.251"W	1.02	
8663.00	90.930	131.910	7618.69	1446.21	-1017.42	1027.81	638404.24	452662.22	32°14'37.293"N	103°53'08.428"W	2.61	
8756.00	90.310	134.420	7617.68	1539.16	-1081.03	1095.63	638472.06	452598.61	32°14'36.661"N	103°53'07.641"W	2.78	
8850.00	89.320	135.150	7617.98	1633.16	-1147.25	1162.34	638538.77	452532.40	32°14'36.003"N	103°53'06.868"W	1.31	
8943.00	89.750	135.060	7618.74	1726.15	-1213.12	1227.98	638604.40	452466.52	32°14'35.348"N	103°53'06.107"W	0.47	
9036.00	90.860	134.810	7618.24	1819.15	-1278.81	1293.82	638670.23	452400.84	32°14'34.695"N	103°53'05.343"W	1.22	
9130.00	89.940	135.730	7617.59	1913.14	-1345.59	1359.97	638736.38	452334.07	32°14'34.032"N	103°53'04.576"W	1.38	
9224.00	90.620	134.280	7617.13	2007.13	-1412.06	1426.43	638802.83	452267.60	32°14'33.371"N	103°53'03.806"W	1.70	
9317.00	90.370	135.120	7616.32	2100.13	-1477.47	1492.53	638868.93	452202.20	32°14'32.721"N	103°53'03.039"W	0.94	
9410.00	90.060	135.290	7615.97	2193.12	-1543.47	1558.05	638934.45	452136.20	32°14'32.065"N	103°53'02.280"W	0.38	
9504.00	89.010	131.950	7616.74	2287.09	-1608.30	1626.09	639002.48	452071.37	32°14'31.421"N	103°53'01.491"W	3.72	
9597.00	89.260	134.320	7618.14	2380.04	-1671.88	1693.94	639070.33	452007.80	32°14'30.789"N	103°53'00.704"W	2.56	
9692.00	89.200	135.620	7619.42	2475.03	-1739.01	1761.14	639137.53	451940.68	32°14'30.122"N	103°52'59.925"W	1.37	
9786.00	89.940	135.210	7620.12	2569.02	-1805.95	1827.13	639203.51	451873.74	32°14'29.457"N	103°52'59.160"W	0.90	
9880.00	89.820	134.990	7620.32	2663.01	-1872.54	1893.48	639269.85	451807.16	32°14'28.795"N	103°52'58.391"W	0.27	
9974.00	89.260	134.740	7621.08	2757.01	-1938.85	1960.10	639336.47	451740.85	32°14'28.136"N	103°52'57.618"W	0.65	



Actual Wellpath Report

No.320H AWP

Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWP
Facility	Poker Lake Unit No. 320H		

WELLPATH DATA (207 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10068.00	90.370	135.040	7621.38	2851.00	-2005.18	2026.69	639403.06	451674.52	32°14'27.477"N	103°52'56.846"W	1.22	
10163.00	89.740	136.750	7621.29	2945.97	-2073.40	2092.81	639469.17	451606.31	32°14'26.799"N	103°52'56.080"W	1.92	
10240.00	89.510	138.740	7621.79	3022.85	-2130.39	2144.58	639520.94	451549.33	32°14'26.233"N	103°52'55.480"W	2.60	
10335.00	89.200	141.220	7622.86	3117.41	-2203.13	2205.66	639582.02	451476.59	32°14'25.511"N	103°52'54.772"W	2.63	
10430.00	90.440	139.220	7623.16	3211.95	-2276.13	2266.45	639642.79	451403.59	32°14'24.786"N	103°52'54.068"W	2.48	
10524.00	88.890	137.720	7623.71	3305.72	-2346.50	2328.76	639705.11	451333.23	32°14'24.087"N	103°52'53.346"W	2.29	
10619.00	89.560	135.690	7624.99	3400.64	-2415.63	2393.90	639770.24	451264.10	32°14'23.400"N	103°52'52.591"W	2.25	
10713.00	89.380	136.270	7625.86	3494.61	-2483.22	2459.22	639835.55	451196.52	32°14'22.729"N	103°52'51.834"W	0.65	
10808.00	91.170	135.420	7625.41	3589.58	-2551.37	2525.39	639901.72	451128.37	32°14'22.052"N	103°52'51.067"W	2.09	
10902.00	90.250	134.230	7624.24	3683.57	-2617.63	2592.06	639968.38	451062.11	32°14'21.393"N	103°52'50.294"W	1.60	
10997.00	90.000	135.480	7624.04	3778.56	-2684.64	2659.40	640035.72	450995.12	32°14'20.727"N	103°52'49.513"W	1.34	
11092.00	88.950	131.290	7624.91	3873.52	-2749.87	2728.42	640104.74	450929.88	32°14'20.079"N	103°52'48.713"W	4.55	
11186.00	90.260	131.990	7625.55	3967.39	-2812.33	2798.67	640174.98	450867.43	32°14'19.458"N	103°52'47.898"W	1.58	
11280.00	90.430	130.740	7624.99	4061.24	-2874.45	2869.21	640245.52	450805.32	32°14'18.840"N	103°52'47.080"W	1.34	
11374.00	88.580	128.140	7625.80	4154.85	-2934.15	2941.80	640318.10	450745.62	32°14'18.247"N	103°52'46.238"W	3.39	
11468.00	89.380	128.750	7627.47	4248.29	-2992.59	3015.40	640391.70	450687.19	32°14'17.665"N	103°52'45.384"W	1.07	
11562.00	89.380	131.770	7628.49	4342.01	-3053.33	3087.13	640463.42	450626.45	32°14'17.061"N	103°52'44.552"W	3.21	
11657.00	89.750	133.250	7629.21	4436.94	-3117.51	3157.15	640533.44	450562.27	32°14'16.423"N	103°52'43.740"W	1.61	
11750.00	88.770	133.080	7630.41	4529.91	-3181.13	3224.98	640601.26	450498.66	32°14'15.791"N	103°52'42.953"W	1.07	
11845.00	89.740	135.340	7631.65	4624.89	-3247.36	3293.06	640669.34	450432.43	32°14'15.133"N	103°52'42.164"W	2.59	
11939.00	89.810	136.520	7632.02	4718.86	-3314.90	3358.44	640734.71	450364.90	32°14'14.462"N	103°52'41.406"W	1.26	
12033.00	88.770	136.030	7633.18	4812.81	-3382.82	3423.41	640799.67	450296.98	32°14'13.787"N	103°52'40.653"W	1.22	
12127.00	89.320	134.600	7634.75	4906.79	-3449.64	3489.50	640865.76	450230.16	32°14'13.123"N	103°52'39.887"W	1.63	
12222.00	89.380	135.970	7635.83	5001.77	-3517.15	3556.33	640932.59	450162.66	32°14'12.452"N	103°52'39.112"W	1.44	
12317.00	90.120	136.230	7636.24	5096.74	-3585.60	3622.20	640998.46	450094.22	32°14'11.772"N	103°52'38.349"W	0.83	
12401.00	89.600	134.900	7636.45	5180.72	-3645.58	3681.01	641057.26	450034.24	32°14'11.176"N	103°52'37.667"W	1.70	
12494.00	89.700	135.300	7637.02	5273.72	-3711.45	3746.66	641122.90	449968.37	32°14'10.521"N	103°52'36.906"W	0.44	
12589.00	89.700	135.000	7637.51	5368.71	-3778.80	3813.65	641189.89	449901.03	32°14'09.852"N	103°52'36.129"W	0.32	
12683.00	89.400	135.100	7638.25	5462.70	-3845.32	3880.06	641256.29	449834.51	32°14'09.191"N	103°52'35.359"W	0.34	
12778.00	89.700	135.400	7639.00	5557.69	-3912.79	3946.94	641323.17	449767.05	32°14'08.520"N	103°52'34.584"W	0.45	
12873.00	89.600	135.700	7639.58	5652.68	-3980.60	4013.47	641389.69	449699.24	32°14'07.847"N	103°52'33.813"W	0.33	
12967.00	90.100	135.200	7639.82	5746.66	-4047.59	4079.41	641455.63	449632.26	32°14'07.181"N	103°52'33.049"W	0.75	
13062.00	90.100	133.100	7639.66	5841.66	-4113.76	4147.57	641523.78	449566.09	32°14'06.523"N	103°52'32.258"W	2.21	
13156.00	90.000	131.200	7639.58	5935.57	-4176.84	4217.26	641593.47	449503.02	32°14'05.896"N	103°52'31.450"W	2.02	
13251.00	89.500	131.700	7639.99	6030.43	-4239.72	4288.46	641664.67	449440.14	32°14'05.271"N	103°52'30.624"W	0.74	
13346.00	89.500	133.300	7640.82	6125.36	-4303.90	4358.50	641734.70	449375.97	32°14'04.633"N	103°52'29.812"W	1.68	
13439.00	89.500	133.700	7641.63	6218.34	-4367.91	4425.96	641802.15	449311.96	32°14'03.997"N	103°52'29.030"W	0.43	
13534.00	89.600	134.900	7642.38	6313.33	-4434.26	4493.94	641870.13	449245.62	32°14'03.337"N	103°52'28.242"W	1.27	
13628.00	89.500	135.200	7643.12	6407.33	-4500.78	4560.35	641936.54	449179.10	32°14'02.676"N	103°52'27.472"W	0.34	
13722.00	89.600	135.800	7643.85	6501.31	-4567.83	4626.23	642002.41	449112.06	32°14'02.010"N	103°52'26.709"W	0.65	
13817.00	89.500	136.000	7644.60	6596.28	-4636.05	4692.34	642068.52	449043.84	32°14'01.332"N	103°52'25.942"W	0.24	
13910.00	90.000	136.100	7645.01	6689.25	-4703.00	4756.89	642133.06	448976.89	32°14'00.667"N	103°52'25.194"W	0.55	
14004.00	90.100	134.200	7644.92	6783.24	-4769.64	4823.18	642199.34	448910.26	32°14'00.005"N	103°52'24.426"W	2.02	
14099.00	90.100	133.200	7644.76	6878.23	-4835.27	4891.86	642268.02	448844.63	32°13'59.352"N	103°52'23.630"W	1.05	
14195.00	89.900	134.300	7644.76	6974.22	-4901.66	4961.20	642337.36	448778.25	32°13'58.692"N	103°52'22.826"W	1.16	



Actual Wellpath Report

No.320H AWP

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

WELLPATH DATA (207 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14290.00	90.100	134.100	7644.76	7069.21	-4967.89	5029.31	642405.46	448712.03	32°13'58.034"N	103°52'22.036"W	0.30	
14384.00	90.100	136.100	7644.59	7163.21	-5034.47	5095.66	642471.81	448645.45	32°13'57.372"N	103°52'21.267"W	2.13	
14480.00	89.500	135.100	7644.93	7259.19	-5103.06	5162.83	642538.97	448576.87	32°13'56.691"N	103°52'20.489"W	1.21	
14575.00	89.500	131.400	7645.76	7354.14	-5168.13	5232.01	642608.14	448511.79	32°13'56.044"N	103°52'19.686"W	3.89	
14670.00	89.500	129.400	7646.59	7448.88	-5229.70	5304.35	642680.48	448450.23	32°13'55.432"N	103°52'18.847"W	2.11	
14766.00	89.600	134.700	7647.34	7544.75	-5293.97	5375.60	642751.73	448385.96	32°13'54.793"N	103°52'18.021"W	5.52	
14861.00	89.600	136.700	7648.01	7639.73	-5361.96	5441.95	642818.07	448317.98	32°13'54.117"N	103°52'17.252"W	2.11	
14956.00	89.500	136.400	7648.75	7734.67	-5430.93	5507.28	642883.40	448249.02	32°13'53.432"N	103°52'16.495"W	0.33	
15051.00	89.500	135.300	7649.58	7829.64	-5499.09	5573.45	642949.56	448180.87	32°13'52.755"N	103°52'15.728"W	1.16	
15147.00	89.500	133.400	7650.42	7925.63	-5566.19	5642.09	643018.20	448113.77	32°13'52.088"N	103°52'14.933"W	1.98	
15242.00	89.500	136.200	7651.25	8020.62	-5633.12	5709.49	643085.59	448046.84	32°13'51.423"N	103°52'14.151"W	2.95	
15337.00	89.500	138.300	7652.08	8115.50	-5702.87	5773.97	643150.07	447977.09	32°13'50.730"N	103°52'13.404"W	2.21	
15432.00	89.500	138.200	7652.91	8210.30	-5773.75	5837.23	643213.32	447906.23	32°13'50.026"N	103°52'12.671"W	0.11	
15527.00	89.500	137.200	7653.73	8305.16	-5844.01	5901.16	643277.25	447835.97	32°13'49.328"N	103°52'11.931"W	1.05	
15622.00	89.600	135.500	7654.48	8400.10	-5912.74	5966.73	643342.81	447767.24	32°13'48.645"N	103°52'11.171"W	1.79	
15717.00	89.500	136.700	7655.23	8495.07	-5981.19	6032.60	643408.68	447698.80	32°13'47.964"N	103°52'10.407"W	1.27	
15813.00	90.000	136.300	7655.65	8591.01	-6050.83	6098.68	643474.76	447629.17	32°13'47.273"N	103°52'09.642"W	0.67	
15908.00	90.000	132.200	7655.65	8685.99	-6117.10	6166.71	643542.78	447562.89	32°13'46.614"N	103°52'08.853"W	4.32	
16003.00	90.000	129.900	7655.65	8780.80	-6179.49	6238.35	643614.42	447500.51	32°13'45.993"N	103°52'08.022"W	2.42	
16098.00	90.100	128.200	7655.56	8875.36	-6239.33	6312.13	643688.19	447440.67	32°13'45.398"N	103°52'07.166"W	1.79	
16193.00	90.100	128.200	7655.40	8969.77	-6298.08	6386.78	643762.84	447381.93	32°13'44.814"N	103°52'06.300"W	0.00	
16288.00	89.400	130.000	7655.81	9064.33	-6357.99	6460.50	643836.55	447322.02	32°13'44.218"N	103°52'05.445"W	2.03	
16383.00	89.500	128.600	7656.72	9158.93	-6418.16	6534.01	643910.06	447261.86	32°13'43.619"N	103°52'04.592"W	1.48	
16479.00	89.500	131.500	7657.56	9254.61	-6479.92	6607.49	643983.53	447200.10	32°13'43.005"N	103°52'03.740"W	3.02	
16574.00	89.500	136.500	7658.39	9349.57	-6545.89	6675.80	644051.84	447134.14	32°13'42.349"N	103°52'02.948"W	5.26	
16669.00	89.500	136.800	7659.22	9444.51	-6614.97	6741.01	644117.04	447065.06	32°13'41.663"N	103°52'02.193"W	0.32	
16742.00	89.500	136.800	7659.86	9517.45	-6668.18	6790.98	644167.01	447011.85	32°13'41.134"N	103°52'01.614"W	0.00	Proj to Bit



Actual Wellpath Report

No.320H AWP

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.320H SHL
Area	Eddy County, NM	Well	No.320H
Field	Poker Lake Unit	Wellbore	No.320H AWB
Facility	Poker Lake Unit No. 320H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.320H Target #1		7525.00	-1666.70	1691.97	639068.36	452012.98	32°14'30.840"N	103°53'00.727"W	point
No.320H PBHL		7659.46	-6671.91	6772.64	644148.67	447008.13	32°13'41.098"N	103°52'01.827"W	point
No.320H PBHL (Rev-1)		7660.00	-6824.68	6928.16	644304.17	446855.36	32°13'39.579"N	103°52'00.025"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.320H AWB					Ref Wellpath: No.320H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
0.00	12317.00	ISCWSA MWD, Rev. 2 (Standard)		Weatherford MWD <692-12317>		No.320H AWB
12317.00	16669.00	NaviTrak (Standard)		BHI / Navitrak MWD <12401-xxxx>		No.320H AWB
16669.00	16742.00	Blind Drilling (std)		Projection to bit		No.320H AWB