

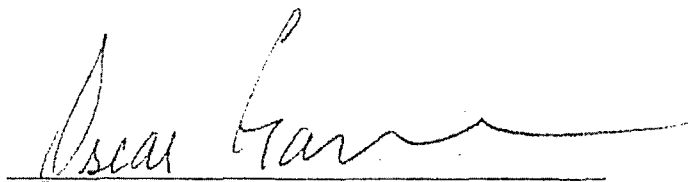
30-015-39918

2105 MARKET STREET
MIDLAND, TX 79703
24 HR (432) 694-9517

STATE OF NEW MEXICO

COUNTY OF Eddy

I, Pacer White, Directional Driller certify that I am employed by Baker Hughes INTEQ; did conduct or supervise on the day(s) of Sep 18, 2012 through Oct 11, 2012 the taking of MWD surveys from a depth of 7,485 to a depth of 13,998 that the data is true, correct, complete and within the limitations of the tool as set forth by Baker Hughes INTEQ; that I am authorized and qualified to make this report; that this survey was conducted at the request of BOPCO, L.P. for the Poker Lake Unit No. 401H in Eddy County, NM; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by INTEQ.



Field Service Engineer: Pacer White



BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 401H

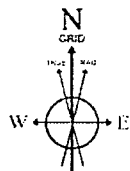
Slot: No.401H SHL
Well: No.401H
Wellbore: No.401H PWB



BAKER HUGHES

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8193.00	61.500	313.800	8029.17	278.01	-240.04	0.00	367.15
Proj to Bit	8259.00	61.500	313.800	8060.67	318.16	-281.91	0.00	425.03
EOC	8646.08	90.000	317.556	8155.00	584.30	-540.73	7.42	796.10
Target #1	8929.08	90.000	317.556	8155.00	793.14	-731.71	0.00	1079.10
TL	8934.12	90.101	317.556	8155.00	796.85	-735.11	2.00	1084.14
No.401H PBHL	14050.02	90.101	317.556	8146.00	4572.05	-4187.68	0.00	6200.03

Plot reference wellpath is Rev-E.0	
True vertical depths are referenced to Rig on No.401H SHL (RKB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.401H SHL (RKB)	North Reference: Grid north
Rig on No.401H SHL (RKB) to Mean Sea Level: 3521.5 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.401H SHL): -3502 feet	Depths are in feet
Coordinates are in feet; referenced to Slot	Created by: genibry on 09/28/2012

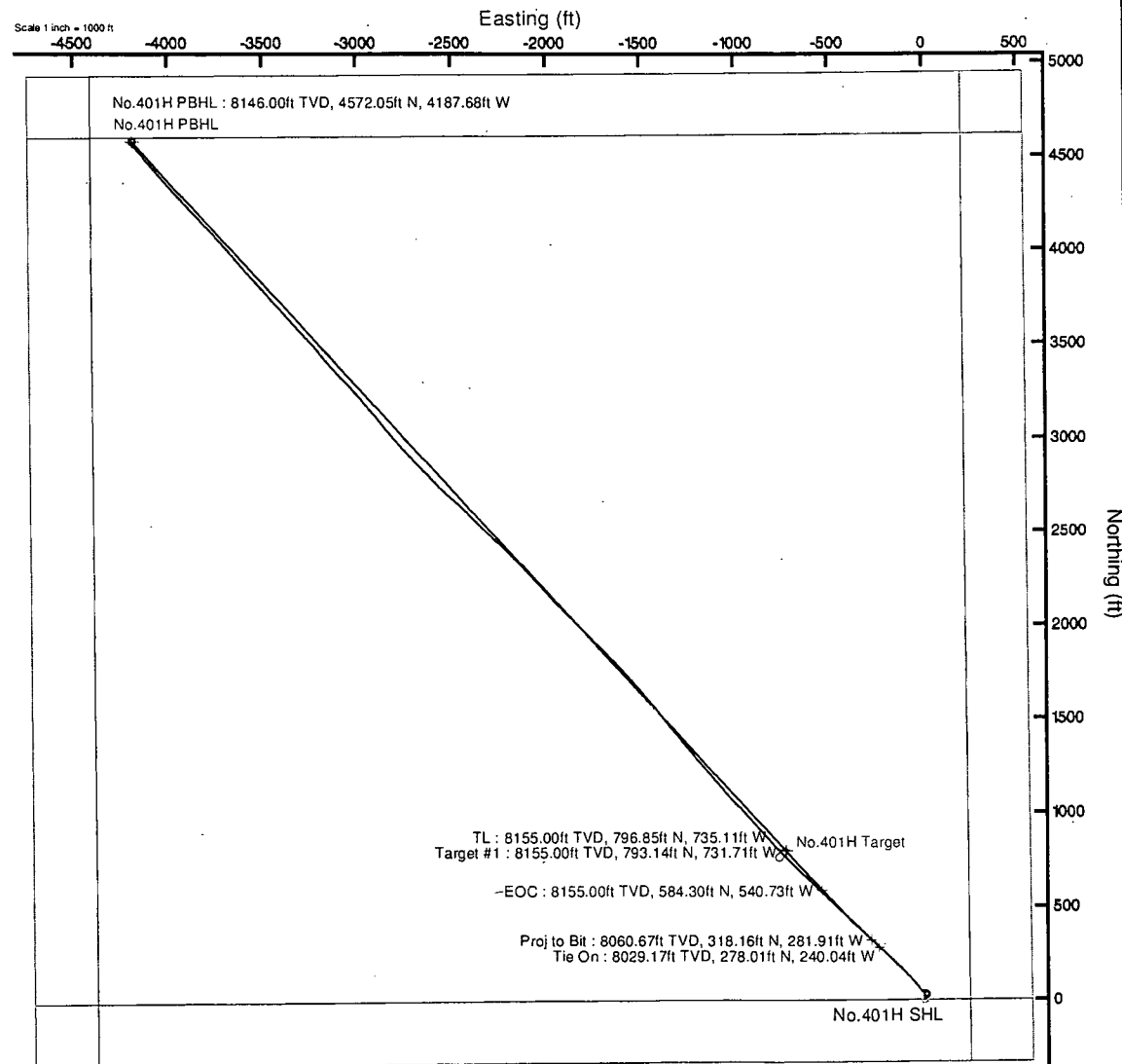
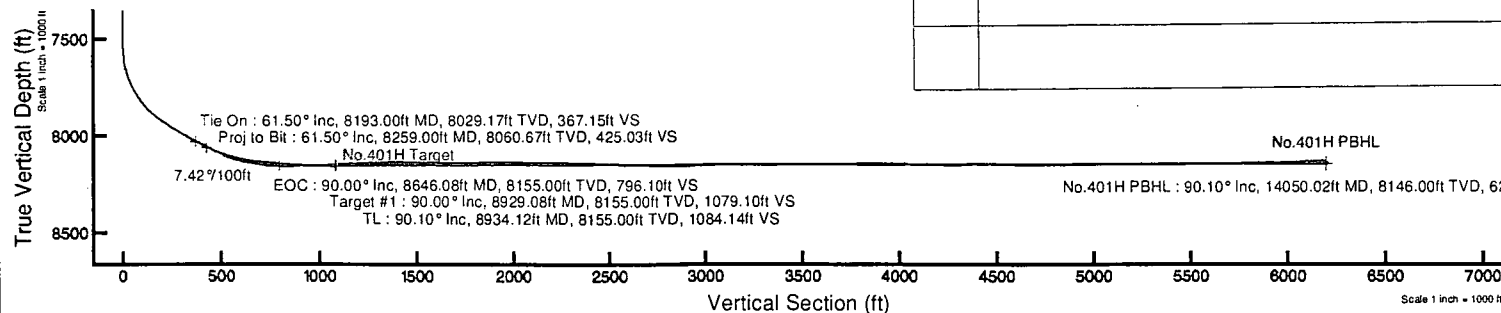


BGGM (1945.0 to 2014.0) Dip: 60.05° Field: 48445.4 nT
Magnetic North is 7.63 degrees East of True North (at 08/31/2012)
Grid North is 0.30 degrees East of True North

To correct azimuth from True to Grid subtract 0.30 degrees

To correct azimuth from Magnetic to Grid add 7.33 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.33 = 97.33



Rev-E.0



Actual Wellpath Report

No.401H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWB
Facility	Poker Lake Unit No. 401H		

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	0.999943	Report Generated	10/12/2012 at 6:19:05 AM
Convergence at slot	0.30° East	Database/Source file	WA Midland/No.401H_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	672530.59	435606.90	32°11'46.933"N	103°46'32.107"W
Facility Reference Pt			672530.59	435606.90	32°11'46.933"N	103°46'32.107"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.401H SHL (RKB) to Facility Vertical Datum	19.50ft
Horizontal Reference Pt	Slot	Rig on No.401H SHL (RKB) to Mean Sea Level	3521.50ft
Vertical Reference Pt	Rig on No.401H SHL (RKB)	Rig on No.401H SHL (RKB) to Mud Line at Slot (No.401H SHL)	19.50ft
MD Reference Pt	Rig on No.401H SHL (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	317.51°





Actual Wellpath Report

No.401H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWB
Facility	Poker Lake Unit No. 401H		

WELLPATH DATA (183 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	339.380	0.00	0.00	0.00	0.00	672530.59	435606.90	32°11'46.933"N	103°46'32.107"W	0.00	
7.29	0.860	339.380	7.29	0.05	0.05	-0.02	672530.57	435606.95	32°11'46.934"N	103°46'32.108"W	11.80	
102.33	1.280	343.700	102.31	1.67	1.74	-0.57	672530.02	435608.64	32°11'46.951"N	103°46'32.114"W	0.45	
197.37	1.700	348.020	197.32	3.83	4.14	-1.16	672529.43	435611.04	32°11'46.974"N	103°46'32.121"W	0.46	
292.41	2.150	357.850	292.31	6.41	7.30	-1.52	672529.07	435614.20	32°11'47.006"N	103°46'32.125"W	0.59	
387.45	2.590	2.690	387.27	9.28	11.22	-1.48	672529.11	435618.12	32°11'47.045"N	103°46'32.124"W	0.51	
482.49	2.770	355.490	482.20	12.60	15.66	-1.56	672529.03	435622.56	32°11'47.088"N	103°46'32.125"W	0.40	
577.53	2.960	343.300	577.12	16.62	20.30	-2.45	672528.14	435627.20	32°11'47.134"N	103°46'32.135"W	0.67	
672.57	2.640	352.290	672.05	20.63	24.82	-3.45	672527.14	435631.71	32°11'47.179"N	103°46'32.146"W	0.57	
767.61	2.320	1.290	767.00	23.82	28.91	-3.70	672526.89	435635.81	32°11'47.220"N	103°46'32.149"W	0.53	
862.65	1.780	3.990	861.98	26.22	32.30	-3.55	672527.04	435639.20	32°11'47.253"N	103°46'32.147"W	0.58	
957.69	1.240	9.690	956.99	27.87	34.79	-3.28	672527.31	435641.69	32°11'47.278"N	103°46'32.143"W	0.59	
1052.73	1.240	8.820	1052.01	29.14	36.82	-2.95	672527.64	435643.72	32°11'47.298"N	103°46'32.139"W	0.02	
1147.77	1.230	8.950	1147.02	30.42	38.84	-2.63	672527.96	435645.74	32°11'47.318"N	103°46'32.136"W	0.01	
1242.81	0.860	355.770	1242.05	31.62	40.56	-2.52	672528.07	435647.46	32°11'47.335"N	103°46'32.134"W	0.46	
1337.85	0.490	332.590	1337.08	32.57	41.63	-2.76	672527.83	435648.53	32°11'47.346"N	103°46'32.137"W	0.48	
1432.89	0.380	331.620	1432.12	33.27	42.27	-3.10	672527.49	435649.17	32°11'47.352"N	103°46'32.141"W	0.12	
1527.93	0.260	340.660	1527.16	33.77	42.75	-3.32	672527.27	435649.65	32°11'47.357"N	103°46'32.143"W	0.14	
1622.97	0.190	14.110	1622.20	34.06	43.11	-3.35	672527.24	435650.01	32°11'47.360"N	103°46'32.144"W	0.15	
1718.01	0.120	27.560	1717.24	34.18	43.35	-3.27	672527.32	435650.25	32°11'47.363"N	103°46'32.143"W	0.08	
1813.05	0.130	50.110	1812.28	34.21	43.51	-3.14	672527.45	435650.41	32°11'47.364"N	103°46'32.141"W	0.05	
1908.09	0.140	66.660	1907.32	34.16	43.62	-2.95	672527.64	435650.52	32°11'47.365"N	103°46'32.139"W	0.04	
2003.13	0.190	78.780	2002.35	34.04	43.70	-2.69	672527.90	435650.60	32°11'47.366"N	103°46'32.136"W	0.06	
2098.17	0.080	86.900	2097.39	33.92	43.73	-2.47	672528.12	435650.63	32°11'47.366"N	103°46'32.133"W	0.12	
2193.21	0.050	90.350	2192.43	33.85	43.74	-2.36	672528.23	435650.64	32°11'47.366"N	103°46'32.132"W	0.03	
2288.25	0.060	95.800	2287.47	33.78	43.73	-2.27	672528.32	435650.63	32°11'47.366"N	103°46'32.131"W	0.01	
2383.29	0.090	72.690	2382.51	33.71	43.75	-2.15	672528.44	435650.65	32°11'47.366"N	103°46'32.130"W	0.04	
2478.33	0.120	63.570	2477.55	33.66	43.82	-1.99	672528.60	435650.71	32°11'47.367"N	103°46'32.128"W	0.04	
2573.37	0.090	76.840	2572.59	33.59	43.88	-1.83	672528.76	435650.77	32°11'47.368"N	103°46'32.126"W	0.04	
2668.41	0.100	104.120	2667.63	33.49	43.87	-1.68	672528.91	435650.77	32°11'47.368"N	103°46'32.124"W	0.05	
2763.45	0.170	108.600	2762.67	33.29	43.81	-1.46	672529.13	435650.71	32°11'47.367"N	103°46'32.122"W	0.07	
2858.49	0.270	113.080	2857.71	32.97	43.68	-1.12	672529.47	435650.57	32°11'47.366"N	103°46'32.118"W	0.11	
2953.53	0.220	104.280	2952.75	32.61	43.54	-0.74	672529.85	435650.44	32°11'47.364"N	103°46'32.113"W	0.07	
3048.57	0.170	95.470	3047.79	32.35	43.49	-0.42	672530.17	435650.38	32°11'47.364"N	103°46'32.110"W	0.06	
3143.61	0.460	100.250	3142.83	31.94	43.40	0.09	672530.68	435650.30	32°11'47.363"N	103°46'32.104"W	0.31	
3238.65	0.810	105.030	3237.86	31.07	43.16	1.12	672531.71	435650.06	32°11'47.361"N	103°46'32.092"W	0.37	
3333.69	0.860	103.990	3332.89	29.91	42.82	2.46	672533.05	435649.71	32°11'47.357"N	103°46'32.076"W	0.05	
3428.73	0.960	102.950	3427.92	28.66	42.46	3.93	672534.52	435649.36	32°11'47.353"N	103°46'32.059"W	0.11	
3523.77	0.930	106.230	3522.95	27.35	42.07	5.44	672536.03	435648.97	32°11'47.349"N	103°46'32.041"W	0.07	
3618.81	0.940	109.500	3617.98	26.00	41.59	6.92	672537.51	435648.49	32°11'47.345"N	103°46'32.024"W	0.06	
3713.85	1.200	114.520	3713.00	24.40	40.92	8.56	672539.15	435647.82	32°11'47.338"N	103°46'32.005"W	0.29	
3808.89	1.460	119.530	3808.01	22.33	39.91	10.52	672541.11	435646.81	32°11'47.328"N	103°46'31.983"W	0.30	
3903.93	1.440	117.840	3903.02	20.05	38.76	12.63	672543.22	435645.65	32°11'47.316"N	103°46'31.958"W	0.05	
3998.97	1.500	116.140	3998.03	17.77	37.65	14.80	672545.39	435644.55	32°11'47.305"N	103°46'31.933"W	0.08	
4094.01	1.260	123.390	4093.04	15.60	36.53	16.79	672547.38	435643.43	32°11'47.294"N	103°46'31.910"W	0.31	



Actual Wellpath Report

No.401H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWP
Facility	Poker Lake Unit No. 401H		

WELLPATH DATA (183 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
4189.05	1.030	130.630	4188.07	13.74	35.40	18.31	672548.90	435642.29	32°11'47.283"N	103°46'31.892"W	0.29	
4284.09	0.930	141.290	4283.09	12.12	34.24	19.44	672550.03	435641.14	32°11'47.271"N	103°46'31.879"W	0.22	
4379.13	0.840	151.950	4378.12	10.67	33.02	20.25	672550.84	435639.92	32°11'47.259"N	103°46'31.870"W	0.20	
4474.17	0.850	148.970	4473.15	9.31	31.80	20.94	672551.53	435638.70	32°11'47.247"N	103°46'31.862"W	0.05	
4569.21	0.870	141.000	4568.18	7.90	30.64	21.76	672552.35	435637.54	32°11'47.236"N	103°46'31.852"W	0.13	
4664.25	0.830	143.380	4663.21	6.49	29.53	22.62	672553.21	435636.42	32°11'47.224"N	103°46'31.842"W	0.06	
4759.29	0.790	150.760	4758.24	5.17	28.40	23.35	672553.94	435635.30	32°11'47.213"N	103°46'31.834"W	0.12	
4854.33	0.580	151.410	4853.27	4.06	27.41	23.90	672554.49	435634.31	32°11'47.203"N	103°46'31.828"W	0.22	
4949.37	0.450	154.050	4948.31	3.24	26.65	24.30	672554.89	435633.55	32°11'47.196"N	103°46'31.823"W	0.14	
5044.41	0.350	150.850	5043.35	2.60	26.06	24.60	672555.19	435632.96	32°11'47.190"N	103°46'31.820"W	0.11	
5139.45	0.310	147.650	5138.38	2.06	25.59	24.88	672555.47	435632.49	32°11'47.185"N	103°46'31.816"W	0.05	
5234.49	0.260	145.660	5233.42	1.60	25.19	25.14	672555.73	435632.09	32°11'47.181"N	103°46'31.813"W	0.05	
5329.53	0.220	154.680	5328.46	1.21	24.85	25.34	672555.93	435631.75	32°11'47.178"N	103°46'31.811"W	0.06	
5424.57	0.240	153.240	5423.50	0.84	24.51	25.51	672556.10	435631.41	32°11'47.175"N	103°46'31.809"W	0.02	
5519.61	0.330	162.800	5518.54	0.40	24.07	25.68	672556.27	435630.97	32°11'47.170"N	103°46'31.807"W	0.11	
5614.65	0.260	211.260	5613.58	0.10	23.62	25.65	672556.24	435630.52	32°11'47.166"N	103°46'31.807"W	0.26	
5709.69	0.190	209.720	5708.62	-0.01	23.30	25.46	672556.05	435630.20	32°11'47.163"N	103°46'31.810"W	0.07	
5804.73	0.240	208.830	5803.66	-0.12	22.99	25.28	672555.87	435629.89	32°11'47.160"N	103°46'31.812"W	0.05	
5899.77	0.360	207.950	5898.70	-0.29	22.55	25.05	672555.64	435629.45	32°11'47.155"N	103°46'31.815"W	0.13	
5994.81	0.210	203.790	5993.74	-0.46	22.13	24.84	672555.43	435629.03	32°11'47.151"N	103°46'31.817"W	0.16	
6089.85	0.120	199.630	6088.78	-0.57	21.88	24.73	672555.32	435628.78	32°11'47.149"N	103°46'31.818"W	0.10	
6184.89	0.300	206.810	6183.81	-0.71	21.56	24.59	672555.18	435628.46	32°11'47.146"N	103°46'31.820"W	0.19	
6279.93	0.530	213.990	6278.85	-0.90	20.97	24.23	672554.82	435627.87	32°11'47.140"N	103°46'31.824"W	0.25	
6374.97	0.570	211.860	6373.89	-1.13	20.21	23.74	672554.32	435627.11	32°11'47.132"N	103°46'31.830"W	0.05	
6470.01	0.660	209.740	6468.92	-1.42	19.33	23.21	672553.80	435626.23	32°11'47.124"N	103°46'31.836"W	0.10	
6565.05	0.820	215.220	6563.95	-1.74	18.30	22.55	672553.14	435625.20	32°11'47.113"N	103°46'31.844"W	0.18	
6660.09	0.980	220.690	6658.98	-1.98	17.13	21.63	672552.22	435624.03	32°11'47.102"N	103°46'31.855"W	0.19	
6755.13	1.130	228.030	6754.01	-2.07	15.89	20.40	672550.99	435622.78	32°11'47.090"N	103°46'31.869"W	0.21	
6850.17	1.280	235.370	6849.03	-1.91	14.66	18.83	672549.42	435621.55	32°11'47.078"N	103°46'31.887"W	0.23	
6945.21	1.260	232.070	6944.04	-1.68	13.41	17.13	672547.72	435620.31	32°11'47.065"N	103°46'31.907"W	0.08	
7040.25	1.280	220.780	7039.06	-1.73	11.96	15.62	672546.21	435618.86	32°11'47.051"N	103°46'31.925"W	0.26	
7135.29	1.310	216.070	7134.07	-2.07	10.28	14.28	672544.87	435617.18	32°11'47.034"N	103°46'31.941"W	0.12	
7230.33	1.380	211.360	7229.09	-2.60	8.43	13.05	672543.64	435615.33	32°11'47.016"N	103°46'31.955"W	0.14	
7325.37	1.340	225.930	7324.10	-2.95	6.68	11.65	672542.24	435613.58	32°11'46.999"N	103°46'31.971"W	0.37	
7420.41	1.300	223.490	7419.12	-3.05	5.12	10.14	672540.70	435612.02	32°11'46.984"N	103°46'31.989"W	0.07	
7452.06	1.300	224.110	7450.76	-3.10	4.60	9.62	672540.21	435611.50	32°11'46.979"N	103°46'31.995"W	0.04	
7485.00	1.300	212.900	7483.69	-3.22	4.02	9.15	672539.74	435610.92	32°11'46.973"N	103°46'32.001"W	0.77	
7517.00	0.900	239.800	7515.68	-3.26	3.59	8.74	672539.33	435610.49	32°11'46.969"N	103°46'32.005"W	2.01	
7548.00	2.000	306.200	7546.68	-2.67	3.79	8.09	672538.68	435610.69	32°11'46.971"N	103°46'32.013"W	5.92	
7579.00	4.500	321.600	7577.62	-0.93	5.06	6.90	672537.49	435611.96	32°11'46.983"N	103°46'32.027"W	8.47	
7610.00	7.400	330.200	7608.45	2.23	7.75	5.15	672535.74	435614.65	32°11'47.010"N	103°46'32.047"W	9.76	
7641.00	11.300	331.400	7639.04	7.13	12.15	2.71	672533.30	435619.05	32°11'47.054"N	103°46'32.075"W	12.60	
7672.00	15.400	328.900	7669.19	14.12	18.34	-0.88	672529.71	435625.24	32°11'47.115"N	103°46'32.116"W	13.35	
7704.00	19.700	326.500	7699.70	23.61	26.48	-6.05	672524.54	435633.38	32°11'47.196"N	103°46'32.176"W	13.62	
7735.00	23.900	324.500	7728.47	35.01	35.95	-12.58	672518.01	435642.85	32°11'47.290"N	103°46'32.252"W	13.76	



Actual Wellpath Report

No.401H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWP
Facility	Poker Lake Unit No. 401H		

WELLPATH DATA (183 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
7767.00	27.800	323.200	7757.27	48.88	47.21	-20.82	672509.77	435654.11	32°11'47.402"N	103°46'32.347"W	12.31	
7798.00	31.300	322.100	7784.23	64.10	59.36	-30.10	672500.49	435666.25	32°11'47.522"N	103°46'32.454"W	11.42	
7829.00	34.700	321.000	7810.23	80.94	72.57	-40.60	672489.99	435679.47	32°11'47.654"N	103°46'32.575"W	11.14	
7860.00	38.700	319.800	7835.08	99.44	86.84	-52.42	672478.18	435693.73	32°11'47.795"N	103°46'32.712"W	13.11	
7891.00	43.200	318.700	7858.48	119.74	102.22	-65.68	672464.91	435709.11	32°11'47.948"N	103°46'32.866"W	14.70	
7923.00	47.600	318.000	7880.95	142.52	119.24	-80.82	672449.77	435726.13	32°11'48.118"N	103°46'33.041"W	13.84	
7955.00	50.700	317.200	7901.88	166.72	137.11	-97.15	672433.45	435744.00	32°11'48.295"N	103°46'33.230"W	9.87	
7987.00	53.800	316.400	7921.46	192.02	155.55	-114.47	672416.13	435762.44	32°11'48.479"N	103°46'33.430"W	9.89	
8018.00	55.900	315.100	7939.31	217.35	173.70	-132.16	672398.44	435780.59	32°11'48.659"N	103°46'33.635"W	7.59	
8049.00	56.800	314.400	7956.49	243.13	191.86	-150.48	672380.12	435798.75	32°11'48.840"N	103°46'33.847"W	3.46	
8081.00	58.100	313.600	7973.71	270.05	210.60	-169.89	672360.71	435817.49	32°11'49.026"N	103°46'34.072"W	4.58	
8111.00	59.600	313.800	7989.22	295.67	228.34	-188.45	672342.15	435835.22	32°11'49.203"N	103°46'34.287"W	5.03	
8143.00	60.900	314.000	8005.10	323.39	247.60	-208.47	672322.14	435854.49	32°11'49.394"N	103°46'34.518"W	4.10	
8173.00	61.300	313.900	8019.60	349.60	265.83	-227.37	672303.23	435872.71	32°11'49.576"N	103°46'34.737"W	1.36	
8193.00	61.500	313.800	8029.17	367.13	277.99	-240.04	672290.57	435884.88	32°11'49.697"N	103°46'34.884"W	1.09	
8304.00	64.000	313.100	8079.99	465.55	345.85	-311.68	672218.93	435952.73	32°11'50.372"N	103°46'35.713"W	2.32	
8336.00	68.600	314.100	8092.85	494.78	366.05	-332.89	672197.72	435972.93	32°11'50.573"N	103°46'35.959"W	14.66	
8367.00	73.300	314.400	8102.97	524.02	386.50	-353.87	672176.74	435993.37	32°11'50.776"N	103°46'36.202"W	15.19	
8398.00	76.300	314.800	8111.10	553.90	407.50	-375.17	672155.45	436014.37	32°11'50.985"N	103°46'36.449"W	9.76	
8429.00	75.700	314.600	8118.60	583.94	428.66	-396.55	672134.07	436035.53	32°11'51.196"N	103°46'36.696"W	2.03	
8460.00	77.500	314.300	8125.78	614.05	449.77	-418.07	672112.54	436056.65	32°11'51.406"N	103°46'36.945"W	5.88	
8491.00	80.700	314.200	8131.64	644.44	471.01	-439.87	672090.74	436077.88	32°11'51.617"N	103°46'37.198"W	10.33	
8522.00	84.000	314.100	8135.77	675.11	492.41	-461.92	672068.70	436099.28	32°11'51.830"N	103°46'37.453"W	10.65	
8553.00	84.500	314.300	8138.87	705.90	513.91	-484.03	672046.59	436120.78	32°11'52.044"N	103°46'37.709"W	1.74	
8584.00	84.500	313.600	8141.84	736.70	535.33	-506.24	672024.38	436142.20	32°11'52.257"N	103°46'37.966"W	2.25	
8615.00	84.100	314.400	8144.92	767.48	556.76	-528.43	672002.19	436163.62	32°11'52.470"N	103°46'38.223"W	2.87	
8646.00	83.900	314.000	8148.16	798.26	578.25	-550.54	671980.09	436185.11	32°11'52.684"N	103°46'38.479"W	1.44	
8677.00	85.400	314.900	8151.05	829.08	599.86	-572.57	671958.06	436206.73	32°11'52.899"N	103°46'38.734"W	5.64	
8708.00	86.300	314.200	8153.30	859.96	621.55	-594.60	671936.02	436228.42	32°11'53.114"N	103°46'38.989"W	3.67	
8739.00	88.400	313.600	8154.73	890.86	643.02	-616.91	671913.71	436249.89	32°11'53.328"N	103°46'39.248"W	7.04	
8770.00	88.900	313.500	8155.46	921.78	664.38	-639.38	671891.25	436271.24	32°11'53.540"N	103°46'39.508"W	1.64	
8802.00	88.700	314.200	8156.13	953.71	686.54	-662.45	671868.18	436293.40	32°11'53.761"N	103°46'39.775"W	2.27	
8833.00	90.300	314.300	8156.40	984.66	708.17	-684.65	671845.98	436315.03	32°11'53.976"N	103°46'40.032"W	5.17	
8864.00	92.300	314.900	8155.70	1015.61	729.93	-706.72	671823.91	436336.79	32°11'54.193"N	103°46'40.287"W	6.74	
8895.00	93.300	315.800	8154.18	1046.55	751.96	-728.48	671802.16	436358.81	32°11'54.412"N	103°46'40.539"W	4.34	
8926.00	93.300	315.900	8152.40	1077.48	774.16	-750.03	671780.60	436381.02	32°11'54.633"N	103°46'40.789"W	0.32	
8957.00	93.500	316.200	8150.56	1108.42	796.44	-771.51	671759.13	436403.30	32°11'54.854"N	103°46'41.037"W	1.16	
8988.00	92.800	316.800	8148.86	1139.36	818.89	-792.82	671737.82	436425.75	32°11'55.077"N	103°46'41.284"W	2.97	
9082.00	91.700	318.100	8145.17	1233.29	888.09	-856.33	671674.31	436494.94	32°11'55.765"N	103°46'42.019"W	1.81	
9175.00	92.000	318.800	8142.16	1326.23	957.65	-917.98	671612.66	436564.49	32°11'56.457"N	103°46'42.732"W	0.82	
9269.00	88.700	316.400	8141.59	1420.21	1027.05	-981.35	671549.29	436633.89	32°11'57.147"N	103°46'43.465"W	4.34	
9362.00	89.300	319.400	8143.21	1513.18	1096.03	-1043.69	671486.97	436702.87	32°11'57.833"N	103°46'44.187"W	3.29	
9455.00	88.300	318.900	8145.16	1606.12	1166.36	-1104.50	671426.15	436773.20	32°11'58.532"N	103°46'44.890"W	1.20	
9549.00	89.100	319.100	8147.29	1700.06	1237.29	-1166.15	671364.50	436844.12	32°11'59.237"N	103°46'45.603"W	0.88	
9642.00	92.500	320.700	8146.00	1792.96	1308.41	-1226.04	671304.62	436915.23	32°11'59.943"N	103°46'46.296"W	4.04	



Actual Wellpath Report

No.401H AWP

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWB
Facility	Poker Lake Unit No. 401H		

WELLPATH DATA (183 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
9735.00	89.700	320.000	8144.21	1885.81	1379.99	-1285.37	671245.30	436986.81	32°12'00.655"N	103°46'46.982"W	3.10	
9830.00	89.800	321.400	8144.63	1980.66	1453.50	-1345.54	671185.13	437060.32	32°12'01.385"N	103°46'47.678"W	1.48	
9924.00	89.300	320.800	8145.36	2074.48	1526.66	-1404.56	671126.11	437133.47	32°12'02.112"N	103°46'48.361"W	0.83	
10018.00	89.500	320.200	8146.35	2168.34	1599.18	-1464.35	671066.33	437205.99	32°12'02.833"N	103°46'49.052"W	0.67	
10111.00	88.600	318.500	8147.89	2261.28	1669.73	-1524.92	671005.76	437276.53	32°12'03.534"N	103°46'49.753"W	2.07	
10204.00	88.600	318.200	8150.16	2354.24	1739.20	-1586.71	670943.97	437346.00	32°12'04.225"N	103°46'50.467"W	0.32	
10297.00	88.600	316.700	8152.43	2447.21	1807.69	-1649.58	670881.11	437414.48	32°12'04.906"N	103°46'51.195"W	1.61	
10391.00	88.300	315.600	8154.98	2541.15	1875.45	-1714.67	670816.02	437482.24	32°12'05.579"N	103°46'51.949"W	1.21	
10485.00	89.000	315.800	8157.19	2635.07	1942.71	-1780.31	670750.39	437549.49	32°12'06.248"N	103°46'52.708"W	0.77	
10578.00	89.200	315.500	8158.65	2728.01	2009.20	-1845.31	670685.39	437615.99	32°12'06.910"N	103°46'53.461"W	0.39	
10672.00	89.500	314.200	8159.72	2821.90	2075.49	-1911.95	670618.76	437682.27	32°12'07.569"N	103°46'54.232"W	1.42	
10765.00	91.900	318.200	8158.58	2914.85	2142.59	-1976.29	670554.41	437749.36	32°12'08.236"N	103°46'54.977"W	5.02	
10858.00	91.500	318.600	8155.82	3007.79	2212.11	-2038.01	670492.70	437818.88	32°12'08.927"N	103°46'55.691"W	0.61	
10952.00	90.900	317.600	8153.85	3101.77	2282.05	-2100.77	670429.94	437888.82	32°12'09.622"N	103°46'56.417"W	1.24	
11045.00	90.600	315.900	8152.64	3194.75	2349.78	-2164.49	670366.23	437956.55	32°12'10.296"N	103°46'57.155"W	1.86	
11138.00	90.000	313.100	8152.15	3287.61	2414.96	-2230.81	670299.91	438021.72	32°12'10.944"N	103°46'57.923"W	3.08	
11231.00	90.700	314.500	8151.58	3380.41	2479.33	-2297.93	670232.79	438086.08	32°12'11.585"N	103°46'58.700"W	1.68	
11324.00	90.800	315.400	8150.36	3473.31	2545.02	-2363.74	670166.99	438151.77	32°12'12.238"N	103°46'59.462"W	0.97	
11417.00	90.700	314.600	8149.15	3566.21	2610.78	-2429.50	670101.23	438217.53	32°12'12.892"N	103°47'00.223"W	0.87	
11510.00	89.600	309.800	8148.90	3658.78	2673.23	-2498.37	670032.37	438279.97	32°12'13.513"N	103°47'01.021"W	5.29	
11603.00	90.800	316.400	8148.58	3751.45	2736.74	-2566.24	669964.50	438343.48	32°12'14.145"N	103°47'01.807"W	7.21	
11698.00	90.100	315.900	8147.83	3846.42	2805.24	-2632.05	669898.70	438411.98	32°12'14.826"N	103°47'02.569"W	0.91	
11793.00	90.300	316.800	8147.50	3941.40	2873.98	-2697.62	669833.13	438480.71	32°12'15.510"N	103°47'03.328"W	0.97	
11889.00	88.500	318.500	8148.51	4037.38	2944.92	-2762.28	669768.47	438551.65	32°12'16.215"N	103°47'04.076"W	2.58	
11984.00	89.100	319.800	8150.50	4132.32	3016.76	-2824.41	669706.35	438623.49	32°12'16.929"N	103°47'04.795"W	1.51	
12079.00	89.500	320.100	8151.66	4227.23	3089.48	-2885.53	669645.23	438696.20	32°12'17.652"N	103°47'05.502"W	0.53	
12174.00	90.300	319.400	8151.82	4322.16	3161.98	-2946.91	669583.85	438768.70	32°12'18.372"N	103°47'06.212"W	1.12	
12269.00	91.200	318.500	8150.58	4417.12	3233.62	-3009.29	669521.48	438840.33	32°12'19.084"N	103°47'06.934"W	1.34	
12364.00	89.100	317.000	8150.33	4512.11	3303.93	-3073.16	669457.61	438910.64	32°12'19.783"N	103°47'07.673"W	2.72	
12459.00	88.800	318.600	8152.07	4607.09	3374.30	-3136.96	669393.81	438981.00	32°12'20.483"N	103°47'08.411"W	1.71	
12554.00	89.900	319.000	8153.15	4702.05	3445.77	-3199.53	669331.25	439052.47	32°12'21.193"N	103°47'09.135"W	1.23	
12649.00	89.500	317.300	8153.65	4797.04	3516.53	-3262.91	669267.87	439123.22	32°12'21.897"N	103°47'09.869"W	1.84	
12744.00	90.900	317.900	8153.31	4892.04	3586.68	-3326.97	669203.82	439193.37	32°12'22.594"N	103°47'10.610"W	1.60	
12839.00	90.900	317.900	8151.82	4987.03	3657.16	-3390.65	669140.14	439263.85	32°12'23.295"N	103°47'11.347"W	0.00	
12934.00	90.600	317.800	8150.58	5082.02	3727.59	-3454.40	669076.40	439334.27	32°12'23.995"N	103°47'12.085"W	0.33	
13029.00	90.300	318.100	8149.83	5177.01	3798.13	-3518.02	669012.77	439404.80	32°12'24.696"N	103°47'12.821"W	0.45	
13124.00	90.100	319.300	8149.50	5271.99	3869.50	-3580.72	668950.08	439476.17	32°12'25.406"N	103°47'13.547"W	1.28	
13219.00	90.100	319.200	8149.34	5366.94	3941.47	-3642.73	668888.07	439548.13	32°12'26.121"N	103°47'14.264"W	0.11	
13314.00	90.800	319.600	8148.59	5461.89	4013.59	-3704.56	668826.25	439620.26	32°12'26.838"N	103°47'14.979"W	0.85	
13409.00	90.300	316.500	8147.68	5556.87	4084.24	-3768.05	668762.76	439690.89	32°12'27.540"N	103°47'15.714"W	3.31	
13504.00	90.700	317.300	8146.85	5651.86	4153.60	-3832.96	668697.86	439760.25	32°12'28.229"N	103°47'16.465"W	0.94	
13599.00	90.900	317.500	8145.52	5746.85	4223.52	-3897.26	668633.56	439830.17	32°12'28.925"N	103°47'17.210"W	0.30	
13694.00	91.000	317.400	8143.95	5841.84	4293.50	-3961.49	668569.33	439900.14	32°12'29.620"N	103°47'17.953"W	0.15	
13789.00	90.900	318.700	8142.37	5936.82	4364.14	-4024.98	668505.84	439970.78	32°12'30.322"N	103°47'18.688"W	1.37	
13885.00	91.900	319.700	8140.03	6032.74	4436.79	-4087.69	668443.14	440043.43	32°12'31.045"N	103°47'19.413"W	1.47	



Actual Wellpath Report

No.401H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.401H SHL
Area	Eddy County, NM	Well	No.401H
Field	Poker Lake Unit	Wellbore	No.401H AWB
Facility	Poker Lake Unit No. 401H		

WELLPATH DATA (183 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
13980.00	92.600	320.000	8136.30	6127.59	4509.34	-4148.90	668381.93	440115.98	32°12'31.766"N	103°47'20.121"W	0.80	
13998.00	92.700	320.200	8135.46	6145.55	4523.14	-4160.43	668370.40	440129.77	32°12'31.903"N	103°47'20.255"W	1.24	
14050.00	92.700	320.200	8133.01	6197.44	4563.04	-4193.68	668337.15	440169.68	32°12'32.299"N	103°47'20.639"W	0.00	Proj to Bit

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.401H PBHL		8146.00	4572.05	-4187.68	668343.16	440178.68	32°12'32.388"N	103°47'20.569"W	point
No.401H Target		8155.00	795.67	-728.80	671801.84	436402.53	32°11'54.844"N	103°46'40.540"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.401H AWB					Ref Wellpath: No.401H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore
0.00	7452.06	Generic gyro - northseeking (Standard)			VES Gyros <7.29-7452.06>	No.401H AWB
7452.06	13998.00	NaviTrak (Standard)			BHI / Navitrak MWD <7485-xxxx>	No.401H AWB
13998.00	14050.00	Blind Drilling (std)			Projection to bit	No.401H AWB