

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 Oct 23, 2012 through Nov 17, 2012 the

taking of MWD surveys from a depth of 704 to a depth of 16,051 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. 318H 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. 318H

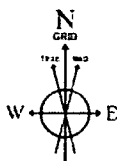
Slot: No.318H SHL
Well: No.318H
Wellbore: No.318H PWB

Well Profile Data

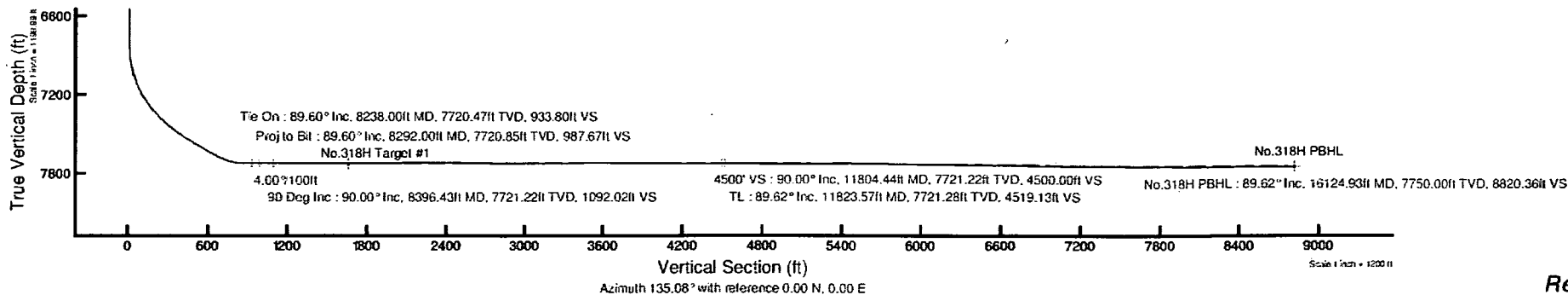
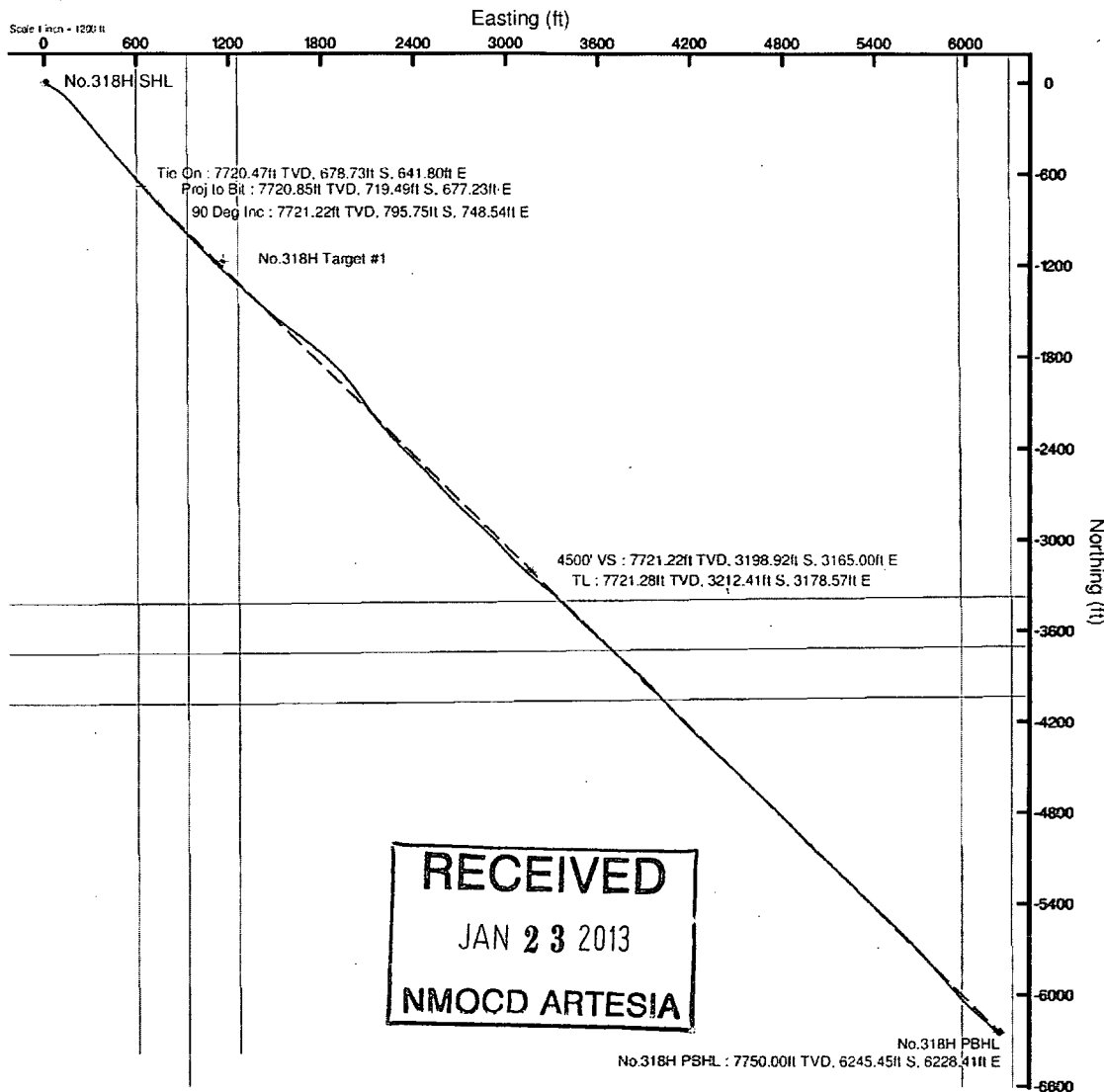
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°100ft)	VS (ft)
Tie On	8238.00	89.60	139.00	7720.47	-678.73	641.80	0.00	933.80
Proj to Bit	8292.00	89.60	139.00	7720.85	-719.49	677.23	0.00	987.67
90 Deg Inc	8396.43	90.00	134.842	7721.22	-795.75	748.54	4.00	1092.02
4500' VS	11804.44	90.00	134.842	7721.22	-3198.92	3165.00	0.00	4500.00
TL	11823.57	89.617	134.842	7721.28	-3212.41	3178.57	2.00	4519.13
No.318H PBHL	16124.93	89.617	134.842	7750.00	-6245.45	6228.41	0.00	8820.36

Plot reference wellbore is Rev F.0

True vertical depths are referenced to Acuña 4 (B)	Grid System: NAD83 / T.M. New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Acuña 4 (B)	North Reference: Grid north
Acuña 4 (B) to Mean Sea Level: 31.37 feet	Scale: True distance
Mean Sea Level to Mud line (2nd Slot No.318H SHL): -2415 feet	Errors are in feet
Coordinates are in feet referenced to Slot	Created by: geology on 11/05/2012



BGSMA (1945.0 to 2014.0) Dip: 60.09° Field: 48442 S nT
Magnetic North is 7.66 degrees East of True North (at 11/05/2012)
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 7.42 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.42 = 97.42





Actual Wellpath Report

No.318H AWP

Page 1 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWB
Facility	Poker Lake Unit No. 318H		

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	Gilbjosl
Scale	0.999932	Report Generated	19/Nov/2012 at 11:36:54 AM
Convergence at slot	0.24° East	Database/Source file	WA Midland/No.318H_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	640122.01	454864.51	32°14'59.016"N	103°52'48.318"W
Facility Reference Pt			640122.01	454864.51	32°14'59.016"N	103°52'48.318"W
Field Reference Pt			630272.49	405347.85	32°06'49.387"N	103°54'45.266"W

WELLPATH DATUM

Calculation method	Minimum curvature	Aquila 4 (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Aquila 4 (KB) to Mean Sea Level	3437.00ft
Vertical Reference Pt	Aquila 4 (KB)	Aquila 4 (KB) to Mud Line at Slot (No.318H SHL)	22.00ft
MD Reference Pt	Aquila 4 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	135.08°



Actual Wellpath Report

No.318H AWP

Page 2 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWP
Facility	Poker Lake Unit No. 318H		

WELLPATH DATA (164 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	0.000	0.00	0.00	0.00	0.00	640122.01	454864.51	32°14'59.016"N	103°52'48.318"W	0.00	
245.00	0.480	0.000	245.00	-0.73	1.03	0.00	640122.01	454865.54	32°14'59.026"N	103°52'48.318"W	0.20	
492.00	0.770	0.000	491.98	-2.63	3.72	0.00	640122.01	454868.23	32°14'59.052"N	103°52'48.318"W	0.12	
704.00	1.200	63.800	703.96	-2.93	6.13	1.99	640124.00	454870.63	32°14'59.076"N	103°52'48.295"W	0.52	
797.00	1.400	77.700	796.93	-2.01	6.80	3.98	640125.99	454871.31	32°14'59.083"N	103°52'48.272"W	0.40	
892.00	1.500	70.200	891.90	-0.85	7.47	6.28	640128.29	454871.98	32°14'59.089"N	103°52'48.245"W	0.23	
1049.00	1.000	19.500	1048.87	-0.57	9.45	8.67	640130.68	454873.96	32°14'59.109"N	103°52'48.217"W	0.74	
1238.00	0.700	33.300	1237.85	-1.52	11.97	9.85	640131.86	454876.48	32°14'59.134"N	103°52'48.203"W	0.19	
1427.00	0.500	36.000	1426.84	-1.88	13.60	10.97	640132.98	454878.11	32°14'59.150"N	103°52'48.190"W	0.11	
1617.00	0.300	4.500	1616.83	-2.34	14.77	11.50	640133.51	454879.28	32°14'59.161"N	103°52'48.184"W	0.15	
1806.00	0.040	296.700	1805.83	-2.72	15.29	11.48	640133.49	454879.80	32°14'59.166"N	103°52'48.184"W	0.15	
1995.00	0.100	225.800	1994.83	-2.79	15.21	11.30	640133.31	454879.72	32°14'59.166"N	103°52'48.186"W	0.05	
2184.00	0.300	256.400	2183.83	-3.05	14.98	10.70	640132.71	454879.49	32°14'59.163"N	103°52'48.193"W	0.12	
2374.00	0.300	53.500	2373.83	-3.23	15.16	10.62	640132.63	454879.67	32°14'59.165"N	103°52'48.194"W	0.31	
2562.00	0.400	40.400	2561.83	-3.21	15.95	11.44	640133.45	454880.46	32°14'59.173"N	103°52'48.184"W	0.07	
2752.00	0.000	7.400	2751.82	-3.27	16.45	11.87	640133.88	454880.96	32°14'59.178"N	103°52'48.179"W	0.21	
2941.00	0.300	36.100	2940.82	-3.35	16.85	12.16	640134.17	454881.36	32°14'59.182"N	103°52'48.176"W	0.16	
3130.00	0.800	94.200	3129.82	-2.43	17.16	13.77	640135.78	454881.67	32°14'59.185"N	103°52'48.157"W	0.37	
3320.00	1.700	117.100	3319.77	1.26	15.78	17.60	640139.61	454880.29	32°14'59.171"N	103°52'48.113"W	0.53	
3508.00	1.600	125.700	3507.69	6.50	12.97	22.21	640144.22	454877.48	32°14'59.143"N	103°52'48.059"W	0.14	
3698.00	0.700	149.700	3697.65	10.24	10.42	24.95	640146.96	454874.93	32°14'59.118"N	103°52'48.027"W	0.53	
3844.00	0.400	143.300	3843.65	11.61	9.25	25.71	640147.72	454873.75	32°14'59.106"N	103°52'48.019"W	0.21	
4008.00	0.200	147.300	4007.64	12.45	8.55	26.21	640148.21	454873.06	32°14'59.099"N	103°52'48.013"W	0.12	
4197.00	0.200	85.800	4196.64	12.99	8.29	26.71	640148.72	454872.80	32°14'59.096"N	103°52'48.007"W	0.11	
4386.00	0.100	196.200	4385.64	13.29	8.16	27.00	640149.00	454872.67	32°14'59.095"N	103°52'48.004"W	0.13	
4576.00	0.200	228.600	4575.64	13.35	7.78	26.70	640148.71	454872.29	32°14'59.091"N	103°52'48.007"W	0.07	
4765.00	0.300	215.100	4764.64	13.41	7.16	26.17	640148.18	454871.67	32°14'59.085"N	103°52'48.013"W	0.06	
4954.00	0.400	241.200	4953.64	13.31	6.43	25.31	640147.31	454870.94	32°14'59.078"N	103°52'48.023"W	0.10	
5143.00	0.400	214.800	5142.63	13.25	5.57	24.35	640146.36	454870.08	32°14'59.070"N	103°52'48.035"W	0.10	
5332.00	0.500	213.900	5331.63	13.53	4.35	23.52	640145.52	454868.86	32°14'59.058"N	103°52'48.044"W	0.05	



Actual Wellpath Report

No.318H AWP

Page 3 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWB
Facility	Poker Lake Unit No. 318H		

WELLPATH DATA (164 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
5521.00	0.600	228.000	5520.62	13.64	3.00	22.32	640144.33	454867.51	32°14'59.044"N	103°52'48.058"W	0.09	
5709.00	0.700	228.900	5708.60	13.51	1.59	20.72	640142.73	454866.10	32°14'59.030"N	103°52'48.077"W	0.05	
5898.00	0.600	224.000	5897.59	13.45	0.12	19.17	640141.17	454864.63	32°14'59.016"N	103°52'48.095"W	0.06	
6087.00	0.600	225.600	6086.58	13.46	-1.29	17.77	640139.78	454863.22	32°14'59.002"N	103°52'48.111"W	0.01	
6276.00	0.500	232.500	6275.57	13.34	-2.48	16.41	640138.42	454862.03	32°14'58.990"N	103°52'48.127"W	0.06	
6464.00	0.700	258.900	6463.56	12.60	-3.20	14.63	640136.64	454861.31	32°14'58.983"N	103°52'48.148"W	0.18	
6653.00	0.900	251.400	6652.54	11.30	-3.90	12.09	640134.10	454860.61	32°14'58.976"N	103°52'48.178"W	0.12	
6842.00	0.900	155.300	6841.53	12.03	-5.72	11.31	640133.32	454858.79	32°14'58.958"N	103°52'48.187"W	0.71	
6873.00	2.000	139.900	6872.52	12.80	-6.35	11.76	640133.77	454858.16	32°14'58.952"N	103°52'48.182"W	3.73	
6905.00	4.700	123.600	6904.46	14.64	-7.51	13.21	640135.22	454857.00	32°14'58.941"N	103°52'48.165"W	8.86	
6937.00	8.200	118.200	6936.26	18.11	-9.31	16.31	640138.32	454855.20	32°14'58.923"N	103°52'48.129"W	11.09	
6968.00	10.100	118.500	6966.86	22.83	-11.65	20.65	640142.66	454852.86	32°14'58.899"N	103°52'48.078"W	6.13	
7000.00	12.300	117.600	6998.25	28.77	-14.57	26.14	640148.15	454849.94	32°14'58.870"N	103°52'48.015"W	6.90	
7031.00	14.600	122.000	7028.40	35.73	-18.17	32.38	640154.39	454846.34	32°14'58.834"N	103°52'47.942"W	8.12	
7063.00	17.400	118.500	7059.15	44.25	-22.59	40.00	640162.01	454841.92	32°14'58.790"N	103°52'47.854"W	9.25	
7094.00	20.000	118.900	7088.52	53.78	-27.37	48.72	640170.73	454837.14	32°14'58.743"N	103°52'47.752"W	8.40	
7126.00	22.600	118.800	7118.33	64.94	-32.98	58.90	640180.91	454831.54	32°14'58.687"N	103°52'47.634"W	8.13	
7157.00	25.000	118.900	7146.69	76.95	-39.01	69.86	640191.86	454825.50	32°14'58.627"N	103°52'47.507"W	7.74	
7188.00	27.400	121.800	7174.50	90.19	-45.94	81.66	640203.66	454818.57	32°14'58.558"N	103°52'47.370"W	8.77	
7219.00	29.500	126.400	7201.76	104.68	-54.23	93.87	640215.87	454810.28	32°14'58.475"N	103°52'47.228"W	9.79	
7251.00	31.600	130.000	7229.32	120.82	-64.30	106.63	640228.63	454800.22	32°14'58.375"N	103°52'47.080"W	8.70	
7283.00	34.100	131.600	7256.20	138.13	-75.64	119.76	640241.77	454788.87	32°14'58.262"N	103°52'46.928"W	8.27	
7315.00	36.900	132.900	7282.25	156.69	-88.14	133.51	640255.51	454776.38	32°14'58.138"N	103°52'46.768"W	9.06	
7346.00	39.100	134.100	7306.68	175.76	-101.28	147.35	640269.35	454763.24	32°14'58.007"N	103°52'46.608"W	7.49	
7378.00	40.800	135.800	7331.21	196.31	-115.80	161.89	640283.89	454748.72	32°14'57.863"N	103°52'46.439"W	6.31	
7409.00	42.400	137.200	7354.39	216.88	-130.73	176.05	640298.05	454733.79	32°14'57.715"N	103°52'46.275"W	5.97	
7440.00	44.300	138.700	7376.93	238.13	-146.53	190.30	640312.30	454717.99	32°14'57.558"N	103°52'46.110"W	6.97	
7472.00	46.100	139.800	7399.48	260.78	-163.74	205.12	640327.11	454700.79	32°14'57.387"N	103°52'45.938"W	6.13	
7503.00	48.600	140.100	7420.48	283.49	-181.19	219.79	640341.78	454683.33	32°14'57.213"N	103°52'45.768"W	8.10	
7535.00	50.700	140.300	7441.20	307.78	-199.92	235.40	640357.39	454664.60	32°14'57.027"N	103°52'45.587"W	6.58	



Actual Wellpath Report

No.318H AWP

Page 4 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWP
Facility	Poker Lake Unit No. 318H		

WELLPATH DATA (164 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
7566.00	52.500	140.000	7460.45	331.98	-218.57	250.96	640372.96	454645.95	32°14'56.842"N	103°52'45.407"W	5.86	
7598.00	53.800	140.200	7479.64	357.49	-238.22	267.39	640389.38	454626.31	32°14'56.647"N	103°52'45.217"W	4.09	
7629.00	55.100	140.700	7497.67	382.60	-257.67	283.45	640405.44	454606.86	32°14'56.454"N	103°52'45.031"W	4.39	
7660.00	57.100	140.600	7514.96	408.21	-277.56	299.76	640421.75	454586.97	32°14'56.256"N	103°52'44.842"W	6.46	
7692.00	58.100	140.600	7532.10	435.10	-298.44	316.91	640438.90	454566.09	32°14'56.049"N	103°52'44.643"W	3.12	
7724.00	58.700	140.700	7548.87	462.23	-319.52	334.19	640456.18	454545.02	32°14'55.840"N	103°52'44.443"W	1.89	
7755.00	58.900	140.500	7564.93	488.62	-340.01	351.02	640473.01	454524.53	32°14'55.636"N	103°52'44.248"W	0.85	
7787.00	59.200	140.400	7581.39	515.94	-361.17	368.50	640490.48	454503.37	32°14'55.426"N	103°52'44.046"W	0.98	
7818.00	59.500	140.300	7597.19	542.50	-381.70	385.51	640507.50	454482.84	32°14'55.222"N	103°52'43.848"W	1.01	
7900.00	60.100	139.400	7638.44	613.12	-435.87	431.21	640553.19	454428.67	32°14'54.684"N	103°52'43.319"W	1.20	
7932.00	61.600	139.700	7654.03	640.98	-457.14	449.34	640571.32	454407.41	32°14'54.473"N	103°52'43.109"W	4.76	
7962.00	63.300	138.500	7667.90	667.52	-477.24	466.76	640588.74	454387.31	32°14'54.274"N	103°52'42.907"W	6.68	
8016.00	66.900	139.300	7690.63	716.38	-514.14	498.95	640620.92	454350.40	32°14'53.907"N	103°52'42.534"W	6.80	
8048.00	71.200	138.600	7702.07	746.19	-536.67	518.57	640640.54	454327.87	32°14'53.683"N	103°52'42.307"W	13.59	
8079.00	77.500	138.700	7710.43	775.96	-559.07	538.28	640660.25	454305.48	32°14'53.461"N	103°52'42.078"W	20.32	
8111.00	81.100	138.300	7716.37	807.35	-582.62	559.11	640681.08	454281.93	32°14'53.227"N	103°52'41.837"W	11.32	
8142.00	86.700	138.900	7719.66	838.10	-605.73	579.49	640701.46	454258.82	32°14'52.997"N	103°52'41.601"W	18.17	
8174.00	90.600	139.900	7720.42	869.99	-630.02	600.30	640722.27	454234.54	32°14'52.756"N	103°52'41.360"W	12.58	
8206.00	89.800	139.700	7720.31	901.89	-654.46	620.96	640742.92	454210.10	32°14'52.513"N	103°52'41.120"W	2.58	
8238.00	89.600	139.000	7720.47	933.80	-678.73	641.80	640763.77	454185.82	32°14'52.272"N	103°52'40.879"W	2.28	
8342.00	90.100	138.500	7720.75	1037.58	-756.92	710.37	640832.33	454107.64	32°14'51.496"N	103°52'40.084"W	0.68	
8437.00	90.100	137.300	7720.58	1132.46	-827.41	774.06	640896.02	454037.16	32°14'50.796"N	103°52'39.346"W	1.26	
8532.00	90.000	136.300	7720.50	1227.42	-896.66	839.09	640961.05	453967.91	32°14'50.108"N	103°52'38.593"W	1.06	
8628.00	90.300	135.800	7720.25	1323.41	-965.78	905.72	641027.67	453898.80	32°14'49.421"N	103°52'37.820"W	0.61	
8722.00	91.100	136.300	7719.10	1417.38	-1033.45	970.95	641092.90	453831.14	32°14'48.749"N	103°52'37.064"W	1.00	
8817.00	90.000	135.500	7718.19	1512.37	-1101.66	1037.06	641159.00	453762.92	32°14'48.071"N	103°52'36.298"W	1.43	
8912.00	89.900	134.600	7718.27	1607.37	-1168.90	1104.18	641226.11	453695.70	32°14'47.403"N	103°52'35.520"W	0.95	
9006.00	89.900	134.100	7718.43	1701.36	-1234.61	1171.39	641293.32	453629.99	32°14'46.750"N	103°52'34.740"W	0.53	
9101.00	90.000	132.500	7718.52	1796.31	-1299.76	1240.53	641362.45	453564.85	32°14'46.102"N	103°52'33.939"W	1.69	
9197.00	90.100	132.300	7718.43	1892.20	-1364.49	1311.42	641433.34	453500.12	32°14'45.458"N	103°52'33.116"W	0.23	



Actual Wellpath Report

No.318H AWP

Page 5 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWB
Facility	Poker Lake Unit No. 318H		

WELLPATH DATA (164 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
9292.00	89.900	132.500	7718.43	1987.10	-1428.55	1381.58	641503.49	453436.06	32°14'44.822"N	103°52'32.303"W	0.30	
9387.00	91.900	131.300	7716.94	2081.94	-1491.98	1452.27	641574.18	453372.64	32°14'44.191"N	103°52'31.483"W	2.46	
9482.00	89.800	129.500	7715.53	2176.60	-1553.54	1524.60	641646.51	453311.08	32°14'43.579"N	103°52'30.644"W	2.91	
9576.00	89.300	126.700	7716.27	2269.89	-1611.53	1598.57	641720.46	453253.09	32°14'43.002"N	103°52'29.785"W	3.03	
9671.00	90.300	127.800	7716.60	2364.00	-1669.03	1674.18	641796.07	453195.59	32°14'42.430"N	103°52'28.908"W	1.56	
9766.00	89.700	128.600	7716.60	2458.32	-1727.78	1748.84	641870.72	453136.85	32°14'41.845"N	103°52'28.042"W	1.05	
9861.00	88.500	131.700	7718.09	2552.94	-1789.02	1821.43	641943.32	453075.62	32°14'41.236"N	103°52'27.199"W	3.50	
9956.00	89.400	136.000	7719.83	2647.88	-1854.81	1889.91	642011.79	453009.83	32°14'40.582"N	103°52'26.405"W	4.62	
10050.00	87.900	139.100	7722.05	2741.75	-1924.14	1953.33	642075.21	452940.51	32°14'39.893"N	103°52'25.670"W	3.66	
10146.00	90.000	144.100	7723.81	2837.08	-1999.33	2012.93	642134.80	452865.32	32°14'39.147"N	103°52'24.980"W	5.65	
10241.00	89.700	146.000	7724.06	2930.64	-2077.19	2067.35	642189.21	452787.46	32°14'38.374"N	103°52'24.351"W	2.02	
10336.00	90.300	143.700	7724.06	3024.26	-2154.86	2122.04	642243.90	452709.80	32°14'37.603"N	103°52'23.718"W	2.50	
10431.00	90.300	141.800	7723.56	3118.40	-2230.48	2179.54	642301.39	452634.19	32°14'36.852"N	103°52'23.052"W	2.00	
10526.00	90.400	138.500	7722.98	3213.01	-2303.40	2240.40	642362.25	452561.27	32°14'36.128"N	103°52'22.347"W	3.48	
10620.00	90.300	135.300	7722.41	3306.95	-2372.03	2304.62	642426.47	452492.65	32°14'35.446"N	103°52'21.603"W	3.41	
10716.00	90.400	135.300	7721.82	3402.95	-2440.26	2372.15	642493.99	452424.42	32°14'34.768"N	103°52'20.820"W	0.10	
10811.00	90.400	135.500	7721.16	3497.94	-2507.90	2438.85	642560.69	452356.78	32°14'34.096"N	103°52'20.047"W	0.21	
10906.00	90.300	136.700	7720.58	3592.93	-2576.35	2504.72	642626.55	452288.34	32°14'33.416"N	103°52'19.283"W	1.27	
11001.00	89.800	137.400	7720.49	3687.87	-2645.89	2569.45	642691.28	452218.81	32°14'32.725"N	103°52'18.533"W	0.91	
11096.00	89.900	137.200	7720.74	3782.80	-2715.70	2633.87	642755.70	452149.00	32°14'32.032"N	103°52'17.787"W	0.24	
11191.00	89.900	134.800	7720.91	3877.78	-2784.04	2699.86	642821.68	452080.67	32°14'31.353"N	103°52'17.022"W	2.53	
11286.00	89.800	132.200	7721.16	3972.73	-2849.42	2768.76	642890.58	452015.29	32°14'30.703"N	103°52'16.223"W	2.74	
11381.00	89.800	131.500	7721.49	4067.58	-2912.81	2839.53	642961.34	451951.91	32°14'30.073"N	103°52'15.402"W	0.74	
11476.00	89.900	135.500	7721.74	4162.53	-2978.19	2908.42	643030.23	451886.53	32°14'29.423"N	103°52'14.603"W	4.21	
11571.00	89.800	137.400	7721.99	4257.49	-3047.04	2973.88	643095.68	451817.69	32°14'28.739"N	103°52'13.845"W	2.00	
11665.00	89.900	136.900	7722.23	4351.43	-3115.95	3037.80	643159.60	451748.78	32°14'28.054"N	103°52'13.104"W	0.54	
11760.00	89.900	133.600	7722.40	4446.42	-3183.41	3104.67	643226.47	451681.33	32°14'27.384"N	103°52'12.329"W	3.47	
11855.00	89.400	130.200	7722.98	4541.26	-3246.84	3175.37	643297.16	451617.90	32°14'26.753"N	103°52'11.509"W	3.62	
11951.00	89.400	127.500	7723.98	4636.68	-3307.05	3250.12	643371.91	451557.69	32°14'26.154"N	103°52'10.642"W	2.81	
12046.00	89.300	133.100	7725.06	4731.30	-3368.47	3322.54	643444.32	451496.28	32°14'25.543"N	103°52'09.801"W	5.90	



Actual Wellpath Report

No.318H AWP

Page 6 of 8



REFERENCE WELLPATH IDENTIFICATION				
Operator	BOPCO, L.P.	Slot	No.318H SHL	
Area	Eddy County, NM	Well	No.318H	
Field	Poker Lake Unit	Wellbore	No.318H AWP	
Facility	Poker Lake Unit No. 318H			

WELLPATH DATA (164 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
12141.00	89.300	134.900	7726.22	4826.27	-3434.45	3390.87	643512.65	451430.30	32°14'24.887"N	103°52'09.009"W	1.89	
12236.00	89.400	134.900	7727.30	4921.27	-3501.51	3458.16	643579.93	451363.25	32°14'24.221"N	103°52'08.229"W	0.11	
12331.00	90.300	134.900	7727.55	5016.27	-3568.56	3525.45	643647.22	451296.20	32°14'23.554"N	103°52'07.449"W	0.95	
12426.00	90.400	131.900	7726.97	5111.21	-3633.83	3594.47	643716.23	451230.94	32°14'22.906"N	103°52'06.649"W	3.16	
12521.00	90.400	133.600	7726.31	5206.13	-3698.31	3664.23	643785.98	451166.46	32°14'22.264"N	103°52'05.840"W	1.79	
12616.00	90.300	133.800	7725.73	5301.10	-3763.94	3732.91	643854.65	451100.83	32°14'21.612"N	103°52'05.044"W	0.24	
12712.00	90.400	130.800	7725.14	5396.97	-3828.54	3803.90	643925.64	451036.24	32°14'20.970"N	103°52'04.221"W	3.13	
12806.00	88.600	133.400	7725.96	5490.83	-3891.55	3873.64	643995.37	450973.23	32°14'20.343"N	103°52'03.412"W	3.36	
12900.00	89.400	136.000	7727.60	5584.80	-3957.66	3940.43	644062.17	450907.13	32°14'19.686"N	103°52'02.638"W	2.89	
12995.00	89.300	139.000	7728.68	5679.70	-4027.69	4004.60	644126.33	450837.11	32°14'18.991"N	103°52'01.894"W	3.16	
13090.00	89.300	138.300	7729.84	5774.51	-4099.00	4067.36	644189.08	450765.80	32°14'18.282"N	103°52'01.167"W	0.74	
13185.00	88.800	137.700	7731.41	5869.37	-4169.58	4130.92	644252.64	450695.22	32°14'17.581"N	103°52'00.431"W	0.82	
13280.00	88.800	134.900	7733.40	5964.32	-4238.24	4196.53	644318.25	450626.56	32°14'16.899"N	103°51'59.670"W	2.95	
13374.00	88.900	133.000	7735.29	6058.28	-4303.47	4264.19	644385.90	450561.35	32°14'16.250"N	103°51'58.886"W	2.02	
13470.00	89.500	133.900	7736.63	6154.23	-4369.48	4333.88	644455.58	450495.34	32°14'15.594"N	103°51'58.078"W	1.13	
13564.00	89.400	132.400	7737.53	6248.17	-4433.76	4402.45	644524.15	450431.06	32°14'14.955"N	103°51'57.283"W	1.60	
13660.00	89.500	133.900	7738.46	6344.11	-4499.41	4472.48	644594.18	450365.41	32°14'14.303"N	103°51'56.471"W	1.57	
13755.00	89.300	135.200	7739.45	6439.10	-4566.05	4540.18	644661.87	450298.78	32°14'13.640"N	103°51'55.686"W	1.38	
13849.00	90.000	134.900	7740.02	6533.10	-4632.58	4606.59	644728.27	450232.26	32°14'12.979"N	103°51'54.916"W	0.81	
13944.00	89.900	133.800	7740.11	6628.09	-4698.99	4674.52	644796.20	450165.86	32°14'12.319"N	103°51'54.129"W	1.16	
14039.00	89.300	134.100	7740.77	6723.06	-4764.92	4742.91	644864.59	450099.93	32°14'11.664"N	103°51'53.336"W	0.71	
14133.00	89.400	135.700	7741.84	6817.06	-4831.26	4809.49	644931.16	450033.59	32°14'11.004"N	103°51'52.564"W	1.71	
14229.00	89.400	137.300	7742.84	6913.02	-4900.89	4875.57	644997.23	449963.96	32°14'10.312"N	103°51'51.799"W	1.67	
14324.00	89.900	137.200	7743.42	7007.95	-4970.65	4940.05	645061.71	449894.21	32°14'09.619"N	103°51'51.051"W	0.54	
14418.00	89.900	133.800	7743.59	7101.93	-5037.69	5005.93	645127.58	449827.18	32°14'08.953"N	103°51'50.288"W	3.62	
14513.00	89.900	132.800	7743.75	7196.88	-5102.84	5075.06	645196.72	449762.03	32°14'08.305"N	103°51'49.486"W	1.05	
14609.00	89.800	133.600	7744.00	7292.83	-5168.55	5145.04	645266.69	449696.32	32°14'07.652"N	103°51'48.675"W	0.84	
14704.00	89.900	133.800	7744.25	7387.80	-5234.19	5213.72	645335.37	449630.69	32°14'07.000"N	103°51'47.879"W	0.24	
14799.00	89.300	135.200	7744.92	7482.79	-5300.77	5281.48	645403.12	449564.11	32°14'06.338"N	103°51'47.093"W	1.60	
14894.00	89.300	133.800	7746.08	7577.78	-5367.35	5349.23	645470.87	449497.54	32°14'05.676"N	103°51'46.308"W	1.47	



Actual Wellpath Report

No.318H AWP

Page 7 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.318H SHL
Area	Eddy County, NM	Well	No.318H
Field	Poker Lake Unit	Wellbore	No.318H AWB
Facility	Poker Lake Unit No. 318H		

WELLPATH DATA (164 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
14989.00	89.400	133.300	7747.15	7672.74	-5432.80	5418.08	645539.71	449432.09	32°14'05.026"N	103°51'45.510"W	0.54	
15084.00	89.200	133.900	7748.31	7767.70	-5498.31	5486.87	645608.50	449366.59	32°14'04.374"N	103°51'44.712"W	0.67	
15179.00	89.500	134.800	7749.39	7862.68	-5564.71	5554.80	645676.42	449300.19	32°14'03.714"N	103°51'43.925"W	1.00	
15274.00	89.900	134.900	7749.89	7957.68	-5631.71	5622.15	645743.76	449233.20	32°14'03.048"N	103°51'43.144"W	0.43	
15369.00	89.900	137.200	7750.06	8052.66	-5700.10	5688.08	645809.69	449164.81	32°14'02.369"N	103°51'42.380"W	2.42	
15463.00	90.100	138.900	7750.06	8146.53	-5770.01	5750.91	645872.52	449094.91	32°14'01.674"N	103°51'41.652"W	1.82	
15558.00	89.300	138.400	7750.55	8241.34	-5841.32	5813.67	645935.27	449023.60	32°14'00.966"N	103°51'40.925"W	0.99	
15654.00	89.400	139.400	7751.64	8337.12	-5913.66	5876.78	645998.37	448951.27	32°14'00.247"N	103°51'40.194"W	1.05	
15748.00	89.200	138.300	7752.79	8430.91	-5984.43	5938.63	646060.22	448880.50	32°13'59.544"N	103°51'39.478"W	1.19	
15843.00	89.900	135.700	7753.54	8525.85	-6053.90	6003.41	646124.99	448811.03	32°13'58.854"N	103°51'38.727"W	2.83	
15939.00	89.900	131.200	7753.70	8621.78	-6119.91	6073.08	646194.67	448745.03	32°13'58.198"N	103°51'37.920"W	4.69	
16034.00	89.900	133.000	7753.87	8716.65	-6183.59	6143.57	646265.15	448681.35	32°13'57.565"N	103°51'37.102"W	1.89	
16051.00	89.800	134.600	7753.91	8733.65	-6195.36	6155.84	646277.41	448669.59	32°13'57.448"N	103°51'36.960"W	9.43	
16124.00	89.800	134.600	7754.17	8806.64	-6246.62	6207.81	646329.39	448618.33	32°13'56.938"N	103°51'36.358"W	0.00	Projection to bit



Actual Wellpath Report

No.318H AWP

Page 8 of 8



REFERENCE WELLPATH IDENTIFICATION				
Operator	BOPCO, L.P.		Slot	No.318H SHL
Area	Eddy County, NM		Well	No.318H
Field	Poker Lake Unit		Wellbore	No.318H AWB
Facility	Poker Lake Unit No. 318H			

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.318H Target #1		7725.00	-1173.27	1170.08	641292.01	453691.32	32°14'47.357"N	103°52'34.753"W	point
No.318H PBHL		7750.00	-6245.45	6228.41	646349.99	448619.50	32°13'56.949"N	103°51'36.118"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.318H AWB					Ref Wellpath: No.318H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
0.00	492.00	Drift Indicator (Standard)		Rig Shots		No.318H AWB
492.00	16051.00	NaviTrak (Standard)		BHI MWD NaviTrak <704-16051>		No.318H AWB
16051.00	16124.00	Blind Drilling (std)		Projection to bit		No.318H AWB