



BOPCO, L.P.

Location Eddy County, NM
Field Poker Lake Unit
Facility Poker Lake Unit No. 330H

Slot No 330H SHL
Well No 330H
Wellbore No 330H PWB



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6848.00	0.300	158.200	6847.66	-0.45	-18.45	0.00	12.24
Est KOP	7198.00	0.300	158.200	7197.65	-2.15	-17.76	0.00	10.53
EOC	8325.95	90.000	317.386	7917.00	523.75	-503.41	8.00	726.37
Build	8351.73	90.000	317.902	7917.00	542.80	-520.78	2.00	752.14
Target #1/ 7" Casing	9167.55	90.000	317.902	7917.00	1148.14	-1067.71	0.00	1567.87
Build	9230.49	90.898	317.019	7916.51	1194.51	-1110.27	2.00	1630.81
No.330H PBHL	14430.82	90.898	317.019	7835.00	4998.52	-4655.16	0.00	6630.50

Plot reference wellpath is Plan #2

True vertical depths are referenced to Rig on No.330H SHL (KB)

Measured depths are referenced to Rig on No.330H SHL (KB)

Rig on No.330H SHL (KB) to Mean Sea Level 3510.5 feet

Mean Sea Level to Mud line (At Slot No.330H SHL) -3491.8 feet

Coordinates are in feet referenced to Slot

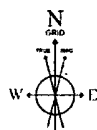
Grid System NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet

North Reference Grid north

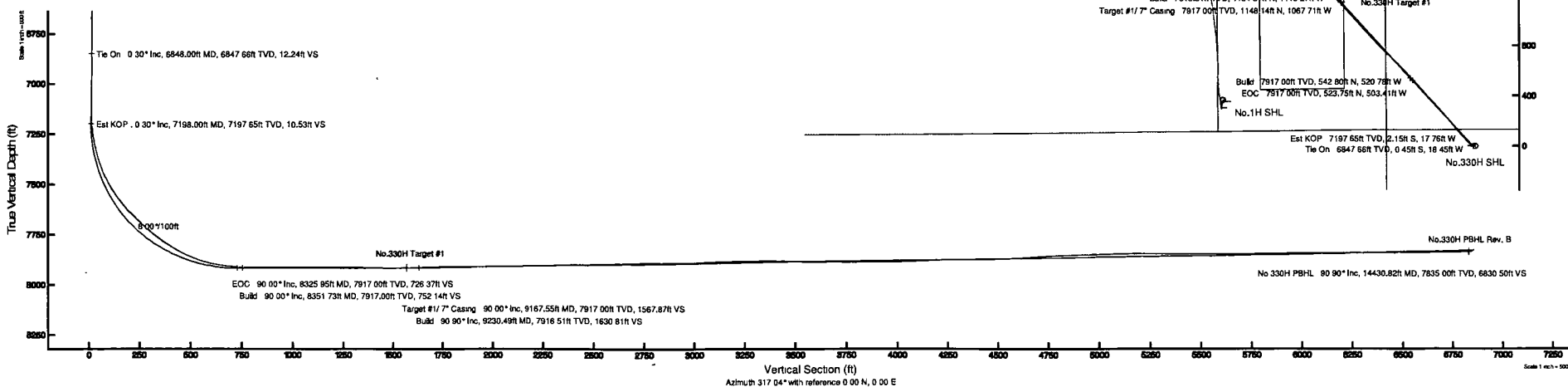
Scale True distance

Depths are in feet

Created by: gentry on 11/17/2011



SGOM (1945.0 to 2012.0) Dip 60.13° Field 46569.7 nT
Magnetic North is 7.70 degrees East of True North (at 11/15/2011)
Grid North is 0.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.44 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.44 = 97.44



30-015-3 3



Actual Wellpath Report

No.330HAWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

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	Gentry
Scale	0.999936	Report Generated	12/7/2011 at 10:19:09 AM
Convergence at slot	0.26° East	Database/Source file	WAMidland/No.330HAWB_Corrected.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	652511.54	445807.94	32°13'28.851"N	103°50'24.534"W
Facility Reference Pt			652511.54	445807.94	32°13'28.851"N	103°50'24.534"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.330HSHL (KB) to Facility Vertical Datum	18.70ft
Horizontal Reference Pt	Slot	Rig on No.330HSHL (KB) to Mean Sea Level	3510.50ft
Vertical Reference Pt	Rig on No.330HSHL (KB)	Rig on No.330HSHL (KB) to Mud Line at Slot (No.330HSHL)	18.70ft
MD Reference Pt	Rig on No.330HSHL (KB)	Section Origin	N0.00, E0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	317.18°



Actual Wellpath Report

No.330HAWP

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REFERENCE WELL PATH IDENTIFICATION

Operator	BOPCO, LP.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

WELL PATH DATA (163 stations) † = interpolated/extrapolated station

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	318.600	0.00	0.00	0.00	0.00	652511.54	445807.94	32°13'28.851"N	108°50'24.534"W	0.00	
18.70	0.000	318.600	18.70	0.00	0.00	0.00	652511.54	445807.94	32°13'28.851"N	108°50'24.534"W	0.00	
277.00	0.360	318.600	277.00	0.81	0.61	-0.54	652511.00	445808.55	32°13'28.857"N	108°50'24.541"W	0.14	
573.00	0.980	318.600	572.98	4.27	3.21	-2.83	652508.71	445811.14	32°13'28.883"N	108°50'24.567"W	0.21	
820.00	1.150	318.600	819.93	8.86	6.65	-5.86	652505.68	445814.59	32°13'28.917"N	108°50'24.602"W	0.07	
858.00	1.600	318.600	857.92	9.77	7.33	-6.46	652505.08	445815.27	32°13'28.924"N	108°50'24.609"W	1.18	
1050.00	1.100	299.600	1049.87	14.21	10.25	-9.84	652501.70	445818.19	32°13'28.953"N	108°50'24.648"W	0.35	
1239.00	0.300	336.700	1238.85	16.40	11.60	-11.61	652499.93	445819.54	32°13'28.967"N	108°50'24.669"W	0.47	
1429.00	0.500	295.700	1428.85	17.65	12.42	-12.56	652498.98	445820.36	32°13'28.975"N	108°50'24.680"W	0.18	
1619.00	0.600	309.000	1618.84	19.40	13.41	-14.08	652497.46	445821.35	32°13'28.985"N	108°50'24.698"W	0.09	
1809.00	0.500	305.000	1808.83	21.20	14.51	-15.53	652496.01	445822.45	32°13'28.996"N	108°50'24.714"W	0.06	
1999.00	0.200	300.200	1998.83	22.32	15.15	-16.49	652495.05	445823.09	32°13'29.002"N	108°50'24.726"W	0.16	
2190.00	0.300	274.700	2189.83	23.01	15.36	-17.28	652494.26	445823.30	32°13'29.004"N	108°50'24.735"W	0.08	
2380.00	0.400	260.900	2379.82	23.75	15.29	-18.43	652493.11	445823.23	32°13'29.003"N	108°50'24.748"W	0.07	
2570.00	0.200	154.400	2569.82	23.80	14.89	-18.94	652492.60	445822.83	32°13'29.000"N	108°50'24.754"W	0.26	
2759.00	0.300	2.600	2758.82	23.83	15.09	-18.78	652492.76	445823.03	32°13'29.001"N	108°50'24.752"W	0.26	
2949.00	0.500	50.700	2948.82	24.13	16.11	-18.11	652493.43	445824.05	32°13'29.012"N	108°50'24.744"W	0.20	
3140.00	0.200	34.400	3139.81	24.15	16.91	-17.28	652494.26	445824.85	32°13'29.019"N	108°50'24.735"W	0.16	
3340.00	0.300	44.000	3339.81	24.26	17.58	-16.72	652494.82	445825.52	32°13'29.026"N	108°50'24.728"W	0.05	
3520.00	0.600	102.100	3519.81	23.51	17.72	-15.47	652496.07	445825.66	32°13'29.027"N	108°50'24.714"W	0.28	
3710.00	0.500	121.600	3709.80	21.90	17.08	-13.79	652497.75	445825.01	32°13'29.021"N	108°50'24.694"W	0.11	
3901.00	1.100	165.500	3900.78	19.48	14.86	-12.62	652498.92	445822.80	32°13'28.999"N	108°50'24.681"W	0.43	
4076.00	0.800	183.300	4075.76	17.16	12.02	-12.27	652499.27	445819.96	32°13'28.971"N	108°50'24.677"W	0.24	
4192.00	1.000	199.300	4191.74	16.12	10.25	-12.65	652498.89	445818.19	32°13'28.953"N	108°50'24.681"W	0.28	
4381.00	1.000	199.000	4380.71	14.57	7.14	-13.74	652497.80	445815.08	32°13'28.923"N	108°50'24.694"W	0.00	
4572.00	0.200	199.100	4571.70	13.63	5.25	-14.39	652497.15	445813.19	32°13'28.904"N	108°50'24.702"W	0.42	
4762.00	0.400	208.200	4761.70	13.26	4.35	-14.81	652496.73	445812.29	32°13'28.895"N	108°50'24.707"W	0.11	
4952.00	0.300	209.800	4951.69	12.89	3.33	-15.37	652496.17	445811.27	32°13'28.885"N	108°50'24.713"W	0.05	
5142.00	0.400	239.100	5141.69	12.88	2.56	-16.19	652495.35	445810.50	32°13'28.877"N	108°50'24.723"W	0.11	
5332.00	0.400	276.100	5331.69	13.52	2.29	-17.42	652494.13	445810.23	32°13'28.875"N	108°50'24.737"W	0.13	
5522.00	0.500	251.900	5521.68	14.36	2.10	-18.86	652492.68	445810.04	32°13'28.873"N	108°50'24.754"W	0.11	
5712.00	0.500	263.400	5711.67	15.20	1.75	-20.47	652491.07	445809.69	32°13'28.870"N	108°50'24.773"W	0.05	
5902.00	0.100	4.400	5901.67	15.80	1.82	-21.29	652490.26	445809.76	32°13'28.870"N	108°50'24.782"W	0.28	
6092.00	0.100	60.900	6091.67	15.88	2.07	-21.13	652490.41	445810.01	32°13'28.873"N	108°50'24.780"W	0.05	
6282.00	0.200	97.100	6281.67	15.58	2.11	-20.65	652490.89	445810.05	32°13'28.873"N	108°50'24.775"W	0.07	
6476.00	0.500	117.900	6475.67	14.52	1.67	-19.57	652491.97	445809.61	32°13'28.869"N	108°50'24.762"W	0.17	
6661.00	0.400	170.000	6660.66	13.22	0.65	-18.74	652492.80	445808.59	32°13'28.859"N	108°50'24.753"W	0.22	
6848.00	0.300	158.200	6847.66	12.21	-0.44	-18.45	652493.09	445807.50	32°13'28.848"N	108°50'24.749"W	0.07	
7036.00	0.700	171.900	7035.65	10.81	-2.04	-18.10	652493.44	445805.90	32°13'28.832"N	108°50'24.745"W	0.22	
7067.00	0.700	169.900	7066.65	10.50	-2.41	-18.04	652493.50	445805.53	32°13'28.828"N	108°50'24.745"W	0.08	
7098.00	0.700	177.900	7097.65	10.19	-2.79	-18.00	652493.54	445805.15	32°13'28.825"N	108°50'24.744"W	0.32	
7130.00	0.500	240.000	7129.65	10.08	-3.05	-18.12	652493.42	445804.89	32°13'28.822"N	108°50'24.745"W	2.01	
7160.00	1.600	289.600	7159.64	10.48	-2.98	-18.63	652492.92	445804.96	32°13'28.823"N	108°50'24.751"W	4.44	
7192.00	3.300	302.800	7191.61	11.76	-2.33	-19.82	652491.72	445805.61	32°13'28.829"N	108°50'24.765"W	5.56	
7224.00	5.300	306.400	7223.52	14.11	-0.95	-21.79	652489.76	445806.99	32°13'28.843"N	108°50'24.788"W	6.30	



Actual Wellpath Report

No.330HAWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

WELLPATH DATA (163 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
7255.00	7.400	307.500	7254.33	17.48	1.11	-24.52	652487.02	445809.05	32°13'28.863"N	103°50'24.820"W	6.79	
7286.00	9.800	307.000	7284.98	22.05	3.92	-28.21	652483.33	445811.86	32°13'28.891"N	103°50'24.863"W	7.75	
7318.00	12.400	307.100	7316.37	28.11	7.63	-33.13	652478.41	445815.57	32°13'28.928"N	103°50'24.920"W	8.13	
7349.00	15.200	308.300	7346.48	35.41	12.16	-38.97	652472.57	445820.10	32°13'28.973"N	103°50'24.987"W	9.08	
7380.00	17.700	311.200	7376.21	44.11	17.78	-45.71	652465.83	445825.72	32°13'29.029"N	103°50'25.065"W	8.49	
7412.00	20.100	314.300	7406.48	54.44	24.83	-53.31	652458.24	445832.76	32°13'29.099"N	103°50'25.154"W	8.13	
7443.00	22.500	316.400	7435.36	65.69	32.84	-61.21	652450.33	445840.78	32°13'29.179"N	103°50'25.245"W	8.12	
7475.00	25.500	317.600	7464.59	78.71	42.37	-70.08	652441.46	445850.30	32°13'29.274"N	103°50'25.348"W	9.50	
7506.00	28.500	317.800	7492.21	92.78	52.78	-79.55	652431.99	445860.71	32°13'29.377"N	103°50'25.458"W	9.68	
7538.00	31.700	317.600	7519.89	108.83	64.64	-90.35	652421.20	445872.58	32°13'29.495"N	103°50'25.583"W	10.00	
7569.00	34.400	317.200	7545.87	125.73	77.08	-101.79	652409.75	445885.02	32°13'29.619"N	103°50'25.715"W	8.74	
7600.00	36.700	318.000	7571.09	143.75	90.40	-113.94	652397.60	445898.33	32°13'29.751"N	103°50'25.856"W	7.57	
7631.00	38.800	318.800	7595.60	162.72	104.59	-126.54	652385.01	445912.52	32°13'29.892"N	103°50'26.002"W	6.96	
7662.00	41.100	319.500	7619.36	182.62	119.65	-139.56	652371.99	445927.58	32°13'30.042"N	103°50'26.152"W	7.56	
7693.00	43.100	320.300	7642.36	203.38	135.55	-152.94	652358.61	445943.48	32°13'30.200"N	103°50'26.307"W	6.68	
7725.00	44.900	320.600	7665.38	225.57	152.69	-167.10	652344.46	445960.62	32°13'30.370"N	103°50'26.471"W	5.66	
7755.00	46.100	320.300	7686.41	246.93	169.18	-180.72	652330.83	445977.11	32°13'30.534"N	103°50'26.629"W	4.06	
7787.00	47.800	320.000	7708.25	270.28	187.13	-195.70	652315.85	445995.06	32°13'30.712"N	103°50'26.802"W	5.36	
7818.00	49.000	319.300	7728.83	293.44	204.80	-210.71	652300.84	446012.73	32°13'30.887"N	103°50'26.976"W	4.22	
7849.00	50.500	318.900	7748.86	317.09	222.68	-226.21	652285.35	446030.61	32°13'31.065"N	103°50'27.156"W	4.94	
7880.00	52.500	319.100	7768.16	341.33	240.99	-242.12	652269.43	446048.92	32°13'31.247"N	103°50'27.340"W	6.47	
7911.00	54.900	319.000	7786.51	366.30	259.86	-258.49	652253.06	446067.78	32°13'31.434"N	103°50'27.529"W	7.75	
7942.00	56.900	319.000	7803.89	391.96	279.23	-275.33	652236.22	446087.15	32°13'31.627"N	103°50'27.724"W	6.45	
7973.00	58.800	318.400	7820.39	418.19	298.95	-292.66	652218.90	446106.87	32°13'31.823"N	103°50'27.925"W	6.34	
8005.00	61.300	318.000	7836.36	445.92	319.62	-311.14	652200.42	446127.53	32°13'32.028"N	103°50'28.139"W	7.89	
8036.00	63.800	317.700	7850.65	473.42	340.01	-329.60	652181.96	446147.93	32°13'32.231"N	103°50'28.353"W	8.11	
8067.00	67.100	317.200	7863.53	501.61	360.78	-348.66	652162.90	446168.69	32°13'32.437"N	103°50'28.574"W	10.75	
8099.00	70.100	317.200	7875.20	531.40	382.64	-368.91	652142.66	446190.55	32°13'32.654"N	103°50'28.808"W	9.37	
8130.00	73.400	317.500	7884.91	560.84	404.29	-388.85	652122.72	446212.20	32°13'32.870"N	103°50'29.039"W	10.68	
8161.00	76.200	318.400	7893.04	590.75	426.50	-408.88	652102.68	446234.41	32°13'33.090"N	103°50'29.271"W	9.46	
8193.00	78.800	318.800	7899.96	621.98	449.93	-429.54	652082.03	446257.84	32°13'33.323"N	103°50'29.510"W	8.22	
8224.00	81.500	318.000	7905.27	652.51	472.77	-449.82	652061.75	446280.68	32°13'33.550"N	103°50'29.745"W	9.07	
8255.00	84.100	317.700	7909.15	683.26	495.57	-470.45	652041.12	446303.48	32°13'33.776"N	103°50'29.984"W	8.44	
8287.00	86.200	317.900	7911.86	715.15	519.19	-491.87	652019.70	446327.09	32°13'34.011"N	103°50'30.232"W	6.59	
8318.00	87.800	318.000	7913.48	746.10	542.18	-512.61	651998.97	446350.08	32°13'34.240"N	103°50'30.472"W	5.17	
8350.00	88.200	317.900	7914.60	778.08	565.92	-534.03	651977.55	446373.83	32°13'34.476"N	103°50'30.720"W	1.29	
8382.00	89.400	316.900	7915.27	810.07	589.47	-555.68	651955.90	446397.37	32°13'34.710"N	103°50'30.971"W	4.88	
8413.00	90.300	316.500	7915.35	841.07	612.03	-576.94	651934.64	446419.93	32°13'34.934"N	103°50'31.218"W	3.18	
8445.00	90.800	316.000	7915.04	873.06	635.15	-599.07	651912.51	446443.05	32°13'35.163"N	103°50'31.474"W	2.21	
8508.00	90.100	314.500	7914.54	936.02	679.89	-643.42	651868.17	446487.78	32°13'35.608"N	103°50'31.988"W	2.63	
8570.00	90.000	313.400	7914.49	997.92	722.92	-688.05	651823.53	446530.81	32°13'36.036"N	103°50'32.505"W	1.78	
8632.00	90.600	315.900	7914.17	1059.85	766.48	-732.16	651779.43	446574.37	32°13'36.469"N	103°50'33.016"W	4.15	
8694.00	90.400	316.200	7913.62	1121.84	811.12	-775.18	651736.41	446619.00	32°13'36.913"N	103°50'33.515"W	0.58	
8757.00	89.900	316.600	7913.46	1184.83	856.74	-818.63	651692.96	446664.62	32°13'37.366"N	103°50'34.018"W	1.02	
8820.00	90.000	318.100	7913.51	1247.83	903.08	-861.51	651650.28	446710.96	32°13'37.827"N	103°50'34.512"W	2.39	



Actual Wellpath Report

No.330HAWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

WELLPATH DATA (163 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
8881.00	88.700	318.100	7914.21	1308.82	948.48	-902.05	651609.55	446756.35	32°13'38.278"N	108°50'34.984"W	2.13	
8942.00	87.700	318.500	7916.12	1369.78	994.00	-942.61	651569.00	446801.87	32°13'38.730"N	108°50'35.454"W	1.77	
9005.00	88.500	318.400	7918.21	1432.73	1041.12	-984.37	651527.24	446848.99	32°13'39.198"N	108°50'35.938"W	1.28	
9068.00	90.800	317.900	7918.60	1495.71	1088.04	-1026.40	651485.21	446895.91	32°13'39.664"N	108°50'36.424"W	3.74	
9112.00	91.500	316.500	7917.71	1539.70	1120.32	-1056.29	651455.32	446928.19	32°13'39.985"N	108°50'36.770"W	3.56	
9192.00	91.900	317.200	7915.34	1619.66	1178.66	-1110.97	651400.64	446986.52	32°13'40.565"N	108°50'37.404"W	1.01	
9255.00	91.000	317.800	7913.75	1682.64	1225.09	-1153.52	651358.09	447032.95	32°13'41.026"N	108°50'37.897"W	1.72	
9318.00	90.400	317.600	7912.98	1745.63	1271.68	-1195.92	651315.70	447079.54	32°13'41.489"N	108°50'38.388"W	1.00	
9380.00	90.500	317.800	7912.49	1807.63	1317.54	-1237.64	651273.98	447125.39	32°13'41.945"N	108°50'38.871"W	0.36	
9443.00	90.000	317.900	7912.21	1870.62	1364.25	-1279.92	651231.70	447172.10	32°13'42.409"N	108°50'39.361"W	0.81	
9506.00	89.900	317.300	7912.27	1933.62	1410.77	-1322.40	651189.23	447218.62	32°13'42.871"N	108°50'39.853"W	0.97	
9568.00	90.100	317.800	7912.27	1995.62	1456.52	-1364.25	651147.38	447264.36	32°13'43.326"N	108°50'40.338"W	0.87	
9631.00	90.300	318.000	7912.05	2058.62	1503.26	-1406.48	651105.15	447311.10	32°13'43.790"N	108°50'40.827"W	0.45	
9693.00	91.700	317.400	7910.97	2120.60	1549.11	-1448.20	651063.43	447356.95	32°13'44.246"N	108°50'41.310"W	2.46	
9756.00	91.500	317.300	7909.21	2183.58	1595.43	-1490.87	651020.77	447403.26	32°13'44.706"N	108°50'41.804"W	0.35	
9818.00	91.800	317.600	7907.42	2245.55	1641.08	-1532.78	650978.86	447448.92	32°13'45.160"N	108°50'42.290"W	0.68	
9881.00	92.000	317.400	7905.33	2308.51	1687.51	-1575.32	650936.33	447495.34	32°13'45.621"N	108°50'42.782"W	0.45	
9944.00	91.400	316.200	7903.47	2371.48	1733.41	-1618.43	650893.22	447541.24	32°13'46.077"N	108°50'43.282"W	2.13	
10006.00	90.700	315.500	7902.33	2433.46	1777.89	-1661.60	650850.05	447585.71	32°13'46.519"N	108°50'43.782"W	1.60	
10069.00	91.100	316.300	7901.34	2496.43	1823.13	-1705.44	650806.21	447630.94	32°13'46.969"N	108°50'44.290"W	1.42	
10131.00	91.400	315.500	7899.99	2558.40	1867.64	-1748.58	650763.08	447675.45	32°13'47.411"N	108°50'44.790"W	1.38	
10225.00	91.200	316.900	7897.85	2622.36	1935.46	-1813.62	650698.04	447743.28	32°13'48.085"N	108°50'45.543"W	1.50	
10319.00	90.700	317.300	7896.30	2746.35	2004.31	-1877.60	650634.07	447812.12	32°13'48.769"N	108°50'46.285"W	0.68	
10413.00	91.200	317.700	7894.74	2840.33	2073.61	-1941.09	650570.57	447881.41	32°13'49.458"N	108°50'47.020"W	0.68	
10507.00	90.100	318.000	7893.67	2934.32	2143.29	-2004.17	650507.50	447951.09	32°13'50.150"N	108°50'47.751"W	1.21	
10601.00	92.300	320.800	7891.70	3028.21	2214.64	-2065.32	650446.36	448022.43	32°13'50.859"N	108°50'48.459"W	3.79	
10695.00	91.500	320.000	7888.59	3122.01	2287.02	-2125.20	650386.48	448094.81	32°13'51.578"N	108°50'49.152"W	1.20	
10789.00	90.800	318.800	7886.70	3215.92	2358.38	-2186.36	650325.32	448166.16	32°13'52.287"N	108°50'49.860"W	1.48	
10883.00	90.100	317.100	7885.96	3309.90	2428.17	-2249.32	650262.37	448235.95	32°13'52.980"N	108°50'50.589"W	1.96	
10976.00	89.200	315.600	7886.53	3402.89	2495.46	-2313.51	650198.19	448303.24	32°13'53.649"N	108°50'51.333"W	1.88	
11099.00	88.800	315.400	7887.63	3465.85	2540.39	-2357.66	650154.04	448348.16	32°13'54.096"N	108°50'51.845"W	0.71	
11102.00	88.500	315.300	7889.11	3528.80	2585.20	-2401.92	650109.78	448392.97	32°13'54.541"N	108°50'52.358"W	0.50	
11164.00	90.200	316.800	7889.82	3590.78	2629.83	-2444.94	650066.76	448437.59	32°13'54.985"N	108°50'52.856"W	3.66	
11227.00	91.000	317.100	7889.16	3653.78	2675.86	-2487.95	650023.76	448483.63	32°13'55.442"N	108°50'53.354"W	1.36	
11289.00	89.200	313.700	7889.05	3715.74	2720.00	-2531.47	649980.23	448527.76	32°13'55.881"N	108°50'53.859"W	6.20	
11352.00	89.900	313.800	7889.54	3778.62	2763.56	-2576.98	649934.73	448571.32	32°13'56.314"N	108°50'54.386"W	1.12	
11414.00	91.800	313.200	7888.62	3840.48	2806.24	-2621.95	649889.77	448613.99	32°13'56.738"N	108°50'54.907"W	3.21	
11477.00	89.700	313.300	7887.80	3903.32	2849.40	-2667.83	649843.89	448657.15	32°13'57.167"N	108°50'55.439"W	3.34	
11540.00	91.000	314.800	7887.41	3966.23	2893.20	-2713.10	649798.62	448700.94	32°13'57.603"N	108°50'55.964"W	3.15	
11602.00	90.600	315.500	7886.55	4028.18	2937.15	-2756.83	649754.90	448744.89	32°13'58.040"N	108°50'56.471"W	1.30	
11665.00	93.100	315.800	7884.51	4091.12	2982.17	-2800.84	649710.89	448789.91	32°13'58.487"N	108°50'56.981"W	4.00	
11727.00	93.200	316.700	7881.11	4153.02	3026.89	-2843.65	649668.08	448834.63	32°13'58.931"N	108°50'57.477"W	1.46	
11790.00	92.800	317.900	7877.81	4215.93	3073.12	-2886.31	649625.42	448880.86	32°13'59.391"N	108°50'57.971"W	2.01	
11853.00	90.500	316.300	7876.00	4278.90	3119.25	-2929.17	649582.56	448926.98	32°13'59.849"N	108°50'58.468"W	4.45	
11915.00	89.700	314.700	7875.89	4340.87	3163.47	-2972.63	649539.11	448971.20	32°14'00.289"N	108°50'58.971"W	2.89	



Actual Wellpath Report

No.330HAWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.330H PBHL		7821.00	5047.93	-4644.13	647867.72	450855.54	32°14'19.010"N	103°51'18.332"W	point
No.330H PBHL Rev. A		7835.00	5010.22	-4666.07	647845.78	450817.83	32°14'18.638"N	103°51'18.590"W	point
No.330H PBHL Rev. B		7835.00	4998.52	-4655.16	647856.69	450806.13	32°14'18.522"N	103°51'18.463"W	point
No.330H Target #1		7917.00	1148.14	-1067.71	651443.90	446956.00	32°13'40.261"N	103°50'36.902"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.330HAWB (Corrected) Ref Wellpath: No.330HAWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.70	820.00	Drift Indicator (Standard)	Rig Single Shot	No.330HAWB (Corrected)
820.00	14430.00	NaviTrak (Standard)	MWD NaviTrak <858-XXXX>	No.330HAWB (Corrected)

5.3 Bottom Hole Assembly



Actual Wellpath Report

No.330HAWP
Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.330HSHL
Area	Eddy County, NM	Well	No.330H
Field	Poker Lake Unit	Wellbore	No.330HAWB (Corrected)
Facility	Poker Lake Unit No. 330H		

WELLPATH DATA (163 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
11978.00	89.700	314.900	7876.22	4403.81	3207.86	-3017.33	649494.41	449015.59	32°14'00.730"N	108°50'59.489"W	0.32	
12032.00	90.800	316.100	7875.98	4457.79	3246.37	-3055.18	649456.56	449054.10	32°14'01.113"N	108°50'59.928"W	3.01	
12095.00	93.000	317.500	7873.89	4520.75	3292.27	-3098.28	649413.47	449099.99	32°14'01.569"N	108°51'00.427"W	4.14	
12189.00	93.500	317.600	7868.56	4614.59	3361.52	-3161.62	649350.13	449169.23	32°14'02.257"N	108°51'01.161"W	0.54	
12282.00	93.800	318.400	7862.64	4707.39	3430.49	-3223.72	649288.03	449238.20	32°14'02.942"N	108°51'01.880"W	0.92	
12376.00	92.300	318.500	7857.64	4801.23	3500.73	-3285.98	649225.78	449308.44	32°14'03.640"N	108°51'02.601"W	1.60	
12470.00	91.800	318.700	7854.28	4895.15	3571.20	-3348.10	649163.66	449378.90	32°14'04.340"N	108°51'03.321"W	0.57	
12564.00	91.500	319.000	7851.57	4989.07	3641.95	-3409.93	649101.83	449449.65	32°14'05.043"N	108°51'04.037"W	0.45	
12658.00	91.300	319.200	7849.28	5082.99	3712.98	-3471.46	649040.31	449520.67	32°14'05.748"N	108°51'04.750"W	0.30	
12751.00	90.200	319.700	7848.06	5175.90	3783.64	-3531.92	648979.86	449591.33	32°14'06.450"N	108°51'05.450"W	1.30	
12845.00	89.200	318.800	7848.55	5269.84	3854.85	-3593.27	648918.51	449662.53	32°14'07.158"N	108°51'06.160"W	1.43	
12939.00	90.100	317.100	7849.13	5363.82	3924.64	-3656.23	648855.55	449732.32	32°14'07.851"N	108°51'06.890"W	2.05	
13033.00	90.200	318.300	7848.88	5457.82	3994.17	-3719.49	648792.30	449801.84	32°14'08.542"N	108°51'07.622"W	1.28	
13127.00	90.200	318.800	7848.55	5551.79	4064.62	-3781.71	648730.08	449872.29	32°14'09.242"N	108°51'08.343"W	0.53	
13221.00	90.100	318.500	7848.30	5645.76	4135.19	-3843.81	648667.98	449942.85	32°14'09.943"N	108°51'09.062"W	0.34	
13315.00	90.800	318.700	7847.57	5739.73	4205.69	-3905.98	648605.82	450013.35	32°14'10.643"N	108°51'09.782"W	0.77	
13408.00	90.100	318.700	7846.84	5832.69	4275.56	-3967.35	648544.45	450083.22	32°14'11.337"N	108°51'10.493"W	0.75	
13502.00	90.300	317.600	7846.51	5926.68	4345.58	-4030.07	648481.74	450153.23	32°14'12.033"N	108°51'11.220"W	1.19	
13596.00	90.300	316.400	7846.02	6020.67	4414.32	-4094.17	648417.64	450221.97	32°14'12.716"N	108°51'11.963"W	1.28	
13690.00	91.200	317.500	7844.79	6114.66	4483.01	-4158.33	648353.48	450290.65	32°14'13.399"N	108°51'12.706"W	1.51	
13784.00	90.300	317.300	7843.56	6208.65	4552.19	-4221.95	648289.87	450359.83	32°14'14.086"N	108°51'13.443"W	0.98	
13877.00	90.100	316.800	7843.23	6301.65	4620.26	-4285.32	648226.50	450427.90	32°14'14.762"N	108°51'14.177"W	0.58	
13972.00	92.200	318.000	7841.32	6396.62	4690.17	-4349.61	648162.22	450497.80	32°14'15.457"N	108°51'14.922"W	2.55	
14065.00	91.800	318.100	7838.08	6489.56	4759.30	-4411.74	648100.10	450566.92	32°14'16.144"N	108°51'15.642"W	0.44	
14159.00	90.300	318.100	7836.36	6583.52	4829.25	-4474.50	648037.34	450636.87	32°14'16.839"N	108°51'16.369"W	1.60	
14253.00	91.100	316.700	7835.21	6677.51	4898.43	-4538.12	647973.72	450706.05	32°14'17.526"N	108°51'17.106"W	1.72	
14347.00	92.300	317.200	7832.42	6771.47	4967.09	-4602.26	647909.59	450774.70	32°14'18.208"N	108°51'17.849"W	1.38	
14430.00	92.447	316.935	7828.98	6854.40	5027.81	-4658.74	647853.10	450835.42	32°14'18.812"N	108°51'18.503"W	0.36	Proj. to Bit