

30-015-38116

BOPCO, L.P.

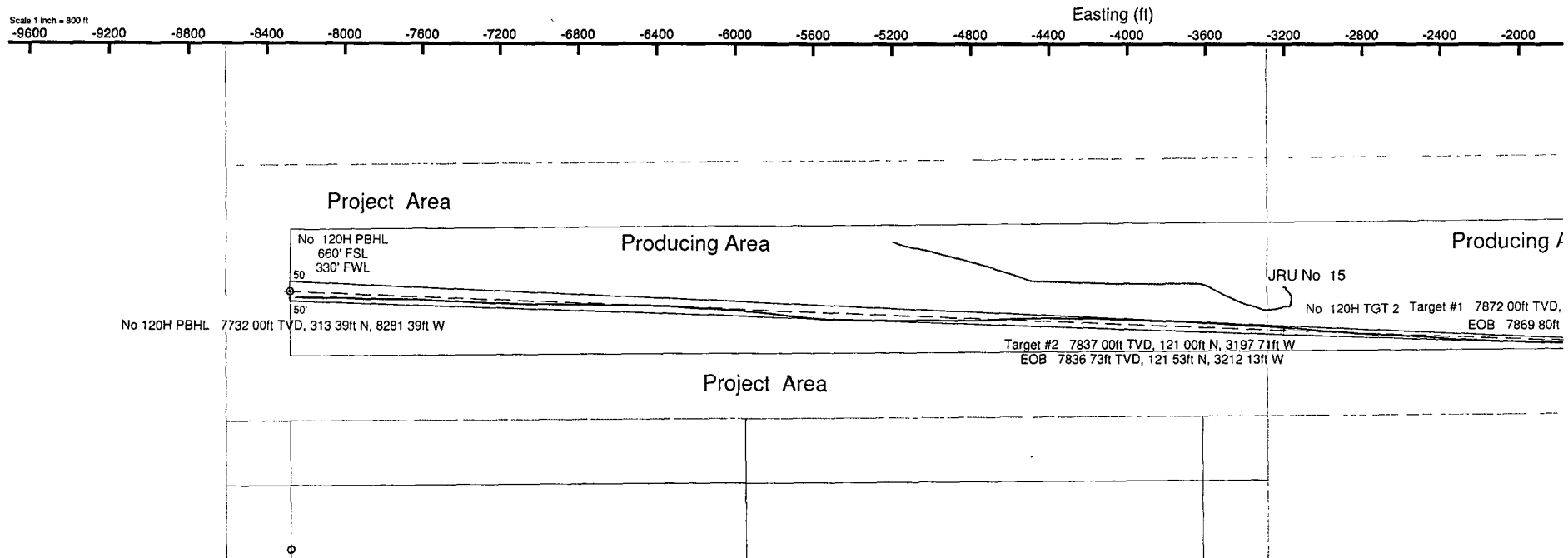
Location: Eddy County, NM
 Field: JRU Project
 Facility: JRU No. 120H

Slot: No. 120H SHL
 Well: No. 120H
 Wellbore: No. 120H PWB

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Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	7350.40	1.180	159.170	7350.03	-45.26	-19.14	0.00
Est KOP	7395.00	1.180	159.170	7394.62	-46.12	-18.81	0.00
EOC	8154.84	90.557	275.416	7876.87	-9.52	-500.13	11.99
Target #1	8656.26	90.557	275.416	7872.00	37.81	-999.28	0.00
EOB	8826.24	90.926	272.036	7869.80	48.85	-1168.86	2.00
Target #2	10856.63	90.926	272.036	7837.00	121.00	-3197.71	0.00
EOB	10871.06	91.183	272.168	7836.73	121.53	-3212.13	2.00
No 120H PBHL	15945.03	91.183	272.168	7732.00	313.39	-8281.39	0.00



Plot reference wellpath is Plan #2	
True vertical depths are referenced to Rig on No. 120H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 120H SHL (KB)	North Reference: Grid north
Rig on No. 120H SHL (KB) to Mean Sea Level: 3348 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 120H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentry on 6/16/2011



Actual Wellpath Report

No.120H AWP

Page 1 of 6



BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWB
Facility	JRU No. 120H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.99994	Report Generated	7/6/2011 at 11:32:12 AM
Convergence at slot	0.29° East	Database/Source file	WA Midland/No.120H_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	706791.00	477845.83	32°18'45.125"N	103°47'51.974"W
Facility Reference Pt			706791.00	477845.83	32°18'45.125"N	103°47'51.974"W
Field Reference Pt			697621.65	485218.03	32°19'58.517"N	103°49'38.415"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 120H SHL (KB) to GL	3348.00ft
Horizontal Reference Pt	Slot	Rig on No. 120H SHL (KB) to Mean Sea Level	3348.00ft
Vertical Reference Pt	Rig on No. 120H SHL (KB)	Rig on No. 120H SHL (KB) to Mud Line at Slot (No. 120H SHL)	3348.00ft
MD Reference Pt	Rig on No. 120H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	272.17°



Actual Wellpath Report

No.120H AWP

Page 2 of 6



BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWP
Facility	JRU No. 120H		

WELLPATH DATA (190 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	77.590	0.00	0.00	0.00	0.00	706791.00	477845.83	32°18'45.125"N	103°47'51.974"W	0.00	
23.00	0.000	77.590	23.00	0.00	0.00	0.00	706791.00	477845.83	32°18'45.125"N	103°47'51.974"W	0.00	
95.40	0.200	77.590	95.40	-0.12	0.03	0.12	706791.12	477845.86	32°18'45.125"N	103°47'51.973"W	0.28	
188.00	0.210	209.100	188.00	-0.20	-0.09	0.20	706791.20	477845.74	32°18'45.124"N	103°47'51.972"W	0.40	
280.60	0.360	182.680	280.60	-0.12	-0.53	0.10	706791.10	477845.30	32°18'45.120"N	103°47'51.973"W	0.21	
373.20	0.440	192.700	373.20	-0.05	-1.16	0.01	706791.01	477844.67	32°18'45.113"N	103°47'51.974"W	0.11	
465.80	0.520	218.920	465.79	0.26	-1.84	-0.33	706790.67	477843.99	32°18'45.107"N	103°47'51.978"W	0.25	
558.40	0.570	208.460	558.39	0.72	-2.57	-0.81	706790.19	477843.26	32°18'45.099"N	103°47'51.984"W	0.12	
651.00	0.570	208.150	650.98	1.12	-3.38	-1.25	706789.75	477842.45	32°18'45.091"N	103°47'51.989"W	0.00	
743.60	0.350	217.480	743.58	1.49	-4.01	-1.64	706789.36	477841.82	32°18'45.085"N	103°47'51.993"W	0.25	
835.90	0.510	248.480	835.88	2.03	-4.38	-2.19	706788.81	477841.45	32°18'45.082"N	103°47'52.000"W	0.30	
928.10	0.690	260.740	928.07	2.95	-4.62	-3.12	706787.88	477841.21	32°18'45.079"N	103°47'52.011"W	0.24	
1020.30	0.840	268.390	1020.27	4.17	-4.73	-4.35	706786.65	477841.10	32°18'45.078"N	103°47'52.025"W	0.20	
1114.50	0.800	266.840	1114.46	5.51	-4.79	-5.69	706785.31	477841.04	32°18'45.078"N	103°47'52.041"W	0.05	
1208.80	0.840	265.100	1208.75	6.85	-4.88	-7.04	706783.96	477840.95	32°18'45.077"N	103°47'52.056"W	0.05	
1303.00	0.740	261.060	1302.94	8.13	-5.04	-8.33	706782.67	477840.79	32°18'45.075"N	103°47'52.071"W	0.12	
1397.30	0.670	255.310	1397.23	9.26	-5.27	-9.46	706781.54	477840.56	32°18'45.073"N	103°47'52.085"W	0.11	
1491.50	0.530	256.600	1491.42	10.21	-5.51	-10.42	706780.58	477840.32	32°18'45.071"N	103°47'52.096"W	0.15	
1585.70	0.400	254.200	1585.62	10.94	-5.70	-11.16	706779.84	477840.13	32°18'45.069"N	103°47'52.104"W	0.14	
1680.00	0.260	240.130	1679.92	11.43	-5.90	-11.66	706779.34	477839.93	32°18'45.067"N	103°47'52.110"W	0.17	
1774.20	0.170	204.850	1774.12	11.67	-6.13	-11.91	706779.09	477839.70	32°18'45.065"N	103°47'52.113"W	0.17	
1868.50	0.140	164.170	1868.42	11.69	-6.37	-11.93	706779.07	477839.46	32°18'45.062"N	103°47'52.113"W	0.12	
1962.70	0.150	151.200	1962.62	11.59	-6.59	-11.84	706779.16	477839.24	32°18'45.060"N	103°47'52.112"W	0.04	
2056.90	0.090	153.510	2056.82	11.49	-6.76	-11.75	706779.25	477839.07	32°18'45.059"N	103°47'52.111"W	0.06	
2151.20	0.030	178.350	2151.12	11.45	-6.85	-11.72	706779.28	477838.98	32°18'45.058"N	103°47'52.111"W	0.07	
2245.40	0.010	346.120	2245.32	11.45	-6.87	-11.72	706779.28	477838.96	32°18'45.057"N	103°47'52.111"W	0.04	
2339.70	0.070	339.340	2339.62	11.48	-6.81	-11.74	706779.26	477839.02	32°18'45.058"N	103°47'52.111"W	0.06	
2433.90	0.060	291.110	2433.82	11.54	-6.74	-11.81	706779.19	477839.09	32°18'45.059"N	103°47'52.112"W	0.06	
2528.10	0.090	329.490	2528.02	11.63	-6.66	-11.89	706779.11	477839.17	32°18'45.060"N	103°47'52.113"W	0.06	
2622.40	0.090	326.070	2622.32	11.71	-6.53	-11.97	706779.03	477839.30	32°18'45.061"N	103°47'52.114"W	0.01	
2716.60	0.090	319.100	2716.52	11.81	-6.41	-12.06	706778.94	477839.42	32°18'45.062"N	103°47'52.115"W	0.01	
2810.80	0.120	339.790	2810.72	11.90	-6.26	-12.14	706778.86	477839.57	32°18'45.063"N	103°47'52.116"W	0.05	
2905.10	0.130	305.270	2905.02	12.02	-6.11	-12.26	706778.74	477839.72	32°18'45.065"N	103°47'52.117"W	0.08	
2999.30	0.150	253.980	2999.22	12.23	-6.08	-12.47	706778.53	477839.75	32°18'45.065"N	103°47'52.120"W	0.13	
3093.60	0.150	254.250	3093.52	12.47	-6.15	-12.71	706778.29	477839.68	32°18'45.065"N	103°47'52.122"W	0.00	
3187.80	0.170	273.250	3187.72	12.72	-6.18	-12.97	706778.04	477839.65	32°18'45.064"N	103°47'52.125"W	0.06	
3282.10	0.140	334.100	3282.02	12.92	-6.06	-13.16	706777.85	477839.77	32°18'45.066"N	103°47'52.128"W	0.17	
3376.30	0.230	117.480	3376.22	12.80	-6.05	-13.04	706777.96	477839.78	32°18'45.066"N	103°47'52.126"W	0.37	
3470.50	0.740	125.920	3470.41	12.12	-6.49	-12.38	706778.62	477839.34	32°18'45.061"N	103°47'52.119"W	0.55	
3564.80	0.570	124.720	3564.71	11.22	-7.12	-11.50	706779.50	477838.71	32°18'45.055"N	103°47'52.108"W	0.18	
3659.00	0.150	140.320	3658.90	10.74	-7.48	-11.04	706779.97	477838.35	32°18'45.051"N	103°47'52.103"W	0.45	
3753.30	0.300	164.600	3753.20	10.59	-7.81	-10.89	706780.11	477838.02	32°18'45.048"N	103°47'52.101"W	0.19	
3847.50	0.520	167.200	3847.40	10.40	-8.47	-10.73	706780.27	477837.36	32°18'45.042"N	103°47'52.099"W	0.23	
3941.70	0.610	173.340	3941.60	10.22	-9.38	-10.58	706780.42	477836.45	32°18'45.033"N	103°47'52.098"W	0.12	
4036.00	0.600	183.020	4035.89	10.15	-10.37	-10.55	706780.46	477835.46	32°18'45.023"N	103°47'52.097"W	0.11	



Actual Wellpath Report

No.120H AWP

Page 3 of 6



BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWP
Facility	JRU No. 120H		

WELLPATH DATA (190 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
4130.20	0.680	193.090	4130.09	10.26	-11.41	-10.70	706780.30	477834.42	32°18'45.013"N	103°47'52.099"W	0.15	
4224.40	0.760	196.210	4224.28	10.52	-12.55	-11.00	706780.00	477833.28	32°18'45.001"N	103°47'52.103"W	0.09	
4318.70	0.690	200.040	4318.57	10.84	-13.69	-11.37	706779.63	477832.14	32°18'44.990"N	103°47'52.107"W	0.09	
4412.90	0.600	200.660	4412.76	11.17	-14.68	-11.74	706779.26	477831.15	32°18'44.980"N	103°47'52.112"W	0.10	
4507.20	0.620	208.510	4507.06	11.56	-15.59	-12.15	706778.85	477830.24	32°18'44.971"N	103°47'52.116"W	0.09	
4601.40	0.450	209.310	4601.26	11.95	-16.36	-12.58	706778.42	477829.47	32°18'44.964"N	103°47'52.121"W	0.18	
4695.60	0.530	197.490	4695.45	12.23	-17.10	-12.89	706778.11	477828.73	32°18'44.956"N	103°47'52.125"W	0.14	
4789.90	0.500	182.640	4789.75	12.35	-17.93	-13.04	706777.96	477827.90	32°18'44.948"N	103°47'52.127"W	0.14	
4884.10	0.460	174.710	4883.94	12.31	-18.71	-13.02	706777.98	477827.12	32°18'44.940"N	103°47'52.127"W	0.08	
4978.40	0.400	182.380	4978.24	12.26	-19.42	-13.00	706778.00	477826.41	32°18'44.933"N	103°47'52.127"W	0.09	
5072.60	0.350	217.560	5072.44	12.43	-19.98	-13.19	706777.81	477825.85	32°18'44.928"N	103°47'52.129"W	0.25	
5166.90	0.460	227.400	5166.74	12.86	-20.46	-13.65	706777.35	477825.37	32°18'44.923"N	103°47'52.134"W	0.14	
5261.10	0.500	221.410	5260.93	13.39	-21.03	-14.20	706776.80	477824.81	32°18'44.918"N	103°47'52.141"W	0.07	
5355.30	0.490	217.290	5355.13	13.88	-21.65	-14.71	706776.29	477824.18	32°18'44.911"N	103°47'52.147"W	0.04	
5449.60	0.540	214.610	5449.43	14.35	-22.34	-15.21	706775.79	477823.49	32°18'44.905"N	103°47'52.152"W	0.06	
5543.80	0.580	202.210	5543.62	14.76	-23.15	-15.64	706775.36	477822.68	32°18'44.897"N	103°47'52.158"W	0.14	
5638.10	0.620	221.340	5637.92	15.24	-23.97	-16.16	706774.84	477821.86	32°18'44.888"N	103°47'52.164"W	0.22	
5732.30	0.570	227.940	5732.11	15.90	-24.67	-16.84	706774.16	477821.16	32°18'44.882"N	103°47'52.172"W	0.09	
5826.50	0.590	227.330	5826.31	16.58	-25.31	-17.55	706773.45	477820.52	32°18'44.875"N	103°47'52.180"W	0.02	
5920.80	0.630	219.570	5920.60	17.24	-26.04	-18.24	706772.77	477819.79	32°18'44.868"N	103°47'52.188"W	0.10	
6015.00	0.730	209.820	6014.80	17.83	-26.96	-18.86	706772.14	477818.87	32°18'44.859"N	103°47'52.195"W	0.16	
6109.30	0.710	208.460	6109.09	18.37	-28.00	-19.44	706771.56	477817.84	32°18'44.849"N	103°47'52.202"W	0.03	
6203.50	0.800	209.050	6203.28	18.92	-29.08	-20.04	706770.96	477816.75	32°18'44.838"N	103°47'52.209"W	0.10	
6297.70	0.850	212.490	6297.47	19.57	-30.25	-20.73	706770.27	477815.58	32°18'44.827"N	103°47'52.217"W	0.07	
6392.00	0.880	222.150	6391.76	20.39	-31.37	-21.59	706769.41	477814.46	32°18'44.815"N	103°47'52.227"W	0.16	
6486.20	0.750	224.390	6485.95	21.27	-32.35	-22.51	706768.49	477813.48	32°18'44.806"N	103°47'52.238"W	0.14	
6580.40	0.610	207.570	6580.14	21.90	-33.24	-23.18	706767.83	477812.60	32°18'44.797"N	103°47'52.246"W	0.26	
6674.70	0.770	182.030	6674.44	22.12	-34.31	-23.43	706767.57	477811.52	32°18'44.786"N	103°47'52.249"W	0.36	
6768.90	0.840	164.160	6768.63	21.90	-35.61	-23.26	706767.74	477810.22	32°18'44.774"N	103°47'52.247"W	0.28	
6863.20	0.930	157.950	6862.92	21.37	-36.99	-22.79	706768.21	477808.85	32°18'44.760"N	103°47'52.242"W	0.14	
6957.40	0.990	159.000	6957.10	20.74	-38.45	-22.21	706768.79	477807.38	32°18'44.745"N	103°47'52.235"W	0.07	
7051.60	1.000	159.160	7051.29	20.10	-39.98	-21.63	706769.38	477805.85	32°18'44.730"N	103°47'52.228"W	0.01	
7145.90	1.090	153.270	7145.57	19.34	-41.55	-20.93	706770.07	477804.28	32°18'44.715"N	103°47'52.220"W	0.15	
7240.10	1.160	151.540	7239.76	18.42	-43.19	-20.07	706770.93	477802.64	32°18'44.698"N	103°47'52.210"W	0.08	
7334.40	1.200	158.530	7334.04	17.54	-44.95	-19.26	706771.75	477800.88	32°18'44.681"N	103°47'52.201"W	0.16	
7350.40	1.180	159.170	7350.03	17.41	-45.26	-19.14	706771.87	477800.57	32°18'44.678"N	103°47'52.200"W	0.15	
7427.00	3.900	270.700	7426.57	19.71	-45.96	-21.46	706769.54	477799.87	32°18'44.671"N	103°47'52.227"W	5.84	
7458.00	7.200	276.000	7457.42	22.70	-45.75	-24.45	706766.55	477800.08	32°18'44.673"N	103°47'52.261"W	10.76	
7490.00	10.500	276.500	7489.04	27.61	-45.21	-29.34	706761.66	477800.62	32°18'44.679"N	103°47'52.318"W	10.32	
7521.00	14.600	276.600	7519.29	34.32	-44.44	-36.03	706754.97	477801.39	32°18'44.687"N	103°47'52.396"W	13.23	
7553.00	19.200	275.500	7549.90	43.60	-43.47	-45.28	706745.72	477802.36	32°18'44.697"N	103°47'52.504"W	14.41	
7584.00	23.100	274.200	7578.81	54.77	-42.54	-56.42	706734.58	477803.30	32°18'44.707"N	103°47'52.634"W	12.67	
7615.00	27.700	274.800	7606.80	68.06	-41.49	-69.68	706721.33	477804.34	32°18'44.718"N	103°47'52.788"W	14.86	
7647.00	31.200	275.200	7634.67	83.77	-40.11	-85.35	706705.66	477805.72	32°18'44.732"N	103°47'52.971"W	10.95	
7678.00	34.400	276.500	7660.72	100.52	-38.39	-102.05	706688.96	477807.44	32°18'44.750"N	103°47'53.165"W	10.57	



Actual Wellpath Report

No.120H AWP

Page 4 of 6



BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWP
Facility	JRU No. 120H		

WELLPATH DATA (190 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
7710.00	38.100	276.700	7686.52	119.38	-36.22	-120.84	706670.17	477809.61	32°18'44.772"N	103°47'53.384"W	11.57	
7742.00	41.900	276.900	7711.03	139.88	-33.78	-141.26	706649.75	477812.05	32°18'44.798"N	103°47'53.622"W	11.88	
7774.00	45.700	277.200	7734.12	161.95	-31.06	-163.24	706627.77	477814.77	32°18'44.826"N	103°47'53.878"W	11.89	
7805.00	49.000	277.900	7755.12	184.64	-28.06	-185.84	706605.17	477817.77	32°18'44.856"N	103°47'54.141"W	10.77	
7836.00	52.400	277.400	7774.75	208.52	-24.87	-209.61	706581.40	477820.96	32°18'44.889"N	103°47'54.418"W	11.04	
7868.00	55.700	276.100	7793.54	234.34	-21.83	-235.33	706555.68	477824.00	32°18'44.920"N	103°47'54.717"W	10.82	
7899.00	59.300	274.400	7810.19	260.44	-19.45	-261.36	706529.65	477826.38	32°18'44.945"N	103°47'55.020"W	12.50	
7931.00	63.000	273.400	7825.63	288.45	-17.55	-289.32	706501.70	477828.28	32°18'44.966"N	103°47'55.346"W	11.88	
7962.00	66.600	272.900	7838.83	316.49	-16.01	-317.32	706473.70	477829.82	32°18'44.982"N	103°47'55.672"W	11.70	
7993.00	70.300	273.200	7850.21	345.31	-14.47	-346.11	706444.91	477831.36	32°18'44.999"N	103°47'56.008"W	11.97	
8024.00	73.400	272.700	7859.87	374.77	-12.96	-375.52	706415.50	477832.87	32°18'45.015"N	103°47'56.350"W	10.12	
8055.00	77.800	273.000	7867.58	404.78	-11.47	-405.51	706385.52	477834.36	32°18'45.031"N	103°47'56.700"W	14.22	
8087.00	82.500	273.200	7873.05	436.30	-9.76	-436.98	706354.05	477836.07	32°18'45.050"N	103°47'57.066"W	14.70	
8118.00	87.200	274.600	7875.83	467.15	-7.66	-467.77	706323.26	477838.17	32°18'45.072"N	103°47'57.425"W	15.81	
8150.00	89.600	275.600	7876.72	499.09	-4.82	-499.63	706291.40	477841.01	32°18'45.102"N	103°47'57.796"W	8.12	
8181.00	91.100	276.200	7876.54	530.02	-1.63	-530.47	706260.57	477844.20	32°18'45.135"N	103°47'58.155"W	5.21	
8212.00	92.000	276.500	7875.70	560.93	1.80	-561.26	706229.77	477847.63	32°18'45.170"N	103°47'58.514"W	3.06	
8243.00	90.800	275.700	7874.94	591.85	5.09	-592.08	706198.96	477850.92	32°18'45.204"N	103°47'58.872"W	4.65	
8336.00	90.600	274.000	7873.80	684.73	12.95	-684.73	706106.31	477858.78	32°18'45.287"N	103°47'59.952"W	1.84	
8429.00	91.600	272.900	7872.02	777.69	18.55	-777.55	706013.50	477864.38	32°18'45.347"N	103°48'01.033"W	1.60	
8522.00	89.600	273.400	7871.04	870.67	23.66	-870.40	705920.66	477869.49	32°18'45.402"N	103°48'02.114"W	2.22	
8618.00	90.800	273.900	7870.71	966.63	29.77	-966.20	705824.86	477875.60	32°18'45.467"N	103°48'03.230"W	1.35	
8683.00	90.200	273.300	7870.14	1031.61	33.85	-1031.07	705760.00	477879.68	32°18'45.511"N	103°48'03.986"W	1.31	
8775.00	91.100	273.100	7869.10	1123.59	38.98	-1122.92	705668.15	477884.81	32°18'45.566"N	103°48'05.056"W	1.00	
8807.00	91.000	272.900	7868.51	1155.58	40.66	-1154.87	705636.20	477886.49	32°18'45.584"N	103°48'05.428"W	0.70	
8902.00	89.800	272.400	7867.85	1250.57	45.05	-1249.76	705541.32	477890.88	32°18'45.632"N	103°48'06.533"W	1.37	
8997.00	90.100	271.400	7867.93	1345.57	48.20	-1344.71	705446.38	477894.03	32°18'45.668"N	103°48'07.639"W	1.10	
9093.00	90.600	273.000	7867.34	1441.56	51.89	-1440.63	705350.46	477897.71	32°18'45.709"N	103°48'08.757"W	1.75	
9188.00	90.700	272.600	7866.27	1536.55	56.53	-1535.51	705255.58	477902.35	32°18'45.760"N	103°48'09.862"W	0.43	
9283.00	89.600	270.000	7866.02	1631.53	58.68	-1630.48	705160.62	477904.51	32°18'45.786"N	103°48'10.969"W	2.97	
9378.00	90.300	270.300	7866.10	1726.47	58.93	-1725.48	705065.63	477904.76	32°18'45.793"N	103°48'12.076"W	0.80	
9473.00	92.400	272.300	7863.86	1821.42	61.08	-1820.42	704970.70	477906.91	32°18'45.819"N	103°48'13.182"W	3.05	
9569.00	90.300	269.400	7861.60	1917.36	62.51	-1916.36	704874.76	477908.33	32°18'45.838"N	103°48'14.299"W	3.73	
9664.00	91.000	272.300	7860.52	2012.31	63.91	-2011.34	704779.79	477909.74	32°18'45.856"N	103°48'15.406"W	3.14	
9759.00	90.500	271.400	7859.28	2107.30	66.98	-2106.28	704684.85	477912.81	32°18'45.891"N	103°48'16.512"W	1.08	
9855.00	90.000	271.700	7858.86	2203.30	69.58	-2202.24	704588.90	477915.40	32°18'45.921"N	103°48'17.630"W	0.61	
9950.00	91.200	273.500	7857.87	2298.28	73.89	-2297.13	704494.01	477919.71	32°18'45.969"N	103°48'18.736"W	2.28	
10045.00	91.600	274.400	7855.54	2393.21	80.43	-2391.88	704399.27	477926.25	32°18'46.038"N	103°48'19.839"W	1.04	
10140.00	92.600	274.000	7852.06	2488.08	87.38	-2486.56	704304.60	477933.21	32°18'46.112"N	103°48'20.942"W	1.13	
10236.00	91.800	272.200	7848.38	2583.99	92.57	-2582.34	704208.82	477938.39	32°18'46.168"N	103°48'22.058"W	2.05	
10330.00	91.500	272.800	7845.67	2677.95	96.67	-2676.21	704114.95	477942.49	32°18'46.213"N	103°48'23.151"W	0.71	
10426.00	90.900	273.300	7843.66	2773.92	101.77	-2772.05	704019.12	477947.60	32°18'46.268"N	103°48'24.268"W	0.81	
10521.00	91.900	274.400	7841.34	2868.85	108.15	-2866.81	703924.37	477953.97	32°18'46.336"N	103°48'25.371"W	1.56	
10616.00	90.500	273.900	7839.35	2963.77	115.02	-2961.54	703829.65	477960.85	32°18'46.408"N	103°48'26.475"W	1.56	
10711.00	91.900	275.600	7837.36	3058.64	122.89	-3056.18	703735.01	477968.71	32°18'46.491"N	103°48'27.577"W	2.32	



Actual Wellpath Report

No.120H AWP

Page 5 of 6



BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWP
Facility	JRU No. 120H		

WELLPATH DATA (190 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
10806.00	90.500	274.800	7835.37	3153.49	131.50	-3150.77	703640.43	477977.32	32°18'46.580"N	103°48'28.679"W	1.70	
10901.00	89.100	272.900	7835.70	3248.44	137.87	-3245.55	703545.65	477983.70	32°18'46.648"N	103°48'29.783"W	2.48	
10997.00	89.500	272.900	7836.88	3344.42	142.73	-3341.42	703449.79	477988.55	32°18'46.701"N	103°48'30.899"W	0.42	
11092.00	90.300	273.100	7837.04	3439.41	147.70	-3436.29	703354.93	477993.52	32°18'46.754"N	103°48'32.005"W	0.87	
11187.00	92.300	274.600	7834.89	3534.34	154.08	-3531.04	703260.18	477999.90	32°18'46.822"N	103°48'33.108"W	2.63	
11282.00	91.700	273.300	7831.57	3629.23	160.62	-3625.75	703165.47	478006.44	32°18'46.891"N	103°48'34.211"W	1.51	
11377.00	89.400	271.600	7830.66	3724.22	164.68	-3720.65	703070.58	478010.50	32°18'46.936"N	103°48'35.317"W	3.01	
11472.00	89.600	271.200	7831.49	3819.21	167.00	-3815.62	702975.62	478012.82	32°18'46.964"N	103°48'36.423"W	0.47	
11568.00	92.800	272.900	7829.48	3915.17	170.43	-3911.52	702879.72	478016.25	32°18'47.002"N	103°48'37.541"W	3.77	
11663.00	92.400	271.900	7825.17	4010.07	174.41	-4006.34	702784.91	478020.22	32°18'47.046"N	103°48'38.645"W	1.13	
11758.00	90.600	271.200	7822.68	4105.03	176.97	-4101.27	702689.99	478022.79	32°18'47.076"N	103°48'39.751"W	2.03	
11853.00	91.000	270.900	7821.35	4200.00	178.71	-4196.24	702595.02	478024.53	32°18'47.098"N	103°48'40.858"W	0.53	
11949.00	90.900	270.800	7819.76	4295.96	180.14	-4292.22	702499.05	478025.96	32°18'47.117"N	103°48'41.976"W	0.15	
12044.00	90.700	270.500	7818.44	4390.92	181.22	-4387.20	702404.07	478027.03	32°18'47.132"N	103°48'43.083"W	0.38	
12139.00	91.500	268.300	7816.61	4485.78	180.22	-4482.17	702309.10	478026.04	32°18'47.127"N	103°48'44.189"W	2.46	
12234.00	89.200	267.400	7816.03	4580.50	176.66	-4577.10	702214.18	478022.48	32°18'47.096"N	103°48'45.296"W	2.60	
12330.00	89.300	267.300	7817.29	4676.16	172.22	-4672.99	702118.30	478018.04	32°18'47.057"N	103°48'46.413"W	0.15	
12424.00	90.200	268.600	7817.70	4769.90	168.86	-4766.92	702024.37	478014.68	32°18'47.028"N	103°48'47.508"W	1.68	
12520.00	91.500	270.400	7816.27	4865.78	168.02	-4862.90	701928.40	478013.84	32°18'47.024"N	103°48'48.626"W	2.31	
12615.00	90.700	270.200	7814.45	4960.71	168.52	-4957.88	701833.42	478014.34	32°18'47.034"N	103°48'49.733"W	0.87	
12711.00	91.900	270.100	7812.27	5056.62	168.77	-5053.86	701737.46	478014.59	32°18'47.041"N	103°48'50.851"W	1.25	
12825.00	93.100	268.700	7807.30	5170.38	167.58	-5167.74	701623.58	478013.40	32°18'47.035"N	103°48'52.178"W	1.62	
12920.00	93.800	271.100	7801.58	5265.12	167.41	-5262.56	701528.77	478013.23	32°18'47.037"N	103°48'53.283"W	2.63	
13015.00	93.000	270.700	7795.95	5359.93	168.90	-5357.38	701433.95	478014.72	32°18'47.057"N	103°48'54.388"W	0.94	
13110.00	93.400	271.600	7790.65	5454.77	170.80	-5452.21	701339.13	478016.62	32°18'47.080"N	103°48'55.493"W	1.04	
13205.00	91.800	272.800	7786.34	5549.66	174.45	-5547.03	701244.31	478020.27	32°18'47.121"N	103°48'56.597"W	2.10	
13300.00	91.900	275.600	7783.27	5644.55	181.40	-5641.72	701149.63	478027.22	32°18'47.194"N	103°48'57.700"W	2.95	
13395.00	91.700	277.900	7780.28	5739.19	192.56	-5736.01	701055.34	478038.38	32°18'47.309"N	103°48'58.798"W	2.43	
13491.00	91.100	275.600	7777.94	5834.85	203.84	-5831.31	700960.05	478049.66	32°18'47.425"N	103°48'59.908"W	2.48	
13586.00	90.600	274.500	7776.53	5929.71	212.20	-5925.93	700865.44	478058.02	32°18'47.512"N	103°49'01.010"W	1.27	
13681.00	90.800	273.500	7775.37	6024.66	218.83	-6020.69	700770.68	478064.64	32°18'47.582"N	103°49'02.114"W	1.07	
13776.00	92.000	273.000	7773.05	6119.61	224.21	-6115.50	700675.87	478070.03	32°18'47.640"N	103°49'03.218"W	1.37	
13872.00	92.400	273.900	7769.36	6215.51	229.98	-6211.26	700580.12	478075.80	32°18'47.702"N	103°49'04.334"W	1.03	
13967.00	92.800	273.200	7765.05	6310.39	235.86	-6305.98	700485.41	478081.68	32°18'47.765"N	103°49'05.437"W	0.85	
14062.00	91.500	272.600	7761.49	6405.31	240.66	-6400.79	700390.61	478086.48	32°18'47.817"N	103°49'06.541"W	1.51	
14157.00	89.800	269.600	7760.41	6500.27	242.49	-6495.75	700295.65	478088.30	32°18'47.839"N	103°49'07.648"W	3.63	
14253.00	90.500	270.700	7760.16	6596.21	242.74	-6591.75	700199.66	478088.55	32°18'47.846"N	103°49'08.766"W	1.36	
14348.00	90.400	271.600	7759.41	6691.19	244.64	-6686.72	700104.69	478090.46	32°18'47.870"N	103°49'09.873"W	0.95	
14443.00	89.900	269.800	7759.16	6786.16	245.80	-6781.71	700009.71	478091.62	32°18'47.885"N	103°49'10.980"W	1.97	
14538.00	90.800	271.100	7758.58	6881.11	246.55	-6876.70	699914.72	478092.36	32°18'47.897"N	103°49'12.087"W	1.66	
14633.00	90.500	270.200	7757.51	6976.07	247.63	-6971.69	699819.74	478093.44	32°18'47.913"N	103°49'13.193"W	1.00	
14729.00	91.300	270.800	7756.00	7072.01	248.46	-7067.67	699723.76	478094.28	32°18'47.925"N	103°49'14.312"W	1.04	
14824.00	92.700	272.200	7752.68	7166.95	250.95	-7162.58	699628.86	478096.76	32°18'47.954"N	103°49'15.417"W	2.08	
14919.00	92.100	272.300	7748.70	7261.86	254.68	-7257.42	699534.02	478100.49	32°18'47.996"N	103°49'16.522"W	0.64	
15014.00	92.800	272.800	7744.64	7356.77	258.90	-7352.24	699439.21	478104.71	32°18'48.042"N	103°49'17.627"W	0.91	



Actual Wellpath Report

No.120H AWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 120H SHL
Area	Eddy County, NM	Well	No. 120H
Field	JRU Project	Wellbore	No.120H AWB
Facility	JRU No. 120H		

WELLPATH DATA (190 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
15110.00	92.600	272.400	7740.12	7452.66	263.25	-7448.04	699343.42	478109.06	32°18'48.090"N	103°49'18.743"W	0.47	
15205.00	91.900	273.300	7736.39	7547.58	267.97	-7542.84	699248.62	478113.78	32°18'48.141"N	103°49'19.847"W	1.20	
15300.00	91.000	272.700	7733.99	7642.54	272.94	-7637.68	699153.79	478118.75	32°18'48.194"N	103°49'20.952"W	1.14	
15395.00	89.600	269.300	7733.49	7737.50	274.60	-7732.65	699058.83	478120.41	32°18'48.215"N	103°49'22.058"W	3.87	
15490.00	90.100	270.700	7733.74	7832.43	274.60	-7827.65	698963.84	478120.41	32°18'48.220"N	103°49'23.165"W	1.56	
15585.00	91.100	271.900	7732.74	7927.41	276.75	-7922.61	698868.87	478122.56	32°18'48.246"N	103°49'24.272"W	1.64	
15680.00	91.100	271.400	7730.92	8022.39	279.49	-8017.56	698773.94	478125.30	32°18'48.277"N	103°49'25.378"W	0.53	
15775.00	89.800	271.100	7730.17	8117.37	281.56	-8112.53	698678.97	478127.37	32°18'48.302"N	103°49'26.484"W	1.40	
15864.00	89.900	269.500	7730.41	8206.32	282.02	-8201.52	698589.98	478127.84	32°18'48.311"N	103°49'27.521"W	1.80	
15915.00	89.900	269.500	7730.50	8257.27	281.58	-8252.52	698538.99	478127.39	32°18'48.309"N	103°49'28.116"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. 120H PBHL		7732.00	313.39	-8281.39	698510.12	478159.20	32°18'48.625"N	103°49'28.450"W	point
No. 120H TGT 2		7837.00	121.00	-3197.71	703593.49	477966.82	32°18'46.479"N	103°48'29.226"W	point
No. 120H TGT 1		7872.00	37.81	-999.28	705791.78	477883.64	32°18'45.548"N	103°48'03.615"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.120H AWP Ref Wellpath: No.120H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
23.00	7350.40	Generic gyro - northseeking (Standard)	Gyro	No.120H AWP
7350.40	15915.00	NaviTrak (Standard)	MWD	No.120H AWP