



BOPCO, L.P.

Location Eddy County, NM
Field JRU Project
Facility JRU No. 115H

Slot No. 115H SHL
Well No. 115H
Wellbore No. 115H PWB

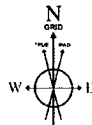


INTEQ

Well Profile Data								
Design Comment	MD (ft)	Inc. (°)	Az. (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	7037.00	0.530	234.120	7036.18	3.40	32.22	0.00	14.26
Est KOP	7252.54	0.530	234.120	7251.71	-4.57	30.60	0.00	14.80
End of Curve	8012.94	90.894	172.861	7730.18	489.46	87.19	11.92	489.53
Target #1	8215.63	90.894	172.861	7727.00	-890.55	112.31	0.00	887.12
End of Turn and Drop	8381.69	89.799	170.890	7726.13	-854.09	136.03	1.50	949.51
Target #2	10716.27	89.799	170.890	7738.00	-3158.71	513.98	0.00	3142.96
Build	10735.90	90.000	170.732	7738.05	-3178.06	516.86	1.50	3162.23
End of Hold	12702.90	90.000	170.732	7738.05	-5119.40	833.65	0.00	5094.24
End of Turn	13605.59	90.000	116.343	7738.05	-5818.43	1350.20	6.03	5928.18
Target Line	14523.17	90.006	87.991	7738.00	-6088.11	2223.17	2.00	6481.32
No. 115H PBHL	14527.08	90.006	87.991	7738.00	-6088.65	2227.03	0.00	6483.16

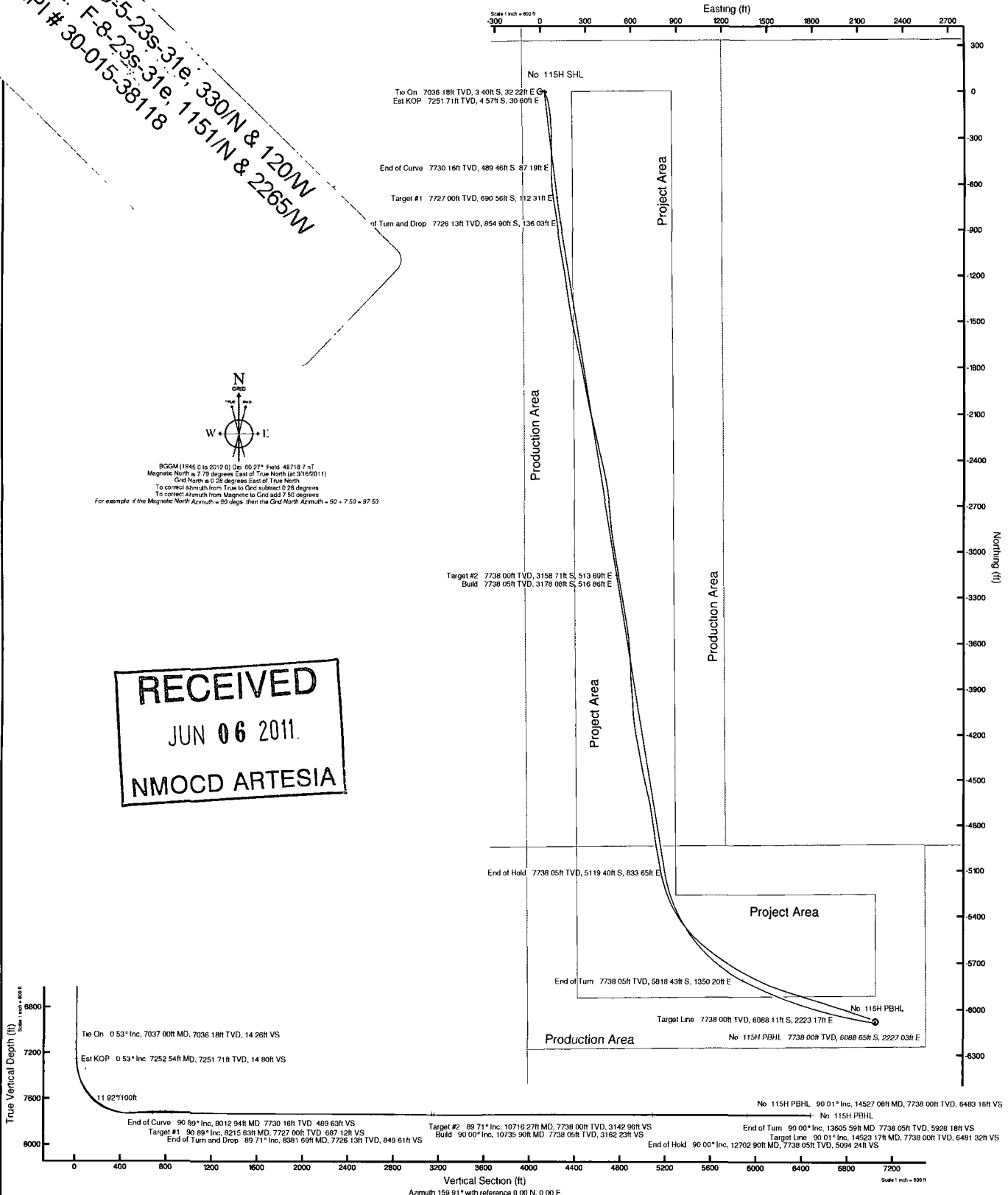
Plot reference wellbore is Plan 4.
True vertical depths are referenced to Rig on No. 115H SHL (KB).
Measured depths are referenced to Rig on No. 115H SHL (KB).
Rig on No. 115H SHL (KB) to Mean Sea Level: 3353 feet.
Mean Sea Level to Mud line (Facility JRU No. 115H) -3331 feet.
Coordinates are in feet referenced to Surface Location.
Grid System: NAD83 / TM New Mexico State Planes, Eastman Zone (3001), US feet.
North Reference: Grid north.
Scale: True distance.
Depths are in feet.
Created by: gentry on 3/25/2011

SUR: D-5-23s-31e, 330/N & 120/W
BHL: F-8-23s-31e, 1151/N & 2265/W
API # 30-015-38118



BGM (1945 to 2012) Dip: 60.27° Field: 48718.7 nT
Magnetic North is 7.79 degrees East of True North (at 3/16/2011)
Grid North is 0.28 degrees East of True North
To correct azimuth from True to Grid subtract 0.28 degrees
To correct azimuth from Magnetic to Grid add 7.50 degrees
For example if the Magnetic North Azimuth = 90 degrees then the Grid North Azimuth = 90 + 7.50 = 97.50

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Actual Wellpath Report

No. 115H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 115H SHL
Area	Eddy County, NM	Well	No. 115H
Field	JRU Project	Wellbore	No. 115H AWB
Facility	JRU No. 115H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Gentbry
Scale	0.999939	Report Generated	4/5/2011 at 3:29:25 PM
Convergence at slot	0.28° East	Database/Source file	WA Midland/No. 115H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	703559.21	487763.28	32°20'23.421"N	103°48'29.066"W
Facility Reference Pt			703559.21	487763.28	32°20'23.421"N	103°48'29.066"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. 115H SHL (KB) to GL	22.00ft
Horizontal Reference Pt	Surface Location	Rig on No. 115H SHL (KB) to Mean Sea Level	3353.00ft
Vertical Reference Pt	Rig on No. 115H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 115H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	159.91°



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 115H SHL
Area	Eddy County, NM	Well	No. 115H
Field	JRU Project	Wellbore	No. 115H AWB
Facility	JRU No. 115H		

WELLPATH DATA (179 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	336.640	0.00	0.00	0.00	0.00	703559.21	487763.28	32°20'23.421"N	103°48'29.066"W	0.00	
22.00	0.000	336.640	22.00	0.00	0.00	0.00	703559.21	487763.28	32°20'23.421"N	103°48'29.066"W	0.00	
103.00	0.080	336.640	103.00	-0.06	0.05	-0.02	703559.19	487763.33	32°20'23.422"N	103°48'29.066"W	0.10	
203.00	0.040	242.080	203.00	-0.12	0.10	-0.08	703559.13	487763.38	32°20'23.422"N	103°48'29.067"W	0.09	
303.00	0.020	273.440	303.00	-0.12	0.08	-0.13	703559.08	487763.36	32°20'23.422"N	103°48'29.068"W	0.03	
403.00	0.110	345.240	403.00	-0.23	0.18	-0.17	703559.04	487763.46	32°20'23.423"N	103°48'29.068"W	0.11	
503.00	0.150	21.440	503.00	-0.42	0.39	-0.15	703559.06	487763.67	32°20'23.425"N	103°48'29.068"W	0.09	
559.30	0.300	20.280	559.30	-0.59	0.60	-0.07	703559.14	487763.88	32°20'23.427"N	103°48'29.067"W	0.27	
653.20	0.360	0.870	653.20	-1.05	1.13	0.02	703559.23	487764.41	32°20'23.432"N	103°48'29.066"W	0.13	
747.10	0.380	354.210	747.10	-1.63	1.73	-0.01	703559.20	487765.01	32°20'23.438"N	103°48'29.066"W	0.05	
840.90	0.380	358.830	840.89	-2.22	2.35	-0.04	703559.17	487765.63	32°20'23.444"N	103°48'29.066"W	0.03	
934.80	0.300	11.810	934.79	-2.73	2.90	0.00	703559.21	487766.18	32°20'23.450"N	103°48'29.066"W	0.12	
1028.70	0.230	34.750	1028.69	-3.04	3.30	0.16	703559.37	487766.58	32°20'23.454"N	103°48'29.064"W	0.13	
1122.60	0.270	74.600	1122.59	-3.13	3.51	0.48	703559.69	487766.79	32°20'23.456"N	103°48'29.060"W	0.19	
1216.50	0.370	97.400	1216.49	-2.98	3.53	0.99	703560.20	487766.81	32°20'23.456"N	103°48'29.054"W	0.17	
1310.30	0.410	116.330	1310.29	-2.59	3.34	1.59	703560.80	487766.62	32°20'23.454"N	103°48'29.047"W	0.14	
1404.20	0.470	132.450	1404.18	-2.01	2.93	2.18	703561.39	487766.21	32°20'23.450"N	103°48'29.040"W	0.15	
1498.10	0.580	135.960	1498.08	-1.23	2.33	2.79	703562.00	487765.61	32°20'23.444"N	103°48'29.033"W	0.12	
1592.00	0.810	136.430	1591.97	-0.19	1.51	3.58	703562.79	487764.79	32°20'23.436"N	103°48'29.024"W	0.25	
1685.90	1.000	133.290	1685.86	-1.15	0.47	4.63	703563.84	487763.75	32°20'23.426"N	103°48'29.012"W	0.21	
1779.70	1.030	131.280	1779.65	2.62	-0.65	5.86	703565.07	487762.63	32°20'23.414"N	103°48'28.998"W	0.05	
1873.60	1.090	124.780	1873.53	4.10	-1.72	7.23	703566.44	487761.56	32°20'23.404"N	103°48'28.982"W	0.14	
1967.50	0.890	119.960	1967.42	5.39	-2.59	8.60	703567.81	487760.69	32°20'23.395"N	103°48'28.966"W	0.23	
2061.40	0.530	104.450	2061.31	6.19	-3.06	9.65	703568.86	487760.22	32°20'23.390"N	103°48'28.954"W	0.43	
2155.30	0.510	87.270	2155.21	6.56	-3.15	10.49	703569.70	487760.13	32°20'23.389"N	103°48'28.944"W	0.17	
2249.10	0.910	70.330	2249.00	6.69	-2.88	11.61	703570.82	487760.40	32°20'23.392"N	103°48'28.931"W	0.48	
2343.00	1.580	32.500	2342.88	5.91	-1.54	13.00	703572.21	487761.74	32°20'23.405"N	103°48'28.915"W	1.09	
2436.90	2.180	49.930	2436.73	4.51	0.70	15.07	703574.27	487763.98	32°20'23.427"N	103°48'28.890"W	0.88	
2530.80	2.730	47.980	2530.54	3.07	3.35	18.09	703577.30	487766.63	32°20'23.453"N	103°48'28.855"W	0.59	
2624.70	1.690	48.060	2624.37	1.72	5.77	20.79	703579.99	487769.05	32°20'23.477"N	103°48'28.823"W	1.11	
2718.50	0.610	80.560	2718.15	1.30	6.78	22.31	703581.52	487770.06	32°20'23.487"N	103°48'28.806"W	1.30	
2812.40	0.610	131.150	2812.04	1.83	6.53	23.18	703582.38	487769.81	32°20'23.485"N	103°48'28.796"W	0.56	
2906.30	0.560	154.340	2905.94	2.72	5.79	23.75	703582.96	487769.07	32°20'23.477"N	103°48'28.789"W	0.26	
3000.20	0.550	172.320	2999.84	3.62	4.93	24.01	703583.22	487768.21	32°20'23.469"N	103°48'28.786"W	0.19	
3094.10	0.390	176.700	3093.73	4.36	4.16	24.09	703583.30	487767.44	32°20'23.461"N	103°48'28.785"W	0.17	
3187.90	1.350	134.710	3187.52	5.67	3.07	24.89	703584.10	487766.35	32°20'23.450"N	103°48'28.776"W	1.16	
3281.80	2.770	129.100	3281.36	8.62	0.86	27.44	703586.65	487764.14	32°20'23.428"N	103°48'28.746"W	1.53	
3375.70	2.430	126.510	3375.16	12.23	-1.76	30.80	703590.01	487761.52	32°20'23.402"N	103°48'28.707"W	0.38	
3469.60	1.920	120.590	3468.99	15.11	-3.74	33.75	703592.96	487759.54	32°20'23.382"N	103°48'28.673"W	0.59	
3563.50	1.760	118.150	3562.85	17.40	-5.22	36.38	703595.59	487758.06	32°20'23.368"N	103°48'28.642"W	0.19	
3657.30	1.610	116.540	3656.60	19.43	-6.49	38.83	703598.04	487756.79	32°20'23.355"N	103°48'28.614"W	0.17	
3751.20	1.470	107.170	3750.47	21.12	-7.44	41.16	703600.37	487755.84	32°20'23.346"N	103°48'28.587"W	0.31	
3845.10	0.650	39.050	3844.36	21.58	-7.38	42.65	703601.85	487755.90	32°20'23.346"N	103°48'28.569"W	1.46	
3939.00	0.700	4.570	3938.25	20.78	-6.39	43.03	703602.23	487756.89	32°20'23.356"N	103°48'28.565"W	0.43	
4032.90	0.670	347.810	4032.14	19.72	-5.28	42.96	703602.16	487758.00	32°20'23.367"N	103°48'28.566"W	0.21	



Actual Wellpath Report

No. 115H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 115H SHL
Area	Eddy County, NM	Well	No. 115H
Field	JRU Project	Wellbore	No. 115H AWB
Facility	JRU No. 115H		

WELLPATH DATA (179 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4126.70	0.570	351.890	4125.94	18.72	-4.29	42.78	703601.98	487758.99	32°20'23.377"N	103°48'28.568"W	0.12	
4220.60	0.600	348.790	4219.83	17.78	-3.34	42.61	703601.82	487759.94	32°20'23.386"N	103°48'28.570"W	0.05	
4314.50	0.520	348.550	4313.73	16.87	-2.44	42.43	703601.64	487760.84	32°20'23.395"N	103°48'28.572"W	0.09	
4408.40	0.380	333.700	4407.63	16.14	-1.74	42.21	703601.42	487761.54	32°20'23.402"N	103°48'28.574"W	0.19	
4502.30	0.290	314.660	4501.52	15.61	-1.30	41.90	703601.14	487761.98	32°20'23.406"N	103°48'28.578"W	0.15	
4596.10	0.330	308.330	4595.32	15.17	-0.96	41.52	703600.73	487762.32	32°20'23.410"N	103°48'28.582"W	0.06	
4690.00	0.320	314.310	4689.22	14.70	-0.61	41.12	703600.33	487762.67	32°20'23.413"N	103°48'28.587"W	0.04	
4783.90	0.290	331.620	4783.12	14.23	-0.22	40.82	703600.03	487763.06	32°20'23.417"N	103°48'28.590"W	0.10	
4877.80	0.270	328.620	4877.02	13.78	0.18	40.59	703599.80	487763.46	32°20'23.421"N	103°48'28.593"W	0.03	
4971.70	0.210	319.100	4970.92	13.40	0.50	40.37	703599.57	487763.78	32°20'23.424"N	103°48'28.596"W	0.08	
5065.50	0.190	311.880	5064.72	13.10	0.73	40.14	703599.35	487764.01	32°20'23.426"N	103°48'28.598"W	0.03	
5159.40	0.210	319.430	5158.62	12.80	0.96	39.91	703599.12	487764.24	32°20'23.429"N	103°48'28.601"W	0.04	
5253.30	0.210	328.050	5252.52	12.47	1.24	39.71	703598.92	487764.52	32°20'23.431"N	103°48'28.603"W	0.03	
5347.20	0.190	344.700	5346.42	12.15	1.54	39.58	703598.78	487764.82	32°20'23.434"N	103°48'28.605"W	0.07	
5441.10	0.160	339.860	5440.32	11.86	1.81	39.49	703598.70	487765.09	32°20'23.437"N	103°48'28.606"W	0.04	
5534.90	0.170	313.960	5534.12	11.61	2.03	39.34	703598.55	487765.31	32°20'23.439"N	103°48'28.607"W	0.08	
5628.80	0.240	296.230	5628.01	11.34	2.21	39.07	703598.28	487765.49	32°20'23.441"N	103°48'28.611"W	0.10	
5722.70	0.230	275.600	5721.91	11.12	2.32	38.70	703597.91	487765.60	32°20'23.442"N	103°48'28.615"W	0.09	
5816.60	0.180	259.950	5815.81	11.01	2.31	38.37	703597.58	487765.59	32°20'23.442"N	103°48'28.619"W	0.08	
5910.50	0.160	225.690	5909.71	11.04	2.19	38.13	703597.34	487765.47	32°20'23.441"N	103°48'28.621"W	0.11	
6004.30	0.230	212.670	6003.51	11.21	1.94	37.94	703597.14	487765.22	32°20'23.438"N	103°48'28.624"W	0.09	
6098.20	0.320	205.830	6097.41	11.50	1.55	37.72	703596.93	487764.83	32°20'23.435"N	103°48'28.626"W	0.10	
6192.10	0.400	202.330	6191.31	11.93	1.01	37.48	703596.69	487764.29	32°20'23.429"N	103°48'28.629"W	0.09	
6286.00	0.500	192.700	6285.21	12.51	0.31	37.27	703596.48	487763.59	32°20'23.422"N	103°48'28.632"W	0.13	
6379.90	0.450	210.210	6379.10	13.09	-0.41	36.99	703596.20	487762.87	32°20'23.415"N	103°48'28.635"W	0.16	
6473.70	0.450	218.430	6472.90	13.52	-1.02	36.58	703595.79	487762.26	32°20'23.409"N	103°48'28.640"W	0.07	
6567.60	0.420	230.650	6566.80	13.83	-1.53	36.08	703595.29	487761.75	32°20'23.404"N	103°48'28.646"W	0.10	
6661.50	0.500	243.170	6660.69	13.99	-1.93	35.45	703594.66	487761.35	32°20'23.400"N	103°48'28.653"W	0.14	
6755.40	0.530	246.520	6754.59	14.06	-2.29	34.69	703593.89	487760.99	32°20'23.397"N	103°48'28.662"W	0.05	
6849.30	0.540	248.660	6848.49	14.10	-2.62	33.88	703593.08	487760.66	32°20'23.394"N	103°48'28.671"W	0.02	
6943.10	0.590	247.940	6942.28	14.12	-2.96	33.02	703592.23	487760.32	32°20'23.390"N	103°48'28.681"W	0.05	
7037.00	0.530	234.120	7036.18	14.26	-3.40	32.22	703591.43	487759.88	32°20'23.386"N	103°48'28.691"W	0.16	
7130.90	0.550	212.070	7130.07	14.65	-4.04	31.63	703590.83	487759.24	32°20'23.380"N	103°48'28.698"W	0.22	
7210.00	1.120	185.130	7209.17	15.59	-5.13	31.36	703590.56	487758.15	32°20'23.369"N	103°48'28.701"W	0.86	
7241.00	2.920	164.630	7240.15	16.65	-6.19	31.54	703590.75	487757.09	32°20'23.358"N	103°48'28.699"W	6.17	
7273.00	4.850	157.750	7272.07	18.81	-8.23	32.27	703591.47	487755.05	32°20'23.338"N	103°48'28.690"W	6.19	
7303.00	6.740	155.690	7301.92	21.83	-11.01	33.47	703592.68	487752.27	32°20'23.311"N	103°48'28.677"W	6.34	
7356.00	10.460	154.420	7354.31	29.73	-18.18	36.83	703596.04	487745.10	32°20'23.239"N	103°48'28.638"W	7.03	
7388.00	12.930	154.160	7385.64	36.18	-24.03	39.64	703598.85	487739.26	32°20'23.181"N	103°48'28.605"W	7.72	
7420.00	16.250	157.210	7416.61	44.22	-31.38	42.94	703602.15	487731.90	32°20'23.109"N	103°48'28.567"W	10.65	
7451.00	20.370	161.220	7446.03	53.95	-40.49	46.36	703605.57	487722.79	32°20'23.018"N	103°48'28.528"W	13.89	
7483.00	23.980	163.630	7475.66	66.01	-52.01	49.99	703609.19	487711.28	32°20'22.904"N	103°48'28.486"W	11.63	
7514.00	27.960	165.890	7503.53	79.53	-65.10	53.53	703612.74	487698.18	32°20'22.774"N	103°48'28.446"W	13.23	
7545.00	32.210	167.830	7530.35	94.95	-80.23	57.05	703616.26	487683.05	32°20'22.624"N	103°48'28.406"W	14.06	
7576.00	36.460	169.860	7555.94	112.21	-97.39	60.41	703619.62	487665.90	32°20'22.455"N	103°48'28.367"W	14.20	



Actual Wellpath Report

No. 115H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 115H SHL
Area	Eddy County, NM	Well	No. 115H
Field	JRU Project	Wellbore	No. 115H AWB
Facility	JRU No. 115H		

WELLPATH DATA (179 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7608.00	40.970	171.950	7580.90	131.85	-117.14	63.56	703622.77	487646.14	32°20'22.259"N	103°48'28.332"W	14.67	
7640.00	45.230	173.510	7604.26	153.16	-138.83	66.31	703625.52	487624.46	32°20'22.044"N	103°48'28.301"W	13.72	
7671.00	49.510	175.270	7625.25	175.23	-161.52	68.53	703627.74	487601.77	32°20'21.820"N	103°48'28.277"W	14.42	
7702.00	53.870	176.560	7644.47	198.61	-185.78	70.26	703629.46	487577.51	32°20'21.579"N	103°48'28.258"W	14.44	
7734.00	58.400	176.840	7662.29	224.04	-212.30	71.78	703630.99	487550.99	32°20'21.317"N	103°48'28.242"W	14.17	
7765.00	62.990	177.090	7677.46	249.87	-239.29	73.21	703632.42	487524.01	32°20'21.050"N	103°48'28.226"W	14.82	
7795.00	67.890	177.750	7689.93	275.89	-266.54	74.44	703633.64	487496.76	32°20'20.780"N	103°48'28.214"W	16.46	
7827.00	71.980	178.940	7700.91	304.39	-296.57	75.30	703634.51	487466.72	32°20'20.483"N	103°48'28.205"W	13.25	
7859.00	74.980	179.460	7710.00	333.35	-327.25	75.73	703634.93	487436.05	32°20'20.179"N	103°48'28.202"W	9.50	
7890.00	77.210	180.290	7717.45	361.63	-357.34	75.79	703635.00	487405.97	32°20'19.882"N	103°48'28.203"W	7.65	
7921.00	81.120	180.790	7723.28	390.12	-387.78	75.50	703634.71	487375.53	32°20'19.580"N	103°48'28.208"W	12.71	
7952.00	86.390	181.090	7726.65	418.87	-418.58	75.00	703634.20	487344.73	32°20'19.276"N	103°48'28.216"W	17.03	
7984.00	90.590	181.430	7727.49	448.66	-450.55	74.30	703633.50	487312.76	32°20'18.959"N	103°48'28.226"W	13.17	
8016.00	91.360	180.370	7726.95	478.53	-482.54	73.79	703633.00	487280.77	32°20'18.643"N	103°48'28.234"W	4.09	
8047.00	92.270	179.150	7725.97	507.67	-513.53	73.92	703633.13	487249.79	32°20'18.336"N	103°48'28.234"W	4.91	
8079.00	93.460	177.900	7724.37	537.96	-545.47	74.75	703633.95	487217.84	32°20'18.020"N	103°48'28.226"W	5.39	
8110.00	93.820	176.890	7722.40	567.46	-576.38	76.15	703635.36	487186.94	32°20'17.714"N	103°48'28.211"W	3.45	
8140.00	92.630	175.530	7720.71	596.21	-606.26	78.13	703637.34	487157.05	32°20'17.418"N	103°48'28.190"W	6.02	
8170.00	91.640	174.770	7719.59	625.14	-636.14	80.67	703639.87	487127.18	32°20'17.123"N	103°48'28.162"W	4.16	
8202.00	91.640	172.810	7718.68	656.19	-667.93	84.13	703643.33	487095.39	32°20'16.808"N	103°48'28.124"W	6.12	
8236.00	91.710	171.790	7717.68	689.38	-701.61	88.68	703647.88	487061.71	32°20'16.474"N	103°48'28.073"W	3.01	
8298.00	91.840	169.930	7715.76	750.22	-762.79	98.52	703657.73	487000.54	32°20'15.869"N	103°48'27.961"W	3.01	
8350.00	87.900	171.500	7715.88	801.29	-814.10	106.91	703666.11	486949.23	32°20'15.361"N	103°48'27.867"W	8.16	
8414.00	87.800	172.600	7718.28	863.81	-877.44	115.76	703674.96	486885.90	32°20'14.733"N	103°48'27.767"W	1.72	
8509.00	88.800	171.400	7721.10	956.66	-971.47	128.97	703688.17	486791.87	32°20'13.802"N	103°48'27.618"W	1.64	
8604.00	88.900	170.000	7723.01	1049.96	-1065.20	144.32	703703.52	486698.15	32°20'12.874"N	103°48'27.445"W	1.48	
8699.00	88.700	169.900	7725.00	1143.48	-1158.72	160.90	703720.10	486604.63	32°20'11.948"N	103°48'27.257"W	0.24	
8794.00	88.800	172.600	7727.07	1236.60	-1252.58	175.34	703734.54	486510.77	32°20'11.018"N	103°48'27.094"W	2.84	
8889.00	88.800	171.100	7729.06	1329.52	-1346.60	188.81	703748.00	486416.76	32°20'10.088"N	103°48'26.942"W	1.58	
8985.00	89.800	170.600	7730.23	1423.76	-1441.37	204.07	703763.27	486322.00	32°20'09.149"N	103°48'26.770"W	1.16	
9080.00	89.700	167.800	7730.65	1517.51	-1534.68	221.87	703781.07	486228.70	32°20'08.225"N	103°48'26.568"W	2.95	
9175.00	89.800	168.400	7731.06	1611.54	-1627.64	241.46	703800.65	486135.75	32°20'07.304"N	103°48'26.345"W	0.64	
9270.00	89.900	167.500	7731.31	1705.60	-1720.54	261.29	703820.49	486042.85	32°20'06.384"N	103°48'26.119"W	0.95	
9366.00	90.000	168.400	7731.39	1800.66	-1814.43	281.33	703840.53	485948.97	32°20'05.454"N	103°48'25.891"W	0.94	
9461.00	89.900	169.400	7731.48	1894.49	-1907.65	299.62	703858.81	485855.75	32°20'04.531"N	103°48'25.683"W	1.06	
9556.00	89.900	169.200	7731.64	1988.21	-2000.99	317.26	703876.45	485762.41	32°20'03.606"N	103°48'25.483"W	0.21	
9652.00	89.800	166.400	7731.89	2083.30	-2094.82	337.55	703896.73	485668.59	32°20'02.677"N	103°48'25.252"W	2.92	
9748.00	89.800	166.200	7732.23	2178.70	-2188.08	360.28	703919.47	485575.33	32°20'01.753"N	103°48'24.992"W	0.21	
9843.00	89.800	168.100	7732.56	2272.94	-2280.70	381.41	703940.59	485482.72	32°20'00.835"N	103°48'24.751"W	2.00	
9939.00	89.800	166.000	7732.90	2368.19	-2374.25	402.92	703962.11	485389.18	32°19'59.909"N	103°48'24.506"W	2.19	
10035.00	89.900	167.000	7733.15	2463.55	-2467.60	425.33	703984.51	485295.84	32°19'58.984"N	103°48'24.250"W	1.05	
10130.00	89.900	170.200	7733.31	2557.45	-2560.71	444.11	704003.29	485202.73	32°19'58.062"N	103°48'24.037"W	3.37	
10226.00	89.800	172.600	7733.56	2651.51	-2655.63	458.46	704017.64	485107.82	32°19'57.122"N	103°48'23.875"W	2.50	
10322.00	89.600	175.600	7734.07	2744.57	-2751.11	468.33	704027.51	485012.35	32°19'56.177"N	103°48'23.765"W	3.13	
10417.00	89.100	173.500	7735.15	2836.48	-2845.66	477.35	704036.53	484917.79	32°19'55.240"N	103°48'23.665"W	2.27	

Actual Wellpath Report

No. 115H AWP

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INTEQ

REFERENCE WELL/PATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 115H SHL
Area	Eddy County, NM	Well	No. 115H
Field	JRU Project	Wellbore	No. 115H AWB
Facility	JRU No. 115H		

WELLPATH DATA (179 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10512.00	89.300	171.000	7736.47	2929.27	-2939.78	490.16	704049.34	484823.68	32°19'54.309"N	103°48'23.522"W	2.64	
10607.00	89.200	170.600	7737.72	3022.55	-3033.55	505.35	704064.52	484729.92	32°19'53.380"N	103°48'23.350"W	0.43	
10702.00	89.400	170.900	7738.88	3115.84	-3127.31	520.61	704079.79	484636.17	32°19'52.452"N	103°48'23.177"W	0.38	
10796.00	89.400	170.300	7739.86	3208.21	-3220.04	535.97	704095.14	484543.44	32°19'51.533"N	103°48'23.004"W	0.64	
10874.00	89.900	170.300	7740.34	3284.93	-3296.92	549.11	704108.28	484466.56	32°19'50.772"N	103°48'22.855"W	0.64	
10969.00	90.000	170.000	7740.42	3378.41	-3390.52	565.36	704124.53	484372.97	32°19'49.845"N	103°48'22.671"W	0.33	
11064.00	90.500	171.200	7740.01	3471.76	-3484.24	580.88	704140.05	484279.26	32°19'48.917"N	103°48'22.496"W	1.37	
11159.00	90.600	173.300	7739.09	3564.56	-3578.37	593.68	704152.86	484185.14	32°19'47.985"N	103°48'22.352"W	2.21	
11254.00	90.600	176.200	7738.10	3656.37	-3672.95	602.38	704161.55	484090.56	32°19'47.049"N	103°48'22.256"W	3.05	
11349.00	90.500	178.900	7737.19	3746.89	-3767.85	606.44	704165.61	483995.66	32°19'46.109"N	103°48'22.214"W	2.84	
11444.00	90.400	175.900	7736.44	3837.49	-3862.74	610.75	704169.92	483900.78	32°19'45.170"N	103°48'22.169"W	3.16	
11539.00	90.600	175.300	7735.61	3928.94	-3957.46	618.03	704177.20	483806.07	32°19'44.233"N	103°48'22.090"W	0.67	
11634.00	90.300	177.700	7734.86	4019.98	-4052.27	623.83	704183.00	483711.26	32°19'43.294"N	103°48'22.028"W	2.55	
11729.00	90.100	171.700	7734.53	4111.79	-4146.82	632.60	704191.77	483616.72	32°19'42.358"N	103°48'21.931"W	6.32	
11824.00	90.000	169.300	7734.45	4205.16	-4240.51	648.28	704207.45	483523.04	32°19'41.430"N	103°48'21.753"W	2.53	
11919.00	89.900	169.900	7734.53	4298.81	-4333.95	665.43	704224.60	483429.60	32°19'40.505"N	103°48'21.559"W	0.64	
12014.00	90.000	168.900	7734.62	4392.50	-4427.33	682.91	704242.07	483336.23	32°19'39.580"N	103°48'21.361"W	1.06	
12109.00	89.900	167.500	7734.70	4486.51	-4520.32	702.33	704261.50	483243.25	32°19'38.659"N	103°48'21.140"W	1.48	
12204.00	90.100	166.600	7734.70	4580.77	-4612.90	723.62	704282.79	483150.67	32°19'37.742"N	103°48'20.897"W	0.97	
12300.00	90.000	171.200	7734.61	4675.57	-4707.08	742.10	704301.26	483056.50	32°19'36.809"N	103°48'20.687"W	4.79	
12395.00	90.000	171.600	7734.61	4768.66	-4801.01	756.31	704315.47	482962.57	32°19'35.879"N	103°48'20.527"W	0.42	
12490.00	89.900	172.400	7734.70	4861.55	-4895.08	769.53	704328.69	482868.50	32°19'34.948"N	103°48'20.378"W	0.85	
12585.00	90.400	169.000	7734.45	4954.86	-4988.82	784.88	704344.04	482774.77	32°19'34.019"N	103°48'20.204"W	3.62	
12680.00	89.500	171.100	7734.53	5048.37	-5082.39	801.29	704360.45	482681.21	32°19'33.093"N	103°48'20.019"W	2.40	
12775.00	89.600	164.700	7735.28	5142.39	-5175.22	821.19	704380.35	482588.38	32°19'32.173"N	103°48'19.792"W	6.74	
12871.00	89.400	160.400	7736.12	5238.27	-5266.78	849.97	704409.13	482496.83	32°19'31.266"N	103°48'19.462"W	4.48	
12966.00	89.900	152.200	7736.70	5333.00	-5353.69	888.12	704447.28	482409.92	32°19'30.404"N	103°48'19.022"W	8.65	
13061.00	90.000	145.500	7736.78	5426.18	-5434.95	937.24	704496.39	482328.67	32°19'29.597"N	103°48'18.455"W	7.05	
13157.00	90.000	138.100	7736.78	5517.36	-5510.34	996.56	704555.71	482253.29	32°19'28.849"N	103°48'17.768"W	7.71	
13252.00	89.900	131.400	7736.86	5603.30	-5577.18	1063.99	704623.14	482186.45	32°19'28.184"N	103°48'16.986"W	7.05	
13348.00	90.000	127.300	7736.95	5685.95	-5638.04	1138.21	704697.35	482125.60	32°19'27.578"N	103°48'16.124"W	4.27	
13444.00	90.000	123.100	7736.95	5764.85	-5693.36	1216.64	704775.78	482070.27	32°19'27.027"N	103°48'15.213"W	4.37	
13539.00	90.000	119.300	7736.95	5838.96	-5742.57	1297.89	704857.01	482021.07	32°19'26.536"N	103°48'14.269"W	4.00	
13635.00	90.000	117.000	7736.95	5910.57	-5787.86	1382.53	704941.65	481975.79	32°19'26.084"N	103°48'13.286"W	2.40	
13731.00	89.900	115.200	7737.03	5979.85	-5830.09	1468.73	705027.85	481933.56	32°19'25.662"N	103°48'12.284"W	1.88	
13826.00	90.000	110.300	7737.11	6044.42	-5866.81	1556.31	705115.43	481896.83	32°19'25.294"N	103°48'11.265"W	5.16	
13922.00	90.100	106.700	7737.03	6104.29	-5897.27	1647.34	705206.45	481866.38	32°19'24.988"N	103°48'10.206"W	3.75	
14017.00	90.000	106.800	7736.95	6161.25	-5924.65	1738.31	705297.41	481839.00	32°19'24.713"N	103°48'09.148"W	0.15	
14113.00	90.100	106.900	7736.86	6218.95	-5952.48	1830.19	705389.28	481811.18	32°19'24.433"N	103°48'08.079"W	0.15	
14208.00	90.000	106.900	7736.78	6276.11	-5980.09	1921.08	705480.17	481783.56	32°19'24.155"N	103°48'07.021"W	0.11	
14303.00	90.200	107.800	7736.62	6333.86	-6008.42	2011.76	705570.84	481755.24	32°19'23.870"N	103°48'05.966"W	0.97	
14397.00	90.000	109.100	7736.45	6392.43	-6038.17	2100.93	705660.00	481725.49	32°19'23.572"N	103°48'04.929"W	1.40	
14421.00	90.100	108.500	7736.43	6407.50	-6045.90	2123.65	705682.72	481717.75	32°19'23.494"N	103°48'04.664"W	2.53	
14494.00	90.100	108.500	7736.30	6453.03	-6069.07	2192.87	705751.95	481694.59	32°19'23.261"N	103°48'03.859"W	0.00	Projection to Bit

[illegible]

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
Target #1		7727.00	-690.56	112.31	703671.51	487072.76	32°20'16.583"N	103°48'27.797"W	point
No. 115H PBHL		7738.00	-6088.65	2227.03	705786.10	481675.01	32°19'23.066"N	103°48'03.462"W	point
Target #2		7738.00	-3158.71	513.69	704072.87	484604.77	32°19'52.141"N	103°48'23.260"W	point

WELLPATH COMPOSITION					Ref Wellbore: No. 115H AWB Ref Wellpath: No. 115H AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment			Wellbore	
22.00	7303.00	Generic gyro - northseeking (Standard)			Gyro			No. 115H AWB	
7303.00	8236.00	ISCWSA MWD, Rev. 2 (Standard)			Weatherford Surveys			No. 115H AWB	
8236.00	14494.00	NaviTrak (Standard)			MWD			No. 115H AWB	

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