



BOPCO, L.P.

Location Eddy County, NM
Field Quahada Ridge, SE (Delaware)
Facility Hudson 1 Fed No. 8H

Slot No 8H SHL
Well No 8H
Wellbore No 8H PWB

Plot reference (wellpath as Plan, as is Actual <FINAL>)

True vertical depths are referenced to Rig on No. 8H SHL (RT)

Measured depths are referenced to Rig on No. 8H SHL (RT)

Rig on No. 8H SHL (RT) to Mean Sea Level: 3308 feet

Mean Sea Level to Mudline (Facility: Hudson 1 Fed No. 8H): 3209 feet

Coordinates are in feet referenced to Surface Location

Grid System: NAD83 / TM New Mexico State Planes: Eastern Zone (2001) US feet

North Reference: Grid north

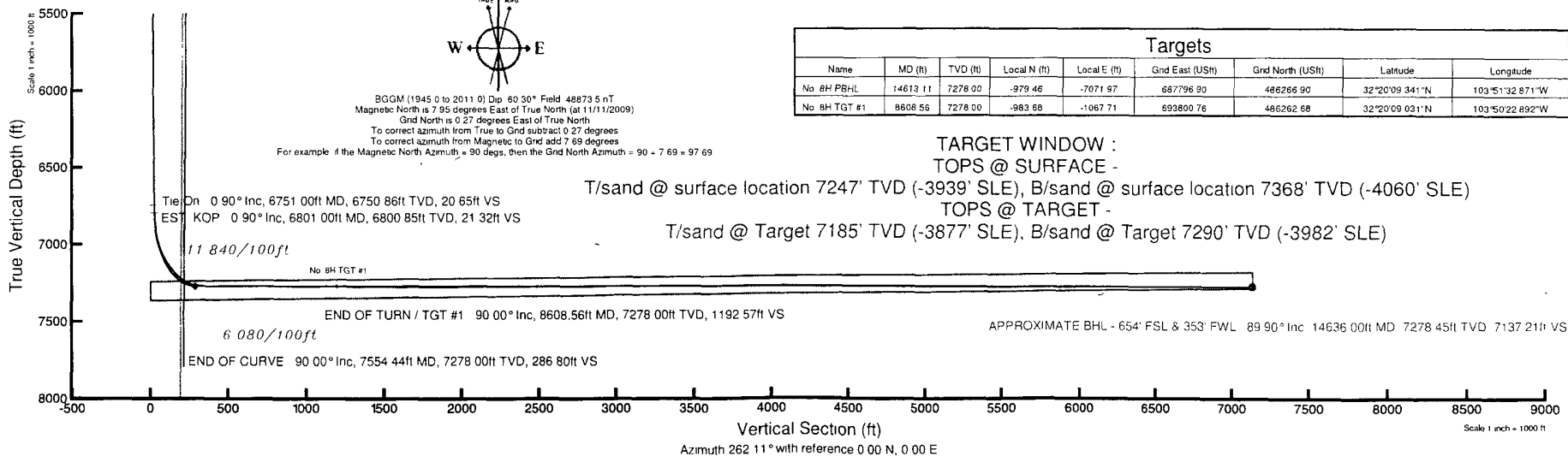
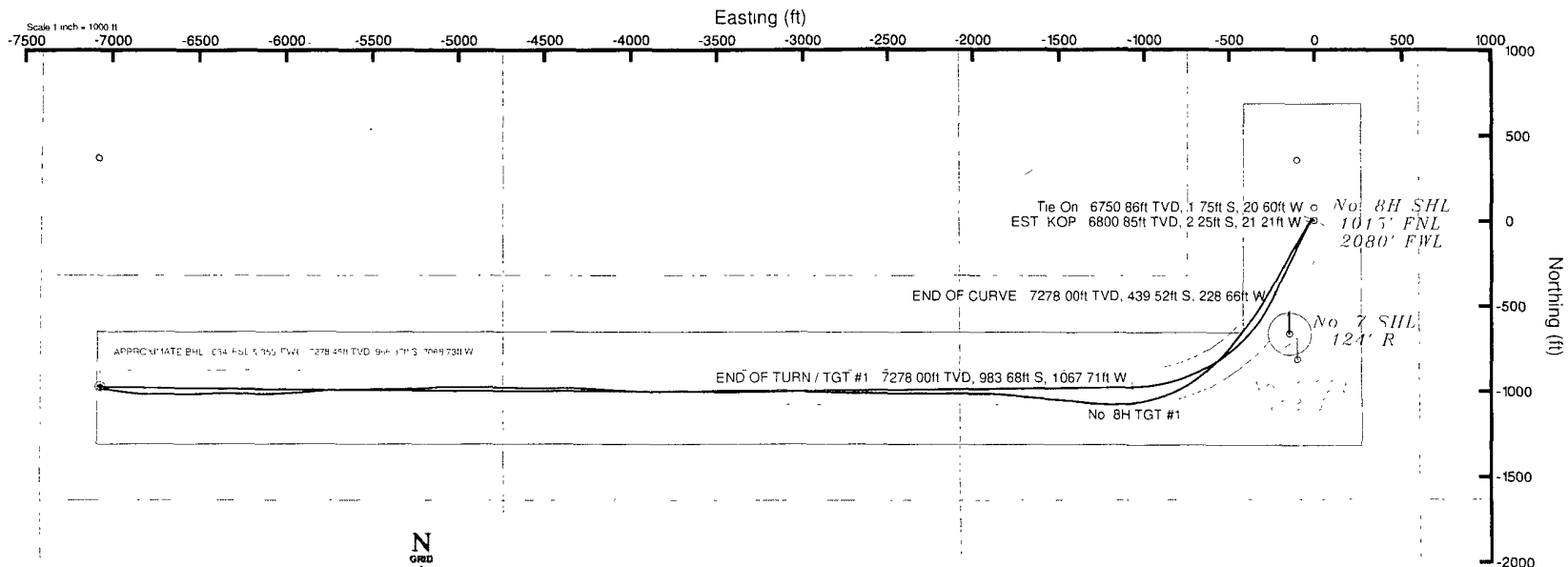
Scale: True distance

Depths are in feet

Created by: Victor Hernandez on 4/1/2010

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6751.00	0.900	230.420	6750.86	-1.75	-20.60	0.55	20.65
EST KOP	6801.00	0.900	230.420	6800.85	-2.25	-21.21	0.00	21.32
END OF CURVE	7554.44	90.000	205.000	7278.00	-439.52	-228.66	11.84	286.80
END OF TURN / TGT #1	8608.56	90.000	269.070	7278.00	-983.68	-1067.71	6.08	1192.57
No. 8H PBHL	14613.11	90.000	271.011	7278.00	-979.46	-7071.97	0.03	7139.47



Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (USft)	Grid North (USft)	Latitude	Longitude
No. 8H PBHL	14613.11	7278.00	-979.46	-7071.97	687796.90	486266.90	32°20'09.341"N	103°51'32.871"W
No. 8H TGT #1	8608.56	7278.00	-983.68	-1067.71	693800.76	486262.68	32°20'09.031"N	103°50'22.892"W

TARGET WINDOW :

TOPS @ SURFACE -

T/sand @ surface location 7247' TVD (-3939' SLE), B/sand @ surface location 7368' TVD (-4060' SLE)

TOPS @ TARGET -

T/sand @ Target 7185' TVD (-3877' SLE), B/sand @ Target 7290' TVD (-3982' SLE)



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWB
Facility	Hudson 1 Fed No. 8H		

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	Victor Hernandez
Scale	0.999936	Report Generated	2/1/2010 at 10:02:54 AM
Convergence at slot	0.27° East	Database/Source file	WA_Midland/No. 8H_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	694868.40	487246.30	32°20'18.716"N	103°50'10.395"W
Facility Reference Pt			694868.40	487246.30	32°20'18.716"N	103°50'10.395"W
Field Reference Pt			696371.30	485350.50	32°19'59.887"N	103°49'52.981"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 8H SHL (RT) to GL	19.00ft
Horizontal Reference Pt	Surface Location	Rig on No. 8H SHL (RT) to Mean Sea Level	3308.00ft
Vertical Reference Pt	Rig on No. 8H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 8H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	262.11°



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

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Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
0.00	0.000	255.890	0.00	0.00	0.00	0.00	694868.40	487246.30	32°20'18.716"N	103°50'10.395"W	0.00
100.00	0.380	255.890	100.00	0.33	-0.08	-0.32	694868.08	487246.22	32°20'18.715"N	103°50'10.399"W	0.38
200.00	0.570	261.080	200.00	1.16	-0.24	-1.13	694867.27	487246.06	32°20'18.713"N	103°50'10.408"W	0.19
300.00	0.470	274.830	299.99	2.05	-0.28	-2.03	694866.37	487246.02	32°20'18.713"N	103°50'10.419"W	0.16
400.00	0.500	274.370	399.99	2.88	-0.21	-2.88	694865.52	487246.09	32°20'18.714"N	103°50'10.428"W	0.03
500.00	0.450	297.100	499.98	3.63	0.00	-3.66	694864.74	487246.30	32°20'18.716"N	103°50'10.438"W	0.19
600.00	0.520	300.250	599.98	4.31	0.41	-4.40	694864.00	487246.71	32°20'18.720"N	103°50'10.446"W	0.07
700.00	0.180	305.690	699.98	4.78	0.73	-4.92	694863.48	487247.03	32°20'18.723"N	103°50'10.452"W	0.34
800.00	0.100	252.000	799.98	4.98	0.79	-5.13	694863.27	487247.09	32°20'18.724"N	103°50'10.455"W	0.15
900.00	0.020	310.190	899.98	5.08	0.78	-5.23	694863.17	487247.08	32°20'18.724"N	103°50'10.456"W	0.09
1000.00	0.100	93.880	999.98	5.00	0.78	-5.16	694863.24	487247.08	32°20'18.724"N	103°50'10.455"W	0.12
1100.00	0.170	244.850	1099.98	5.06	0.71	-5.20	694863.20	487247.01	32°20'18.723"N	103°50'10.455"W	0.26
1200.00	0.050	321.950	1199.98	5.22	0.68	-5.37	694863.03	487246.98	32°20'18.723"N	103°50'10.457"W	0.17
1300.00	0.090	113.130	1299.98	5.18	0.69	-5.32	694863.08	487246.99	32°20'18.723"N	103°50'10.457"W	0.14
1400.00	0.080	118.180	1399.98	5.05	0.62	-5.19	694863.21	487246.92	32°20'18.722"N	103°50'10.455"W	0.01
1500.00	0.120	11.620	1499.98	4.96	0.69	-5.10	694863.30	487246.99	32°20'18.723"N	103°50'10.454"W	0.16
1600.00	0.050	60.150	1599.98	4.89	0.82	-5.05	694863.36	487247.12	32°20'18.724"N	103°50'10.454"W	0.09
1700.00	0.070	205.050	1699.98	4.88	0.78	-5.03	694863.37	487247.08	32°20'18.724"N	103°50'10.453"W	0.11
1800.00	0.210	29.000	1799.98	4.80	0.89	-4.97	694863.43	487247.19	32°20'18.725"N	103°50'10.453"W	0.28
1900.00	0.120	82.430	1899.98	4.59	1.06	-4.78	694863.62	487247.36	32°20'18.727"N	103°50'10.450"W	0.17
2000.00	0.070	65.860	1999.98	4.42	1.10	-4.62	694863.78	487247.40	32°20'18.727"N	103°50'10.449"W	0.06
2100.00	0.230	34.090	2099.98	4.23	1.29	-4.45	694863.95	487247.59	32°20'18.729"N	103°50'10.447"W	0.17
2200.00	0.040	92.430	2199.98	4.06	1.46	-4.30	694864.10	487247.76	32°20'18.730"N	103°50'10.445"W	0.21
2300.00	0.060	75.510	2299.98	3.98	1.47	-4.22	694864.18	487247.77	32°20'18.731"N	103°50'10.444"W	0.02
2400.00	0.150	46.620	2399.98	3.82	1.57	-4.07	694864.33	487247.87	32°20'18.732"N	103°50'10.442"W	0.10
2500.00	0.180	209.350	2499.98	3.81	1.52	-4.05	694864.35	487247.82	32°20'18.731"N	103°50'10.442"W	0.33
2600.00	0.060	350.200	2599.98	3.90	1.44	-4.14	694864.26	487247.74	32°20'18.730"N	103°50'10.443"W	0.23
2700.00	0.200	56.900	2699.98	3.75	1.59	-4.00	694864.40	487247.89	32°20'18.732"N	103°50'10.441"W	0.18
2800.00	0.080	12.310	2799.98	3.56	1.75	-3.84	694864.56	487248.05	32°20'18.733"N	103°50'10.440"W	0.15
2900.00	0.100	139.630	2899.98	3.49	1.75	-3.77	694864.63	487248.05	32°20'18.733"N	103°50'10.439"W	0.16



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
3000.00	0.080	298.050	2999.98	3.50	1.72	-3.77	694864.63	487248.02	32°20'18.733"N	103°50'10.439"W	0.18
3100.00	0.080	183.900	3099.98	3.57	1.68	-3.84	694864.56	487247.98	32°20'18.733"N	103°50'10.440"W	0.13
3200.00	0.080	345.730	3199.98	3.60	1.68	-3.86	694864.54	487247.98	32°20'18.733"N	103°50'10.440"W	0.16
3300.00	0.050	87.790	3299.98	3.56	1.75	-3.84	694864.56	487248.05	32°20'18.733"N	103°50'10.439"W	0.10
3400.00	0.000	321.520	3399.98	3.52	1.75	-3.79	694864.61	487248.05	32°20'18.733"N	103°50'10.439"W	0.05
3500.00	0.160	50.800	3499.98	3.40	1.84	-3.68	694864.72	487248.14	32°20'18.734"N	103°50'10.438"W	0.16
3600.00	0.150	150.060	3599.98	3.23	1.81	-3.51	694864.89	487248.11	32°20'18.734"N	103°50'10.436"W	0.24
3700.00	0.120	47.720	3699.97	3.09	1.77	-3.37	694865.03	487248.07	32°20'18.733"N	103°50'10.434"W	0.21
3800.00	0.050	95.710	3799.97	2.96	1.84	-3.25	694865.15	487248.14	32°20'18.734"N	103°50'10.433"W	0.09
3900.00	0.080	40.890	3899.97	2.87	1.88	-3.16	694865.24	487248.18	32°20'18.735"N	103°50'10.432"W	0.07
4000.00	0.100	115.310	3999.97	2.74	1.90	-3.03	694865.37	487248.20	32°20'18.735"N	103°50'10.430"W	0.11
4100.00	0.110	49.050	4099.97	2.59	1.93	-2.88	694865.52	487248.23	32°20'18.735"N	103°50'10.428"W	0.12
4200.00	0.110	206.200	4199.97	2.56	1.90	-2.85	694865.55	487248.20	32°20'18.735"N	103°50'10.428"W	0.22
4300.00	0.080	326.760	4299.97	2.65	1.87	-2.93	694865.47	487248.17	32°20'18.734"N	103°50'10.429"W	0.17
4400.00	0.140	22.440	4399.97	2.62	2.05	-2.92	694865.48	487248.35	32°20'18.736"N	103°50'10.429"W	0.12
4500.00	0.170	268.270	4499.97	2.70	2.15	-3.03	694865.37	487248.45	32°20'18.737"N	103°50'10.430"W	0.26
4600.00	0.080	17.330	4599.97	2.82	2.22	-3.15	694865.25	487248.52	32°20'18.738"N	103°50'10.432"W	0.21
4700.00	0.410	292.430	4699.97	3.10	2.42	-3.46	694864.94	487248.72	32°20'18.740"N	103°50'10.435"W	0.41
4800.00	0.440	298.000	4799.97	3.72	2.74	-4.13	694864.27	487249.04	32°20'18.743"N	103°50'10.443"W	0.05
4900.00	0.560	276.730	4899.97	4.50	2.97	-4.96	694863.44	487249.27	32°20'18.745"N	103°50'10.452"W	0.22
5000.00	0.490	282.970	4999.96	5.37	3.13	-5.86	694862.54	487249.43	32°20'18.747"N	103°50'10.463"W	0.09
5100.00	0.510	281.200	5099.96	6.19	3.31	-6.71	694861.69	487249.61	32°20'18.749"N	103°50'10.473"W	0.03
5200.00	0.550	297.140	5199.95	7.01	3.61	-7.58	694860.82	487249.91	32°20'18.752"N	103°50'10.483"W	0.15
5300.00	0.450	286.650	5299.95	7.76	3.95	-8.38	694860.02	487250.25	32°20'18.755"N	103°50'10.492"W	0.14
5400.00	0.470	291.550	5399.95	8.47	4.21	-9.14	694859.26	487250.51	32°20'18.758"N	103°50'10.501"W	0.04
5500.00	0.430	296.080	5499.94	9.14	4.53	-9.86	694858.55	487250.82	32°20'18.761"N	103°50'10.509"W	0.05
5600.00	0.300	269.640	5599.94	9.71	4.69	-10.45	694857.95	487250.99	32°20'18.763"N	103°50'10.516"W	0.21
5700.00	0.340	319.430	5699.94	10.13	4.91	-10.91	694857.49	487251.21	32°20'18.765"N	103°50'10.522"W	0.27
5800.00	0.140	313.840	5799.94	10.37	5.22	-11.19	694857.21	487251.52	32°20'18.768"N	103°50'10.525"W	0.20
5900.00	0.360	230.270	5899.94	10.71	5.13	-11.52	694856.88	487251.41	32°20'18.767"N	103°50'10.529"W	0.37



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
6000.00	0.420	225.260	5999.94	11.27	4.65	-12.02	694856.38	487250.95	32°20'18.762"N	103°50'10.535"W	0.07
6100.00	0.830	232.000	6099.93	12.19	3.94	-12.85	694855.55	487250.24	32°20'18.755"N	103°50'10.544"W	0.42
6200.00	0.910	225.030	6199.92	13.45	2.94	-13.99	694854.42	487249.24	32°20'18.745"N	103°50'10.558"W	0.13
6300.00	0.870	225.130	6299.91	14.69	1.84	-15.09	694853.32	487248.14	32°20'18.735"N	103°50'10.571"W	0.04
6400.00	0.990	232.170	6399.89	16.05	0.77	-16.31	694852.10	487247.07	32°20'18.724"N	103°50'10.585"W	0.17
6500.00	0.880	242.190	6499.88	17.52	-0.11	-17.67	694850.73	487246.19	32°20'18.715"N	103°50'10.601"W	0.20
6600.00	0.780	244.920	6599.87	18.89	-0.76	-18.96	694849.44	487245.54	32°20'18.709"N	103°50'10.616"W	0.11
6700.00	0.640	238.090	6699.86	20.05	-1.34	-20.05	694848.35	487244.96	32°20'18.703"N	103°50'10.629"W	0.16
6751.00	0.900	230.420	6750.86	20.65	-1.75	-20.60	694847.80	487244.55	32°20'18.699"N	103°50'10.635"W	0.55
6810.00	2.700	212.690	6809.83	21.95	-3.22	-21.71	694846.69	487243.08	32°20'18.685"N	103°50'10.648"W	3.16
6841.00	6.900	210.300	6840.71	23.57	-5.44	-23.04	694845.36	487240.86	32°20'18.663"N	103°50'10.664"W	13.56
6872.00	8.600	214.900	6871.43	26.30	-8.95	-25.31	694843.09	487237.35	32°20'18.628"N	103°50'10.690"W	5.83
6904.00	12.600	214.300	6902.87	30.27	-13.80	-28.65	694839.76	487232.50	32°20'18.581"N	103°50'10.729"W	12.50
6935.00	15.400	211.500	6932.95	35.15	-20.10	-32.70	694835.70	487226.20	32°20'18.518"N	103°50'10.777"W	9.29
6966.00	19.600	211.700	6962.51	41.08	-28.04	-37.59	694830.81	487218.26	32°20'18.440"N	103°50'10.834"W	13.55
6997.00	24.000	209.500	6991.29	48.22	-37.95	-43.43	694824.97	487208.35	32°20'18.342"N	103°50'10.903"W	14.43
7028.00	28.300	208.500	7019.11	56.42	-49.90	-50.04	694818.36	487196.40	32°20'18.224"N	103°50'10.981"W	13.94
7059.00	33.300	209.300	7045.73	65.92	-63.79	-57.72	694810.69	487182.51	32°20'18.087"N	103°50'11.071"W	16.18
7091.00	38.300	209.800	7071.67	77.30	-80.07	-66.95	694801.45	487166.24	32°20'17.927"N	103°50'11.180"W	15.65
7123.00	41.800	209.200	7096.16	89.80	-97.99	-77.09	694791.32	487148.32	32°20'17.750"N	103°50'11.299"W	11.00
7153.00	44.900	210.800	7117.98	102.45	-115.82	-87.39	694781.02	487130.49	32°20'17.574"N	103°50'11.420"W	10.96
7184.00	47.600	211.700	7139.41	116.58	-134.96	-99.01	694769.40	487111.35	32°20'17.385"N	103°50'11.556"W	8.96
7216.00	50.200	210.400	7160.45	131.73	-155.61	-111.44	694756.97	487090.70	32°20'17.181"N	103°50'11.702"W	8.68
7248.00	53.800	209.200	7180.15	147.14	-177.50	-123.96	694744.45	487068.82	32°20'16.965"N	103°50'11.849"W	11.63
7280.00	57.300	207.500	7198.25	162.73	-200.72	-146.48	694731.93	487045.60	32°20'16.736"N	103°50'11.996"W	11.73
7311.00	60.800	206.400	7214.19	177.91	-224.41	-148.52	694719.89	487021.90	32°20'16.502"N	103°50'12.138"W	11.69
7342.00	65.100	209.200	7228.28	194.02	-248.82	-161.41	694707.00	486997.49	32°20'16.261"N	103°50'12.290"W	16.03
7374.00	69.600	209.500	7240.60	211.88	-274.56	-175.88	694692.53	486971.76	32°20'16.007"N	103°50'12.460"W	14.09
7406.00	73.400	208.500	7250.76	230.09	-301.09	-190.59	694677.83	486945.23	32°20'15.745"N	103°50'12.632"W	12.24
7437.00	76.900	209.000	7258.70	247.97	-327.36	-205.60	694663.42	486918.96	32°20'15.486"N	103°50'12.802"W	11.40



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
7467.00	80.200	209.000	7264.65	265.62	-353.07	-219.25	694649.16	486893.25	32°20'15.232"N	103°50'12.969"W	11.00
7498.00	83.400	209.500	7269.07	284.14	-379.84	-234.24	694634.17	486866.49	32°20'14.968"N	103°50'13.146"W	10.45
7529.00	85.300	209.900	7272.13	302.95	-406.63	-249.53	694618.89	486839.69	32°20'14.704"N	103°50'13.325"W	6.26
7560.00	85.800	210.500	7274.53	322.02	-433.35	-265.07	694603.35	486812.98	32°20'14.440"N	103°50'13.508"W	2.51
7592.00	87.900	211.700	7276.29	342.12	-460.70	-281.58	694586.84	486785.63	32°20'14.170"N	103°50'13.702"W	7.56
7623.00	89.200	212.300	7277.07	361.99	-486.98	-298.00	694570.42	486759.35	32°20'13.911"N	103°50'13.894"W	4.62
7651.00	90.800	214.000	7277.07	380.37	-510.42	-313.31	694555.11	486735.91	32°20'13.680"N	103°50'14.074"W	8.34
7683.00	91.100	214.700	7276.54	401.88	-536.84	-331.36	694537.06	486709.50	32°20'13.419"N	103°50'14.286"W	2.38
7714.00	89.800	215.700	7276.30	423.05	-562.17	-349.23	694519.19	486684.17	32°20'13.169"N	103°50'14.496"W	5.29
7746.00	89.700	217.100	7276.44	443.39	-587.93	-368.22	694500.21	486658.41	32°20'12.915"N	103°50'14.718"W	4.39
7776.00	89.800	218.100	7276.57	466.79	-611.69	-386.52	694481.90	486634.65	32°20'12.681"N	103°50'14.933"W	3.35
7807.00	89.700	218.600	7276.71	489.17	-636.00	-405.76	694462.67	486610.34	32°20'12.441"N	103°50'15.158"W	1.64
7839.00	89.800	218.600	7276.85	512.38	-661.01	-425.72	694442.71	486585.33	32°20'12.195"N	103°50'15.392"W	0.31
7869.00	89.700	218.300	7276.98	534.08	-684.51	-444.37	694424.05	486561.84	32°20'11.963"N	103°50'15.611"W	1.05
7901.00	89.800	218.700	7277.12	557.25	-709.55	-464.29	694404.14	486536.80	32°20'11.716"N	103°50'15.845"W	1.29
7931.00	89.700	219.100	7277.25	579.11	-732.90	-483.13	694385.30	486513.45	32°20'11.486"N	103°50'16.065"W	1.37
7962.00	89.700	218.400	7277.41	601.65	-757.07	-502.54	694365.90	486489.28	32°20'11.248"N	103°50'16.293"W	2.26
7993.00	89.700	220.800	7277.57	624.50	-780.96	-522.30	694346.14	486465.39	32°20'11.012"N	103°50'16.524"W	7.74
8024.00	89.700	222.500	7277.73	648.08	-804.12	-542.90	694325.54	486442.23	32°20'10.784"N	103°50'16.766"W	5.48
8055.00	89.700	224.700	7277.90	672.33	-826.57	-564.27	694304.16	486419.79	32°20'10.563"N	103°50'17.016"W	7.10
8086.00	89.700	226.900	7278.06	697.31	-848.18	-586.50	694281.94	486398.18	32°20'10.350"N	103°50'17.276"W	7.10
8117.00	89.800	229.000	7278.19	722.96	-868.94	-609.51	694258.93	486377.42	32°20'10.146"N	103°50'17.546"W	6.78
8147.00	89.700	230.100	7278.33	748.24	-888.40	-632.34	694236.10	486357.96	32°20'09.954"N	103°50'17.813"W	3.68
8179.00	89.700	232.000	7278.49	775.65	-908.52	-657.23	694211.22	486337.84	32°20'09.756"N	103°50'18.104"W	5.94
8210.00	89.700	234.300	7278.65	802.77	-927.11	-682.03	694186.41	486319.25	32°20'09.573"N	103°50'18.394"W	7.42
8242.00	89.700	236.500	7278.82	831.35	-945.28	-708.37	694160.08	486301.08	32°20'09.395"N	103°50'18.702"W	6.87
8274.00	89.800	239.000	7278.96	860.50	-962.35	-735.43	694133.02	486284.01	32°20'09.227"N	103°50'19.018"W	7.82
8305.00	89.800	241.500	7279.07	889.27	-977.73	-762.34	694106.11	486268.63	32°20'09.076"N	103°50'19.333"W	8.06
8337.00	89.600	243.600	7279.24	919.42	-992.48	-790.74	694077.71	486253.88	32°20'08.932"N	103°50'19.664"W	6.59
8368.00	89.700	246.100	7279.43	949.02	-1005.66	-818.80	694049.66	486240.71	32°20'08.802"N	103°50'19.992"W	8.07



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
8399.00	89.800	248.100	7279.56	978.96	-1017.72	-847.35	694021.11	486228.65	32°20'08.684"N	103°50'20.326"W	6.46
8431.00	89.800	250.400	7279.67	1010.15	-1029.06	-877.27	693991.18	486217.31	32°20'08.574"N	103°50'20.675"W	7.19
8464.00	89.800	253.200	7279.79	1042.62	-1039.36	-908.62	693959.84	486207.01	32°20'08.473"N	103°50'21.041"W	8.48
8496.00	89.600	253.600	7279.96	1074.25	-1048.50	-939.28	693929.18	486197.87	32°20'08.384"N	103°50'21.399"W	1.40
8527.00	89.800	256.300	7280.12	1105.00	-1056.55	-969.22	693899.25	486189.82	32°20'08.306"N	103°50'21.748"W	8.73
8559.00	89.800	258.800	7280.23	1136.90	-1063.45	-1000.46	693868.00	486182.92	32°20'08.239"N	103°50'22.113"W	7.81
8589.00	89.800	261.600	7280.34	1166.88	-1068.56	-1030.02	693838.45	486177.81	32°20'08.190"N	103°50'22.457"W	9.33
8621.00	89.800	262.900	7280.45	1198.88	-1072.87	-1061.73	693806.74	486173.50	32°20'08.148"N	103°50'22.827"W	4.06
8652.00	89.700	264.600	7280.58	1229.86	-1076.25	-1092.54	693775.93	486170.13	32°20'08.116"N	103°50'23.186"W	5.49
8684.00	89.800	267.800	7280.72	1261.78	-1078.37	-1124.47	693744.01	486168.00	32°20'08.097"N	103°50'23.559"W	10.00
8714.00	89.700	267.200	7280.85	1291.64	-1079.67	-1154.44	693714.04	486166.70	32°20'08.085"N	103°50'23.908"W	2.03
8746.00	89.700	269.400	7281.02	1323.46	-1080.62	-1186.42	693682.06	486165.75	32°20'08.077"N	103°50'24.281"W	6.87
8776.00	89.800	271.800	7281.15	1353.12	-1080.31	-1216.42	693652.06	486166.06	32°20'08.082"N	103°50'24.630"W	8.01
8808.00	89.700	274.100	7281.29	1384.55	-1078.66	-1248.37	693620.11	486167.71	32°20'08.100"N	103°50'25.003"W	7.19
8840.00	89.700	275.000	7281.46	1415.80	-1076.12	-1280.27	693588.21	486170.25	32°20'08.126"N	103°50'25.374"W	2.81
8877.00	89.800	275.100	7281.62	1451.86	-1072.87	-1317.13	693551.36	486173.50	32°20'08.160"N	103°50'25.804"W	0.38
8958.00	88.200	277.300	7283.03	1530.41	-1064.12	-1397.63	693470.86	486182.25	32°20'08.250"N	103°50'26.742"W	3.36
9053.00	90.300	273.900	7284.28	1622.76	-1054.86	-1492.15	693376.34	486191.51	32°20'08.346"N	103°50'27.843"W	4.21
9148.00	90.300	274.600	7283.78	1715.64	-1047.82	-1586.89	693281.61	486198.55	32°20'08.420"N	103°50'28.946"W	0.74
9243.00	90.300	276.200	7283.28	1808.09	-1038.88	-1681.46	693187.05	486207.49	32°20'08.513"N	103°50'30.048"W	1.68
9339.00	90.200	276.900	7282.86	1901.06	-1027.92	-1776.84	693091.68	486218.44	32°20'08.626"N	103°50'31.159"W	0.74
9432.00	90.300	272.300	7282.46	1991.83	-1020.47	-1869.51	692999.01	486225.90	32°20'08.704"N	103°50'32.239"W	4.95
9531.00	90.100	270.000	7282.11	2089.60	-1018.48	-1968.48	692900.05	486227.89	32°20'08.728"N	103°50'33.392"W	2.33
9627.00	90.300	270.200	7281.78	2184.67	-1018.31	-2064.48	692804.05	486228.05	32°20'08.734"N	103°50'34.511"W	0.29
9721.00	90.200	269.200	7281.37	2277.84	-1018.81	-2158.48	692710.06	486227.56	32°20'08.733"N	103°50'35.607"W	1.07
9815.00	90.200	270.900	7281.04	2370.94	-1018.72	-2252.48	692616.07	486227.64	32°20'08.738"N	103°50'36.702"W	1.81
9912.00	90.200	270.300	7280.70	2466.87	-1017.71	-2349.47	692519.09	486228.66	32°20'08.753"N	103°50'37.833"W	0.62
10007.00	90.200	269.900	7280.37	2560.95	-1017.54	-2444.47	692424.09	486228.82	32°20'08.759"N	103°50'38.940"W	0.42
10103.00	90.000	271.600	7280.20	2655.86	-1016.29	-2540.46	692328.11	486230.08	32°20'08.775"N	103°50'40.058"W	1.78
10199.00	90.200	269.600	7280.03	2750.80	-1015.28	-2636.45	692232.13	486231.09	32°20'08.790"N	103°50'41.177"W	2.00



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
10296.00	90.300	272.000	7279.61	2846.68	-1013.93	-2733.43	692135.15	486232.44	32°20'08.808"N	103°50'42.307"W	2.48
10392.00	90.300	272.200	7279.11	2941.23	-1010.41	-2829.36	692039.22	486235.96	32°20'08.847"N	103°50'43.425"W	0.21
10488.00	90.300	272.000	7278.61	3035.77	-1006.89	-2925.30	691943.30	486239.48	32°20'08.886"N	103°50'44.543"W	0.21
10584.00	90.200	270.700	7278.19	3130.53	-1004.63	-3021.27	691847.33	486241.74	32°20'08.912"N	103°50'45.662"W	1.36
10681.00	90.300	267.400	7277.76	3226.80	-1006.24	-3118.24	691750.37	486240.13	32°20'08.901"N	103°50'46.792"W	3.40
10775.00	90.300	270.500	7277.27	3320.12	-1007.96	-3212.21	691656.40	486238.41	32°20'08.888"N	103°50'47.887"W	3.30
10872.00	90.200	269.400	7276.85	3416.21	-1008.04	-3309.21	691559.41	486238.32	32°20'08.892"N	103°50'49.018"W	1.14
10966.00	90.200	268.900	7276.52	3509.50	-1009.44	-3403.20	691465.43	486236.93	32°20'08.882"N	103°50'50.113"W	0.53
11061.00	90.200	271.200	7276.19	3603.59	-1009.36	-3498.19	691370.44	486237.01	32°20'08.887"N	103°50'51.220"W	2.42
11157.00	90.200	271.700	7275.85	3698.32	-1006.93	-3594.16	691274.48	486239.44	32°20'08.915"N	103°50'52.339"W	0.52
11252.00	90.200	271.000	7275.52	3792.08	-1004.69	-3689.13	691179.51	486241.68	32°20'08.942"N	103°50'53.445"W	0.74
11349.00	90.300	269.200	7275.10	3888.14	-1004.52	-3786.13	691082.52	486241.85	32°20'08.948"N	103°50'54.576"W	1.86
11444.00	90.300	267.700	7274.60	3982.55	-1007.09	-3881.09	690987.57	486239.28	32°20'08.927"N	103°50'55.683"W	1.58
11540.00	90.200	272.700	7274.18	4077.57	-1006.75	-3977.06	690891.61	486239.61	32°20'08.934"N	103°50'56.801"W	5.21
11635.00	89.800	274.400	7274.18	4170.68	-1000.87	-4071.87	690796.80	486245.49	32°20'08.997"N	103°50'57.906"W	1.84
11760.00	89.900	274.300	7274.51	4292.84	-991.39	-4196.51	690672.17	486254.97	32°20'09.096"N	103°50'59.358"W	0.11
11857.00	90.000	271.500	7274.59	4388.12	-986.48	-4293.38	690575.31	486259.88	32°20'09.149"N	103°51'00.487"W	2.89
11953.00	89.900	269.500	7274.68	4483.08	-985.65	-4389.37	690479.32	486260.72	32°20'09.162"N	103°51'01.606"W	2.09
12049.00	90.100	269.400	7274.68	4578.30	-986.57	-4485.36	690383.33	486259.80	32°20'09.157"N	103°51'02.724"W	0.23
12144.00	90.000	271.100	7274.59	4672.34	-986.15	-4580.36	690288.34	486260.21	32°20'09.165"N	103°51'03.832"W	1.79
12240.00	90.000	272.300	7274.59	4767.00	-983.31	-4676.31	690192.39	486263.06	32°20'09.198"N	103°51'04.950"W	1.25
12335.00	90.000	271.100	7274.59	4860.67	-980.49	-4771.27	690097.44	486265.88	32°20'09.230"N	103°51'06.056"W	1.26
12431.00	90.000	269.600	7274.59	4955.68	-979.90	-4867.27	690001.46	486266.46	32°20'09.240"N	103°51'07.175"W	1.56
12526.00	90.000	270.300	7274.59	5049.79	-979.98	-4962.27	689906.46	486266.38	32°20'09.243"N	103°51'08.282"W	0.74
12621.00	90.000	271.200	7274.59	5143.71	-978.74	-5057.26	689811.48	486267.62	32°20'09.260"N	103°51'09.389"W	0.95
12715.00	89.500	265.100	7275.00	5237.15	-981.77	-5151.16	689717.58	486264.59	32°20'09.234"N	103°51'10.484"W	6.51
12812.00	89.900	267.400	7275.51	5333.88	-988.12	-5247.95	689620.80	486258.25	32°20'09.175"N	103°51'11.612"W	2.41
12908.00	89.800	269.100	7275.76	5429.33	-991.05	-5343.90	689524.86	486255.32	32°20'09.151"N	103°51'12.731"W	1.77
13002.00	89.900	269.200	7276.01	5522.62	-992.44	-5437.89	689430.87	486253.92	32°20'09.141"N	103°51'13.826"W	0.15
13098.00	89.800	269.400	7276.26	5617.87	-993.62	-5533.88	689334.80	486252.75	32°20'09.134"N	103°51'14.945"W	0.23



Actual Wellpath Report

No. 8H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWP
Facility	Hudson 1 Fed No. 8H		

WELLPATH DATA (197 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]
13195.00	89.900	269.600	7276.52	5714.06	-994.46	-5630.87	689237.90	486251.90	32°20'09.130"N	103°51'16.076"W	0.23
13289.00	89.900	269.200	7276.68	5807.30	-995.45	-5724.87	689143.91	486250.92	32°20'09.124"N	103°51'17.171"W	0.43
13383.00	90.100	263.400	7276.68	5901.01	-1001.51	-5818.63	689050.15	486244.86	32°20'09.068"N	103°51'18.264"W	6.17
13478.00	89.700	267.200	7276.85	5995.85	-1009.29	-5913.30	688955.49	486237.07	32°20'08.995"N	103°51'19.368"W	4.02
13573.00	89.900	266.500	7277.18	6090.52	-1014.51	-6008.15	688860.64	486231.85	32°20'08.948"N	103°51'20.474"W	0.77
13670.00	89.800	269.100	7277.43	6187.04	-1018.24	-6105.07	688763.73	486228.13	32°20'08.915"N	103°51'21.604"W	2.68
13765.00	89.900	271.600	7277.68	6281.05	-1017.66	-6200.06	688668.75	486228.71	32°20'08.925"N	103°51'22.711"W	2.63
13861.00	89.900	271.200	7277.85	6375.79	-1015.31	-6296.03	688572.78	486231.06	32°20'08.953"N	103°51'23.829"W	0.42
13958.00	89.900	269.600	7278.02	6471.78	-1014.63	-6393.03	688475.79	486231.73	32°20'08.964"N	103°51'24.959"W	1.65
14059.00	89.900	267.200	7278.18	6566.20	-1017.29	-6487.98	688380.84	486229.08	32°20'08.942"N	103°51'26.066"W	2.53
14148.00	89.900	270.200	7278.35	6660.56	-1019.44	-6582.95	688285.89	486226.93	32°20'08.924"N	103°51'27.173"W	3.16
14243.00	89.900	269.700	7278.51	6754.67	-1019.52	-6677.95	688190.89	486226.84	32°20'08.928"N	103°51'28.280"W	0.53
14338.00	89.900	269.800	7278.68	6848.83	-1019.94	-6772.95	688095.90	486226.43	32°20'08.928"N	103°51'29.388"W	0.11
14433.00	90.500	276.300	7278.35	6942.06	-1014.89	-6867.76	688001.09	486231.48	32°20'08.982"N	103°51'30.492"W	6.87
14528.00	89.700	278.400	7278.18	7033.71	-1002.73	-6961.97	687906.89	486243.63	32°20'09.106"N	103°51'31.590"W	2.37
14575.00	89.900	278.800	7278.35	7078.78	-995.71	-7008.44	687860.42	486250.66	32°20'09.178"N	103°51'32.131"W	0.95
14636.00	89.900	278.800	7278.45	7137.21	-986.37	-7068.73	687800.14	486259.99	32°20'09.273"N	103°51'32.833"W	0.00



Actual Wellpath Report

No. 8H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 8H SHL
Area	Eddy County, NM	Well	No. 8H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 8H AWB
Facility	Hudson 1 Fed No. 8H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 8H PBHL		7278.00	-979.46	-7071.97	687796.90	486266.90	32°20'09.341"N	103°51'32.871"W	point
No. 8H TGT #1		7278.00	-983.68	-1067.71	693800.76	486262.68	32°20'09.031"N	103°50'22.892"W	point

WELLPATH COMPOSITION Ref Wellbore: No. 8H AWB Ref Wellpath: No. 8H AWP

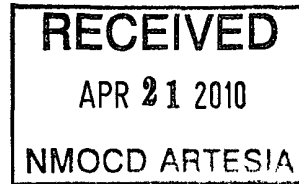
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	6751.00	Generic gyro - continuous (Standard)	Gyro - <100 - 6751>	No. 8H AWB
6751.00	14575.00	NaviTrak (Standard)	MWD - <6810 - 14575>	No. 8H AWB
14575.00	14636.00	Blind Drilling (std)	Projection to bit	No. 8H AWB

INTEQ

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

STATE OF NEW MEXICO

COUNTY OF Eddy County, NM



I, Beau Jones, Operations Coordinator certify that I am employed by INTEQ; did conduct or supervise on the day(s) of Jan 13, 2010 through Jan 31, 2010 the taking of MWD surveys from a depth of 6,751 to a depth of 14,636 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 Hudson 1 Fed No. 8H well, in Eddy County, New Mexico and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by INTEQ.

A handwritten signature in cursive script, appearing to read "Beau Jones", written over a horizontal line.



DDK