

30-015-42007

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 13 2014
RECEIVED

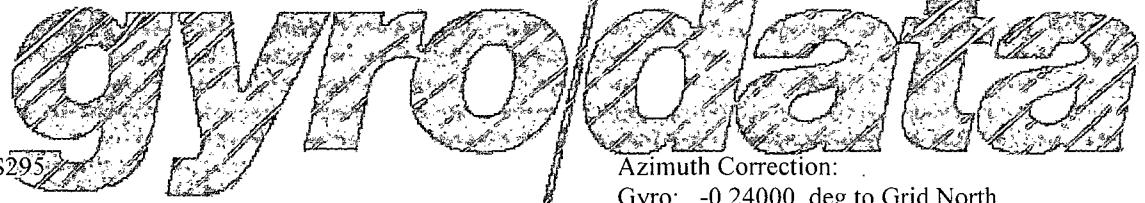
A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BOPCO, LP

Lease: BIG EDDY UNIT D19 Well: 35H, 5 INCH DRILLPIPE
Location: INDEPENDENCE 202, EDDY COUNTY / NEW MEXICO



Job Number: MD0314GMS295

Azimuth Correction:
Gyro: -0.24000 deg to Grid North

Run Date: 15 Mar 2014

Report Generated: 25 Jun 2014 10:08

Depth Reference: Rotary Table

Surveyor: Will Skelton

Vertical Section Calculated from Well Head Location

Calculation Method: MINIMUM CURVATURE

Closure Calculated from Well Head Location

Survey Latitude: 32.458993 deg. N Longitude: 103.879271 deg. W

Horizontal Coordinates Calculated from Well Head Location

A Gyrodata Directional Survey

BOPCO, LP

Lease: BIG EDDY UNIT DI9 Well: 35H, 5 INCH DRILLPIPE

Location: INDEPENDENCE 202, EDDY COUNTY / NEW MEXICO

Job Number: MD0314GMS295

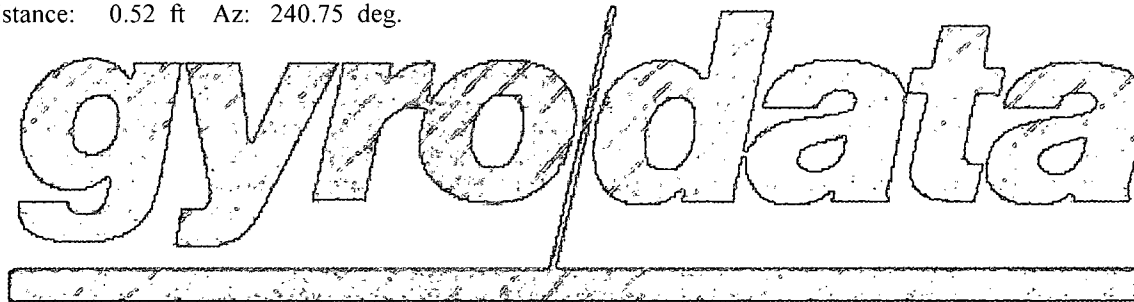
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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 TO 231 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5" DRILLPIPE
 ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO INDEPENDENCE 202 AND R.K.B. HEIGHT OF 26 FT

100.00	0.16	241.51	0.16	100.00	0.1 241.5	0.07 S 0.12 W
200.00	0.13	247.14	0.03	200.00	0.4 243.1	0.18 S 0.35 W
231.00	0.35	228.81	0.77	231.00	0.5 240.8	0.25 S 0.45 W

Final Station Closure: Distance: 0.52 ft Az: 240.75 deg.





Actual Wellpath Report

No. 35H AWP - Final

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
Facility	Big Eddy Unit D1-9	Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@ 4.0.0
North Reference	Grid	User	Burnranj
Scale	0.999932	Report Generated	5/22/2014 at 10:33:46 AM
Convergence at slot	0.24° East	Database/Source file	WA_MIDLAND/C:\Users\burnranj\AppData\Roaming\Well Explorer\temp\BOPCO, LP No.35H SHL_Final Surveys.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-490.03	73.11	640125.10	530502.80	32°27'27.522"N	103°52'44.545"W
Facility Reference Pt			640052.00	530992.80	32°27'32.374"N	103°52'45.374"W
Field Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Big Eddy Unit D19 No.35H (KB) to Facility Vertical Datum	3175.00ft
Horizontal Reference Pt	Slot	Rig on Big Eddy Unit D19 No.35H (KB) to Mean Sea Level	3175.00ft
Vertical Reference Pt	Rig on Big Eddy Unit D19 No.35H (KB)	Rig on Big Eddy Unit D19 No.35H (KB) to Mud Line at Slot (No.35H SHL)	3175.00ft
MD Reference Pt	Rig on Big Eddy Unit D19 No.35H (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	272.59°



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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
Facility	Big Eddy Unit DI-9	Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

WELLPATH DATA (238 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]	DLS [°/100ft]	Comments
0.00†	0.000	241.510	0.00	0.00	0.00	0.00	640125.10	530502.80	0.00	
29.00	0.000	241.510	29.00	0.00	0.00	0.00	640125.10	530502.80	0.00	
100.00	0.160	241.510	100.00	-0.08	-0.05	-0.09	640125.01	530502.75	0.23	
200.00	0.130	247.140	200.00	0.31	-0.16	-0.31	640124.79	530502.64	0.03	
231.00	0.350	228.810	231.00	0.41	-0.23	-0.42	640124.68	530502.57	0.74	
442.00	0.400	227.900	441.99	1.40	-1.15	-1.45	640123.65	530501.65	0.02	
536.00	0.600	256.400	535.99	2.10	-1.49	-2.17	640122.93	530501.31	0.33	
629.00	1.000	235.400	628.98	3.22	-2.06	-3.31	640121.79	530500.74	0.53	
723.00	1.500	238.000	722.96	4.88	-3.18	-5.03	640120.07	530499.62	0.54	
817.00	2.000	241.200	816.92	7.30	-4.62	-7.51	640117.59	530498.18	0.54	
910.00	0.700	290.700	909.89	9.22	-5.20	-9.47	640115.64	530497.60	1.76	
1005.00	0.500	214.600	1004.89	9.99	-5.34	-10.24	640114.86	530497.46	0.80	
1099.00	0.600	228.200	1098.88	10.56	-6.01	-10.84	640114.26	530496.79	0.17	
1288.00	1.200	187.300	1287.86	11.43	-8.63	-11.83	640113.27	530494.17	0.45	
1383.00	1.400	181.500	1382.83	11.49	-10.78	-11.99	640113.11	530492.03	0.25	
1477.00	0.200	285.800	1476.83	11.63	-11.88	-12.18	640112.92	530490.92	1.56	
1666.00	1.000	17.000	1665.82	11.54	-10.21	-12.01	640113.09	530492.59	0.54	
1761.00	1.500	43.800	1760.79	10.51	-8.52	-10.91	640114.19	530494.28	0.80	
1855.00	0.800	57.300	1854.77	9.17	-7.28	-9.51	640115.59	530495.52	0.79	
2045.00	0.500	57.200	2044.76	7.41	-6.11	-7.69	640117.41	530496.69	0.16	
2233.00	1.300	37.700	2232.74	5.51	-3.98	-5.70	640119.40	530498.82	0.45	
2422.00	1.600	119.200	2421.69	1.92	-3.57	-2.08	640123.02	530499.23	1.01	
2612.00	0.800	259.100	2611.67	0.84	-5.12	-1.07	640124.03	530497.68	1.20	
2801.00	0.500	321.300	2800.66	2.67	-4.72	-2.88	640122.22	530498.08	0.38	
2991.00	0.900	53.300	2990.65	2.06	-3.18	-2.20	640122.90	530499.62	0.55	
3180.00	3.200	64.900	3179.52	-3.76	-0.06	3.76	640128.86	530502.74	1.23	
3275.00	1.900	92.500	3274.43	-7.69	1.00	7.74	640132.84	530503.80	1.85	
3354.00	0.800	164.300	3353.41	-9.17	0.41	9.20	640134.30	530503.21	2.30	
3544.00	1.500	215.500	3543.37	-8.23	-2.89	8.11	640133.21	530499.91	0.62	
3638.00	0.300	231.300	3637.36	-7.38	-4.05	7.20	640132.30	530498.75	1.29	
3827.00	0.400	297.800	3826.36	-6.41	-4.05	6.23	640131.33	530498.75	0.21	
4017.00	0.400	285.200	4016.35	-5.16	-3.57	5.01	640130.11	530499.23	0.05	
4207.00	0.500	295.300	4206.35	-3.75	-3.04	3.62	640128.72	530499.76	0.07	
4396.00	0.500	246.600	4395.34	-2.25	-3.01	2.12	640127.22	530499.79	0.22	
4586.00	0.400	257.400	4585.33	-0.86	-3.49	0.71	640125.81	530499.31	0.07	
4775.00	0.100	264.700	4774.33	-0.06	-3.65	-0.10	640125.00	530499.15	0.16	
4964.00	0.300	211.300	4963.33	0.34	-4.08	-0.52	640124.58	530498.72	0.13	
5153.00	0.300	183.200	5152.33	0.58	-5.00	-0.81	640124.29	530497.80	0.08	
5343.00	0.400	221.800	5342.32	1.00	-5.99	-1.28	640123.82	530496.81	0.13	
5532.00	0.300	263.700	5531.32	1.91	-6.54	-2.21	640122.89	530496.26	0.14	
5722.00	0.300	255.200	5721.32	2.88	-6.72	-3.18	640121.92	530496.08	0.02	
5911.00	0.400	230.000	5910.31	3.83	-7.27	-4.17	640120.93	530495.53	0.10	
6100.00	0.400	283.100	6099.31	4.97	-7.55	-5.31	640119.79	530495.26	0.19	
6290.00	0.300	230.500	6289.31	5.99	-7.71	-6.34	640118.76	530495.09	0.17	
6479.00	0.600	247.100	6478.30	7.25	-8.41	-7.64	640117.46	530494.39	0.17	



Actual Wellpath Report

No. 35H AWP - Final

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
Facility	Big Eddy Unit DI-9	Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

WELLPATH DATA (238 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
6668.00	0.600	239.600	6667.29	8.97	-9.30	-9.40	640115.70	530493.50	0.04	
6858.00	0.600	234.500	6857.28	10.59	-10.38	-11.07	640114.03	530492.42	0.03	
7047.00	0.700	248.900	7046.27	12.43	-11.37	-12.95	640112.15	530491.43	0.10	
7236.00	0.400	249.300	7235.26	14.09	-12.02	-14.65	640110.45	530490.78	0.16	
7426.00	0.700	105.300	7425.26	13.57	-12.56	-14.15	640110.95	530490.24	0.55	
7615.00	0.700	67.500	7614.24	11.40	-12.42	-11.97	640113.13	530490.38	0.24	
7805.00	0.700	42.900	7804.23	9.59	-11.13	-10.11	640114.99	530491.67	0.16	
7994.00	0.300	58.600	7993.22	8.44	-10.02	-8.90	640116.20	530492.78	0.22	
8183.00	0.600	8.700	8182.22	7.92	-8.79	-8.33	640116.77	530494.01	0.25	
8234.00	6.700	311.100	8233.09	10.22	-6.57	-10.53	640114.57	530496.24	12.55	
8265.00	9.100	318.400	8263.80	13.35	-3.54	-13.52	640111.58	530499.26	8.38	
8297.00	11.100	320.200	8295.30	17.19	0.72	-17.17	640107.93	530503.52	6.33	
8328.00	13.300	319.800	8325.60	21.62	5.73	-21.39	640103.72	530508.53	7.10	
8360.00	15.600	318.300	8356.58	27.13	11.76	-26.62	640098.48	530514.56	7.28	
8391.00	18.200	316.300	8386.24	33.54	18.37	-32.74	640092.36	530521.17	8.59	
8423.00	20.800	313.700	8416.41	41.43	25.91	-40.30	640084.80	530528.71	8.56	
8454.00	22.800	306.600	8445.19	50.56	33.30	-49.11	640076.00	530536.10	10.67	
8486.00	24.400	298.900	8474.52	61.63	40.19	-59.88	640065.23	530542.99	10.84	
8518.00	26.900	292.000	8503.37	74.38	46.10	-72.38	640052.73	530548.90	12.16	
8549.00	27.100	289.400	8530.99	87.76	51.07	-85.54	640039.56	530553.87	3.86	
8581.00	27.000	289.800	8559.49	101.67	55.95	-99.25	640025.86	530558.75	0.65	
8612.00	26.500	289.300	8587.18	115.02	60.62	-112.40	640012.71	530563.42	1.77	
8644.00	26.400	289.700	8615.83	128.66	65.38	-125.83	639999.27	530568.18	0.64	
8675.00	27.300	288.800	8643.48	142.07	69.99	-139.05	639986.06	530572.79	3.19	
8709.00	27.900	288.200	8673.62	157.22	74.99	-153.99	639971.12	530577.79	1.94	
8740.00	28.800	287.500	8700.90	171.42	79.50	-168.00	639957.11	530582.30	3.09	
8772.00	30.800	287.800	8728.66	186.77	84.33	-183.16	639941.96	530587.12	6.27	
8804.00	33.800	288.900	8755.71	203.23	89.71	-199.38	639925.73	530592.51	9.55	
8835.00	35.500	291.100	8781.21	220.04	95.75	-215.94	639909.18	530598.54	6.81	
8867.00	37.400	290.300	8806.95	238.11	102.47	-233.72	639891.39	530605.26	6.12	
8898.00	39.000	291.200	8831.31	256.32	109.26	-251.65	639873.47	530612.05	5.46	
8930.00	41.000	291.100	8855.82	275.82	116.68	-270.83	639854.29	530619.47	6.25	
8962.00	42.900	290.900	8879.62	296.11	124.35	-290.80	639834.32	530627.14	5.95	
8993.00	45.200	291.000	8901.90	316.57	132.05	-310.93	639814.19	530634.84	7.42	
9025.00	48.000	291.300	8923.89	338.61	140.44	-332.61	639792.51	530643.23	8.78	
9056.00	50.000	291.300	8944.22	360.77	148.94	-354.41	639770.72	530651.73	6.45	
9088.00	52.800	291.700	8964.19	384.42	158.11	-377.67	639747.45	530660.90	8.80	
9119.00	54.500	291.100	8982.56	408.05	167.21	-400.92	639724.21	530670.00	5.70	
9151.00	56.100	291.800	9000.78	432.95	176.84	-425.40	639699.73	530679.62	5.31	
9183.00	58.500	291.000	9018.06	458.44	186.66	-450.47	639674.66	530689.45	7.79	
9214.00	60.300	291.100	9033.84	483.74	196.24	-475.38	639649.76	530699.03	5.81	
9246.00	62.800	291.400	9049.09	510.40	206.44	-501.60	639623.54	530709.23	7.86	
9278.00	63.800	291.600	9063.46	537.44	216.92	-528.19	639596.94	530719.70	3.17	
9309.00	65.400	292.500	9076.76	563.84	227.43	-554.15	639570.99	530730.22	5.79	
9341.00	67.800	292.300	9089.47	591.47	238.62	-581.30	639543.84	530741.40	7.52	



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Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
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WELLPATH DATA (238 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
9372.00	70.600	291.800	9100.47	618.79	249.50	-608.15	639516.99	530752.28	9.16	
9404.00	71.100	291.200	9110.97	647.39	260.58	-636.28	639488.86	530763.36	2.36	
9435.00	71.300	291.300	9120.96	675.19	271.21	-663.63	639461.52	530773.99	0.71	
9467.00	71.100	291.200	9131.28	703.89	282.19	-691.86	639433.28	530784.97	0.69	
9499.00	71.200	291.000	9141.61	732.61	293.09	-720.12	639405.03	530795.87	-0.67	
9530.00	71.300	290.900	9151.58	760.47	303.59	-747.53	639377.62	530806.37	0.44	
9562.00	71.300	290.900	9161.84	789.24	314.40	-775.85	639349.31	530817.18	0.00	
9593.00	72.700	290.700	9171.42	817.25	324.87	-803.41	639321.75	530827.65	4.56	
9625.00	74.800	290.400	9180.37	846.47	335.66	-832.17	639292.98	530838.43	6.62	
9656.00	76.800	290.100	9187.98	875.10	346.06	-860.37	639264.79	530848.83	6.52	
9688.00	77.900	289.400	9194.98	904.94	356.61	-889.75	639235.41	530859.38	4.05	
9720.00	78.000	288.700	9201.66	934.95	366.82	-919.33	639205.83	530869.60	2.16	
9751.00	78.100	289.000	9208.08	964.06	376.62	-948.04	639177.13	530879.39	1.00	
9783.00	79.300	289.600	9214.35	994.11	386.99	-977.65	639147.52	530889.76	4.18	
9814.00	80.800	290.300	9219.71	1023.26	397.41	-1006.35	639118.82	530900.18	5.33	
9846.00	81.000	289.800	9224.77	1053.40	408.24	-1036.03	639089.14	530911.01	1.66	
9878.00	81.200	289.000	9229.72	1083.66	418.74	-1065.85	639059.32	530921.51	2.55	
9909.00	82.900	289.300	9234.01	1113.09	428.81	-1094.86	639030.32	530931.58	5.57	
9941.00	85.900	289.900	9237.13	1143.54	439.50	-1124.85	639000.33	530942.27	9.56	
9972.00	87.600	287.900	9238.89	1173.24	449.52	-1154.13	638971.05	530952.29	8.46	
10004.00	88.000	286.200	9240.12	1204.20	458.90	-1184.70	638940.48	530961.66	5.45	
10035.00	89.400	285.100	9240.82	1234.39	467.26	-1214.54	638910.64	530970.02	5.74	
10067.00	91.500	284.800	9240.57	1265.64	475.51	-1245.46	638879.73	530978.28	6.63	
10098.00	92.100	284.700	9239.60	1295.93	483.40	-1275.42	638849.77	530986.17	1.96	
10130.00	92.200	283.900	9238.39	1327.24	491.30	-1306.41	638818.78	530994.06	2.52	
10161.00	91.800	282.100	9237.31	1357.71	498.27	-1336.59	638788.60	531001.03	5.94	
10193.00	91.900	280.600	9236.28	1389.32	504.56	-1367.95	638757.24	531007.33	4.70	
10224.00	92.100	280.400	9235.20	1420.01	510.21	-1398.41	638726.78	531012.97	0.91	
10256.00	92.300	279.900	9233.97	1451.70	515.84	-1429.89	638695.31	531018.61	1.68	
10288.00	92.400	278.500	9232.66	1483.55	520.95	-1461.45	638663.75	531023.72	4.38	
10319.00	92.200	276.500	9231.41	1514.32	525.00	-1492.16	638633.05	531027.76	6.48	
10351.00	92.300	275.400	9230.16	1546.24	528.31	-1523.96	638601.25	531031.07	3.45	
10382.00	91.900	275.500	9229.02	1577.18	531.25	-1554.80	638570.41	531034.02	1.33	
10414.00	91.700	274.500	9228.02	1609.14	534.04	-1586.66	638538.55	531036.80	3.19	
10446.00	90.000	272.800	9227.54	1641.13	536.08	-1618.59	638506.62	531038.84	7.51	
10477.00	89.400	271.900	9227.70	1672.13	537.35	-1649.57	638475.65	531040.11	3.49	
10490.00	89.500	271.900	9227.83	1685.13	537.78	-1662.56	638462.66	531040.54	0.77	
10517.00	89.700	272.100	9228.02	1712.12	538.72	-1689.54	638435.68	531041.48	1.05	
10612.00	91.100	271.600	9227.35	1807.11	541.79	-1784.49	638340.74	531044.55	1.56	
10707.00	92.500	272.000	9224.37	1902.05	544.77	-1879.39	638245.84	531047.53	1.53	
10802.00	92.000	272.800	9220.64	1996.98	548.75	-1974.23	638151.01	531051.51	0.99	
10898.00	91.100	273.000	9218.04	2092.94	553.60	-2070.07	638055.17	531056.36	0.96	
10993.00	92.500	273.600	9215.06	2187.88	559.07	-2164.87	637960.39	531061.83	1.60	
11088.00	91.300	270.900	9211.91	2282.82	562.79	-2259.73	637865.53	531065.55	3.11	
11183.00	90.900	269.100	9210.08	2377.70	562.79	-2354.71	637770.56	531065.55	1.94	



Actual Wellpath Report

No. 35H AWP - Final

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REFERENCE WELLPATH IDENTIFICATION				
Operator	BOPCO, LP		Slot	No.35H SHL
Area	Eddy County, NM		Well	No.35H
Field	Big Eddy		Wellbore	No. 35H
Facility	Big Eddy Unit DI-9		Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

WELLPATH DATA (238 stations)											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments	
11278.00	90.500	269.000	9208.92	2472.51	561.22	-2449.69	637675.58	531063.98	0.43		
11373.00	91.500	269.700	9207.27	2567.34	560.14	-2544.67	637580.61	531062.90	1.28		
11469.00	91.400	269.600	9204.84	2663.19	559.55	-2640.63	637484.65	531062.31	0.15		
11564.00	90.700	269.500	9203.10	2758.04	558.81	-2735.61	637389.68	531061.57	0.74		
11689.00	92.200	268.300	9199.93	2882.73	556.41	-2860.54	637264.76	531059.17	1.54		
11785.00	92.500	269.300	9196.00	2978.44	554.40	-2956.44	637168.87	531057.16	1.09		
11880.00	91.600	268.400	9192.60	3073.18	552.50	-3051.36	637073.96	531055.26	1.34		
11973.00	90.000	267.500	9191.30	3165.86	549.17	-3144.29	636981.03	531051.93	1.97		
12068.00	89.500	266.300	9191.71	3260.39	544.03	-3239.14	636886.18	531046.79	1.37		
12163.00	91.000	266.600	9191.30	3354.84	538.15	-3333.96	636791.38	531040.91	1.61		
12257.00	89.700	267.700	9190.73	3448.41	533.48	-3427.84	636697.50	531036.24	1.81		
12352.00	87.900	270.300	9192.72	3543.20	531.82	-3522.79	636602.56	531034.58	3.33		
12448.00	88.000	270.900	9196.15	3639.08	532.82	-3618.72	636506.63	531035.59	0.63		
12543.00	90.100	270.100	9197.72	3733.99	533.65	-3713.70	636411.66	531036.41	2.37		
12638.00	93.500	271.200	9194.74	3828.88	534.73	-3808.63	636316.74	531037.49	3.76		
12733.00	91.400	270.400	9190.68	3923.74	536.05	-3903.53	636221.85	531038.81	2.37		
12828.00	91.800	267.700	9188.03	4018.51	534.48	-3998.47	636126.91	531037.24	2.87		
12923.00	92.700	268.200	9184.30	4113.13	531.08	-4093.34	636032.05	531033.84	1.08		
13019.00	92.000	269.800	9180.36	4208.85	529.41	-4189.24	635936.16	531032.17	1.82		
13114.00	94.200	271.100	9175.22	4303.64	530.15	-4284.09	635841.32	531032.92	2.69		
13209.00	92.000	272.000	9170.09	4398.48	532.72	-4378.91	635746.50	531035.48	2.50		
13304.00	91.700	272.700	9167.02	4493.43	536.61	-4473.78	635651.64	531039.37	0.80		
13399.00	92.000	271.500	9163.95	4588.37	540.09	-4568.66	635556.76	531042.85	1.30		
13494.00	93.200	272.200	9159.64	4683.27	543.16	-4663.51	635461.92	531045.92	1.46		
13590.00	92.400	272.000	9154.95	4779.15	546.67	-4759.33	635366.10	531049.43	0.86		
13686.00	89.800	270.100	9153.11	4875.08	548.43	-4855.28	635270.16	531051.19	3.35		
13781.00	90.800	270.100	9152.61	4969.99	548.59	-4950.28	635175.17	531051.35	1.05		
13876.00	91.200	270.300	9150.95	5064.89	548.92	-5045.27	635080.19	531051.69	0.47		
13971.00	89.900	270.200	9150.04	5159.81	549.34	-5140.26	634985.20	531052.10	1.37		
14066.00	90.000	270.400	9150.13	5254.73	549.84	-5235.26	634890.21	531052.60	0.24		
14161.00	91.200	270.700	9149.13	5349.67	550.75	-5330.25	634795.23	531053.51	1.30		
14256.00	90.500	270.000	9147.72	5444.58	551.33	-5425.23	634700.25	531054.09	1.04		
14352.00	90.800	270.800	9146.63	5540.50	552.00	-5521.22	634604.26	531054.76	0.89		
14447.00	91.100	270.500	9145.06	5635.44	553.08	-5616.20	634509.29	531055.84	0.45		
14542.00	92.200	270.700	9142.32	5730.34	554.07	-5711.16	634414.34	531056.83	1.18		
14636.00	91.700	271.300	9139.12	5824.25	555.71	-5805.09	634320.42	531058.47	0.83		
14731.00	91.300	270.300	9136.64	5919.17	557.04	-5900.05	634225.47	531059.80	1.13		
14826.00	91.500	269.500	9134.32	6014.03	556.87	-5995.02	634130.51	531059.63	0.87		
14922.00	92.200	268.300	9131.86	6089.84	555.41	-6070.96	634034.57	531058.17	1.83		
14997.00	91.100	269.800	9129.13	6184.61	553.84	-6165.90	633939.63	531056.60	1.96		
15092.00	90.700	271.400	9127.63	6279.54	554.83	-6260.88	633844.66	531057.59	1.74		
15187.00	90.200	271.800	9126.89	6374.52	557.48	-6355.84	633749.70	531060.25	0.67		
15282.00	90.200	270.700	9126.56	6469.49	559.56	-6450.82	633654.74	531062.32	1.16		
15378.00	90.600	271.500	9125.89	6565.46	561.40	-6546.80	633559.78	531064.16	0.93		
15471.00	90.400	271.700	9125.07	6658.44	564.00	-6639.76	633464.81	531066.76	0.30		



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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
Facility	Big Eddy Unit D1-9	Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

WELLPATH DATA (238 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
15566.00	89.900	272.200	9124.83	6753.43	567.23	-6734.70	633390.87	531069.99	0.74	
15661.00	89.200	272.000	9125.57	6848.43	570.71	-6829.63	633295.95	531073.47	0.77	
15756.00	89.100	270.400	9126.98	6943.39	572.70	-6924.60	633200.99	531075.46	1.69	
15852.00	89.700	269.100	9127.99	7039.26	572.28	-7020.59	633105.00	531075.04	1.49	
15947.00	90.100	267.100	9128.15	7133.97	569.13	-7115.53	633010.07	531071.89	2.15	
16042.00	90.600	265.500	9127.57	7228.39	563.00	-7210.33	632915.28	531065.76	1.76	
16137.00	92.300	264.400	9125.17	7322.51	554.64	-7304.93	632820.69	531057.40	2.13	
16232.00	91.900	266.300	9121.69	7416.69	546.95	-7399.55	632726.07	531049.71	2.04	
16327.00	92.100	270.800	9118.37	7511.37	544.54	-7494.43	632631.19	531047.31	4.74	
16422.00	92.000	271.900	9114.97	7606.29	546.78	-7589.34	632536.29	531049.54	1.16	
16517.00	92.100	272.300	9111.57	7701.22	550.26	-7684.22	632441.42	531053.02	0.43	
16612.00	92.200	270.100	9108.01	7796.12	552.25	-7779.13	632346.52	531055.01	2.32	
16707.00	92.000	269.900	9104.53	7890.96	552.25	-7874.06	632251.59	531055.01	0.30	
16803.00	92.100	269.400	9101.09	7986.77	551.66	-7970.00	632156.66	531054.42	0.53	
16897.00	92.100	268.400	9097.65	8080.51	549.86	-8063.92	632061.75	531052.62	1.06	
16991.00	92.300	267.300	9094.04	8174.12	546.33	-8157.78	631967.89	531049.10	1.19	
17086.00	92.100	267.700	9090.39	8268.68	542.19	-8252.62	631873.06	531044.96	0.47	
17181.00	91.500	267.900	9087.41	8363.30	538.55	-8347.50	631778.19	531041.31	0.67	
17281.00	91.500	268.400	9084.79	8462.97	535.32	-8447.42	631678.28	531038.08	0.50	
17376.00	91.600	271.000	9082.22	8557.80	534.82	-8542.37	631583.33	531037.59	2.74	
17471.00	92.600	271.100	9078.74	8652.70	536.56	-8637.29	631488.42	531039.33	1.06	
17566.00	92.900	270.900	9074.18	8747.56	538.22	-8732.17	631393.55	531040.98	0.38	
17661.00	93.100	270.300	9069.21	8842.37	539.21	-8827.03	631298.69	531041.98	0.66	
17756.00	92.200	269.700	9064.82	8937.17	539.21	-8921.93	631203.80	531041.98	1.14	
17851.00	91.000	269.300	9062.17	9031.99	538.38	-9016.89	631108.85	531041.15	1.33	
17946.00	91.300	269.900	9060.26	9126.84	537.72	-9111.86	631013.88	531040.48	0.71	
18041.00	91.500	270.400	9057.94	9221.73	537.97	-9206.83	630918.91	531040.73	0.57	
18136.00	91.800	270.900	9055.29	9316.64	539.05	-9301.79	630823.97	531041.81	0.61	
18231.00	91.400	271.500	9052.55	9411.57	541.04	-9396.73	630729.03	531043.80	0.76	
18326.00	90.400	271.900	9051.06	9506.55	543.85	-9491.67	630634.09	531046.62	1.13	
18421.00	90.300	272.200	9050.48	9601.54	547.25	-9586.61	630539.16	531050.01	0.33	
18516.00	90.300	272.300	9049.28	9696.54	550.98	-9681.54	630444.24	531053.74	0.11	
18611.00	90.600	272.300	9049.23	9791.53	554.79	-9776.46	630349.33	531057.56	0.32	
18706.00	90.600	272.400	9048.24	9886.53	558.69	-9871.37	630254.42	531061.45	0.11	
18801.00	90.500	272.200	9047.33	9981.52	562.50	-9966.29	630159.51	531065.26	0.24	
18896.00	90.300	270.700	9046.66	10076.50	564.91	-10061.26	630064.55	531067.67	1.59	
18991.00	90.300	270.000	9046.17	10171.42	565.49	-10156.25	629969.56	531068.25	0.74	
19086.00	90.400	268.500	9045.59	10266.26	564.24	-10251.24	629874.58	531067.00	1.58	
19181.00	91.200	268.200	9044.26	10360.99	561.51	-10346.19	629779.64	531064.27	0.90	
19276.00	91.300	268.700	9042.19	10455.72	558.94	-10441.13	629684.70	531061.70	0.54	
19371.00	91.200	268.600	9040.11	10550.47	556.70	-10536.08	629589.76	531059.46	0.15	
19466.00	91.300	268.600	9038.04	10645.22	554.38	-10631.03	629494.82	531057.14	0.11	
19561.00	91.800	268.500	9035.47	10739.95	551.98	-10725.97	629399.89	531054.74	0.54	
19656.00	92.400	268.400	9031.99	10834.64	549.41	-10820.87	629304.99	531052.17	0.64	
19750.00	92.700	269.100	9027.81	10928.33	547.36	-10914.75	629211.12	531050.12	0.81	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.35H SHL
Area	Eddy County, NM	Well	No.35H
Field	Big Eddy	Wellbore	No. 35H
Facility	Big Eddy Unit D1-9	Sidetrack from	No. 35H (Pilot) AWB at 328083989501312370000.00 MD

WELLPATH DATA (238 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
19844.00	92.700	269.000	9023.38	11022.05	545.80	-11008.64	629117.24	531048.57	0.11	
19939.00	91.500	269.400	9019.90	11116.82	544.48	-11103.56	629022.32	531047.24	1.33	
20034.00	91.900	269.700	9017.08	11211.64	543.73	-11198.52	628927.37	531046.49	0.53	
20129.00	91.400	269.300	9014.35	11306.47	542.90	-11293.47	628832.42	531045.67	0.67	
20224.00	90.900	269.600	9012.44	11401.30	541.99	-11388.45	628737.45	531044.75	0.61	
20319.00	90.800	269.300	9011.03	11496.15	541.08	-11483.43	628642.48	531043.84	0.33	
20414.00	91.200	268.700	9009.37	11590.95	539.42	-11578.40	628547.51	531042.18	0.76	
20507.00	91.100	268.300	9007.51	11683.69	536.99	-11671.35	628454.57	531039.75	0.44	
20602.00	90.600	268.300	9006.10	11778.42	534.17	-11766.30	628359.63	531036.93	0.53	
20697.00	91.300	268.000	9004.52	11873.12	531.10	-11861.24	628264.70	531033.87	0.80	
20792.00	91.400	267.800	9002.28	11967.78	527.62	-11956.15	628169.80	531030.39	0.24	
20853.00	91.700	268.200	9000.63	12028.56	525.50	-12017.09	628108.86	531028.26	0.82	
20893.00	91.700	268.200	8999.45	12068.42	524.24	-12057.05	628068.90	531027.00	0.00	

TARGETS										
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
BEU D19 No.35H PBHL		8954.00	544.74	-12062.65	628063.30	531047.50	32°27'33.398"N	103°55'05.295"W	point	
BEU D19 No.35H PBHL (Rev-2)		9006.00	544.74	-12062.65	628063.30	531047.50	32°27'33.398"N	103°55'05.295"W	point	
BEU D19 No.35H PBHL (Rev-1)		9012.00	544.74	-12062.65	628063.30	531047.50	32°27'33.398"N	103°55'05.295"W	point	

WELLPATH COMPOSITION - Ref Wellbore: No. 35H - Ref Wellpath: No. 35H AWP - Final				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.00	231.00	Generic gyro - northseeking (Standard)	Gyrodata Gyros <100-231>	No. 35H (Pilot) AWB
231.00	8183.00	NaviTrak (Standard)	BHI Navitrak MWD <442-10698>	No. 35H (Pilot) AWB
8183.00	20853.00	NaviTrak (Standard)	BHI MWD <8234-20853>	No. 35H
20853.00	20893.00	Blind Drilling (std)	Projection to bit	No. 35H