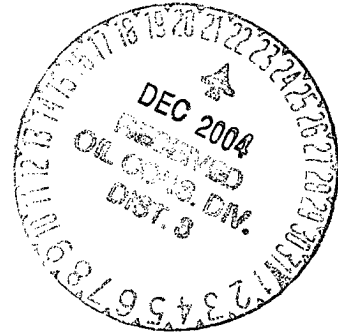


Schlumberger

6501 S. Fiddler's Green Circle, Suite 400
Greenwood Village, CO 80111
(303) 486-3200



SUB-SURFACE SURVEY CERTIFICATION REPORT

BP America Inc.
Company

30-045-32418

December 7, 2004
Date

Lease

Hughes LS 1M
Well Name

San Juan Co., New Mexico
County/State

Survey Depths

175 to 2353 ft

Type of Survey

Measurement While Drilling Surveys

Survey Depths

2353 to 2406 ft

Type of Survey

Projection to Bit

Survey Depths

to ft

Type of Survey

Site Supervisor

Paul Curtis

The data submitted in this report conforms to the standards and procedures as set forth by Schlumberger. This report represents a true and correct directional wellbore survey based on original survey data obtained at the well site.

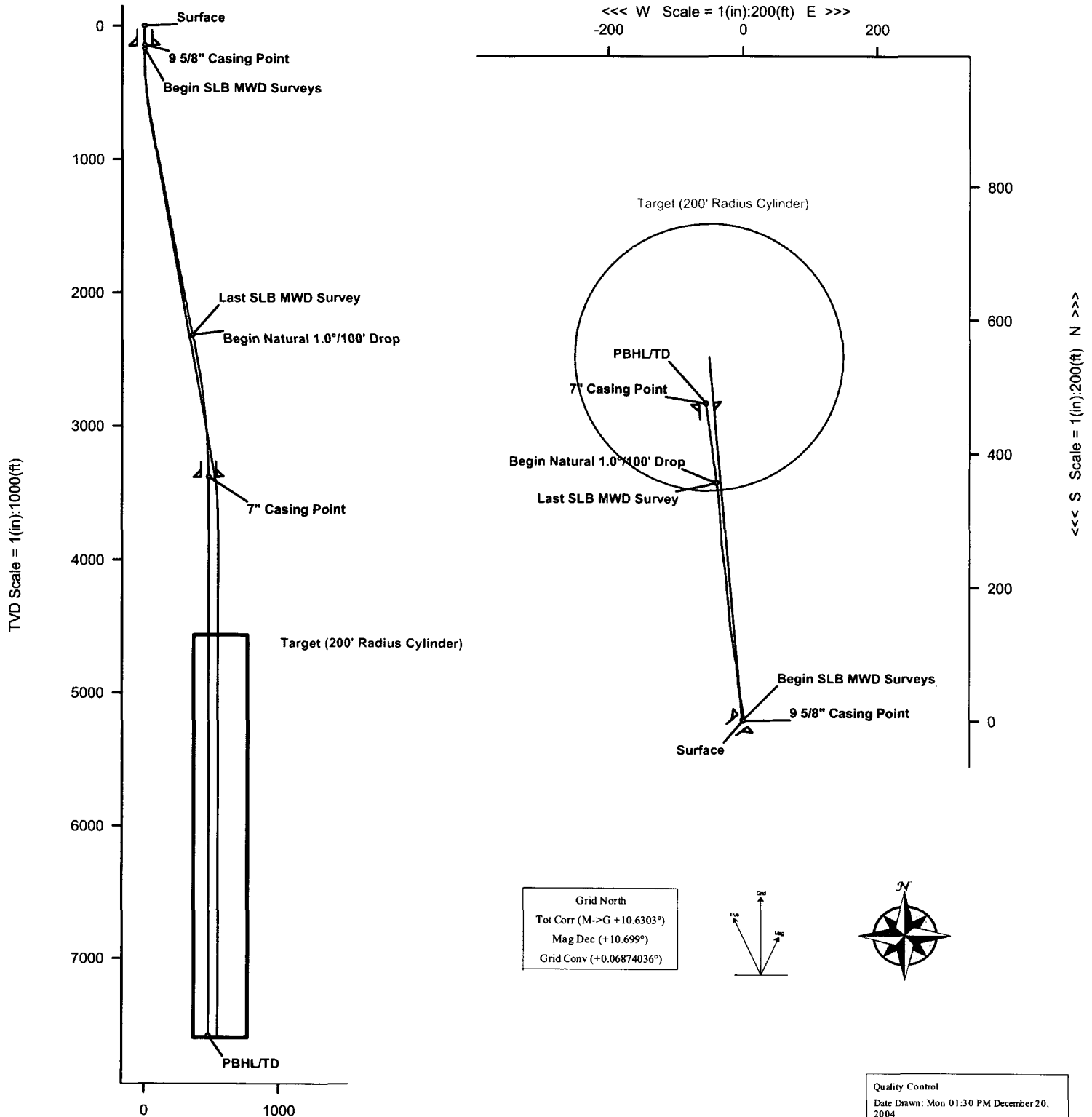
John O'Keefe
Drilling Engineer

This document has been subscribed and affirmed, or sworn before me in the county of Arapahoe in the state of Colorado, this 7th day of December, 2004.

Christine J. Nelson My commission expires: 12-12-05

Surface loc. 1855/south 1250/west 19,29N,8W
BHL 2334/S 1195/west

Well Hughes LS 1M			Field San Juan County, New Mexico			Rig Aztec 184		
Magnetic Parameters Model BGGM 2004 Dip 63.621° Mag Dec +10.699°			Surface Location NADE83 New Mexico State Planes, Western Zone, US Feet Latitude N36 42 30.000 Longitude W107 43 6.000 Northing 2077168.97 FUS Easting 2756800.44 FUS Grid Convergence +0.06874036° Scale Factor 0.9999180000			Miscellaneous Borehole Original Hole Plan EOW10H TVD Reference Survey Date RKB (6469.00 ft above MSL) December 20, 2004		



Quality Control
Date Drawn: Mon 01:30 PM December 20, 2004
Drawn by: Jim Wimberg
Checked by:
Client OK:



Hughes LS 1M Final Surveys

Report Date: December 20, 2004 Client: BP America, Inc. Field: NM, San Juan County (NAD 83 WZ) 2004 Structure / Slot: BP 19-29N-8W (Hughes LS 1M)(No Plat) / Hughes LS 1M Well: Hughes LS 1M Borehole: Original Hole UWI/API#: Survey Name / Date: EOW10H / December 20, 2004 Tort / AHD / DDI / ERD ratio: 33.280° / 480.26 ft / 4.206 / 0.063 Grid Coordinate System: NAD83 New Mexico State Planes, Western Zone, US Feet Location Lat/Long: N 36 42 30.000, W 107 43 6.000 Location Grid N/E Y/X: N 2077168.969 ftUS, E 2756800.436 ftUS Grid Convergence Angle: +0.06874036° Grid Scale Factor: 0.99991797	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 354.760° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 6469.0 ft relative to MSL Sea Bed / Ground Level Elevation: 6455.000 ft relative to MSL Magnetic Declination: 10.699° Total Field Strength: 51387.900 nT Magnetic Dip: 63.621° Declination Date: December 07, 2004 Magnetic Declination Model: BGGM 2004 North Reference: Grid North Total Corr Mag North -> Grid North: +10.630° Local Coordinates Referenced To: Well Head
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Surface	0.00	0.00	51.59	0.00	0.00	0.00	0.00	0.00	2077168.97	2756800.44	N 36 42 30.000	W 107 43 6.000
9 5/8" Casing Point	146.00	0.49	51.59	146.00	0.34	0.39	0.49	0.34	2077169.36	2756800.93	N 36 42 30.004	W 107 43 5.994
Begin SLB MWD Surveys	175.00	0.59	51.59	175.00	0.49	0.56	0.71	0.34	2077169.53	2756801.14	N 36 42 30.006	W 107 43 5.991
	211.00	1.04	56.19	210.99	0.75	0.86	1.12	1.26	2077169.83	2756801.56	N 36 42 30.008	W 107 43 5.986
	241.00	1.58	31.35	240.99	1.21	1.36	1.56	2.57	2077170.33	2756802.00	N 36 42 30.013	W 107 43 5.981
	274.00	1.94	12.64	273.97	2.11	2.30	1.92	2.04	2077171.26	2756802.36	N 36 42 30.023	W 107 43 5.976
	304.00	2.42	4.43	303.95	3.22	3.42	2.08	1.90	2077172.39	2756802.52	N 36 42 30.034	W 107 43 5.974
	334.00	3.21	355.40	333.91	4.68	4.89	2.06	3.01	2077173.86	2756802.50	N 36 42 30.048	W 107 43 5.975
	363.00	3.91	356.85	362.86	6.48	6.69	1.95	2.43	2077175.66	2756802.38	N 36 42 30.066	W 107 43 5.976
	393.00	4.52	349.80	392.77	8.68	8.87	1.68	2.66	2077177.84	2756802.12	N 36 42 30.088	W 107 43 5.979
	428.00	5.07	350.73	427.65	11.60	11.76	1.19	1.59	2077180.72	2756801.62	N 36 42 30.116	W 107 43 5.985
	459.00	5.78	352.30	458.51	14.52	14.65	0.76	2.34	2077183.62	2756801.19	N 36 42 30.145	W 107 43 5.990
	491.00	6.32	352.56	490.33	17.89	18.00	0.31	1.69	2077186.97	2756800.75	N 36 42 30.178	W 107 43 5.996
	523.00	7.15	350.41	522.11	21.64	21.71	-0.25	2.71	2077190.68	2756800.19	N 36 42 30.215	W 107 43 6.003
	554.00	7.44	349.64	552.86	25.56	25.58	-0.93	0.99	2077194.55	2756799.51	N 36 42 30.253	W 107 43 6.011
	585.00	8.22	348.54	583.57	29.76	29.73	-1.73	2.56	2077198.70	2756798.71	N 36 42 30.294	W 107 43 6.021
	617.00	9.26	346.55	615.20	34.59	34.48	-2.78	3.38	2077203.44	2756797.65	N 36 42 30.341	W 107 43 6.034
	648.00	9.41	347.48	645.79	39.57	39.38	-3.91	0.69	2077208.34	2756796.52	N 36 42 30.389	W 107 43 6.047
	712.00	10.83	351.47	708.79	50.76	50.43	-5.94	2.47	2077219.40	2756794.50	N 36 42 30.499	W 107 43 6.072
	776.00	10.40	355.41	771.70	62.54	62.14	-7.29	1.32	2077231.10	2756793.14	N 36 42 30.614	W 107 43 6.089
	839.00	10.19	353.74	833.69	73.80	73.34	-8.36	0.58	2077242.31	2756792.08	N 36 42 30.725	W 107 43 6.102
	902.00	10.43	352.79	895.67	85.07	84.54	-9.68	0.47	2077253.50	2756790.76	N 36 42 30.836	W 107 43 6.118
	964.00	10.65	350.51	956.62	96.39	95.76	-11.33	0.76	2077264.72	2756789.11	N 36 42 30.947	W 107 43 6.138
	1027.00	10.87	351.42	1018.52	108.13	107.37	-13.18	0.44	2077276.33	2756787.26	N 36 42 31.062	W 107 43 6.160
	1091.00	10.77	351.22	1081.38	120.12	119.25	-14.99	0.17	2077288.21	2756785.45	N 36 42 31.179	W 107 43 6.182
	1155.00	10.92	350.54	1144.23	132.14	131.14	-16.90	0.31	2077300.10	2756783.54	N 36 42 31.297	W 107 43 6.206
	1218.00	10.76	354.60	1206.11	143.97	142.88	-18.43	1.24	2077311.84	2756782.01	N 36 42 31.413	W 107 43 6.224
	1282.00	10.61	355.56	1269.00	155.83	154.70	-19.45	0.36	2077323.66	2756780.99	N 36 42 31.530	W 107 43 6.237
	1344.00	10.48	354.66	1329.95	167.18	166.01	-20.42	0.34	2077334.96	2756780.02	N 36 42 31.642	W 107 43 6.248
	1408.00	10.74	353.56	1392.86	178.96	177.73	-21.63	0.51	2077346.68	2756778.81	N 36 42 31.758	W 107 43 6.263
	1471.00	10.86	354.36	1454.74	190.77	189.47	-22.87	0.30	2077358.42	2756777.57	N 36 42 31.874	W 107 43 6.278
	1535.00	10.91	354.97	1517.59	202.85	201.50	-23.99	0.20	2077370.45	2756776.45	N 36 42 31.993	W 107 43 6.292
	1598.00	10.65	355.28	1579.48	214.63	213.24	-24.99	0.42	2077382.19	2756775.44	N 36 42 32.109	W 107 43 6.304
	1663.00	10.72	352.30	1643.35	226.68	225.22	-26.30	0.86	2077394.17	2756774.14	N 36 42 32.227	W 107 43 6.320
	1726.00	10.55	351.69	1705.27	238.29	236.73	-27.92	0.32	2077405.68	2756772.52	N 36 42 32.341	W 107 43 6.339
	1789.00	10.72	353.21	1767.19	249.91	248.26	-29.44	0.52	2077417.21	2756771.00	N 36 42 32.455	W 107 43 6.358
	1852.00	10.71	353.40	1829.09	261.62	259.89	-30.81	0.06	2077428.84	2756769.63	N 36 42 32.570	W 107 43 6.375
	1916.00	11.12	357.60	1891.93	273.73	271.97	-31.75	1.40	2077440.91	2756768.69	N 36 42 32.690	W 107 43 6.386
	1980.00	11.08	357.12	1954.74	286.04	284.27	-32.32	0.16	2077453.22	2756768.12	N 36 42 32.811	W 107 43 6.393
	2042.00	11.04	356.53	2015.59	297.92	296.15	-32.98	0.19	2077465.09	2756767.46	N 36 42 32.929	W 107 43 6.401
	2104.00	11.36	356.58	2076.41	309.96	308.17	-33.70	0.52	2077477.11	2756766.74	N 36 42 33.048	W 107 43 6.409
	2166.00	10.88	354.63	2137.24	321.91	320.09	-34.61	0.98	2077489.03	2756765.83	N 36 42 33.165	W 107 43 6.420
	2227.00	11.06	355.69	2197.13	333.52	331.66	-35.59	0.44	2077500.60	2756764.85	N 36 42 33.280	W 107 43 6.432
	2289.00	11.32	352.07	2257.95	345.55	343.61	-36.88	1.21	2077512.55	2756763.56	N 36 42 33.398	W 107 43 6.448
Last SLB MWD Survey	2353.00	11.79	352.12	2320.65	358.35	356.31	-38.64	0.73	2077525.25	2756761.80	N 36 42 33.524	W 107 43 6.469
Begin Natural 1.0°/100' Drop	2353.01	11.79	352.12	2320.66	358.35	356.31	-38.64	0.00	2077525.25	2756761.80	N 36 42 33.524	W 107 43 6.469
	3424.99	1.10	354.76	3384.32	478.39	475.39	-54.64	1.00	2077644.32	2756745.80	N 36 42 34.701	W 107 43 6.664

7" Casing Point	3425.00	1.10	354.76	3384.33	478.39	475.39	-54.64	3.00	2077644.32	2756745.80	N 36 42 34.701	W 107 43 6.664
	3461.60	0.00	354.76	3420.93	478.74	475.74	-54.67	3.00	2077644.67	2756745.77	N 36 42 34.705	W 107 43 6.664
Client TD	7626.00	0.00	354.76	7585.33	478.74	475.74	-54.67	0.00	2077644.67	2756745.77	N 36 42 34.705	W 107 43 6.664

Survey Type: Raw Proposal

Survey Error Model: SLB ISCWSA version 21 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

<u>MD From (ft)</u>	<u>MD To (ft)</u>	<u>EQU Freq</u>	<u>Survey Tool Type</u>
0.00	2353.00	1/100.00 ft	SLB_MWD-STD
2353.00	7626.00	1/100.00 ft	SLB_BLIND