



Florance T123S Final Surveys Report

Report Date: February 10, 2005	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: BP America Inc.	Vertical Section Azimuth: 118.360°
Field: NM, San Juan County (NAD 83 WZ) 2004	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: BP 03E-29N-8W (Florance T123S) / Florance T123S	TVD Reference Datum: RKB
Well: Florance T123S	TVD Reference Elevation: 6314.5 ft relative to MSL
Borehole: Original Hole	Sea Bed / Ground Level Elevation: 6304.000 ft relative to MSL
UWI/API#:	Magnetic Declination: 10.666°
Survey Name / Date: Florance T123S Final Surveys / February 8, 2005	Total Field Strength: 51407.302 nT
Tort / AHD / DDI / ERD ratio: 42.411° / 35535203162.43 ft / 12.211 / 11316911.534	Magnetic Dip: 63.668°
Grid Coordinate System: NAD83 New Mexico State Planes, Western Zone, US Feet	Declination Date: February 08, 2005
Location Lat/Long: N 36 45 23.000, W 107 40 10.000	Magnetic Declination Model: BGM 2004
Location Grid N/E Y/X: N 2094684.576 ftUS, E 2771100.814 ftUS	North Reference: Grid North
Grid Convergence Angle: +0.09807357°	Total Corr Mag North -> Grid North: +10.568°
Grid Scale Factor: 0.99991930	Local Coordinates Referenced To: Well Head

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	0.00	0.00	0.00	0.00	0.00	0.00	2094684.58	2771100.81	N 36 45 23.000	W 107 40 10.000
Begin SLB MWD Surveys	165.00	0.10	240.03	165.00	-0.08	-0.07	-0.12	0.06	2094684.50	2771100.69	N 36 45 22.999	W 107 40 10.002
	225.00	0.98	141.60	225.00	0.37	-0.50	0.15	1.67	2094684.08	2771100.96	N 36 45 22.995	W 107 40 9.998
	285.00	2.72	141.20	284.96	2.15	-2.01	1.36	2.90	2094682.56	2771102.17	N 36 45 22.980	W 107 40 9.983
	344.00	4.49	131.63	343.84	5.69	-4.64	3.96	3.16	2094679.94	2771104.78	N 36 45 22.954	W 107 40 9.951
	405.00	6.27	128.15	404.57	11.30	-8.28	8.37	2.97	2094676.30	2771109.18	N 36 45 22.918	W 107 40 9.897
	464.00	7.34	123.20	463.16	18.23	-12.34	14.06	2.07	2094672.24	2771114.87	N 36 45 22.878	W 107 40 9.828
	525.00	8.83	118.30	523.55	26.79	-16.69	21.44	2.69	2094667.89	2771122.25	N 36 45 22.835	W 107 40 9.737
	583.00	10.51	116.14	580.72	36.53	-21.13	30.11	2.96	2094663.45	2771130.92	N 36 45 22.791	W 107 40 9.630
	644.00	11.96	113.40	640.55	48.39	-26.09	40.90	2.53	2094658.49	2771141.71	N 36 45 22.741	W 107 40 9.498
	703.00	13.62	111.79	698.09	61.38	-31.10	52.96	2.88	2094653.48	2771153.77	N 36 45 22.692	W 107 40 9.350
	763.00	16.42	114.33	756.03	76.86	-37.22	67.25	4.79	2094647.36	2771168.06	N 36 45 22.631	W 107 40 9.174
	829.00	18.68	118.41	818.96	96.74	-46.09	85.05	3.90	2094638.49	2771185.86	N 36 45 22.543	W 107 40 8.956
	893.00	21.29	117.35	879.10	118.61	-56.31	104.39	4.12	2094628.28	2771205.20	N 36 45 22.441	W 107 40 8.718
	957.00	23.91	118.84	938.18	143.20	-67.90	126.08	4.19	2094616.68	2771226.88	N 36 45 22.326	W 107 40 8.452
	1021.00	24.01	119.22	996.67	169.19	-80.51	148.80	0.29	2094604.07	2771249.60	N 36 45 22.201	W 107 40 8.173
	1085.00	24.06	119.57	1055.12	195.25	-93.31	171.51	0.24	2094591.28	2771272.31	N 36 45 22.074	W 107 40 7.894
	1148.00	24.58	118.83	1112.53	221.19	-105.96	194.16	0.96	2094578.62	2771294.96	N 36 45 21.949	W 107 40 7.616
	1212.00	24.90	118.75	1170.65	247.98	-118.86	217.63	0.50	2094565.72	2771318.43	N 36 45 21.821	W 107 40 7.328
	1276.00	24.55	119.41	1228.79	274.74	-131.87	241.03	0.70	2094552.71	2771341.82	N 36 45 21.692	W 107 40 7.041
	1340.00	24.86	118.23	1286.93	301.49	-144.77	264.46	0.91	2094539.82	2771365.26	N 36 45 21.564	W 107 40 6.753
	1404.00	24.79	117.77	1345.01	328.36	-157.38	288.19	0.32	2094527.21	2771388.98	N 36 45 21.439	W 107 40 6.462
	1468.00	25.01	117.26	1403.07	355.30	-169.83	312.09	0.48	2094514.76	2771412.88	N 36 45 21.315	W 107 40 6.169
	1532.00	25.06	117.38	1461.05	382.38	-182.26	336.15	0.11	2094502.33	2771436.94	N 36 45 21.192	W 107 40 5.873
	1596.00	25.04	115.81	1519.03	409.46	-194.39	360.38	1.04	2094490.20	2771461.16	N 36 45 21.072	W 107 40 5.576
	1660.00	23.90	117.94	1577.28	435.96	-206.36	384.03	2.25	2094478.23	2771484.81	N 36 45 20.953	W 107 40 5.285
	1723.00	23.26	120.20	1635.03	461.15	-218.60	406.05	1.76	2094466.00	2771506.83	N 36 45 20.832	W 107 40 5.015
	1786.00	24.49	120.68	1692.63	486.64	-231.52	428.03	1.98	2094453.08	2771528.81	N 36 45 20.704	W 107 40 4.745
	1849.00	25.75	119.85	1749.67	513.36	-244.99	451.13	2.08	2094439.60	2771551.91	N 36 45 20.570	W 107 40 4.462
	1910.00	25.60	119.31	1804.65	539.79	-258.04	474.12	0.46	2094426.56	2771574.89	N 36 45 20.440	W 107 40 4.179
	1973.00	25.70	119.33	1861.44	567.05	-271.39	497.90	0.16	2094413.20	2771598.67	N 36 45 20.308	W 107 40 3.887
	2037.00	25.23	119.91	1919.23	594.56	-284.99	521.82	0.83	2094399.61	2771622.59	N 36 45 20.173	W 107 40 3.594
	2099.00	25.41	119.55	1975.27	621.07	-298.14	544.84	0.38	2094386.46	2771645.61	N 36 45 20.043	W 107 40 3.311
	2162.00	25.32	118.62	2032.20	648.06	-311.26	568.43	0.65	2094373.34	2771669.20	N 36 45 19.913	W 107 40 3.022
	2226.00	25.70	118.27	2089.96	675.62	-324.39	592.66	0.64	2094360.21	2771693.43	N 36 45 19.782	W 107 40 2.724
	2289.00	25.81	119.14	2146.70	702.99	-337.54	616.67	0.62	2094347.07	2771717.44	N 36 45 19.652	W 107 40 2.429
	2353.00	26.26	118.36	2204.20	731.08	-351.05	641.30	0.88	2094333.56	2771742.06	N 36 45 19.518	W 107 40 2.127
	2417.00	26.34	118.81	2261.58	759.44	-364.62	666.20	0.34	2094319.99	2771766.96	N 36 45 19.383	W 107 40 1.821
	2480.00	26.62	119.19	2317.97	787.53	-378.23	690.77	0.52	2094306.37	2771791.53	N 36 45 19.248	W 107 40 1.520
	2576.00	26.49	119.23	2403.84	830.44	-399.18	728.23	0.14	2094285.43	2771828.98	N 36 45 19.041	W 107 40 1.060
	2671.00	26.08	121.09	2489.02	872.49	-420.31	764.60	0.97	2094264.30	2771865.35	N 36 45 18.831	W 107 40 0.613
	2766.00	25.60	123.17	2574.52	913.80	-442.32	799.67	1.08	2094242.29	2771900.41	N 36 45 18.613	W 107 40 0.183
	2858.00	25.43	124.66	2657.55	953.24	-464.43	832.55	0.72	2094220.19	2771933.30	N 36 45 18.394	W 107 39 59.779
	2953.00	24.63	127.39	2743.63	993.06	-488.05	865.06	1.48	2094196.57	2771965.80	N 36 45 18.159	W 107 39 59.380
Last SLB MWD Survey	2985.00	23.70	128.65	2772.83	1005.98	-496.12	875.38	3.32	2094188.50	2771976.12	N 36 45 18.080	W 107 39 59.254
Projection to Bit	3037.00	23.70	128.65	2820.44	1026.54	-509.17	891.70	0.00	2094175.45	2771992.44	N 36 45 17.950	W 107 39 59.053
Projection to TD	3383.00	23.70	128.65	3140.01	1164.57	-596.78	1001.26	0.00	2094087.84	2772101.99	N 36 45 17.082	W 107 39 57.709

Survey Type: Definitive Survey

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

Surveying Prog:

MD From (ft)

0.00

2985.00

MD To (ft)

2985.00

3386.00

EQV Freq Survey Tool Type

Act-Slts SLB_MWD-STD

Act-Slts SLB_BLIND+TREND

Well Florance T123S API# - 3004532365			Field San Juan County, New Mexico			Req Aztec 507		
Magnetic Parameters Model BGGM 2004 Dip 63.668° Date February 8, 2005 Mag Dec +10.666° Field Strength 51407.3 nT			Surface Location NADE3 New Mexico State Planes, Western Zone, US Feet Latitude N36 45 23.000 Northing 2094684.58 NUS Grid Convergence +0.09607357° Longitude W107 40 10.000 Easting 2771100.81 NUS Scale Factor 0.996919000			Miscellaneous Borehole Original Hole TVD Reference RKB (6314.50 ft above MSL) Plan Florance T123S R0 jnk 05-Oct-04 Survey Date February 10, 2005		

