

Scientific Drilling International

Survey Report

Company: BP/ARCO Field: Brushy Draw Site: Eddy County, NM Well: West Brushy Draw 4 Fed #3 Wellpath: DH - Job #32K0302087	Date: 4/3/2002 Co-ordinate(NE) Reference: Site: Eddy County, NM, True North Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level Section (VS) Reference: Well (0.0E, 0.0N, 0.0Azi) Survey Calculation Method: Minimum Curvature	Page: 1
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Survey: 3/10/02-3/18/02 MWD 675'-3145'	Start Date: 4/3/2002 Engineer: Leonard Hart
Company: SDI w/MWD Tool: MWD	

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
675.0	4.01	318.19	674.5	16.9	16.9	-10.1	19.6	329.05	0.00
737.0	1.70	300.60	736.4	18.9	18.9	-12.3	22.6	326.90	3.94
768.0	1.60	282.50	767.4	19.3	19.3	-13.2	23.3	325.66	1.70
828.0	1.90	290.90	827.3	19.8	19.8	-14.9	24.8	323.02	0.66
888.0	1.30	290.50	887.3	20.4	20.4	-16.5	26.2	321.06	1.00
951.0	0.80	255.60	950.3	20.5	20.5	-17.6	27.0	319.45	1.25
1010.0	0.50	240.50	1009.3	20.3	20.3	-18.2	27.3	318.14	0.58
1072.0	1.10	250.60	1071.3	20.0	20.0	-19.0	27.6	316.44	0.99
1135.0	1.50	279.00	1134.3	19.9	19.9	-20.4	28.5	314.33	1.18
1196.0	0.40	316.00	1195.3	20.2	20.2	-21.3	29.3	313.44	1.98
1258.0	0.50	250.00	1257.3	20.2	20.2	-21.7	29.7	312.99	0.80
1321.0	0.50	247.70	1320.3	20.0	20.0	-22.2	29.9	312.04	0.03
1383.0	1.00	282.80	1382.3	20.1	20.1	-23.0	30.5	311.09	1.06
1445.0	0.20	347.00	1444.3	20.3	20.3	-23.6	31.1	310.73	1.50
1539.0	0.40	185.60	1538.3	20.1	20.1	-23.6	31.0	310.42	0.63
1603.0	0.40	219.00	1602.3	19.7	19.7	-23.8	30.9	309.66	0.36
1664.0	0.40	243.30	1663.3	19.5	19.5	-24.1	31.0	308.91	0.28
1726.0	0.90	194.60	1725.2	18.9	18.9	-24.4	30.9	307.72	1.13
1788.0	0.30	234.30	1787.2	18.3	18.3	-24.7	30.7	306.59	1.12
1850.0	0.30	220.10	1849.2	18.1	18.1	-24.9	30.8	306.00	0.12
1912.0	0.60	204.60	1911.2	17.7	17.7	-25.2	30.8	305.11	0.52
1975.0	0.30	113.10	1974.2	17.3	17.3	-25.1	30.5	304.57	1.08
2037.0	0.30	24.30	2036.2	17.4	17.4	-24.9	30.4	304.93	0.68
2111.0	0.50	300.60	2110.2	17.8	17.8	-25.1	30.8	305.24	0.75
2163.0	1.00	341.50	2162.2	18.3	18.3	-25.5	31.4	305.69	1.35
2225.0	0.90	225.90	2224.2	18.5	18.5	-26.0	31.9	305.40	2.59
2288.0	0.80	196.20	2287.2	17.7	17.7	-26.5	31.8	303.78	0.71
2351.0	0.20	231.70	2350.2	17.2	17.2	-26.7	31.7	302.83	1.03
2446.0	0.60	220.10	2445.2	16.7	16.7	-27.1	31.9	301.66	0.43
2509.0	0.80	141.80	2508.2	16.1	16.1	-27.1	31.5	300.79	1.42
2572.0	0.90	180.30	2571.2	15.3	15.3	-26.8	30.9	299.71	0.90
2635.0	0.80	196.40	2634.2	14.4	14.4	-26.9	30.5	298.10	0.41
2698.0	1.00	175.10	2697.2	13.4	13.4	-27.0	30.1	296.40	0.61
2792.0	0.10	181.30	2791.2	12.5	12.5	-26.9	29.7	294.91	0.96
2824.0	0.20	194.30	2823.2	12.4	12.4	-26.9	29.7	294.75	0.33
2887.0	0.90	173.40	2886.2	11.8	11.8	-26.9	29.4	293.72	1.14
2949.0	0.50	122.70	2948.2	11.2	11.2	-26.6	28.9	292.80	1.13
3011.0	0.50	125.20	3010.2	10.9	10.9	-26.2	28.4	292.59	0.04
3073.0	0.80	139.60	3072.2	10.4	10.4	-25.7	27.7	292.06	0.55
3111.0	0.80	139.60	3110.2	10.0	10.0	-25.3	27.2	291.54	0.00
3145.0	0.80	139.60	3144.2	9.6	9.6	-25.0	26.8	291.07	0.00