

**EXLOG****GEMDAS LOGGING REPORT NO. 39**

COMPANY Amoco Aust. WELL Tilana No.1  
 DATE 18 October 1985 TIME 0500 Hrs  
 DEPTH 3358.5m / 11019 ft LAST REPORT DEPTH 3311.7m; 10865 ft  
 RIG OPERATIONS Drilling 12.25" hole section - Volcanics  
 REPORT BY Gary Hodge REPORT RECEIVED BY S. Maxwell (OPERATOR)

**DRILLING REPORT**

Bit No.: 17 Type: Smith F2 Size: 12.25" Jets: 3x14 (1 blocked)  
 On Bit: Footage: 46.8m: 154' Hours: 15.7 ROP: 3.0m/hr: 9.8% WOB: 42-44 RPM: 90  
 Pump Press: 2900 psi SPM: 95 Torque: 2.9-3.4 TBR: 85,000 CP I: \$ 1530 CP B: \$ 2155

**HYDRAULICS REPORT**

Mud Density In: 9.6 ppg Mud Density Out: 9.6 ppg ECD: 9.7 ppg PV/YP: 31/27  
 Gels: 8/24 Salinity: 2100 PPM Cl Solids: 8 %  
 Hole Volume: 1678 bbl Annular Volume: 1384 bbl Tubing Volume: 186 bbl Displaced Volume: 108 bbl  
 Carbide Lag—Calculated Lag: 1300 stks at 3323m Flowrate: 470 gpm  
 Drillpipe Annular Vel (Max. Dia. Sec.): 35 ft/min Drillpipe Annular Vel (Open Hole): 92 ft/min  
 Drill Collar Annular Vel (Open Hole): 134 " Critical Vel: 497 "  
 Pressure Loss System: Calc. 3265 psi Pressure Loss Bit: 2155 psi % Pressure Loss: 74  
 Nozzel Vel: 501 ft/sec Jet Impact Force: 1170 lbs HHP: 591

**PRESSURE PARAMETERS**

Drilling Exponent: 1.69 at 3.7 m/hr Flowline Temperature: 55 °C; Max 65 °C  
 Shale Density: - Shale Factor: -  
 Background Gas: 2-3v Max. Formation Gas: 3.5v @ 3315m Trip Gas: 40v @ 3311.7m  
 Other Gas: Gas at 3351m: 5.5mv - gas from reaming.  
 Fill: Ream 3288-3311.7m Tight Hole: To 90 klb on wiper trip - ream tight spots  
 Cavings: Est %: Minor Average Size: Small

**ESTIMATED PORE AND FRACTURE PRESSURE**

Kick Tolerance: 12.1 ppg / 2.5 ppg Min. Estimated Fracture Pressure (Open Hole): 13.0 ppg  
 Estimated Pore Pressure: 8.7 ppg Min. Estimated Pore Pressure (Open Hole): 8.7 ppg @  
 Max. Estimated Pore Pressure (Open Hole): 8.7 ppg @ Estimated Fracture Pressure at TD: 215 ppg

Comments: Ream interval 2895-2914m, run in to 3288m, ream 3288-3311.7m - drill ahead. Wiper trip at 3352m - drag to 90 klb on stand 29 (approx: 2870-2900m) 2530-2500m). Ream tight spot. Run in, ream section at approx. 2870-2900m - drag to 90 klb. Run to bottom - drill ahead, one jet blocked -

Calc. Annulus: 11720 stks Carbide Lag: 13040 stks  
 Corrected Hole Vol: 1833 bbl - Corrected Annulus Vol: 1540 bbl  
 HHP at surface 795 - 5.01/sq in of bit