



GEMDAS LOGGING REPORT NO. 37

COMPANY AMOCO Aust. WELL Tilana No.1
 DATE 16 October 1985. TIME 0500 Hrs.
 DEPTH 3311.7m / 10865' LAST REPORT DEPTH 3292 m : 10801 ft
 RIG OPERATIONS Ream at \approx 2600m, running in hole with new bit.
 REPORT BY Gary Hodges REPORT RECEIVED BY S. Maxwell (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: NB 16 Type: Smith F2 Size: 12.25" Jets: 3x14
 On Bit: Footage: 246m/806' Hours: 71.8 ROP: 3.4m/hr : 11.2ft/hr WOB: 45 RPM: 88
 Pump Press: 2770psi SPM: 122 Torque: 3.6-4.5 TBR: 378,000 CP I: \$ 1512 CP B: \$ 1553

HYDRAULICS REPORT

Mud Density In: 9.3 ppg Mud Density Out: 9.3 ppg ECD: 9.4 ppg PV/YP: 20/16
 Gels: 5/13 Salinity: 2100 PPM Cl Solids: 5 %
 Hole Volume: 1656 bbl Annular Volume: 1366 bbl Tubing Volume: 183 bbl Displaced Volume: 106 bbl
 Carbide Lag—Calculated Lag: 760 strokes at 3159m Flowrate: 606 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 46 ft/min Drillpipe Annular Vel (Open Hole): 119 ft/min
 Drill Collar Annular Vel (Open Hole): 173 " Critical Vel: 352 "
 Pressure Loss System: Calc: 2960psi Pressure Loss Bit: 1545 psi % Pressure Loss: 56
 Nozzel Vel: 431 ft/sec Jet Impact Force: 1258 lbs HHP: 546

PRESSURE PARAMETERS

Drilling Exponent: 1.86 at 3.5 m/hr Flowline Temperature: Max: 59°C
 Shale Density: - Shale Factor: -
 Background Gas: 3-6v Max. Formation Gas: 8v @ 3297m Trip Gas: - @
 Other Gas: Nil - no connection gas.
 Fill: - Tight Hole: \approx 20klb at 34 stands out - \approx 2340m.
 Cavings: Est %: Minor Average Size: Small

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.9 ppg / 2.6 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: 214.2 ppg

Comments: Pull out of hole at 10865', 3311.7m; Dev. = 0.75 degrees.
Run in NB#17 (Smith F2 - 12.25" - 3x14) - Tight spot at 7546-7596'
2300-2315m - Ream interval. Run in to approx. 2600m -
hole tight - ream - drag > 150 klbs;
Ream section repeatedly at \approx 2600m.

Carbide Lag: 12290 stks - A Calculated Lag: 11570 strokes.
 Surface HHP: 979 - 4.63/sq in of bit
 Corrected Hole Vol: 1741 bbl - Corrected Annulus - 1451 bbl