

GEMDAS LOGGING REPORT NO. 40

COMPANY AMOCO Aust. WELL Tilana No.1
 DATE 19 October 1985 TIME 0500 Hrs
 DEPTH 3449m: 11316' LAST REPORT DEPTH 3358.5m: 11019 ft
 RIG OPERATIONS Drilling 12.25" hole section - Volcanics.
 REPORT BY Gary Hodge REPORT RECEIVED BY S. Maxwell (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: 17 Type: Smith F2 Size: 12.25" Jets: 3x14; One blocked
 On Bit: Footage: 137m/449ft Hours: 37.7 ROP: 3.6m/hr: 11.9ft/hr WOB: 43-46 RPM: 90
 Pump Press: 3010psi SPM: 95 Torque: 3.2-4.5 TBR: 204,000 CP I: \$ 3855 CP B: \$ 1543

HYDRAULICS REPORT

Mud Density In: 9.6 ppg Mud Density Out: 9.7 ppg ECD: 9.7 ppg PV/YP: 28/23
 Gels: 6/17 Salinity: 2100 PPM Cl Solids: 7.5 %
 Hole Volume: 1721 bbl Annular Volume: 1420 bbl Tubing Volume: 191 bbl Displaced Volume: 110 bbl
 Carbide Lag—Calculated Lag: 1300 stks at 3323m Flowrate: 473 gpm
 Drillpipe Annular Vel (Max. Dia. Sec.): 36 ft/min Drillpipe Annular Vel (Open Hole): 93 ft/min
 Drill Collar Annular Vel (Open Hole): 135 " Critical Vel: 447 "
 Pressure Loss System: Calc. 3295 psi Pressure Loss Bit: 2185 psi % Pressure Loss: 73
 Nozzel Vel: 505 ft/sec Jet Impact Force: 1186 lbs HHP: 603

PRESSURE PARAMETERS

Drilling Exponent: 2.08 at 1.6 m/hr Flowline Temperature: 59°C: Max: 61°C
 Shale Density: - Shale Factor: -
 Background Gas: 3v Max. Formation Gas: 5.5v @ 3366m Trip Gas: Nil @
 Other Gas: Wiper Trip at 3352m - TG 2v. No connection gas.
 Fill: Nil at 3352m Tight Hole: Nil
 Cavings: Est %: 5% Average Size: <10 mm

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 12.0 ppg / 2.4 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: = 15 ppg

Comments: Drilling with one blocked jet. High torque at 3374m and
from 3440.5m; Flow check at 3426m was negative.
ROP slowed below 3440m;
Drilling in Volcanics

Carbide Lag: 13375 stks - Calculated Lag: 12025 stks
 Corrected Top Volume: 1881 bbls - Corrected Annulus Vol: 1580 bbls
 Surface HHP: 831 - 5.11 / sq in of bit