CORMORANT 1 OR-334

Enclosure 7

EXPLORATION LOGGING INC.

A GEOLOGICAL - ENGINEERING SERVICE CO.

338086

REMARKS

DRILLING CONTRACTOR ODECO
RIG NO. OCEAN DIGGER
SPUD DATE 11 JUNE 1970
TYPE MUDS LIGNOSULFONATE

CASING RECORD

20" AT 810'
13⅜" AT 2952'

HOLE SIZE

17½" TO 3002'
TO

ABBREVIATIONS

NB	NEW BIT	W	MUD WEIGHT
RRB	RERUN BIT	V	MUD VISCOSITY
CB	CORE BIT	F	MUD FILTRATE ☐ CC/30 MIN
CR	CIRCULATE RETURNS	FC	FILTER CAKE
NR	NO RETURNS	SD	SAND CONTENT
PR	POOR RETURNS	S	SALINITY ☐ G/G ☒ PPM CL-
LAT	LOGGED AFTER TRIP	R	RESISTIVITY OF MUD
TG	TRIP GAS	RF	RESISTIVITY MUD FILTRATE
CG	CONNECTION GAS		
C	CARBIDE		
DST	DRILL STEM TEST		
]	DST INTERVAL		
▮	CORE INTERVAL		

COMPANY ESSO-BHP
WELL CORMORANT #1
FIELD BASS BASIN
LOCATION OFFSHORE
COUNTY, STATE TASMANIA, AUSTRALIA
API WELL INDEX NO.
ELEVATION SEA LEVEL; KB = 99'
DATE FROM 12 JUNE 1970 TO
DEPTH FROM 861 FT TO
UNIT NO. 25
LOGGING GEOLOGISTS CRAIG, WEARE, DOUGLASS

OIL Based on live oil in unwashed cuttings and percentage staining of washed cuttings.

GAS UNITS Gas Detector calibrated to record 100 units with a mixture of 2% methane-in-air.

LITHOLOGY SYMBOLS

LIMESTONE, DOLOMITE, GYPSUM AND ANHYDRITE, SALT, COAL AND LIGNITE, CLAY, SHALE, SILTSTONE, SANDY SILTST., SAND, CONGLOMERATE, CHERT, VOLCANICS, INTRUSIVE, MARL

SET 20" CASING AT 810FT.

DRILLING AHEAD WITH 9-7/8" BIT

DRILLING WITH GEL MUD

CALCARENITE, WHITE TO LIGHT GREY, VERY FOSSILIFEROUS, OCC COARSE QUARTZ GRAIN.

C = 12U AT 37V

CALCARENITE, WHITE TO LIGHT GREY, SL MARLY, ABUNDANT SHELL FRAG.

CALCARENITE, MED-CRSE GRN, SUB RND, NO FLUOR, TR PYRITE, ABUN WH-YEL BRYOZOA.
CLAY, SFT-V SFT, LT GRY-LT GRY GREEN.

LOST CIRCULATION AT 1739FT, START ADDING LOST CIRCULATION MATERIAL.

CALCARENITE & CLAY, A/A MARL, SFT, LT-MED GRY, SL SLTY, SILTSTONE, SFT-FRM, GRN-GRY, ABUN SHELL FRAGS.

MARL, LT GRY-GRN, SFT, SLTY. CLAY, SFT, LT GRY WITH CALCARENITE, AGGREGATE, FINE-CRSE, ANG W/GLAUC, WELL SRTD SL PIN PT POR.

1930-1971 LOGGED AFTER TRIP.

MARL, LT GRY-GRN, SFT, STKY, SL SLTY, W/OCC C'AREN GRAINS A/A, W/ ABUN FOSS FRAGS.

W 9.1
V 38
FL 32.7
FC 2/32
PH 12
CL- 800
SD 3/4

CALCARENITE, FROM 2120FT, DISSEM IN CLY MTX, SUB RND-SUB ANG PRLY SRTD, CALCITIC, W/ ABUN SHELL FRAGS.

C=55U AT 38VIS

LIMESTONE, DK GRY, V HD MICROMIC INC FOSS FRAGS. FROM 2200FT.

FROM 2420
CLAY, WHITE-LT GRY, V SFT, STKY, ABUN FOSS INCLUSIONS.

CALCARENITE, FROM 2460 SD SZ, MED CRSE GRN, ANG WELL SRTD. LIMEST' TRACE, A/A.

CALCILUTITE, FROM 2500 LT GRY-LT BRN, FRM, NO VIS POR, W/C'AREN A/A.

CALCARENITE, WHITE TO LT GREY, FOSSILIFEROUS MARL, LT TO MEDIUM GRY LT GREY CLAY, SOFT, SOL TRACE GLAUCONITE AND PYRITE.

CALCARENITE & MARL, AS ABOVE W/INCREASE IN GLAUCONITE INCLUSION.

MARL, LIGHT TO MEDIUM GREY, SOFT TO FIRM, GLAUCONITE & FOSSIL INCLUSIONS COMMON.

MARL, LIGHT GREY, SOFT, SOLUBLE, W/DECREASE IN GLAUCONITE INCLU.

RAN SCHLUMBERGER LOGS IES, BHCS, CST, TO 3002FT

CORE #1 (2972-3002)
CUT 30FT; REC'D 30FT

OPENED HOLE TO 17½" TO 3002FT.

SET 13-3/8 CASING AT 2952FT.

DRILLING AHEAD WITH 12¼" BIT.

MARL, LT BRN-GRY, FRM SLTY, GLAUCONITIC, GRAD TO DOLOMITE. SANDSTONE FROM 3060, UNCONSOL, QTZ GRAINS, MED GRAIN, SUB RND, PYRITE, TRACE, ABUNDANT FORAM FRAGS.

MARL, LIGHT GREY-BROWN SOFT-FIRM, GRADING TO MUDSTONE, MEDIUM GREY-BROWN, SOFT, SOLUBLE, SLIGHTLY CALCAREOUS.

MUDSTONE, MEDIUM GREY-BROWN, SILTY, SOFT, SOL, SLIGHTLY CALCAREOUS

SANDSTONE, FINE-COARSE, CLEAR-WHITE UNCONSOL SUBRRD QUARTZ, LT BRN FINE GRAIN WELL CONSOL GLAUCONITIC SS, PYRITIC

C = 29U AT 38V

AT 3572FT: WASH OUT OCCURED IN BUMPER SUB

MUDSTONE, MED GRY-BRN, SILTY, SOFT W/DK BRN-BLK CARBONACEOUS FLAKES, SANDSTONE, AS ABOVE.

MUDSTONE, AS ABOVE W/ INCREASE IN DK BRN-BLK CARBONACEOUS FLAKES.

MUDSTONE, CHOC BRN, SOFT, STICKY, SOLUBLE, MED-DK BRN SILTSTONE, SLIGHTLY CALCAREOUS.

CORE #2 (3799-3819)
CUT 20FT; REC'D 19FT

SHALE, CHOC BRN, FRM-HD, PYRITIC, MICACEOUS, SL CALC, W/SECONDARY CALCITE.

C = 36U AT 40V

SHALE, AS ABOVE WITH LT GREY SANDSTONE, VFN-FN UNCONSOL QUARTZ, & DK BROWN SILTSTONE, SL CALC.

SHALE, CHOC BROWN, SOFT STICKY, DK CHOC BROWN SILTSTONE, MOD FIRM-FIRM, SLIGHTLY CALCAREOUS, TRACE VERY FINE GRAIN QUARTZ SAND.

W 11.3
V 40
FL 13.4
FC 2/32
PH 10.5
CL- 3200

CORE #3 (4271-4289FT)
CUT 18FT; REC'D 10FT

SANDSTONE, BUFF, VERY FINE/SILTY-MEDIUM GRAIN, VERY FRIABLE-UNCONSOLIDATED

CORE #4 (4289-4316FT)
CUT 27FT; REC'D 17FT

SANDSTONE, FINE-MEDIUM LIGHT GREY, SUBRRD QUARTZ, UNCONSOL, SILTY SHALE, DK BROWN, FIRM, SL CARBONACEOUS.

SHALE, LIGHT-MEDIUM BROWN, SOFT, SILTY, SL CARBONACEOUS.

SAND, PREDOM COARSE, CLEAR-MILKY SUBRRD-SUBANG UNCONSOLIDATED QUARTZ.

SANDSTONE, VERY FINE-FINE, WHITE-LT GREY, SILTY, WELL CONSOL, TIGHT, BRIGHT YELLOW FLUOR, FAIR-GOOD FLUOR CUT FROM CRUSHED SAMPLE, SL TRACE VIS CUT.

COAL, 4750' BLACK BRITTLE.

SAND, COARSE, CLEAR TO MILKY SUBRRD UNCONSOL QUARTZ, LT GREY VFN-FM SANDSTONE, TIGHT WITH BRIGHT YELLOW FLUOR, FAIR TO GOOD FLUOR CUT FROM CRUSHED SAMPLE, TRACE LIGHT STRAW VIS CUT.

CORE #5 (4934-4963FT)
CUT 29FT; REC'D 29FT

CORE #6 (4963-4993FT)
CUT 30FT; REC'D 26FT

SAND, COARSE CLEAR TO MILKY SUBRRD QUARTZ, LIGHT GREY-BROWN VFN-FM SANDSTONE W/BRIGHT YELLOW FLUOR, FAIR TO GOOD FLUOR CUT, INTERBEDDED WITH DK BROWN SHALE AND SILTSTONE.

COAL, BLACK, BRITTLE.

COAL, BLEEDING GAS

SILTSTONE, FROM 5280' DARK BROWN, TAN, FIRM-MOD. HARD, MICACEOUS, CALCAREOUS

W 11.0
V 42
FL 9.0
FC 2/32
PH 10.0
SD 1-3/4
CL- 2100

COAL, BLACK, SHALY, BLEEDING GAS

COAL, AS ABOVE

SANDSTONE, FROM 5420, TAN, FINE-SILTY, HARD, TIGHT

CORE #7 (5513-5543FT)
CUT 30FT; REC'D 30FT.

SILTSTONE, MEDIUM GREY, MOD.-VERY HARD WITH THIN LAMINAE VERY FINE SANDSTONE.

COAL, BLEEDING GAS

W 10.9
V 40
FL 9.0
FC 2/32
PH 10.0
CL- 1250
SD 1

COAL, BLEEDING GAS

SHALE, LIGHT BROWN, CARB., FIRM, SILTY, INTERBEDDED WITH SILTSTONE, AS ABOVE, AND COAL, BLEEDING GAS. COAL GRADES TO DARK BROWN, CARBONACEOUS SHALE.

SHALE, FROM 5800' TAN/BROWN, VERY CARB. VERY SILTY, MICACEOUS

COAL, BLEEDING GAS

SHALE, BUFF-DK BROWN, CARB, INTERBEDDED SILTSTONE, GREY-BROWN, W/ THIN LAM LT GREY VFN SANDSTONE, STRINGERS BLACK COAL.

C = 29U AT 40V

CORE #8 (5989-6019)
CUT 30FT; REC'D 30FT

SANDSTONE, LIGHT GREY, WHITE, VERY FINE-FINE, MOD. HARD

W 10.8
V 40
FL 8.8
FC 2/32
PH 9.0
CL- 1600

COAL, BLEEDING GAS

SANDSTONE, WHITE, FINE FIRM-MOD. HARD; SAND, CLEAR QUARTZ, COARSE, UNCONSOLIDATED

SAND, 6320', COARSE, PREDOM CLEAR-MILKY UNCONSOL SUBRRD-RRD QUARTZ.

SHALE, LT-MED BROWN, SILTY, MICAC, INTERBED W/SILTSTONE, GREY-BRN, CARBONACEOUS & LIGHT GREY VFN SANDSTONE, STRINGERS COAL, BLACK, BLEEDING GAS.

CORE #9 (6543-6563)
CUT 20FT; REC'D 20FT

SHALE, FROM 6543, DARK GREY, HARD, DENSE

SANDSTONE, VFN-FN, GREY BROWN, SILTY, SAND, MED COARSE UNCONSOL SUBROUNDED QUARTZ.

C = 34U AT 40V

SHALE, MEDIUM-DARK BRN SILTY, CARBONACEOUS, GREY-BROWN SILTSTONE, CARB, FIRM-HARD, THIN LAMINATIONS LT GREY VFN SILTY SANDSTONE.

COAL, BLACK, CONCHOIDAL FRACTURE, BLEEDING GAS DK GREY-BROWN SHALE & SILTSTONE, CARBONACEOUS

COAL, BLEEDING GAS

W 10.4
V 37
FL 8.6
FC 2/32
CL- 1000

SANDSTONE, AT 6905, WHITE, FINE, WELL SORT, CLEAN. BLUE-WH FLU, GIVES CUT ONLY UPON CRUSHING

SILTSTONE, DARK BROWN, VERY CARB., FIRM-MOD. HARD

COAL, BLACK, VITREOUS, BLEEDING GAS, SILTSTONE, GRAD TO SHALE, LT GRY-BRN, FRM, VERY CARB, NON CALC.

COAL, BLEEDING GAS

SANDSTONE, FROM 7140, LT GRY-WH, FRIABLE, WELL CMTD, V F GRAIN, SUB RND, WELL SRTD, PIN PT POR, PALE YEL FLUOR V SLOW CRM CUT ON CRUSHING

SILTSTONE, MED BRN, FRM, CARB, OCC SANDY, SL MICACEOUS, NON CALC, COAL, A/A.

CORE #10 (7297-7327)
CUT 30FT; REC'D 30FT

SHALE, FROM 7320, MED GRY-BRN, FRM, NON CALC SL CARB.

SILTSTONE, FROM 7410, LT-MED GRY, FRM, MIC, NON CALC.

SANDSTONE, FROM 7440, WH, FRIABLE, SUB RND-SUB ANG, WELL CMTD, V F WELL SRTD, DULL PL BL FLUOR, V SL PL YEL STR CUT, PIN PT POR.

SHALE, FROM 7500, GREY/BROWN, LOCALLY VERY SILTY, FIRM-MOD. HARD, SMALL AMOUNT PYRITE.

COAL, BLEEDING GAS

COAL, BLEEDING GAS

W 10.4
V 40
FL 8.2
FC 2/32
PH 10.0
CL- 800
SD ½

SHALE, FROM 7740, MED GRY, FRM, SUB FISS, LOC SLTY, NON CALC.

SANDSTONE, FROM 7817, F-V F, FRIABLE, WH-LT GRY, SUB RND, CMTD, WELL SRTD, PL YEL FLUOR, V SLOW PL CUT.

SHALE, DARK GREY, FIRM-MOD. HARD, SILTY IN PART

W 10.4
V 38
FL 9.4
FC 2/32
PH 10.0
CL- 750
SD ½

SHALE, AS ABOVE; INTERBEDDED WITH COAL

SANDSTONE, WHITE, FINE, PYRITIC, GLAUCONITIC, CHOKED WITH CALCITE.

CORE #11 (8100-8116)
CUT 16FT; REC'D 14FT

VOLCANICS, FROM 8085, DARK GREEN, GREY, VERY HARD-FRIABLE, ABUNDANT BIOTITE, QUARTZ, FELDSPAR.

W 10.5
V 38
FL 8.8
FC 2/32
PH 10.0
CL- 600

SHALE, FROM 8290, DK GRY, FRM, FISS, BLEEDING GAS, CARB.

C=60U AT 43VIS

W 10.5
V 38
FL 7.8
FC 2/32
PH 9.5
CL- 600

~SWC

VOLCANICS, AS ABOVE

SWC