OR. 333

Fig. 6

# CORE LAB Grapholog

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COMPANY ESSO EXPLORATION AUSTRALIA, INC.
WELL ESSO BASS NO. 2
FIELD WILDCAT
~~XXXX~~ TASMANIA STATE AUSTRALIA
LOCATION LAT 39° 53' 09" S ELEVATION 31' KB
LONG 146° 18' 15" E

DEPTH LOGGED, FROM 850' TO 5910' FT.
DATE LOGGED 24 APRIL 1966 TO 21 MAY 1966
CREW CHIEF HUDSON FILE NO. FL115-6L
DRLG. FLUID BENTONITE/WATER TO 817' FT.
XP 20/SPERSENE TO TD FT.

5 cm

## LEGEND

### ABBREVIATIONS

NB = NEW BIT
NCB = NEW CORE BIT
CO = CIRCULATED OUT
DST = DRILL STEM TEST
LAT = LOGGED AFTER TRIP
TG = TRIP GAS
NR = NO RETURNS
DS = DIRECTIONAL SURVEY
DC = DEPTH CORRECTION
DEPTHS CORRESPOND TO DRILL PIPE MEASUREMENTS
MEASURED FROM KB

P=POOR F=FAIR G=GOOD E=EXCELLENT

**RESISTIVITY, OHM-METERS**
Rm = MUD
Rmc = MUD CAKE
Rmf = MUD FILTRATE

**MUD DATA**
CK = CAKE THICKNESS 32nds
V = VISCOSITY API SECONDS
F = FILTRATE API CC'S
W = WEIGHT
S = SALINITY, ppm Cl

### LITHOLOGY

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SAND | ⁘ | SALT | ▦ | COAL | ■ | MARL | ▤ |
| CONG. | ⁘ | CLAY | ▤ | DOLOMITE | ▨ | CALC/ ARENITE | ▦ |
| ANHYDRITE OR GYPSUM | ▨ | SHALE | ▤ | CHERT | △ | GREEN-STONE | ▦ |
| LIMESTONE | ▦ | CHALK | ▦ | SILTSTONE | ▤ | VOLCS | ✓ |

## HYDROCARBON ANALYSIS

HOT WIRE: Total Gas ——— Methane (by difference) — — —
ELECTRONIC: Methane —.— Ethane —.— (2) Propane —.— (3)
Butane —.— (4) Pentane —.— (5) Hexane —.— (6)

DRILLING RATE
MIN/FT ☒
FT/HR ☐

## REMARKS

**FORMATION DESCRIPTION, MUD DATA, DRILL STEM TESTS, etc.**

VERTICAL SCALE
2"=100'

CASING RECORD
30" TO 404'
20" TO 817'
13 3/8 TO 2043

CALCARENITE, WH, GY BUFF-TN, VY FOSS. W/GOOD POROSITY, SME SDY

TR CEMENT IN SAMPLES, LITH AS ABOVE

LAG CHECK-CARBIDE
DEPTH =1020
CARBIDE =150GM
HOT WIRE =70 UNITS
P.H.D. =80 UNITS
LAG =1600
STROKES W/ 1 PUMP

CALCARENITE, GY, LT TN-BUFF, VY FOSS BEC MORE DSE, W/ FAIR POROSITY

CALCARENITE, AS ABOVE & BECOMING VERY SANDY

SAND, BUFF-LT TN, SME GY, GLAUC, FRIABLE & CLAY CEMENTED, F-MED GRN SME CGRN

LAG CHECK-CARBIDE
DEPTH =1800'
CARBIDE =150GM
HOT WIRE =50 UNITS
P.H.D. =65 UNITS
LAG =2640
STROKES W/ 1 PUMP

SAND, BUFF-LT TN, SME GY, GLAUC, FRIABLE & CLAY CEMENTED, F-MGRN, SME CGRN, LOOSE FOSS FRAGMENTS

MUD DATA
1220 HRS - 2100'
W =10.4 APV= 15½
F = 9.8 PV = 15
VL= 45 YD = 1
CK= 2 GEL=4/19
PH=10.7 ALK=.35
CA=100 NACL=
SD=4% 11,710

SAMPLES GETTING VERY MUDDY

MARL, SME LT GY SOFT

CALCARENITE, BUFF - LT. TAN, SOME GY, VY FOSS, SL GLAUC, SOME SDY.

MARL, LT GY - GRN, SOFT, SDY, ALMOST MUDSTONE.

MUD DATA
1445 HRS - 2500'
W= 10.4 APV =10½
V= 41 PV =8
WL=24.7 YD = 4
CK=3 GEL = 2/20
PH=12 ALK = 1.8
CA=300 NACL =6300
SD=2.5% RMF =0.72 AT 64F

TRACES OF PYRITE

MUDSTONE, GY - GRN, CALC, SOFT WITH FOSS FRAGMENTS.

TRACES OF PYRITE & COAL.

CORE#1, 2504-2532'
RECOVERED * 1'
MUDSTONE, GY - GRN, VY SOFT & PLASTIC, CALC, FOSS, PYRITIC NODULES.
BOTTOM 2" SLIGHTLY MORE COMPACT BAND.

CORE#1, RECOVERED 6' THRU FLOWLINE.
MUDSTONE, AS ABOVE BUT FIRMER. MORE COMPACT.

MUDSTONE, GY-GRN & LT BLUE, SOFT WITH FOSSIL FRAGS, CALC NODULES OF FORAMS. TRACES OF GLAUC & PYRITE.

MUD DATA
1330 HRS - 3025'
W =10.4 APV =15
V =40 PV =12
WL=10 YD =6
CK=2 GEL =4/30
PH=10.5 ALK =0.4
CA=160 NACL=8200
SD=1.5 RMF =0.75 AT 65F

MUDSTONE, AS ABOVE WITH ABUNDANCE OF GLAUC.

CORE #2 3025-3055
CUT & REC 30'
3025-48, SILTY SS VF-MGRN, VY ARGILL VY GLAUC
3048-52, SILTY MUDSTONE, LT OLIVE GY PLASTIC, WAXY, CALC FOSS, PYRITIC
3052-55, ARGILL SLST, LT OLIVE GY, CALC, PYRITIC, VY FOSS, PYRITIC, W/ FINE CARB. SPECKS

MUDSTONE, BLUISH LT GY, VY SFT, CLAYISH W/SHELL FRAGS, GLAUC, CALC
SILSTONE, GY BROWNISH GY, SOFT, CALC, PYRITIC

DOLOMITE, BUFF, LT BROWN, HARD

SANDSTONE, BUFF, VY SOFT W/CALC MATERIAL, FN GRN, SILTY, OCC GRNS GLAUC.

SANDSTONE, DOLOMITIC, BUFF, BROWN, HARD FN GRN, SLTY

DOLOMITE, BUFF, BRN, HARD

SANDSTONE, WH, CLR, FN-MED CRSE GRNS ANG, SUB-ANG, LOOSE

CORE #3, 3518-32
CUT 14' REC 3'
3518-19, SS, GY & BUFF, FN-MED GRN, VY GLAUC
3519-20.5, SS, BRN GY MOTTLED, FN-MED GRN, LOOSE, SOFT
3520.5-21, SS, OLIVE GY, FN-MED GRN, VY HARD

SILTSTONE, BRN, GY SOFT, NON CALC

CARBIDE CHECK
AT 3670
CARBIDE =150 GMS
HOT WIRE =52 UNITS
P.H.D. =40 UNITS
LAG =2800
STROKES W/1 PUMP

CORE #4, 3800-28'
CUT 28' REC 22'
3800-09, SLST, BRN-GY, PYRITIC, NON-CALC, MOD COMPACT.
3809-11, DOL. SLST, BUFF-BRN GY, NODULE PYRITE, FOSSILS.
3811-3822, ARG SLST, AS ABOVE.

SANDSTONE, GY, FN GN, SHARP, PYRITIC, SOME LOOSE CL ANG GNS. DOL, VY ARG.
DOLOMITE, BRN, DENSE, SANDY.
SANDSTONE, CL-WH, S-RD-ANG, CSE GNS, PYRITIC MATRIX.
COAL, BLACK, SHALEY.
MINOR KAOLINITE IN SS.

TRACES BLACK COAL & SHALE.

MUD DATA
2100 HRS - 4130'
W =11.2 APV=15
V =47 PV =13
WL=8 YD =5
CK=2 GEL=3/22
PH=11 ALK=0.5
CA=280 NACL=8000
SD=2% RMF=0.79 AT 66F

CARBIDE CHECK
AT 4000'
CARBIDE = 150 GMS
HOT WIRE =44 UNITS
P.H.D. =20 UNITS
LAG =2800
STROKES W/2 PUMP

SANDSTONE, CL-WH, CSE GNS, ANG-S. ANG,
SILTSTONE, BUFF-LT TAN, FIRM, SL CALC, OCC CARB STREAKS.
COAL, BRN-BLK, SHALEY

CORE #6, 4416-44.
CUT 28' REC NIL.

SANDSTONE, CSE-FN LOOSE QTZ GNS.

COAL, AS BEFORE.

SILTSTONE, WH, CALC, VY SDY, BRITTLE, TIGHT.

SHALE, LT BRN-TAN, FIRM, CARB STREAKS.

SANDSTONE, WH-BUFF, ARG, SL CALC, HARD, FINE GN.

CORE #7, 4740-62'
CUT 22' REC 22'
4740-42, SLST-LT GY, SL CALC W/CARB STKS, GRADES TO SS W/PEB QTZ GNS-S. ANG-S. RD, PYRITIC.
4742-62, SS-LT GY, FN GN, DOL IN PATCHES PYRITE NODULES.

SANDSTONE, WH-GY, F GN, HARD, CALC, PYRITIC.

MUD DATA
0630 HRS
W =11.2 GEL =4/50
V =47 PH =10.2
WL =9.2 ALK =0.2
CK =2 NACL=7400
APV=22 CA =240
PV =17 SD =3%
YD =10 RMF =0.69 73DEG F

TRACES OF COAL.
SOME LOOSE WH-CL ANG TO S. ANG QTZ GNS.

CORE #8, 5062-92'
CUT 30' REC 14'
5062-72, SS, LT GY, V FN-SLTY, SL CALC, ARG, LAMINATED WITH CARB MATERIAL.
5072-75, DOM SHALE, GY, NON-CALC.
5075-76, SS, AS ABOVE.

SANDSTONE, WH-CL & SMOKEY BLUE, UNCON, MED-V. CSE GN, ANG, PYRITIC.
SHALE, BR-LT TAN, CARB STREAKS & SPECKS, FIRM.
COAL, BL-DK BR, FIRM.
CALCARENITE, WH-BUFF, GY, FOS FRAGS, LOOSE, V CALC, TCS PYRITE & CALCITE.

CORE #9 5508-5521
CUT 13' REC 11'
5508-10, SILTSTONE: DARK BRN, VY CARB
5509-10, SANDSTONE: TAN-GY, FRIABLE BUT FINE GRAINED & SLTY
5511, 2" BASAL BRECCIA
5511-19, PROBABLE GREENSTONE: BRECCIATED NEAR TOP & HIGHLY WEATHERED, SOFT BANDS OF CHLORITIC MATERIAL & BROWNISH CLAY-LIKE LAMINAL

LAG CHECK * CARBIDE
DEPTH -5500'
CARBIDE - 150 GM
HOT WIRE -50 UNIT
PHD -50 UNIT
LAG -3500
STROKES W/1 PUMP

VOLCANICS, MOTTLED GRN, HARD, WH SPICULE SHAPES

VOLCANICS, BECOMING LIGHTER IN COLOUR, FNLY XLLINE

CORE #10 5900-5910
CUT 10' REC 9'
SHALE, MED GY BLUE GRN, DENSE, BANDED BY SILTY STREAKS, DIP 5 DEG, VERT FRACTURES FILLED WITH SOFT WH MINERAL PYRITIC, ROCK OCC HYDROTHERM ALTERED.

5 cm