

# DISCOVERY BAY-1

Location: Offshore Otway Basin  
 Latitude: 38 24 42.9 S  
 Longitude: 141 04 21.1 E

Water Depth = 97 m  
 Total Depth Drilled (KB) = 2776 m;  
 Depth logged (KB) = 2779.477 m  
 KB Elevation = 23 m amsl

Seismic line reference: OP80-17, sp 1087  
 Completed October 19, 1982 by Phillips Oil Company, Australia  
 Status = Plugged & abandoned

Lithostratigraphy by Ciaran Lavin (1998)  
 Lithological interpretation by Natalia Liberman (1998)  
 Palynology by A.D. Partridge (1996) & WCR  
 Produced by the Basin Studies Group 19-May-1999  
 for Enclosure 4, VIMP68



## Lithological legend

- |                             |                                 |                   |
|-----------------------------|---------------------------------|-------------------|
| <b>Carbonate Lithotypes</b> | <b>Siliciclastic Lithotypes</b> | <b>Others</b>     |
| Limestone                   | Conglomerate                    | Extrusive rocks   |
| Limestone, sandy            | Sandstone, pebbly               | Mafic sills       |
| Limestone, dolomitic        | Sandstone                       | Plutonic rocks    |
| Dolomite                    | Sandstone, calcareous           | Metamorphic rocks |
| Dolomite, calcareous        | Sandstone, argillaceous         |                   |
| Marl                        | Sandstone, glauconitic          |                   |
|                             | "Greensand"                     |                   |
|                             | l'bedded sandstone & mudstone   |                   |
|                             | Siltstone                       |                   |
|                             | Mudstone (shale)                |                   |
|                             | Mudstone, calcareous            |                   |
|                             | Claystone                       |                   |
|                             | Coal                            |                   |
- N.B. Not all lithological patterns in the legend have been used in this wellsheet.

## Palynological scheme legend

- SPORE-POLLEN:**
- |   |                           |
|---|---------------------------|
| T. be = T. bellus                               | W. th = W. thompsonae     |
| P. tu = P. tuberculatus                         | C. in = C. incompositum   |
| N. as = N. asperus                              | H. ta = H. tasmanense     |
| P. as = P. asperopolus                          | D. he = D. heterophylla   |
| M. di = M. diversus                             | A. hy = A. hypericantha   |
| L. ba = L. balmei                               | A. ho = A. homomorphom    |
| F. lo = F. longus                               | E. cr = E. crassitabulata |
| T. li = T. lili                                 | T. ev = T. evittii        |
| N. se = N. senectus                             | P. py = P. pyrophorum     |
| T. ap = T. apoxyxenus                           | M. dr = M. druggill       |
| P. ma = P. mawsonii                             | I. ko = I. koroljense     |
| H. un = H. uniforma (A. di = A. distocarinatus) | X. au = X. australis      |
| P. pa = P. pamosus                              | N. ac = N. acras          |
| C. pa = C. paradoxus                            | I. ro = I. rotundatum     |
| C. st = C. striatus                             | I. cr = I. cretaceum      |
| C. hu = C. hughesii                             | O. po = O. porifera       |
| P. no = P. notensis                             | C. st = C. striatoconus   |
| F. wo = F. wonthaggiensis                       | P. in = P. infusorioides  |
| C. au = C. australiensis                        |                           |
| R. wa = R. watheroensis                         |                           |
- N.B. Not all palynological zones in the legend have been used in this wellsheet.

## Hydrocarbon shows/tests legend

- Gas show (weak)
  - ⊙ Gas show (strong)
  - Gas zone
  - Oil show (weak)
  - ⊙ Oil show (strong)
  - Oil zone
  - ⊙ Oil/gas show (weak)
  - ⊙ Oil/gas show (strong)
  - Oil fluorescence
  - CO<sub>2</sub> zone
  - RFT test
- N.B. Not all hydrocarbon symbols in the legend have been used in this wellsheet.

## Accessory minerals legend

- C - carbonaceous debris  
 P - pyrite  
 G - glauconite  
 M - mica
- Arrowheads indicate SWC range & abundance  
 Patterns indicate cuttings/core range & abundance

## Accessory minerals legend

- trace □ common  
 □ minor □ abundant

## Pristane/Phytane Legend

- < 1.5 Anoxic - Subaqueous (lacustrine or marine)  
 1.5 - 3.0 Trans - Transitional environment  
 > 3.0 Oxidic - Subaerial environment

## Palynologists' environments legend

- nm - non marine  
 lac - lacustrine  
 est - estuarine  
 mm - marginal marine  
 ns - nearshore marine  
 om - offshore marine
- N.B. Environments are based on spore-pollen/dino ratios.

