801254 002
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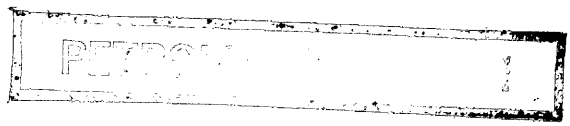
22 AUG 1989



BEACH PETROLEUM N.L.

PEP 105/118
OTWAY BASIN
VICTORIA

1988 INTERPRETATION REPORT
(BASED ON REPROCESSED DATA)

COMPILED BY
DAVID A. REMUS

12/19/1988

TABLE OF CONTENTS

FIGURES

ENCLOSURES

1. INTRODUCTION

The author undertook to interpret the western portions of PEP 105/118 following the reprocessing project of 1988. In addition two newly acquired lines of the Crawford Survey were interpreted as well as all the remaining data in the area that had not been reprocessed.

This interpretation was meant to be an unbiased "fresh look" at the area in as much as the author had no prior knowledge of the permit area, excepting general regional knowledge of the Otway Basin.

2. INTERPRETATION

2.1. Well Data Base

All petroleum wells available in the area were used in this interpretation. Synthetic seismograms and velocity surveys were used where possible to tie the wells to seismic horizons. At Fahley-1 an approximate time-depth curve was generated as there was no velocity data available from the well.

The following summarizes the well data base;

1. Najaba-1A
   Line NM85-368 SP 159
   Total Depth 3412m (KB)
   TD in Eumeralla
2. Squatter-1
   Line GL85-250 SP 285
   Total Depth 1500m (KB)
   TD in Eumeralla
3. Henke-1
   Line HE86-416 SP 1036 +60m
   Total Depth 1435m (KB)
   TD in Paaratte
4. Wilson-1
   Line WGD-329 SP 181
   Total Depth 1317m (KB)
   TD in Paaratte
5. Fahley-1
   Line WGD-342
   Total Depth 3211m (KB)
   TD in Basal Waarre
6. Fahley-2
   Line WG84-243 SP 318.5
   Total Depth 1330m (KB)

2.2. Seismic Data Base

All lines shown on figure 1 were used in the interpretation. Exceptions are lines 72-115 and WGD-331.

Reprocessed sections were used where available (see fig. 1). Original unreprocessed sections were used elsewhere.

Data quality was generally fair to good with marked improvement in the pre-Paaratte section on the reprocessed sections. Seismic ties were good from survey to survey. The sections were displayed at a scale, however, that tended to stretch and obscure fault cuts thus hindering interpretation.

2.3. Mapped Horizons (See Enclosures 7, 8, & 9)

The following horizons were picked:

Intra Dilwyn	Light Green	Not Mapped
Near Top Pember	Brown	Mapped
Pebble Point	Yellow	Mapped as Near Top Paaratte
Paaratte	Orange	Not Mapped
Near Top Belfast	Red	Mapped
Near Top Otway	Purple	Mapped

In addition isochrons of the Pember to Paaratte and Belfast to Otway were produced.

3. DISCUSSION OF RESULTS

3.1 Regional Structure

The study area can be divided into two structural regions;

1. To the north of the Tartwaup fault is a platform area (Mumbannar) with thin post Otway deposition. This was probably the Basin margin during Sherbrook aged extension. Structure on the platform is subtle with regional dip into the Tartwaup fault and individual structures controlled by down to the north faults.

2. South of the Tartwaup fault structure changes remarkably. Being listric normal, both the Tartwaup and Wanwin/Norman fault systems have well developed northwest-southeast trending hangingwall anticlines associated with the faulting. Individual closures that have been tested include; Najaba-1A (Pebble Point and Waarre), Wilson-1 (Pebble Point) and Henke-1 (Pebble Point).

These failures do not downgrade the potential of the remaining structures in the area. Najaba is downdip from a major structure developing to the west, Wilson is down structure (it is possible to get updip at least 80ms. and Henke is slightly downdip. It can also be argued that all three wells were situated on structures off the main migration routes.

3.2. Prospects And Leads

At the target levels (Waarre, Pebble Point and Paaratte) one very large prospect has been identified (Pine Lodge). The structure is a hangingwall anticline situated at the junction of the Tartwaup and Wanwin faults. It should be noted that it is located ideally to trap any hydrocarbons moving updip from the adjacent low areas. Wilson was drilled downdip from Pine Lodge (at Pebble Point level) and as mentioned earlier may not have been on the migration route.

There are also a number of structural traps at Base Upper Cretaceous level that remain to be tested. Previous tests including Najaba, Squatter and Fahley were poorly located to test the Otway targets.

4. CONCLUSIONS

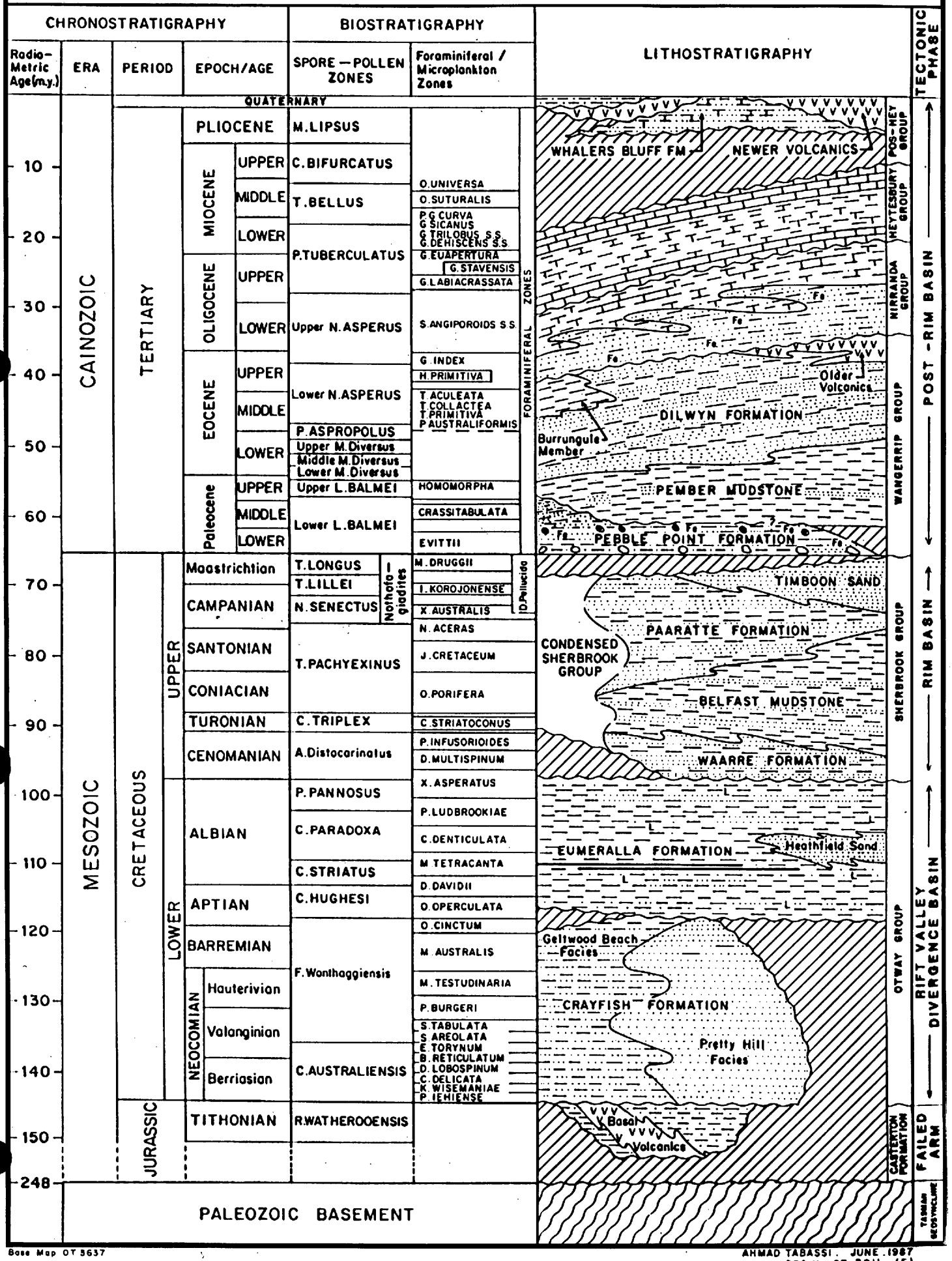
1. One very large prospect (Pine Lodge) has been identified with closure at Pebble Point and Waarre levels. Little additional work will be required to upgrade this structure to drillable status.
2. Previous tests appear to be off the main migration routes.
3. Numerous Otway level targets (this includes the Waarre) remain to be tested.

BEACH PETROLEUM N.L.

801254 007

PEP 105/118 AND ENVIRONMENTS — OTWAY BASIN

STRATIGRAPHIC TABLE



Base Map OT 5637

AHMAD TABASSI. JUNE. 1987
DRG No. OT. 3911 (F)

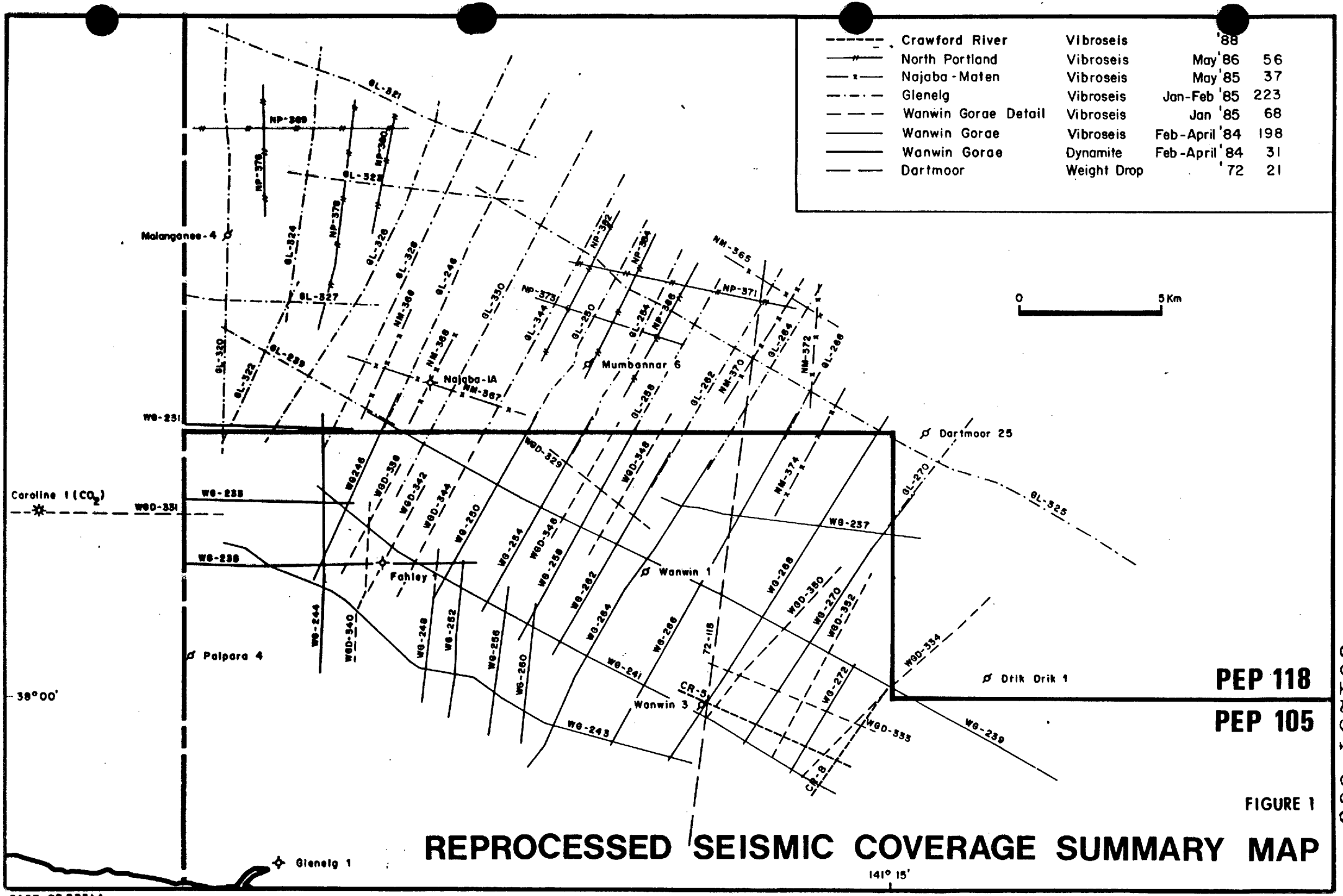


FIGURE 1

REPROCESSED SEISMIC COVERAGE SUMMARY MAP

BASE OT 3331A

OT4142F

801254 008

801251 009

REPROCESSED LINES

GL85-239
GL85-246
GL85-250
GL85-254
GL85-258
GL85-264
GL85-266
GL85-270
GL85-320
GL85-321
GL85-322
GL85-323
GL85-324
GL85-325
GL85-326
GL85-327
GL85-328
GL85-330
HE86-416
NM85-366
NM85-367
NM85-368
NM85-370
NM85-372
NM85-374
NP86-369
NP86-371
NP86-373
NP86-376
NP86-378
NP86-380
NP86-382
NP86-384
NP86-386
WG84-231
WG84-233
WG84-235
WG84-237
WG84-239
WG84-241
WG84-243
WG84-244
WG84-246
WG84-248
WG84-250
WG84-252
WG84-254
WG84-256
WG84-258
WG84-260
WG84-262
WG84-264
WG84-266
WG84-268
WG84-270
WG84-272
WGD85-329
WGD85-331
WGD85-333
WGD85-334
WGD85-338
WGD85-340
WGD85-342
WGD85-344
WGD85-346
WGD85-348
WGD85-350
WGD85-352

PROCESSED LINES

CR88-05
CR88-08

PE801255

This is an enclosure indicator page.
The enclosure PE801255 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801255 has the following characteristics:

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CONTAINER_BARCODE	= PE801254
NAME	= Section of WG84-268 Seismic Line
BASIN	= OTWAY
ONSHORE?	= Y
DATA_TYPE	= SEISMIC
DATA_SUB_TYPE	= INTERP_SECTION
DESCRIPTION	= Interpretive Section of WG84-268 Line Stack, Wanwing-Gorae 1984 Survey.
REMARKS	=
DATE_WRITTEN	= 30-JUN-1988
DATE_PROCESSED	=
DATE_RECEIVED	= 22-AUG-1989
RECEIVED_FROM	= Horizon Seismic Australia Pty. Ltd.
WELL_NAME	=
CONTRACTOR	=
AUTHOR	=
ORIGINATOR	=
TOP_DEPTH	=
BOTTOM_DEPTH	=
ROW_CREATED_BY	= MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801256

This is an enclosure indicator page.
The enclosure PE801256 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801256 has the following characteristics:

ITEM_BARCODE	PE801256
CONTAINER_BARCODE	PE801254
NAME	Section of WG84-250 Seismic Line
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	INTERP_SECTION
DESCRIPTION	Interpretive Section of WG84-250 Line Stack, Wanwing-Gorae 1984 Survey.
REMARKS	
DATE_WRITTEN	30-JUN-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801257

This is an enclosure indicator page.
The enclosure PE801257 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801257 has the following characteristics:

ITEM_BARCODE	PE801257
CONTAINER_BARCODE	PE801254
NAME	Section of WG84-239 Seismic Line
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	INTERP_SECTION
DESCRIPTION	Interpretive Section of WG84-239 Line Stack, Wanwin-Gorae 1984 Survey.
REMARKS	
DATE_WRITTEN	30-JUN-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801258

This is an enclosure indicator page.
The enclosure PE801258 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801258 has the following characteristics:

ITEM_BARCODE	PE801258
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Pember Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801259

This is an enclosure indicator page.
The enclosure PE801259 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801259 has the following characteristics:

ITEM_BARCODE	PE801259
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Paaratte Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801260

This is an enclosure indicator page.
The enclosure PE801260 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801260 has the following characteristics:

ITEM_BARCODE	PE801260
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Belfast Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801261

This is an enclosure indicator page.
The enclosure PE801261 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801261 has the following characteristics:

ITEM_BARCODE	PE801261
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Paaratte Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801263

This is an enclosure indicator page.
The enclosure PE801263 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801263 has the following characteristics:

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CONTAINER_BARCODE	= PE801254
NAME	= Time Structure Map
BASIN	= OTWAY
ONSHORE?	= Y
DATA_TYPE	= SEISMIC
DATA_SUB_TYPE	= HRZN_CONTR_MAP
DESCRIPTION	= PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Otway Time Structure Map (Based on reprocessed data)
REMARKS	=
DATE_WRITTEN	= 30-NOV-1988
DATE_PROCESSED	=
DATE_RECEIVED	= 22-AUG-1989
RECEIVED_FROM	= Beach Petroleum NL
WELL_NAME	= Wilson-1
CONTRACTOR	=
AUTHOR	=
ORIGINATOR	=
TOP_DEPTH	=
BOTTOM_DEPTH	=
ROW_CREATED_BY	= MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801264

This is an enclosure indicator page.
The enclosure PE801264 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801264 has the following characteristics:

ITEM_BARCODE	PE801264
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Otway Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801265

This is an enclosure indicator page.
The enclosure PE801265 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801265 has the following characteristics:

ITEM_BARCODE	PE801265
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Belfast Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801266

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The enclosure PE801266 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801266 has the following characteristics:

ITEM_BARCODE	PE801266
CONTAINER_BARCODE	PE801254
NAME	Time Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Near Top Pember Time Structure Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801262

This is an enclosure indicator page.
The enclosure PE801262 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801262 has the following characteristics:

ITEM_BARCODE	PE801262
CONTAINER_BARCODE	PE801254
NAME	Isochron Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Pember / Paaratte Isochron Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801267

This is an enclosure indicator page.
The enclosure PE801267 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801267 has the following characteristics:

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CONTAINER_BARCODE	PE801254
NAME	Isochron Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Belfast / Otway Isochron Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801268

This is an enclosure indicator page.
The enclosure PE801268 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801268 has the following characteristics:

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CONTAINER_BARCODE	PE801254
NAME	Isochron Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Belfast / Otway Isochron Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE801269

This is an enclosure indicator page.
The enclosure PE801269 is enclosed within the container PE801254 at this location in this document.

The enclosure PE801269 has the following characteristics:

ITEM_BARCODE	PE801269
CONTAINER_BARCODE	PE801254
NAME	Isochron Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	HRZN_CONTR_MAP
DESCRIPTION	PEP 105/118 Post Henke-1 and Wilson-1 Interpretation, Pember / Paaratte Isochron Map (Based on reprocessed data)
REMARKS	
DATE_WRITTEN	30-NOV-1988
DATE_PROCESSED	
DATE_RECEIVED	22-AUG-1989
RECEIVED_FROM	Beach Petroleum NL
WELL_NAME	Wilson-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	MK11_SW

(Inserted by DNRE - Vic Govt Mines Dept)