Anzon Australia

LIMITED

BASKER-4

WELL COMPLETION REPORT

VOLUME 2

INTERPRETIVE DATA

September 2007

VIC/L26

OFFSHORE GIPPSLAND BASIN

VICTORIA

A. Cernovskis, K. Grieves, B. Messent, S.Y. Wong and H. Zammitt

Document Control Number: 34262-DR-01-0031

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ENCLOSURES

1. WELL DATA RECORD

Well Name	BASKER-4
Designation	Development/Gas Injection Well
Permit Name	VIC/L26 Production Licence
Title Holders	Anzon Australia Limited (Anzon) 50% and Beach Petroleum Limited (Beach) 50%
Operator (per P(SL)A Well Operations Regulations)	Anzon Australia Limited
Surface Location (GDA94, GRS80, MGA, UTM Zone 55)	Latitude 38º 17' 58.87"S Longitude 148º 42' 23.57"E 649223.6mE 5759555.9mN
Bottom Hole Location	Latitude 38º 18' 01.47"S Longitude 148º 41' 45.63"E 648300.608mE 5759492.46mN
Project Manager	Upstream Petroleum Pty Ltd
Start of Basker-4 Operations	08:00 hrs 27 February, 2006
Spud Time/Date	12:00 hrs 27 February, 2006
TD date	12:30hrs 19 May, 2006
End Batch Drilling/Start Batch Completion Phase	01:30 hrs 24 May, 2006
Final Rig Release from Basker-4 Batch Completions Operations	24:00 hrs 17 June, 2006
Total Time Rig on Contract	39.88 days
Water Depth	154.5m (LAT) 155.4mMSL
Rotary Table	21.5m (LAT)
Difference MSL to LAT	0.866m
Drilling Contractor / Rig Name / Type	Diamond Offshore General Company / Ocean Patriot / Semi-submersible
Well Status	Suspended with sub-sea completion for gas injection and production of oil and gas
Total Depth (Drillers)	3480.0mMDRT (3301.2mTVDRT)
Maximum Deviation	28.71° at 2611.79mMDRT (2463.47mTVDRT)
Bottom Hole Location offset	63.4m South and 923.0m West, on an Azimuth of 266.1° from surface location

2. INTRODUCTION

The Basker-4 development well (Figures 2.1 and 2.2) was planned for oil and gas production and for possible use as a gas injection well. It was drilled as a deviated well with the "Ocean Patriot" semi-submersible drilling rig and was part of the 2006 Basker-Manta Project Full Field Development (FFD) drilling campaign. It was spudded in 155.4m of water on 27th February 2006, with a wellhead adjacent to the Basker Field sub-sea production manifold and reached a TD towards the western edge of the Basker Field on 19th May 2006 (Figure 2.3).

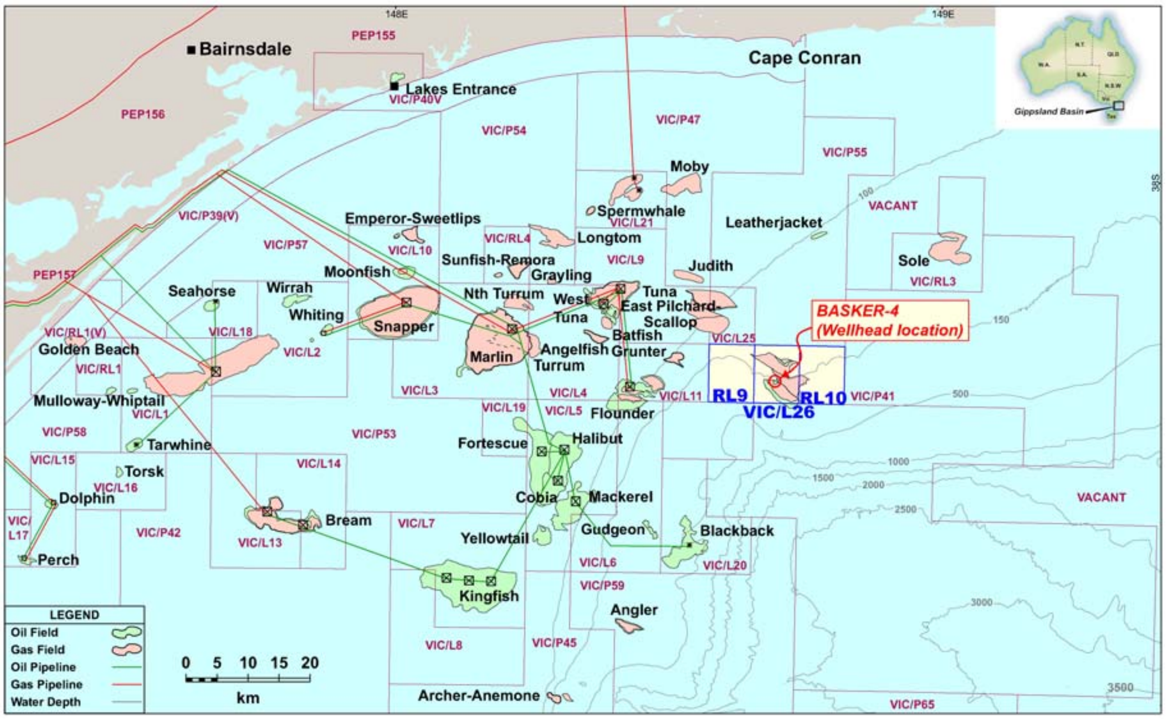

Figure 2.1 Basker-4 Location Map

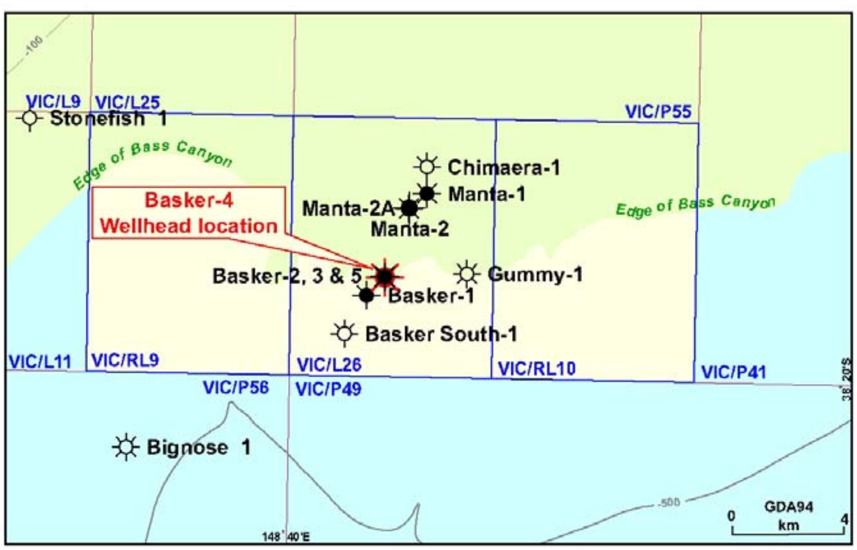

Figure 2.2 Basker-4 Location Map (Detail)

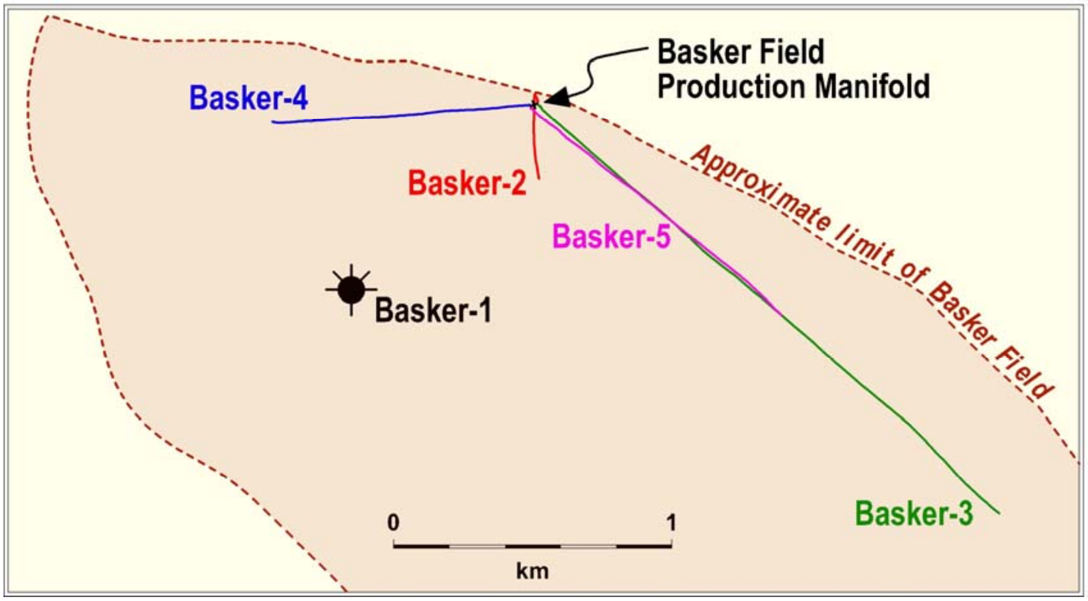

Figure 2.3 Basker Field Well Spider

The FFD well operations utilised "batch drilling and completion" wherever possible. Batch drilling and batch completion provided significant cost reductions and gains in operating efficiency. Rig time consumed in changing hole size was minimized by drilling all of the 36", 17½" and 12¼" holes in a continuous operation. Similarly, the completion phase of well operations was batched by running the completions back-to-back. The rig movement required to move the Ocean Patriot between wellheads (to facilitate batch drilling) was accomplished by adjustment of the rig's anchor chains.

Basker-4 was the third of the four FFD wells to be spudded (following Manta-2A and Basker-5 and preceding Basker-3). It was the last well to reach total depth and the first well to be completed. The Ocean Patriot was released from the Basker-4 batch completion operations on 17th June 2006.

The primary objective of the well was to maximise future production from the oil and gas reservoirs discovered by Basker-1 and Basker-2, by intersecting them near the structural crest of the field. The well was also intended as a possible gas injection well, following evaluation of all four of the Basker development wells, to determine which was the most suitable for injection. The target for Basker-4 (at the top of the Zone 2 reservoir) was selected to conform with the 200 acre drainage circles allowed for each of the Basker FFD wells (so as to optimize development well spacing) and required drilling as a "build and hold" directional well (Figure 2.5). The TD is offset 925.0m from the wellhead, on a bearing of 266.1° (Figure 2.4).

To facilitate its dual role (for both gas injection and oil and gas production) Basker-4 was completed with two packers and an "intelligent" downhole completion which permits remote switching between an upper and a lower group of perforations, with the upper group of perforations being used for gas injection and both groups for oil and gas production. Following its selection as the gas injection well Basker-4 was suspended awaiting hook-up to the Basker Field production manifold and the "Crystal Ocean" FPSO (floating production, storage and offtake vessel) which provides the compression for gas re-injection.

Basker-4 is currently being used for the re-injection of gas produced in association with oil production from Basker-2, Basker-3, Basker-5 and Manta-2A. In the longer term, when it is planned that all of the gas produced by the Basker-Manta-Gummy project (BMG) will be piped to shore, Basker-4 will become an oil production well with later potential to recover some of the injected gas.

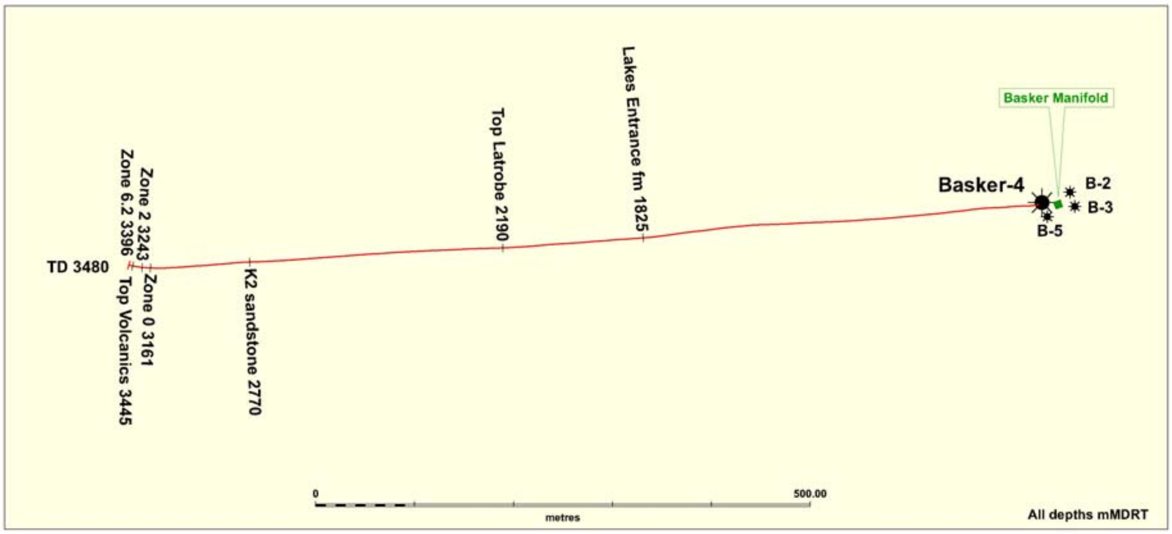

Figure 2.4 Plan View of the Basker-4 Well Path

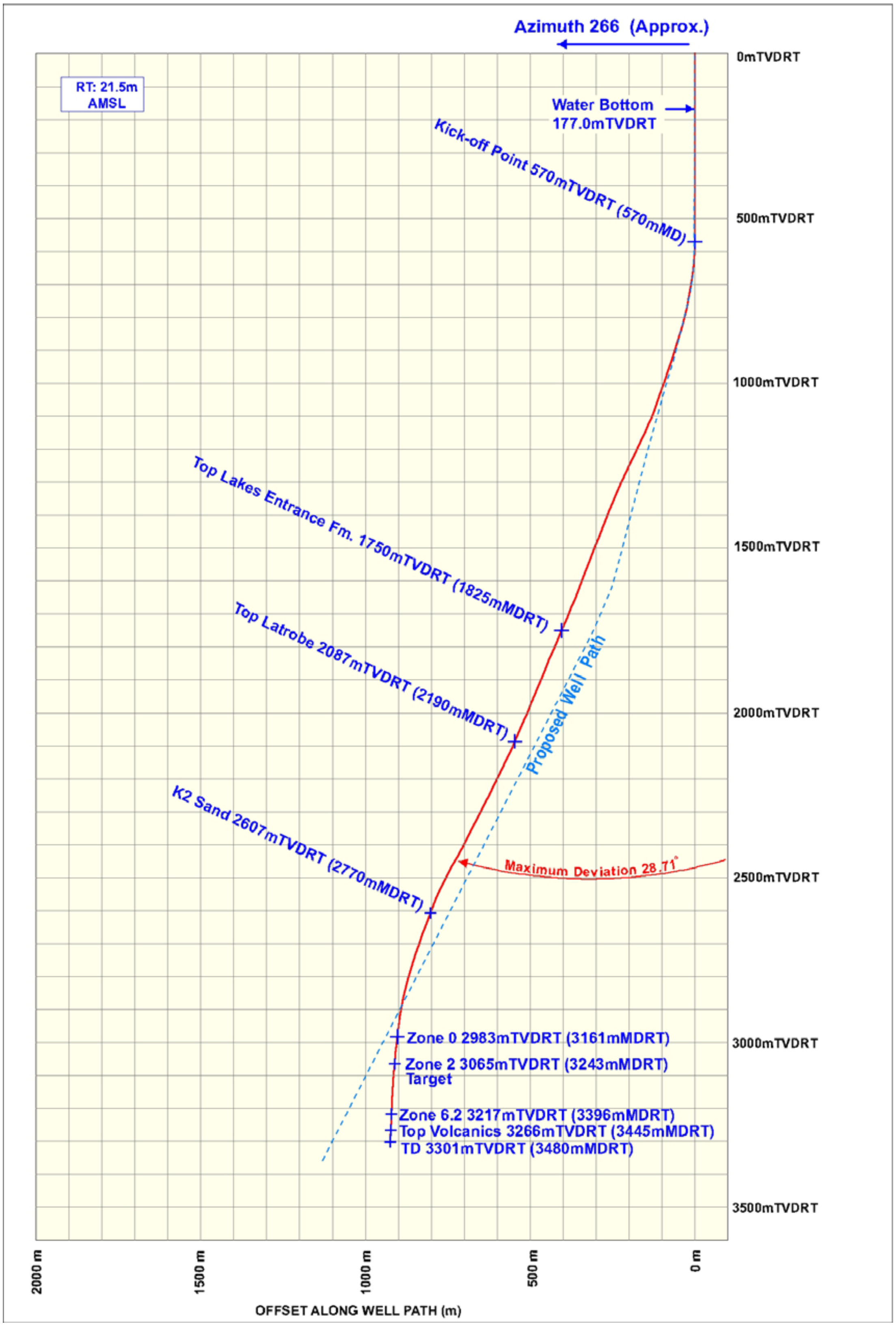

Figure 2.5 Vertical Cross Section along the Basker-4 Well Path

3. SUMMARY OF WELL RESULTS

The oil and gas reservoirs encountered in Basker-4 are similar to those encountered in the other Basker wells but there are a number of key differences (Enclosure 1):

1) Although a number of thin oil and gas bearing reservoirs were discovered in the Zone -1 reservoir interval in both Basker-3 and Basker-5, no hydrocarbons were intersected at this level in Basker-4.

2) The Zone 0 reservoir is present in Basker-4, is oil-bearing and is in pressure communication with the other wells (as indicated by pressure depletion) but the sand quality is poor and does not meet the cut-offs for pay.

3) Three separate gas columns were intersected in Zone 1.1. Interpretation of the pressure data suggests that none of these are in pressure communication with the Zone 1.1 reservoirs intersected in the other wells.

4) The Zone 1.2 reservoir is present, is in pressure communication with the other wells but appears to contain gas (as indicated by wireline "pumpout" testing). It is interpreted to be within a gas cap to the Zone 1.2 oil seen in Basker-2.

5) Four sands are interpreted to comprise the Zone 2 reservoir in Basker-4. The upper two appear to contain only gas and the lower two oil (as indicated by pumpouts). The Zone 2 gas-oil contact is interpreted to lie within the shale separating the gas sands from the oil sands.

6) Zone 3.2 appears to be an isolated oil reservoir, intersected only in Basker-4.

7) The Zone 4.2 oil and gas reservoir appears to be isolated to Basker-1 and Basker-4.

8) Basker-4 did not intersect any reservoir quality sands in Zone 5 and no significant hydrocarbons are interpreted to be present.

9) Two gas reservoirs and one oil reservoir were intersected in Zone 6.2. Although pressure depletion indicates that all three are in communication with the other Basker wells, there is some uncertainty about their correlation with the other Zone 6.2 reservoirs.

10) Zone 7.5 appears to be an isolated gas reservoir, intersected only in Basker-4.

In total seven gas reservoirs, three oil reservoirs and two oil reservoirs with gas caps were intersected by Basker-4. The interpreted total oil pay was 12.7m (true vertical thickness) and the total gas pay 27.8m (TVT). Further details of the hydrocarbon intersections are provided in Section 6 and further details of the reservoir pressure interpretation in Section 7.

Three gas reservoirs and two water sands were perforated for gas injection (Table 3.1). These perforations comprise the "Upper Perforation Group". Four reservoirs were perforated for oil production (Table 3.2). These comprise the "Lower Perforation Group". The two groups are separated by a packer and each was flow tested after perforation, during a clean-up flow.

The Upper Perforation Group achieved an average gas flow rate of 22.6MMscf/d (on a commingled flow test, Figure 3.1), at an average condensate rate of 1359stb/d (a condensate/gas ratio of 60stb/MMscf), through a ¾" choke, with an average flowing tubing head pressure of 2828psig. The maximum gas rate (achieved near the beginning of the three hour flow test) was 29.1MMscf/d, with a CGR of 36stb/MMscf and a FTHP of 2841psig.

The Lower Perforation Group achieved an average oil flow rate of 6120stb/d (on a commingled flow test, Figure 3.2), at an average produced gas/oil ratio of 1116scf/stb, through a ¾" choke, with a FTHP of 1778psig. The maximum oil flow rate (6332stb/d) was achieved mid-way through the two and a half hour flow test.

Table 3.1 Upper Perforation Group (for Gas Injection)

Reservoir Zone	Perforation Interval (mMDRT)	Perforation Interval (mTVDSS)	Total (mMDRT)
Zone 1.1.2 (Gas)	3184.0 to 3189.0	-2984.5 to -2989.5	5.0
Zone 1.1.3 (Gas)	3193.0 to 3196.0	-2993.4 to -2996.4	3.0
Zone 1.1.5 (Gas)	3206.0 to 3209.0	-3006.4 to -3009.3	3.0
Zone 1.1 (Water)	3212.0 to 3214.0	-3012.3 to -3014.3	2.0
Zone 1.1 (Water)	3225.0 to 3229.0	-3025.3 to -3029.3	4.0
		Total	17.0

Table 3.2 Lower Perforation Group (for Oil Production)

Reservoir Zone	Perforation Interval (mMDRT)	Perforation Interval (mTVDSS)	Total (mMDRT)
Zone 2 (Oil)	3256.0 to 3263.0	-3056.1 to -3063.1	7.0
Zone 3.2 (Oil)	3276.5 to 3278.0	-3076.6 to -3078.1	1.5
Zone 4.1 (Oil)	3302.0 to 3304.0	-3102.0 to -3104.0	2.0
Zone 6.2.3 (Oil)	3413.5 to 3415.5	-3213.3 to -3215.3	2.0
Zone 6.2.3 (Oil)	3417.0 to 3420.0	-3216.8 to -3219.8	3.0
		Total	15.5

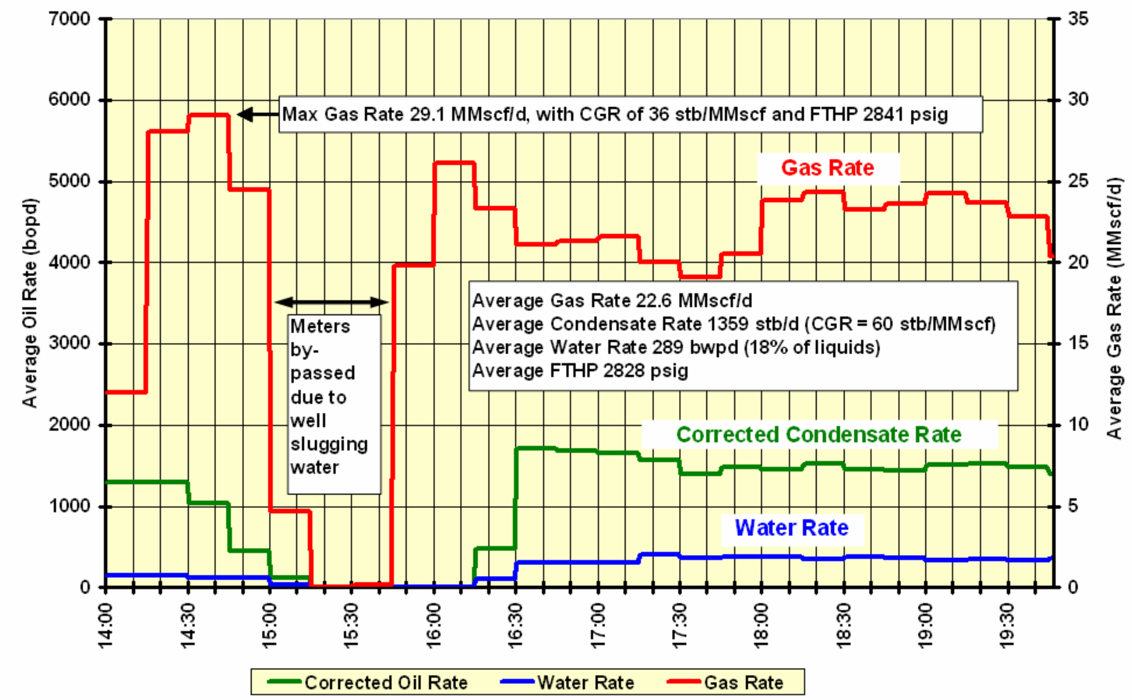

Figure 3.1 Separator Flow Rates Achieved During the Well Clean-up Testing of the Upper Perforation Group

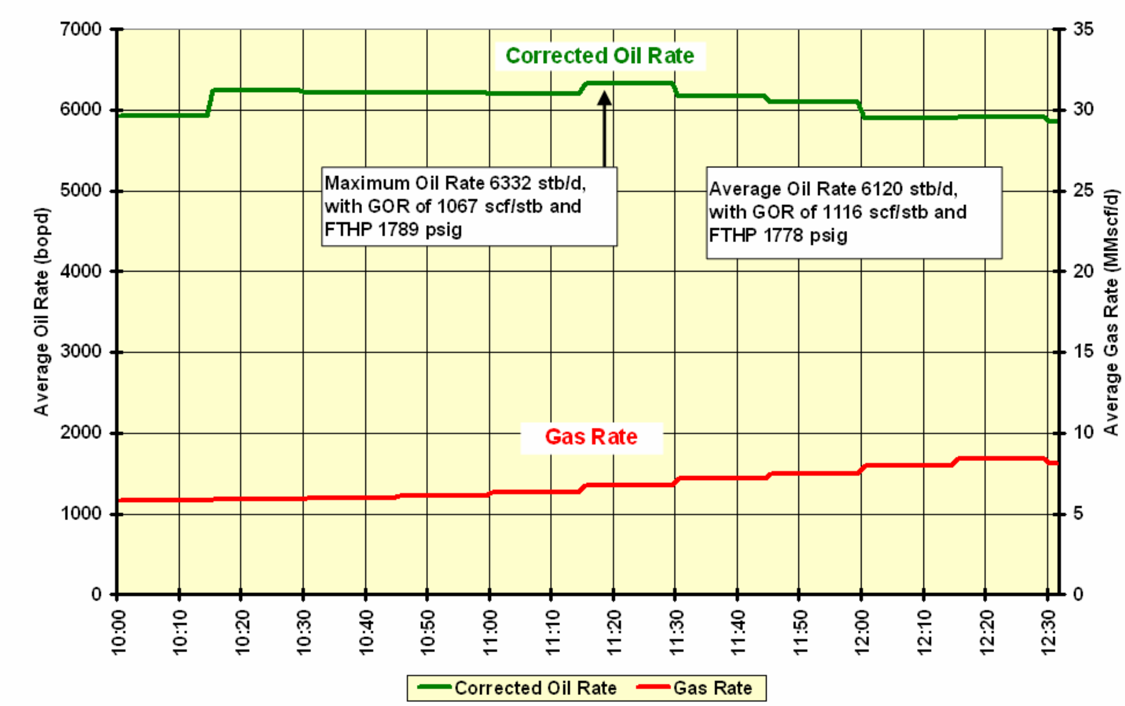

Figure 3.2 Separator Flow Rates Achieved During the Well Clean-up Testing of the Lower Perforation Group

The predicted and actual formation tops penetrated in Basker-4 are summarised in Table 3.3. There was an unusually high degree of uncertainty with depth prediction in Basker-4 (in spite of its proximity to Basker-1 and Basker-2) because of difficulties with both depth conversion (further discussed in Section 5) and reservoir correlation (further discussed in Sections 4 and 6).

The reservoir top picks shown in Table 3.3 are at the top of the uppermost hydrocarbon-bearing sand or at the equivalent stratigraphic level, if no reservoir quality sand is present. Depths were predicted for eight of the twelve reservoirs intersected by Basker-4.

Basker-4 has shown that the western part of the Basker Field is shallower than was expected. All of the main reservoirs were high to prediction. The relatively large depth prediction error at the top of Lakes Entrance is due to difficulty with picking and correlation at this level. The error at the top of Latrobe is due in part to an intersection at a different location to that expected pre-drill. The TD of Basker-4 is shallower than expected because of drilling difficulties near TD. Zone 8 was not intersected because of the shallower than expected TD.

Table 3.3 Basker-4 Predicted Versus Actual Formation Tops

Formation:	Predicted Depth (mMDRT)	Predicted Depth (mTVDSS)	Actual Depth (mMDRT)	Actual Depth (mTVDSS)	Difference (mTVDSS)
Sea Floor	177.0	-155.5	176.9	-155.4	0.1m high
Top Lakes Entrance Formation	1884.3	-1779.0	1824.5	-1728.5	50.5m high
Top Latrobe Group	2238.8	-2086.0	2189.8	-2065.0	21.0m high
Top Zone 0 Reservoir Equivalent	3267.8	-2973.0	3168.4	-2969.0	4.0m high
Top Zone 1.2 Reservoir	3347.8	-3042.0	3231.8	-3032.0	10.0m high
Top Zone 2 Reservoir	3357.1	-3050.0	3243.2	-3043.4	6.6m high
Top Zone 4 Reservoir	3413.8	-3099.0	3293.6	-3093.6	5.4m high
Top Zone 5 Reservoir Equivalent	3491.5	-3166.0	3364.7	-3164.6	1.4m high
Top Zone 6.2 Reservoir Equiv.	3535.5	-3204.0	3396.1	-3196.0	8.0m high
Top Zone 7 Reservoir or Equiv.	3573.8	-3237.0	3430.0	-3229.8	7.2m high
Top of Volcanics Unit 1	3584.2	-3246.0	3445.0	-3244.8	1.2m high
Top Zone 8 Reservoir Equivalent	3617.8	-3275.0	NI	NI	NI
TD	3689.6	-3337.0	3480.0	-3279.8	57.2m high

NI: not intersected

4. GEOLOGICAL DISCUSSION

The well drilled a section of Recent to Campanian age sediments. A generalised chronostratigraphic summary is presented in Figure 4.1. The hydrocarbon reservoir section is Lower F. longus to T. lillei in age. TD of the well was 50mMD into the volcanic section. The ages are based on the correlation and the palynology carried out in Basker-1 and Manta-1.

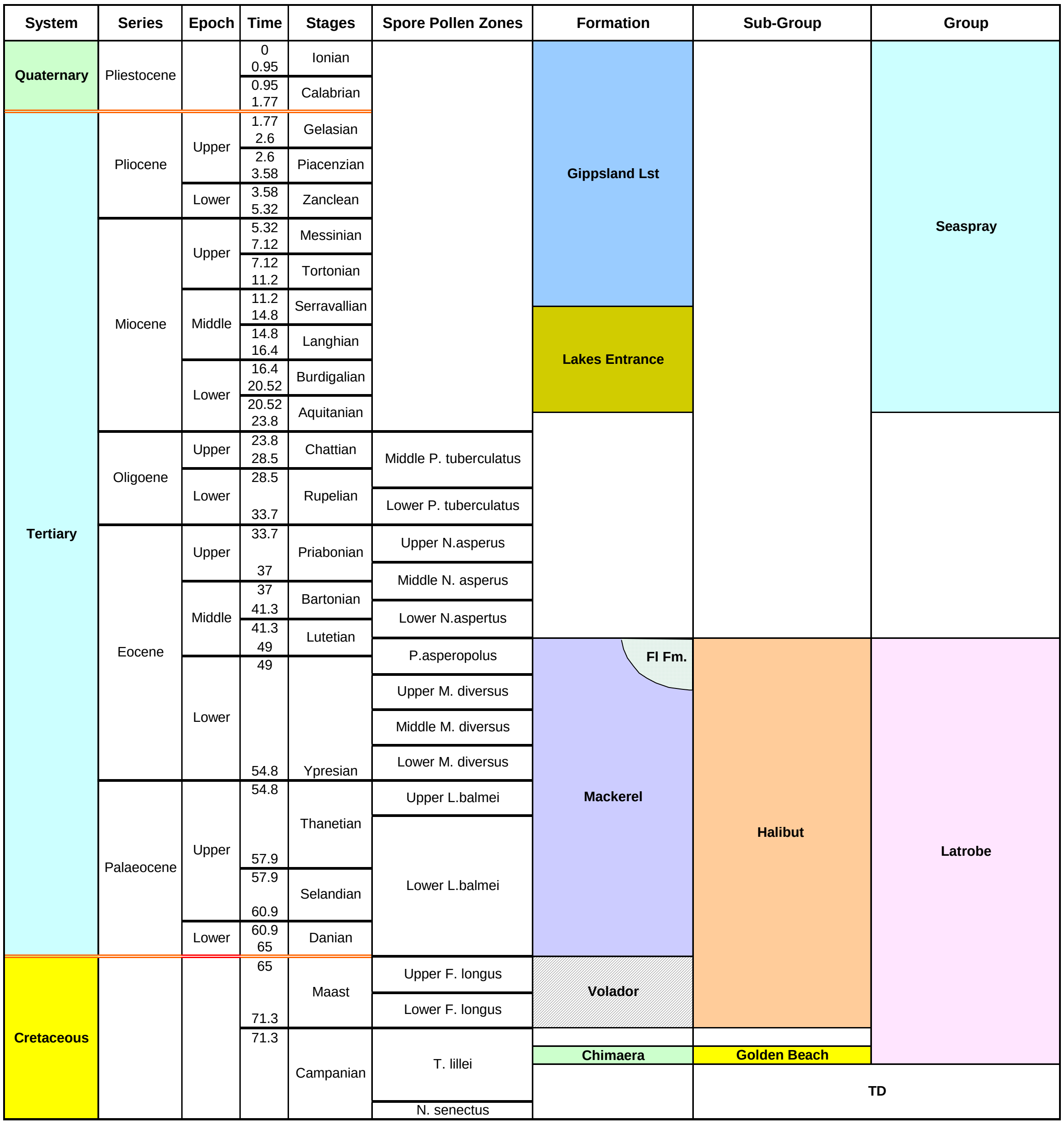

Figure 4.1 Basker-4 Chronostratigraphy

A summary of the palaeogeography for the Latrobe section can be found in Bernecker and Partridge (2005) and other papers.

The hydrocarbon reservoir section is located between the Ma2 Marker 3041.7mMDRT (-2843.9mTVDSS) and top Volcanics 3445mMDRT (-3228.3mTVDSS). Deposition occurred in a coastal plain environment consisting of interbedded sandstones, siltstones, claystones and coals.

The reservoir section is comprised of two sequences:

1) Sequence 1 is T.lilliei in age. The base is not interpreted in the well. The system tracts present are late HST (Highstand System Tract) and LST (Lowstand System Tract).

2) Sequence 2 is lower F.longus in age, a complete section is present.

The major sequence boundaries in Basker-4 are shown in Table 4.1

Table 4.1 Sequence Boundaries in Hydrocarbon Section

Sequence	MD	TVDSS
Sequence 3 Base	3066.2	-2867.8
Sequence 2 Base	3362.2	-3162
Sequence 1 Base	Not penetrated	

The distribution of sandstone reservoirs is influenced by their position in the sequence. Using the model of Bohacs and Suter (1997), sandstone bodies of late HST/ early LST are amalgamated, and have more sheet-like characteristics. In Basker this equates to Zones 0 - 2. Channel bodies in the other system tracts have a more meandering characteristic.

For the reservoir section the palaeo-transport directions for the different wells are summarised in Figure 4.2, over page.

Basker-4 Hydrocarbon zones and the major stratigraphic boundaries are identified in the Composite Well Log (Enclosure 2)

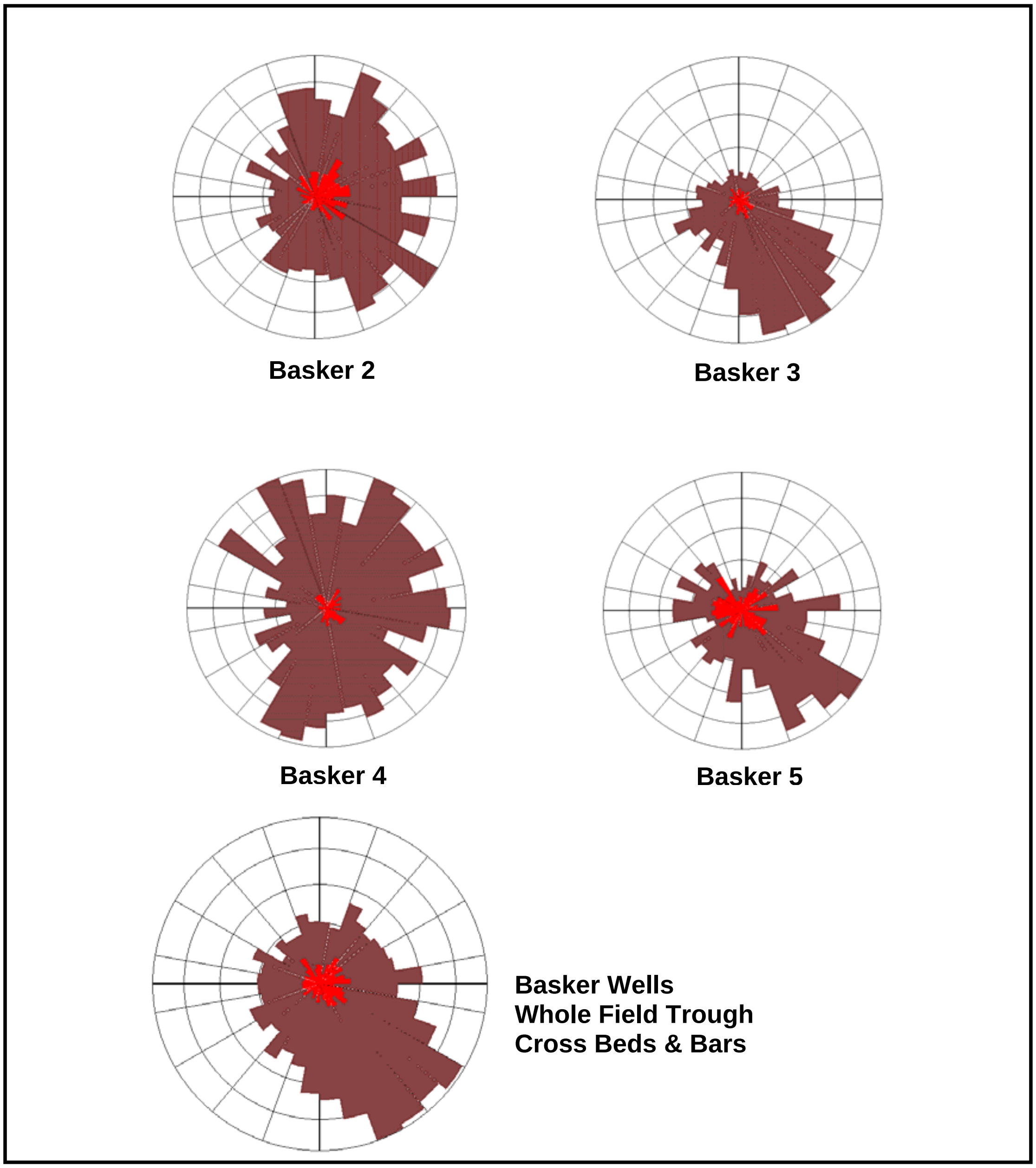

Figure 4.2 Basker Palaeo-transport directions for Basker-2, -3, -4 and -5

The well correlation across the field is presented in Enclosure 1. The pressure data had a significant influence on the well correlation. It indicated which reservoir units were in communication. Other units such as the hydrocarbons encountered in Zone 4, show a more limited areal distribution. The sandstone distribution can be explained by their relative position within a sequence. The major reservoirs are present between Zone 0 and Zone 2. These are interpreted to have been deposited during the late HST with channels migrating across the flood-plain resulting in sheet sands greater than 2km in diameter. Hence good connectivity is interpreted in these sand bodies.

The Seahorse unconformity between the Intra-Latrobe Siliclastics (Halibut Subgroup) and the Golden Beach (Bernecker and Partridge, 2005) is near the top of T. lilliei and the base of Lower F. longus. There is little evidence of a major unconformity in the BMG area. The FMI data shows little evidence of structural movement between the Golden Beach and Halibut sub-group at this time. Any hiatus present is likely to be of limited time duration. The QEMSCAN data clearly shows a variation in the mineralogy across the interpreted regional unconformity (Figure 4.3).

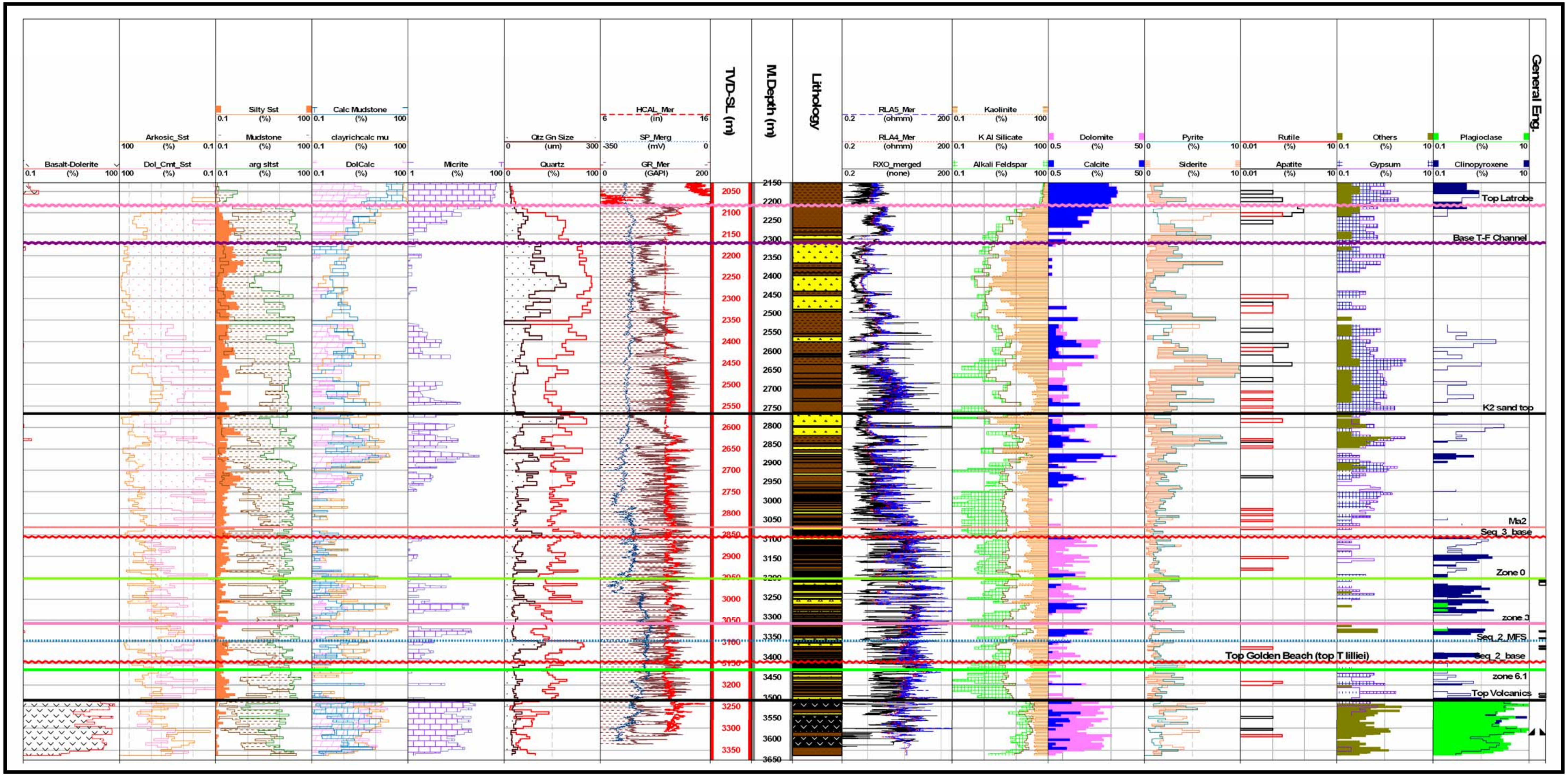

Figure 4.3 Example from Basker-5 showing results of QEMSCAN

Note: The top Golden Beach is a major unconformity to the east. QEMSCAN indicates a significant change in mineralogy across the unconformity.

References

T. Bernecker and A.D. Partridge, 2005, Approaches to Palaeogeographic reconstructions of the Latrobe Group, Gippsland Basin, Southeastern Australia, APPEA Journal, p581-600

Kevin Bohacs and John Suter, 1997, Sequence Stratigraphic Distribution of Coaly Rocks: Fundamental Controls and Paralic Examples, AAPG Bulletin, V81, No. 10 (October), p1612-1639

5. GEOPHYSICAL DISCUSSION

The trap for the Basker Field hydrocarbons is a fault-dependent closure on the downthrown side of a high-angle normal fault (the Basker Fault) which cuts across a south to southwest plunging nose which joins the Basker, Manta and Gummy fields (Figure 5.1).

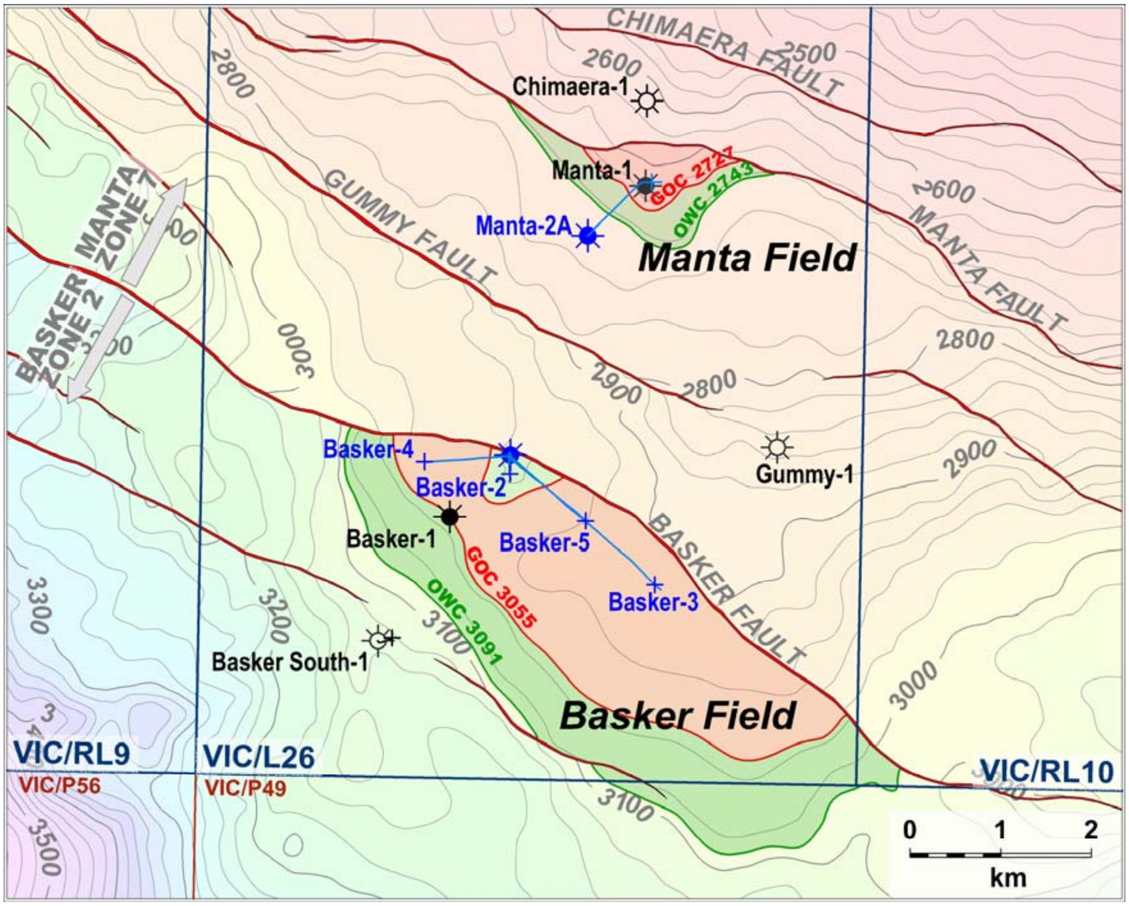

Figure 5.1 Composite Structure Map, Top of Basker Field Zone 2 Reservoir and Top of Manta Field Zone 7 Reservoir (Contour Interval 20m)

Six reservoir mapping seismic horizons (MZN2 and ZC1 to ZC5) have been mapped over the Basker Field, dividing the reservoir section into five intervals. Figure 5.2 (an arbitrary 3D seismic line through the Basker and Manta wells) shows the key Basker reservoirs in relation to the reservoir seismic markers. Enclosure 3 is an arbitrary 3D seismic line along the Basker-4 well path, showing all interpreted seismic horizons.

Seismic coverage for the Basker, Manta and Gummy fields is provided by the 1996 Basker-Manta 3D Seismic Survey. Two processed versions of this survey are presently available: the original 1997 processing by Shell's Melbourne Processing Centre and reprocessing completed by Woodside in 2001, which included both merging with the Kipper 3D and pre-stack depth migration (PSDM). The current reservoir maps were derived from Anzon's interpretation of the 2001 merged and reprocessed Kipper-Basker-Manta PSDM 3D seismic (KBM3D), after scaling from depth back to two-way time.

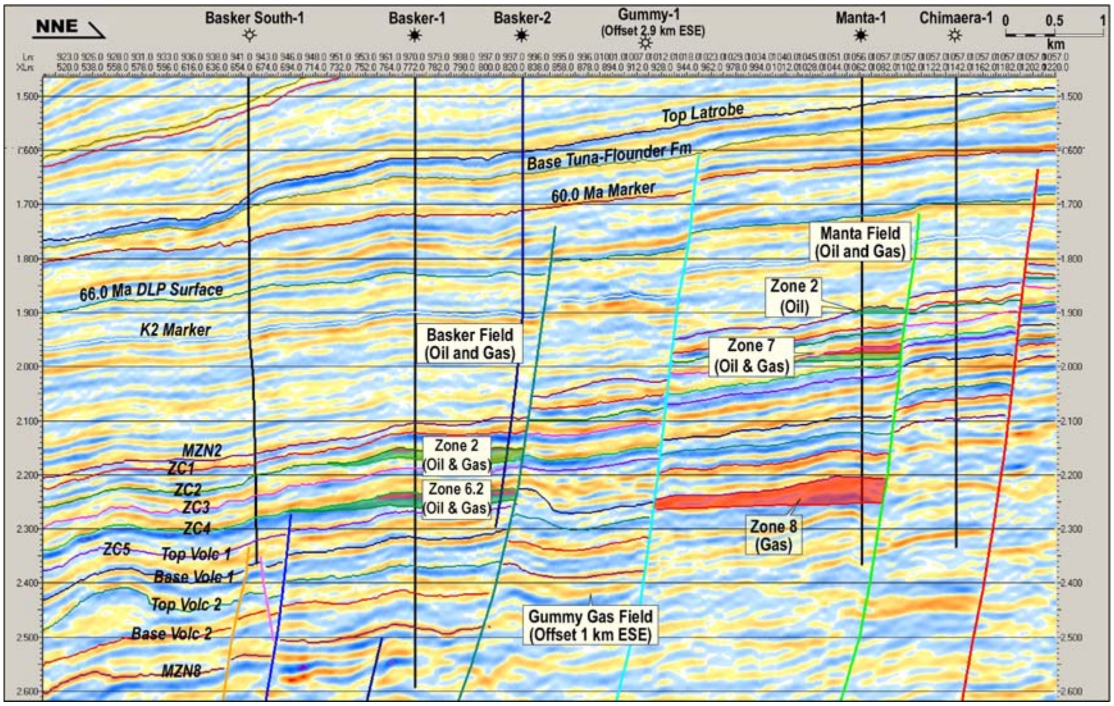

Figure 5.2 Seismic Line through the Basker and Manta Fields, Showing the Reservoir Intervals

The KBM3D seismic is nominally quadrature phase (zero phase with a 90º phase shift) and is displayed with the Australian normal polarity convention (an increase in acoustic impedance displayed as a trough). Hence the marked increase in impedance at the top of Latrobe appears at the zero crossing between a strong trough and peak on the KBM3D seismic (Figure 5.2).

Seismic data quality over the Basker Field is generally good from the surface to about the level of the K2 Marker (Figure 5.2). There is then some degradation in reflector continuity in the section immediately below the K2, probably because of low impedance contrasts at this level and because of interbed multiples sourced from the shallower Latrobe section. Interbed multiples continue to degrade data quality throughout the reservoir section and below. Reflector continuity is generally good across the reservoir interval (the interval between the MZN2 and ZC5 markers) but this continuity appears to be due in part to a contribution from interbed multiples (sourced from the numerous coals which are present within the reservoir section).

Boat-sourced vertical incidence vertical seismic profiles (VIVSPs) were planned for all four of the Basker development wells. The airguns used as the seismic source during a VIVSP are deployed from a workboat so that they can be positioned vertically above the well geophones as they are moved up the hole. VIVSPs were acquired successfully in Basker-2, Basker-3 and Basker-5 but the Basker-4 VIVSP was abandoned after recording at only three levels, because of deteriorating weather conditions. Nevertheless, sufficient data was acquired to facilitate the processing of the Basker-4 VIVSP as a checkshot survey.

Well-to-seismic ties are relatively straightforward for all of the Basker wells, with good agreement between the seismic and the synthetics over most of the logged section. There are however some difficulties with the synthetic ties at the level of the Basker reservoirs, because of interbed multiples. The Basker VIVSPs have demonstrated some multiple contamination for all events through the reservoir section, with the exception of the ZC1 and ZC4 events. Hence only the ZC1 and ZC4 horizons were used for the post-development reservoir mapping.

Within the Intra-Latrobe reservoir interval it is generally difficult to correlate individual sands, shales and coals, both within the Basker Field and between the BMG wells. The gross reservoir correlation was hence derived from the seismic interpretation. Six reservoir seismic markers (MZN2, ZC1, ZC2, ZC3, ZC4 and ZC5) were correlated on the seismic over the reservoir interval, on zero-crossings. Synthetic seismograms were then used to derive the gross well correlations.

Seismic time to depth conversion for the Basker Field is difficult. The combination of the rugose water bottom overlying the Basker Field (Figure 5.3) with rapid shallow lateral velocity variations in the section overlying the Latrobe (due to complex shallow channelling; Enclosure 3) makes accurate depth prediction difficult. Hence, there is an unusually high degree of uncertainty with the depth mapping of the Basker Field reservoirs.

The top of Latrobe was chosen as the key horizon, from which the ZC1 and ZC4 depth conversions were "hung". Six different depth conversion approaches were tested for the top of Latrobe (in order: stacking velocity, PSDM velocity, PSDM velocity slice, layer-cake, velocity function (V0-K) and Dix interval velocity). Two previous depth conversions (by Shell and by Woodside) were also re-visited. A final hand-drawn top Latrobe average velocity map was derived by combining (as top Latrobe average velocity) the output from all of these depth conversions.

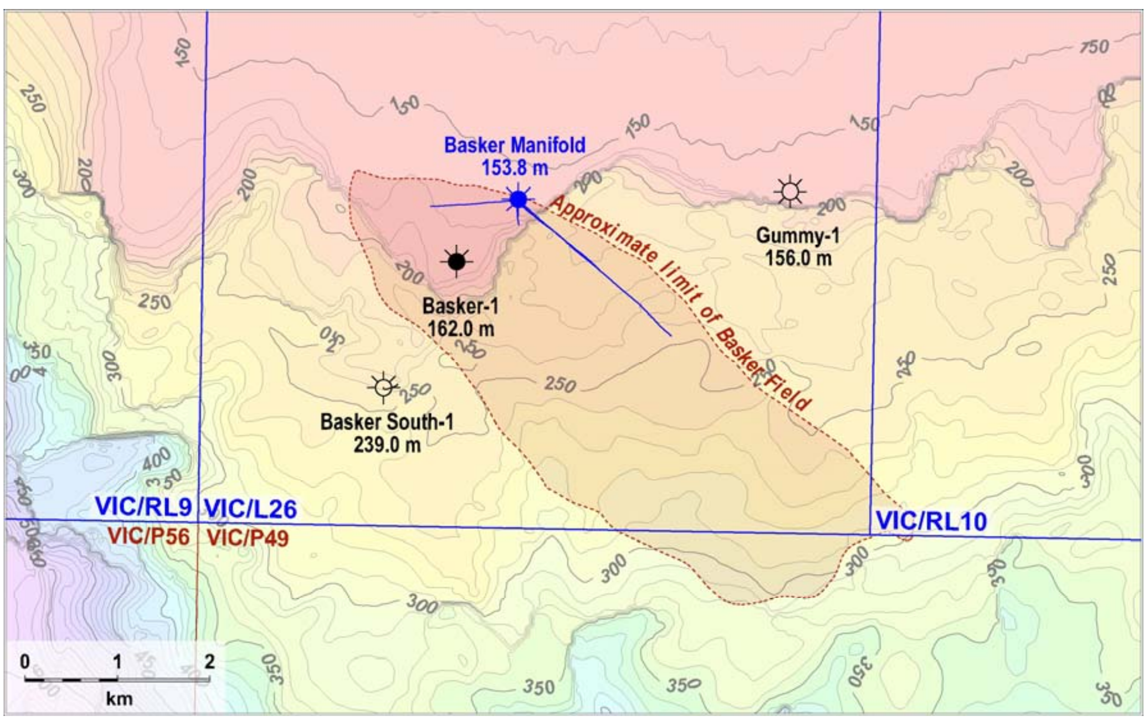

Figure 5.3 Bathymetry Map (Contour Interval 10m), Showing Location of the Basker Field

Average velocity grids for each of the two reservoir mapping horizons (ZC1 and ZC4) were derived from the top of Latrobe average velocity grid, using average velocity difference grids. These difference grids were generated from hand-drawn average velocity difference maps which were based on the well values and the form of maps of the top of Latrobe to ZC1 and ZC4 interval two-way time. Depth conversion for each of the Basker Field reservoirs was then achieved by phantoming from the nearest mapping horizon (ZC1 or ZC4). Reservoir maps for the three key Basker reservoirs are presented as Figures 5.4 to 5.6. In each case it has been mapped at the top of the uppermost sand of the reservoir or its stratigraphic equivalent.

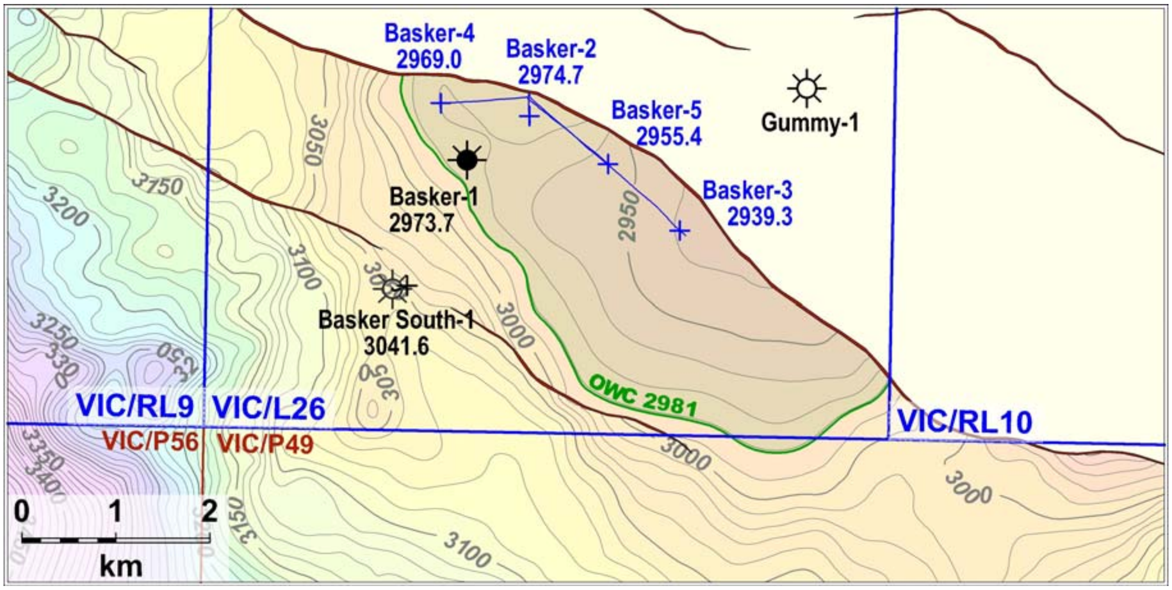

Figure 5.4 Structure Map, Top of Basker Zone 0 Reservoir (Contour Interval 10m)

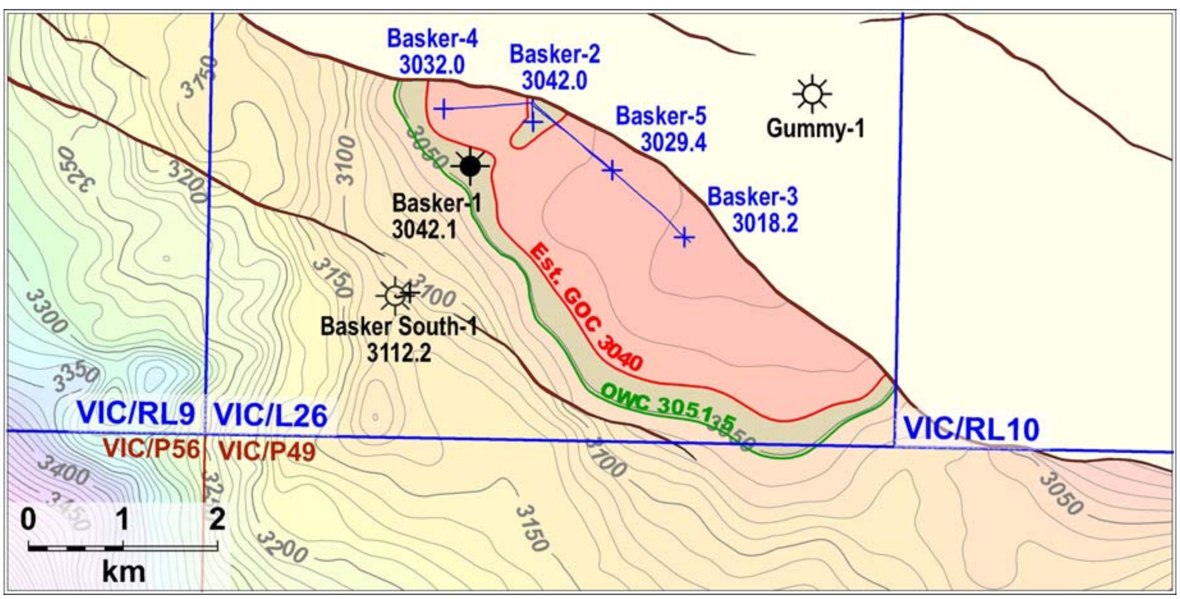

Figure 5.5 Structure Map, Top of Basker Zone 1.2 Reservoir (Contour Interval 10m)

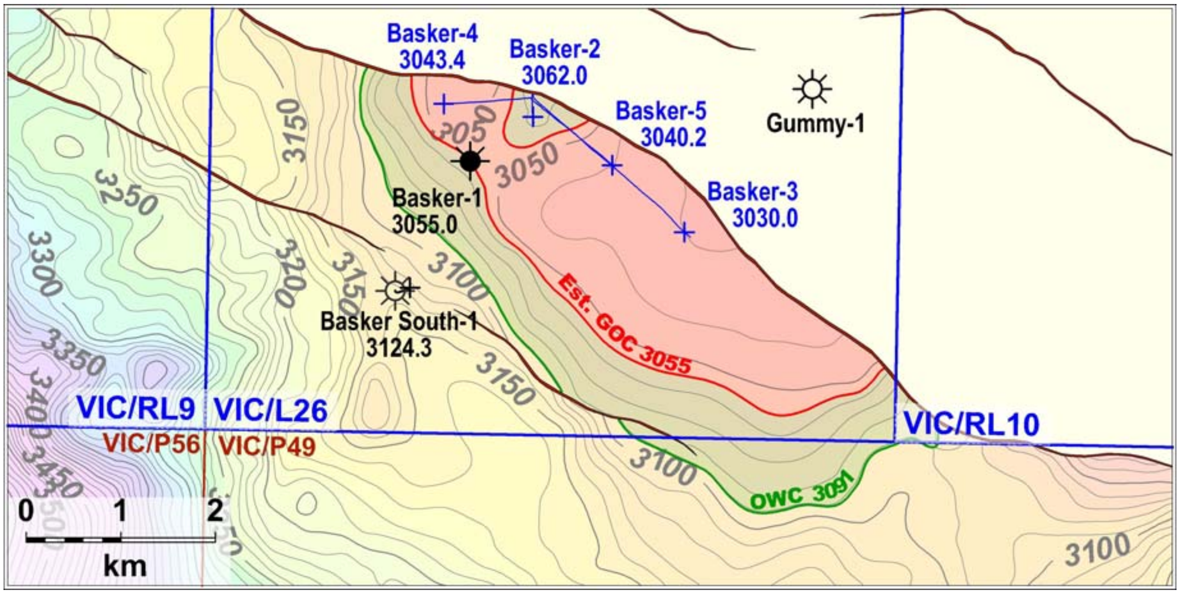

Figure 5.6 Structure Map, Top of Basker Zone 2 Reservoir (Contour Interval 10m)

6. OPEN-HOLE WIRELINE LOG ANALYSIS

Introduction

During drilling, Halliburton Sperry Drilling Services provided a logging while drilling (LWD) tool suite for formation evaluation purposes from 1010-3480mMDRT. After total depth was reached Schlumberger provided open-hole wireline logging services with their PEX logging system and data was acquired from 2949-3742mMDRT (Loggers Depths).

This report presents an evaluation the Schlumberger Open-Hole Wireline Logs from 2950-3765mMDRT using Crocker Data Processing, Petrolog Complex Lithology Modules.

The results obtained and methods used are summarised in this report. All depths are relative to the Suite 1, Run 1 Schlumberger gamma ray log (GR)

A summary of the results obtained is presented in Table 6.2.

Anzon Australia LIMITED

General Information

All depths quoted in this report are mMDRT.

Table 6.1 Open Hole Wireline Log Analysis General Data

Well Name	**Basker-4**				
Country	Australia				
Company	Anzon Australia Limited				
Location	VIC/L26				
State	Victoria				
Permanent Datum	MSL				
Elevation of DF (M)	21.5				
Depth to SF (M)	155.5				
Logging Co.	Schlumberger				
Logging Date	20 May 2006				
Logs Recorded	FMI-DSI-HRLA-PEX-HNGS MDT-GR				
Bottom Log Interval (M)		3465.0			
Top Log Interval (M)		2945.0			
Casing shoe (M)		988.5			
Bit size (inch)		12.25			
Fluid Type		KCL/PHPH/Glycol			
Density g/cc		1.1384			
RM (Ohmm) @ TEMP (DegC)		0.103 @19.0			
RMF (Ohmm) @ TEMP (DegC)		0.095 @ 20.0			
RMC (Ohmm) @ TEMP (DegC)		0.150 @ 20.0			
Max Temp (DegC)		100			
Recorded by	S.Kasian/Kyaw Kyaw Aung				

Deviation

The hole deviation at the top of the reservoir section (3184mMDRT) was 6.8° and near T.D. at 3480mMDRT was 2.68°. Telemetry and directional data from the Sperry Sun LWD run were used as the basis to convert measured depth to true vertical in this interpretation.

Data Acquisition and Quality Control

Although depth offsets occur between the LWD curve data and the Schlumberger wireline data, no depth alignments were carried out between the two data sets.

No problems were encountered during the Schlumberger wireline operations and quality is acceptable.

The PEX tool was run in high resolution mode and the tool string was run eccentered using a 1.5” standoff. All curves were recorded in the same run. The caliper log indicates that the hole was mostly in-gauge throughout the zones of interest. The digital data received were of acceptable quality, there were no cycle skips observed on the sonic log and no further processing was undertaken.

Core Acquisition

Nil cut.

Log Compositing and Editing

The Schlumberger "MDT" data points (pre-tests and samples) acquired during drilling operations were depth referenced to the Schlumberger wireline GR. All other curves were examined for depth alignment using this reference. No log edits were applied as all log data was sufficiently on depth.

A composite display of input logs is presented together with the results in the composite plot (Enclosure 4).

Environmental Corrections

Environmental corrections were applied at the wellsite.

Logs Used

The primary logs from Suite-1 Run-1 used in the interpretation were GR, RLA3 RLA5, RX08, RH08, HTNP, HDRA, PEF8, SP, HTHO, HURA, and HFK.

Temperature Gradient

A temperature gradient of 2.2DegC/100m was used in this interpretation.

Hydrocarbon Type Identification

The methodology used to identify hydrocarbon type consisted of a combination of the neutron-density log character, resistivity anomaly, ditch gas readings and hydrocarbon fluorescence shows described in the ditch cuttings.

At Basker-4 the identification of hydrocarbon zones was complex because of a relatively low resistivity contrast between the hydrocarbon zones and the water sands, due to clay mineral conductivity. Complex mineralogy and detritus (eg pyrite) within the reservoir units also masked log responses.

An MDT programme was conducted to verify and validate the hydrocarbon type interpreted from the logs. The MDT programme consisted of pretests and fluid analysis using Schlumberger's Down-Hole Fluid Analyser (DFA). Fluid samples were recovered from 3278.0mMDRT, 3303mMDRT and 3414.5mMDRT. An Interpretation of the MDT data is presented in Section 7.

Using this methodology several oil and gas zones were identified which are presented in Table 6.2, together with the results of the interpretation. A graphical example is presented in Figure 6.1.

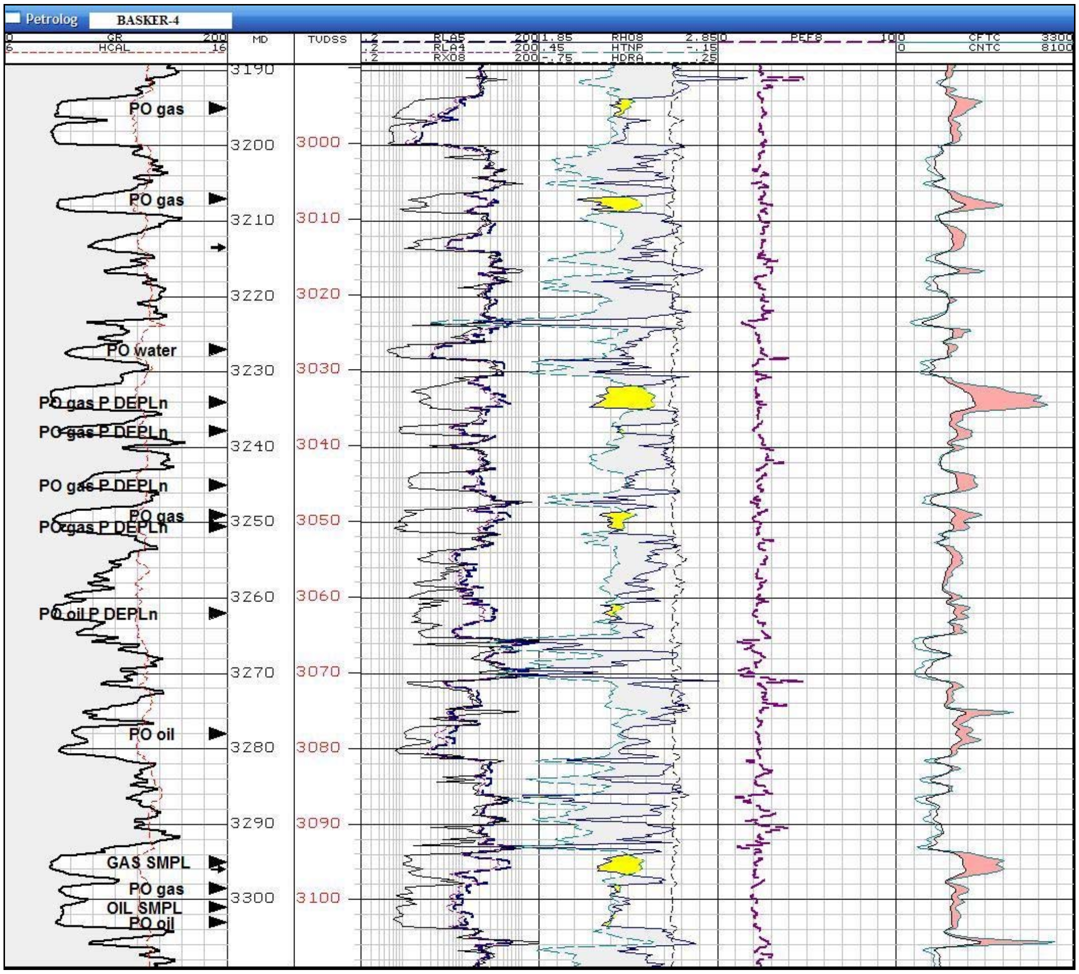

Figure 6.1 Basker-4 Hydrocarbon Type, example of methodology

Petrolog Model Selection

The Petrolog deterministic Complex Lithology (CPX) model was selected for the interpretation to compute Vsand, Vclay, Vdolomite, Vcoal, Vvolcanic, total porosity (PHIT), effective porosity (PHIE), total water saturation (SWT) and effective water saturation (SWE).

Complex Lithology

The CPX model was constructed to use a combination of the density and neutron logs to compute Vsand, Vclay, Vdolomite, Vcoal, and Vvolcanic.

A colour composite of the Spectral GR displays the relative abundance of Thorium (Th) Uranium (U) Potassium (K), refer Figure 6.2, shows the mineral complexity throughout the section. Although the Th abundance is relatively constant, the K abundance is not uniform indicating changes in clay mineralogy. The high U concentrations indicate increases in organic matter.

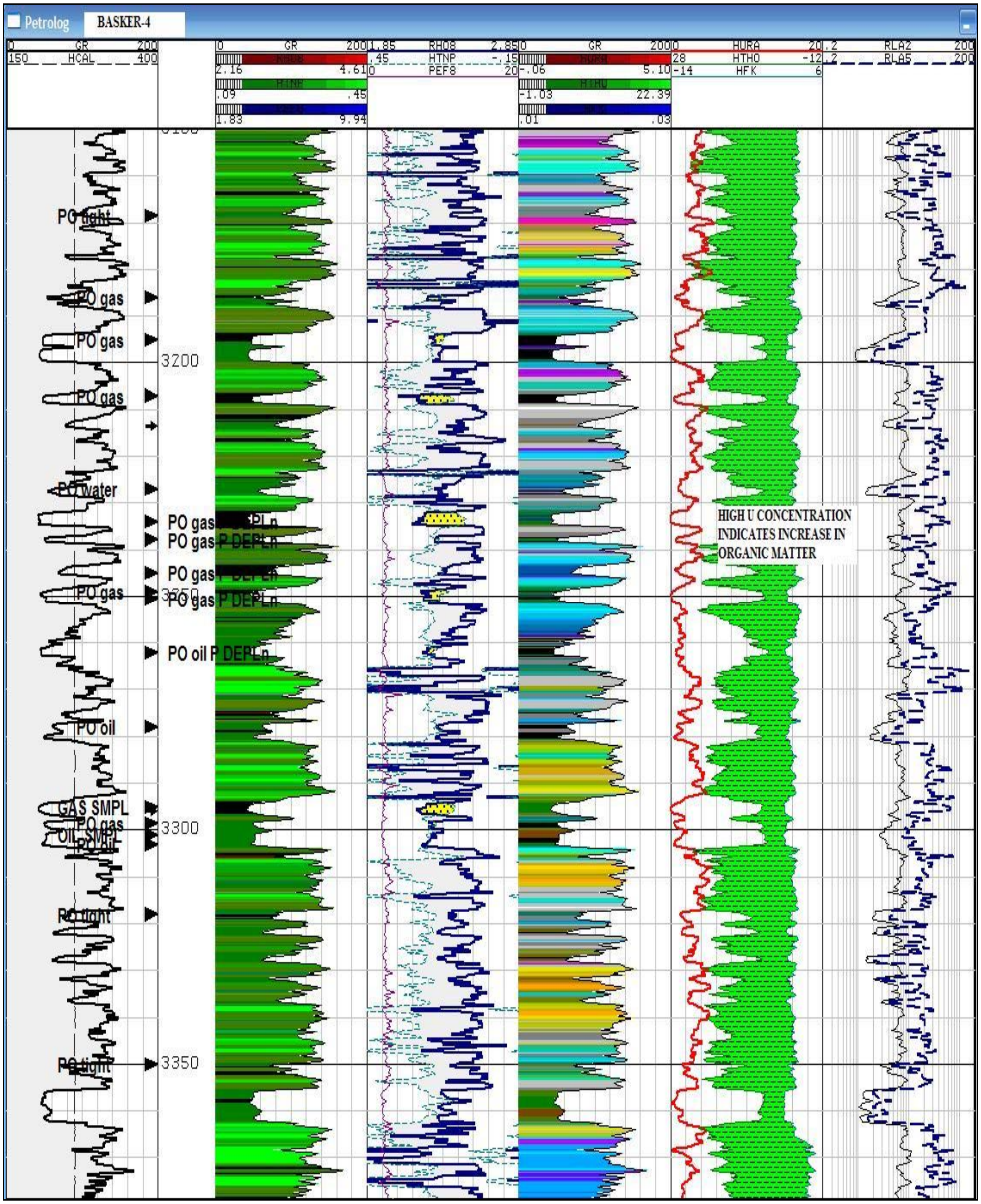

Figure 6.2 Basker-4 NGT Composite Plot

Porosity Determination

PHIT was calculated using the density and neutron logs. PHIE was calculated after the Vcl determination, using:

PHIE = PHIT * (1-Vcl).

RW Determination

In conventional log analysis, the calculation of hydrocarbon saturation assumes that the formation water salinity in the hydrocarbon zone is the same as that of the underlying water sands. Crossplots of PHIT and true resistivity (RT) across the water sands in Basker-4 indicate a water salinity of 15,000ppm NaCl equivalent (Figure 6.3). It is considered that this value is inconsistent with salinity values for a near-shore fluvial depositional environment and use of this value would result in pessimistic hydrocarbon saturations. It has been recognised that in some regions within the offshore Gippsland Basin a period of meteoric water influx displaced the aquifer without flushing the emplaced hydrocarbons (Kuttan, Kulla and Neumann 1986), resulting in relatively fresh aquifer water underlying hydrocarbon reservoir systems.

As a consequence the assumption that the underlying aquifer is the same salinity as the associated hydrocarbon zones is not always correct. For the purpose of this interpretation a formation water salinity equivalent to 30,000ppm NaCl equivalent has been used to calculate hydrocarbon saturations (Figure 6.4). The PHIT-RT crossplot (Figure 6.4) supports the use of this value and 15,000ppm NaCl equivalent for the water zones. Analyses of water samples collected from the test separator during the extended production test support the use of these values.

To reduce the uncertainty of water salinity associated with the hydrocarbon zones, several MSCT (mechanical sidewall coring tool) samples were submitted for special core analysis (SCAL), in particular capillary pressure measurements. At the time of writing this report the results were not available to verify input parameters and validate the computed hydrocarbon saturations.

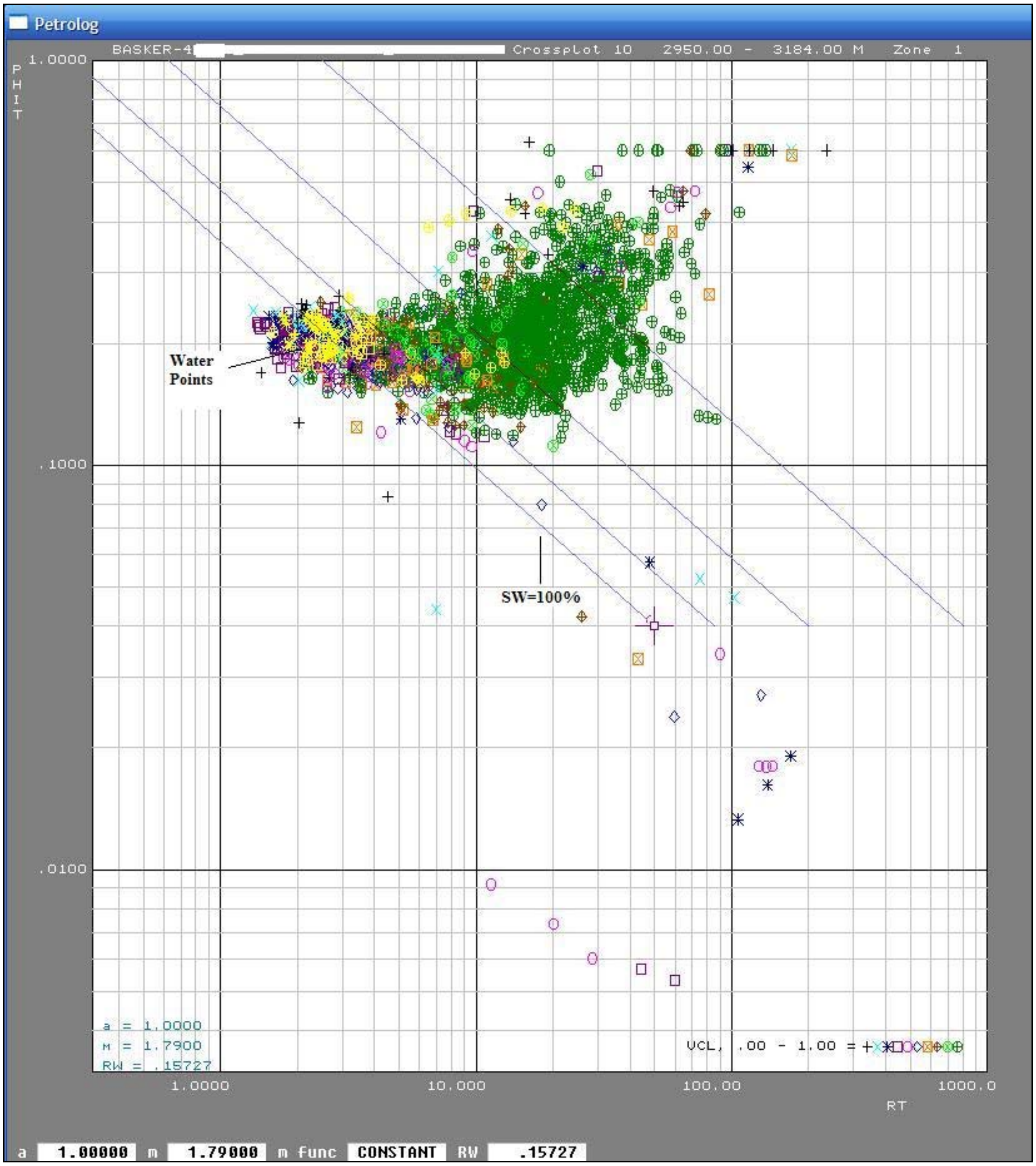

Figure 6.3 Basker-4 PHIT-RT Crossplot for the Water Sand Interval 2950-3184mMDRT

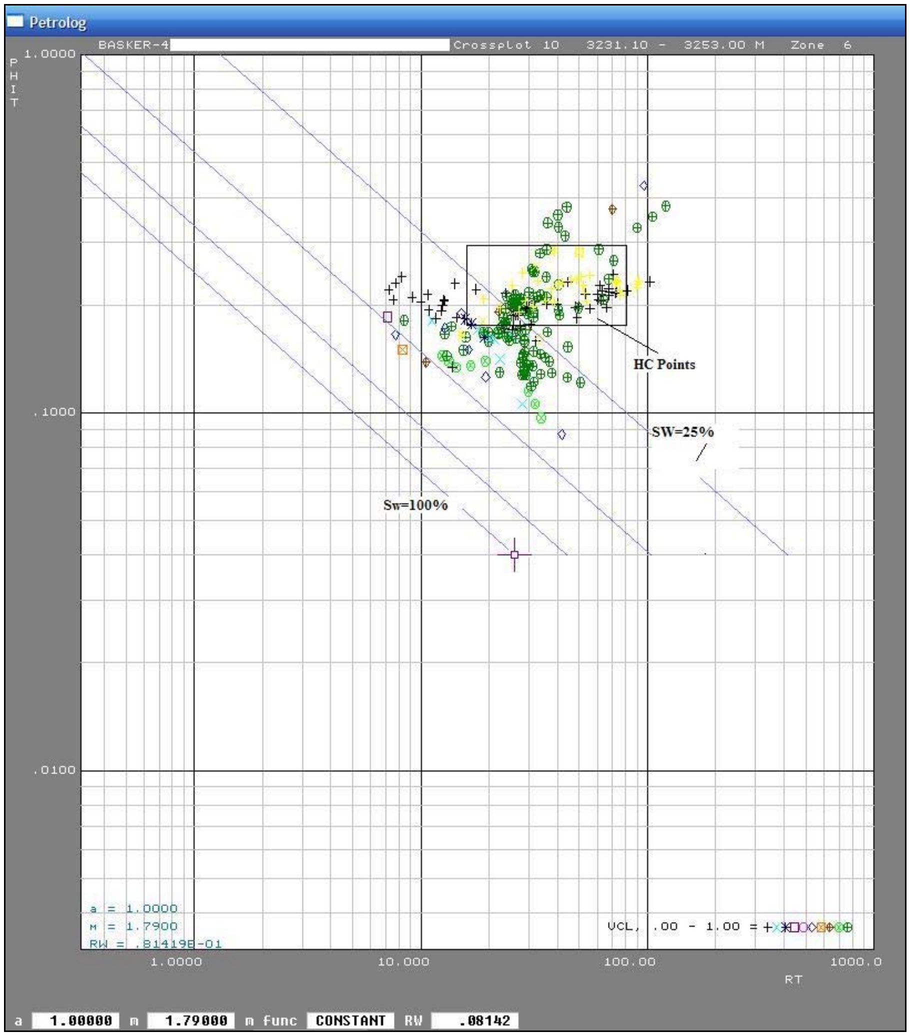

Figure 6.4 Basker-4 PHIT-RT Crossplot for the Hydrocarbon Interval (Oil) 3232-3253mMDRT

Determination of Sw, a, m, n

For this interpretation the Simandoux equation was used to compute water saturation (Sw) and is defined as follows:

SWe = (a*Rw/(2.0*PHIE**m))*(SQRT((VCL/RCL)**2.0
+ 4.0*PHIE**m/(a*Rw*RT))-VCL/RCL)

In this interpretation a=1, m= 1.79 and n=1.83

The values a=1, m= 1.79 and n=1.83 were obtained from the Special Core Analysis Report Basker-1. A study of the Capillary Pressure measurements from Basker-1 conventional core was undertaken (refer Anzon Australia Ltd Report September 2005, Determination of Irreducible Water Saturation using the Basker-1 Capillary Pressure Curves by Wong Shau Yee) where an average capillary pressure curve was converted to a height versus water saturation curve and used to calculate an average water saturation in Basker-1 Zone 2 (PcSw=24%).

A good match was achieved between the Log derived Sw in Basker-1 across Zone 2 and the calculated PcSw validated the use of these parameters in Basker-2. Preliminary SCAL results for the Basker-5 MSCT samples also support the use of these values. In Basker-5 the average m=1.77 and preliminary estimates for average n=1.83. The data for Shaly Sand equivalent m* and n* are not yet available.

Results

Table 6.2 lists the results of the interpretation. Based on cut-off parameters PHIE>=10% and Vclay<50%, an interpreted total of 12.7m of net oil and 27.8m of net gas was intersected by Basker-4.

The PHIE cut-off for net reservoir and net pay determination was established using the core porosity-permeability relationship from the Basker-5 MSCT SCAL (Figure 6.5). The cross-plot indicates that where core porosity (at overburden pressure) is greater than 10%, permeability (at overburden pressure) is greater than 1mD. The SWE cut-off (<=75%) presented in Table 6.2 for net pay determination is based on basin knowledge.

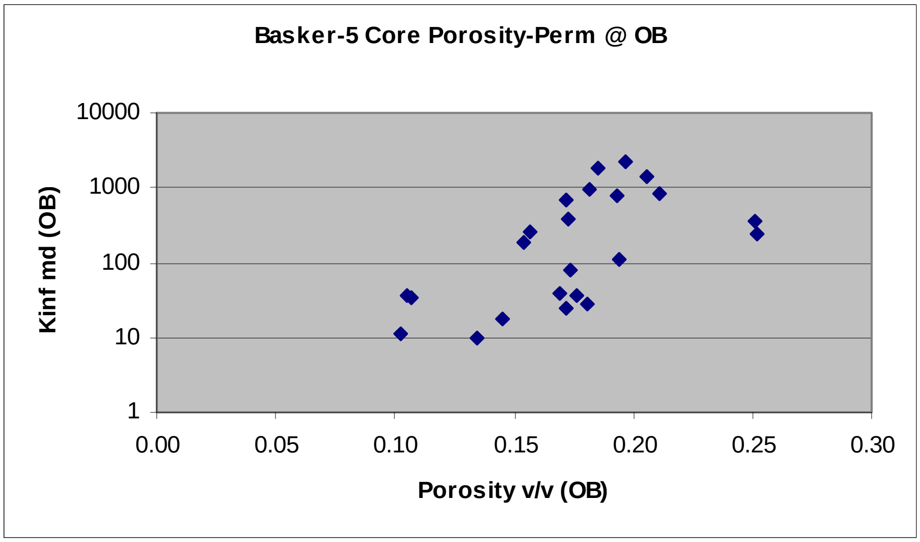

Figure 6.5 Basker-5 Core Porosity-Permeability Crossplot

The input parameters are presented in Table 6.3

The Schlumberger PEX Log Suite-1 Run-1 information is presented in Table 6.4

A log interpretation plot at 1:200 scale is presented as Enclosure 4.

Anzon Australia LIMITED

Table 6.2 Basker-4 Reservoir Summation

Cutoffs: reservoir – phie >10%; vcl<50%
Cutoffs: pay – phie >10%; vcl<50% ; swe <=75%
Based on Final Las Data
RT=21.5m

top	base	top	base	top	base	reservoir					pay				
md	md	tvdkb	tvdkb	tvdss	tvdss	gross	net res	vcl	phie	swe	net pay	vcl	phie	swe	comments
						tvt	m tvt	%	%	%	mtvt	%	%	%	
3035.0	3037.5	2859.3	2860.5	2837.8	2839.0	1.18	1.00	33.69	13.9	100.0					
3040.0	3045.0	2864.7	2867.5	2843.2	2846.0	2.82	2.30	19.90	17.0	100.0					
3049.0	3060.0	2872.0	2882.0	2850.5	2860.5	10.00	4.50	26.16	15.5	100.0					
3068.0	3078.0	2891.4	2900.0	2869.9	2878.5	8.60	1.00	15.56	18.2	100.0					
3085.0	3091.0	2908.5	2913.0	2887.0	2891.5	4.55	4.60	19.68	17.8	100.0					
3110.0	3120.0	2934.0	2942.0	2912.5	2920.5	8.00	3.76	19.82	15.3	100.0					MDT PO Filtrate @3112mMD
3127.0	3130.9	2949.4	2953.3	2927.9	2931.8	3.87	0.69	31.29	14.2	100.0					MDT PO Filtrate @3129.5mMD
3135.0	3148.9	2957.3	2971.1	2935.8	2949.6	13.78	8.83	21.59	16.3	100.0					
3185.0	3187.8	3007.0	3008.7	2985.5	2987.2	1.69	1.19	3.45	22.0	18.7	1.19	6.8	22.0	18.7	MDT PO GAS @3186.0mMD
3193.0	3196.3	3014.9	3018.2	2993.4	2996.7	3.28	2.78	2.86	20.58	38.04	2.78	2.86	20.58	38.04	MDT PO GAS @3195mMD GWC @3196.3mMD (-2996.7mTVDSS)
3196.0	3199.9	3017.9	3021.8	2996.4	3000.3	3.88	0.50	18.85	17.5	100.0					MDT PO Water @3199.0mMDWater Saturated
3206.0	3209.9	3027.9	3031.7	3006.4	3010.2	3.88	2.19	1.66	24.3	20.2	2.19	1.7	24.3	20.2	MDT PO GAS @ 3207mMD
3210.0	3214.9	3031.8	3036.7	3010.3	3015.2	4.88	0.10	11.13	18.2	100.0					
3226.0	3228.9	3047.8	3050.6	3026.3	3029.1	2.88	0.90	15.79	17.8	100.0					MDT PO Water @ 3327.2mMD
3231.0	3234.9	3052.7	3056.6	3031.2	3035.1	3.89	3.18	0.56	21.2	17.9	3.18	0.6	21.2	17.9	MDT PO GAS @ 3234mMD; P Depln
3237.0	3238.9	3058.7	3060.6	3037.2	3039.1	1.89	1.20	1.44	21.6	35.1	1.20	1.4	21.6	35.1	MDT PO GAS (Cond) @ 3237.8mMD;P Depln
3243.0	3245.9	3064.7	3067.6	3043.2	3046.1	2.89	2.10	6.56	16.7	28.0	2.10	6.6	16.7	28.0	MDT PO GAS (Cond) @ 3245.0mMD;P Depln
3247.0	3251.9	3068.7	3073.6	3293.0	3052.1	4.88	2.08	2.77	22.6	16.5	2.08	2.8	22.6	16.5	MDT PO GAS (Cond) @ 3249.0&3250.5mMD
3255.0	3264.9	3076.6	3086.5	3055.1	3065.0	9.86	5.08	7.23	19.3	27.0	5.08	7.2	19.3	27.0	MDT PO OIL; LOGS ODT-3063.4mTVDSS; 500 PSI P DEPLn
3275.0	3279.0	3096.6	3100.9	3075.1	3079.4	4.29	1.89	2.20	17.71	43.92	1.89	2.2	17.71	43.92	MDT PO OIL; recovered 2x450cc smpl OWC @ 3278.9mMD (-3079mTVDSS)
3279.0	3281.0	3100.9	3102.4	3079.4	3080.9	1.50	1.50	5.27	18.8	100.0					Water Saturated
3293.0	3299.0	3114.5	3120.5	3093.0	3099.0	5.99	5.19	0.82	20.84	25.96	5.19	0.82	20.84	25.96	MDT PO GAS @ 3296.0m&3298.4MD GOC @ 3299.0mMD (-3098.5mTVDSS)
3299.0	3303.9	3120.5	3125.4	3099.0	3103.9	4.89	3.69	0.84	21.79	31.3	3.69	0.84	21.79	31.3	MDT PO OIL @3303.0mMD; recovered 2x450cc smpl
3317.0	3319.9	3138.5	3141.4	3117.0	3119.9	2.89	0.10	1.64	17.6	100.0					MDT Tight to pump
3320.0	3322.9	3141.5	3144.4	3120.0	3122.9	2.90	0.20	0.00	19.4	100.0					
3326.0	3329.9	3147.4	3151.3	3125.9	3129.8	3.89	1.60	15.55	16.0	100.0					
3349.0	3351.9	3171.5	3172.0	3150.0	3150.5	0.50	0.50	12.12	13.9	100.0					MDT Tight to pump
3355.0	3362.9	3176.4	3184.3	3154.9	3162.8	7.89	5.60	10.26	16.4	100.0					
3393.0	3399.9	3214.3	3221.2	3192.8	3199.7	6.90	3.00	4.10	19.59	29.71	3.00	4.1	19.59	29.71	MDT PO GAS @ 3397.0mMD; P Depln @ 3099.0mMD
3405.0	3409.9	3226.3	3231.2	3204.8	3209.7	4.90	3.30	1.39	16.3	35.3	3.30	1.4	16.3	35.3	MDT PO Gas (Cond) @3407.5mMD
3410.0	3419.9	3231.3	3241.2	3209.8	3219.7	9.89	2.00	3.47	13.72	35.69	2.00	3.47	13.72	35.69	MDT PO OIL @ 3414.5mMD; recovered 2x450cc smpl
3430	3443.9	3251.31	3265.2	3229.8	3243.7	13.89	1.60	2.20	16.82	44.08	1.60	2.2	16.82	44.08	MDT PO GAS @ 3438.5mMD
TOTAL OIL							**12.66**				**12.66**				
TOTAL GAS							**27.81**				**27.81**				

Table 6.3 Analysis Parameters (Zones of Interest)

Basker-4		
Input Parameter		**Value**
Analysis Interval (mMD)		2950-34810mMD
Bit Size (inches)		12.25
Method	SW calculation	Simandoux
	Vclay calculation	N-D
	Porosity calculation	N-D
Formation Water Salinity	Rw HC Zone (salinity ppm NaCl equivalent)	30000*
	Rw water Zone (salinity ppm NaCl equivalent)	15000**
Electrical Properties	a	1
	m	1.79***
	n	1.83***
Fluid Properties	RHOH (g/cc)	0.2
	RHOF (g/cc)	1.03
	RHOMA (g/cc)	2.65
Clay Parameters	Rclay (ohm-m)	2
	PHIN clay (v/v)	0.27
	RHOB clay (g/cc)	2.4
	RHOB Dry Clay (g/cc)	2.77
	DT clay (usec/ft)	100
Special Minerals	RHOB dolomite (g/cc)	2.6
	RHOB volcanic (g/cc)	2.92
	RHOB coal (g/cc)	2
Reservoir Summation Cut-offs	VClay (v/v)	<=0.5
	PHIE (v/v)	>=0.1
	SWE (v/v)	N/A****
Temperature	Max Recorded Temp Deg C	100 @ 3425m
* Rw HC Zone	Initially estimated, subsequent water production from Basker Field HC producing zones indicating during extended production test, Fm water salinity measurements range from 30-35Kppm.	
**Rw Water Zone	crossplots (refer text Figure 3)	
*** m & n	Basker-1 SCAL, Basker-5 SCAL	
****RESERVOIR SUMMATION CUT-OFF SWE N/A	Basker-1, Basker-5 Por-Perm Relationship CorePHI>10% has core Kinf >1MD.	

Anzon Australia LIMITED

Table 6.4 Version Information

VERS.	2.0	CWLS Log ASCII Standard - VERSION 2.0
WRAP.	NO	OneLineperdepthstep
PROD.	Schlumberger	LASProducer
PROG.	DLIStoASCII14C0-302	LASProgramnameandversion
CREA.	2006/05/200508	LASCreationdate{YYYY/MM/DDhhmm}
DLIS_CREA.	2006-May-200503	DLISCreationdateandtime{YYYY-MMM-DDhhmm}
SOURCE.	HRLA_TLD_MCFL_CNL_015PUP.DLIS	DLISFileName
FILE-ID.	HRLA_TLD_MCFL_CNL_015PUP	FileIdentificationNumber

~WELLINFORMATION

#MNEM.UNIT	DATA	DESCRIPTION
STRT.M	3472.4340	STARTDEPTH
STOP.M	2949.2448	STOPDEPTH
STEP.M	-0.1524	STEP
NULL.	-999.25	NULLVALUE
COMP.	Anzon	COMPANY
WELL.	Basker4	WELL
FLD.	Basker	FIELD
LOC.	VIC/L26	LOCATION
CNTY.	OceanPatriot	COUNTY
STAT.	Victoria	STATE
CTRY.	Australia	COUNTRY
API.	APINUMBER	
UWI.	UNIQUEWELLID	
DATE.	19-May-2006	LOGDATE{DD-MMM-YYYY}
SRVC.	Schlumberger	SERVICECOMPANY
LATI.DEG	3817'58.87"S	LATITUDE
LONG.DEG	14842'23.57"E	LONGITUDE
GDAT.	GeoDeticDatum	

~PARAMETERINFORMATION

#MNEM.UNIT	VALUE	DESCRIPTION
RUN.	1	RUN NUMBER
PDAT.	MeanSeaLevel	Permanent Datum
EPD.M	0.000000	Elevation of Permanent Datum above Mean SeaLevel
EPD.M	0.000000	Elevation of tool zero above Mean SeaLevel
LMF.	DrillFloor	Logging Measured From(Name of Logging Elevation Reference)
APD.M	21.500000	Elevation of Depth Reference (LMF) above Permanent Datum

Table 6.4 continued CURVE INFORMATION

#MNEM.UNITAPICODE	DESCRIPTION
DEPT.M	DEPTH (BOREHOLE) {F10.4}
CDF.LBF	Calibrated Downhole Force {F13.4}
CFTC.HZ	Corrected Far Thermal Counting Rate {F13.4}
CNTC.HZ	Corrected Near Thermal Counting Rate {F13.4}
DSO8.IN	HRDD High Resolution Density Standoff {F13.4}
EHGR.GAPI	HiRes Gamma-Ray {F13.4}
GR.GAPI	Gamma-Ray {F13.4}
HCAL.IN	HRCC Cal.Caliper {F13.4}
HCGR.GAPI	HNGS Computed Gamma Ray {F13.4}
HDRA.G/C3	HRDD Density Correction {F13.4}
HFK.V/V	HNGS Formation Potassium Concentration {F13.4}
HSGR.GAPI	HNGS Standard Gamma Ray {F13.4}
HTHO.PPM	HNGS Formation Thorium Concentration {F13.4}
HTNP.V/V	HiRes Thermal Neutron Porosity {F13.4}
HURA.PPM	HNGS Formation Uranium Concentration {F13.4}
PEF8.	HRDD High Resolution Formation Photoelectric Factor {F13.4}
RHO8.G/C3	HRDD High Resolution Formation Density {F13.4}
RLA1.OHMM	HRLT Borehole Corrected Resistivity 1 {F13.4}
RLA2.OHMM	HRLT Borehole Corrected Resistivity 2 {F13.4}
RLA3.OHMM	HRLT Borehole Corrected Resistivity 3 {F13.4}
RLA4.OHMM	HRLT Borehole Corrected Resistivity 4 {F13.4}
RLA5.OHMM	HRLT Borehole Corrected Resistivity 5 {F13.4}
RM_HRLT.OHMM	HRLT Mud Resistivity {F13.4}
RSO8.IN	MCFL High Resolution Resistivity Standoff {F13.4}
RXO8.OHMM	MCFL High Resolution Invaded Zone Resistivity {F13.4}
SP.MV	SP Shifted {F13.4}
TENS.LBF	Cable Tension {F13.4}

References

Kuttan, K., Kulla, J.B. and Neumann, R.G.: "Freshwater Influx in the Gippsland Basin: Impact on Formation Evaluation, Hydrocarbon Volumes, and Hydrocarbon Migration." The APEA Journal 1986.

Wong Shau Yee: "Determination of Irreducible Water Saturation using the Basker-1 Capillary Pressure Curves", Anzon Australia Limited Report, September 2005.

Basker-4 Well Completion Report, Volume 1, Basic Data, December 2006 Anzon Australia Limited

7. MDT PRESSURE INTERPRETATION, FLUID CONTACTS AND SAMPLING

MDT Pressure Data

A total of 40 MDT pressure stations were attempted which were all successful. The pressure versus depth plot is shown in Figure 7.1 below.

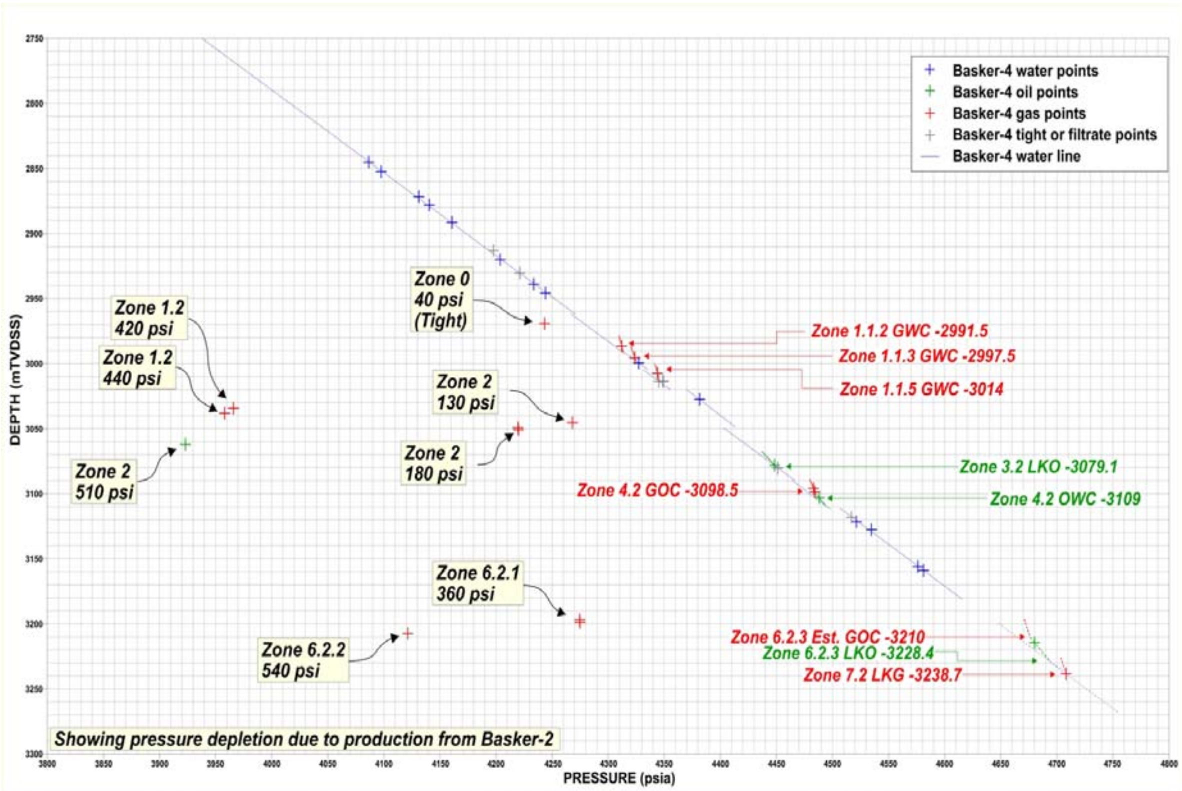

Figure 7.1 Basker-4 MDT Pressure vs Depth Plot

Several features are noted on this plot.

(1) A good water gradient (~1.51 psi/m) could be drawn through the first eight pressure points in the water sands between 2845 and 2946 mTVDSS which are above the Zone 0. At lower depths the pressures in the water sands appear to be displaced towards higher values from the water line. The Basker-4 water line also passes through the water points in Basker-2 if they were plotted together. Compared to the original aquifer pressure in Basker-1, the depletion in Basker-4 is about 25 to 35 psi as seen in Basker-2.

(2) The pressures measured in hydrocarbon bearing sands fall into two groups, depleted and undepleted. Pressure depletion was caused by production in Basker-2 during the six-month EPT. The amount of depletion reflects the size of the reservoir, the amount of oil or gas withdrawn relative to its size. and the sand quality between Basker-2 and -4. The largest depletions are found in Zone 1.2 (gas), Zone 2 (oil and gas) and Zone 6.2 (gas). It is also noted that the oil leg in Zone 2 has depleted by >500 psi compared to 130 to 180 psi in the gas cap. The oil leg in Zone 2 is seen in Basker-2 and -4 only. It is gas-bearing in Basker-3 and -5 which are structurally higher.

The pressures which were undepleted are found in the Zone 1.1 gas sands, Zone 3.2 oil, Zone 4.1 gas/oil and 6.2/7.2 oil/gas sands. Gas is being injected into the Zone 1.1 gas sands and two nearby water sands for storage. The oil sands in Zones 2, 3, 4 and 6.2 have been perforated for future production.

Fluid Contacts

Most of the hydrocarbon bearing sands have only one single pressure point. The identification of hydrocarbon type from the well log or MDT is aided by the pump out content. At a first glance the hydrocarbon columns would appear to be extremely short or non-existent. They only become apparent on a plot zoomed in on a very large scale. The fluid contacts determined this way are only approximate since they would depend on the fluid gradients used and the position of the water line chosen. The results are summarised in the following table.

Table 7.1 Fluid Contacts

Zone	Contact	Depth (mTVDSS)
1.1.2	GWC	2991.5
1.1.3	GWC	2997.5
1.1.5	GWC	3014
3.2	LKO	3079.1
4.2	GOC	3098.5
4.2	OWC	3109
6.2.3	GOC	3210
6.2.3	LKO	3228.4
7.2	LKG	3238.7

Fluid Sampling

Three sets of 2x450 cc oil samples were taken by the MDT. The sample depths and zones are shown in the table below.

Table 7.2 Basker-4 Sample Depths and Zones

Depth mMDRT	Depth mTVDSS	Zone	Volume cc
3278.0	3078.1	3	2 x 450
3303.0	3103.0	4	2 x 450
3414.5	3214.3	6.2	2 x 450

Anzon Australia LIMITED

8. PVT STUDIES

PVT PROPERTIES

The following bubble pressures were measured on the three oil samples recovered by MDT.

Table 8.1 Basker-4 Bubble Point Pressure

Depth mMDRT	Depth mTVDSS	Zone	BHT °F	Pretest Pressure psig	Bubble Point Pressure psig
3278.0	3078.1	3	238	4214	4448
3303.0	3103.0	4	240	4430	4488
3414.5	3214.3	6.2	246.5	4620	4680