



# **Karooon Gas**

## **Acreage Position and Value Potential**

- Browse Basin WA-314-P & WA-315-P**
- Gippsland Basin PEP 162 & EL4537**

APRIL 2005

# Karoon Snapshot

Karoon Gas Australia is was floated on the ASX on the 9th of June 2004.

41.66 million shares and 20.8 million 20cent options expiring 30<sup>th</sup> June 2006.

## Browse Basin Acreage

Share price has been largely driven by Browse Basin acreage activity;

- Acquired WA-314-P and WA-315-P form Liberty Petroleum in November 2004
- Purchased seismic and defined 30 TCF plus gas potential in 7 large prospects .
- Farmout to BG (60%) with Karoon funding 10% of A\$ 75 million exploration program

A high resolution Aeromag survey is expected to start in May 2005 followed by a >1000 square km. 3D seismic program in August. Two wells are planned to be drilled in 2006.

Value potential for Karoon is high with a risked 30Tcf plus 300mmbbl condensate potential.

## Gippsland Basin Acreage

Karoon's Gippsland exploration seismic & drilling has identified gas bearing coals in the first test of the Narracan Trough. More seismic is required to identify thicker shallower coals. Value being reassessed.

Oil in porous and permeable sands in the Megascoides-1 well indicate the potential for a new oil play with new seismic required to firm up prospects for drilling. Seismic planned for October 2005. Reserve range between 2.5 and 10 million bbls in the one lead identified to date.



## **Karooon's Browse Basin Equation**

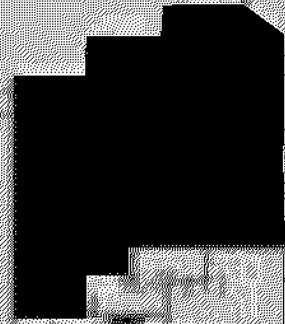
**The Right Place +**

**The Right Time +**

**The Right Partner =**

**Maximized shareholder value**





Scott Reef / Brecknock  
giant Gas/condensate  
fields 21tcf P50 reserves

### Political

Karoon's Australian Browse Basin permits are in a politically safe environment administered under a stable and tested legislative system. This equates to low sovereign risk, a critical factor for investors involved in large development projects.

### Geological

The acreage is immediately on trend with the giant Scott Reef/Brecknock gas fields discovered in the 1970's and currently being appraised and developed.

The same play type with seven large structures have been mapped in Karoon's permits immediately to the north of Scott Reef.



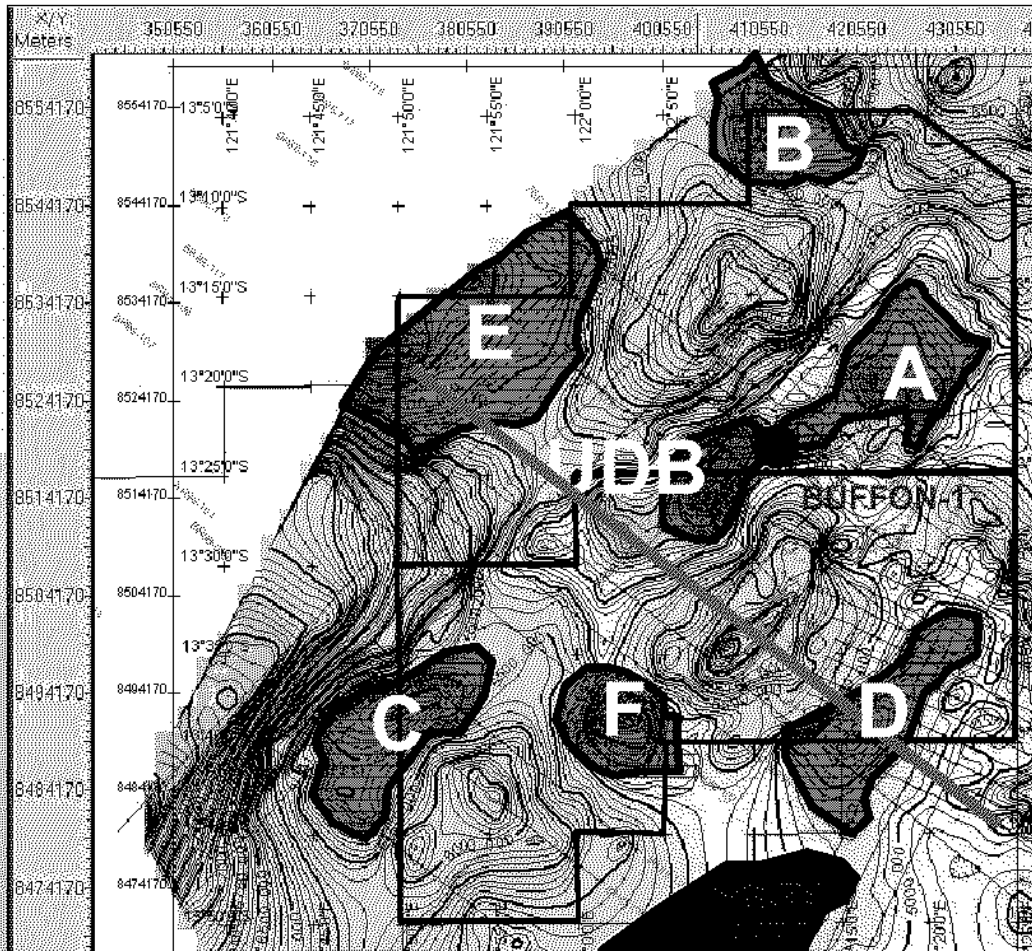
**Acreage Work Program minimum requirements for each permit**

**Karoon has been granted permit extensions in Year-2 and has to complete the 3D seismic work program by the 11<sup>th</sup> of May 2005. Another 6 month extension is pending.**

Year of Term Of Permit	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Estimated Expenditure Constant Dollars (indicative only)
First	12-Nov-01	11-Nov-02	Seismic re-interpretation	SA 200,000
Second	12-Nov-02	11-May-05	400 square km. of new 3D Seismic	3,400,000
Third	12-May-05	11-May-06	Drill One (1) Well	16,000,000
Fourth	12-May-06	11-May-07	Geological, geophysical and Geochemical studies	1,000,000
Fifth	12-May-07	11-May-08	Drill One (1) Well	16,000,000
Sixth	12-May-08	11-May-09	Drill One (1) Well	16,000,000

### **Karoon farmin.**

**Under the farmin agreement with Liberty Petroleum, Karoon is the operator and will earn 100% equity in the permits by fulfilling the Year-2 work program in exchange for a small overriding royalty on any discoveries.**



**Mapping results**

Seven large high relief leads with areas ranging from 60 to 350 square km.

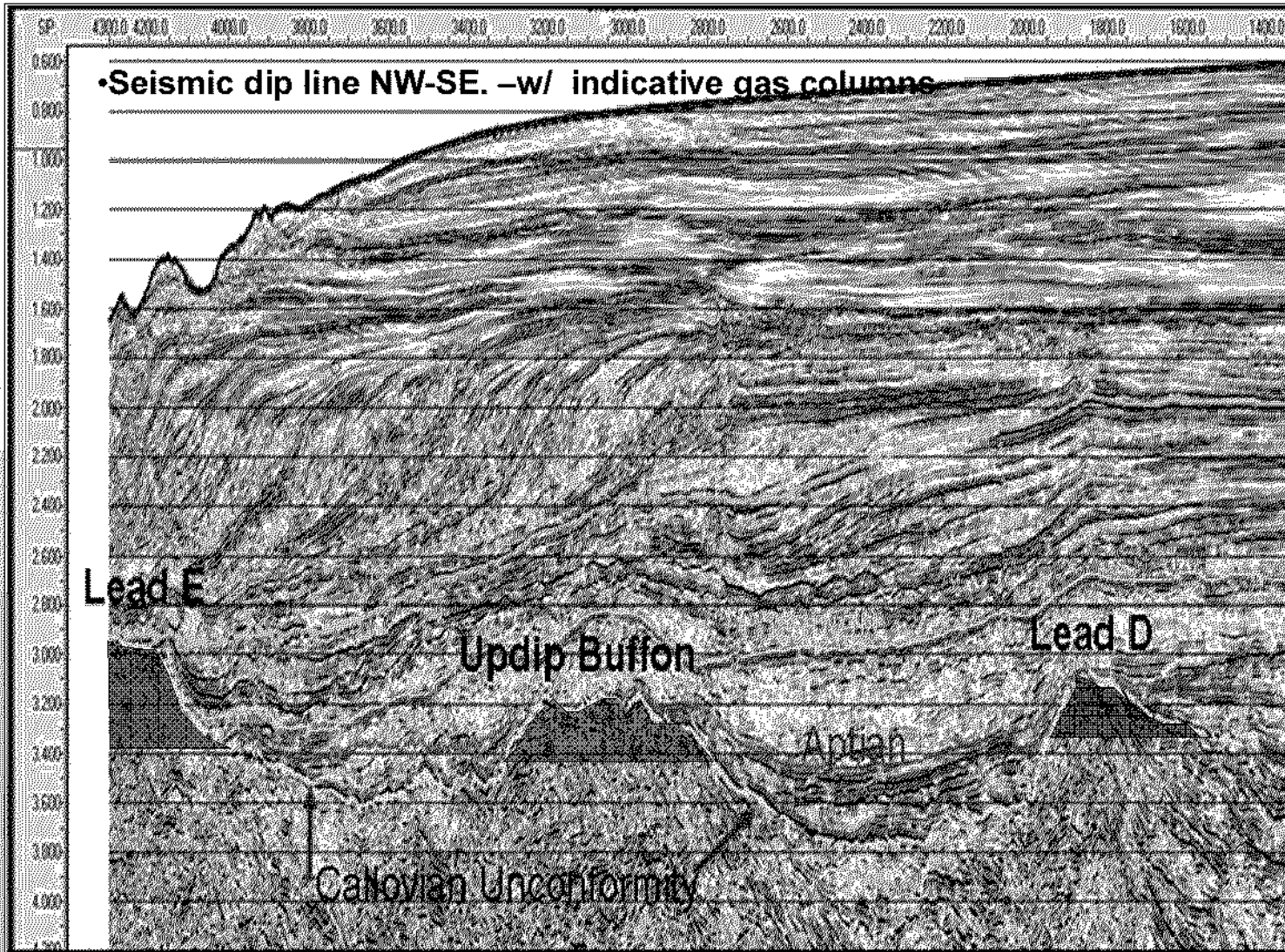
The same play type as Scott-Reef immediately to the south.

The map is a composite of the Callovian unconformity (Top reservoir) and the Base of the Buffon Volcanics (Top reservoir) in an area around the Buffon-1 well.



100 Square kilometers





**Karoon Gas Australia Ltd: Browse Basin Reserves Potential  
Exploration Permits WA-314-P & WA-315-P**

Prospect	Water Prospect		Risk Ranking	Gas In Place		Gas Recoverable		Condensate							
	Depth	Area		Most Likely	High Case	Most Likely	High Case	Most Likely		High Case					
	Metres	Sq Kms		Tcf	Tcf	Tcf	Tcf	Low Rate	High Rate	Low Rate	High Rate				
								19bbls/ mmscf	43bbls/ mmscf	19bbls/m mscf	43bbls/ mmscf	mm bbls	mm bbls	mm bbls	mm bbls
Up-dip Buffon	575	83	Low	8.60	14.51	6.45	10.88					123	277	207	468
Prospect A	500	280	Med	17.14	49.58	12.86	37.19					244	553	707	1599
Prospect B	1300	43	Med	2.52	4.25	1.89	3.19					36	81	61	137
Prospect C	1250	127	High	7.35	12.41	5.51	9.30					105	237	177	400
Prospect D	480	132	Low	3.46	5.85	2.60	4.38					49	112	83	189
Prospect E	1500	333	High	45.58	76.90	34.18	57.68					649	1470	1096	2480
Prospect F	600	53	Med	3.90	6.58	2.93	4.94					56	126	94	212
<b>Totals</b>				<b>88.6</b>	<b>170.1</b>	<b>66.4</b>	<b>127.6</b>					<b>1262</b>	<b>2856</b>	<b>2425</b>	<b>5485</b>
	Million tonnes LNG equivalent			443	850	332	638								

bbls=barrels of oil mmscf=million standard cubic feet Tcf=trillion cubic feet

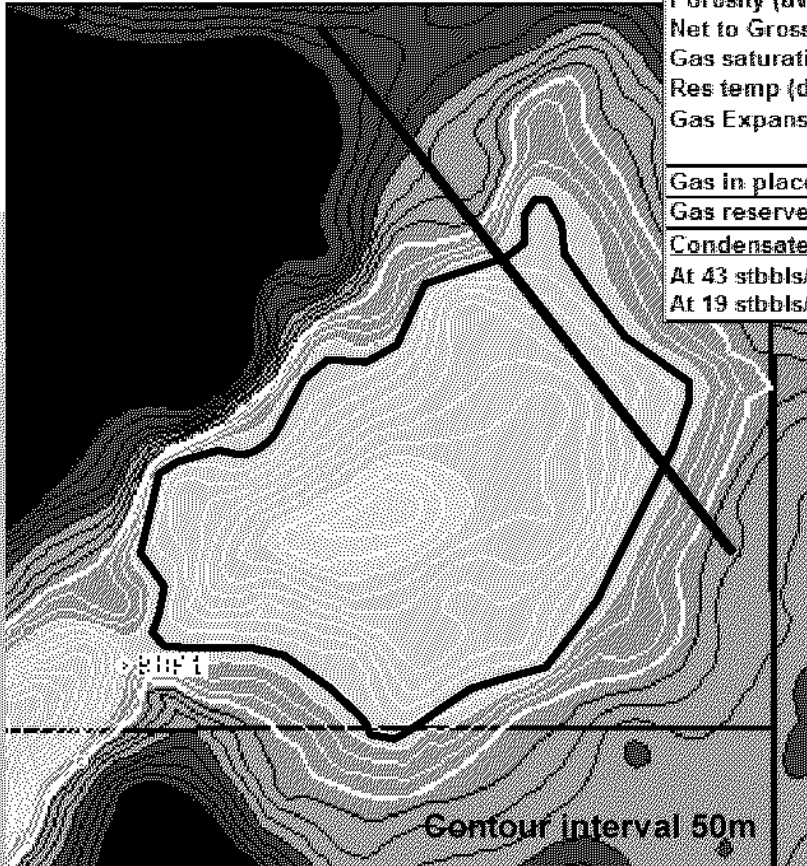
**This table shows unrisks gas and condensate potential of the permits based on data from offset wells**





Lead-A

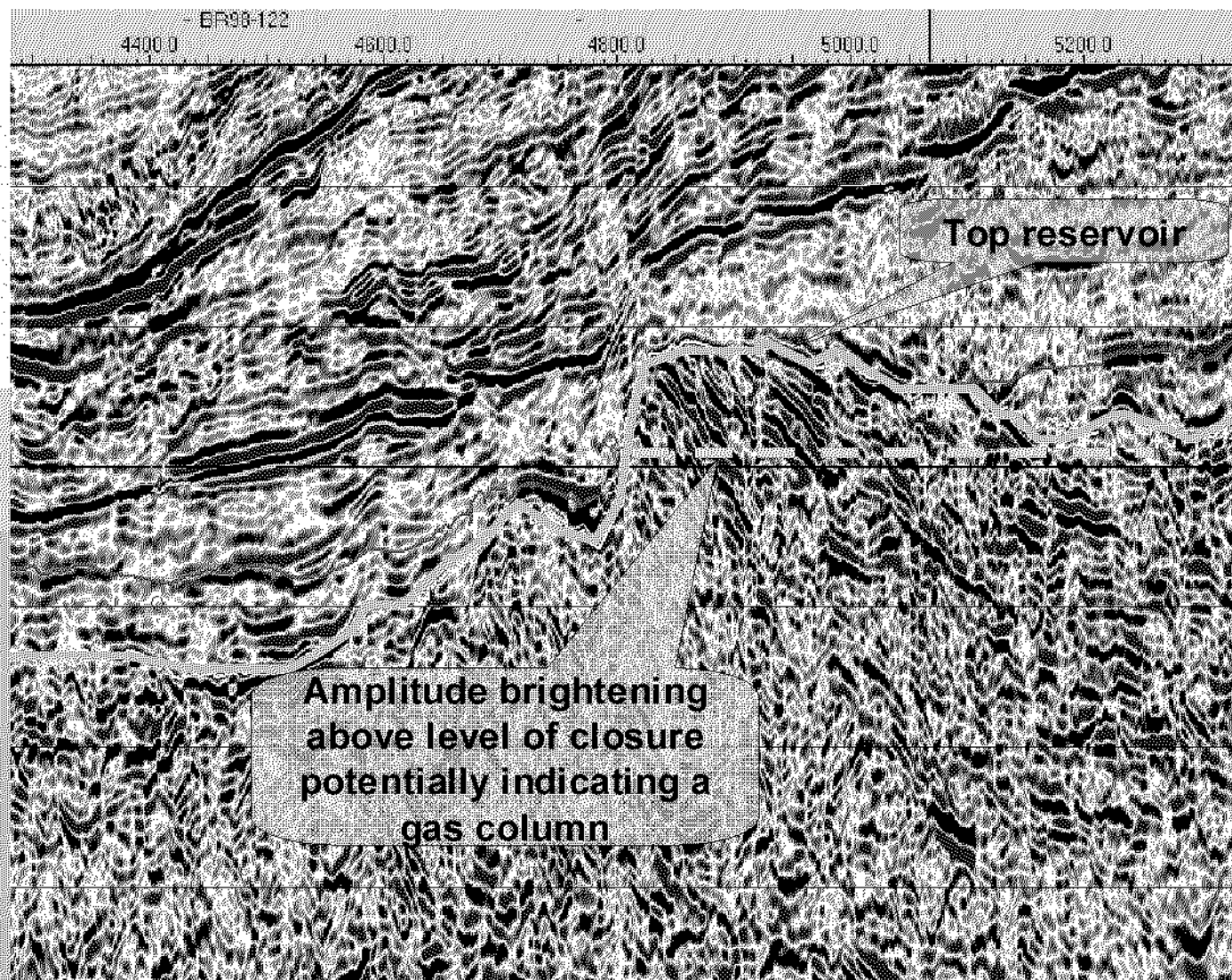
Prospect	Lead-A	
	Most likely	High case
Cases		
Water depth (m)	500	500
Top depth(mss)	3925	3925
Spill point (mss)	4450	4450
Trap height (m)	525	525
Area (Km sq.)	280	280
GRV (m <sup>3</sup> )	3.5000E+10	6.0000E+10
Porosity (ave)	0.12	0.16
Net to Gross	0.65	0.75
Gas saturation	0.7	0.75
Res temp (degC)	163	163
Gas Expansion	254	260
Gas in place TCF	17.14	49.58
Gas reserves @75% recovery factor	12.86	37.19
<u>Condensate potential</u>	Reserves MMbbls	Reserves MMbbls
At 43 stbbls/MMscf (Buffon-1 DST)	553	1599
At 19 stbbls/MMscf (Nth Scott Reef DST)	244	707



Very large lead mapped at base of Volcanics/Top reservoir level.



# Lead A

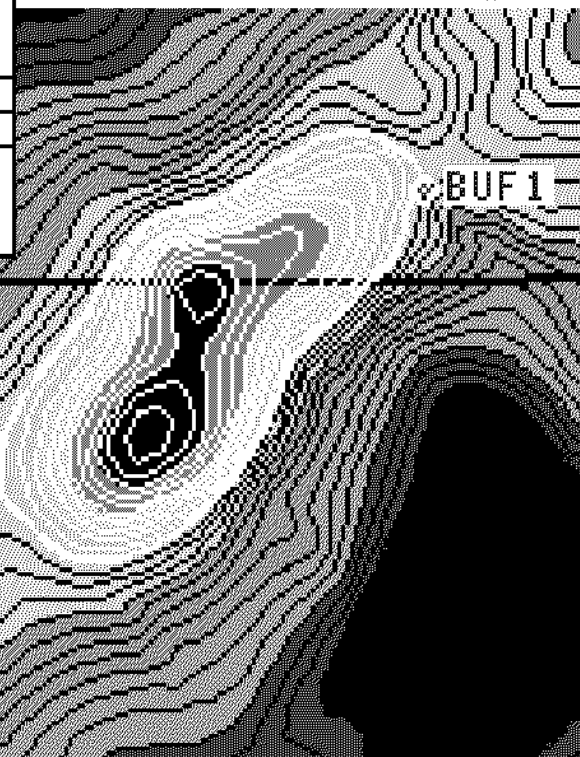
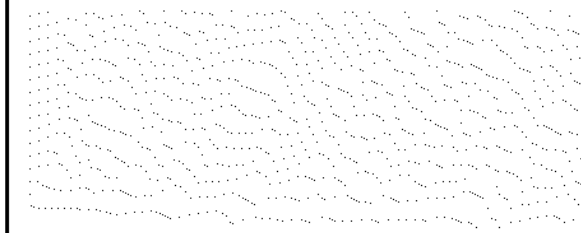


# WA-314-P & WA-315-P

# The Right Place

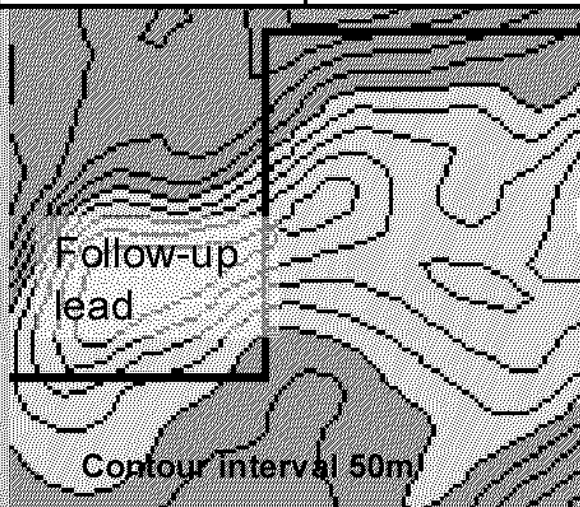
Prospect	Updip Buffon	
	Most likely	High case
Cases		
Water depth (m)	575	575
Top depth(mss)	3875	3875
Spill point (mss)	4450	4450
Trap height (m)	575	575
Area (Km sq.)	70	83
GRV (m <sup>3</sup> )	1.7553E+10	1.7553E+10
Porosity (ave)	0.12	0.16
Net to Gross	0.65	0.75
Gas saturation	0.7	0.75
Res temp (degC)	163	163
Gas Expansion	254	260
Gas in place TCF	8.60	14.51
Gas reserves @75% recovery factor	6.45	10.88
Condensate potential	Reserves MMbbls	Reserves MMbbls
At 43 stbbls/MMscf (Buffon-1 DST)	277	468
At 19 stbbls/MMscf (Nth Scott Reef DST)	123	207

## Up Dip Buffon



Large lead mapped at base of Volcanics/Top reservoir level.

Depth conversion lifts western end (in deeper water). A followup lead of approx 50 square km is developed.

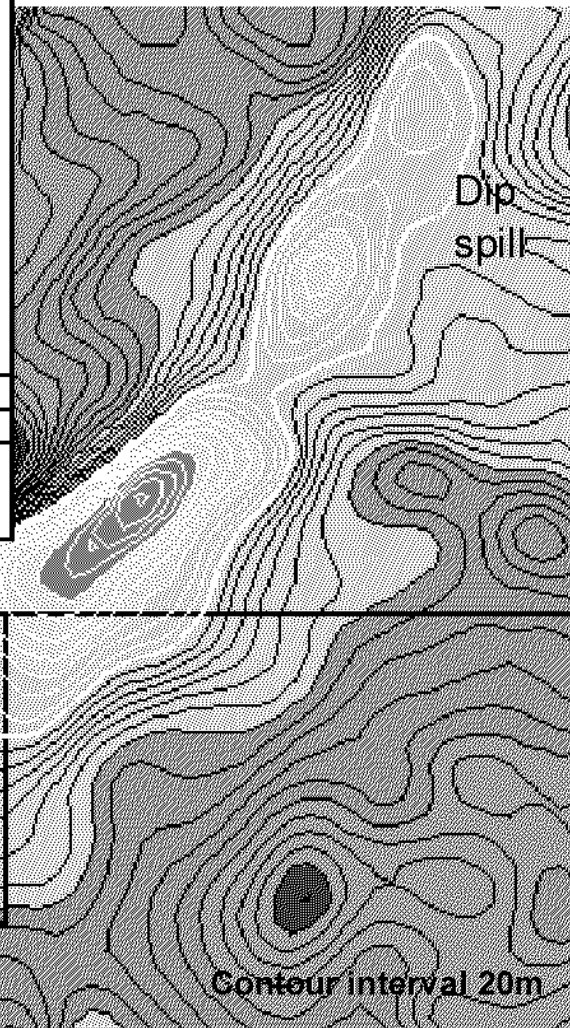


Contour interval 50m



Lead-D

Prospect	Lead D	
	Most likely (P50)	High case (P10)
Cases		
Water depth (m)	480	480
Top depth(mss)	4440	4440
Spill point (mss)	4660	4660
Trap height (m)	220	220
Area (Km sq.)	132.6	132.6
GRV (m <sup>3</sup> )	7.0738E+09	7.0738E+09
Porosity (ave)	0.12	0.16
Net to Gross	0.65	0.75
Gas saturation	0.7	0.75
Res temp (degC)	163	163
Gas Expansion	254	260
Gas in place TCF	3.46	5.85
Gas reserves @75% recovery factor	2.60	4.38
<b>Condensate potential</b>	<b>Reserves MMbbls</b>	<b>Reserves MMbbls</b>
At 43 stbbls/MMscf (Buffon-1 DST)	112	189
At 19 stbbls/MMscf (Nth Scott Reef DST)	49	83



Depth conversion at NE spill point area (poor data coverage) needs more work.

Could be much larger as regional dip is to east in this area.

Southern third outside Karoon acreage.



# WA-314-P & WA-315-P

# The Right Time

## Key Timing Factors

- LNG and condensate prices and market forecasts

- Competitor movements

## Farmin Interest

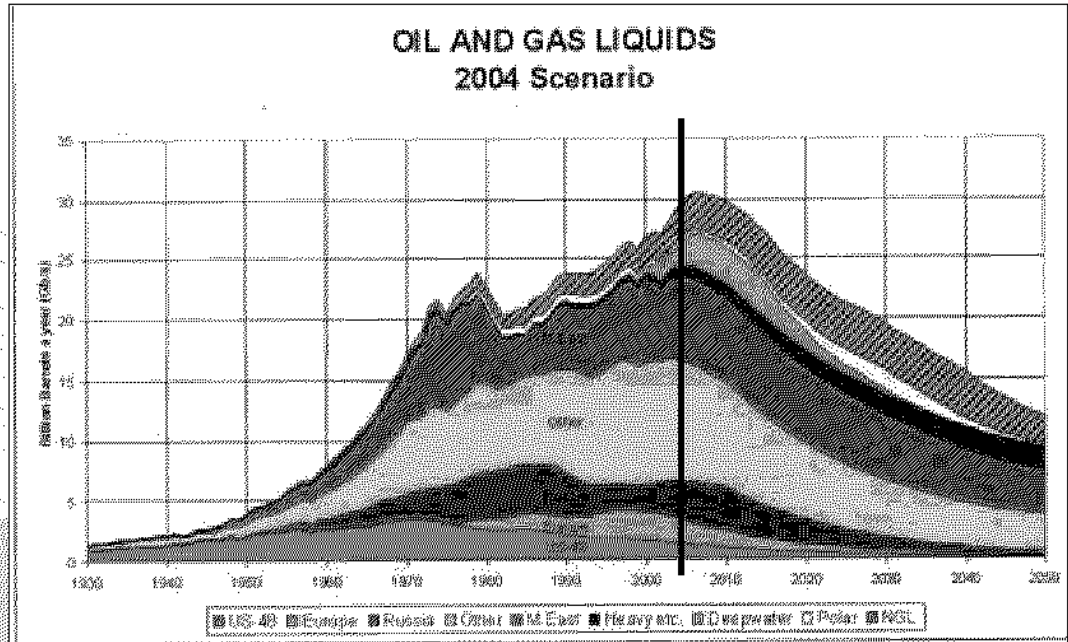
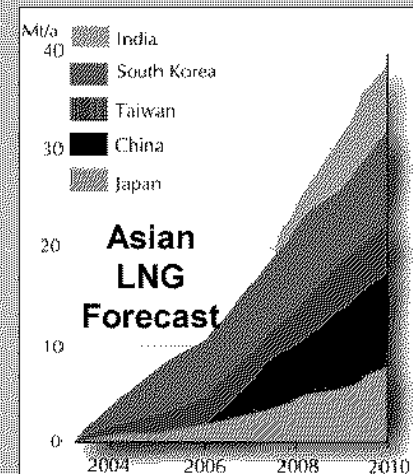
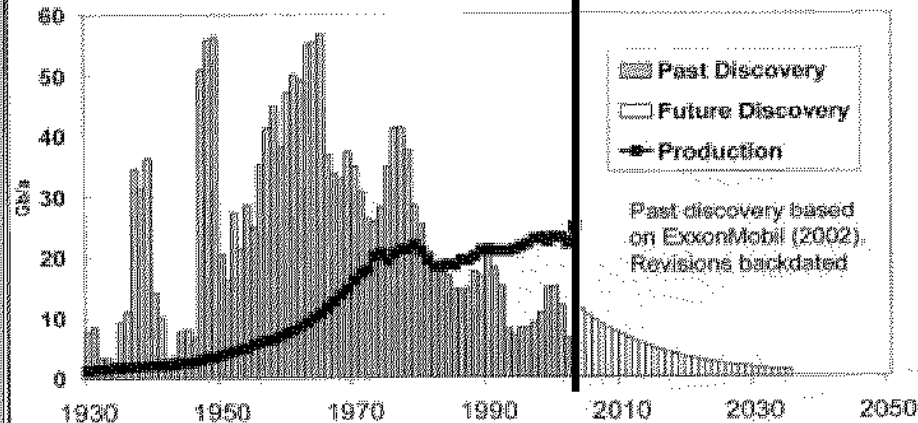


Fig 2. Global oil and gas resources, 1930-2050. Note how US production has already peaked in about 1970.

## THE GROWING GAP Regular Oil



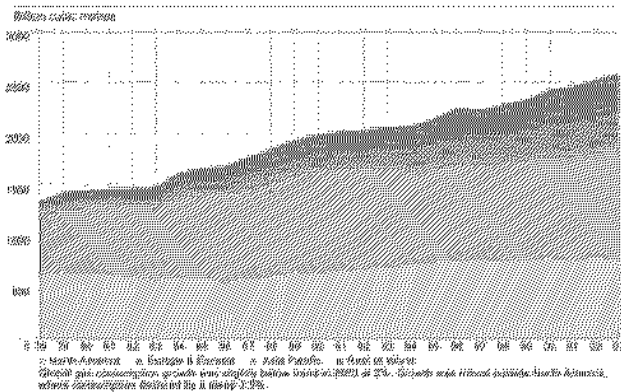
**Markets and development opportunities**

With Asia-Pacific demand for LNG rising strongly, Karoon Gas believes that large gas accumulations in offshore Western Australia can be commercialised readily over the next decade.

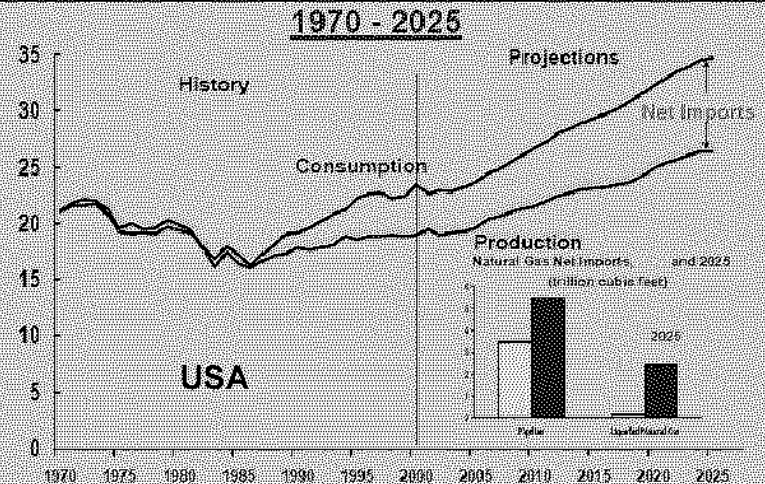
In the current global environment, large accumulations of gas in politically safe environments that can be converted to LNG for transport to markets such as Europe, Japan, China, India and North America are now increasingly highly prized.

With gas demand outstripping supply, gas fields once considered uneconomic because of excessive water depths, or were too far from the end market, are now viable and very profitable.

Natural gas consumption by area



Natural Gas Production, Consumption, and Imports



# **BG is the right partner**

**Extensive information on BG is readily available on the  
Internet**

**LNG economic and market summary**

**Assuming a reserve of 4TCF and annual production of 4 million tons LNG and 3.8 million bbls of condensate, Project value is between A\$6.8 and A\$8.5 billion.**

**Australia uses approx 1 TCF per Year with approx wholesale value of A\$3 billion per TCF.**

**USA uses approx 23 TCF per Year with approx wholesale value of A\$6-7 billion per TCF.**

**One million tonne of LNG equates to approx. 50 BCF or 5% of 1 TCF.**

**Significant importing countries of LNG from 2006 onward are USA, India, China, South Korea, EEC and UK.**

**Karoon's 40% share equates to a share price many multiples of current levels.**





**Gippsland Basin**

**CBM**

**&**

**Oil potential**

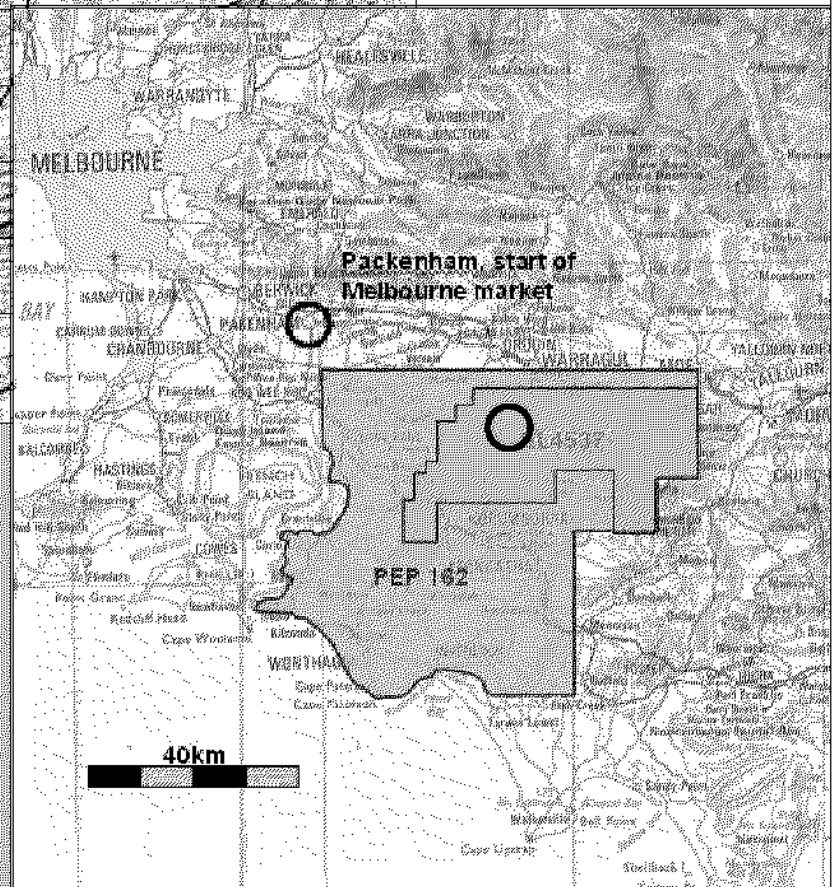
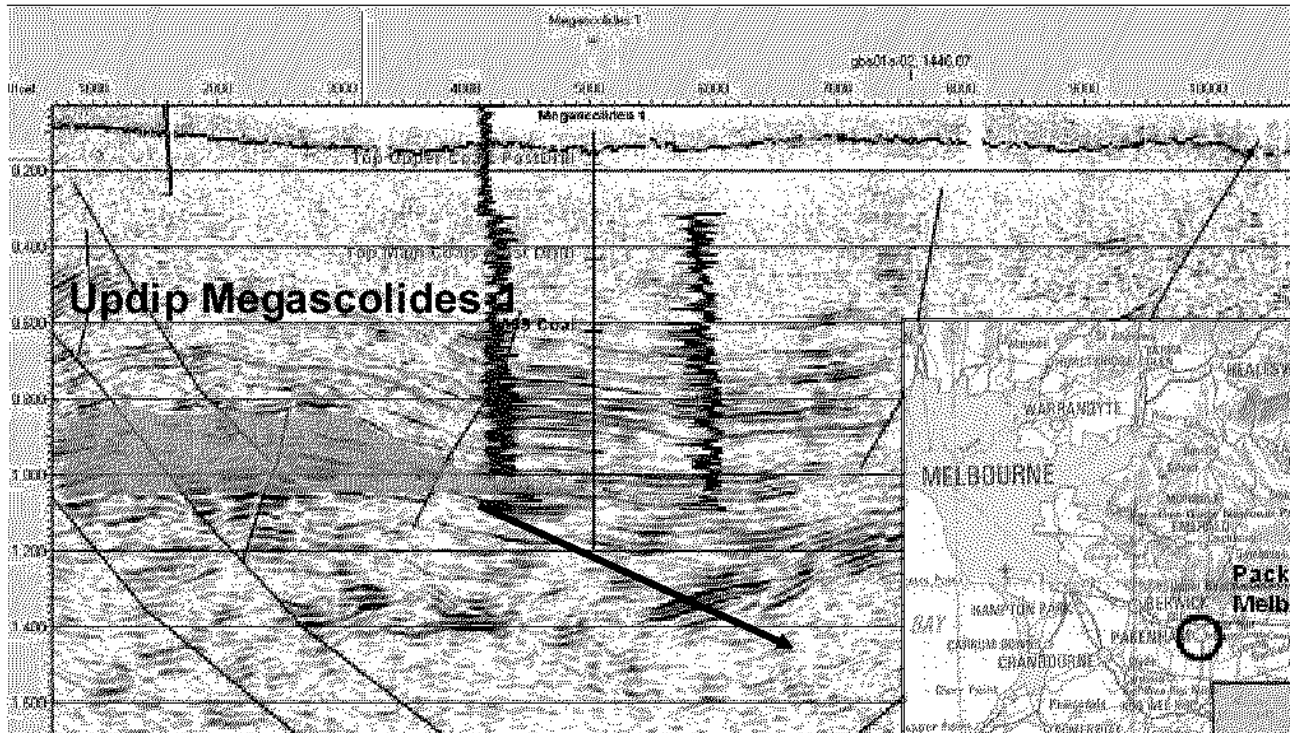


# Gippsland Basin EL 4537 & PEP162

## KAROON GAS AUSTRALIA PTY LTD - PEP 162 & EL 4537 EXPLORATION PERMIT COMMITMENTS AND ACTIVITY TIME LINE

Year	,2000	,2002	,2003	,2004	,2005	,2006	,2007					
Month	A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D					
PEP162	Year-1		Year-2		Year-3 (3month ext)		Year-4 (12 month suspension & extension)		Year-5			
	,14 MAY Year-1 60km seismic		,14 MAY Year-2 G&G studies		,14 MAY Year-3 Drill one well		,14 AUC Year-4 40km seismic		,14 AUC Year-5 Data review			
	commitment met & approved		commitment met & approved		Megascolides-1 drilled to 2000m suspended Dec 2004							
Exploration	Planned program				300km 2D seismic		<input type="checkbox"/>	Drill one well		<input type="checkbox"/>		
EL 4537	LICENCE AREA APPROX 820 SQUARE KM		Year-1		Year-2		Year-3		Year-4		Year-5	
	Award date 6th March 2003		Anniversary date 6th March		Anniversary date 6th March		Anniversary date 6th March		Anniversary date 6th March		Anniversary date 6th March	
	MINIMUM EXPENDITURE REQUIREMENTS (As defined in Registration Document)		YR-1 \$81600		YR-2 \$103,800		YR-3 \$121,500		YR-4 \$121,500		YR-5 \$148,200	
AREA 820 SQ KM		25% RELINQ AREA 615 SQ KM		30% RELINQ AREA 461 SQ KM								

# Gippsland Basin EL 4537 & PEP162

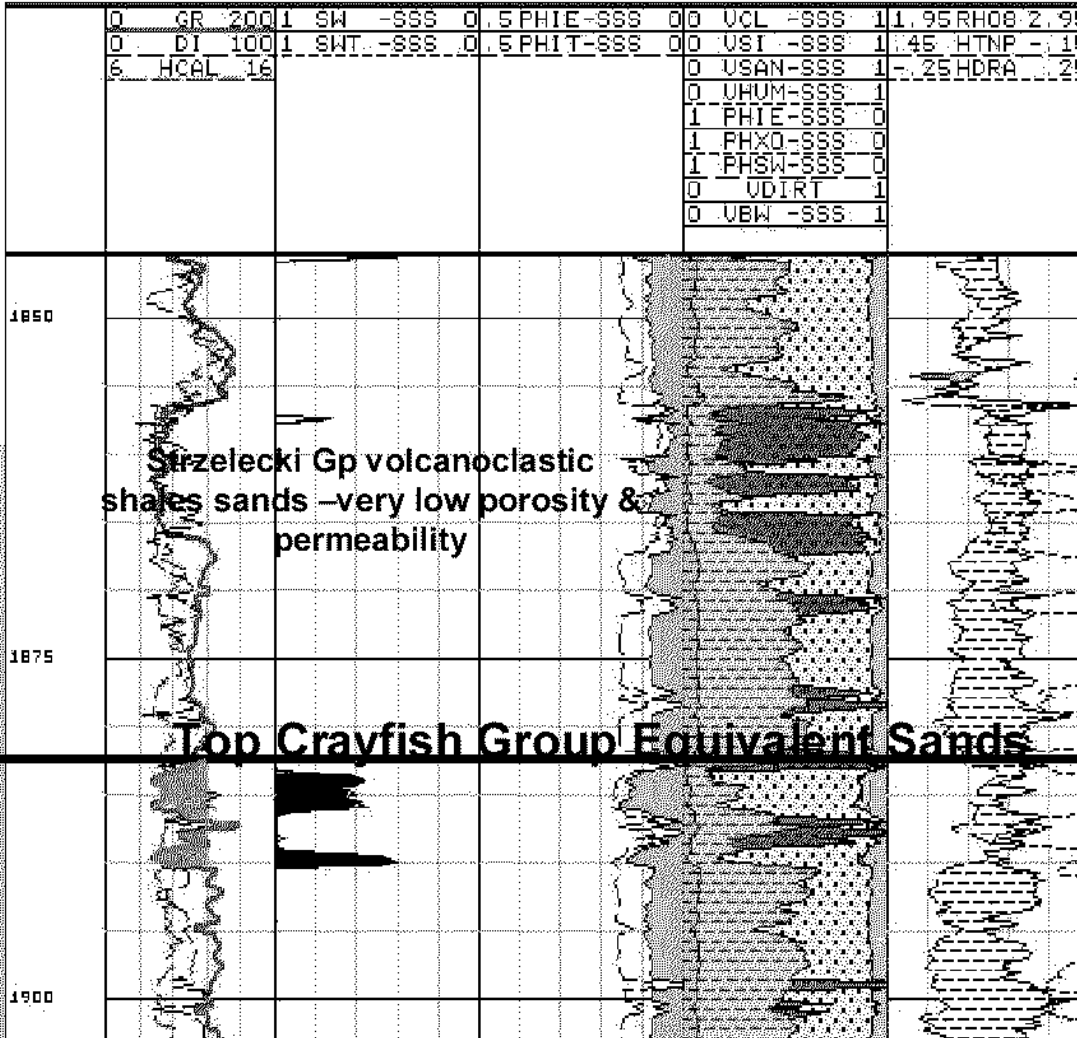


## Megascolides-1 drilling program

- Proved presence of black gas bearing coal across the Narracan Trough.
- Discovered oil bearing porous and permeable rocks at the Crayfish Gp equivalent level.

# Gippsland Basin EL 4537 & PEP162

## Megascolides-1 well results - Oil zone



- good fluorescence and high mud gas readings in Crayfish Gp equivalent sands.

- Porosity up to 15%

- Permeability 60 md (small core chip from very base of sands)

- Oil saturations up to 60%

- 3m - 5m net sand.



# Gippsland Basin EL 4537 & PEP162

## Megascolides-1 well results - Oil zone

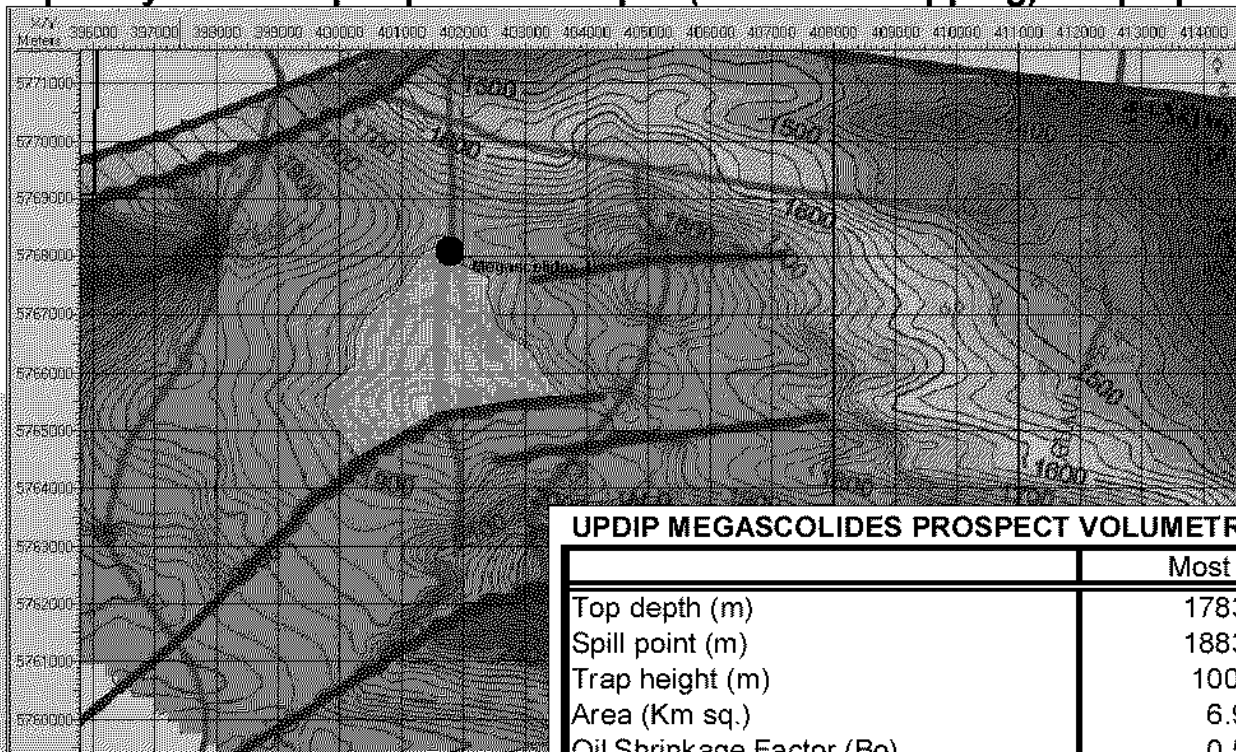
Interval	PHIE cut-off	Gross	Net	PHIE av	Vcl av	Swe av
m	%	m	m	%	%	%
1883-1886	12.00	3.00	2.39	13.75	20.87	59.82
	10.00	3.00	2.74	13.44	21.32	61.97
	9.00	3.00	2.79	13.37	21.13	62.66
	8.00	3.00	2.90	13.21	20.78	63.97
1888-1891	0.12	2.00	0.76	13.32	22.11	42.52
	0.10	2.00	1.07	12.61	23.52	46.62
	0.09	2.00	1.57	11.65	25.13	63.84
	0.08	2.00	1.63	11.54	25.03	64.97

### Petrophysical analysis - sensitivity range data

# Gippsland Basin EL 4537 & PEP162

## Megascolides-1 well results - Oil zone

### Top Crayfish Group Equivalent Depth (Previous Mapping) & Updip Megascolides-1 Lead



**Insufficient seismic to define the trap crest**

#### UPDIP MEGASCOLIDES PROSPECT VOLUMETRIC ESTIMATES

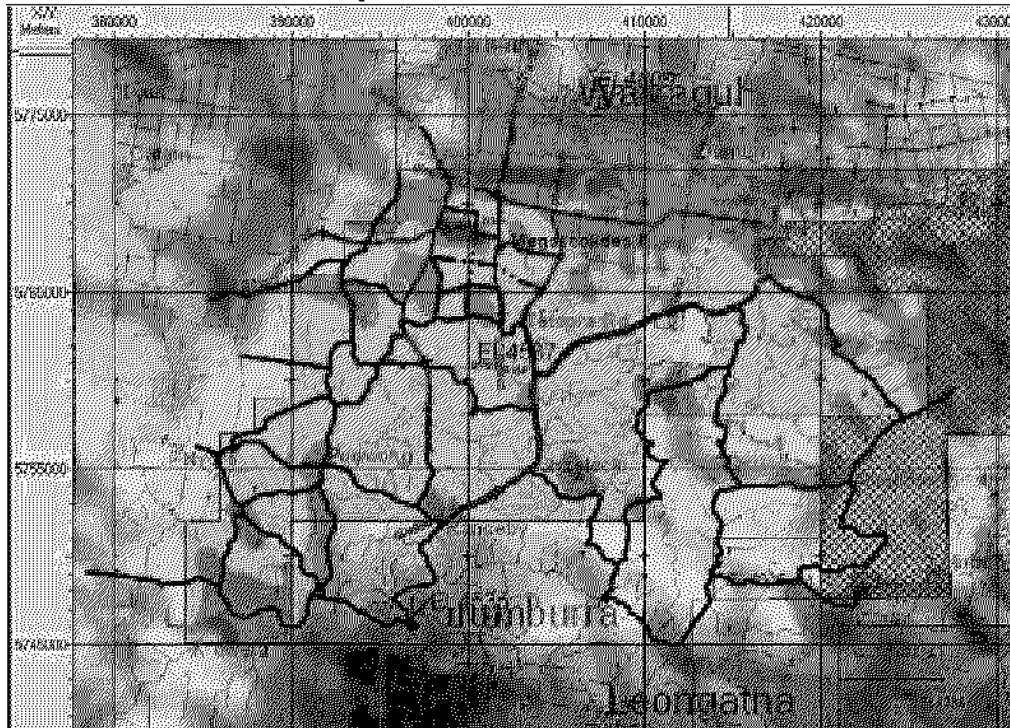
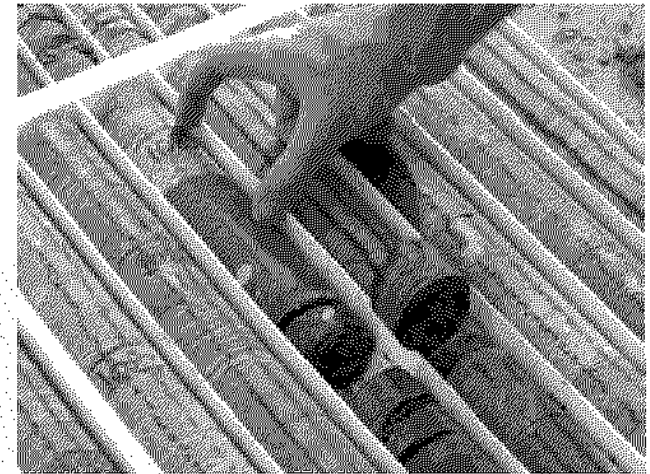
	Most likely	High Case
Top depth (m)	1783.00	1783.00
Spill point (m)	1883.00	1883.00
Trap height (m)	100.00	100.00
Area (Km sq.)	6.92	9.00
Oil Shrinkage Factor (Bo)	0.50	0.70
Porosity (ave %)	0.13	0.16
Oil saturation (So)	0.60	0.70
Reservoir P50 Net Sand (m)	3.00	5.00
Recovery factor	0.40	0.60
Volume In Place (stb mmbls)	5.09	22.19
Recoverable Volume (stb mmbls)	2.04	13.31
Oil Price(A\$)	40.00	70.00
Gross Value (\$A million)	81.49	932.03

# Gippsland Basin EL 4537 & PEP162

## Megascolides 1 – CBM Results

- Total black coal intersected in well -15m
- Maximum thickness approx. 0.5m (clean coal)
- Gas content 100 scf per ton
- Gas saturation approx. 30%

The well was successful in identifying gas bearing coals in the Narracan Trough. The coals at this location however are not suitable for commercial CBM development



A new 290km seismic program is planned to;

- Map Leads for the Crayfish Gp. equivalent oil play and
- to locate thicker and shallower coals over EL4537

Seismic is planned for October 2005