11th Papua New Guinea Mining and Petroleum Investment Conference and Seminar

# Newport Energy Limited
# Opening up a new Basin in PNG – PPL 326

8 December 2010

Newport ENERGY LIMITED

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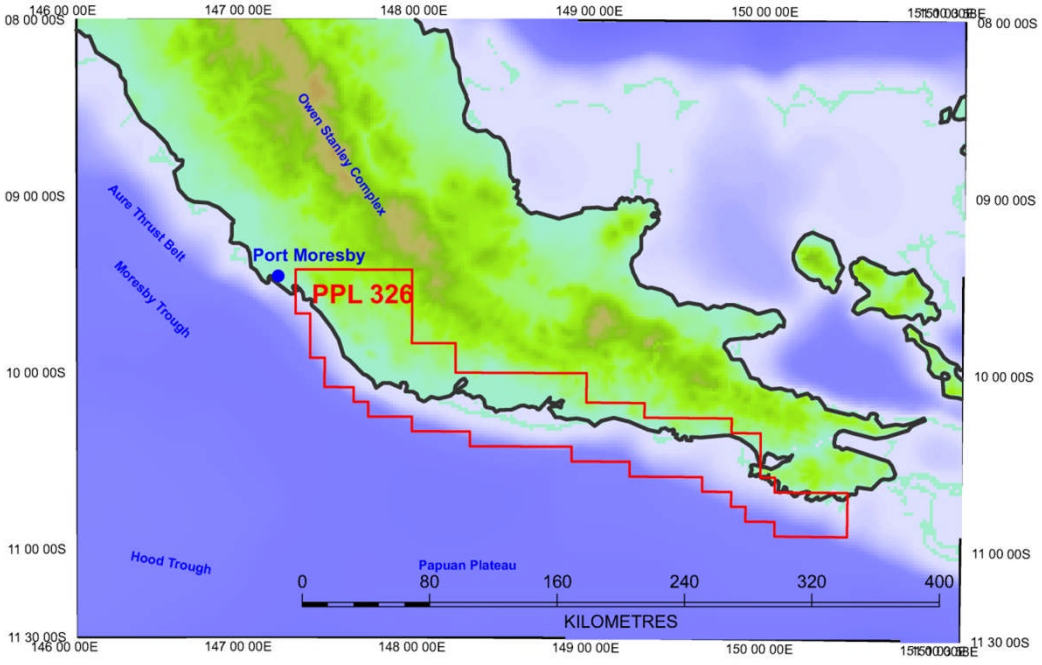
# Company Overview

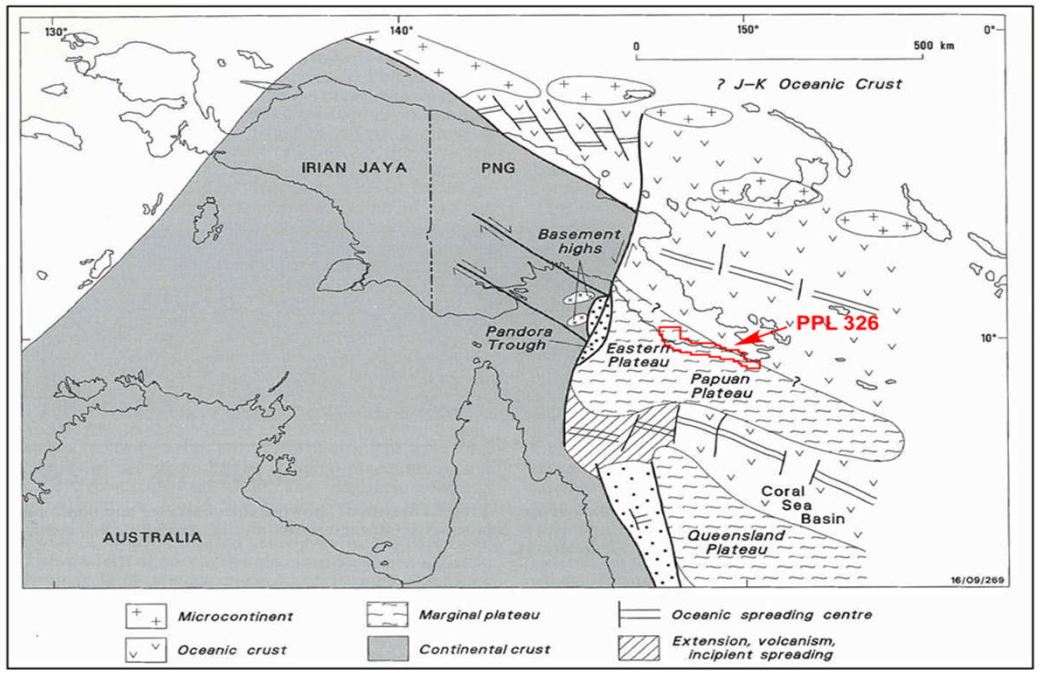
- Unlisted Australian public company
- Headquartered in Sydney
- Currently single asset – PPL 326
- 100% owned PNG subsidiary holds PPL 326
- Wide spread of shareholders
- Experienced Board and Management team

# PPL 326 Overview




- Rare greenfield oil & gas opportunity
- Potential new PNG Basin
- 100% owned tenement ("PPL 326")
- Covers 200 blocks & 16,752km$^2$
- Largely in coastal & shallow offshore
- Multiple prospective plays

# Why PPL 326? – the old

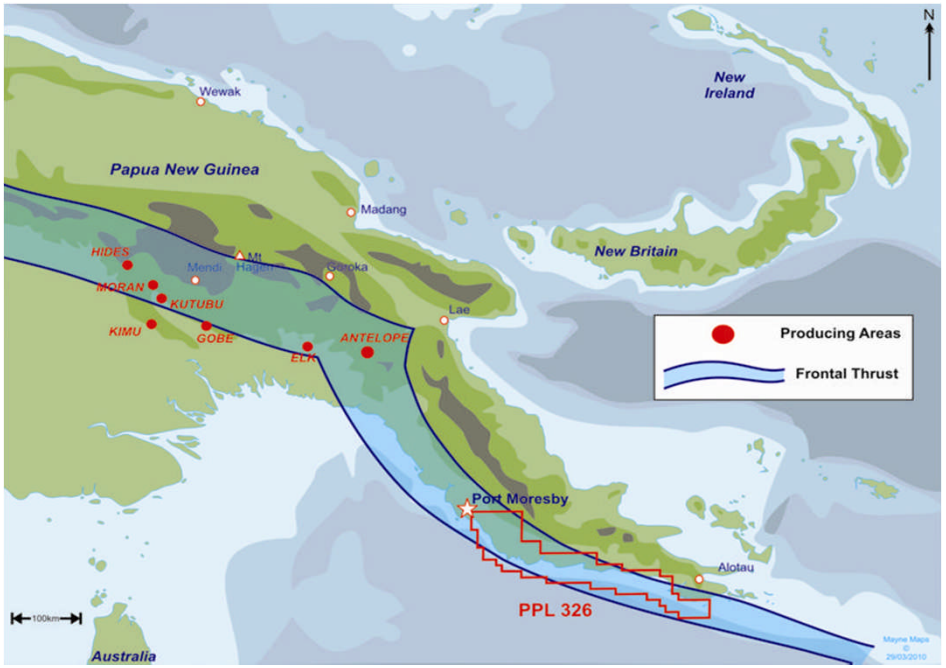



(Source: Pigram, C.J. & Symonds, P.A., 1993)

- Old theory was that the prospective area stopped at the transfer fault on the eastern edge of the grey area
- Yet plateaus suggests:
  - continental crust; and
  - new basin,

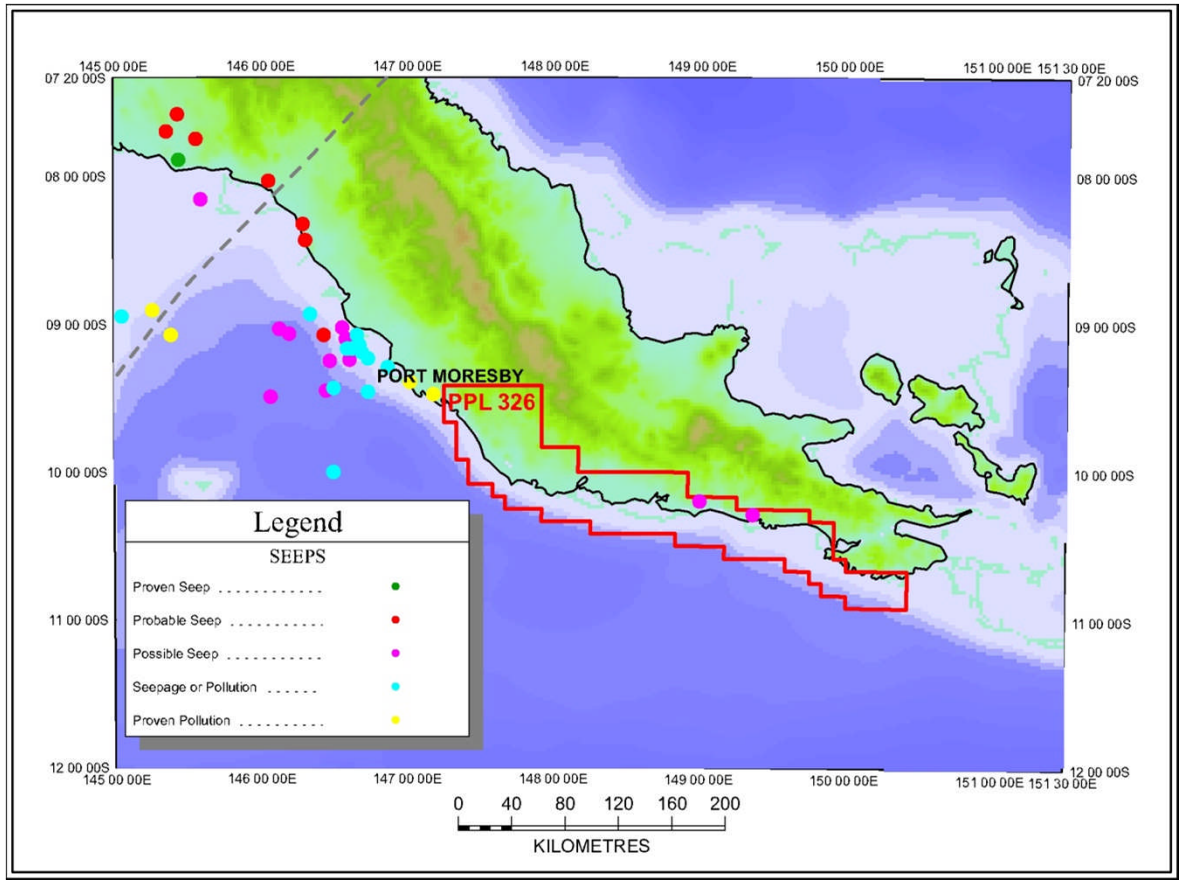
  to the east
- Note position of transfer fault for oil seeps

# Why PPL 326? – the new



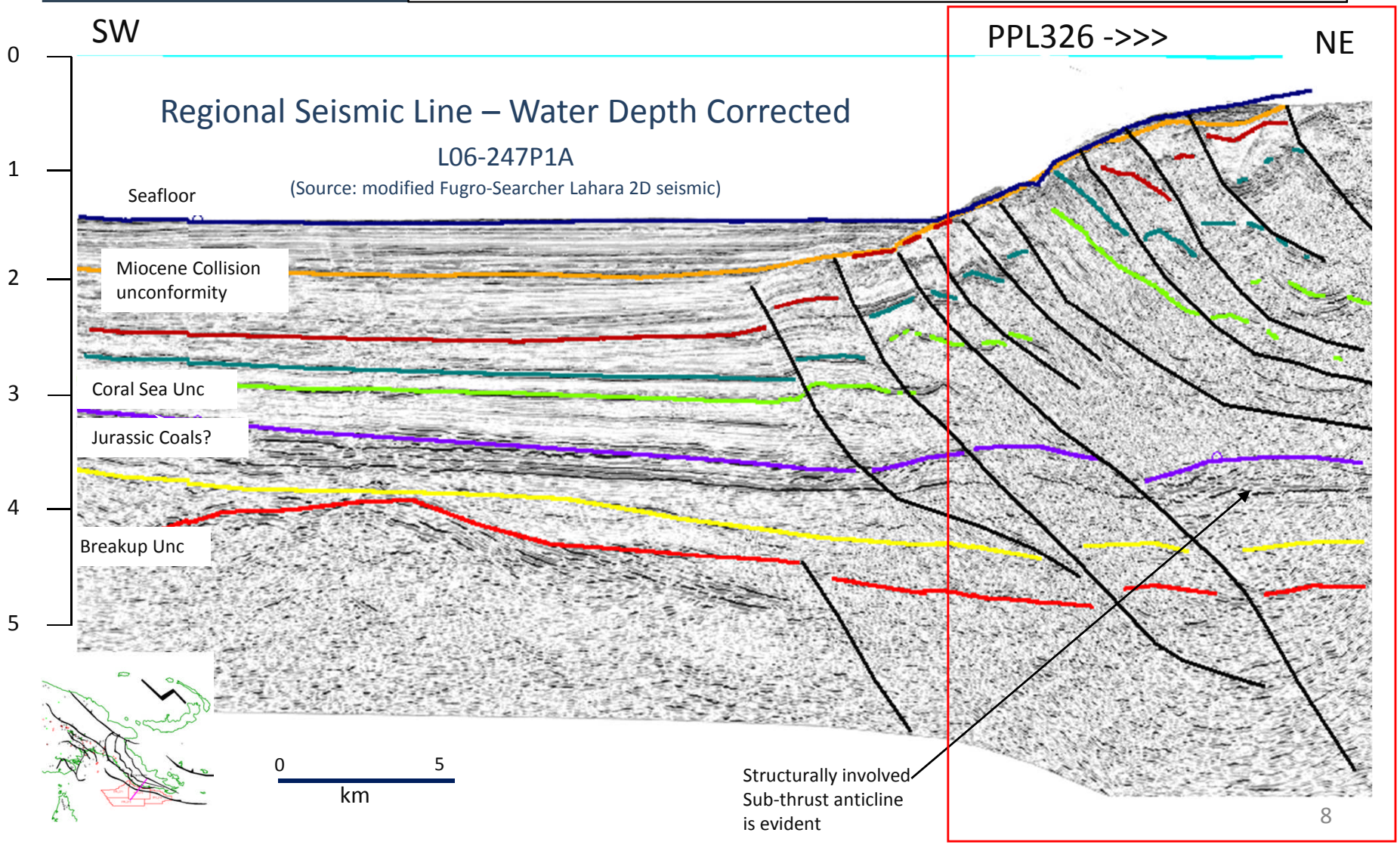

- Rifted margins similar to those in highly productive Papuan Fold Belt - over 300km of folds
- Recognition of sub-thrust sheet below surface geology
- Sheet analogous with Papuan Basin geology and tantamount to a buried highlands
- Also reef structures analogous with Elk and Antelope discoveries
- Experience shows need to be near the edge of the frontal thrust
- PPL 326 is in the right address

# Direct evidence of petroleum

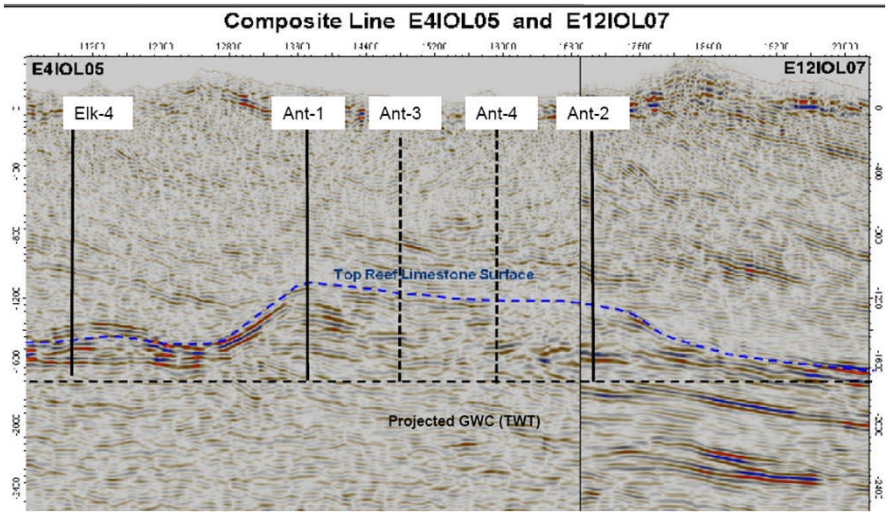



- Independent oil seep analysis
- Transfer fault runs through edge of shallow water in NW corner (dashed line)
- Oil seeps shown therefore are not an expression of the Papuan Basin, 100km to the NW, but an expression of the new basin which PPL 326 is in
- Indicates an active petroleum system

# Indirect evidence – buried Highlands



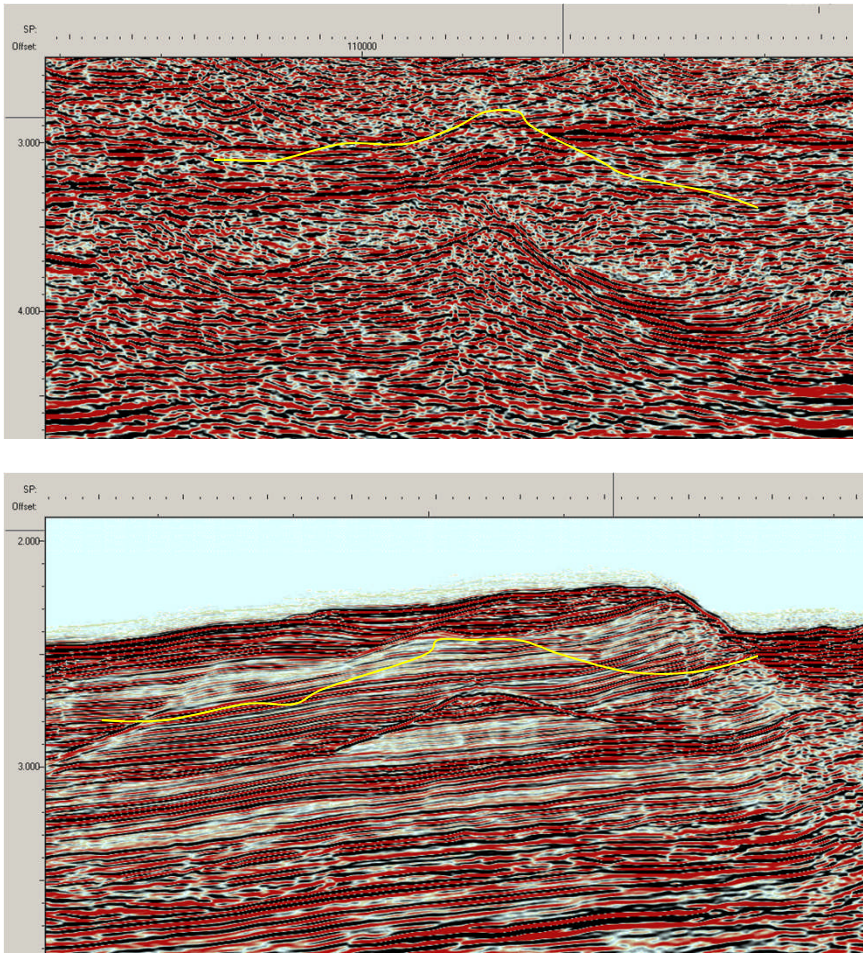
# Indirect evidence – reefs




(Source: InterOil Corp.))

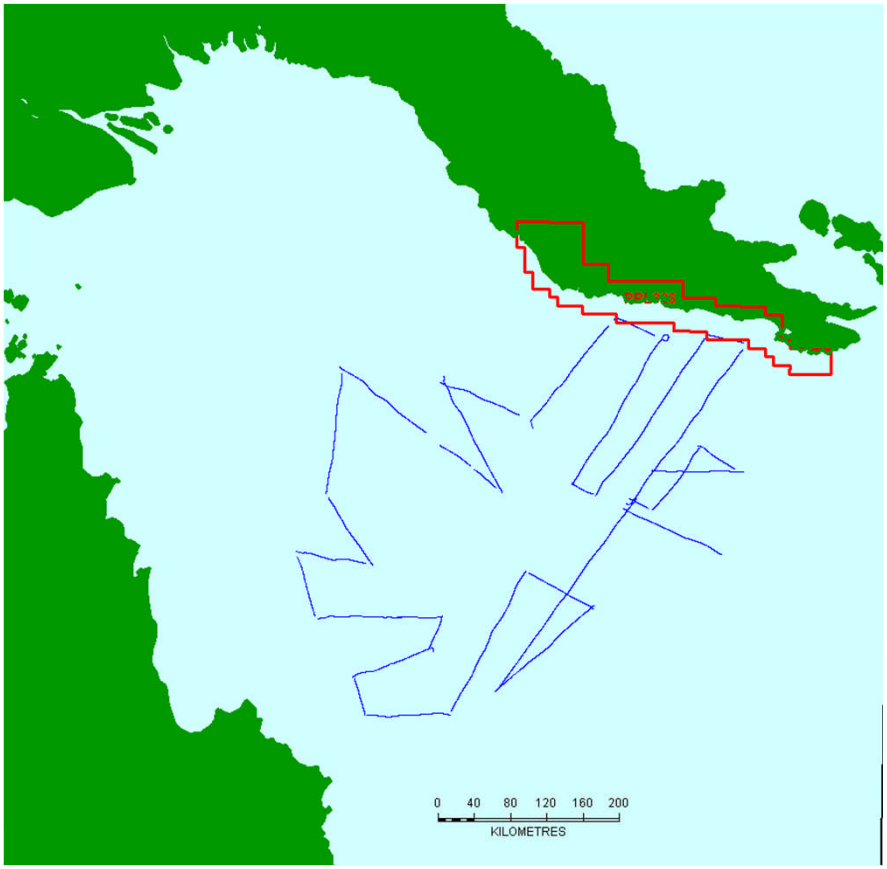
The other play in PNG is Miocene Reefs.

- The seismic signature seen above on the Elk-Antelope Field (8.3TCF) is characteristic.
- On the right are similar reef structures found within PPL 326.



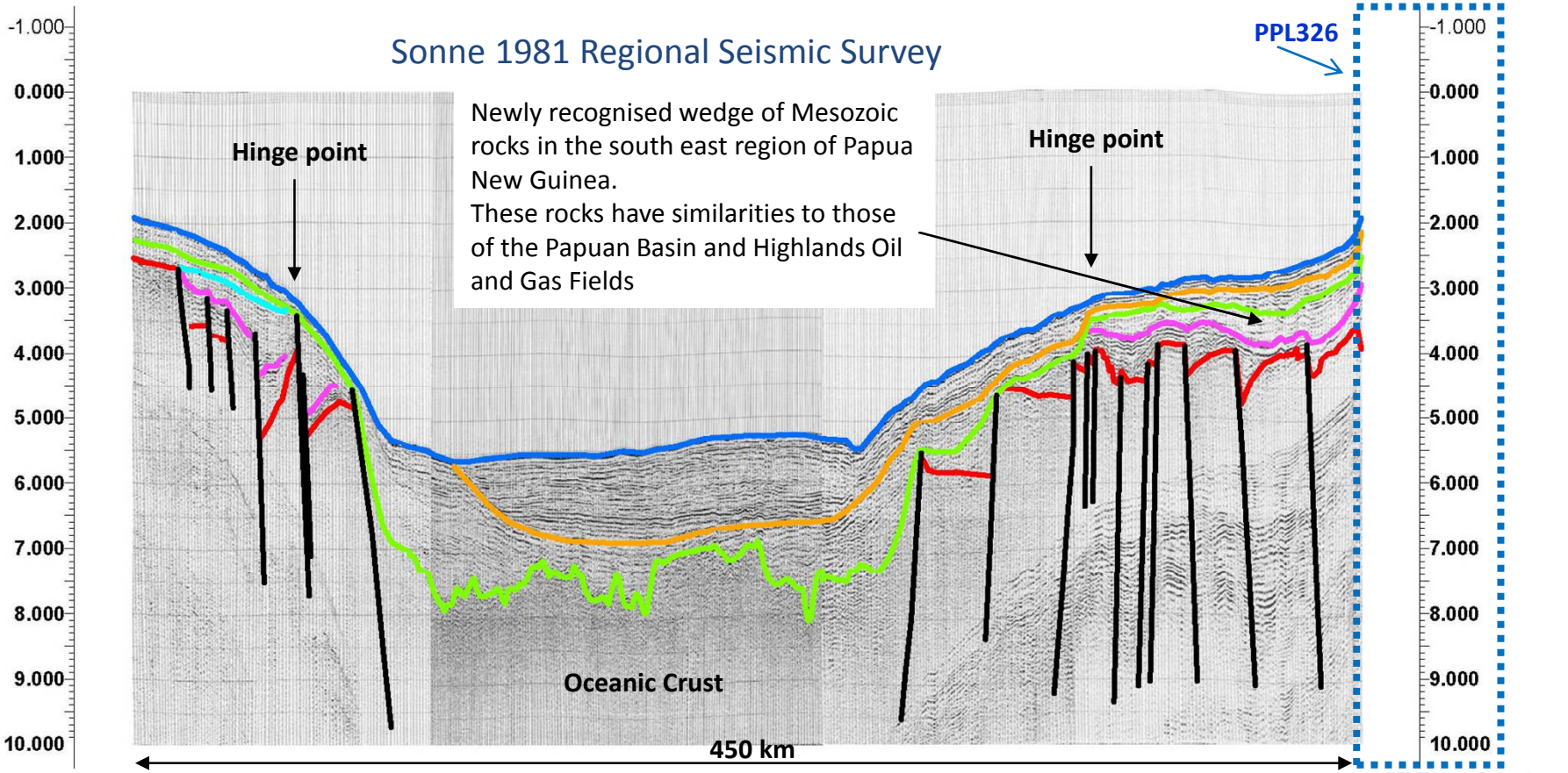

(Source: Fugro-Searcher Lahara 2D seismic)

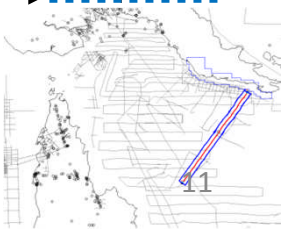
# Regional situation



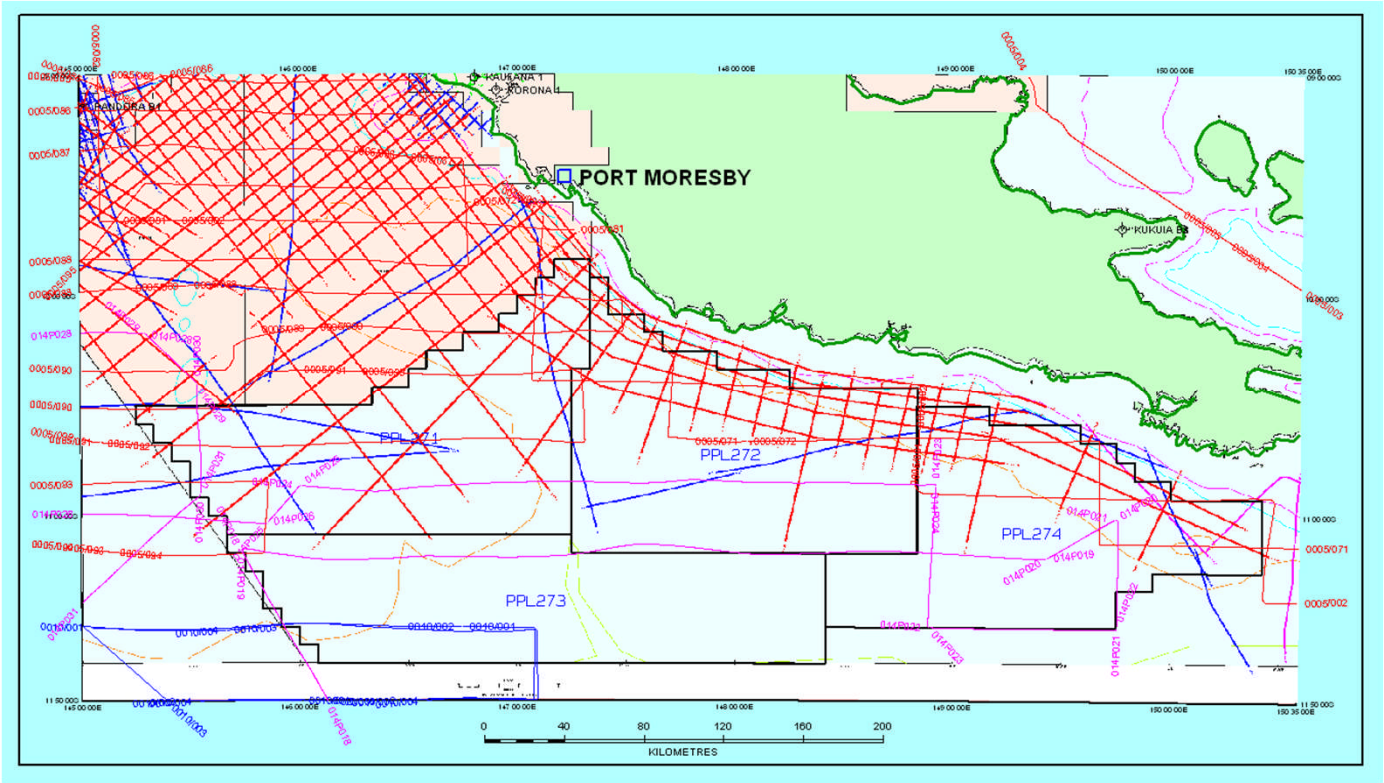

- The “lost” 3,200km Sonne data has been found
- Includes a 450km line joining Queensland Basin to PPL 326
- Basin architecture flowing from this confirms Newport Energy’s view on PPL 326 of a Mesozoic petroleum system in the region of PPL326.
- Will result in savings in time and cost

# Regional situation



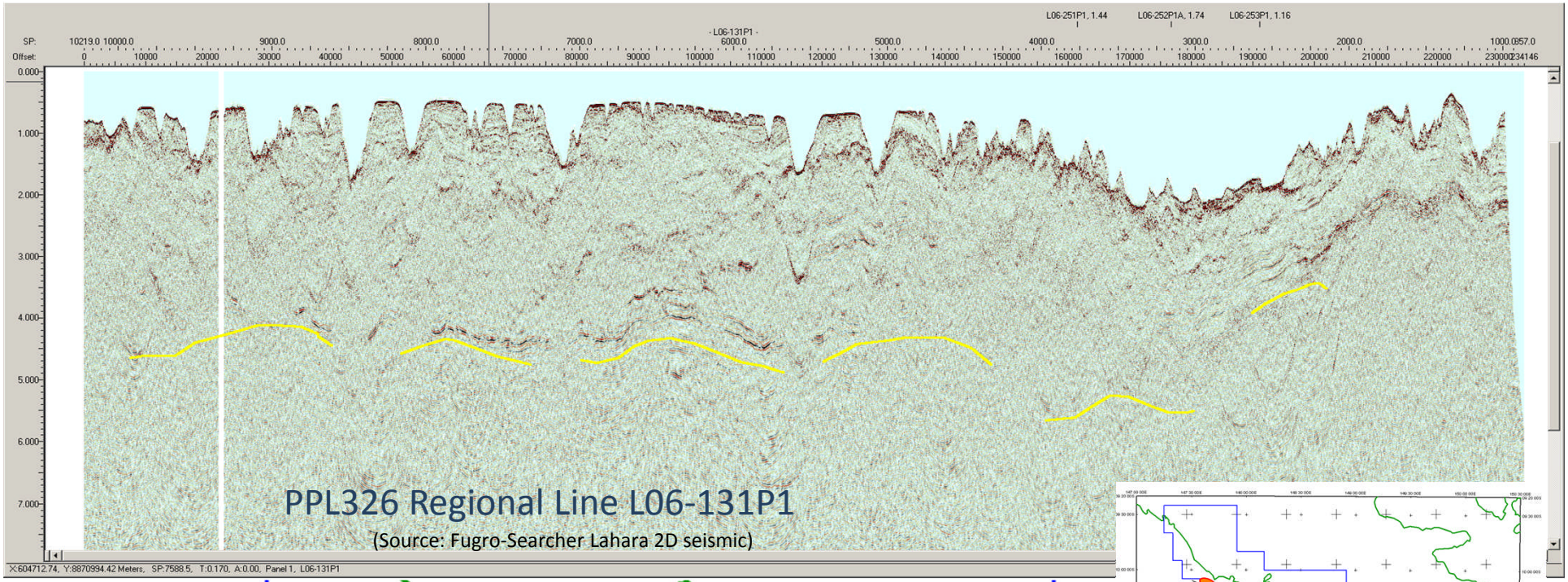



# Analysing existing data

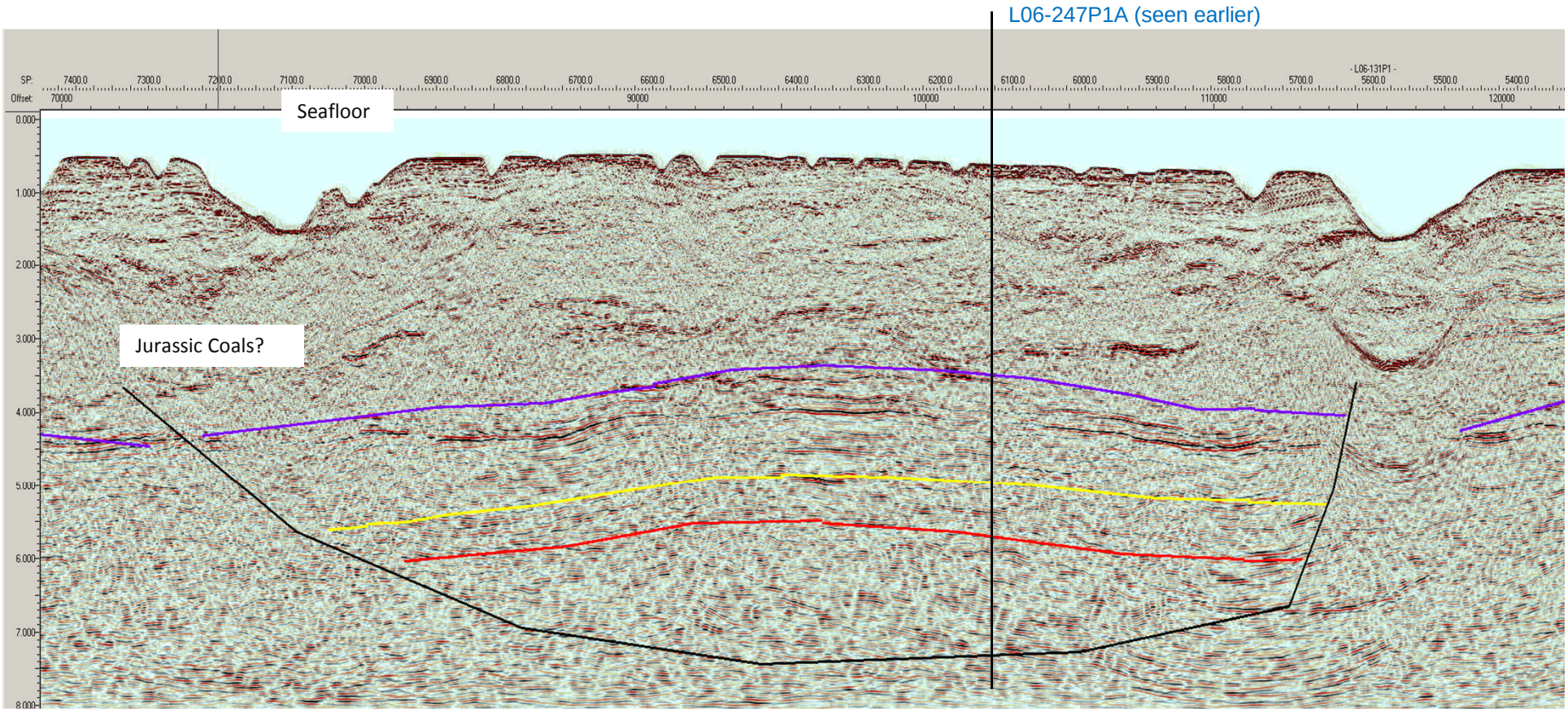



A lot of modern data acquired by Fugro-Searcher goes into southern edges of PPL 326, which has been analysed

# From the analysis Leads emerge



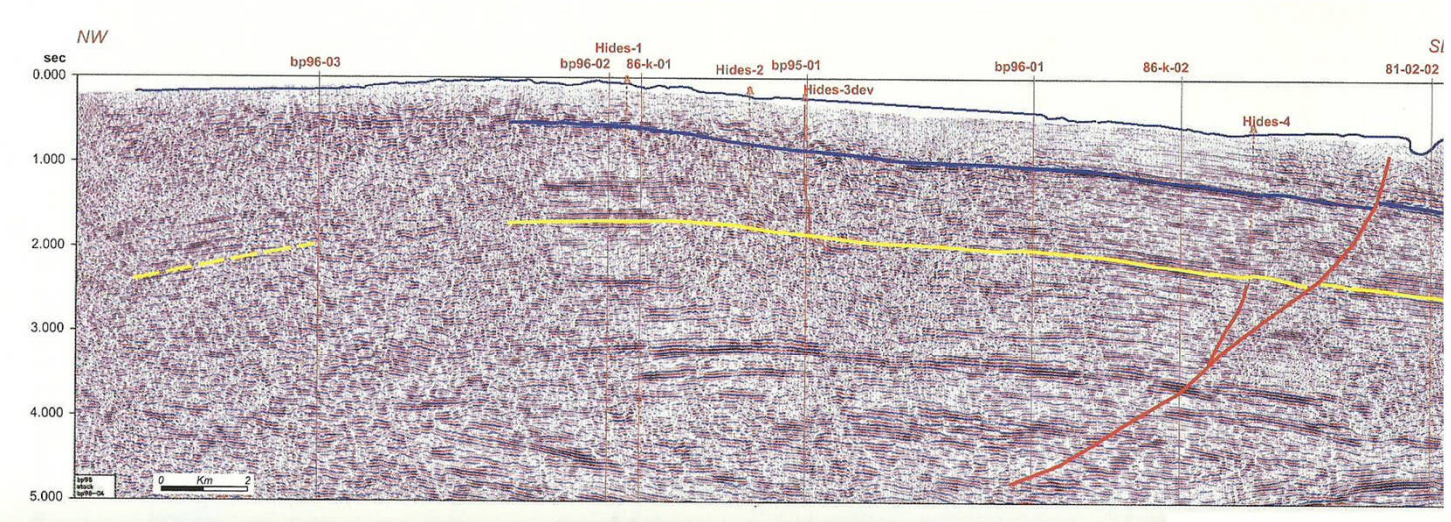
# Sunday Strong Lead



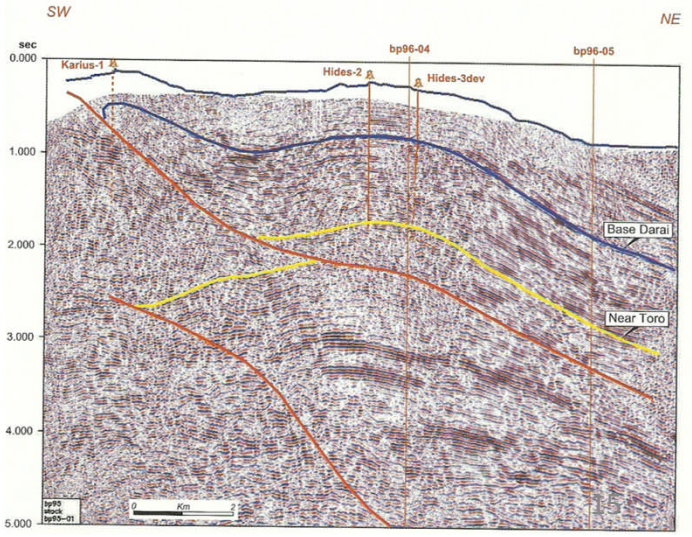

Regional Seismic Line – L06-131P1

(Source: Fugro-Searcher Lahara 2D seismic)

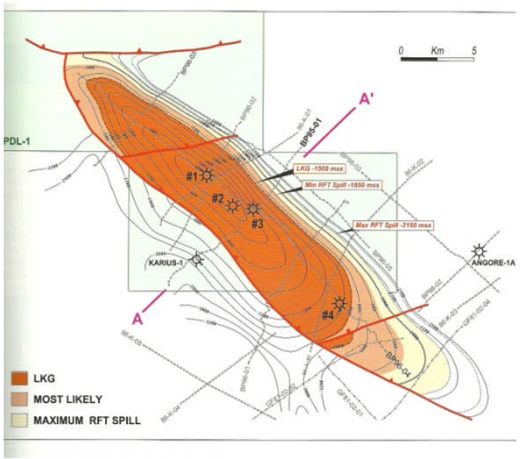
# Sunday Strong Lead

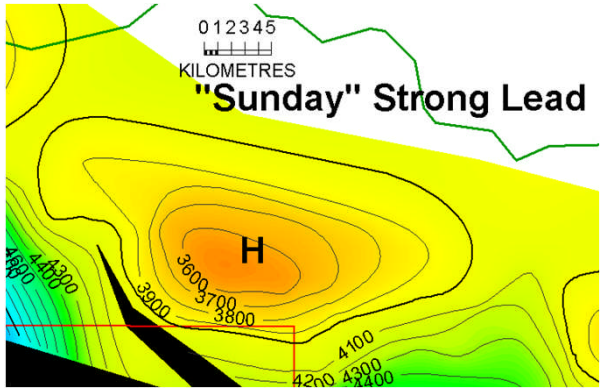



Compare the strike and dip lines over the Hides field and note the similarities



# Sunday Strong Lead




| | Low | High | |
|---|---|---|---|
| Net/Gross % | 44 | 62 | |
| Porosity % | 7 | 11 | |
| Sw % | 15.8 | 19.6 | |
| Perm md | 0.01 | 800 | |
| Recovery | 75 | | |
| Toro Sst m | 100 | | |
| Column m | 1240 | 1800 | Gas on rock |
| Anticine m | 2000 | | 35km long 5 km wide |
| Target Depth m | 3000 | | |
| Initial Flow MMscfd | 15.9 | | |
| bopd | 39.6 | | |
| Pressure PSI | 5600 | 5950 | |
| CGR stb/MMcf | 36 | | |
| Condensate API | 50 | 56 | |

Hides data from Johnstone and Emmett 2000
Petroleum Geology of the Hides Gas Field…
Proc 4th PNG Petroleum Conf

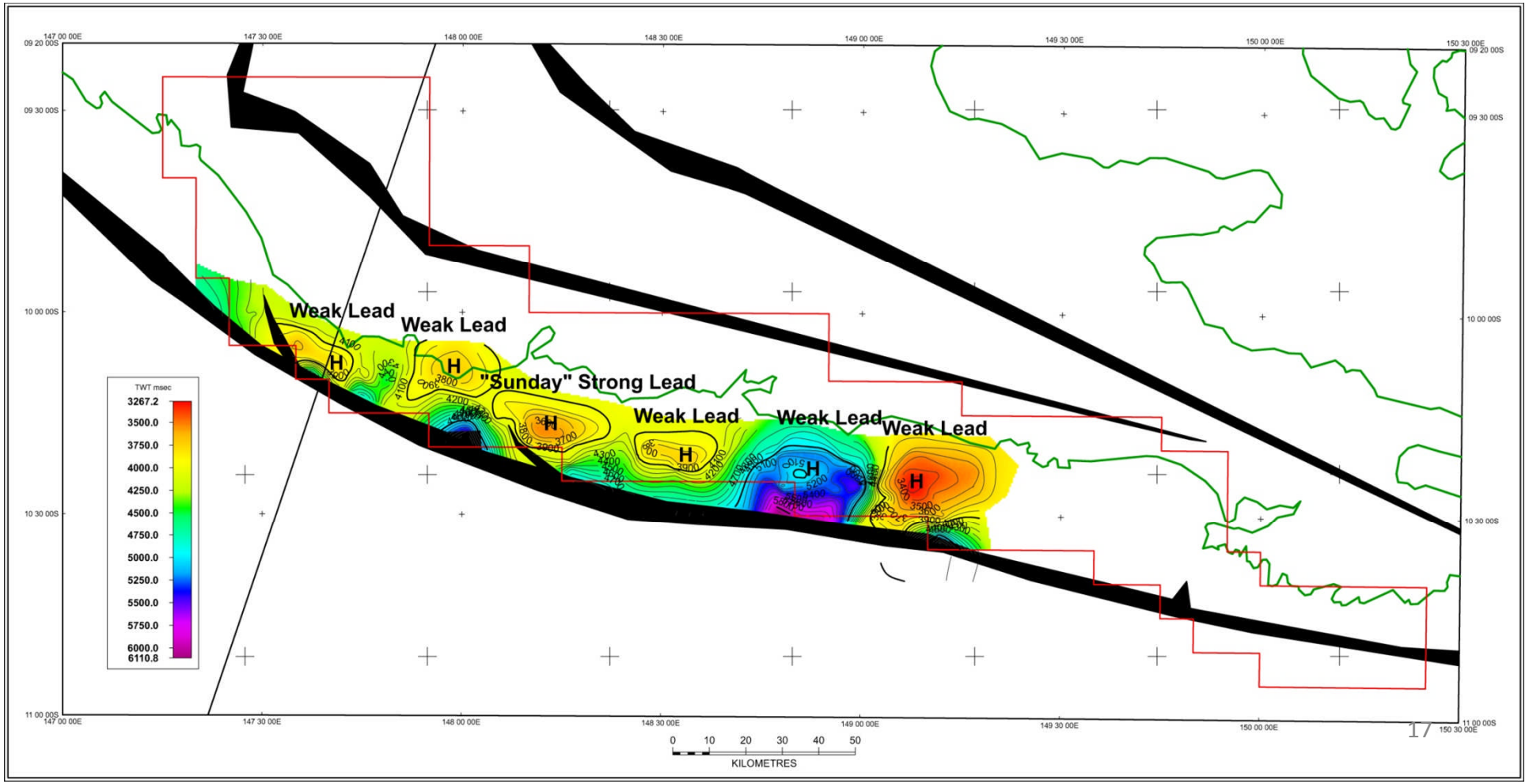
| | AREA acre | AREA KM*KM | HEIGHT FEET | | GEOMETRI FACTOR | GRV MM m cub | net | POROSITY PHI | So | 1/Bo | OIL/GAS TOTAL | OIP [MMbbls] | Recovery factor | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hides | 43209 | 174.99645 | 300 | 16001.675 | 0.8 | 12,801 | 0.55 | 0.1 | 0.82 | 1 | 0.03 | 100.87 | 1 | 100.8715 OIL MMBBLS |
| Hides | 43209 | 174.99645 | 300 | 16001.675 | 0.8 | 12,801 | 0.55 | 0.1 | 0.82 | 0.0025 | 1.00 | 8155.44 | 0.7 | 5708.809 GAS BCF |
| | OIP =6.28983 * GRV * Phi * So *1/Bo [MMbbls] | | | | | | | | | | | | | |
| | GIP=0.00353*GRV*Phi*So*1/Bo [BCF] | | | | | | | | | | | | | |
| Sunday Lead | 69135 | 279.99675 | 300 | 25602.903 | 0.8 | 20,482 | 0.55 | 0.1 | 0.82 | 1 | 0.03 | 161.40 | 1 | 161.3958 OIL MMBBLS |
| Sunday Lead | 69135 | 279.99675 | 300 | 25602.903 | 0.8 | 20,482 | 0.55 | 0.1 | 0.82 | 0.0025 | 1.00 | 13048.82 | 0.7 | 9134.174 GAS BCF |

Field Analogy – Hides (Papuan Basin):

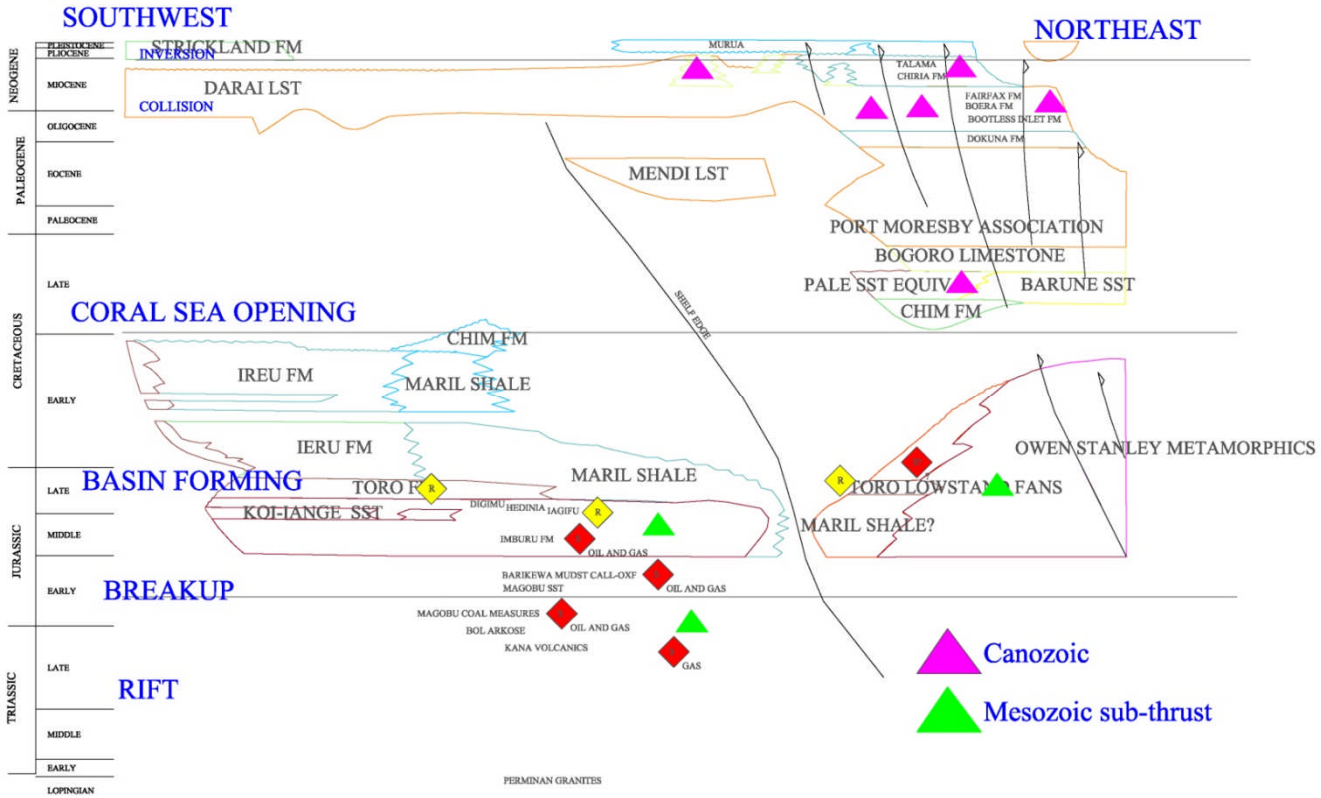
- The size of the Sunday Strong Lead is comparable with Hides.
- We are looking at Elephants here

# Not one but many

Sunday is but one of many and this is from just one strike line in the Tenement



# The plays




9-10 play types to pursue, including the 2 proven PNG plays

# De-risking the Permit

G&G to date has considerably de-risked the permit from ‘moose’ pasture to be one of the most exciting exploration opportunities in the region

| Exploration work | Observation |
|---|---|
| Gravity | geoid anomaly established region of thick crust |
| Magnetics | regional grid establishes basement depth and dip |
| Surface Geology | indicative of over thrusting |
| Topography | indicative of numerous large anticlinal development |
| Seeps | indicates active petroleum system |
| Regional Seismic | defines basin |
| Semi-regional seismic | defines exploration plays and leads |
| Seismic Stratigraphy | interpretation of source and reservoir units |
| Basin Analysis | significant petroleum "kitchen" likely |
| Geological reconstruction | point to region being a Tethyan type basin |
| Basin Affinities | Papuan Highlands and Northwest Shelf Australian basins |
| Plays, Leads and Prospects | 10 play types identified, many leads now identified |

University of PNG engaged to assist on surface work and landholder survey

# The path ahead

- Access further existing data and further map the leads
- Work “Sunday” strong lead into a prospect
- Continue landholder survey
- In 2011 acquire new seismic and continue to map the anticline trends
- Investigate the reported oil seeps
- Continue the work with the University
- Aero survey

# Summary

- We are focussed on PPL 326 and moving it to development
- We believe PPL 326 represents a new basin with enormous potential
- PPL 326 represents the same if not greater opportunity as with the Highlands, but in a logistically better location
- There are a number of other play types available to pursue at the same time
- The early work of the Company has significantly de-risked the area

# Thank You

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