

Hiding in plain sight – The Kingia gas fairway offshore

PESA Deal Day

May, 2023

PILOT ENERGY LIMITED
ASX:PGY



Compliance Statements



Disclaimer

This investor presentation has been prepared by Pilot Energy Limited ABN 86 115 229 984 (Pilot or the Company). Any material used in this presentation is only an overview and summary of certain data selected by the management of Pilot. The presentation does not purport to contain all the information that a prospective investor may require in evaluating a possible investment in Pilot nor does it contain all the information which would be required in a disclosure document prepared in accordance with the requirements of the Corporations Act and should not be used in isolation as a basis to invest in Pilot. Recipients of this presentation must make their own independent investigations, consideration and evaluation of Pilot. Pilot recommends that potential investors consult their professional advisor/s as an investment in Pilot is considered to be speculative in nature.

This presentation contains “forward looking statements” concerning the financial condition, results of operations and business of Pilot. All statements other than statements of fact or aspirational statements, are or may be deemed to be “forward looking statements”. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, “outlook”, and “guidance”, or other similar words & may include, without limitation, statements regarding plans, strategies and objectives of management, future or anticipated production or construction commencement dates and expected costs, resources or reserves, exploration results or production outputs.

Assumptions and Forward Looking Statements

Forward looking statements are statements of future expectations that are based on management’s current expectations and assumptions, known and unknown risks and uncertainties that could cause the actual results, performance or events to differ materially from those expressed or implied in these statements. These risks include, but are not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, commercialisation reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Statements in this presentation are made only as of the date of this presentation unless otherwise stated & the information in this presentation remains subject to change without notice. Reliance should not be placed on information or opinions contained in this presentation. To the maximum extent permitted by law, Pilot disclaims any responsibility to inform any recipient of this presentation on any matter that subsequently comes to its notice which may affect any of the information contained in this document and presentation and undertakes no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any person. To the maximum extent permitted by law, neither Pilot nor, any affiliates, related bodies corporate and their respective officers, directors, employees, advisors and agents (Relevant Parties), nor any other person, accepts any liability as to or in relation to the accuracy or completeness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any person

Competent Persons Statement

This announcement contains information on conventional petroleum resources which is based on and fairly represents information and supporting documentation reviewed by Dr Xingjin Wang, a Petroleum Engineer with over 30 years’ experience and a Master in Petroleum Engineering from the University of New South Wales and a PhD in applied Geology from the University of New South Wales. Dr Wang is an active member of the SPE and PESA and is qualified in accordance with ASX listing rule 5.1. He is a former Director of Pilot Energy Ltd and has consented to the inclusion of this information in the form and context to which it appears.

Authorisation

This presentation has been authorized by the Chairman and Managing Director on behalf of the Board of Directors of Pilot Energy Limited

Mid West WSP Feasibility Study Reporting Conditions

Pilot has agreed the following conditions with the ASX in relation to the Mid West WSP feasibility study:

1. The Company must continue to spend funds on its existing and proposed oil and gas projects.
2. The Company must disclose in each quarterly activities report until September 2022, the proportion of expenditure incurred in relation to exploration and evaluation on the oil and gas projects and the Mid West Wind and Solar Project.
3. The Company must disclose as separate line items in each quarterly activities report until September 2022, expenditure incurred in relation to exploration and evaluation on the oil and gas projects and the Mid West Wind and Solar Project.
4. Proceeding beyond the feasibility study stage of the Project (or incurring expenditure in excess of the budgeted feasibility expenditure in relation to the Project) constitutes a change in the nature and scale of the Company’s activities in terms of Listing Rule 11.1 and as such the Company will be required to comply with all of the requirements of Chapters 1 and 2 of the Listing Rules before it proceeds beyond the feasibility study or incurs expenditures in excess of the budgeted feasibility expenditure on the Project.

High impact gas opportunity – WA-481-P

Opportunity

- Offshore area is larger than onshore, same geology, very lightly explored

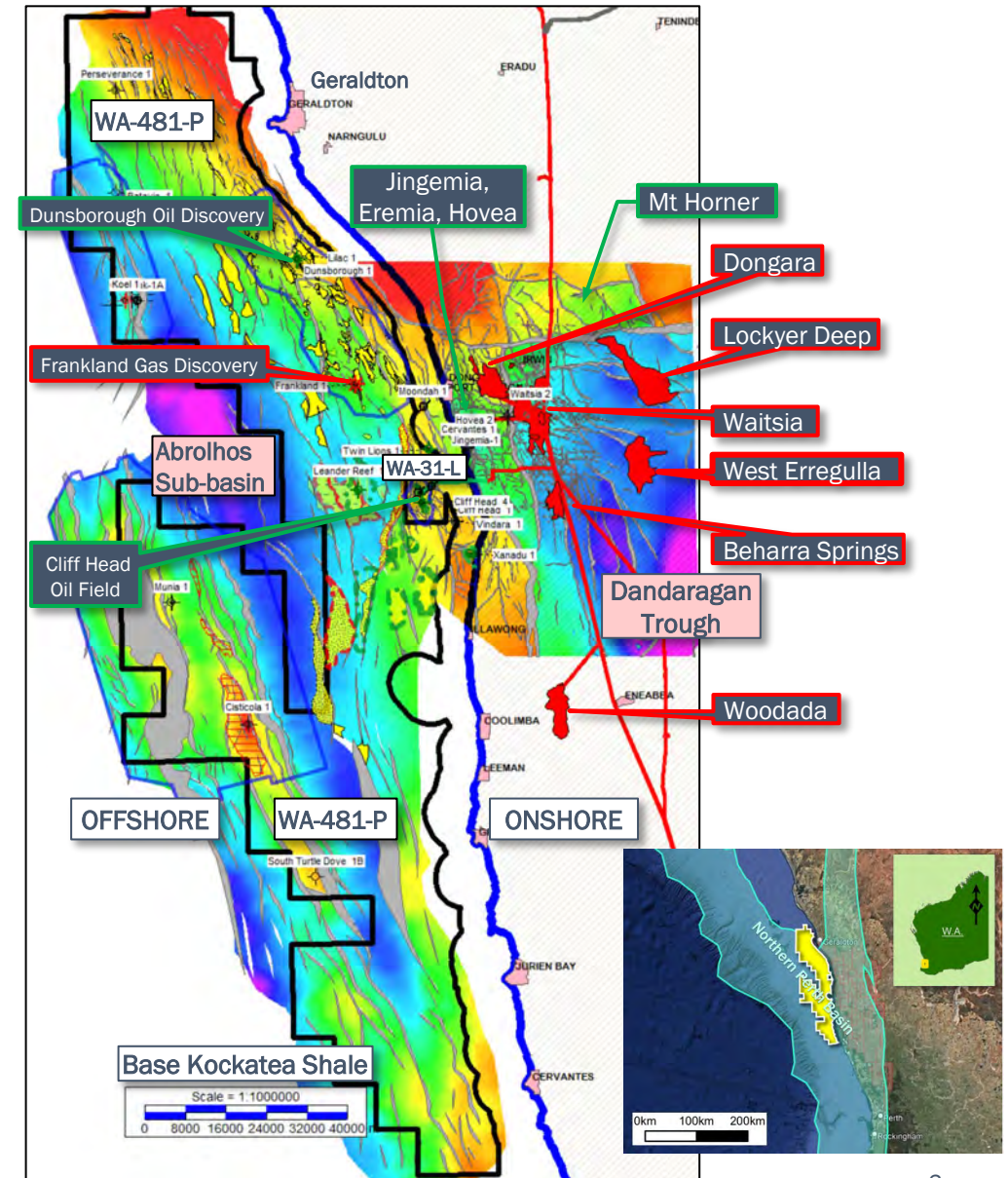
Pilot Energy

- WA-31-L, Cliff Head Oil Field (21.5%) initially 18 mmbbls EUR
 - CCS; application #1 for storage submitted to NOPTA
- Mid-West Clean Energy Project
- WA-481-P, (100%)
 - Dunsborough oil discovery, 6 mmbbls 2C
 - Frankland gas discovery, 42 Bcf 2C
 - Failure elsewhere pursuing the Dongara sst, not widespread offshore
 - Kingia sst was not previously recognised or targeted offshore
 - 8,605 km² licence area is lightly explored

Perth Basin Resources*

- Produced ≈32 mmbbls, ≈3 mmbbls remaining
- Produced ≈766 Bcf, primarily from Dongara sst
- Exploration success onshore in the Dandaragan Trough since 2014
- Kingia sandstone dominates increase of 2P+2C to ≈2,124 Bcf

* Source of resource quantities; [Geoscience Australia 2021](#) converted from PJ



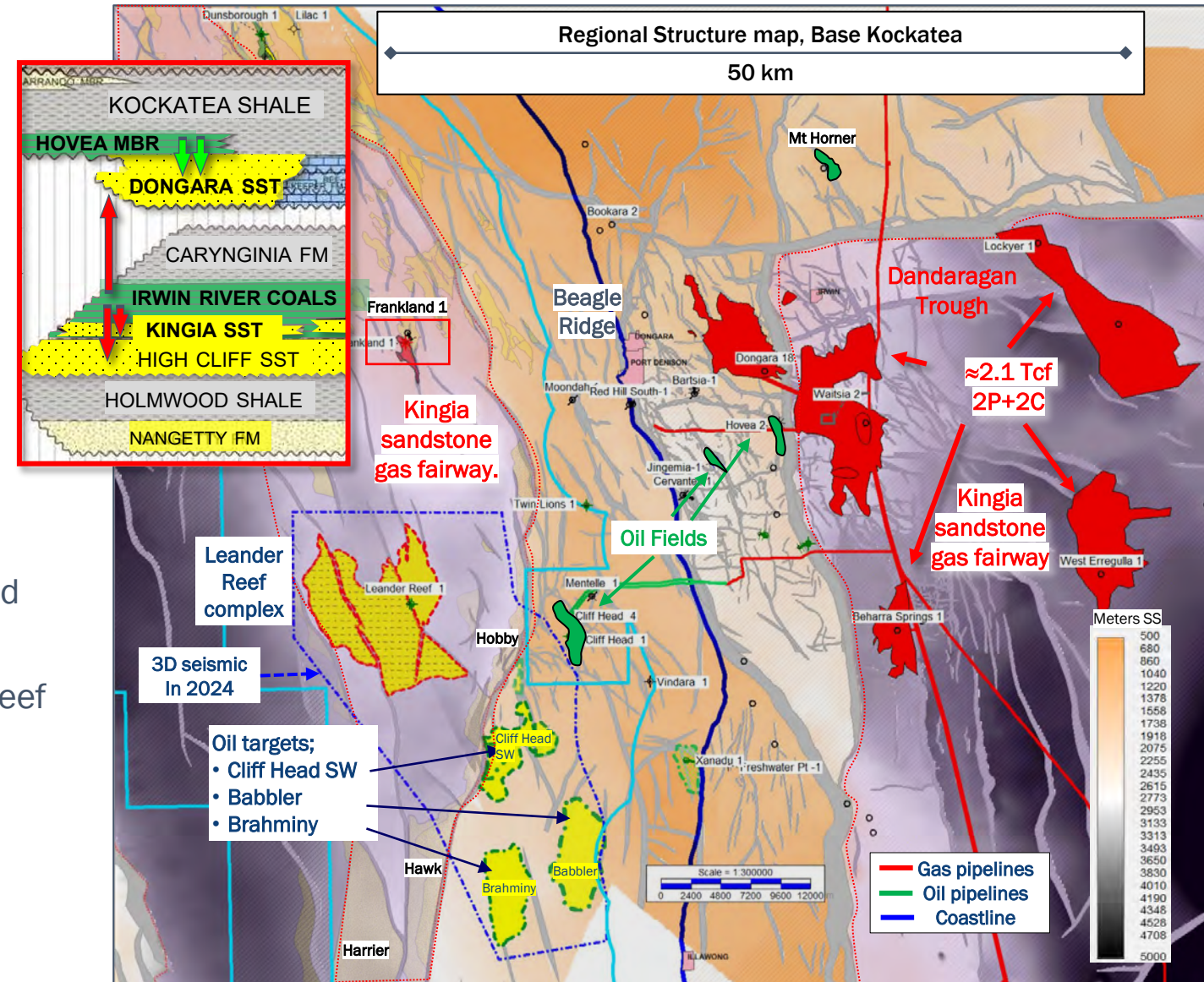
Two petroleum systems

- 1) **Hovea Shale member**, Type II oil source top-loads into;
 - Dongara sandstone at Jingemia, Hovea, and Eremia Fields
 - IRCM and Kingia sands at Cliff Head Field, Dunsborough
- 2) **Irwin River Coal Measures (IRCM)** Type III kerogen charges gas into underlying Kingia and High Cliff sands
 - Waitsia 2 (2014) opened the Kingia gas play onshore in the Dandaragan Trough
 - Estimated 2P+2C **≈2.1 Tcf** dominated by Kingia sandstone

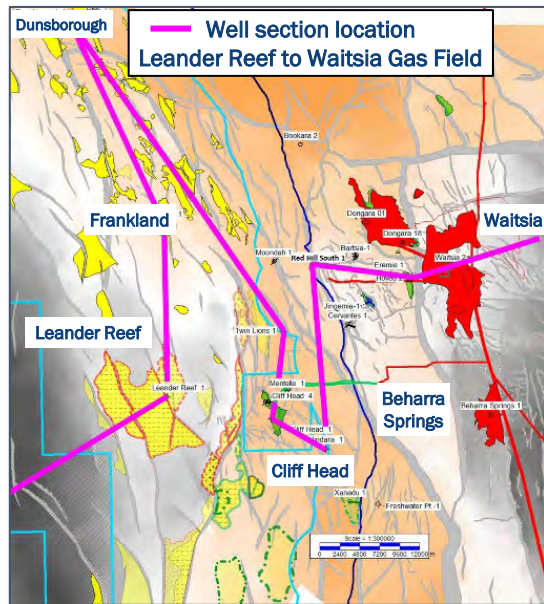
Missed opportunity in WA-481-P

- Kingia sst is present in offshore wells, not recognized
- Leander Reef 1 (1984) didn't drill deep enough
- Prospective gas resource estimate of the Leander Reef complex is **450 Bcf***.

* Probabilistic estimate of 2U, announced to ASX 9th March 2023



Kingia gas play – previously unrecognised potential

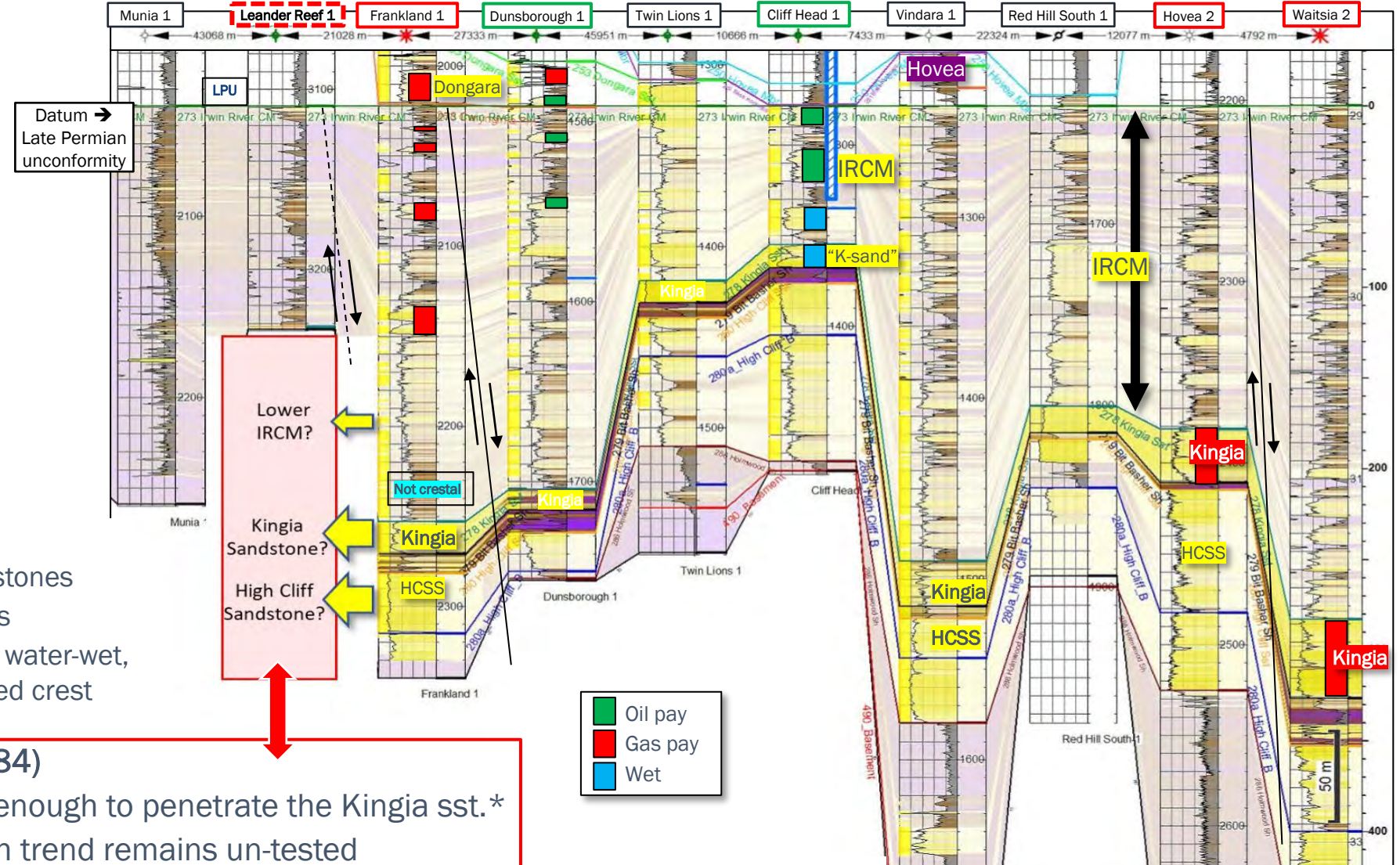


Frankland-1 (2003)

- Gas in Dongara and IRCM sandstones
- IRCM coals are the source of gas
- Kingia sandstone is present but water-wet, penetrated downdip of the faulted crest

Leander Reef 1 (1984)

- Didn't drill deep enough to penetrate the Kingia sst.*
- A substantial high trend remains un-tested



* Dr Gary Powis, geological adviser to ROC, reviewed the palynology of Waitsia 2 and offshore wells for Pilot and confirms the Kingia is present offshore, not penetrated at Leander Reef 1

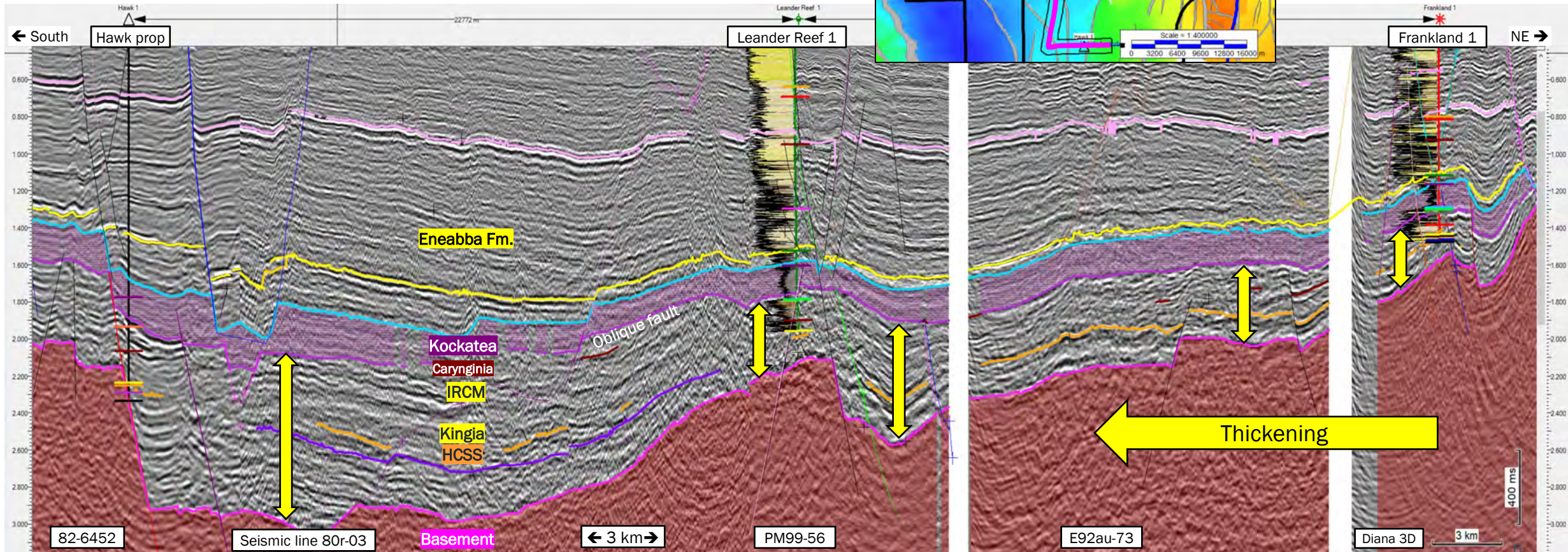
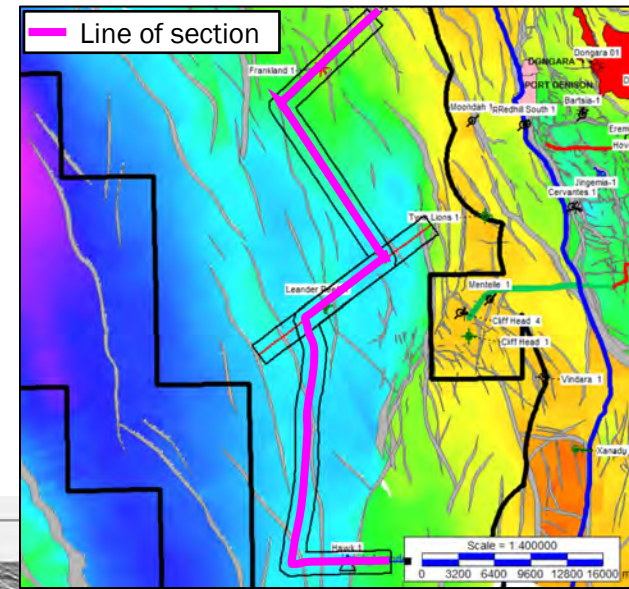
Thickening section → thicker reservoirs?

Frankland 1 (2007)

- Kingia sst is present, was not recognised, wet due to downdip position

Seismic traverse

- Permian reservoir section thickens southwards, more accommodation
- Kingia sst is prognosed to thicken basinward towards/beyond LR 1
- Discrete mapping of intra-Permian is underway; IRCM, Kingia-HCSS



Leander Reef 1 - failure to intersect Dongara sst – possible explanations

Explanation in WCR (1984), carried by previous seismic interpreter

- Dongara sandstone missed due to normal fault throw at well location

Alternate explanations

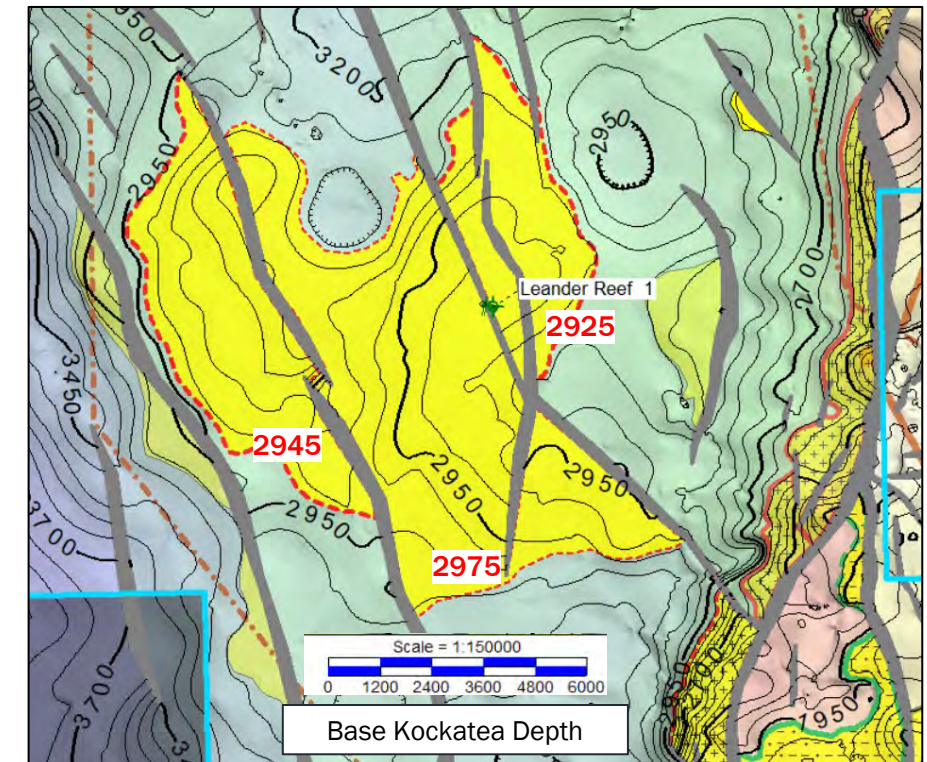
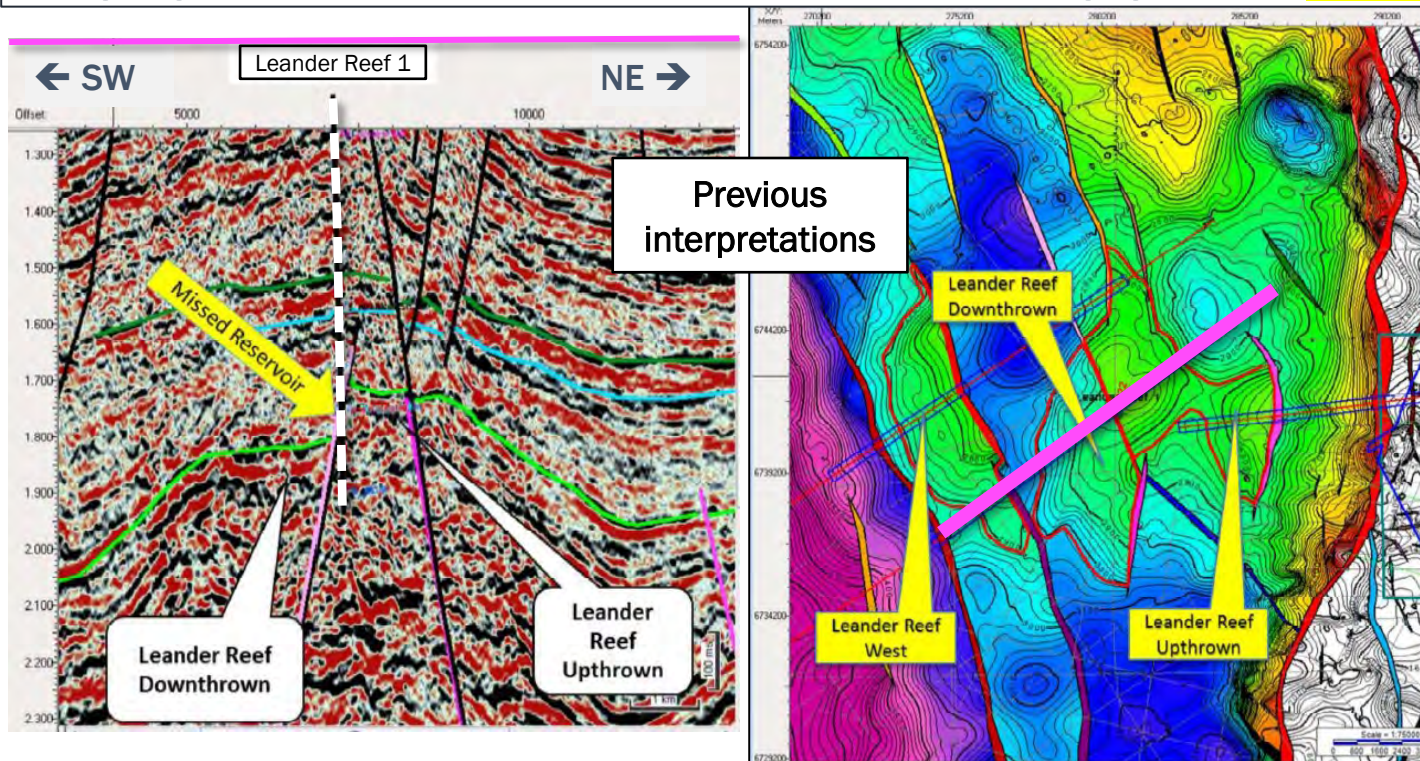
- Dongara sandstone was not deposited at Leander Reef? As observed at Cliff Head, Vindara, Xanadu. Or...
- Dongara was deposited in a fluvial to estuarine system, possibly in incised valleys (localised), on the Late Permian Unconformity (LPU). Either Dongara is absent locally or over a wider area,
- Dongara sst is a possible secondary target

Previous drilling setbacks hide a *slightly* deeper opportunity

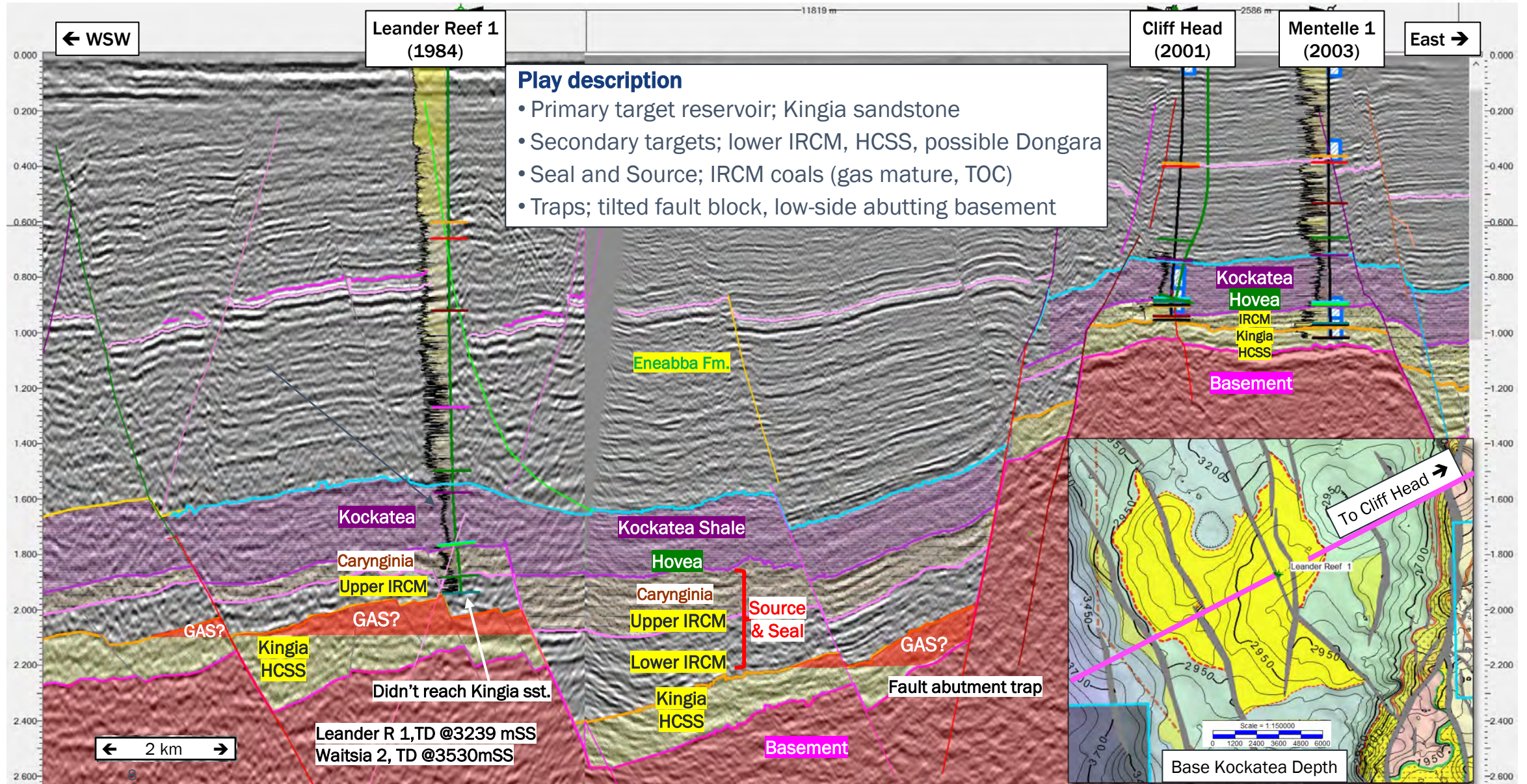
- Drilling operations in 1984 suffered a failed cement job of 9-5/8" then a cyclone, was much over budget
- The geology of the NPB was not well known at the time, and the unknown Kingia gas play was **not tested**

Seismic database

- 2D seismic, acquired 1980 through 1999 is poor to fair quality
- The structural high is obvious, configuration varies by interpreter
- Reprocessing has not resolved intra-Permian details, faults
- Pilot is committed to acquire 3D seismic



Leander Reef area – multiple opportunities



Hydrocarbon charge

Seal + Source overlies the Kingia sandstone

- IRCM and Carynginia contain type III kerogen, is gas prone, overlies & charges/seals the Kingia sst.
- Frankland Gas field charge is sourced from an IRCM / Carynginia kitchen downdip
- Leander Reef 1 gas shows ★ are encouraging, albeit suppressed by high mud weight 9.7 ppg

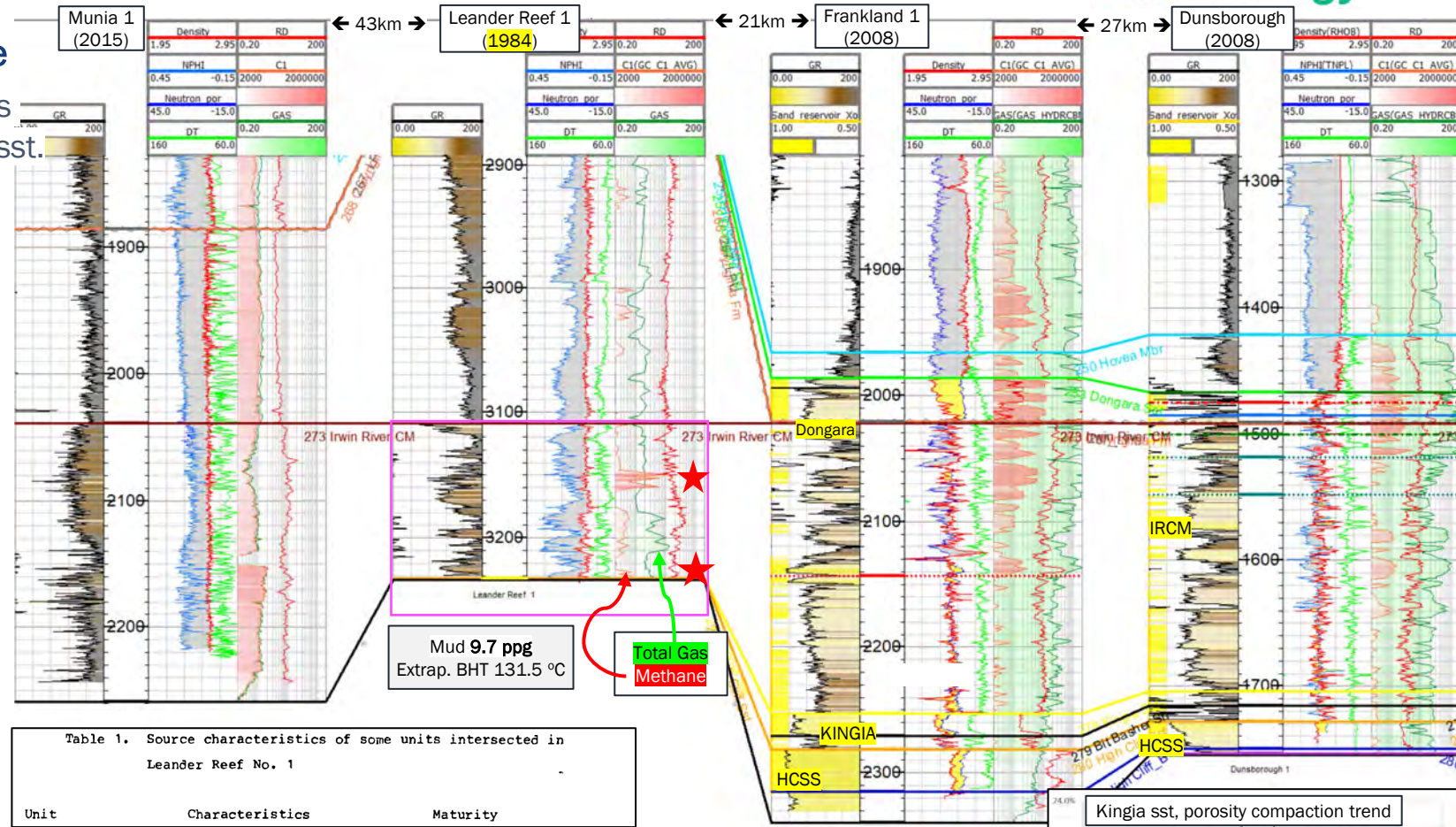
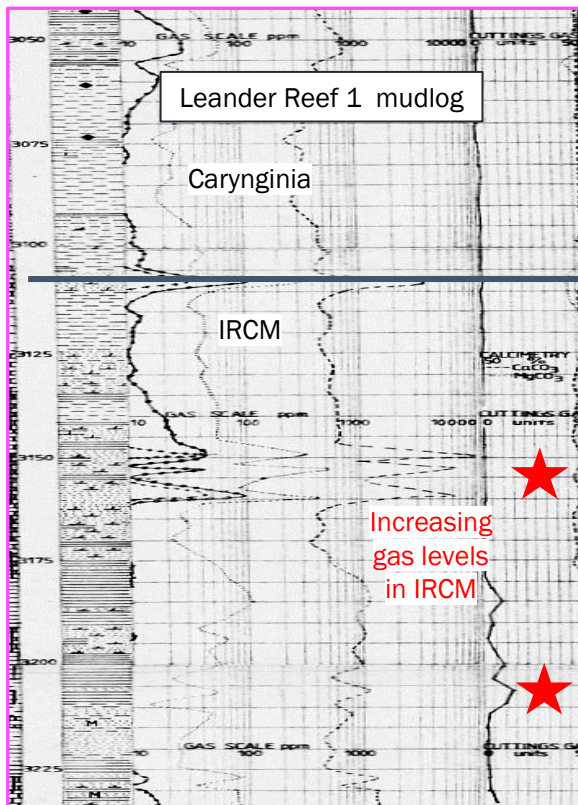
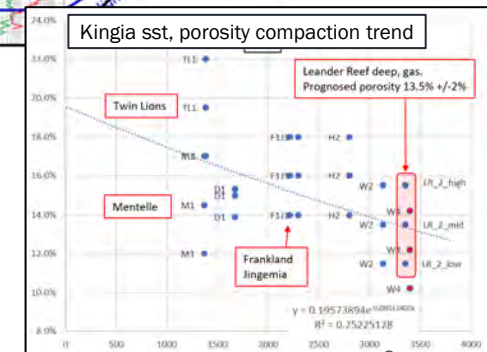


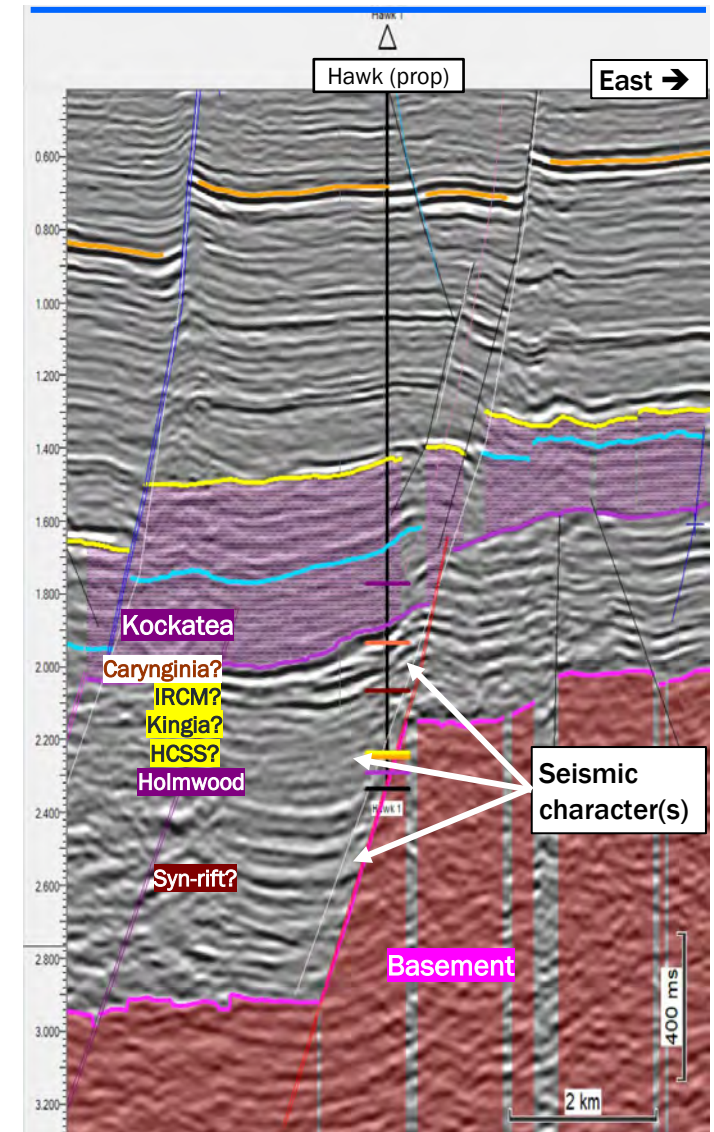
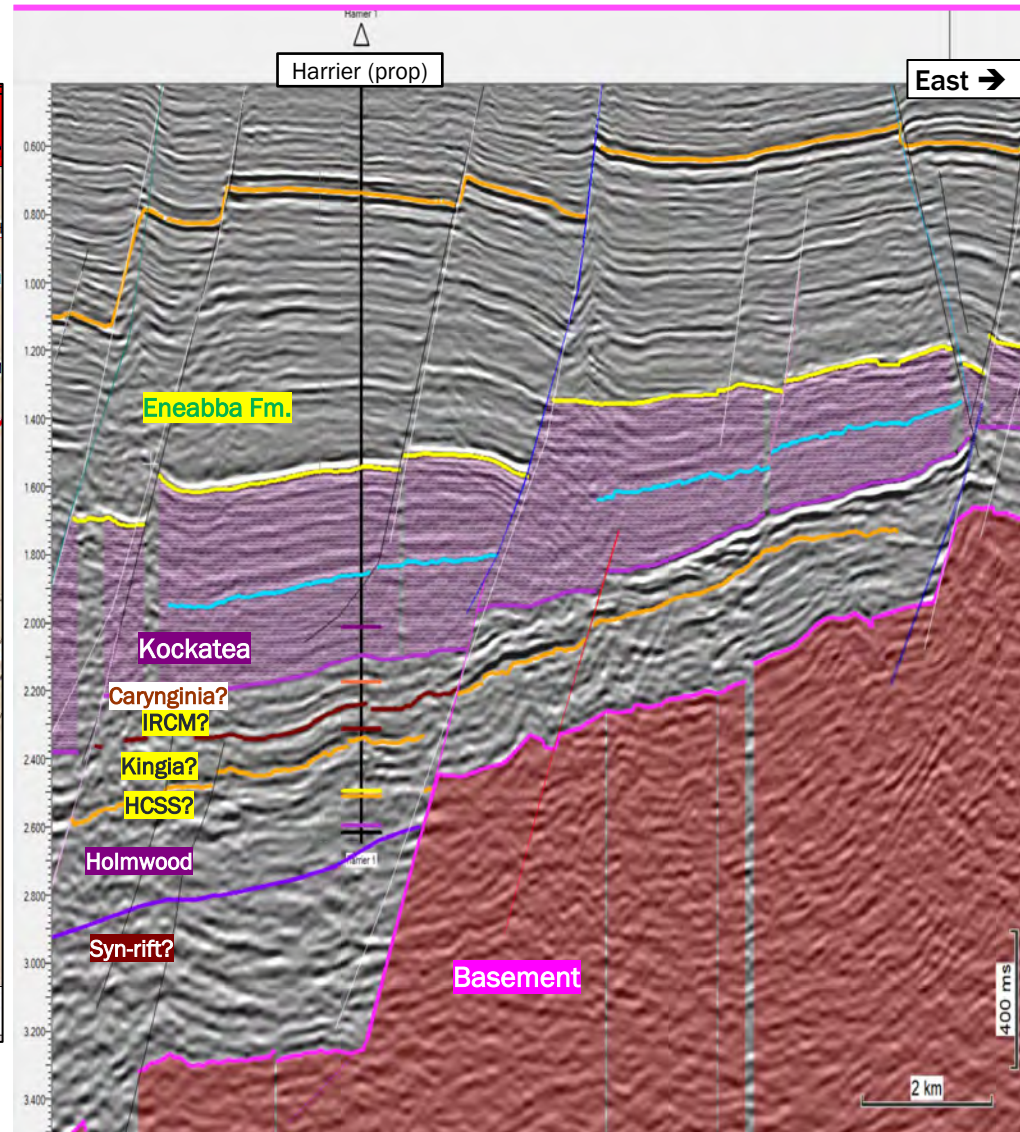
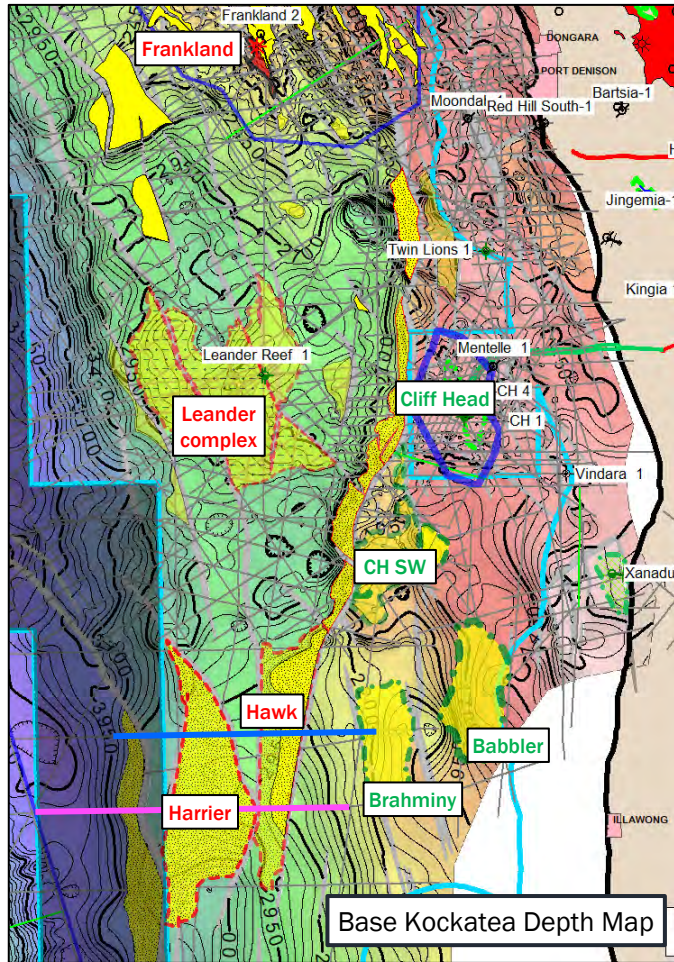
Table 1. Source characteristics of some units intersected in Leander Reef No. 1

Unit	Characteristics	Maturity
Kockatea	Good source potential from marine sourced exinite. Richest units at top and extreme base	Early mature
Carynginia	Possible source potential from terrestrially derived inertinite	Mature (especially for generation from inertinite)
Irwin River	Similar to Carynginia formation but inertinite content is generally higher	
Coal Measures		



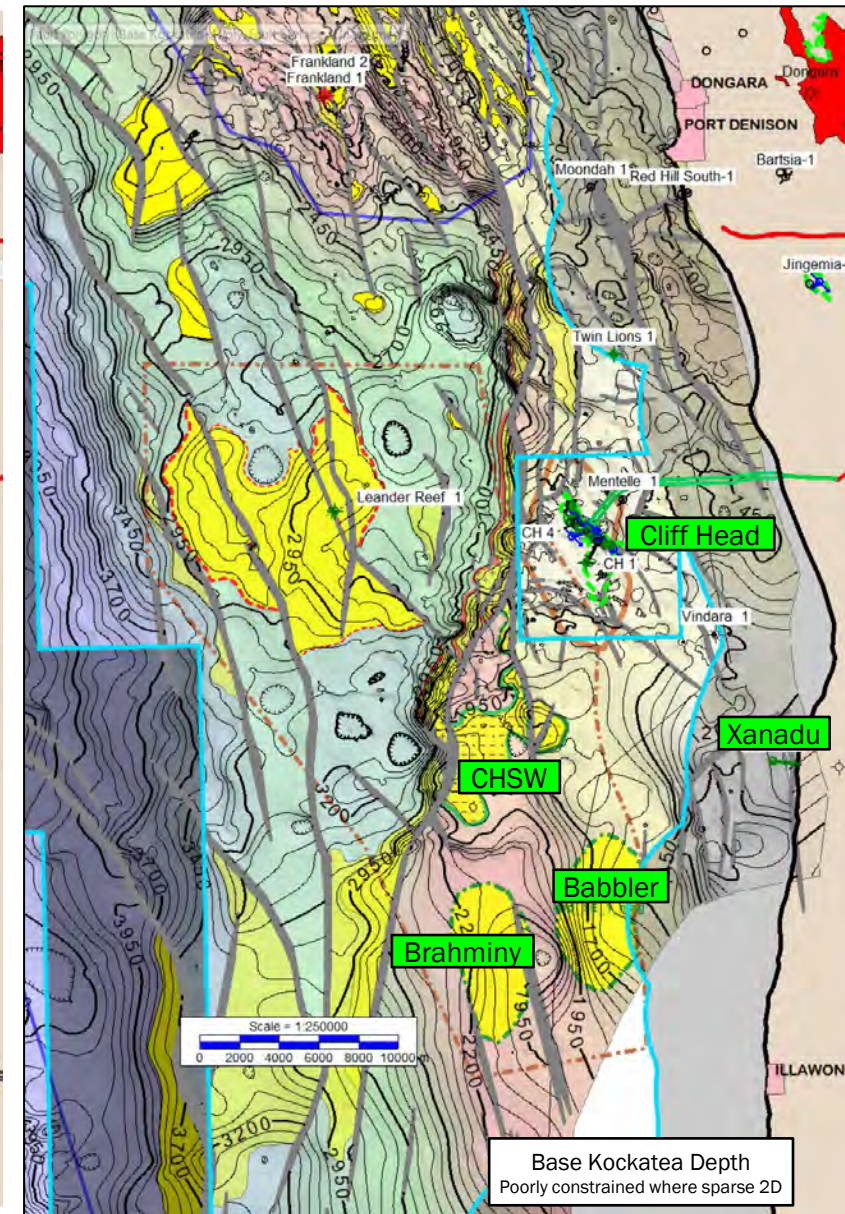
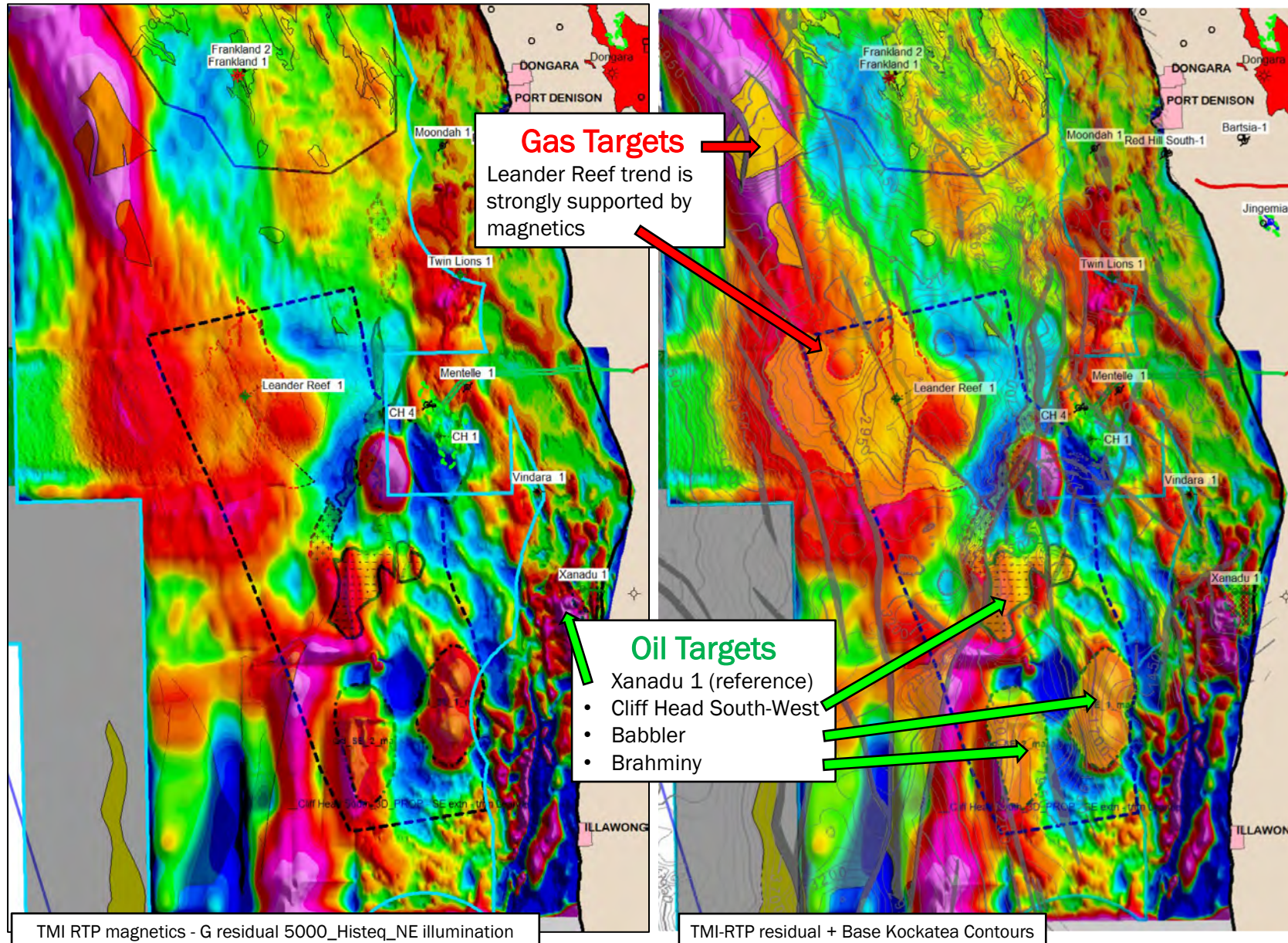
Hawk, Harrier – follow-up to Leander Reef test of Kingia sst

- Harrier, Hawk, and leads in the hanging-wall of Geraldton Fault are untested
- Size analogous to Leander Reef



Aeromagnetics – revealing Basement highs

Good correlation of Basement to seismic highs – positive indication for oil leads



Cliff Head SW Oil prospect and leads

Trap

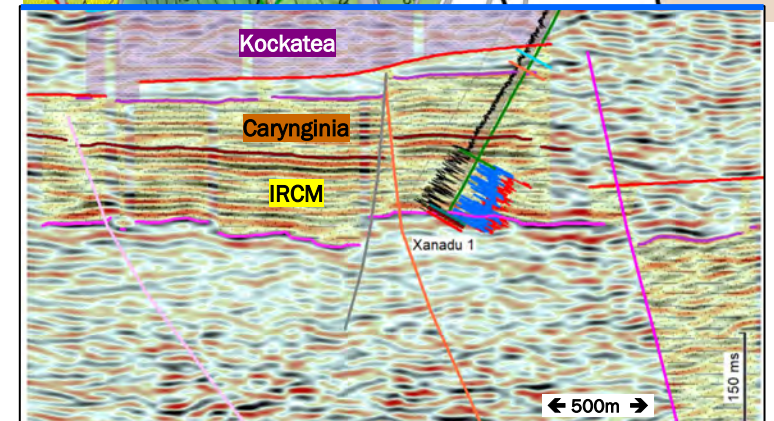
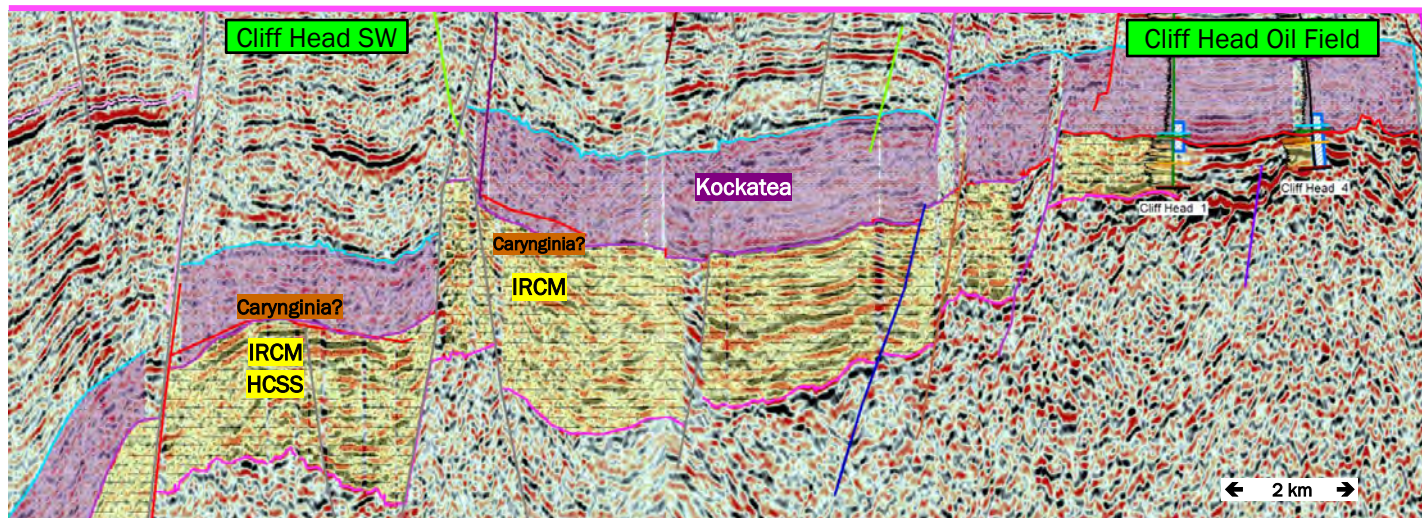
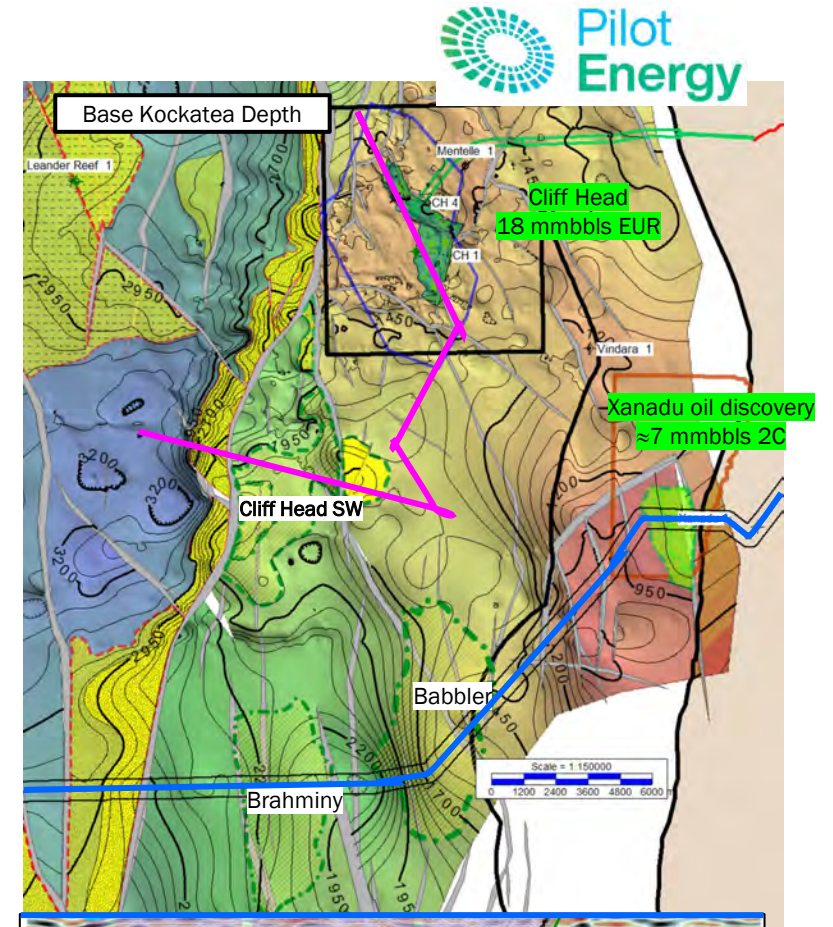
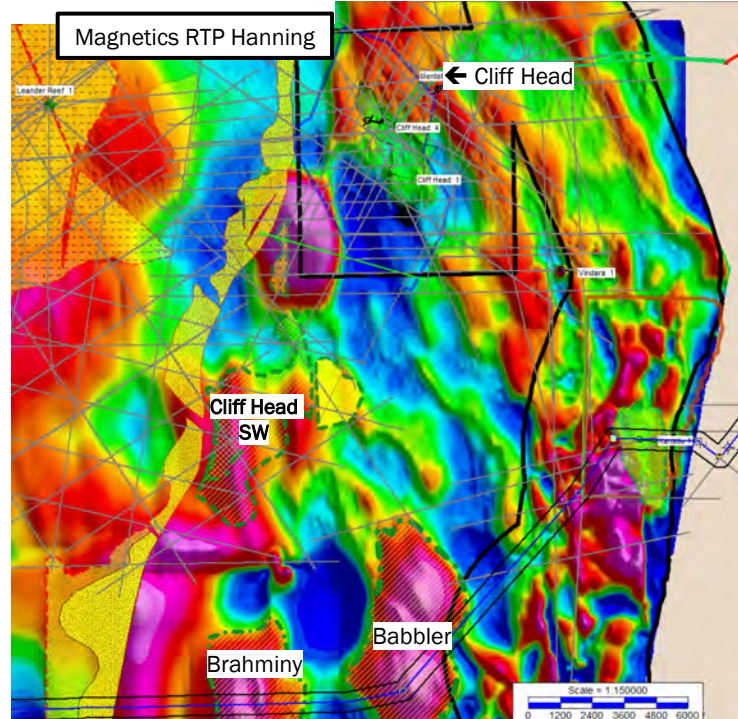
- Cliff Head South-West - mapped on 2D seismic
- Aeromagnetic anomalies appear coincident with structural highs
- Brahminy & Babbler; one 2D line, aeromagnetics

Reservoir

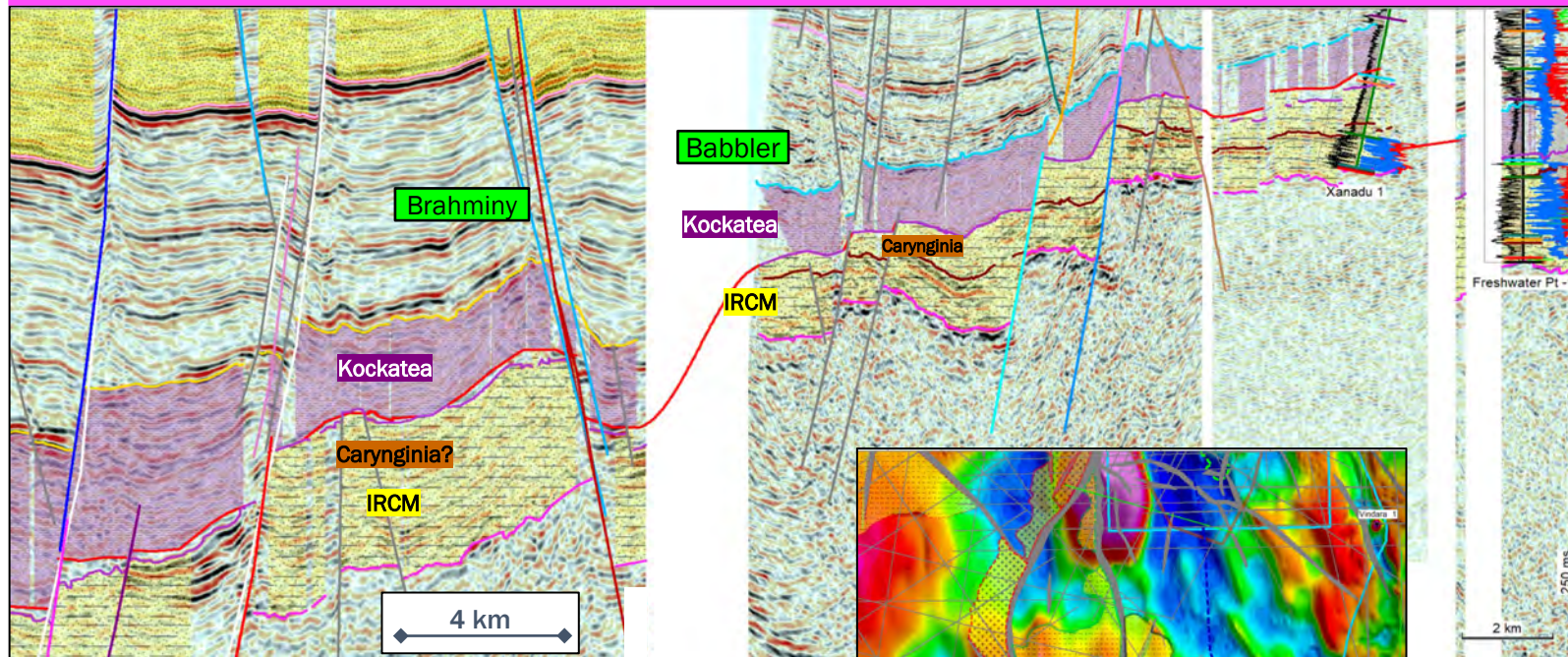
- Cliff Head Oil Field, IRCM & Kingia sands
- Xanadu Oil discovery, IRCM sandstones

Charge

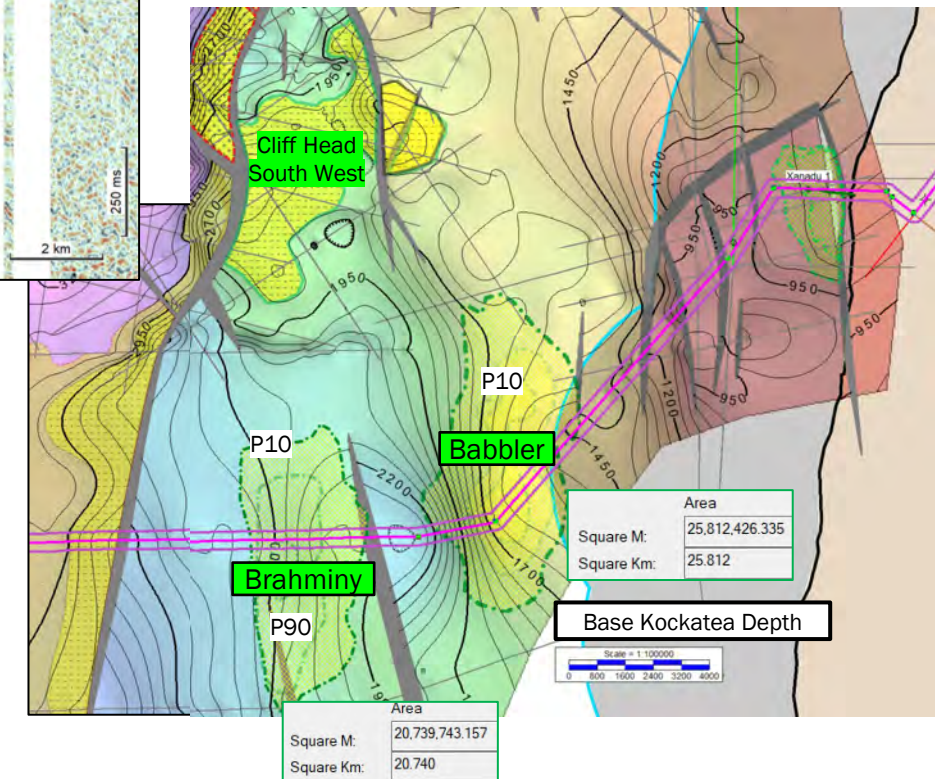
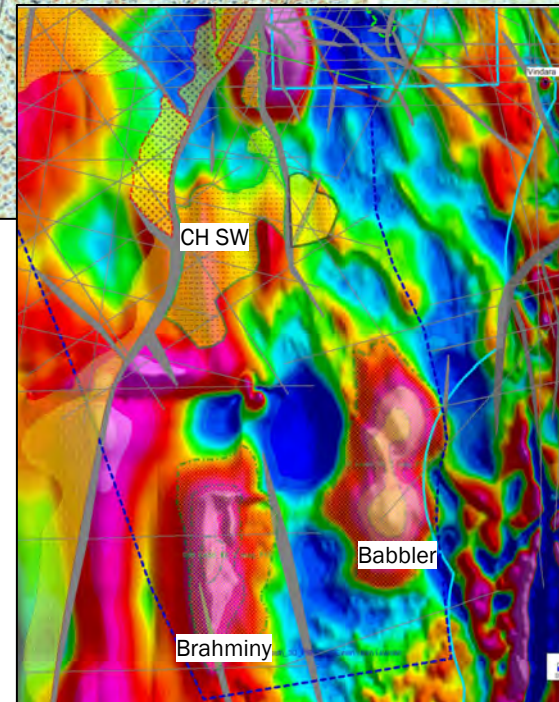
- Hovea Shale Member is oil mature
- Top-loading or cross-fault charge are effective



Oil leads –Brahminy and Babbler



- Identified on one seismic line plus aeromagnetics
- acquisition planning 3D seismic in-progress
- Additional aeromagnetics



Oil Lead	P90	P50 (best)	P10	Best recoverable *
Cliffhead SW	19	46.3	113	13.1 mmbbls
Brahminy	6.7	31.1	145	8.8 mmbbls
Babbler	24.3	66.2	180	18.7 mmbbls

* Probabilistic 2U estimates announced to ASX 9th March 2023

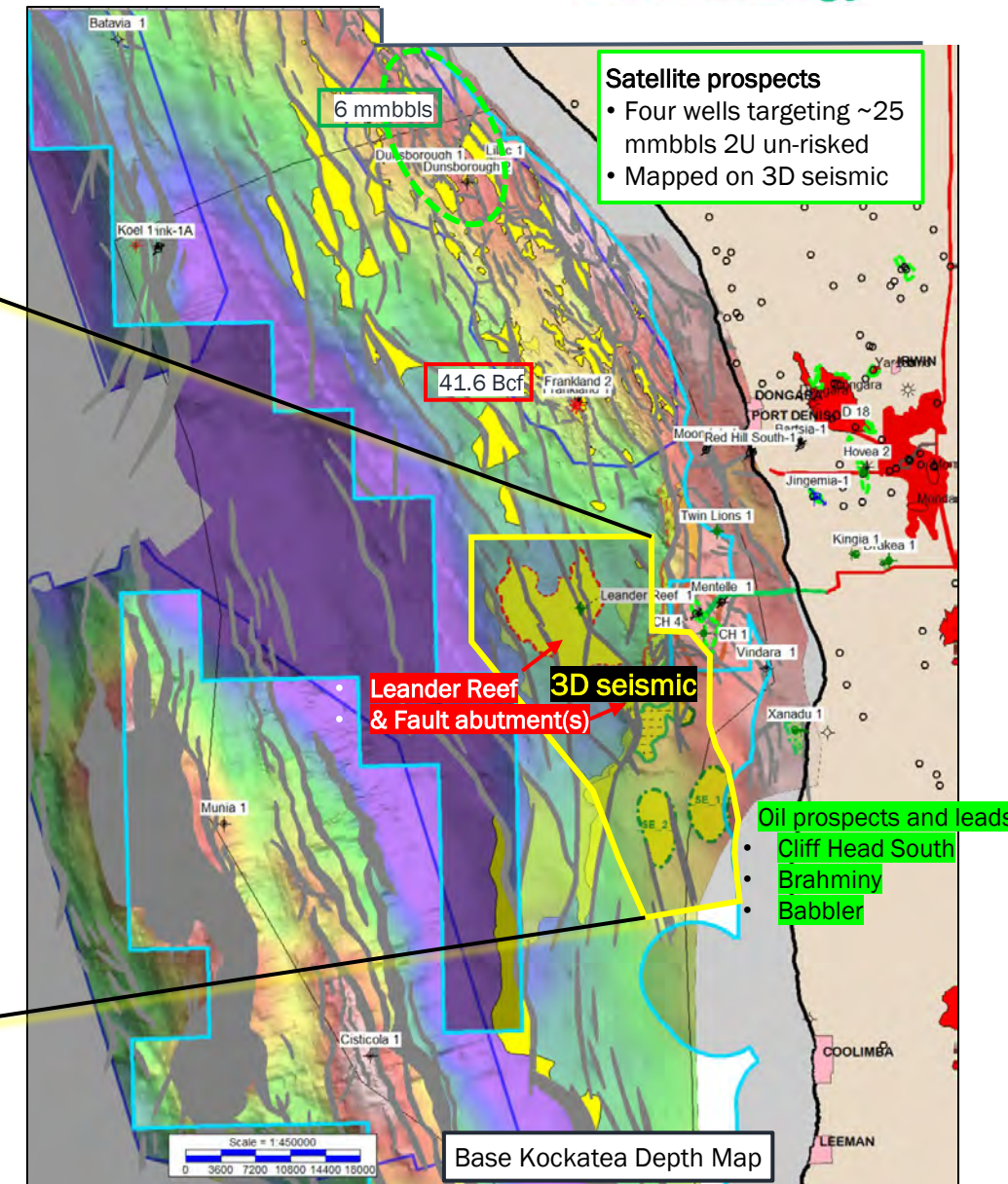
The Opportunity

WA-481-P

- Proven oil and gas fairways
- Multiple reservoirs, attractive target sizes, scale

Pilot is seeking partner(s) to participate in;

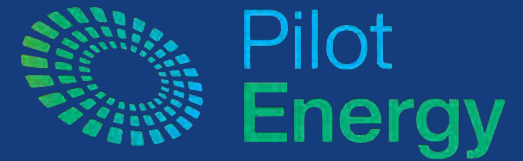
- Upcoming 3D seismic survey 350km² targeting;
 - Kinga sandstone gas;
 - 450bcf Leander Reef complex to
 - Geraldton Fault abutment features
 - Southern Terrace oil;
 - 41 mmbbl across Cliff Head South, Brahminy and Babbler
- Follow up gas targets at Harrier and Hawk
- The large tenement area and extensive data sets provide a significant runway for future exploration and appraisal activities



Contact Details

Pilot Energy Limited
Suite 301, 35 Spring Street
Bondi Junction, NSW 2022

www.pilotenergy.com.au



Nigel Gordon
Miro Advisers
nigel@mirocapital.com.au

Mike Bucknill
Subsurface Manager
mbucknill@pilotenergy.com.au

Mike Lonergan
Head of Upstream
mlonergan@pilotenergy.com.au