

APPEX
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Moyes & Co
BOOTH 8

High-impact Opportunities: A Focus on Africa and Asia-Pacific



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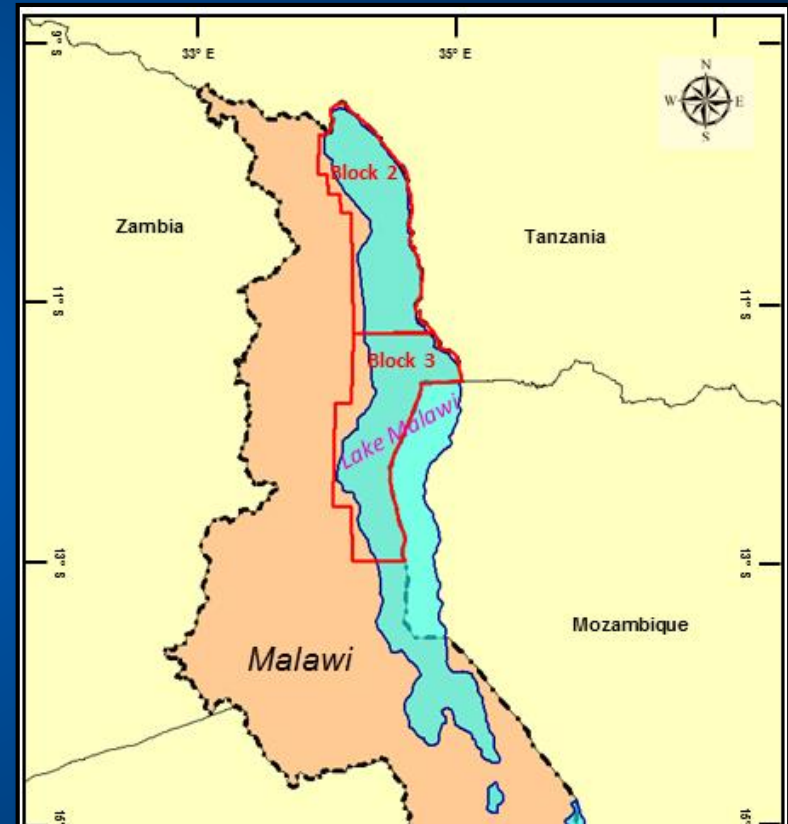
Selection of Opportunities Available

- Alaska - NANA
- Argentina – President
- Australia – Bridgeport
- Australia – Norwest
- **Australia – Tap Oil**
- Australia – Mosman
- Canada – Bounty
- Colombia – Telpico
- **Indonesia – Mandala**
- **Indonesia – PT Kalisat Energi**
- **Indonesia – Transform**
- **Malawi - Hamra**
- **Malawi – RAK Gas**
- **New Zealand – Tap Oil**
- Oman - HCF
- **PNG – Larus Energy**
- **Tanzania – RAK Gas**
- UK – Warwick



Blocks 2 and 3, Malawi – Hamra Oil

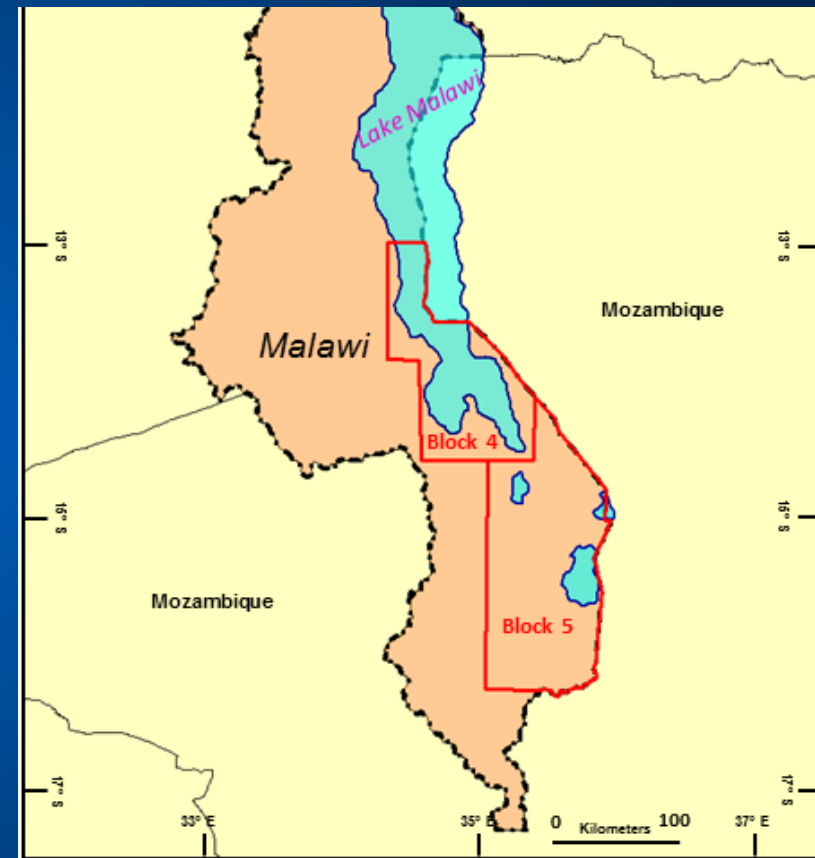
- Operator: Hamra Oil (100% interest)
- Block 2: 10,054 sq km; Block 3: 10,493 sq km (total area of 20,547 sq km)
- Blocks awarded to Surestream Petroleum in 2011 under a Prospecting License
- In February 2014 Hamra Oil farmed in taking a 51% stake and becoming operator
- Hamra increased further to 100% in March 2016
- Environmental and Social Impact Assessment (ESIA) completed
- Currently in First Extension Period to December 2019, and will be converted into Production Sharing Agreements (PSAs)



Blocks 4 and 5, Malawi – RAK Gas

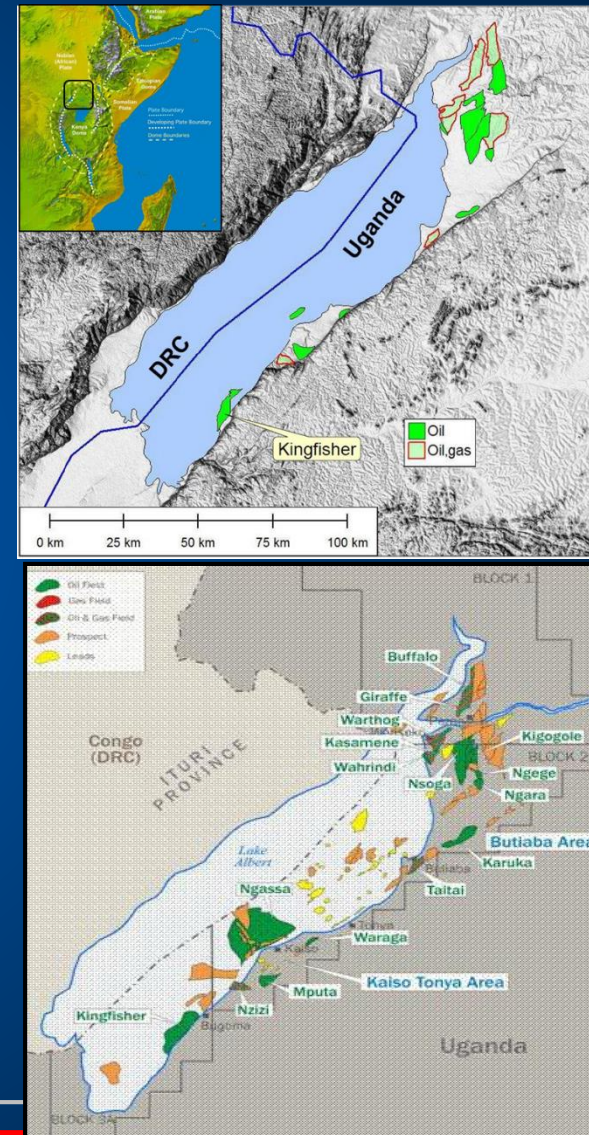


- Operator: RAK Gas (100% interest)
- Block 4: 11,357 sq km; Block 5: 17,691 sq km (total area of 29,048 sq km)
- Both blocks awarded to RAK Gas in 2014 under Production Sharing Agreements (PSAs)
- Currently in the Initial Extension Period to November 2019, after which RAK Gas will enter the First Extension Period (3 years)



Petroleum Geology of Lake Malawi and Lake Albert

- The 5,300 sq km Lake Albert has become a prolific oil province with upside of 2 billion barrels
- Over 80 wells, 90% success rate and 17 fields
- Lake Malawi is a similar geological feature
- It is however almost six times bigger than Lake Albert with three main basins!
- In 2017 Total expanded its stake in Uganda's Lake Albert oil project paying Tullow Oil US\$900 million
- The Lake Albert development project is expected to produce about 230,000 barrels oil per day from 2021



Summary: Malawi Blocks 2, 3, 4 and 5

- The two undrilled blocks cover the northern portion of Lake Malawi which is part of the western arm of the East Africa Rift System
- Significant sediment is present in two depocentres and the geological setting is similar to the prolific oil province found in Lake Albert; Lake Malawi is six times bigger
- Satellite mapping indicates the presence of oil slicks on the surface of the lake
- Based on the data available, 19 leads have been identified with World Class potential for commercial hydrocarbon discoveries
- Ongoing studies and integration of data
- No requirement to shoot seismic but this is likely to be conducted before the drilling of exploration wells from 2019



Tanzania, Pemba Zanzibar Block – RAK Gas

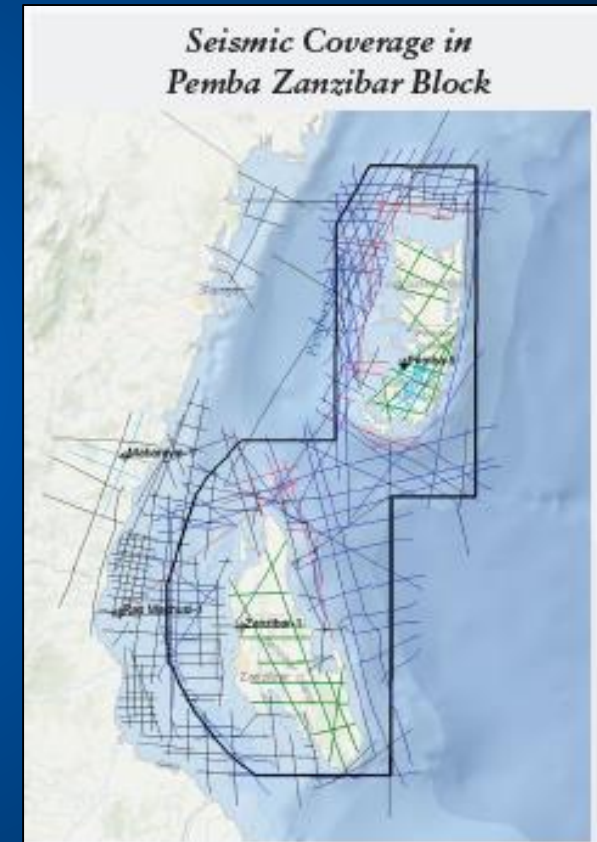


Source: WorldAtlas.com



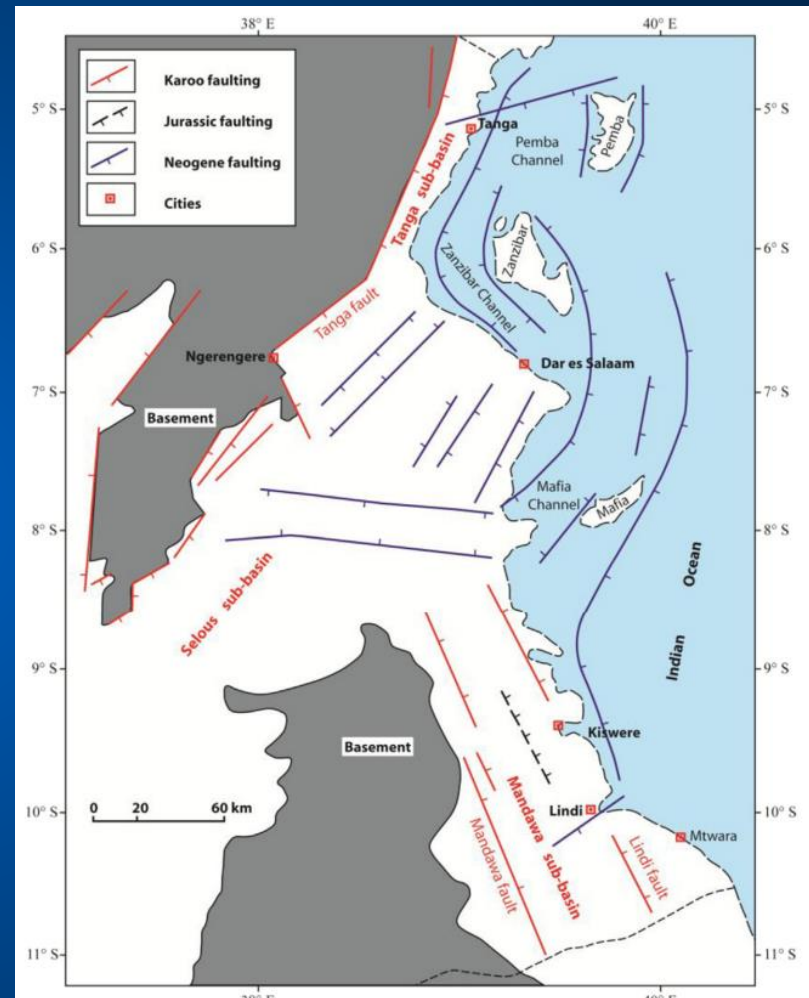
Pemba Zanzibar Block

- Operator: RAK Gas (100% interest)
- Block covers a total area of 14,061 sq km, located both on and offshore
- In 1995 Antrim Energy signed a PSA with the Tanzania Petroleum Development Corporation (TPDC) for the area
- Following the new upstream act, RAK Gas signed a PSA with Zanzibar Petroleum Development Company (ZPDC)



Regional Geology of Zanzibar

- Pemba and Zanzibar are located off the eastern coast of Tanzania
- Form part of the Permo-Triassic Gondwana Rift system and subsequent East African passive margin
- Pemba and Zanzibar are an offshore extension of the Ruvu-Tanga Basin, separated by the Pemba Channel
- Oil seeps within Miocene sediments have been encountered on Pemba Island



Source: Said *et al*, 2015



Summary: Pembo Zanzibar Block

- Block was awarded as a new PSA in October 2018
- Strong indications of the presence of hydrocarbons in the area with source rocks likely at several stratigraphic levels
- Multiple reservoirs and reliable seals are present, with significant sized structures to trap hydrocarbons
- Good 2D database including modern data, with wells providing data points
- Nine leads and prospects mapped
- Transitional seismic data programme to start in late 2018



Merangin III and Sumbagsel PSCs, Indonesia – Mandala Energy

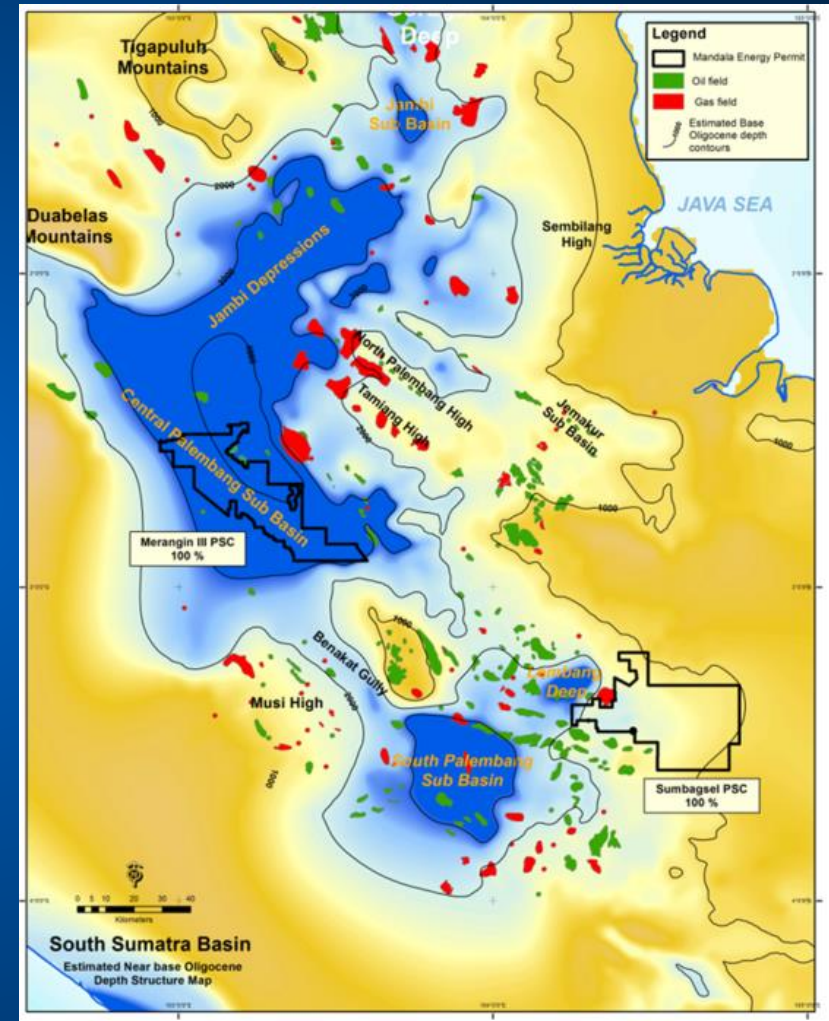


- Two large PSCs in the prolific South Sumatra Basin
- Mandala Energy 100%
- In February 2019 Repsol announced a ~2 TCFG discovery in the basin
- Confirms running room left in the basin and renewed interest
- Oil and gas potential on trend with producing fields
- Access to pipelines and infrastructure



Merangin III and Sumbagsel PSCs, Indonesia – Mandala Energy

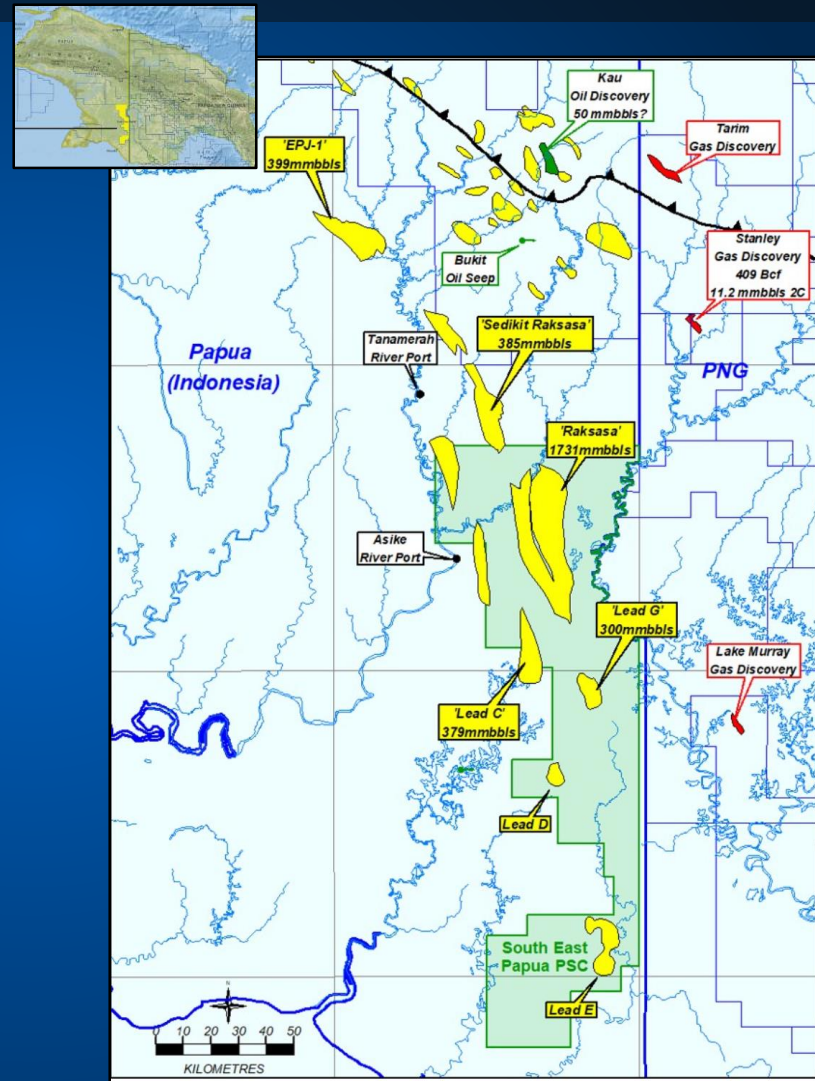
- Merangin III PSC
 - Opportunity to twin 1970s well that missed shallow oil pay (Raflesia Harum-1)
 - One high-graded prospect and 26 leads in four stratigraphic horizons (350 MMBO)
 - 3D and 2D planned
- Sumbagsel PSC
 - Drill-ready prospect designated Garuda Jaya-1 (20 MMBO)
 - 65 MMBO follow up inventory



SE Papua PSC, Indonesia

– Transform Energy

- PSC located on western flank of the producing Papuan Basin of PNG
- Shares the same petroleum geology
- Under-explored “border play” offers larger trap sizes to those on PNG side
- Multi-TCF and >100 MM liquids potential
- Large “Raksasa” lead requires 2D seismic to de-risk and mature

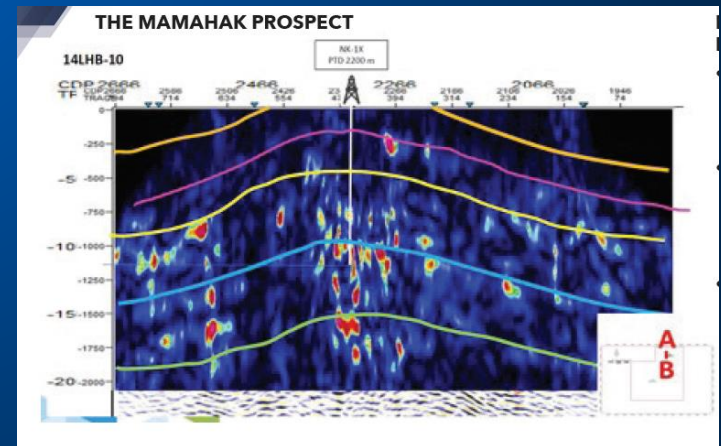
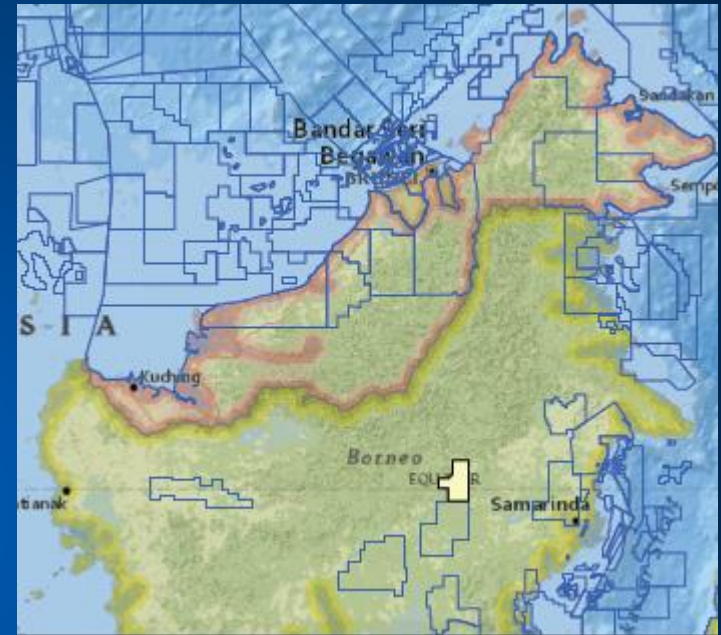


Long Hubung Long Bagun PSC, Indonesia

– PT Kalisat Energi Nusantara

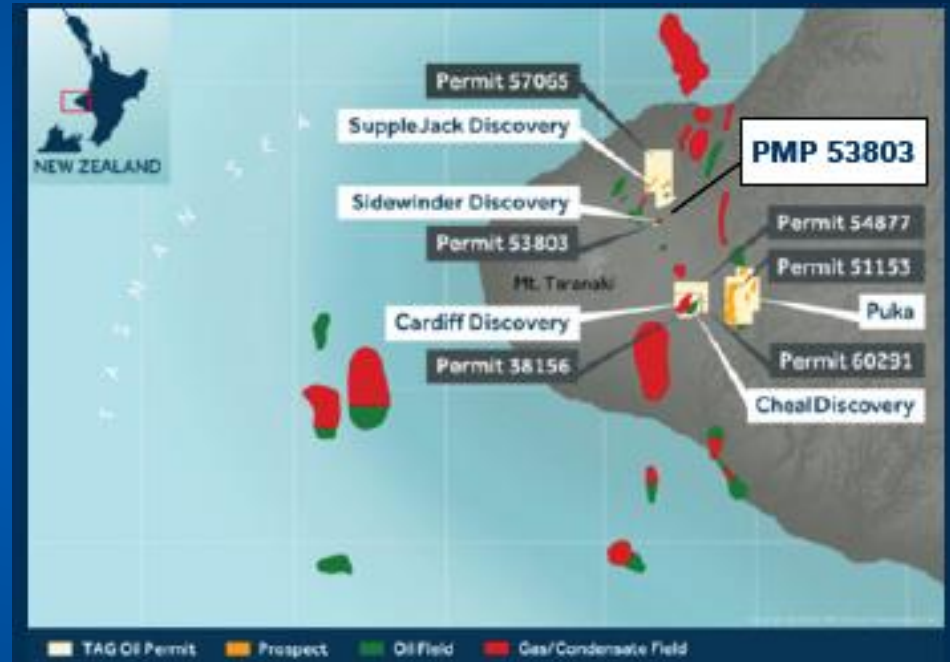


- PSC situated in Upper Kutai Basin, Eastern Kalimantan
- Block contains two of the biggest undrilled features in SE Asia
 - Mamahak (3.5 TCF)
 - Lakan Bilem (1.5 billion barrels oil)
- Old Dutch wells and seeps prove a petroleum system
- End of current exploration term in May 2022



Sidewinder Field, NZ - Tap Oil

- Seeking to sell its Overriding Royalty Interest (ORRI)
- Located in PMP 53803 in the Taranaki Basin
- Current field production around 140 BOPD and some gas
- Projected to produce until 2027
- TAG Oil operator but in process of sale to Tamarind



WA-34-R and WA-72-R, Australia - Tap Oil

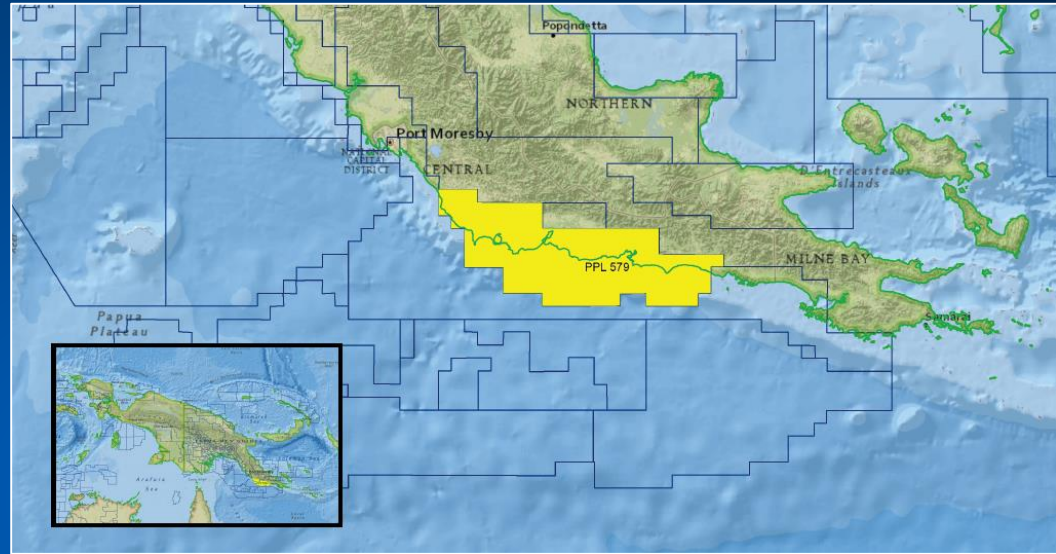
- Permits located offshore Western Australia
- Tap seeing a buyer for the assets
- WA-34-R (Bonaparte Basin)
 - ENI-operated, 12% interest
 - Prometheus (295 BCF) and Rubicon (73 BCF)
- WA-72-R (Carnarvon Basin)
 - BHP-operated, 20% interest
 - Tallaganda (351 BCF)
 - Close to 1 TCF with Bunyip



PPL579, Papua New Guinea – Larus Energy



- Located on and offshore, southeast PNG
- PPL579 covers an area of 9,244 sq km in the undrilled Torres Basin
- Discussions ongoing





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