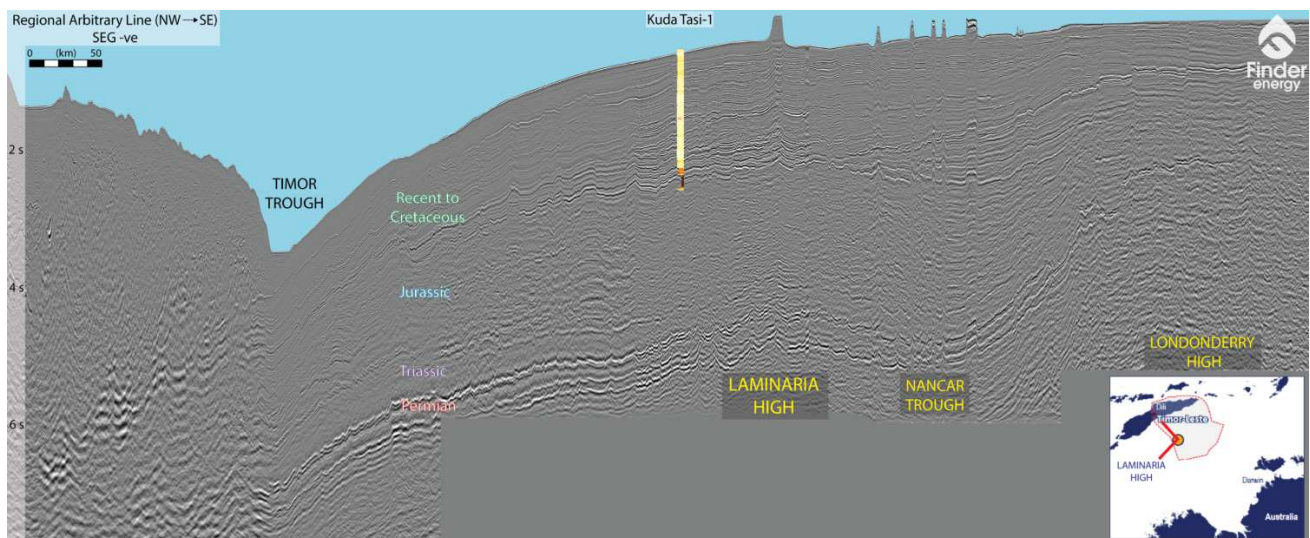


# Developing the Kuda Tasi and Jahal discoveries offshore Timor-Leste

By Aaron Bond and Shane Westlake, FINDER Energy with acknowledgements to Neil Hodgson and Lauren Found, Searcher, for their input Published at: March 5, 2025

The chase for first oil is on in the Northern Bonaparte Basin where FINDER Energy holds licenced acreage with legacy, fully appraised oil discoveries. FINDER is innovatively re-working the subsurface data with eyes to commercialise the Kuda Tasi and Jahal Oil Fields and bring in the low risk near field prospects.



## Continuing the exploration and development success of the Laminaria High

**In 2024, FINDER Energy underwent a transformational change, acquiring the rights to develop several oil discoveries on the Laminaria High in the northernmost Bonaparte Basin, Timor-Leste. Previously, the successful global explorer focussed on finding oil and gas by leveraging its innovative exploration skills and experience. These skills, along with smarter seismic imaging will allow FINDER to reduce subsurface uncertainties and combine the discovered oil pools into the new Kuda Tasi-Jahal development hub, targeting first oil within three years.**

These discoveries were made in the late 1990's and early 2000's, and the availability of technology, both in imaging and in development concepts, has changed so much since then. FINDER's transition from explorer to a highly profitable producer requires the energy, commitment and experience that FINDER have in spades working together with the very supportive and knowledgeable Timor-Leste regulator, ANP and joint venture partner TIMOR GAP.

## Laminaria High – a prolific oil province

PSC TL-SO-T 19-11 (PSC 19-11) is located within the prolific oil province of the Laminaria High in the Bonaparte Basin. The Laminaria High is a major intra-basinal high flanked by lows; the Sahul Syncline and Nancar Trough to the south-west and south and the Flamingo Syncline to the east. Historically, The Laminaria High area has had an excellent exploration success rate, with 17 oil discoveries from 35 exploration wells. This has led to over 290 MMbbls of oil being produced from the six oil fields on the high (Figure 1), yet a lot more discovered oil remains undeveloped. Sub-sea technology improvements and cost optimization, in conjunction with a strong and steady oil price and good fiscal terms, will allow these stranded reserves to now be developed commercially.

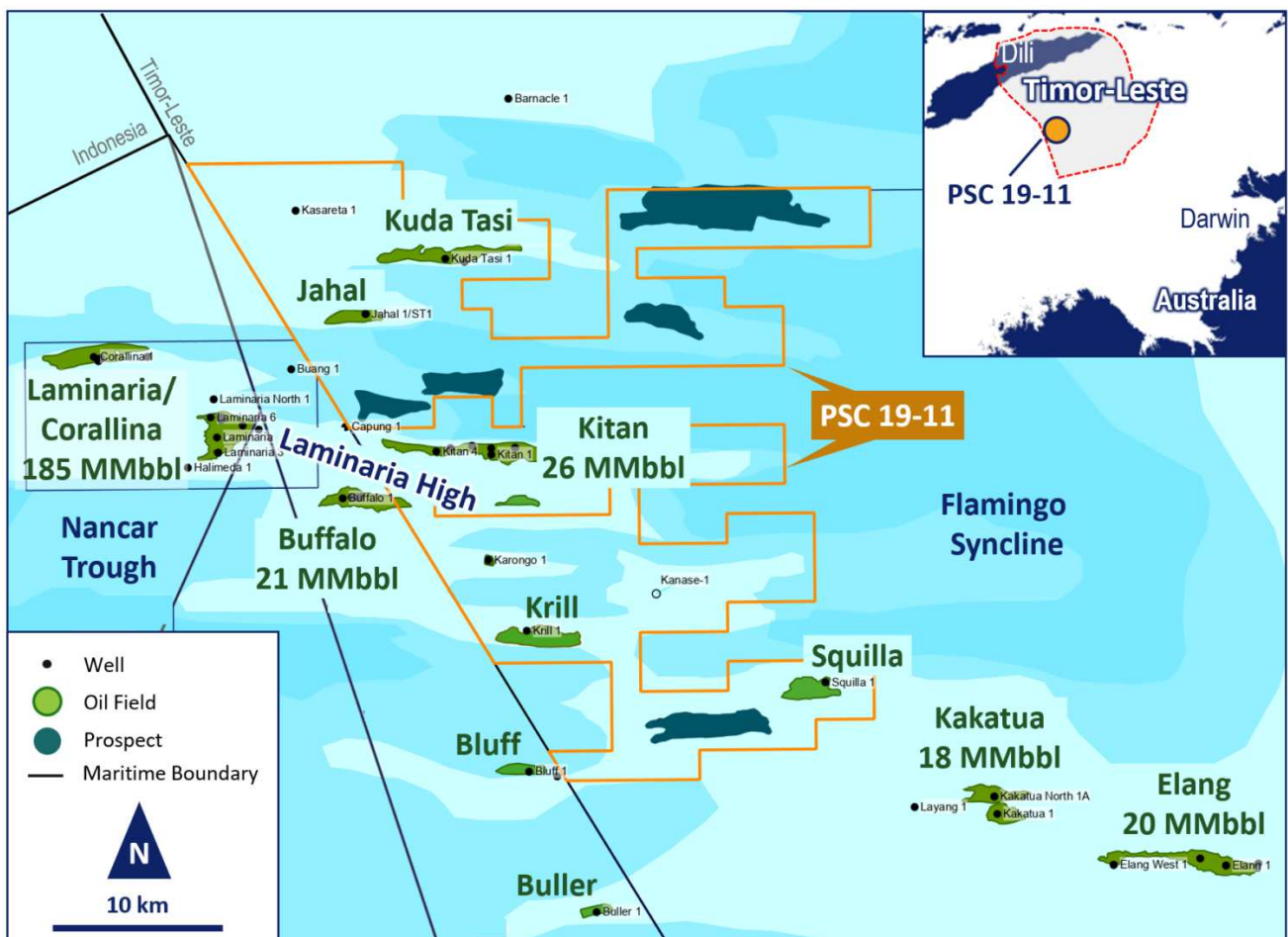


Figure 1. Location map showing producing and undeveloped oil fields and prospects.

The whole area under Finder's PSC 19-11 is covered by the legacy Ikan 3D survey. The seismic data is structurally very clear and shows "piano key" horst and graben structures, bounded by linear fault systems (Figure 2).

The primary hydrocarbon play for the area is the excellent quality Middle Jurassic Laminaria and Plover shallow marine fluvio-deltaic reservoir sandstones sealed by Upper Jurassic marine shales of the Frigate and Flamingo Formations (Figure 2). Hydrocarbon charge is from the Early-Middle Jurassic Plover Formation carbonaceous shales and coals.

The regionally extensive Laminaria/Plover sandstone provides a strong aquifer drive for the oil fields in the region. This, together with the excellent high API gravity and under-saturated oil, leads to favourable water flood mobility and good sweep, leading to high recovery factors with up to 65 % proven at the Laminaria Field.

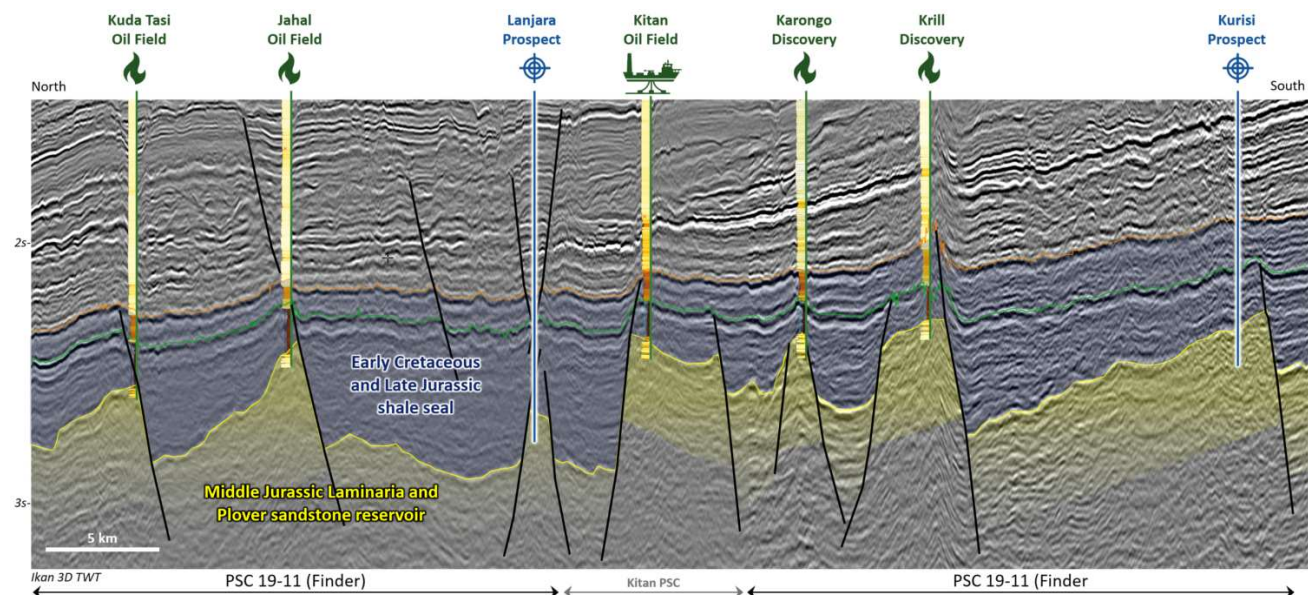


Figure 2. The existing Ikan 3D time data is of good quality for structural interpretation and field definition. Reprocessing will enhance the data in the southern extent and unlock the appraisal and prospective upside.

### PSC 19-11 – development ready

Historical drilling with PSC 19-11 has seen seven exploration wells drilled with five discovering light, low GOR 55° API oil within the Laminaria Formation sandstones. The Jahal-1 (1996) and Kuda Tasi-1 (2001) discoveries in the north of the PSC have also undergone further appraisal with a total of five well intersections within the reservoir, proving up 22 MMbbl of 2C Contingent Resources.

Jahal-1 discovered a 10 m gross oil column within an east-west orientated tilted fault block structure. The following updip sidetrack well intersected a 33 m gross oil column which later flowed 1,350 BOPD on test. Kuda Tasi-1, located 6 km to the northeast intersected a 17 m gross oil column within an E-W trending normal fault and dip closure to the west, east and north. The up-dip Kuda Tasi-2 appraisal well intersected a 39 m gross oil column which flowed 55° API oil at a maximum rate of 5,200 bopd which was equipment constrained.

The comprehensive well datasets, along with the 2005 Ikan 3D seismic survey, which provides full coverage over the entire PSC, enables Finder to rapidly progress the development planning and production of the 22 MMbbl of Gross Contingent Resources. The fields, which are located in 400 m of water will be developed via sub-sea wells tied to a central FPSO.

A number of re-deployable FPSO's have already been identified by Finder which will allow quick development timeframes. High flow tests on Kuda Tasi-2 demonstrate superior reservoir performance due to excellent Laminaria Formation reservoir parameters such as porosity (11-13 %) and permeability (100s -1,000 mD). The regionally connected aquifer also provides high pressure support which leads to high recovery factors. Reservoir models show initial production rates in the range of 25,000 – 40,000 bopd, depending on FPSO facility constraints. Excellent production rates have been proven at the adjacent analogue Laminaria/Corallina, Kitan and Buffalo oil fields, all which produced from the same reservoir.

## **Upside**

In addition to the initial Kuda Tasi-Jahal development, there is significant upside potential within the PSC, with both Squilla-1 (1991) and Krill-1 (1994) finding a further combined 23 MMbbls 2C Contingent Resource. There are four other low-risk, near-field prospects with a combined 116 MMbbl Mean Prospective Resource identified on the Ikan 3D. These all provide opportunity to either tie-back to the FPSO, or alternatively once the Kuda Tasi and Jahal project is depleted, move the facilities, extending the life of the project and growing the value with low-risk exposure.

Finder is rapidly progressing through the Project Concept Select phase workstreams with key studies, including engineering, well design and subsurface technical and engineering modelling. Part of the technical workstream is reprocessing the Ikan 3D, which hasn't been processed in its entirety in nearly 20 years. Finder, along with its reprocessing project partners Searcher and Eif GeoSolutions, are all highly experienced in high-end modern PSDM reprocessing technologies. These include broadband de-ghosting and full waveform inversion to enhance subsurface imaging.

The original seismic data acquisition is of good quality yet does degrade slightly in the southern area where water depth decreases to 100 m and sea floor shoals are also present. The main objectives of the reprocessing project will be to enhance mapping of Kuda Tasi and Jahal to optimise placement of development wells to maximise production and recovery, and to derisk the appraisal potential of the Krill and Squilla discoveries and exploration prospects.

The future is bright for the undeveloped fields on the Laminaria High, and that will bring revenue and business growth to the people of Timor-Leste. For Finder Energy, this will demonstrate a transition from explorer to oil producer, providing the commitment and experience that will bring the long-awaited commercial success to all the partners involved. Finder is seeking a partner to join the company in developing the Kuda Tasi and Jahal oil fields.