

Quarterly Report

1 October to 31 December 2024



Lion establishes new framework for managing H2 project in Q4 after securing new partners, completes seismic interpretation

Lion Energy Limited ("Lion" or "Company") is pleased to report progress in green hydrogen and oil and gas in 4Q 2024.

Highlights include:

- Lion, alongside its partners DGA Energy Solutions Australia Pty Ltd (DGA), a subsidiary of Mitsubishi Corporation, and Samsung C&T Corporation (Samsung C&T), continuing the development phase of the Port of Brisbane ("PoB") Green Hydrogen Project.
- Key hydrogen offtake discussions continue, major marketing thrust commences.
- Interpretation completed on the newly processed (depth migrated) seismic data in the East Seram PSC confirming improved imaging and the giant-sized potential of the Kobi and Waru prospects.
- The new data has delivered a new location for a well on Kobi-1 prospect, coincident with a seismically well-defined target section and a gravity high and the JV aims to drill in 2026.
- Engagement with several East Seram PSC farm-in parties continues during the Quarter.
- During the quarter, gross crude oil production from Oseil and surrounding oilfields in the Seram (Non-Bula) PSC (Lion 2.25%) was 78,031 bbls (Lion's gross share 1,951 bbls). Daily production averaged 848 bopd (Lion's gross interest being 21 bopd).
- A crude oil lifting of 160,440 bbls was completed on December 28 2024 at a selling price of US\$56.264/bbl, with Lion's share US\$225,675 pre Government Entitlement.

Mr Tom Soulsby, Lion's Chairman, commented: "Post the signing of the JDA with DGA and Samsung C&T for our Hydrogen Hub in Brisbane, the partners worked hard in Q4 on progressing the development phase of the project towards construction start. In East Seram PSC the newly processed seismic data has confirmed the attractiveness of the huge Kobi Prospect located 15 km from the 1.5 TCF Lofin Gas Field and efforts to secure a farm-in partner to drill this exciting well are ongoing."

Lion at a glance

- ASX listed oil and gas E&P company with a new green hydrogen business and two conventional PSCs in Seram Island, Indonesia.
- Expected to build Southeast Queensland's first commercial scale green hydrogen production and distribution hub
- Net production of around 25bopd from the Seram PSC which also contains the Lofin gas/condensate discovery.

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Green hydrogen update

Lion announced in August 2024 that it had, entered into a definitive joint development agreement with DGA Energy Solutions Australia Pty Ltd (“DGA”), a wholly owned subsidiary of Mitsubishi Corporation, and Samsung C&T Corporation (“Samsung C&T”), to jointly develop its green hydrogen hub at Port of Brisbane (the “Project”).

Under the signed agreement, DGA and Samsung C&T will initially pay a total of A\$3.7m to Lion for historical and ongoing pre-construction costs. In return, DGA and Samsung C&T will each become entitled to 25% interest in the Project. Subsequently, upon the parties agreeing to start construction, DGA and Samsung will procure debt financing for a total amount of A\$6.3 million. It is expected that the overall funding commitment associated with the joint development agreement will satisfy the capital requirement to complete the Project. As a result of the joint development agreement and subject to the parties agreeing to commence construction, the Project company, Lion H2 Energy Pty Ltd equity holders will be Lion Energy 50%, DGA 25% and Samsung C&T 25%.

On 30 September 2024, Lion received its first payment from its partners, totalling A\$3.2 million representing their share of historical costs.

In Q4, the JDA partners worked diligently on establishing management protocols for technical, commercial, and marketing matters, while progressing the engineering and procurement phases of the project. Our first offtake contract is close to finalisation after a Christmas period hiatus. The parties are hosting the first invite only Hydrogen Supply and Use Information Day at the Port of Brisbane (PoB) in early February, with some 45 companies in attendance. Lion will showcase the new proposed facility to the many transport and logistics tenants at the PoB. We will be joined by Toyota, Hyundai, Foton, Pure Hydrogen/H Drive, NXT ENG and Wasco who will showcase their hydrogen vehicles and equipment.



Figure 1: Lion’s proposed hydrogen hub at the Port of Brisbane

The hub aims to capitalise on the rapidly evolving requirement for the heavy-mobility transportation industry to trend towards net-zero emissions. The PoB green hydrogen facility has been designed with a focus on public bus fleets, and the application of fuel cells providing onsite off-grid power to the Queensland construction and mining sectors and to supply industrial users. Several Australian state governments, including the Queensland State Government, have mandated to phase out the manufacture of diesel public buses from CY 2025. Hydrogen fuel cell buses produce no carbon emissions and are likely to account for a substantial percentage of future public bus fleets.

The PoB project location is proximate to the majority of Brisbane’s 70+ bus depots, and also to the significant heavy vehicle traffic to and from the Port. The site will initially produce and dispense some 420kg/day of green hydrogen but has the ability to quickly double production to respond to increasing demand. The image above is the architects drawings for the development approval submission and should closely resemble the actual hydrogen generation and refilling station.

As part of recent announcements, Lion presented the following provisional roadmap and has responded to the objectives as listed in Table 1, in the quarter under review.

Table 1: Lion’s provisional green hydrogen roadmap vs response (as at end December, 2024)

Stated objective	Response
Stage 1	
Publish broad green hydrogen strategy	Completed
Register business name	Completed
Stage 2	
Establish team of hydrogen experts	Completed
Appoint experts to systematically analyse optimal electrolyser locations in Australia	Completed
Review the best value and fit for purpose solar, wind and electrolyser technologies	Completed
The review of opportunities in which Lion may be able to combine its expertise and resources with a suitable market and partner to progress a green hydrogen development using identified electrolyser locations and appropriate technologies	Joint venture secured
Expand the scope of the Advisory Board to review opportunities in H2 distribution and hydrogen fuel cells for heavy equipment and vehicles	Lion has developed inhouse and consulting expertise in this area. Hydrogen Advisory Board disbanded
Stage 3	
Appoint consultants to undertake a feasibility study to ascertain the economic viability of a short listed opportunity and the anticipated cost	Wasco FEED announced
Secure any required land rights conditional upon Lion proceeding with an opportunity	Completed and announced
Investigate investing in a pilot or demonstration plant including H2 distribution and hydrogen fuel cell heavy equipment and vehicles	Completed and announced
Stage 4	
Subject to a positive feasibility study, progress the opportunity by participating in the development of a smaller or larger solar/wind farm and relevant energy storage facilities to produce green hydrogen at low cost for domestic or export markets	Exploring opportunities at first site
Form a joint venture with a suitably experienced and funded partner	Secured and announced

Oil and Gas Operations update

East Seram PSC

Lion holds a 60% interest and is Operator of the 1,300 km² East Seram PSC. A four-year extension to the PSC has been approved effective 17 July 2024 to 16 July 2028.

Since acquiring the PSC in 2018, Lion has conducted an active exploration program. A 664 km offshore 2D survey targeting the Plio-Pleistocene foreland basin play in 2020 delineated an attractive shallow oil portfolio. From June 2022 to January 2023 Lion recorded 14 2D seismic lines totalling 200km and a 1,000 station gravity survey. Three exceptional prospects emerged from this onshore survey, Kobi, Waru and Tanah Baru.

The 110 sq.km Kobi Prospect is a robust feature partly analogous to the nearby 1.5 TCF Lofin discovery. The seven (7) new 2D seismic lines recorded indicate the P50 (unrisked) prospective resource¹ potential for Kobi is 357 mmboe with upside (P10) potential over one billion boe. In the southeast area of the PSC, which is modelled to be more oil prone, Lion recorded 5 lines over the 70 sq.km Waru fold-belt prospect. The P50 (unrisked) prospective resource¹ potential for Waru is 284 mmboe with upside (P10) potential of 766 mmboe. Two seismic lines were recorded over the Tanah Baru Prospect, a large structure with areal closure up to 80 sq.km and P50 (unrisked) prospective resource¹ potential of 187 mmboe with upside (P10) potential of 679 mmboe.

Pre-stack depth migration (“PSDM”) processing of the new 2022 lines over the high-graded Kobi and Waru Prospects was delivered to Lion in early September. Interpretation of the new data was completed during the Quarter with valuable improvements in data quality confirmed. The interpretation has resulted in a new recommended location for drilling the 110 km² Kobi Prospect which shows well-defined seismic structure and a clear gravity high. The location is in a readily accessible part of the PSC and close to roads and other infrastructure.

Work is now focussed on well planning activities for a planned early 2026 well to test the high-ranked Kobi Prospect.

Figure 2: East Seram PSC – New area effective July 17 2024

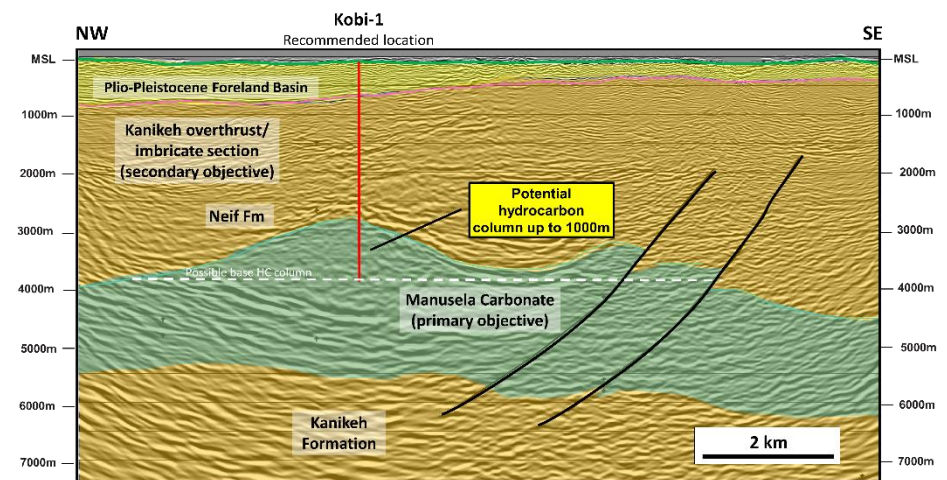
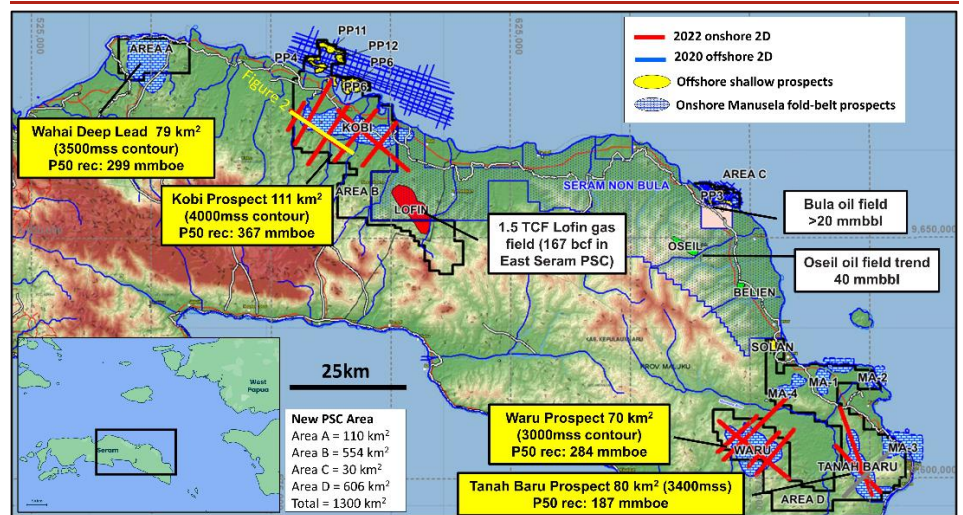


Figure 3: Geoseismic section showing interpretation of a new PSDM line and the new recommended location for testing the Kobi Prospect

Seram (Non-Bula) PSC

Lion, via its wholly owned subsidiary Lion International Investment Ltd, holds a 2.5% participating interest in the Seram (Non-Bula) PSC (“SNB PSC”), located onshore Seram Island in eastern Indonesia.

Lion’s regulatory required divestment of 0.25% interest in Seram (Non-Bula) PSC has still not been finalized with negotiations still in progress. At completion, Lion’s participating interest in the Seram (Non-Bula) PSC will reduce to 2.25% from 2.5% currently.

Production

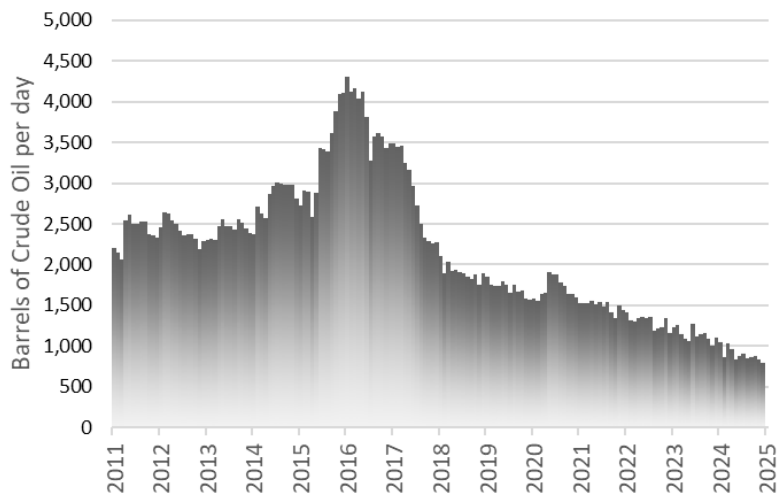
During the quarter, gross crude oil production from Oseil and surrounding oilfields was 78,031 bbls (Lion’s gross share 1,951 bbls). Daily production averaged 848 bopd (Lion’s gross interest being 21 bopd). Lion expects to receive lifting proceeds of US\$157,972 in Feb 2025, this being Lion’s 70% entitlement from the December 2024 crude oil lifting. A further US\$67,702 from this lifting is expected to be received by Lion in Q2 2025, being 30% retention retained for 3 months under government legislation. These amounts are Lion’s gross entitlement pre-Government share.

Operating costs were US\$33.05 per barrel for calendar year 2025.

Figure 4: Seram (Non-Bula) Block PSC – location map



Chart 1 Seram (NB) Block – daily production per calendar month (bopd)



Related Party Payments

During the quarter, the Company made payments of US\$180,000 to related parties and their associates. These payments relate to the existing remuneration agreements for the Executive and Non-Executive Directors.

Summary of petroleum tenements held as of 31 December 2024

	% interest	Tenement	Location
Held at end of quarter	60%	East Seram PSC	Seram Island, Indonesia
	2.5%	Seram Non-Bula PSC	Seram Island, Indonesia

ENDS

This ASX announcement was approved and authorised for release by the Board of Directors.

Qualified petroleum reserves and resources evaluator requirements

In accordance with ASX Listing Rule 5.43 the Company confirms that references to petroleum reserves, contingent resources and prospective resources have previously been announced (7/9/2018, 10/9/2018, 04/03/2019, 13/04/2021 and 16/06/2021). The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all the material assumptions and technical parameters underpinning the estimates in this announcement continue to apply and have not materially changed.

Glossary

bbl: barrels	JV: joint venture	PSC: Production Sharing Contract
bcf: billion cubic feet	KB: Kelly bushing	psi: pounds per square inch
bopd: barrels oil per day	mmscfd: million standard cubic feet of gas / day	tcf: trillion cubic feet
BOP: blow out preventer	mmbbl: million barrels	Sq.km: square kilometres
ESP: Electric submersible pump	mmboe: million barrels oil equivalent	ss TVD: sub-sea true vertical depth
FTP: first tranche petroleum	mss: metres subsea	TD: total depth

¹Prospective resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery (geological chance of success or GCOS) and a chance of development (economic, regulatory, market and facility, corporate commitment, or political risks). The chance of commerciality is the product of these two risk components. There is no certainty that any portion of the prospective resources will be discovered and, if discovered, there is no certainty that it will be developed or, if it is developed, there is no certainty as to either the timing of such development or whether it will be commercially viable to produce any portion of the resources.