1 January to 31 March 2021

# Highlights – 2D seismic survey data processed, interpretation imminent, reserves double at Oseil

Lion Energy Limited ("Lion" or "Company") completed its marine seismic data processing in the East Seram PSC during the first quarter of 2021. The Company had steady production from the Oseil oil field in the Seram (Non-Bula) PSC and a significant increase in reported oil reserves.

Highlights include:

- Completed the data processing of 664kms of high resolution marine seismic data in the Bula Bay and Kobi Area of Seram Island in the East Seram PSC.
- Interpretation of data is ongoing, potential drillable targets being identified and should be finalised in Q2 2021
- Onshore seismic program delayed to later in 2021 due to Covid 19, with partner seismic funding arrangements remaining in place.
- Farmout efforts are ongoing for a further 10% divestment of East Seram by the Company with increased interest in the opportunity.
- Seram (Non-Bula) Block ("SNB") PSC production for the quarter was 3,222 bbls net to Lion. Proven and probable oil reserves increased 203% based on new reserves report effective 31 December 2020.
- Cash at quarter end was US\$0.594m (excluding joint-venture cash and latest lifting), a decrease of US\$0.039m from the end of Q4 2020.

After completing the acquisition of 664km of high resolution 2D marine seismic in Q4 2020, Lion completed the processing of data in Q1 and is now interpreting the data.

Production from SNB averaged 1,543 bopd for the quarter (~36 bopd net to Lion). Gross crude oil production for the quarter was 138,825 bbl (3,471 bbl to Lion). Proven and probable oil reserves increased 203%.

Mr Soulsby, Lion's Chairman said that "Lion's momentum in its legacy business continued during Q1 2021 with the completion of the processing of the recently acquired high resolution 2D data in the East Seram PSC. We are investigating some interesting leads in the offshore Kobi area and the potential extension of the 20 mmbbl Bula Field and other leads in the Bula Bay area. Interpretation is expected to be completed in June 2021. Concurrently Lion continues to plan an approximate 200km onshore survey targeting world class onshore oil and gas leads. This targeted program is an exciting first step to delineating over 1 billion+ boe's of prospective resource<sup>1</sup> potential (P50, best estimate category) that exist in the East Seram PSC."

<sup>1</sup>The estimated quantities of petroleum that may potentially be recovered

by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. Refer to the Company's ASX release on



- ASX listed oil and gas company with conventional PSC's in Indonesia.
- Focus on conventional oil and gas production and development, appraisal and step out exploration risk opportunities
- Net production of around 40bopd from the Seram PSC which also contains the 1.5TCF Lofin gas/condensate discovery.
- Leveraging synergies in conventional assets and access to both infrastructure and markets.
- Exploring green energy opportunities in Australia
- Executive team and strategic investors with impressive track records for value creation in Asia.

### Contact

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### **Directors & Officers**

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04/03/2019 entitled Additional high impact leads identified at East Seram PSC release, Table 1 East Seram PSC Prospective Resources Summary.

Mr Soulsby went further to say that "Post quarter-end, Lion announced a capital raising and an exciting new business entry into Hydrogen after the quarter. More details about Lion's Hydrogen strategy will be announced to investors shortly."

## **Operations update** East Seram PSC

Lion, via its wholly owned subsidiary East Seram PSC - location map Balam Energy Pte Ltd, holds a 60% participating interest in the East Seram PSC, located on and offshore east Seram Island in eastern Indonesia.

Lion completed the data processing of 664kms of high resolution marine seismic data in the Bula Bay and Kobi Area of Seram Island in the East Seram PSC.

Interpretation of data is ongoing, potential drillable targets being identified with the initial interpretation phase finalised in Q2 2021.

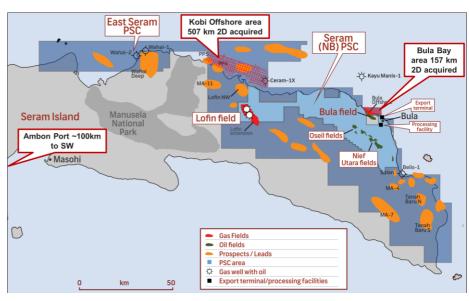
Lion continues to plan an approximate 200km onshore survey targeting world class onshore oil and gas leads. This program is largely funded by our partner.

As noted in Lion's press release on 27 September 2019, Lion signed a farmout agreement with OESC, a subsidiary of Taiwan's CPC Corporation.

OESC has taken a 40% working interest under the farmout agreement signed with the Company on 25 September 2019.

OESC funds seismic costs on a 2 for 1 basis, up to the gross firm commitment seismic cost cap of US\$8.5m, and Interests in the East Seram PSC are:

Balam Energy (Operator):	60%
OESC:	40%
Total:	100%



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Work program update

Processing of the 664km high resolution 2D data was completed during the quarter and interpretation of the data commenced. The data, recorded in Lion's East Seram PSC in November 2020, has been provided to the Indonesian Government fulfilling the firm commitment obligations in the PSC.

The data was processed in Jakarta while being overseen by experts engaged by Lion. The survey was designed to investigate some large leads on the offshore Kobi area, the potential extension of the 20 mmbbl Bula oil field and other leads in the Bula Bay area. Interpretation of the data is expected to be completed in May 2021.

Concurrently, Lion continues to plan for an approximate 200km onshore survey targeting world class onshore gas and oil leads. This program was initially planned for 2020; however, it has been deferred due to concerns on Covid-19, given the large numbers of personnel required in the field. The program has now been rescheduled to commence in late 2021, Covid-19 protocols permitting.

We are pleased to report that Lion's staff in Jakarta have received their first shot in the Government of Indonesia organised Covid-19 vaccination program. The program is being administered by the Indonesian Oil and Gas regulator, SKK Migas. Follow up shots are earmarked for end of May, 2021.

Lion reached an agreement with OESC on areas to relinquish in the East Seram PSC in line with its contract commitments. Lion will process these areas with SKK Migas during the course of Q2 2021.

Lion believes that the combination of the recently acquired offshore seismic program, and the planned onshore program, will result in a suite of drill ready targets and reinforce the East Seram PSC as one of the most high-potential exploration blocks in the South East Asian region

Background

The 6,510km<sup>2</sup> PSC covers much of the eastern part of Seram Island and surrounds the producing Seram (Non-Bula) PSC.

The PSC contains the southeast extension of the 2.6 TCF 2C Gross Gas-in-Place Lofin field, which was appraised by Seram (Non-Bula) PSC participants in 2015, and the offshore extension of the 20 mmbbl Bula Field of which Lion was operator from 2000-2005.

Lion's extensive knowledge and database of the area delivers the Company a competitive advantage and has proved critical in high grading and subsequently obtaining the East Seram acreage.

The East Seram PSC was awarded under Indonesia's new Gross Split PSC system which significantly reduces the bureaucratic burden on companies while providing internationally competitive fiscal terms with company profit share of at least 75% before corporate income tax. A modest commitment for the 3-year firm program consists of 500km 2D seismic (already met with 664 km 2020 marine program) as well as geological and geophysical studies. No commitment wells are included in the primary 3-year term.

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### Seram (Non-Bula) Block PSC

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

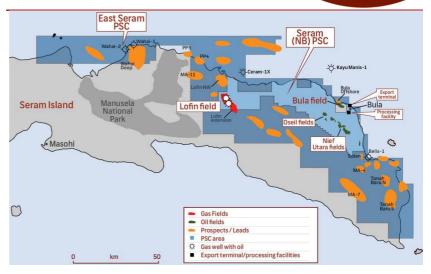
The block contains the Oseil oilfield and surrounding structures that have yielded cumulative crude oil production of 18,848,301 barrels since production started in January 2003 through to 31 March 2021.

As previously reported by Lion, in 2015 the Lofin-2 appraisal well confirmed a highly material gas discovery in the SNB PSC.

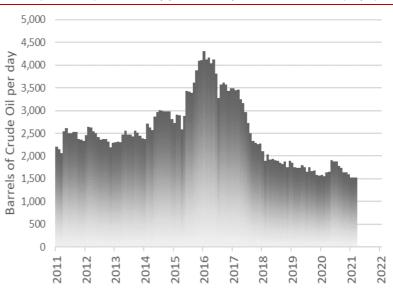
This significant milestone provides the joint venture participants:

- The opportunity to proceed with further appraisal and development of the significant Lofin gas discovery. The Joint Venture is reviewing the timing for the Lofin-2 testing program.
- The opportunity to complete the full drilling program of the Plan of Further Development ("POFD") approved by the Indonesian regulatory body SKK Migas, on 5 May 2015. Only six of the 10 wells approved in the POFD were drilled due to the uncertainty of the SNB renewal, with the pending expiry of the block limiting the time for recovery of the drilling expenditure. The first of the remaining 4

Seram (Non-Bula) Block PSC - location map



Seram (Non-Bula) Block - daily production per calendar month (bopd)



POFD wells, Oseil-29 was drilled in 2020 and has produced 64,912 bbls since coming on stream in May 2020. The seven wells drilled in the POFD have produced 4.126 million barrels of crude oil up to 31 March 2021, since production commenced in January 2014. Of the 26 wells drilled in the Oseil oilfield, 13 are located in the Oseil-2 fault block and 7 of the 13 are POFD wells, with the remaining 3 approved under the POFD to be drilled in the Oseil-2 fault block. The eighth of the 10 approved POFD wells, Oseil-23, is scheduled to spud in Q2 2021, with production forecast at 500 bopd projected to come on stream in Q3 of 2021, assuming a successful outcome.

### Production

During the quarter, gross crude oil production from Oseil and surrounding oilfields was 138,825 bbls (Lion's net share 3,222 bbls). Daily production averaged 1,543 bopd (Lion's net interest being 36 bopd). A well service to replace the downhole electric submersible pump (ESP) in Oseil-5 is scheduled for this quarter. The ESP failed in January 2021, resulting in the loss of approx. 50 bopd from current production. Crude oil available for lifting as at 31 March 2021 was 132,076 bbls.

Post quarter end Lion reported on a new reserve and resource report on the Seram (Non-Bula) PSC has been undertaken by US Oil and Gas Consultants, Miller and Lents, on behalf of the Joint Venture (refer ASX announcement on 13 April 2021).

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This Report, effective 31 December 2020, notes a significant increase in oil reserves for the Oseil Oil Field with Proven and Probable (2P) Reserves reported as 4.37mmbbl (0.109 mmbbl Lion share), effectively a 203% increase on Lion's previously reported 2P reserves. The key reasons are better than expected production during 2020, the impact of the Oseil-29 well and the impact of good results from water shut-off operations on Oseil-28 with additional shut-off operations now planned.

### Corporate

The Company continues to maintain a focus on costs, whilst pursuing an active new business program in Indonesia, initially focussed on Seram Island. Lion expects G&A costs to track steady year on year well below US\$1m.

**Related Party Payments** 

During the quarter, the Company made payments of \$115,000 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 at 31 March, 2021

	% 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 and 13/04/2021). 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 bcf: billion cubic feet bopd: barrels oil per day BOP: blow out preventer ESP: Electric submersible pump FTP: first tranche petroleum JV: joint venture KB: Kelly bushing mmscfgd: million standard cubic feet of gas per day mmbbl: million barrels MD: measured depth POS: probability of success PSC: Production Sharing Contract psi: pounds per square inch tcf: trillion cubic feet Sq.km: square kilometres ss TVD: sub-sea true vertical depth TD: total depth