



# QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDED 30 June 2019

## HIGHLIGHTS

- Kincora Project – Quarterly revenue \$7.9 Million
- Average gas production of 9.1 TJ/day
- Formal award of ATP2046 to APLNG (90%, Operator) and Armour (10%)
- Signing of Seismic contract for Uganda Kanywataba oil exploration block

**ASX CODE: AJQ**

**CAPITAL STRUCTURE – 30 June  
2019**

**SHARES ON ISSUE**

508,177,396

**MARKET CAPITALISATION<sup>1</sup>**

\$35.5 million (at 7.0 cents per  
share)

(1. undiluted for options)

### **DIRECTORS**

Nicholas Mather (Chairman)  
Stephen Bizzell  
Roland Sleeman  
Eytan Uliel

### **CHIEF EXECUTIVE**

Roger Cressey

### **COMPANY SECRETARY**

Karl Schlobohm

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## Overview

Armour Energy Limited (the **Company**) has consolidated its strong start to the year throughout the June 2019 Quarter, where the Company achieved an average production rate of 9.1 TJ/day and has been awarded ATP2046 with APLNG (90% and Operator).

The Company remains focused on undertaking the substantial work program planned for the remainder of 2019, as outlined below. Updates on work program activities will be released to the market as contracts are secured, and as the activities are completed.

## Kincora Project – Revenue Update

The June 2019 Quarter has seen consistent sales of Gas, LPG, Oil and Condensate from the Kincora Facility.

Gas sales (and production) for the quarter averaged 9.1 TJ/day, which included gas from Newstead Storage, which represents a decrease of 0.8 TJ/day (or 8%) of gas sales (and production) from the previous quarter of 9.9 TJ/day.

Liquids rich gas production drove the production of LPG and condensate that contributed strongly to sales revenue. Oil production from the Emu Apple Field remains constant.

	June Quarter Q3 FY19
Revenue* (\$ million)	\$7.2
Average Gas production per day per quarter (TJ/day)	9.1
Average LPG production per day for the quarter (Tonnes/day)	12.2
Average Oil/Condensate production per day for the quarter (bbl/day)	139

\* Revenues are actuals per quarter (net of GST) based on production.

## Kincora Project – Phase 3 Continues

### Kincora Project

The Company delivers gas to the Eastern Australian market from its Kincora Gas Project (see **Figure 1**) on the Surat Basin Roma Shelf. The gas from the Company's production leases is processed through its Kincora Gas Plant and delivered to market via Wallumbilla.

The Company has previously stated that it has been striving to achieve a target of 20TJ/day in 2019. However, this has been impacted by:

- a) the re-completion activities conducted on several historical production wells within the field have not delivered their anticipated, sustained incremental production;
- b) the lower than expected and forecast production from the Myall Creek 4A well (see the Company's previous announcement of 30 May 2019 - Kincora Project Operations Update); and
- c) the Myall Creek 5A well is yet to be fully completed (i.e. not all target zones have been connected to the wellbore).

The Company remains committed to increasing production from its gas fields to 20TJ/day as soon as possible.

The Kincora Gas Plant is currently processing an average of 9TJ/day with up to 12TJ/d achieved earlier this year. Ongoing operational reliability and performance-based maintenance will be completed to enable the plant to be ready to return to production rates of 20TJ/day. Further, additional studies on the plant's capacity to reliably produce rates of up to 30TJ/day are being undertaken, noting that its production rates rely on current and incremental field production, in addition to gathering and remote compression system performance.

The Company also continues to produce oil and condensate at approximately 139bbls/day and LPG at approximately 12.2 tonnes/day. These products are also delivered to the east coast market.

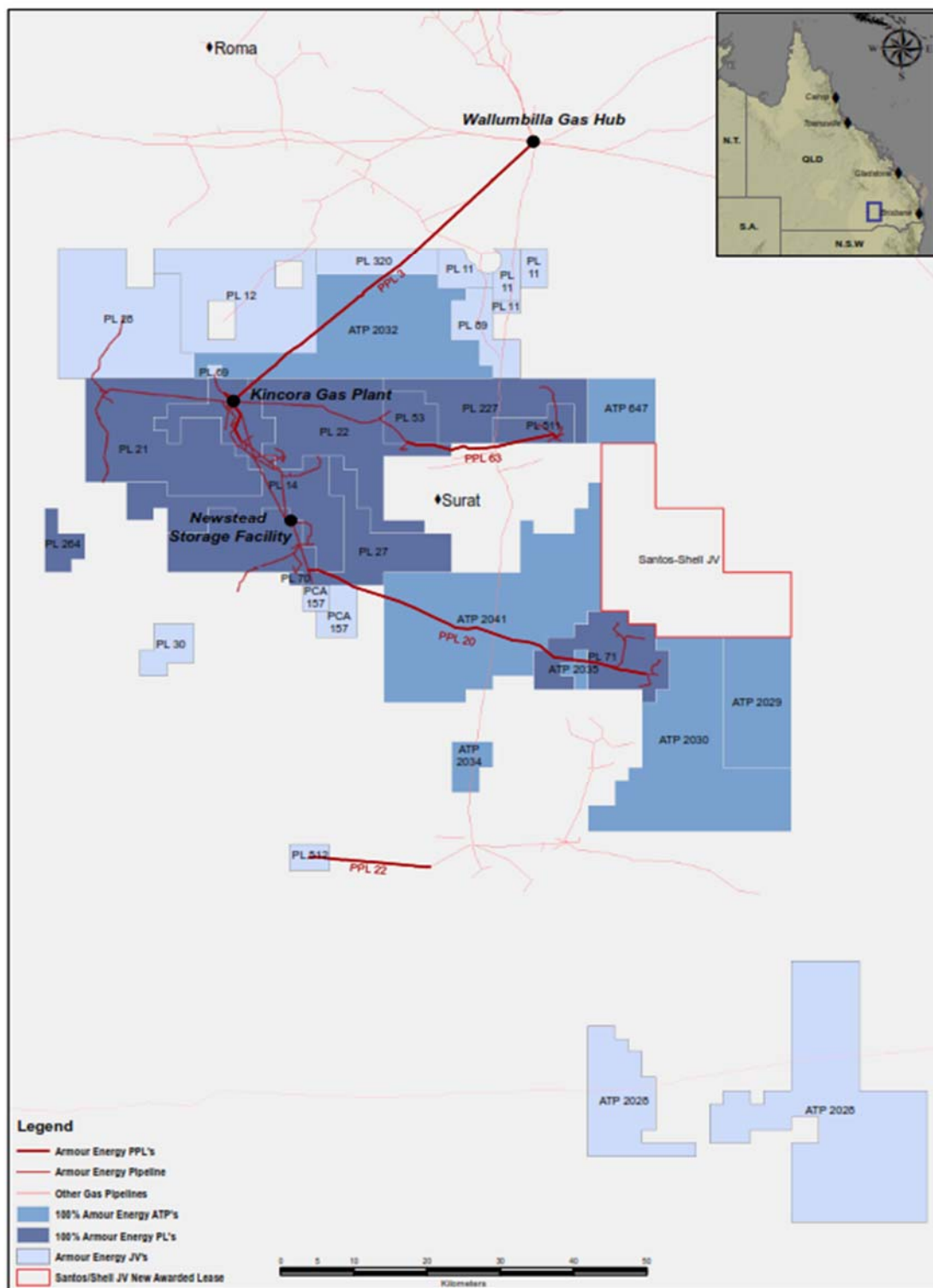
#### 2019 Work Program

The Company's work program for the remainder of 2019 includes the drilling of two new wells and several mechanical interventions on existing wells, all seeking to increase production. The Company has already procured the majority of the long-lead items for the installation and connection of these two wells and is currently evaluating tenders for drilling rigs and finalising the connection schedule. It is intended to award the rig contract and commence drilling in Quarter 3 2019.

The work program has been designed to increase gas production through the Kincora plant following a robust technical evaluation of the various elements to add production growth through existing infrastructure.

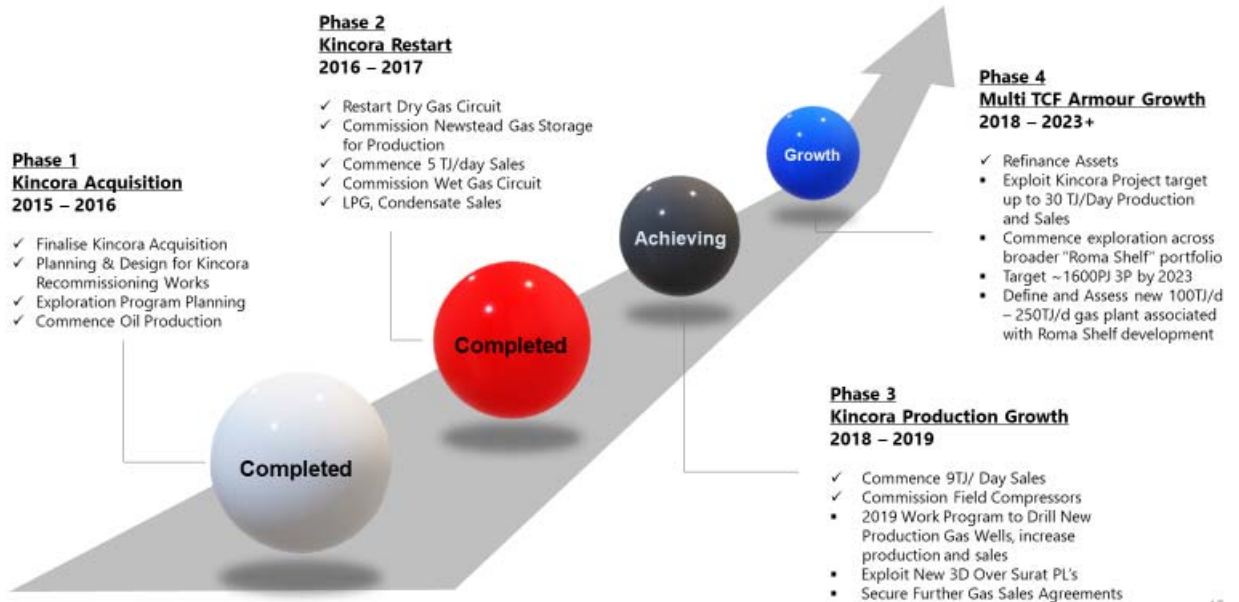
A work program for 2020 will be developed over the coming months with the objective to increase both oil and gas production from the existing fields as well as commencing exploration activities across the Company's broader portfolio of Authorities to Prospect (**ATPs**) on the Roma Shelf.

Updates will be provided to the market as the 2019 and 2020 work programs progress.



**Figure 1: Map showing Armour's Roma Shelf, Surat Basin Kincora Project acreage**

## Armour's Roma Shelf Growth Strategy: A Portfolio for Domestic Supply



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Figure 2: Armour's 4 Phases of Growth Strategy.

### Myall Creek Well 4A and 5A Production Wells Update

As described in the Company's previous announcement on 30 May 2019 - Kincora Project Operations Update, both Myall Creek 4A and Myall Creek 5A wells have encountered water in certain hydrocarbon production zones. These water-bearing formations were not the primary production zones for the wells and are considered to be secondary targets. Nonetheless, the water intrusion in the wellbores have impacted the ability of the wells to maintain sustained gas production. Recent and ongoing activities to mitigate the impact of water production include isolated production testing of primary target production intervals and associated compression optimisation.

Myall Creek 5A's production casing is yet to be perforated to connect to the three primary target reservoirs, being the Black Alley and Upper and Lower Tinowon sands. Cased hole logging will be carried out before finalising the 5A completion design for these reservoirs.

As a consequence of drilling and completion of the Myall Creek 4A and 5A wells, the Company has gained a much greater understanding of the geology and reservoir characteristics in this field, resulting in a doubling of its proved and probable (2P) gas reserves within 12 months. At present Armour holds 123.6PJ of 2P reserves, with strong interest from domestic customers for access to this reserve base (refer announcement dated 18 February 2019).

The knowledge gained from the drilling of these two wells will help improve the Company's ability to target the best formations and reservoirs in future drilling campaigns.

## Exploration Activities

### ATP2046 – Armour 10%

On 18 July 2019, the Company advised the market that the Queensland Department of Natural Resources, Mines and Energy (**DNRME**) had formally awarded the petroleum authority ATP2046 to a joint venture between the Company (10%) and Australia Pacific LNG Pty Ltd<sup>1</sup> (**APLNG**) (90% and Operator) (**Joint Venture**) – see **Figure 3**. The ATP was part of the first national tender where gas has been designated to be supplied exclusively to Australian domestic manufacturers, an initiative by the Queensland Government.

ATP2046 is an 18km<sup>2</sup> coal seam exploration tenure located 22km south-west of Chinchilla and adjoins APLNG's Talinga Project, through which produced gas and water will be processed. ATP2046 is surrounded by currently producing CSG fields and is anticipated to likely have similar sweet-spot reservoir properties and production as the Talinga Gas Field (see **Figure 4**). ATP2046 is located in a shallow drilling corridor with demonstrated high net laterally extensive coal thickness and low CO<sub>2</sub> content. The Joint Venture currently expects that production from ATP2046 will commence in mid-2021 and work is progressing on plans for its development.

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<sup>1</sup> APLNG is a joint venture between ConocoPhillips Australia (37.5%), Origin Energy Limited (37.5%) and Sinopec (25%).



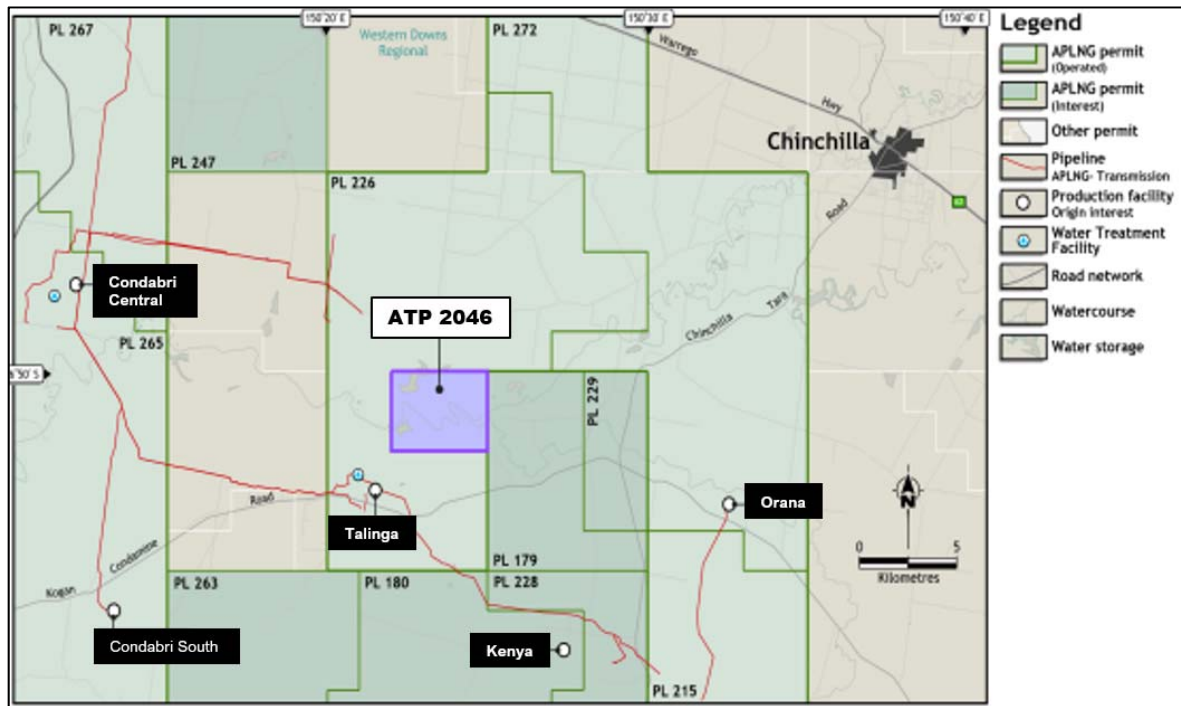


Figure 3 – Location of Authority to Prospect – ATP2046

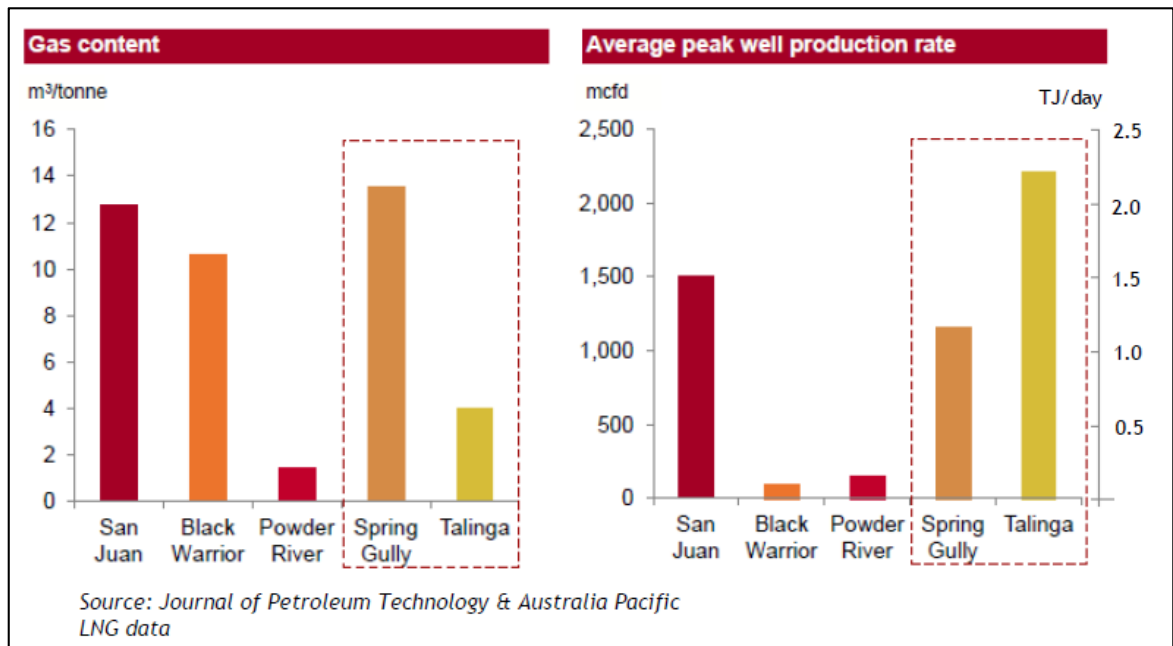


Figure 4: Average gas content and peak well production rate for adjoining Talinga gas field

**North Queensland and the Northern Territory**

The Company's north Australian assets comprise over 33 million contiguous acres (approximately 134,000 km<sup>2</sup>). Immediately following its listing on the ASX in 2012, the Company commenced exploration activities on its northern Australian tenements, which has included drilling 7 exploration wells, reprocessing over 700km of 2D seismic survey, gathering a further approximately 50km of new 2D seismic survey, approximately 1,500km<sup>2</sup> of airborne survey used to define new resources, drill targets and to follow up on previously reported hydrocarbon exploration discoveries.

As a result of the exploration drilling, hydrocarbon discoveries were made in 6 out of the 7 wells drilled across the Company's Northern Territory and Queensland tenements.

The Company has invested approximately \$67 million across its Northern Territory and North Queensland tenements and has established a Prospective Gas Resource of 57TCF (Best Estimate) of conventional & unconventional exploration and future potential production (refer ASX release on 26 October 2018 – Annual Report to Shareholders).

The Northern Territory Government last year lifted its three-year moratorium on exploration fracking for onshore shale and adopted the 135 recommendations that were recommended by the Fracking Inquiry and is in the process of revising the relevant legislation. Following this outcome, the Company has developed revised work programs for its tenements in the Northern Territory and is working with the Northern Territory Government and the Northern Land Council to establish ongoing exploration and development activities.

On 1 January 2019, the Company was granted a second term on ATP1087 by the Minister for DNRME.

The Company is actively seeking farm-in partners to support the exploration and development of its Northern Territory and North Queensland tenements.

**Uganda Project (~17% JV interest)**

The Company's Uganda oil exploration project is progressing with 2D seismic survey expected to commence during in the coming weeks.

The project is located within the Albertine Graben which has recorded discoveries of 6.5 billion bbls of oil in place. The Company was awarded the Kanywataba exploration licence in September 2017 and DGR Global has 83% beneficial interest and the Company has 17%.

The Company has identified multiple developed (untested) on-trend structural traps (3-way and 4-way dip closures) and multiple untested stratigraphic traps. The Kingfisher oil discovery (40km north east of Kanywataba) has produced from commingled oil reservoirs 12,000 bbls/day from a single well with the field expected to come online at 40,000bbls/day once in production. Local oil seeps confirm local working petroleum system. The Company's internal assessment of the Kanywataba block is a Resource Best Estimate Risked 57-193 mmbbls recoverable which compare to the Unrisked Prospective Oil Resource Estimate (mmbbls) of 145-217mmbbls (Internal Armour Estimate; refer ASX release of 19 September 2017 for full details).



## Corporate Activities

For the June 2019 Quarter, the Company reported receipts from customers on a cash basis of \$7.9 million, compared to \$7.5 million in the last quarter. Production rates averaged 9.1 TJ/day and the Company is looking to increase the production base over the coming quarters and in line with its Phase 3 and Phase 4 strategic growth targets.

### Gas Acceleration Program

As detailed in the Company's 2018 annual report, Armour Energy (Surat Basin) Pty Ltd (**Armour Surat**) executed an agreement with the Federal Government under the Gas Acceleration Program (**GAP**) for a total of up to \$6 million in grant funding. GAP provides grants to businesses to accelerate direct investment in onshore natural gas projects and provides funding on a cost contribution basis of up to 50% of a participant's eligible drilling costs. Armour Surat was awarded GAP funding for its Kincora Development Program.

To date, the Company has received \$5.4 million in total, including \$0.7 million during the June Quarter. These grant payments contribute to the cost of approved eligible activities aimed at accelerating the production of gas to the domestic market.

### Research and Development

As in previous years the Company applied for a R&D refund with regard to its Kincora Plant commissioning and restart. The Company's application was successful and received the full quantum of the claim, being \$1.9 million on 15 July 2019.

## Investor Relations

During the quarter, the Company presented at the Hong Kong Mines and Money Conference, the 121 Oil & Gas Conference in Hong Kong, met with brokers, shareholders and potential investors in Sydney and Adelaide, attended the APPEA Conference in Brisbane and presented at the Energy Mines & Money Conference in Brisbane.

A copy of the presentations can be found at <https://www.armouenergy.com.au/presentations/>



On behalf of the Board  
Karl Schlobohm  
Company Secretary

## COMPETENT PERSONS STATEMENT

### Consents

The Reserves information in relation to the Kincora Project Reserves in this ASX release is based on, and fairly represents, data and supporting documentation prepared by, or under the supervision, of Dr Bruce McConachie. Dr McConachie is an Associate Principal Consultant of SRK Consulting (Australasia) Pty Ltd and has a PhD (Geology) from QUT and is a member of AusIMM, AAPG, PESA and SPE. The Resources information in this ASX announcement was issued with the prior written consent of Dr McConachie in the form and context in which it appears. The Reserves review was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr Luke Titus, Chief Geologist, Armour Energy Limited. Mr Titus qualifications include a Bachelor of Science from Fort Lewis College, Durango, Colorado, USA and he is an active member of AAPG and SPE. He has over 20 years of relevant experience in both conventional and unconventional hydrocarbon exploration & production in the US and multiple international basins. Mr Titus meets the requirements of qualified petroleum reserve and resource evaluator as defined in Chapter 19 of the ASX Listing Rules and consents to the inclusion of this information in this release

### SPE-PRMS

Society of Petroleum Engineer's Petroleum Resource Management System - Petroleum resources are the estimated quantities of hydrocarbons naturally occurring on or within the Earth's crust. Resource assessments estimate total quantities in known and yet-to-be-discovered accumulations and resources evaluations are focused on those quantities that can potentially be recovered and marketed by commercial projects. A petroleum resources management system provides a consistent approach to estimating petroleum quantities, evaluating development projects, and presenting results within a comprehensive classification framework.

PRMS provides guidelines for the evaluation and reporting of petroleum reserves and resources.

### Under PRMS

"Contingent Resources" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by their economic status.

The estimated quantities of petroleum that may potentially be recovered by the application of 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.

Previous reported information on the Contingent Resources in this release related to Armour Energy's Surat Basin PLs and ATPs is based on an independent review conducted by RISC Operations Pty Ltd (RISC) 2015 Independent Technical Specialist Report Roma Shelf dated 30 September 2015 and SRK Consulting (Australasia) Pty Ltd Myall Creek Contingent Resources Report PLs 227 and 511 (19 July 2016) and SRK Consulting (Australasia) Pty Ltd PL 71 Contingent Resources Report- Parknook, Namarah and Warroon area (19 July 2016) and Armour Energy Target Statement dated 7 October 2015 related to Armour Energy's Surat

Basin PLs and ATPs is based on the Annexure A - Independent Expert Report review conducted by BDO Corporate Finance (QLD) Ltd and fairly represents the information and supporting documentation reviewed. All the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

### **Forward Looking Statement**

This announcement may contain certain statements and projections provided by or on behalf of Armour Energy Limited (Armour) with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Armour. Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with exploration and/or production which may be beyond the control of Armour which could cause actual results or trends to differ materially, including but not limited to price fluctuations, exploration results, resource estimation, environmental risks, physical risks, legislative and regulatory changes, political risks, project delay or advancement, ability to meet funding requirements, factors relating to property title, native title and aboriginal heritage issues, dependence on key personnel, share price volatility, approvals and cost estimates. Accordingly, there can be no assurance that such statements and projections will be realised.

Armour makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

Additionally, Armour makes no representation or warranty, express or implied, in relation to, and no responsibility or liability (whether for negligence, under statute or otherwise) is or will be accepted by Armour or by any of their respective officers, directors, shareholders, partners, employees, or advisers 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 interested party or its advisers. In furnishing this information, Armour undertakes no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise.

Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in Armour Energy Limited.

## APPENDIX A

### INTERESTS IN TENEMENTS FOR THIS QUARTER

TYPE	LOCATION	OWNER	INTEREST
PL14	Queensland	AE (SB) P/L	100%
PL 53	Queensland	AE (SB) P/L	100%
PL 70	Queensland	AE (SB) P/L	100%
PL 511	Queensland	AE (SB) P/L	100%
PL 227	Queensland	AE (SB) P/L	100%
PPL 3	Queensland	AE (SB) P/L	100%
PPL 20	Queensland	AE (SB) P/L	100%
PPL 63	Queensland	AE (SB) P/L	100%
Newstead Gas storage	Queensland	AE (SB) P/L	100%
PL 28	Queensland	AE (SB) P/L	46.25%
PL 69	Queensland	AE (SB) P/L	46.25%
PL 89	Queensland	AE (SB) P/L	46.25%
PL 320	Queensland	AE (SB) P/L	46.25%
PL 11 Waldegrave	Queensland	AE (SB) P/L	46.25%
PL 12 West	Queensland	AE (SB) P/L	46.25%
PL 11 Snake Creek East Exclusion Zone	Queensland	AE (SB) P/L	25%
PL 21	Queensland	AE (SB) P/L	100%
PL 22	Queensland	AE (SB) P/L	100%
PL 27	Queensland	AE (SB) P/L	100%
PL 71	Queensland	AE (SB) P/L	100%
PL 264	Queensland	AE (SB) P/L	100%
PL 30	Queensland	AE (SB) P/L	90%
PL 512	Queensland	AE (SB) P/L	84%
PPL 22	Queensland	AE (SB) P/L	84%
ATP 647	Queensland	AE (SB) P/L	100%
ATP 1190 (PCA157, Weribone Block)	Queensland	AE (SB) P/L	50.64%
ATP 1190 (PCA157, Bainbilla Block)	Queensland	AE (SB) P/L	24.75%
ATP 2028	Queensland	AE (SB) P/L	50%
ATP 2029	Queensland	AE (SB) P/L	100%
ATP 2030	Queensland	AE (SB) P/L	100%
ATP 2032	Queensland	AE (SB) P/L	100%
ATP 2034	Queensland	AE (SB) P/L	100%
ATP 2035	Queensland	AE (SB) P/L	100%
ATP 2041	Queensland	AE (SB) P/L	100%
PL2018-1B* (now ATP2046)	Queensland	Armour Energy Ltd (JV with APLNG)	10%
ATP 1087	Queensland	Armour Energy Ltd	100%
EP 171	Northern Territory	Armour Energy Ltd	100%
EP 174	Northern Territory	Armour Energy Ltd	100%

TYPE	LOCATION	OWNER	INTEREST
EP 176	Northern Territory	Armour Energy Ltd	100%
EP 190	Northern Territory	Armour Energy Ltd	100%
EP 191	Northern Territory	Armour Energy Ltd	100%
EP 192	Northern Territory	Armour Energy Ltd	100%
PEP 169	Victoria	Armour Energy Ltd (Joint Venture with Lakes Oil NL)	51%
PEP 166	Victoria	Armour Energy Ltd (Joint Venture with Lakes Oil NL)	25%
PRL2	Victoria	Armour Energy Ltd (Joint Venture with Lakes Oil NL)	15%
EL 30817	Northern Territory	Ripple Resources P/L	100%
EL 30818	Northern Territory	Ripple Resources P/L	100%
EL 30494	Northern Territory	Ripple Resources P/L	100%
EL 31012	Northern Territory	Ripple Resources P/L	100%
EPM 19833	Queensland	Ripple Resources P/L	100%
EPM 19835	Queensland	Ripple Resources P/L	100%
EPM 19836	Queensland	Ripple Resources P/L	100%
EPM 25504	Queensland	Ripple Resources P/L	100%
EPM 25505	Queensland	Ripple Resources P/L	100%
EPM 26018	Queensland	Ripple Resources P/L	100%
EPM 26020	Queensland	Ripple Resources P/L	100%
EPM 26022	Queensland	Ripple Resources P/L	100%
EPM 25802	Queensland	Ripple Resources P/L	100%

\*This was formally awarded as ATP2046 on 18<sup>th</sup> July 2018.

**AE (SB) P/L = Armour Energy (Surat Basin) Pty Ltd**

**EPM Exploration Permit - Minerals**

**EL Exploration Licence**

**EPP Exploration Permit - Petroleum**

**ATP Authority to Prospect**

**PCA Potential Commercial Area**

**PEP Petroleum Exploration Permit**

**PL Petroleum Lease**

**PPL Petroleum Pipeline Licence**

**PRL Petroleum Retention Lease**