Norwest Energy

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### Announcement to ASX

31 July 2019

# JUNE 2019 QUARTERLY ACTIVITIES REPORT & APPENDIX 5B

#### **QUARTERLY HIGHLIGHTS**

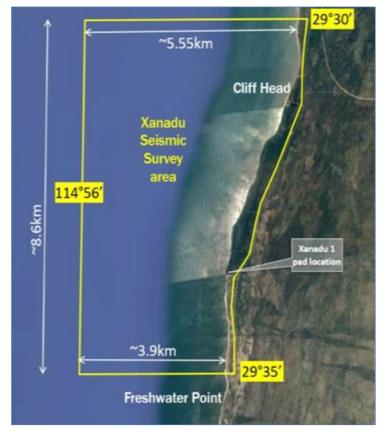
- Completion of Xanadu 3D seismic program
- Significant new oil prospect delineated in EP368
- Jingemia oil field workover program commenced
- West Australian Government releases implementation plan regarding hydraulic fracturing

## TP/15, Xanadu Oil Discovery (Operator, 25%)

The Xanadu oil discovery is located in exploration permit TP/15, in shallow waters just off the coast approximately 300 kms north of Perth, Western Australia. During the reporting period, seismic contractor Synterra Technologies commenced operations to acquire the Xanadu 3D Transition Zone seismic survey, further to the Company receiving the requisite environmental and regulatory approvals to proceed from the Department of Mines, Industry Regulation and Safety (DMIRS).

The 40km² 3D seismic program was completed on 11 July 2019 and is designed to fully delineate the Xanadu oil discovery, the previously available 2D seismic data set being insufficient to provide the high-resolution subsurface model required to guide future appraisal drilling.

The seismic data is currently being processed in Calgary by Earth Signal Processing Ltd. who have been awarded the contract due to their excellent reputation and their experience with previous datasets acquired by Synterra Technologies. Norwest Energy anticipates providing updates as early processed seismic volumes become available, with results from the interpreted data expected to be available by October 2019, once the new data has been interpreted and integrated with the existing subsurface model. At that point, the TP/15 Joint Venture will consider an appraisal well, with the enhanced subsurface model facilitating the appraisal well location and



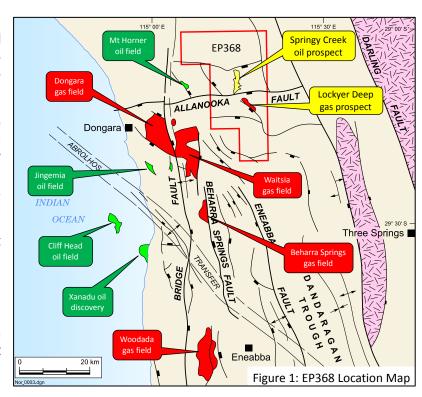
trajectory to be designed such that the well will provide an optimal chance for a significant commercial appraisal.

### **Exploration Permits EP368 & EP426 (20% & 22.22%)**

During the reporting period, Norwest Energy completed its assessment of a newly developed conventional oil prospect, situated in exploration permit EP368 of the Perth Basin and as described in detail in the Company's ASX announcement of 8 July 2019.

Like many Perth Basin explorers, Norwest Energy has re-evaluated the oil and gas prospectivity of its portfolio in light of the Waitsia gas discovery. Waitsia is located just 5 kms to the west of EP368 (Figure 1). which is the subject of a joint venture between Norwest Energy Energy Resources Limited, a wholly owned subsidiary of Mineral Resources Limited. The Waitsia discovery has opened up an exciting new petroleum play within the basin by encountering a very significant hydrocarbon accumulation within the Lower Permian Kingia and High Cliff Sandstone formations.

Springy Creek was until recently a structural lead, which has been upgraded to a drillable prospect following 2D seismic reprocessing undertaken by Norwest Energy.



The structure has been mapped with a southern culmination, abutting the Allanooka Fault, and a northern culmination in the vicinity of the East Heaton-1 well, drilled in 1985 and terminated above the Kingia Formation. The prospect offers significant potential for sizeable oil accumulations within both the Kingia and the High Cliff Sandstone formations which, based on well intersections in the wider region, are prognosed to incorporate thick, high-quality reservoir sand units at the prospect location at target depths of 2,470 metres and 2,570 metres respectively. Norwest Energy's estimate of the Prospective Resources (recoverable) for the prospect is summarised below:

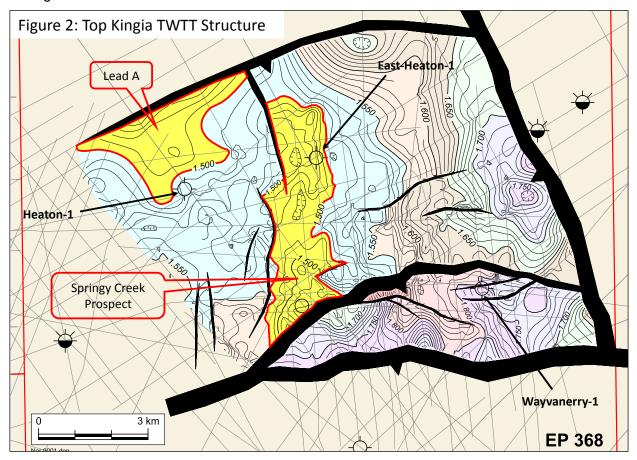
Risking scenario	Trapping Structure	Reservoir formation	Gross Prospective Resources, MMbbls	NWE Interest (20%), MMbbls
Low case	South culmination	Kingia + High Cliff	8.6	1.7
Mid case	South & north culminations	Kingia only	28.7	5.7
High case	South & north culminations	Kingia + High Cliff	61.1	12.2

The greater Springy Creek structure (Figure 2), encompassing the southern and northern culminations, covers an area of 10.1 km<sup>2</sup> and is an elongate N/S trending three-way dip closure with fault closure to the south. Reservoirs within this robust structural feature are predicted to be sourced by oil migrating from the proven Kockatea Shale oil kitchen to the south. The prospect is situated within a structural setting comparable to that of the Mt. Horner oil field, located some 15kms to the west, which similarly was sourced by oil migrating from the south.

Top seal for the Kingia Fm is provided by the Lower Irwin River Coal Measures, as in the Waitsia wells. Underlying the Kingia Fm is a 50-70m interval of the Bit Basher Shale which provides the top seal for the High Cliff Sandstone. Cross-fault seal to the south is provided by the Irwin River Coal Measures.

The Heaton-1 and East Heaton 1 wells, drilled within the vicinity of Springy Creek, did not extend beyond the Carynginia and Irwin River Coal Measures formations respectively, and so did not test the underlying Kingia or High Cliff Sandstone formations. Norwest Energy's estimate of Geological Chance of Success (GCoS) for the prospect is 25%. In the event of exploration success, significant

upside potential is evident in Lead A, located some 2 kms to the northwest of Springy Creek and covering an area of some 5.7 km<sup>2</sup>.



### L14, Jingemia Oil Field (6.278%)

As announced by the Company on 17 May 2019, Operator RCMA Australia (RCMA) suspended production from the Jingemia oil field at that time, the L14 Joint Venture having agreed to accelerate phase one of planned workovers. The purpose of the workovers is to install Electric Submersible Pumps (ESPs), initially on two of the four producing wells, to increase future oil production and ensure continued well integrity. The workover of well J4 is now complete and production from that well has resumed at a rate of 130 bopd, in line with expectations.

The Operator is now completing the workover of the J10 well and connection of an enhanced water flood system to the J1, J3 and J5 injection wells. This work is expected to be completed in early August. Contingent upon successful completion of the two-well workover program the Joint Venture may proceed with the workover of the J12 and J8 wells, during August/September 2019.

The ESP completions replace the ageing "jet pumps" previously used to provide artificial-lift, and will provide an efficient and reliable artificial-lift method for continued oil production.

### **Exploration Permit EP413 (Operator, 27.945%)**

Work is currently on hold within EP413, due to the state government moratorium on fracture simulation. The independent scientific panel inquiry in to hydraulic fracture stimulation handed its findings to the State Government in September 2018 and the State Government recently released its implementation plan, which remains subject to legislation.

In 2015, Norwest successfully completed the EP413 Arrowsmith 3D seismic acquisition survey on behalf of the EP413 Joint Venture. The survey was designed to assess the extent of the gas resource at Arrowsmith. The processing of the 3D dataset was completed, including pre-stack depth migration and fracture analysis. The results give a substantial improvement in structural definition, providing a greatly improved understanding of the geology within the permit boundaries, and confirming that the geology supports ongoing exploration and development activity within the permit.

During the reporting period, Norwest Energy held discussions with a number of parties regarding its interest in EP413, and while those discussions are at a very early stage the Company is hopeful of a future transaction relating to its interest.

### **Financial**

As announced on 3 April 2019, Norwest Energy has entered in to agreement with Sundowner International Limited (Sundowner) for a convertible loan facility of up to \$500,000, with an option, at Sundowner's election, to extend that amount to up to \$1,500,000. The loan facility has a term of twelve months, accrues interest at 8% per annum, and can be converted at Sundowner's election at a fixed price of 0.25 cents per share, or at the Company's election at a fixed price of 0.2 cents per share. Sundowner is a related entity of Company director David Kennedy. Please refer to the Company's ASX announcement of 3 April 2019 for additional information. To date the Company has down on the facility for an amount of \$750,000, principally to cover costs associated with the Xanadu 3D TZ Seismic Program.

### **ASX Listing Rule 5.3.3: Tenement Details**

In accordance with ASX Listing Rule 5.3.3 the following table details Norwest Energy's interests in its oil and gas permits:

Tenement reference and location	Interest at beginning of quarter	Interest at end of quarter
TP/15	25%	25%
Western Australia		
EP368	20%	20%
Western Australia		
EP426	22.22%	22.22%
Western Australia		
L14	6,278%	6.278%
Western Australia		
EP413	27.945%	27.945%
Western Australia		

For further information, please contact Norwest Energy:

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