## ASX ANNOUNCEMENT 27 June 2023



This announcement contains inside information

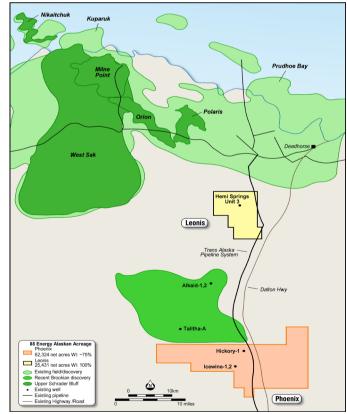
## 88 Energy Limited Project Leonis Update

## **Highlights**

- Awarded in April 2023, Project Leonis is superbly located adjacent to TAPS and the Dalton Highway, enhancing future potential commercialisation pathways
- Project Leonis is covered by the Storms 3D seismic data suite and contains the Hemi Springs Unit #3 exploration well (drilled by ARCO in 1985)
- Initial review of the Hemi Springs Unit #3 well has indicated approximately 200 feet of logged bypassed net pay in the Upper Schrader Bluff (USB) reservoir, with good porosity and oil shows, including "oil over shakers" noted at multiple depths
  - The USB reservoir is a producing unit to the north (including West Sak, Orion and Polaris fields) and was not a zone of interest for ARCO
- Reprocessing of the Storms 3D data by an independent expert has improved seismic resolution and data quality and provided an initial assessment of the USB prospect boundary
- Next steps for the Company are to obtain an independent certified prospective resource report, continue planning and permitting for a potential exploration well coupled with a targeted farm-out

88 Energy Limited (ASX:88E, AIM:88E, OTC:EEENF) (88 Energy or the Company) is pleased to provide an update on the Project Leonis work program. The Project Leonis acreage was awarded in April 2023 to 88 Energy Limited (via its wholly owned subsidiary, Captivate Energy Alaska, Inc) and comprises ten leases covering approximately 25,430 contiguous acres. The acreage is superbly located adjacent to TAPS and the Dalton Highway, enhancing future potential commercialisation pathways.

Project Leonis is fully covered by the Storms 3D seismic data suite which was purchased by 88 Energy in 2022. An initial internal review and interpretation of the Storms 3D seismic data has revealed a strong seismic-well tie and a clear seismic amplitude at the USB prospect level. To further assess the reservoir potential, and improve imaging of local and regional faulting noted as part of the initial assessment of the data, 88 Energy contracted an independent expert to complete reprocessing



of the Storms 3D data to improve data quality and seismic resolution.

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88 Energy is pleased to report that the seismic reprocessing has been successfully completed with results showing a significant improvement in quality and resolution shown in Figure 1 below.

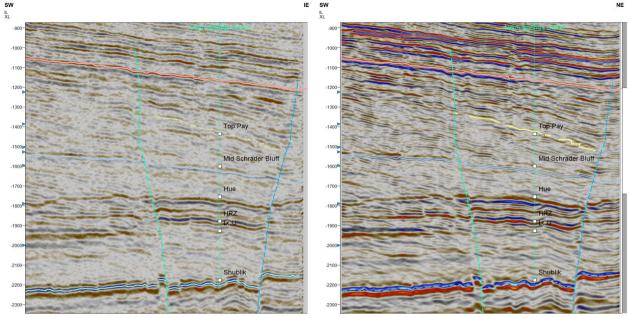
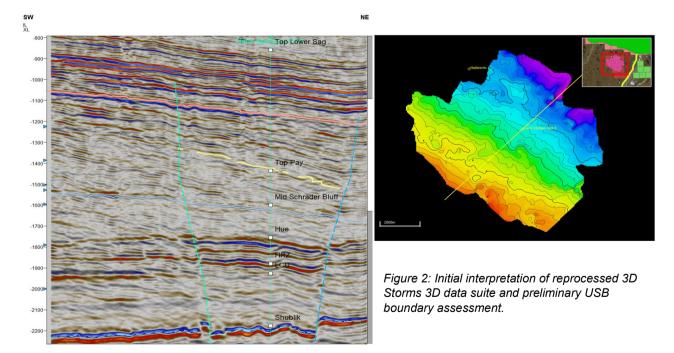


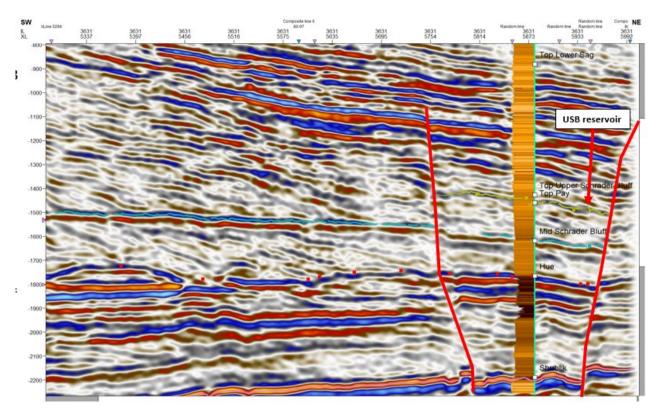
Figure 1: Comparison of original (left) and reprocessed (right) Storms 3D data.

The improved reprocessed data will help the Company define and assess the prospectivity of the acreage. An initial interpretation of the reprocessed data has provided the Company with an updated understanding of the potential USB prospect boundary, noted in Figures 2 and 3 below, and the potential for a significant resource within the Project Leonis acreage.



The Company has assessed the aerial extent of the USB prospect to be up to  $60 \text{km}^2$ . To validate the mapping of the reprocessed seismic data, 88 Energy has engaged an independent expert utilising a suite of specialist fault and horizon interpretation software, which will enable the Company to better understand the petroleum system at Project Leonis including identifying and capturing finer stratigraphic and structural features. Once completed in Q3, 88 Energy intends to commission an independent maiden prospective resource estimate over the acreage.





The Project Leonis acreage contains the Hemi Springs Unit #3 exploration well (**HS-3**) which was drilled by ARCO in 1985 to target the deep Kuparuk and Ivishak reservoirs. The well logs from HS-3 indicated approximately 200 feet of low resistivity bypassed log pay within the USB formation, with good porosity and oil shows evident throughout.

Independent studies to identify pay in laminated or shaley sand systems have confirmed that the USB reservoir in Hemi Springs Unit #3 possesses similar characteristics to the producing Polaris and Orion fields to the north. These studies have also confirmed a good seismic tie between HS-3 and the Storms 3D using sonic velocities from HS-3.

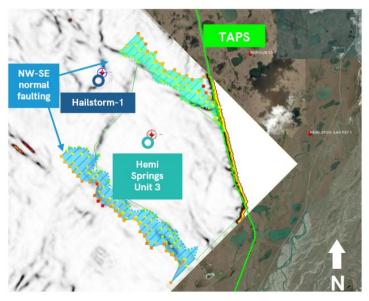


Figure 4: Time slice of Variance/Edge Detection attribute (used to highlight discontinuities in seismic horizons) run on the Storms 3D seismic.

The reservoir interval presents continuous, low amplitude peak as a function having porous sands throughout the section. Preliminary internal interpretation of the Storms 3D seismic indicates that the USB reservoir has been penetrated by Hemi Springs Unit #3 and appears to be isolated from nearby wells due to the complex faulting of this region. Interpretation using modern Edge Detection attribute (see Figure 4) clearly shows NW-SE normal faulting as well as a NE-SW feature which separates the reservoir at HS-3 from that of nearby Hailstorm-1. The petrophysical model supports the Company's seismic interpretation.



Critical rationale for investing in Project Leonis, is that the HS-3 exploration well drilled in 1985 by ARCO, was not targeting the USB low resistivity pay. More recently, the USB reservoir has been successfully developed at the nearby Orion, Polaris, West Sak and Milne Point oil fields to the North. Internal petrophysical analysis indicates that the Orion field 'O' sands developed in the 2000's and now producing presents as a good analogue for the USB reservoir at Project Leonis.

The Polaris oil field, located 15 miles to the north of the Project Leonis acreage, is estimated to contain 300 to 550 million stbo in place within the 'O' sands (source: page 25, *Polaris Pool Rules And Area Injection Order Application*, BP Exploration (Alaska), Inc, Sep 2002).

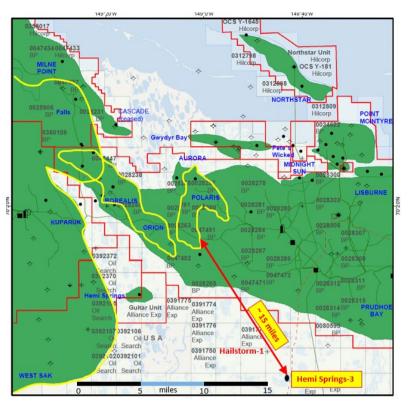


Figure 5: Location of nearby producing analogue fields to Hemi Springs Unit #3 well / Project Leonis.

Further petrophysical work is ongoing, including an integrated review of all available log, core and test data from numerous offset exploration wells as well as the nearby producing wells within the West Sak, Polaris and Orion oil pools.

Figure 6 below, provides a high-level indication of the forward work program for the Project Leonis acreage, including the planned farm-out of a working interest in the acreage to fund a well targeted to be drilled in 2024/25.

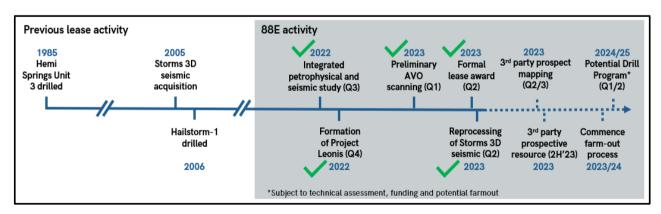


Figure 6: Project Leonis lease activity

The Company looks forward to providing further updates on Project Leonis in due course.



## This announcement has been authorised by the Board.

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Pursuant to the requirements of the ASX Listing Rules Chapter 5 and the AIM Rules for Companies, the technical information and resource reporting contained in this announcement was prepared by, or under the supervision of, Dr Stephen Staley, who is a Non-Executive Director of the Company. Dr Staley has more than 35 years' experience in the petroleum industry, is a Fellow of the Geological Society of London, and a qualified Geologist/Geophysicist who has sufficient experience that is relevant to the style and nature of the oil prospects under consideration and to the activities discussed in this document. Dr Staley has reviewed the information and supporting documentation referred to in this announcement and considers the resource and reserve estimates to be fairly represented and consents to its release in the form and context in which it appears. His academic qualifications and industry memberships appear on the Company's website and both comply with the criteria for "Competence" under clause 3.1 of the Valmin Code 2015. Terminology and standards adopted by the Society of Petroleum Engineers "Petroleum Resources Management System" have been applied in producing this document.