

This announcement contains inside information

## 88 Energy Limited

### Hickory-1 Flow Testing Program and Post Well Analysis Update

#### Highlights

- Multiple zones in Hickory-1 scheduled to be tested, all expected to flow based on reservoir characteristics
- Permitting and planning commenced, with the flow testing program scheduled to begin as early as possible during the 2023/2024 Alaskan winter operational season
- Rig selection expected to be concluded imminently for Hickory-1 flow tests
- Post-well analysis of cores, mud gas isotubes and wireline data is ongoing; initial results encouraging with good correlation to migration and thermal maturity models for Project Phoenix

88 Energy Limited (ASX:88E, AIM:88E, OTC:EEENF) (**88 Energy** or the **Company**) is pleased to provide an update in relation to the Hickory-1 flow testing program at Project Phoenix on the North Slope, Alaska.

#### Hickory-1 Flow Testing Program

The Hickory-1 well is currently cased and suspended ahead of the upcoming flow testing program, which is scheduled to commence as early as possible in the 2023/2024 winter operational season. The flow test and well stimulation program is being developed in consultation with flow test design experts, who are utilising available regional information in combination with a detailed evaluation of the drilling and wireline logging data from Hickory-1.

One aspect of the flow testing design that is of particular importance is the choice of fluids used to stimulate the reservoir. The chemical composition of these fluids can interact with certain clay types in the reservoirs, thus having significant implications for each reservoir's performance and the stimulation operation. The Company is working with technical consultants to determine the optimal fluids to be used to stimulate the reservoir in conjunction with the overall flow test program design to ensure the best possible outcomes. Program planning is on schedule and will include rigorous technical and economic optimisation prior to finalisation. Rig selection and contract negotiation is expected to be concluded imminently and key long lead items required are being ordered.

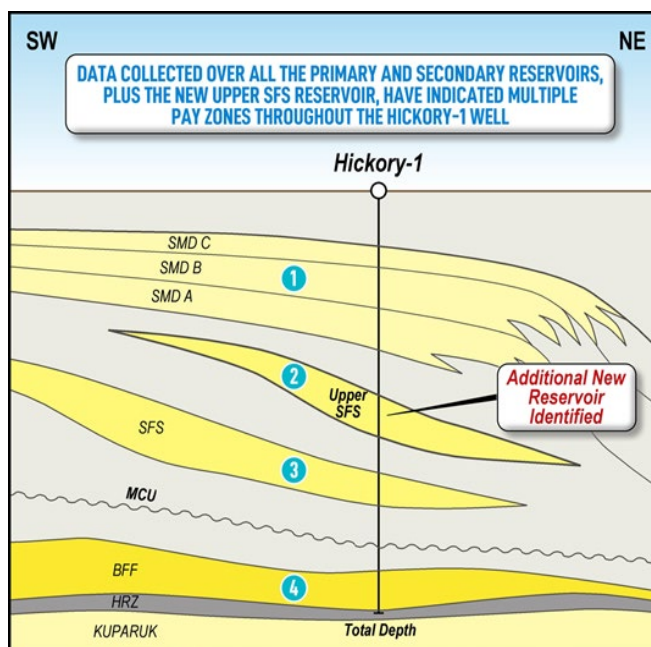


Figure 1: Flow testing program to target up to four zones intersected in Hickory-1 exploration drilling.

## Hickory-1 Drilling and Wireline Program

Hickory-1 intersected multiple hydrocarbon-bearing zones across all primary and secondary pre-drill targets and identified the new Upper Slope Fan System reservoir. The 2023 Hickory-1 drilling and wireline program delivered the following key outcomes:

- Confirmed presence of multiple hydrocarbon-bearing pay zones across *all* pre-drill targets, in addition to the newly identified Upper SFS reservoir;
- Approximately 450 feet of estimated net pay calculated from wireline data over all pay zones, with gross pay estimated to be over 2,000 feet;
- Average total porosity of 9-12% across all zones, with key target zones in the Upper and Lower SFS exhibiting between 11-16% total porosity; and
- Reservoir quality and thickness met or exceeded pre-drill expectations, with higher-than-expected porosity in the SFS and BFF, as well as increased total gross reservoir, total net reservoir, and total net pay.

A summary of the pre-drill assessment and post-drill observations is outlined in Tables 1 and 2 below.

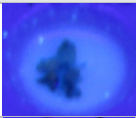
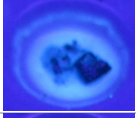
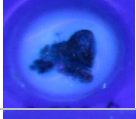
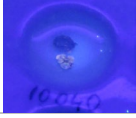
Table 1: Hickory-1 exploration well pre-drilling assessment

Unrisked Net Entitlement to 88E <sup>2</sup> Prospective Oil Resources (MMstb) <sup>3,4</sup>				
Prospects (Probabilistic Method)	Best (2U) <sup>5</sup>	COS <sup>1</sup>	AVO anomaly	Oil recovery
Shelf Margin Delta (SMD A, B & C)	140	81%	Strong	Talitha A
<b>Upper Slope Fan System (Upper SFS)</b>	<b>New reservoir yet to be assessed</b>	<b>-</b>	<b>Moderate</b>	<b>Not previously intersected</b>
Upper Slope Fan System (Lower SFS)	84	50%	Subtle	Alkaid-1 and Talitha A
Basin Floor Fan (BFF)	341	50%	Not detected	Theta West
Kuparuk <sup>7</sup> (KUP)	56	72%	Subtle	Talitha A

**Cautionary Statement:** The estimated quantities of petroleum that may be potentially recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation are required to determine the existence of a significant quantity of potentially movable hydrocarbons.

1. COS represents the geological chance of success as assessed by 88 Energy and reviewed and endorsed by Lee Keeling & Associates, Inc (LKA).
2. 88 Energy net resources have been calculated using a 75.227% working interest and a 16.5% royalty.
3. Prospects are subject to a phase risk (oil vs gas). Chance of oil has been assessed as 100% for all targets except for the Kuparuk Formation which has been assessed as 70%. Phase risk not applied to the unrisked numbers.
4. The Prospective Resources have not been adjusted for the chance of development. Quantifying the chance of development (COD) requires consideration of both economic and other contingencies, such as legal, regulatory, market access, political, social license, internal and external approvals and commitment to project finance and development timing. As many of these factors are outside the knowledge of LKA they must be used with caution.
5. Refer to slide 3 and the ASX release dated 23 August 2022 for full details with respect to the pre-drill Prospective Resource estimate, associated risking and the Cautionary Statement on page 3
6. Shows constituted by elevated mud gas readings and/or fluorescence / cut.
7. Due to the encouraging results to date in the primary and secondary targets, the Company made the technical decision to TD prior to intersecting the tertiary Kuparuk. The Hickory-1 well was suspended such that the KUP target can still be drilled and flow tested from the well bore following the flow testing of the upper zones.
8. It should be noted that the prospective resources were calculated prior to the drilling of Hickory-1.

Table 2: Hickory-1 exploration well initial post-drilling observations

Hickory-1 exploration well				
Prospects (Probabilistic Method)	Shows	Estimated gross/net pay	Porosity range (average/high)	Sample cutting
Shelf Margin Delta (SMD A, B & C)	✓	~540ft / ~95ft	~10.5% / ~12%	
Upper Slope Fan System (Upper SFS)	✓	~360ft / ~80ft	~10.5% / ~16%	
Upper Slope Fan System (Lower SFS)	✓	~380ft / ~120ft	~10.5% / ~14%	
Basin Floor Fan (BFF)	✓	~325ft / ~160ft	~9.5% / ~12%	
Kuparuk (KUP)	To be drilled and tested at a future date			

Preliminary petrophysical comparison of prospective zones in Hickory-1 against the interval that flowed oil in Pantheon's Alkaid-1, suggests favourable potential for successful flow of hydrocarbons from multiple zones in the Hickory-1 well.

Pantheon's wells on the adjacent northern acreage (Alkaid-1, Alkaid-2, Talitha-A and Theta West-1) have all flowed 35 to 40° API oil from similar sandstones, with testing confirming reservoir deliverability of light, sweet oil (refer Pantheon public releases 7 February and 21 February 2022).

### Hickory-1 Post Well Analysis

Post well analysis is ongoing with results from the testing programs anticipated to be fully completed and received in early Q3 2023. The summary below provides an overview of the planned program of post well analysis of results and pre-planning for flow testing:

#### Geological Analysis

- Including refining the depositional model and thin sections analysis

#### Geophysical Analysis

- Refining current interpretations, update AVO analysis +/- seismic inversion to integrate Hickory-1 shear data

#### Routine and Special Core Analysis

- Including porosity and permeability testing to calibrate petrophysical models

#### Geochemical Analysis

- Including High Resolution Gas Chromatography and mud gas carbon isotope analysis

#### Geomechanical Analysis

- Azimuthal rock property analysis including strength testing for stimulation modelling

#### Flow Testing Planning

- Stimulation modelling and design
- Tender for services and award

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Mudgas isotubes results were analysed from samples collected at 100-foot intervals and at all significant mud gas peaks throughout the well. Thermal maturity data from the isotubes show all Phoenix reservoirs cluster around 1.0 % Ro, coincident with a light oil generative source rock. The Vitrinite reflectance results are further supported by reservoir pyrolysis tests conducted on side wall core plugs from a separate lab facility. Figure 4 below shows that all valid reservoir tests plot in the interpreted “oil window” with a general trend of increasing maturity with depth. Finally, the interpretive “wetness” plot of the mud gas isotube data also supports oil-only phase interpretation across all Hickory-1 reservoirs with an average of 15% (as a rule of thumb, Oil >10% and condensate <10%). Results correlate well with the Company’s migration models and understanding of thermal maturity across Project Phoenix. Finally, the laboratory’s staff geochemist remarked that “[Hickory’s] mud gas hydrocarbon contents are almost all greater than 10 000 ppm which are indicative of strong shows”.

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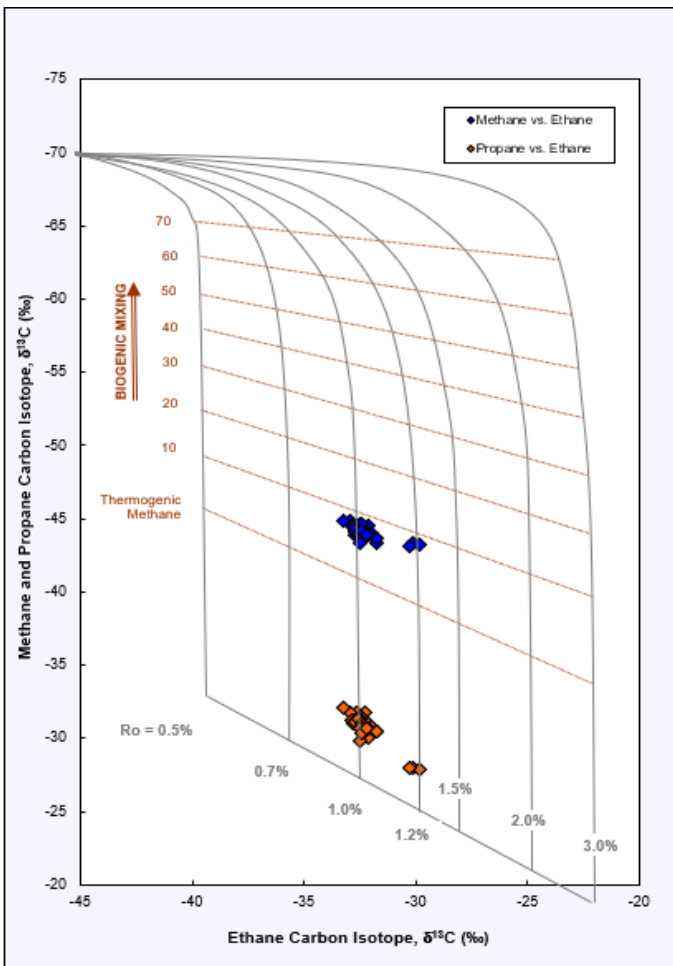


Figure 2 Maturity and mixing plot. Hickory-1 reservoirs clustered around 0.9% Ro (Peak oil generation window 0.8-1.0) with a small and deeper non-reservoir population plotting around 1.1% Ro. The 3 more mature samples are in the source rock and given the migration model, not expected to contribute to the reservoirs intersected by Hickory-1.

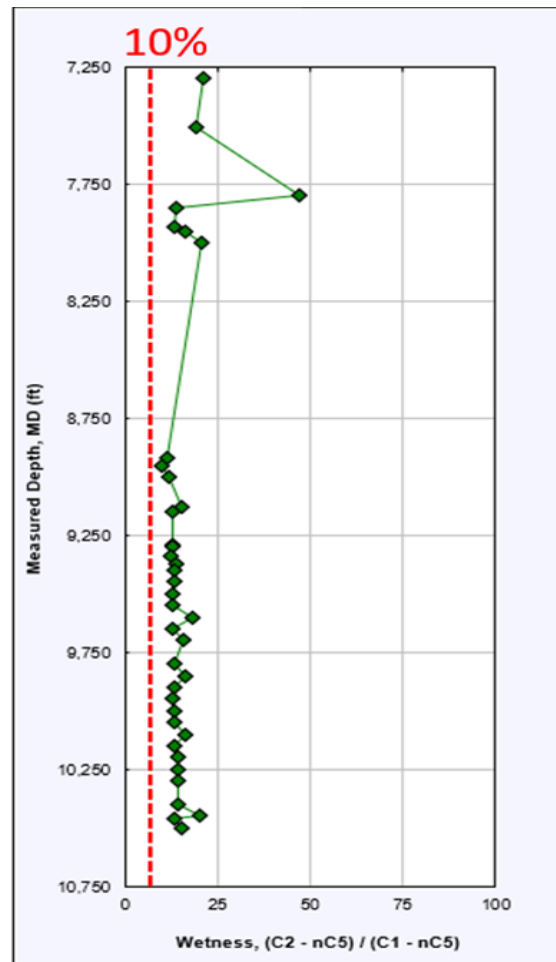


Figure 3: Wetness log. Interpretive wetness plot across all Hickory-1 reservoirs. Values above 10% are typical of oil signatures and values <10% typically correspond with condensates

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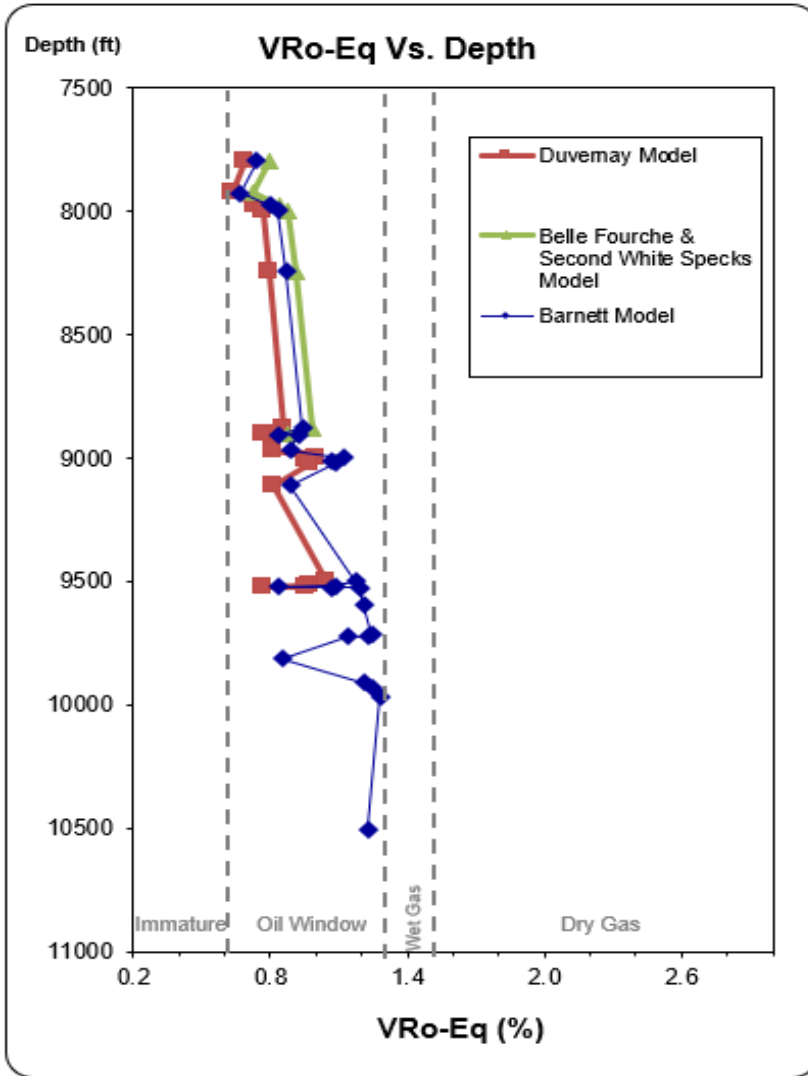


Figure 4 Vitrinite Reflectance vs. Depth: Reservoir Pyrolysis tests conducted on Hickory-1 side wall cores indicate that all valid core tests of Project Phoenix reservoirs plot in the "oil window" according to 3 separate Vitrinite Reflection models.

**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.

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## About Project Phoenix

Project Phoenix (88E 75.2% WI) is located on the central North Slope of Alaska and encompasses approximately 82,846 gross acres. It is situated on-trend to recent discoveries by Pantheon Resources Plc (LSE: PANR) in multiple, newly successful play types across top, slope and bottom-set sands of the Mid Schrader Bluff, Canning and Seabee formations. Hickory-1 results and independent mapping have demonstrated that these plays extend into the Phoenix acreage.

Project Phoenix holds an estimated unrisks conventional total of 647MMbbl of prospective oil resources (pre-drilling, mean unrisks, net to 88E), independently assessed by Lee Keeling and Associates (LKA) in Q3 2022 (see 88E ASX release dated 23 August 2022). The acreage was significantly de-risked by the recent Pantheon drilling and flow tests on their adjacent acreage to the North, coupled with data from Icewine-1 well logs (encountered 380 ft of net oil pay within SMD sands) and a modern 3D seismic data set (FB3D).

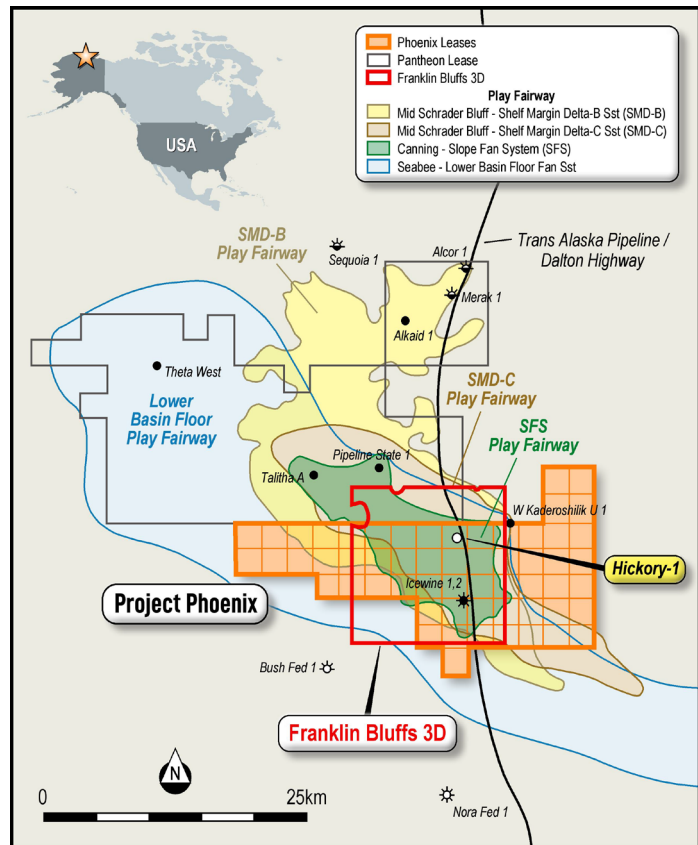


Figure 3: Project Phoenix lease area, including mapped play fairways, Franklin Bluffs 3D area and planned Hickory-1 well location.

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Phoenix: Alaska North Slope	Unrisks Net Entitlement to 88E <sup>1,6</sup> Prospective Oil Resources (MMstb) <sup>4,5</sup>				
Prospects (Probabilistic Method)	Low (1U)	Best (2U)	High (3U)	Mean	COS <sup>3</sup>
Shelf Margin Delta (SMD A, B & C)	44	140	326	145	81%
Slope Fan System (SFS)	24	84	217	89	50%
Basin Floor Fan (BFF)	75	341	930	358	50%
Kuparuk (KUP)	24	56	98	56	72%
<b>Prospects Total</b>	<b>167</b>	<b>621</b>	<b>1,570</b>	<b>647<sup>2</sup></b>	

Cautionary Statement: 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 movable hydrocarbons.

- These pre-drilling resources estimates are net to 88 Energy and have been calculated using a 75.227% working interest and a 16.5% royalty.
  - The unrisks means, which have been arithmetically summed, are not representative of expected total from the prospects and implies a success case in all reservoir intervals. 88 Energy cautions that the arithmetically summed 1U estimate may be a conservative estimate and the arithmetically summed 3U estimate may be optimistic when compared to a statistical aggregation of probability distributions.
  - COS represents the geological chance of success as assessed by 88 Energy and reviewed and endorsed by LKA.
  - Prospects are subject to a phase risk (oil vs gas). The pre-drilling chance of oil has been assessed as 100% for all targets except for the Kuparuk Formation which has been assessed as 70%. Phase risk has not been applied to the unrisks numbers.
  - The Prospective Resources have not been adjusted for the chance of development. Quantifying the chance of development (COD) requires consideration of both economic and other contingencies, such as legal, regulatory, market access, political, social license, internal and external approvals and commitment to project finance and development timing. As many of these factors are outside the knowledge of LKA they must be used with caution.
  - Please refer to ASX announcement dated 23 August 2022 for further details in relation to the prospective resources estimate and associated risking with Phoenix.
- It should be noted that the prospective resources were calculated prior to the drilling of Hickory-1.