



7th September 2023

ASX Market Announcements
ASX Limited
20 Bridge Street
Sydney NSW 2000

Results of New Petrophysical Evaluation of the Judith-1 Well

Judith Gas Field - Vic/P47 Exploration Permit

Highlights

- **Mobile gas interpreted in Judith Gas Sands 1, 2, 3 and 4**
- **Net Reservoir thickness interpreted as 189.5m**
- **Previous analysis of Gas Saturations confirmed**
- **Significant increase in Average Formation Permeabilities to maximum 24.2mD**

Emperor Energy is pleased to announce the results of a new petrophysical evaluation of the Judith-1 exploration well, offshore Gippsland, Victoria, Australia that has been completed by respected industry expert Steve Adams at TPL (The Petrophysicist Limited).

The review was commissioned in response to direct technical questions asked by companies assessing the Judith Gas Field opportunity and a new methodology for reservoir evaluation successfully applied by TPL at other gas field locations in the Gippsland Basin.

Steve Adams has quantitatively evaluated Judith-1 over the objective sections for porosity, permeability, net reservoir and gas saturations, incorporating a review of the Judith-1 Repeat Formation Test (RFT) data. In summary, the log interpretation shows the presence of mobile gas in the Judith sand units 1, 2, 3 & 4 over a net reservoir thickness of 189.5 m. These gas sands are interpreted as most likely separate gas columns based on pressure data and the log-derived (saturation-height) contacts.

The evaluation confirms the previous analysis of mobile gas columns and gas saturations (Cernovskis, 2022) while providing significant order of magnitude increases in permeabilities over the previous analysis. Permeability calculations are based on correlations to regional core data and have been checked against a re-evaluation of RFT mobilities from the Judith-1 well.

The key outcomes of the study provide further independent analysis and interpretation supporting the presence of mobile gas along with an order of magnitude increase in permeabilities. The reservoir properties derived at higher permeabilities can now be used for further dynamic modelling with an expectation of significantly higher flow rates from gas production simulation.

Zone	Depth	Interpretation	Net Thickness	Porosity %	Av. Permeability mD	Av. Gas Saturation %
Gas Sand 1	2370m to 2441m	Mobile Gas	40.5	14.1	12.3	52.2
Gas Sand 2	2489m to 2543m	Mobile Gas	38.8	15.0	24.2	63.8
Gas Sand 3	2626m to 2720m	Mobile Gas	63.1	13.6	5.2	61.1
Gas Sand 4	2778m to 2839m	Mobile Gas	47.1	12.6	1.6	56.4

Table 1: Key outcomes from Judith-1 Petrophysics Evaluation

Biography – Steve Adams

Steve has MSC in Physics with First Class Honours. He has been a Petrophysicist since 1987. Following training and an initial 7 years with Shell, he has worked as an independent consultant with clients in Australasia, Asia, Europe, the Middle East and elsewhere. Steve has also worked extensively for Reserves Auditing companies including Gaffney-Cline, RPS and RISC. Steve is a member of the SPWLA and the SPE. Steve has more than 20 papers published and is highly regarded in the Industry as a Technical Expert. Steve is a Specialist in Saturation-Height Modelling. His 2016 book “Saturation-Height Modelling for Reservoir Description” has been well received. Steve has been providing petrophysically-focussed training courses since 2001.

Emperor Energy is focused on the development of the Judith Gas Project located 40km offshore from the Orbost Gas Plant in the Gippsland Basin, Victoria. The project requires drilling of a successful Judith-2 appraisal well to prove Gas Reserves and subsequently provide economic justification for gas field and processing plant development.

Emperor Energy has de-risked the project through systematic analysis of all available data from the Judith-1 Gas Discovery Well (drilled by Shell in 1989) and by licensing access to new MC3D seismic data that was acquired in 2020 to define a Prospective Resource for the Greater Judith structure, and Contingent Resource around the Judith-1 location.

AVO Analysis of recently acquired 3D Seismic data shows direct hydrocarbon indicators extending throughout the entire Judith Structure adding further confidence to the resource scale. **An additional independent AVO analysis** is currently being carried out and will be calibrated against the mobile gas columns as defined by Steve Adams.

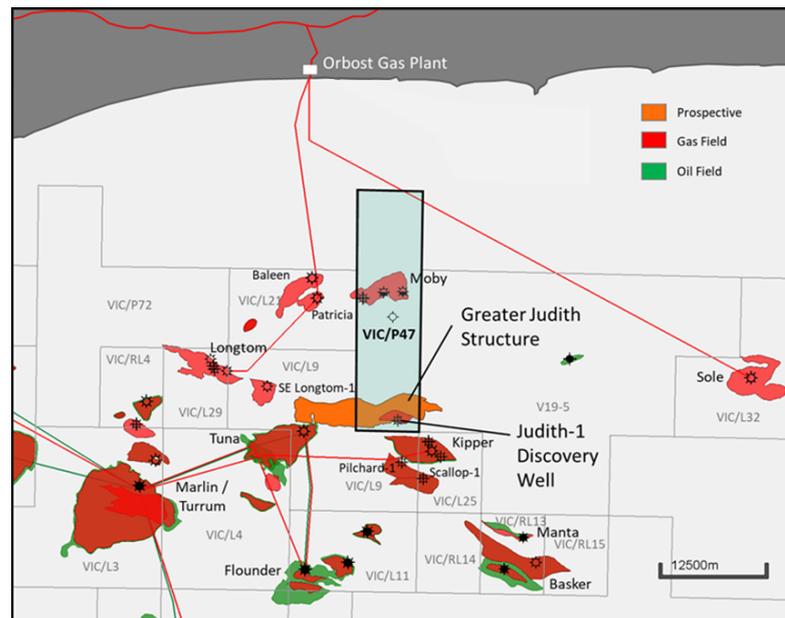


Figure 1: Location of 100% Emperor Energy owned Vic/P47 in the offshore Gippsland Basin (Bass Straight), showing the Judith Gas Field and proximity to Orbost Gas Plant, along with nearby oil and gas fields.

We thank shareholders and our team for their ongoing support and welcome any questions they may have.

This announcement has been authorised for release to the market by the Board of Directors of Emperor Energy Limited.

Yours faithfully



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