



22nd May 2024

ASX Market Announcements
ASX Limited
20 Bridge Street
Sydney NSW 2000

Further Verification of Judith-1 Well Petrophysical Evaluation

Judith Gas Field - Vic/P47 Exploration Permit

Highlights

- **Increased confidence in modelled Judith-1 Well permeabilities after recent inclusion of South East Longtom-1 Well data into Judith-1 Well petrophysics evaluation**
- **Analysis completed in response to questions from companies in discussion with Emperor Energy regarding potential interest in Judith Gas Field**
- **Results of the earlier updated petrophysical evaluation completed in September 2023 provided significant order of magnitude increases in permeabilities at Judith-1 over previous analyses.**
- **Inclusion of the South East Longtom-1 Well data now adds further verification to the September 2023 evaluation's methodology**
- **The September 2023 evaluation also confirmed previous analyses of gas saturations along with the presence of mobile gas columns in the Judith-1 well drilled by Shell in 1989.**

Emperor Energy is continuing with discussion and management presentations with companies that have expressed potential interest in the Judith Gas Field.

A request from these discussions was to include the petrophysics data from the nearby South-East Longtom-1 Well into the Judith-1 Gas Discovery Well petrophysical work completed September 2023 by respected industry expert Steve Adams at The Petrophysicist Limited (TPL).

As a result of including the South-East Longtom-1 Well data into the evaluation, the range of permeability outcomes has been condensed and the worst-case permeability for the Judith-1 Well is now assessed as being slightly higher than previously considered in the September 2023 evaluation. This data adds further confidence to the modelled permeabilities of the Judith-1 Well.

The South-East Longtom Well is located 12km to the West of Judith-1 and was drilled in 2010 by the Exxon Mobil/BHP Joint Venture to a depth of 2735m in 59m of water. Gas Samples recovered indicated low Carbon Dioxide at 1.96%, Nitrogen at 0.54% and no Hydrogen Sulphide. Methane content was 91.2%.

Recently completed gas production simulation modelling of the Judith Contingent Resource using the updated permeability data indicates that the Judith-1 Well is capable of flowing at a rate of 80 Million Standard Cubic Feet Per Day (MMscf/day) for 6 years.



Emperor Energy has previously completed a Pre-FEED study for proposed development of an 80MMscf/day pipeline to a proposed new gas processing plant at the Orbost gas plant site. This study was completed in 2020 when the Orbost gas plant was owned by APA Group.

The key outcomes of the September 2023 Petrophysical Evaluation are summarized in Table 1 below. The study provided further independent analysis and interpretation supporting the presence of mobile gas along with an order of magnitude increase in permeabilities.

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

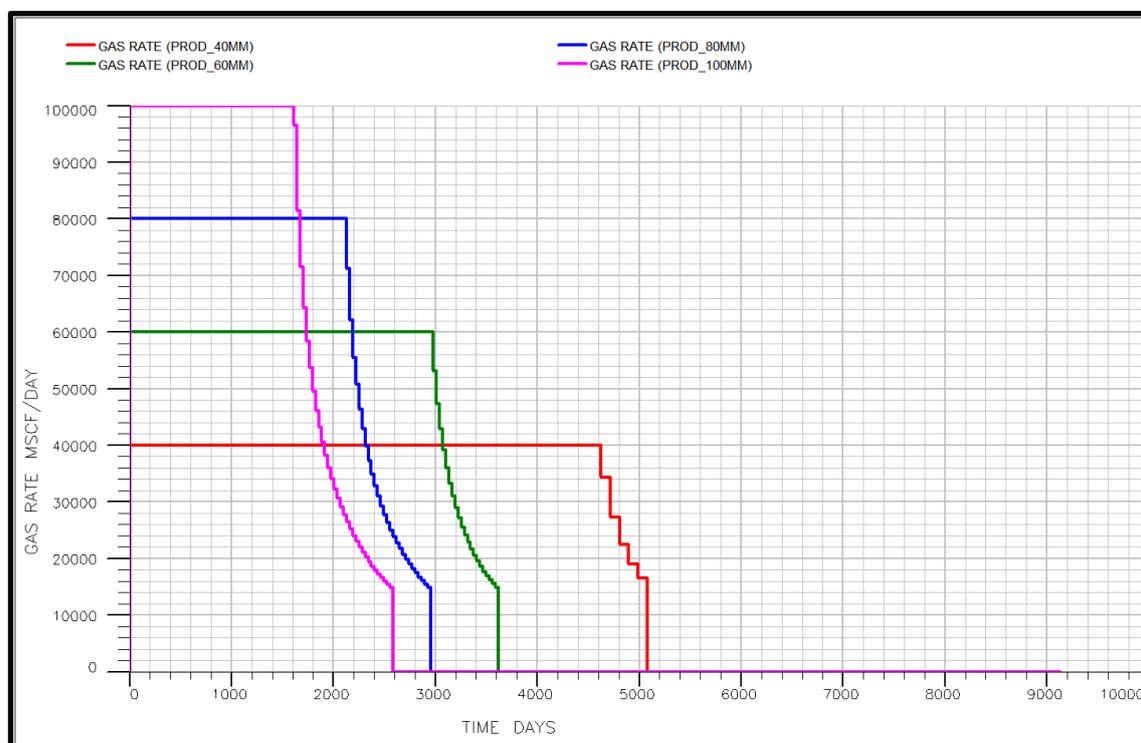


Figure 1: Gas production rates from the gas production simulation modelling of the Judith-1 Well showing production cases of 40, 60, 80 and 100 MMscf/d

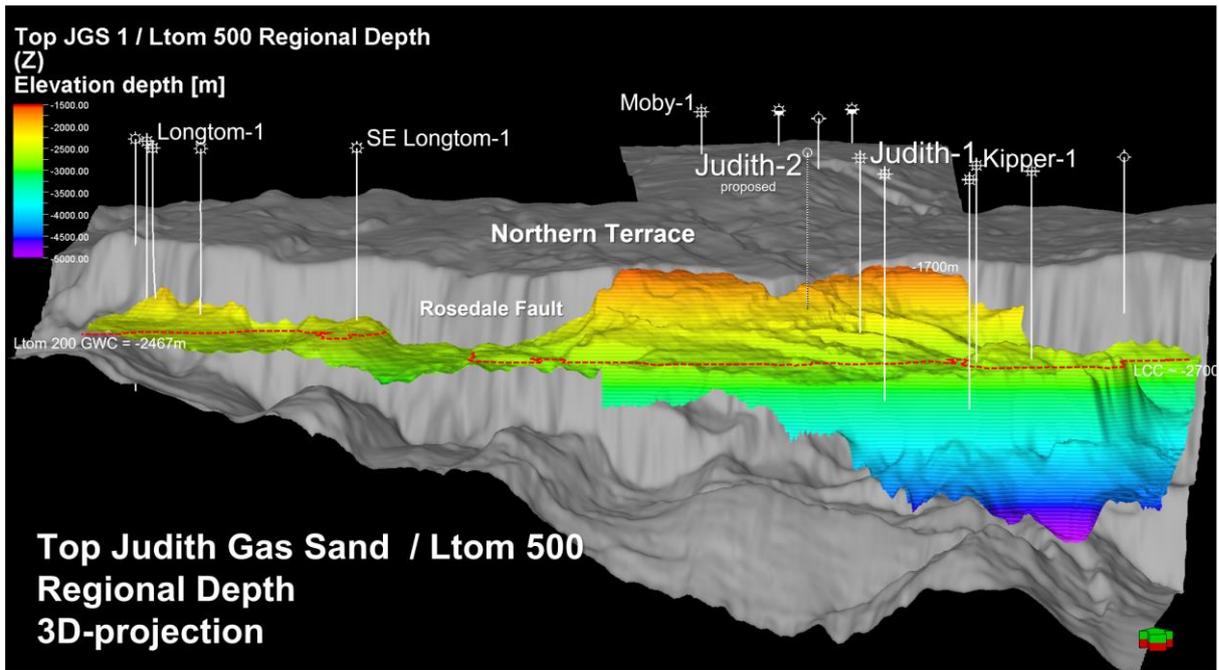


Figure 2: Three-Dimensional Seismic Image showing the location of the South East Longtom-1 Well in relation to the Judith-1 Well

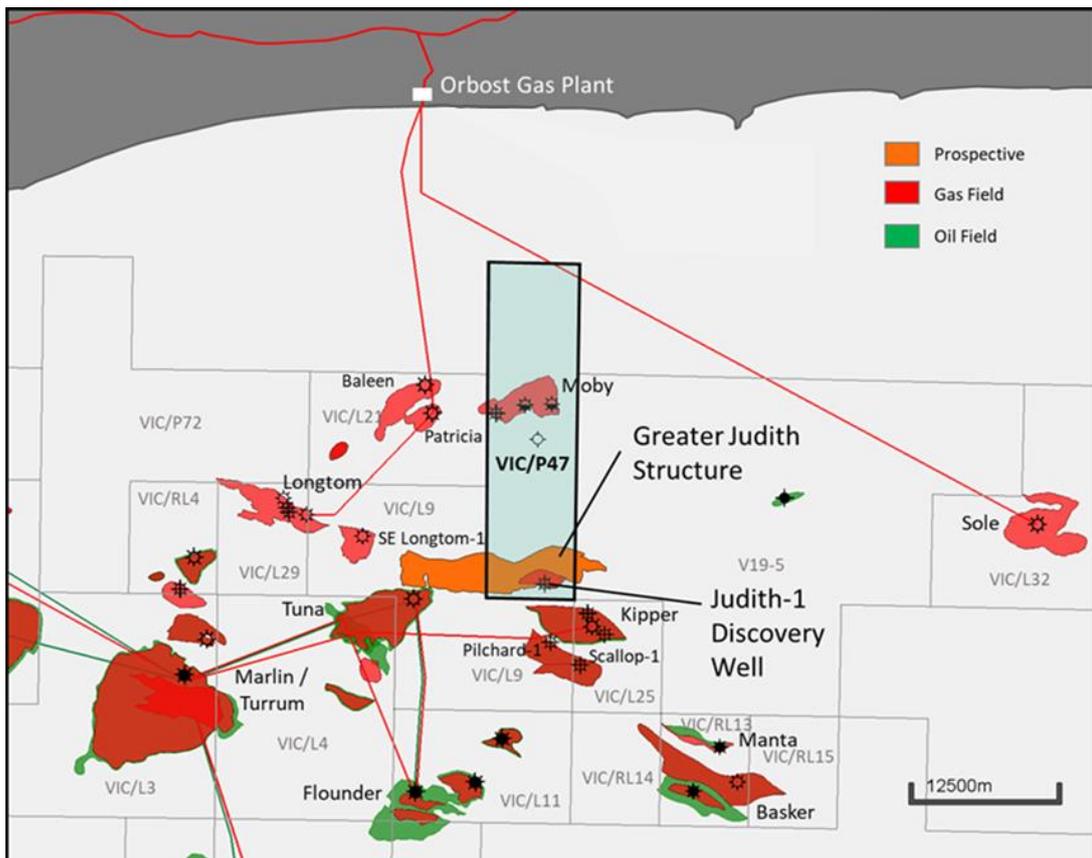


Figure 3: Location of 100% Emperor Energy owned Vic/P47 in the offshore Gippsland Basin (Bass Strait), showing the Judith Gas Field and proximity to the South-East Longtom-1 Well and Orbost Gas Plant, along with nearby oil and gas fields.

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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