

1st September 2020

ASX Market Announcements ASX Limited 20 Bridge Street Sydney NSW 2000

Commencement of Pre-FEED for Judith Gas Field Project

Key Points

- APA has commenced Pre-Front End Engineering Design ('Pre-FEED') for the provision of midstream infrastructure and services related to gas that is planned to be produced from the Judith Gas Field following successful appraisal drilling
- Judith Gas Field Dynamic Modelling delivers simulated gas production for the Pre-FEED of:
 - o 80 Million Standard Cubic Feet per day (MMscfd) sustained across 25 years
 - 4 vertical production wells are used at production commencement with an additional 5th well introduced in year 15
 - Modelling indicates that a minimum well-head gas delivery pressure of 7000kPa (1050psi) is maintained for at least a 25-year period at a field production rate of 80MMscfd
 - Modelling is based on a 450m Gas Column Height within the Static Geological Model used to generate the Judith Resource Statement
 - A 465m gas column height was measured in the Longtom Gas Field located in a similar structural setting 15km to the West of Judith
 - The 1989 Judith 1 Well drilled downdip of the crest of the Judith structure proved the existence of movable gas and established a 150Bcf Contingent Resource
- Drilling Management Consultants AGR engaged by Emperor Energy have:
 - o Completed an initial design for the Judith 2 Well to a depth of 3,235m
 - Completed a drilling Expressions of Interest (EoI) process with 5 submitted responses
 - Established a probabilistic estimation of well costs at \$25M for a minimum case with logging and without flow testing
 - In a success case Drill Stem Testing (flow testing) will incur additional cost
- Global Seismic Acquisition company CGG have:
 - Recently completed a multi-client 3D seismic survey across the offshore Gippsland Basin including the Judith Gas Field

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- o Preliminary results of this survey will be available to Emperor Energy in late 2020
- 3D Survey was carried out with state-of-the-art equipment and techniques and will provide improved interpretation of Judith Gas Field gas accumulations
- Emperor continues to receive growing farm-in interest from potential drilling partners



Commencement of Pre-FEED

Emperor Energy is pleased to advise that APA Group (ASX:APA) have commenced the Pre-Front End Engineering Design (Pre-FEED) for the provision of midstream infrastructure and services related to gas that will potentially be produced from the Judith Gas Field in the 100% Emperor Energy owned VIC/P47 Permit in the offshore Gippsland Basin, Victoria.

The Pre-FEED study will include:

- Pre-FEED design for a Gas Processing Plant to operate adjacent to and in parallel with the existing Orbost Gas Processing Plant owned by APA
- Pre-FEED concept design for a Subsea Pipeline approximately 40km in length from the Judith gas field to a shoreline crossing
- Pre-FEED design for an export pipeline to the Eastern Gas Pipeline located to the north of the Orbost Gas Plant
- Refinement of indicative project cost estimates and project scheduling

The Pre-FEED study will require 4 months to complete. APA will carry out the work using a balanced combination of both in house and external expertise.

The design basis for the Pre-FEED is 80MMscfd (90TJ/day) of sales gas across a 25-year project life with gas processing to meet the AS4564 gas sales specification.

Emperor Energy and APA established a Memorandum of Understanding (MOU) relating to the Judith Gas Project in October 2019. The Pre-FEED is the first stage of work to progress from the MOU.

Dynamic Modelling

Emperor Energy have revised the Judith Gas Field production well simulation to include 4 x vertical production wells at project commencement with a 5th production well included in Project Year 15.

Each modelled well has 7 perforation zones in gas bearing sands using 5 ½" tubing in the bottom half of the well and a 7" production string to the surface.

Well-head pressures have been modelled and shown to be maintained above the required minimum of 7000kPa (1050psi) at a production rate of 80MMscfd (80 Million Standard Cubic Feet per Day) across a production cycle exceeding 25 years.

Data from this modelling is now being used by APA for the Pre-FEED study.

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AGR Well Design and Management

AGR have now completed the initial well planning phase of their well delivery process for the Judith-2 appraisal/exploration well. This includes well design, casing design, well costing, regulatory timeline and a drill rig market survey.

The drill rig market survey received a positive response from five drilling contractors offering both Jack-Up and Semi-Submersible Drilling Rigs. Formal tenders and direct negotiations with a preferred supplier to contract the most suitable drilling unit will commence once Emperor Energy secures an Exploration Partner via a Farm-In process currently being conducted.

The well design has been selected and is typical for wells in the area, using conventional casing sizes that are relatively easy to procure. A detailed cost analysis using AGR's proprietary software (P1) was also performed, including running Drill Stem Tests (DST). The most significant risk regarding the well cost is the rig mobilisation/demobilisation costs, driving a strategy to contract a 'rig of opportunity', which is already in the area."

Estimated drilling time for the Judith 2 well is 26 days with costs estimated at AUD \$25 Million excluding any Drill Stem Tests (flow testing).

CGG Multi Client 3D Seismic Survey Completed

Global Seismic acquisition company CGG have recently completed a multi-client 3D Seismic Survey of the Offshore Gippsland Basin including the Judith Gas Field.

The seismic acquisition was carried out using state-of-the-art equipment and techniques including 7000m long 3D acquisition cables to ultimately generate the highest quality reservoir resolution possible.

The 3D Seismic Survey was also carried out at an orthogonal orientation to previous 3D Seismic Surveys in the area. The combination of longer cables and different orientation will offer considerable improvements in data quality for re-mapping the Judith Structure.

The first data from this survey will become available for licensing to Emperor Energy on commercial terms at the end of 2020. Final fully processed data will become available during 2021.

Management Comment

Emperor Energy Director Phil McNamara said: "Commencing Pre-FEED kicks off a very important and valuable body of work that marks another step in Emperor Energy advancing towards the drilling of the Judith 2 well. In addition, we have been working through the well design with AGR which represents further progress. The level of interest in the Judith Gas Field from potential farm-in partners continues to be very encouraging with a number of parties assessing the data. This gives us further confidence that this is a highly sought-after opportunity in a proven hydrocarbon province. We look forward to providing shareholders with more updates as we progress."

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About the Judith Gas Field

The 100% Emperor Energy owned Judith Gas Field is located within the VIC/P47 Permit in the offshore Gippsland Basin, Victoria.

On 11th July 2019 Emperor Energy advised that an Independent Resource Statement had been completed for the Judith Gas Field within the 100% Emperor Energy owned VIC/P47 Exploration Permit located in the offshore Gippsland Basin, Victoria (Figure 1). The Resource Statement Highlighted:

- 2C Contingent Gas Resource of 150 Bcf
- P50 Unrisked Prospective Gas Resource of 1.226 Tcf

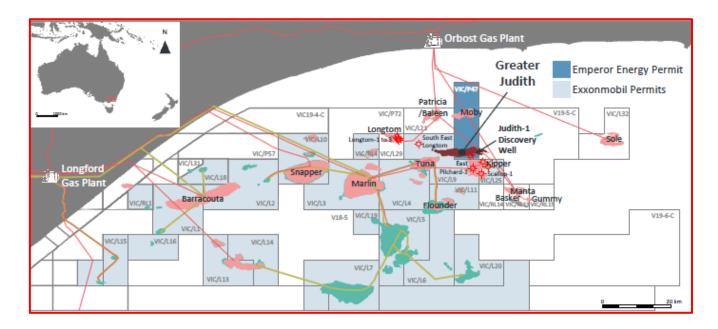


Figure 1: Location of 100% Emperor Energy owned VIC/P47 offshore Gippsland Basin showing regional permits along with oil and gas fields

Judith Gas Discovery		Contingent Resources		
		Low	Best	High
		Estimate	Estimate	Estimate
		1C	2C	3C
GIIP	Bcf	180	278	386
Sales gas	Bcf	97	150	209
Condensate	MMbbl	1.4	2.2	3.2

Table 1: Summary of Contingent Resources for Judith within area of VIC/P47 (3D-GEO, July 2019)

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		Unrisked Prospective Resources		
Greater Judith Area		P90	P50	P10
Judith Deep	Bcf	38	62	92
West	Bcf	83	127	176
Central	Bcf	37	333	628
North	Bcf	29	166	315
North East	Bcf	49	279	494
North West	Bcf	15	102	226
South	Bcf	14	157	565
Total	Bcf	265	1226	2496

Table 2: Summary of Prospective Resources for Judith within area of VIC/P47 (3D-GEO, July 2019)

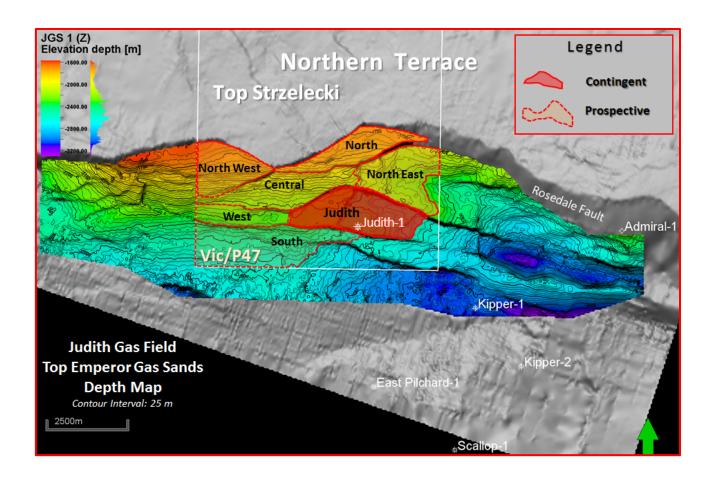


Figure 2: Judith Gas Field, and Greater Judith Compartments (3D-GEO, July 2019)

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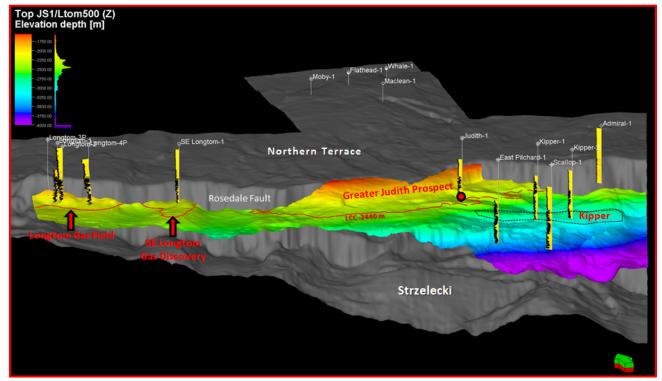


Figure 3: Judith Gas Sand 1 Depth Model from Longtom Gas Field to the Greater Judith Structure

This announcement has been authorised for release by the Board of Directors.

Yours faithfully

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Company Secretary

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Corporate Directory

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Capital Structure

The company currently has issued capital (as of 31st August 2020) of:

Ordinary fully paid shares (ASX: EMP) 99,757,511

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Top 20 Shareholders – 31 August 2020

Position	Holder Name	Holding	%
1	Citicorp Nominees Pty Limited	7,077,020	7.09%
2	Scintilla Strategic Investments Limited	5,650,000	5.66%
3	Craig Graeme Chapman	3,406,666	3.41%
4	Sama Zaraah Pty Ltd	3,257,000	3.26%
5	Daniel J Peters	3,064,197	3.07%
6	Bond Street Custodians Limited	2,916,474	2.92%
7	Anthony De Nicola & Tanya Louise De Nicola	2,750,000	2.76%
8	ZLD Holdings Pty Ltd	2,431,391	2.44%
9	The Australian Special Opportunity Fund LP	2,222,223	2.23%
10	Slade Technologies Pty Ltd	1,828,334	1.83%
11	Littlejohn Embrey Engineering Pty Ltd	1,798,973	1.80%
12	Paul Gregory Brown & Jessica Oriwia Brown	1,750,000	1.75%
13	Tomlin Sales Pty Ltd	1,651,392	1.66%
14	Buduci Fond Pty Ltd	1,471,175	1.47%
15	Gavin Jeremy Dunhill	1,400,000	1.40%
16	Harness Pty Ltd	1,341,667	1.34%
17	H&M Investments Pty Ltd	1,283,502	1.29%
18	Philip McNamara & Gina McNamara	1,261,905	1.27%
19	Arlam Pty Ltd	1,234,541	1.24%
20	Mark Stephen O'leary	1,200,000	1.20%

END

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