# **Pilot Energy Ltd**

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Announcement to ASX

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# **EP416/480 Airborne Geophysical Survey Results**

## **HIGHLIGHTS**

- Regional gravity data confirms presence of two major depocentres for source maturity
- Local gravity data supports seismic interpretation of large structural gas prospect
- Leschenault prospect has prospective resources of up to 600 Bcf gas

Pilot Energy Ltd (ASX:PGY) is pleased to announce the results of the airborne geophysical survey acquired over the EP416 and EP480 exploration permits in mid 2015.

The survey was acquired by JV partner Empire Oil & Gas Ltd (ASX: EGO) in mid 2015, and gathered 2,703 line kms of gravity and magnetic data. The resulting dataset is of high resolution and quality, and provides valuable new information that validates the prospectivity of the permits by greatly improving the understanding of the regional basin architecture. Importantly, the gravity data indicates the presence of large regional depocentres to the northeast and southeast of the Leschenault prospect, which represent deep potential "hydrocarbon kitchens" from which gas is thought to have been generated.

Figure 1 shows the regional total gravity map over EP416/480, with the location of the Leschenault prospect highlighted.

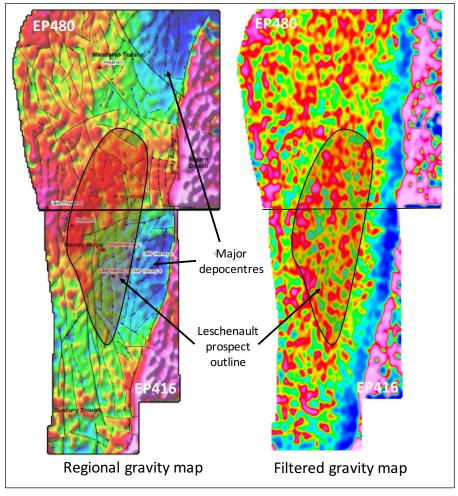


Figure 1: Gravity Maps over EP416 and 418

The Leschenault prospect is situated on the flank of a large regional gravity "high". Additional processing of the data has been undertaken in order to remove the deeper, regional gravity effects, resulting in the filtered gravity map as also shown in Figure 1. This indicates a more localised gravity anomaly that straddles the EP416/480 permits, and shows good correlation with the Leschenault structure as mapped on seismic data and shown in Figures 2 and 3.

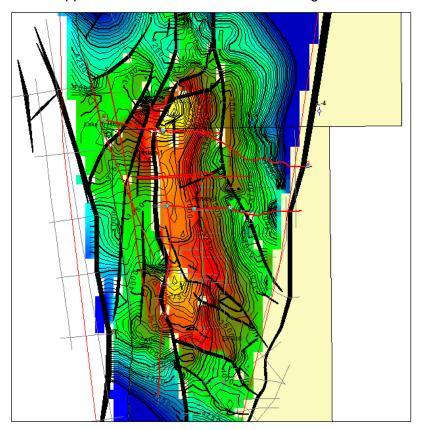


Figure 2 Seismic depth structure map of Leschenault Prospect (top Sue reservoir)

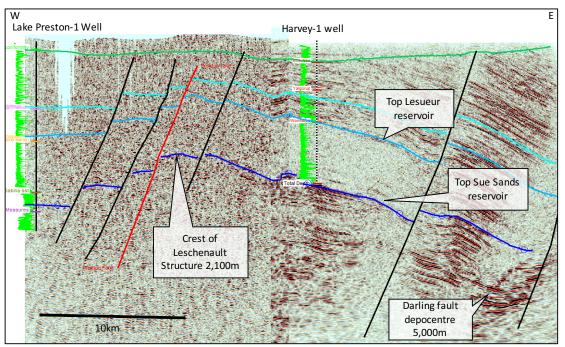


Figure 3 East-West Seismic Time Section across Leschenault Prospect

The magnetic data acquired during the survey has resulted in a new high resolution faulting dataset, which when incorporated into an updated seismic interpretation will lead to a higher fidelity fault interpretation of the Leschenault prospect.

The Joint Venture is currently considering the optimal work program required to progress the Leschenault prospect to drillable status, and will provide an update in due course.

#### **EP416 and EP480**

EP416 and EP480 are contiguous permits located in the southern part of the onshore Perth Basin, on the coast of Western Australia between the towns of Mandurah and Bunbury. The permits cover a combined area of 2,310 km<sup>2</sup>.

The permits have been only lightly explored, with a number of wells drilled mainly during the 1960's. A more recent well, drilled in 2012 as part of a carbon geosequestration study, confirms the presence of good quality sandstone reservoir intervals within the area. The primary reservoir target is the Permian Sue Sandstone, with a secondary target in the overlying Lesueur Sandstones. It is expected that these reservoirs will be sourced by gas generated from coal measures within the Sue Formation.

Existing 2D seismic data confirms the presence of the Leschenault gas prospect across the permits, with over 200 km<sup>2</sup> of structural closure mapped at the Sue Sandstone reservoir level. Pilot Energy estimates significant prospective gas resources (gross recoverable) for the Sue Sandstone and Lesueur Sandstone targets, as follows:

Target	Low Case (Bcf)	Best Case (Bcf)	High Case (Bcf)
Sue Sandstone	30	130	300
Leseur Sandstone	60	140	300

Both the Sue and Lesueur reservoir targets could be drilled at an optimal prospect location by a single well.

#### **Perth Basin**

The Perth Basin is a hydrocarbon province that has in recent times become the subject of significant industry interest. The basin is generally prospective for gas (with some oil and condensate) and is well served by gas distribution infrastructure, with the Dampier to Bunbury gas pipeline running almost the full extent of the basin (and indeed running directly across EP416 and EP480).

Exploration of the basin to date has been primarily focused to the north, with the southern portion having only been lightly explored. However the limited drilling that has occurred in this part of the basin does confirm the presence of geological formations that comprise the hydrocarbon play to the north, with mature gas-prone source rocks underlying clastic reservoir formations.

Importantly, there is demand for new sources of domestic gas within the area of EP416/480, with industries such as minerals extraction and refining operating nearby.

## **Enquiries**

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Prospective Resource Statement: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project relates 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 moveable hydrocarbons.

This announcement contains information on conventional petroleum resources which is based on and fairly represents information and supporting documentation reviewed by Mr Conrad Todd, a Petroleum Geologist with over 30 years experience and a BSc in Geology from the University of London and a MSc in Stratigraphy from the University of London. Mr Todd is a member of the AAPG, PESA, SEAPEX, PESGB, and is qualified in accordance with ASX listing rule 5.1. He is a non executive director of Pilot Energy. Mr Todd has consented to the inclusion of this information in the form and context to which it appears.