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MERIDIAN PETROLEUM plc
("Meridian" or "the Company")

Update on PEL 82 Licence, South Australia

Increased Prospectivity for Hydrocarbon Discoveries

Meridian Petroleum (AIM : MRP), the oil and gas exploration and production company with producing assets in the USA and exploration licences in Australia, announces initial results and key conclusions from its 3D seismic survey on the PEL 82 licence in the onshore Otway Basin, South Australia, and the next steps in the further development of the licence.

Key Points

- Results from the 3D seismic survey on PEL 82 have appreciably increased the prospectivity for hydrocarbon discoveries on the licence
- The close-spaced 3D seismic provides a detailed and more clearly defined image of structures within the survey area
- Nine prospective hydrocarbon bearing traps have now been identified, four within the Waarre sandstone and five in the Flaxman sandstone
- Many of the mapped structures contain vertically stacked areas with anomalous seismic amplitudes through a number of different formations. This feature bears similarities to the stacked pay zones encountered in large producing fields of the offshore Victoria Otway Basin
- There is a good fit between the amplitude anomalies and the prospective structures of the area
- Possible drilling locations are being further evaluated, with a particular emphasis on those capable of testing both Waarre and Flaxman traps in the one drill hole
- The 3D results, combined with the re-processed 2D data and additional information available from other licences and wells, have provided the Company with a comprehensive range of material for marketing the PEL 82 prospects to potential partners and this process is now underway.

Background

Data Processing and Quality

The 3D seismic survey covering 88 square km of the PEL 82 licence was completed at the end of March 2009. Complex data processing was necessary to overcome interference from shallow cavernous limestone strata which severely impaired the clarity of the older 2D data. Extra time and effort was expended to attenuate the impact of this. The resultant quality of the data showed substantial improvement over the 2D data at the deeper target horizons of the Waarre/Flaxman sands. At shallower depths, the 2D data remains better, and the combination of the new 3D with the re-processed 2D has provided the company with a much enhanced and more detailed view of the structure and prospects for the licence.

Data Interpretation

The Company engaged the services of two companies to provide data analysis and interpretation, using individuals with substantial experience of Australia generally and the Otway Basin in particular. Interpretation began in early July and initial reports have now been received from both parties. The two completely independent interpretations have identified the same prospective structures, giving Meridian confidence that the structural analysis is correct. Further interpretation and refinement will continue.

Current Assessment

The initial reports have highlighted a number of features which the Company will need to consider during the next stages in the development of the licence

- The fault lines which were visible to shallow depths on the re-processed 2D are now much more clearly mapped at depth, providing enhanced definition of the prospective hydrocarbon traps
- As a result of the clearer mapping of the faults, the three structures identified by the 2D seismic are now seen to be more complex, and there are now nine identifiable traps within the survey area. Five of these are Flaxman sandstone and four are in the deeper Waarre sandstone. The four Waarre prospects all directly underlie Flaxman prospects, which significantly improves the chances of economic discoveries
- Sophisticated analysis indicates that the faulting has not compromised top seal closure on most structures, with few incidences of cross fault spill points.
- Detailed mapping of the 3D seismic has revealed a positive relationship between seismic amplitude anomalies and prospective structures, particularly for the Waarre sandstone.

- Overall, the analysis to date tends to suggest that there are enhanced prospects for hydrocarbon discoveries on PEL 82 with a greater number of reservoir opportunities giving more options for drilling. Identification of the best drilling locations is therefore a critical aspect of the next phase.

Next Steps

- Continued analysis and interpretation to assess risked volumetrics and identify primary drilling locations
- Extend analysis of the 3D across the entire licence area by incorporating the 2D interpretation.
- Renewal of the licence for a further 5 year period from early September with compulsory relinquishment of 50% of the total PEL 82 area.
- Discussions with potential partners in a drilling programme. Representatives of the Company will be in Australia at the end of August/early September for a number of arranged meetings with prospective partners.

Stephen Gutteridge, Chairman of Meridian, said:

“We are very pleased with the results of the 3D seismic and the extra insight that this has given us into the PEL 82 licence. The prospects for hydrocarbon discoveries have been appreciably enhanced by this work and there is clearly the possibility of sizeable and multiple discoveries. Whilst further analysis of the data needs to continue, there is now a focus on developing the drilling plan, in conjunction with potential partners and the South Australian authorities.”

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Ed Childers, the Company's Chief Operating Officer, who meets the criteria of a qualified person under the AIM guidance note for mining and oil and gas companies, has reviewed and approved the technical information contained in this announcement.

The summary information in this update has been extracted from reports by independent qualified geoscientist consultants and reviewed by them. A number of map extracts from the reports are available on the Company's website www.meridianpetroleum.com