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## **The Arafura Sea - Natural Oil Seeps and Exploration Leads**

The Arafura Sea is a new emerging oil exploration area covering the region between the southern coast of the island of Irian Jaya south to the coast of NW Australia at Arnhem Land.

The Arafura Sea is blessed with shallow water, and to date has been very little explored apart from a few wells between the Irian Jaya coast and the island of Kepulauan Aru to the Southwest.

Recently however Migas, the Directorate General of Oil and Gas has opened part of the Arafura Sea for new licencing which is encouraging new exploration activity.

Consequently in 2000 and 2001, Infoterra Ltd and Veritas DGC Asia Pacific joined forces to carry out a systematic study of the oil opportunities in the region. This was achieved by acquiring the first SAR natural oil seep study over the region, and combining it with a new regional seismic grid over the blocks of interest.

The study has identified prolific gas indications, gas chimney's, DHI bright spots and shallow gas, together with some 200 natural oil seep features scattered around the entire region. Evaluating the seeps and the seismic together has indicated several structural styles where seepage seems to occur and identified some very interesting exploration leads.

This poster paper follows on from the oral paper by showing a variety of examples of different seismic leads and structural styles in association with identified surface oil seeps, dhi's and potential hydrocarbon migration routes. This will be supported by continuous oral presentation at the poster site with interested viewers.