Bangladesh 2018 seepage study

As a world-leading satellite remote sensing service provider, NPA Satellite Mapping (NPA) detects, interprets, classifies and monitors natural seepage and pollution slicks occurring in offshore environments.

**Bangladesh seepage study**

The Ministry of Power, Energy and Mineral Resources of Bangladesh is making moves to prepare for a bidding round in the first half of 2019. Recent press releases suggest that only offshore blocks will be offered. All of Bangladesh’s offshore blocks have already been covered by NPA’s satellite seepage detection project. Seepage detection by SAR (Synthetic Aperture Radar) is a proven technique for mapping surface oil seeps which could provide the first indication of petroleum systems in these blocks:

- NPA currently have over 100 interpreted SAR scenes over offshore license blocks
- Availability of new high-quality SAR imagery
- New data is being sourced over areas of sparser coverage

**Background**

The settlement of maritime boundary disputes with India and Myanmar have come as positive news for potential offshore oil and gas exploration. Consequently, Bangladesh has 26 offshore blocks, 11 of which are in shallow water and the remaining 15 in deep water.

Little exploration has been carried out offshore Bangladesh to date. The most notable finds have been gas discoveries; Kutubdia (1970’s) and Sangu (1990’s). However, evidence for a viable black oil play remains elusive. NPA’s seepage study directly addresses this source risk.

NPA’s offshore seepage database provides extensive coverage over offshore Bangladesh. The effectiveness of this basin screening technique is already well established with the identification of temporally repeating slicks linked to significant discoveries around the world.

In light of the new licensing round NPA is currently increasing coverage levels of satellite data offshore Bangladesh, which could potentially reveal temporal repetition over existing slicks or discover new sites of possible seepage. This key information for offshore Bangladesh is now available from NPA.
NPA offers the Global Offshore Seeps Database (GOSD) as the main component of its Seep Explorer onshore and offshore seeps product suite. Hydrocarbon seep detection from satellite imaging maps the location and repeatability of naturally occurring oil seepage offshore. GOSD is a recognized and valuable tool for New Ventures & Exploration teams and has been adopted by the majority of the major international oil companies.

**Global Offshore Seep Database**

- ~40,000 satellite radar images interpreted for natural oil seepage, >250,000 slicks recorded
- Optimal satellite SAR data selected from weather screening of the world’s SAR archives
- Multiple coverage - up to 10x coverage becoming standard
- Data integrated and interpreted with supporting Robertson geological, geophysical and geochemical data, where available
- Continuously growing database with new data added over exploration hotspots

**Deliverables**

- Full ArcGIS* deliverables and custom ArcGIS toolbar enhancing results visualization
- Results overlaid and compared to collateral data layers including: bathymetry, gravity, sedimentary thickness, magnetics, shipping lanes and shipwrecks
- Online webserving enables content to be viewed by all approved users
- Seepage intensity maps - related to basin leakiness parameters

*ArcGIS is a registered trademark of Environmental Systems Research Institute, Inc. (ESRI).

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