Israel 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.

Israel seepage study

NPA’s satellite seepage detection project offers extensive coverage across offshore Israel. 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 basins:

- Approximately 70 interpreted SAR scenes over offshore Israel
- Availability of new high-quality SAR imagery
- New data is being sourced over areas of sparser coverage

Background

In November 2018, Israel’s Energy Minister announced Israel’s 2nd offshore licensing round. Five areas comprising 19 blocks will be presented for bids.

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

In light of the new offshore Israel licensing round NPA is currently increasing coverage levels of satellite data offshore Israel, which could potentially reveal temporal repetition over existing slicks or discover new sites of possible seepage. This key information for offshore Israel 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).