

Department of Mineral Resources



Falkland Islands Government Newsletter
October 2015



Pacific Leader support vessel in
Stanley Harbour

© Terrianne Ormond

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Activities Update Spring 2015

Noble Energy Falklands Ltd, in partnership with Edison International and Falkland Oil and Gas Ltd have continued to drill the Humpback well in the Falkland Plateau Basin (PLO12).

Once Humpback has been completed and abandoned, the Eirik Raude will be handed back over to Premier Oil, who will then drill Isobel (Elaine) in place of Jayne East. This well will re-drill the Isobel Deep complex; hydrocarbons were previously encountered but mechanical reasons prevented logging and sampling. The well is expected to encounter additional reservoir targets in the Isobel Shallow and Elaine South fans. Following Isobel (Elaine), Premier will drill their fourth well slot at Chatham, as originally proposed at the start of the drilling campaign and covered in their Environmental Impact Statement.

Approvals are now in place for Noble to drill the Rhea-1 well in the North Falkland Basin (PL001). This will be the last well drilled in the current campaign.

Updated Offshore EIS Guidance has been produced by FIG, the culmination of hard work throughout this campaign in order to achieve a more streamlined and consistent process, both for applicants and reviewers. There was wide ranging stakeholder consultation on the guidance, with the hope that future EIS will avoid some of the pitfalls experienced, and outstanding issues can be flagged in advance and rectified in a timely manner.

Approved Waste Management Plans are now available on the Mineral Resources website under "Regulatory—Public Documents", alongside approved Environmental Impact Statements.

Change to PON8

A minor amendment has been made to Petroleum Operations Notice #8 (Oil Pollution). The updated form now allows more space for reporting certain aspects of a spill including details of hydrocarbon type and minimum distances to the nearest shore-line or median line.

There is also additional information required when seeking approval for use of dispersants, and for completing once dispersants have been used, namely regarding environmentally sensitive sites and efficacy testing.

National Oil Spill Plan

A tender document is being prepared for the Falkland Islands new National Oil Spill Contingency Plan (NOSCP). The previous document requires updating, and FIG will be tendering for a suitable contractor to write and implement the new plan. The NOSCP can apply to oil spills from any source.

Improvements to Falklands Modelling

Modelling of oil spills and drilling discharges is vital for predicting the environmental effects of exploration and development drilling.

Environmental Impact Assessments (EIA) are required under the 1998 Minerals Ordinance and allow public participation through consultation on exploration and development drilling for hydrocarbons. Within an EIA, there must be methods of forecasting impacts on the environment in regard to current knowledge. Discharge modelling (both intentional and accidental) is essential and is a growing industry in itself due to global and local improvements in technology and data.

Since the first EIA was written for the North Falklands Basin in 1988, there have been significant improvements in the amount and quality of data available to feed into models and improve the likelihood of predictions.

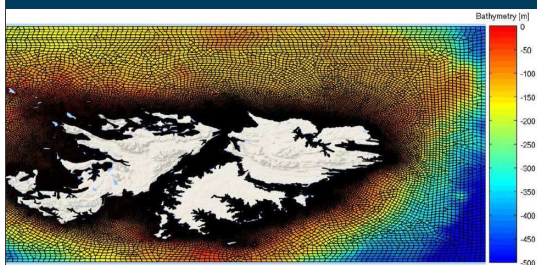


Image © Genesis/Premier Oil—a finer mesh grid allows for tidal and current forcing around the intricate coastline

Specialist consultant Genesis, was contracted by Premier Oil to work on an updated model for the Falkland Islands. He presented the new improved results to the Environmental Forum and explained the significant steps that have been made in relation to better metocean data. There is a much finer scale resolution, particularly in coastal areas, that allows complex tidal and current forcing along the heterogeneous Falklands coastline to be accounted for.

One of the major improvements, even over the past year has been the ability to depth layer the model, rather than needing to average movement throughout the water col-

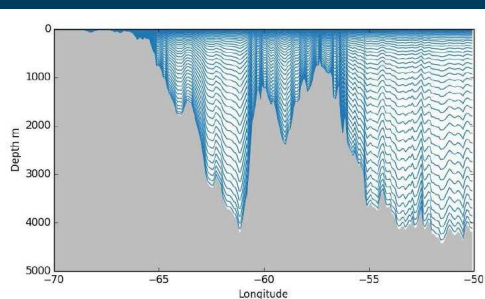


Image © Genesis—depth layering and profiling is essential for drift modelling

umn. As wind forcing is much stronger in the upper few meters of the water column, any oil will travel faster in a given direction that oil suspended lower down in the water column. This also allows for variations in the depth at which a substance is released and how it moves through the water—certain types of oil may rise to the surface much faster than others.

Modelling drill cuttings (rock and mud discharged as a well is being drilled) is also important, particularly for the benthic environment. As both oil spill and cuttings are modelled using the same oceanographic inputs, this can then be verified to some extent by measuring the depth and extent of drill cuttings once a well has been completed.

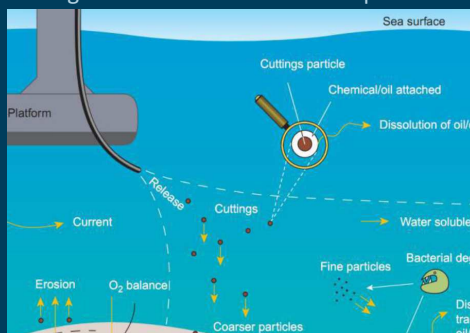


Photo © Premier Oil—drill cuttings are released below the surface to disperse

Wave and current buoys have been deployed around the Falklands to improve our understanding of the oceanography, aided by dedicated research surveys and satellite data.

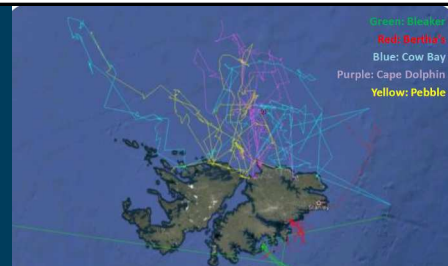


Photo © Dr M. Tierney, SAERI—penguin satellite tracking over winter months (raw)

FIOHEF Update

The ninth Falkland Islands Offshore Hydrocarbons Environmental Forum took place at the Chamber of Commerce on Thursday 24th September. The Forum comprises representatives of the oil industry, stakeholders from the fishing industry, environmental organisations and relevant Falkland Islands Government departments.

Dr Megan Tierney and Dr David Blockely updated on the progress of the GAP projects. New maps showing the foraging movements of seals and penguins over the winter were presented, alongside an update on taxonomy and benthic sample storage. A statistical ecologist and a taxonomist will both shortly start work on both of the projects to assist in filling data gaps.

Dr Ilaria Marengo of SAERI has been working toward the Development of an Information Management System which includes Environmental baseline data and can be accessed via a metadata catalogue available on the SAERI website (<http://south-atlantic-research.org/metadata-catalogue>). Dr. Paul Brickley presented the most recent information regarding the data repository and curation center, and emphasized the importance of having a central location for accessing metadata.

There was a discussion and subsequent decision to set up a sub-group of the Forum as an Oil Spill Working Group to contribute towards the National Plan and the Sea Lion Development.