

Ocean Energy – Offshore Petroleum Tenures and Exploratory Wells

description

This map portrays three datasets related to offshore oil and gas. The first two datasets show tenures issued by the provincial and federal government for offshore oil and gas exploration, most of which were issued in the early 1960s. The third dataset shows point locations of exploratory wells drilled off the coast of British Columbia. Exploratory wells are generally drilled as part of the exploration process to test for the presence of oil and gas reserves. It should be noted that data derived from onshore wells (not shown on this map) are also relevant to the evaluation of the offshore potential.

The drilling of wells is usually preceded by seismic surveys. A main phase of rudimentary offshore seismic activity was conducted by Shell Canada between 1964 and 1968. A small amount of additional data was acquired in 1971 (Chevron) and in 1985 and 1988 (Geological Survey of Canada).

Although onshore drilling began as early as 1913, the only phase of exploration drilling in the offshore occurred between 1967 and 1969 when Shell undertook a continuous program encompassing 14 wells (eight in the Queen Charlotte Basin and six in the Tofino Basin). These wells failed to find commercial hydrocarbons, at least in part because some of them were simply intended to calibrate the geological units that are present in these basins.

Moratoria on offshore oil and gas exploration and development were imposed by the Government of Canada in 1972 and by the Province of British Columbia in 1989.

Renewed offshore exploration for oil and gas would involve the acquisition of modern seismic data utilizing state of the art vessels and equipment suitable for the conditions expected. An example of a 2D or 3D capable seismic vessel is the Geco Emerald (left picture below). The vessel would pull an array of sound sources and a set of parallel geophone streamer cables of several kilometres in length.

Should viable drilling objectives emerge, and drilling be allowed to proceed, equipment such as the Stena Carron would be considered to conduct the drilling operations (right picture below). The Stena Carron is a dynamically positioned drill ship capable of drilling in a range of water depths under harsh conditions with zero discharge, and has seen duty offshore Newfoundland and the Shetland Islands. Alternative drilling equipment would include sea-floor jack-up rigs or semi-submersible floating drilling platforms.



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data sources

- Provincial Tenures: BC Ministry of Energy, Mines and Petroleum Resources, Offshore Oil and Gas Branch
- Exploratory Wells: BC Ministry of Energy, Mines and Petroleum Resources, Offshore Oil and Gas Branch
- Federal Tenures: Natural Resources Canada

data resolution

- None provided.

date compiled

- All data was compiled in 2003 by the Ministry of Energy, Mines and Petroleum Resources as part of their Offshore Oil and Gas Map Gallery.

reviewers

- Shell Canada
- Chevron Canada

reviewer comments

- Reviewer comments were incorporated into the description and map.. The BCMCA thank staff from Shell and Chevron, who provided content for this description.

caveats of use

- The legal descriptions of the tenures found in the tenure documents differ from the available spatial data. Offshore petroleum tenure blocks do not extend onshore. With the exception of masking the terrestrial portion of the tenures, data is displayed as provided and nothing should be inferred where tenures extend beyond international boundaries displayed on the map.
- Recommended date of expiry for use of these data in a marine planning context: This data will not change unless exploration recommences.

map, feature data and metadata access

- Visit www.bcmca.ca/data for more information.

references

- Offshore Oil and Gas Map Gallery (last updated in 2006) is available at:
www.empr.gov.bc.ca/OG/offshoreoilandgas/OffshoreMapGallery/Pages/default.aspx/

BCMCA Atlas
Ocean Energy
Offshore Petroleum Tenures
and Exploratory Wells

Legend

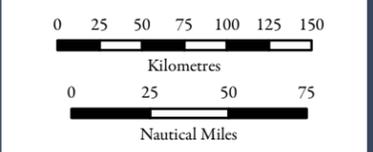
- Exploratory Wells
- Provincial Tenures**
- Conoco Phillips/Dynamic Oil
- Haida Resources Ltd.
- Offshore Oil & Gas Corp.
- Federal Tenures**
- Canadian Forest Oil
- Chevron
- Exxon/Mobil
- Suncor (formerly Petro-Canada)
- Shell

Data Sources:
 Exploratory wells, Provincial tenures:
 Province of British Columbia
 Federal tenures: Natural Resources Canada

Base Data:
 ESRI Base Data, GeoBase, GeoBC,
 NOAA, Natural Resources Canada,
 USGS, Washington State Government

Thematic Data:
 For more information on data sources
 and methods please refer to the
 facing page to this map

Projection: BC Albers NAD83

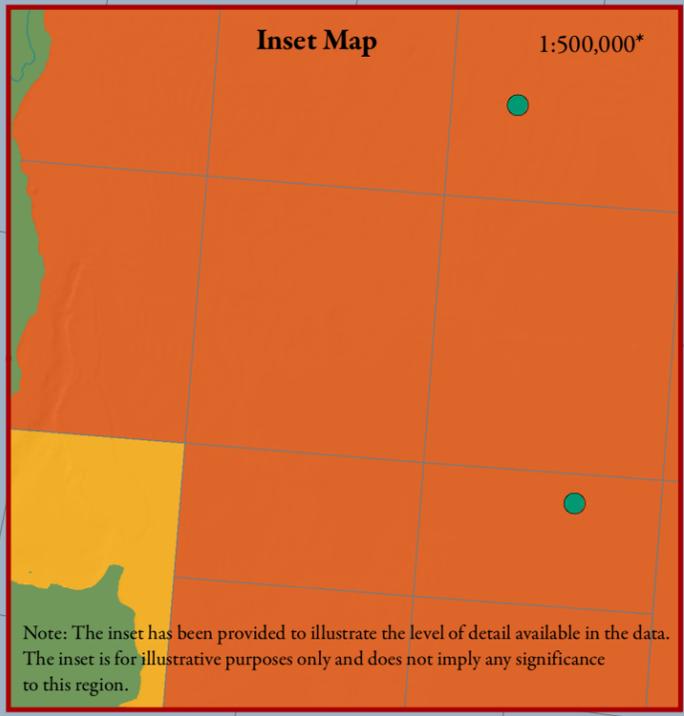


1:4,250,000 *
 * Written scales are approximate and
 are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.
 February 3, 2011



Note: The inset has been provided to illustrate the level of detail available in the data. The inset is for illustrative purposes only and does not imply any significance to this region.