A Place for Oil & Gas Development in a Sustainable Future?

National Academy of Sciences
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Arctic Undiscovered Oil Potential
(Why some folks are interested)

USGS Circum-Arctic Assessment of Undiscovered Oil Potential

- Barents Sea - Russia/Norway ~9.4 BBO
- E. Greenland -~8.9 BBO
- W. Siberia ~3.7 BBO
- N. Siberia ~5.3 BBO
- U.S. ARCTIC ~30 BBO Onshore/Offshore
- Canada/Arctic Ocean ~9.7 BBO

reserve Estimates Source:
USGS Fact Sheet FS2008-3049, pers comm. D. Houseknecht

Bureau of Ocean Energy Management

BoEM
A Very “General” Pan-Arctic Summary

Pan-Arctic Oil & Gas Exploration and Production Areas

- Barents Sea
- Davis Strait
- Canadian Beaufort Sea & Mackenzie Delta
- Chukchi Sea
- East Siberian Sea
- Kara Sea
- Barents Sea
- Norwegian Barents Sea
- Laptev Sea
- Western Siberian Basin
- Eastern Siberian Basin
- Timan-Pechora Basin
- Pechora Sea
- Norwegian Barents Sea
- Liberty Field
- Arctic Islands
- Davis Strait
- Far East Basins
- North Slope Fields and State Waters
- Canadian Beaufort Sea & Mackenzie Delta
- Eastern Siberian Basin
- Pechora Sea
- Norwegian Barents Sea
- Arctic Circle 66.56° N
- OCS Planning Area Boundary
- Arctic Circle

WGS 84: North Pole Azimuthal Equidistant Projection
The Outer Continental Shelf Lands Act (OCSLA) states that:

... the Outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs ...

BOEM’s Mission:

... to manage development of the U.S. Outer Continental Shelf energy and mineral resources in an environmentally and economically responsible way.
BOEM’s Environmental Studies Program was Initiated in Alaska in 1974

- 1974 – Present: >$450M in Studies Funded
  - More Than 1,000 Reports & Publications

- 2007 – Present (Arctic Focus):
  - Whales, Walrus, Polar Bear, & Seals
  - Ecosystem Monitoring
  - Fate and Effects Modeling
  - Sea Ice Dynamics
  - Social Systems
  - Traditional Knowledge

- Currently $15M per Year with an Additional $5M in Leveraged Funds per Year

- Partners Include:
  - TRIBES / BSEE / NOAA / NOPP / USGS / NPRB / UAF/ NPS / USFWS
To make better decisions, BOEM actively seeks Traditional Knowledge to complement its use of Western science.

Special Issue on Traditional Knowledge

Science in Transformation

Traditional Knowledge and Sociocultural Studies

Integrating Traditional Knowledge into Biological Resource Studies

Cultural Landscapes: Traditional Knowledge Across the Pacific Rim

Fenton Rexford (Interview), Tribal Administrator of the Native Village of Kaktovik

Where Do We Go From Here?

Potential OCS Activity

Environmental Studies Program

Environmental Analysis

Decision Support Actions

Program Decisions

Highlights need for further scientific research

Informs need for more scientific research

Process may require multiple environmental reviews

Biological Sciences

Physical Sciences

Social Sciences

Traditional Knowledge

Existing information [NOAA, USGS, NSF, ONR, State of Alaska]

NEPA

Consultations (Legal Requirements)

Government-to-Government Consultations (Tribal)
National Strategy for the Arctic Region

Strategic Priorities include:

• Advancing our security interests - energy resources are a core component of our National Security Strategy;
• Responsible Arctic region stewardship; and
• Strengthening international cooperation

Integrated Arctic Management

• A whole-of-government approach in coordinating development and conservation strategies in the U.S. Arctic to improve efficiency, operational certainty, and sustainability.

Arctic Council

U.S. Priorities during its Chairmanship

• Addressing the Impacts of Climate Change
• Safety and Stewardship
• Improving Economic & Living Conditions