ACTIVITIES SCAN OF US ARCTIC

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BRIEF HISTORY OF OIL IN ALASKA

- First discovery of commercial quantities of oil in Alaska (1902)
- 1959: Statehood for Alaska!
- 1961: First oil from Swanson River starts flowing
- Alaska faces a budget deficit
- State Legislature enacts a personal income tax, alcohol taxes and others taxes to fill the gap
- Exploration on the Kenai Peninsula and in Cook Inlet increases
DISCOVERY OF PRUDHOE BAY

- 1968: Atlantic Richfield and Humble Oil announce discovery of Prudhoe Bay, the largest oilfield in North America

- 1969: Plans to build a Trans Alaska Pipeline announced

- State takes in $900 million in the 23rd North Slope lease sale

- 1974: Construction of the pipeline begins – largest construction project ever undertaken

- 1976: Alaskans vote to create the Permanent Fund

- 1977: TAPS construction complete

- 1980: Alaskans repeal income tax
A PROSPEROUS PARTNERSHIP

• No State Income Tax
• No State Sales Tax
• Permanent Fund Dividend
  - Payments since 1982
  - $37,037

1 oil and gas industry job generates 20 other jobs through industry spending:
9 private sector jobs and 11 government jobs.

Source: “The Role of the Oil and Gas Industry in Alaska’s Economy,” McDowell Group, May 2014

“...without oil, [Alaska’s] economy today would be only ½ the size.”

University of Alaska Anchorage, ISEEI report,
Prof. Scot Goldsmith, February 2011
SINGLE-LARGEST STATE TAXPAYER

• State has collected more than $170+ billion since Statehood
• FY 2013:
  - $6.3 billion for about 734,000 residents
  - 92% of state revenues

About 90% of state tax revenues come from the oil and gas industry

Source: Alaska Dept. of Revenue, April 5, 2013 presentation
Over the past five years:

• 80% of Alaskans believe oil and gas industry is good for the state

• 64% of Alaskans believe oil pays its fair share

• 75% of Alaskans believe the industry operates in an environmentally safe manner

• 72% of Alaskans support OCS exploration and development
TRANSL ALASKA PIPELINE SYSTEM—ENGINEERING MARVEL

- Approximately 7 percent of the nation's domestic oil production carried on TAPS
- 17 billion barrels of crude oil transported & counting
- 20,000+ tankers loaded
- 800 miles long
- Peak Production: 2.1 million/bpd took 4 days to travel down the line
- Today’s: ~534,000 bpd - 18 days
INVESTMENT HAS LAGGED IN RECENT YEARS

The oil boom in the Lower 48 continues
Domestic oil production on track to return to 1989 levels

U.S. crude oil production, 1989 to 2015 (est.)

Estimated capital spending* for exploration and development Alaska North Slope vs. U.S. and worldwide for the years 2003 – 2012

*North Slope figure based on tax return information; U.S. based on top 50 public companies; worldwide based on top 75 public companies

Source: EIA, Oil One Research

Alaska Oil and Gas Association
## Rich in Resources

### Resource Potential

<table>
<thead>
<tr>
<th>State Land</th>
<th>Federal Land</th>
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<tr>
<td><strong>Cook Inlet</strong></td>
<td><strong>Offshore Arctic</strong></td>
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<td>599 mbo and 19 tcf gas</td>
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<td><strong>Onshore North Slope</strong></td>
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<td>Conventional: 5 bbo and 35 tcf gas</td>
<td>896 mbo and 53 tcf gas</td>
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<td>Heavy/Viscous: 24-33 bbo</td>
<td><strong>ANWR</strong></td>
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<tr>
<td>Unconventional: 2 bbo and 12 tcf gas</td>
<td>10 bbo and 3.5 tcf gas</td>
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*bbo – billion barrels of oil  mbo – million barrels of oil  tcf – trillion cubic feet*
Cook Inlet Oil and Gas Production

- Jan. 2013: 12,398 bbls/day
- Jan. 2014: 16,486 bbls/day
- 20 rigs in May 2013
Plan to drill 3 delineation wells – planning for onshore and offshore development

Seeking financing to restart Nikiski fertilizer plant

LNG export reauthorized by DOE of up to 40 BCF thru Feb 2016

Ongoing increased investment – resulting in new exploration/appraisal wells & increased production

Applied for five year offshore seismic period with National Marine Fisheries Service

Ongoing work for new gas production platform

Acquired additional state acreage with $1.5 million work commitment

Constructing new subsea pipeline to Tesoro refinery
Tax Reform for North Slope – It’s Working

“Production exceeds Revenue forecast”
Alaska Journal of Commerce
April 11, 2014

“Oil and Construction Jobs on the Rise”
KSRM Radio
April 15, 2014

“Oilpatch jobs at record as industry hustles new projects”
Alaska Economic Report
April 13, 2014

“BP plans to invest additional $1 billion in Alaska”
Anchorage Daily News, June 2, 2013

“Repsol plans three more wells, three more rigs”
Alaska Journal of Commerce, October 17, 2013

“ConocoPhillips is planning a new drill site at Kuparuk River”
Alaska Public Radio Network, November 1, 2013
NORTH SLOPE ONSHORE – WHAT’S PLANNED?

- New player on the North Slope – acquiring 100% of 2 smaller fields & 50% of 2 others
- Conducting seismic within Prudhoe – adding a new rig in 2015
- Over $1 billion more
- Evaluating new development field – potential $1 Billion investment
- Drilling to continue at Spy Island for potential new expansion
- Additional exploration wells in 2015 to delineate prospect
- Construction of Pt Thomson field – on track for 2016 production
- New Rig at Kuparuk & $1 billion in additional investment
- Production expected in 2015 in NPRA
ALASKA LNG PROJECT

Potential Benefits

• Single Largest Investment in Alaska’s history - $45-65 billion

• Creates 15,000 new jobs during construction

• Generates Billions in new Tax Revenue

• Provides Natural Gas to Alaskans

• Meets world demand
CURRENT ALIGNMENT & PROGRESS

• Legislature approves Heads of Agreement

• Continue Field Studies and Environmental Baseline Assessments

• Continue engineering and design work for integrated project

• Prepare State and Federal permit and license applications

• Establish a durable gas fiscal regime
CHALLENGES

• Megaproject requiring labor, resources and equipment that can handle Alaska’s extreme remote environment

• Complex commercial arrangements with foreign markets require long-term commitments

• Reducing impacts and risks of environmental and socioeconomic aspects

• Uncertainty related to permit timing/scope

• Working commercial and fiscal issues with all parties, including the State of Alaska
THE FUTURE – OUTER CONTINENTAL SHELF (OCS)

Mega Potential

- 27 billion barrels of oil
- 132 trillion cubic feet gas
- Prefer the pipeline to move oil
- 54,700 potential U.S. jobs
- Not a new basin – drilled over 30 wells in the 1980’s
Incredible Opportunity that Must be Realized

Oil and gas in the Arctic

Area north of the Arctic Circle has an estimated 90 billion barrels of undiscovered oil.

Probability of finding oil, gas

50-100%

500 km
500 miles

Petroleum Province | Crude Oil (billion barrels) | Natural Gas (trillion cubic feet) | Natural Gas Liquids (billion barrels) | Total (oil equivalent in billions of barrels)
---|---|---|---|---
West Siberian Basin | 3.66 | 651.50 | 20.33 | 132.57
Arctic Alaska | 29.96 | 221.40 | 5.90 | 72.77
East Barents Basin | 7.41 | 317.56 | 1.42 | 61.76
East Greenland Rift Basin | 8.90 | 86.18 | 8.12 | 31.39
Yenisey-Khatanga Basin | 5.58 | 99.96 | 2.68 | 24.92
Amerasia Basin | 9.72 | 56.89 | 0.54 | 19.75
West Greenland-East Canada | 7.27 | 51.82 | 1.15 | 17.06
POTENTIAL BARRIERS TO PROGRESS IN THE OCS & ONSHORE ARCTIC

- Lease Sale 193 Litigation
- DOI Arctic Regulations
- DOI Air Authority
- Endangered Species Act Issues
- Exploration NPDES General Permit for Beaufort Sea
- Draft Geotechnical NPDES GP for Beaufort & Chukchi Seas
- Leasing Issues
- ANWR CCP
- NPRA Management Plan
- EPA Small Remote Incinerators
- EPA Watershed Assessment
- Temporary Drill Rig Air Permitting
- Anti-Degradation Regulations
- Hydraulic Fracturing Regulations
- NOAA Acoustic Criteria
- FWS NWR Rulemaking
- Beaufort & Chukchi Sea ITR’s
- ARRT Authorization Plan
- NPDES General Permits
BALANCE CAN BE ACHIEVED
US CHAIR OF ARCTIC COUNCIL

One Arctic: Shared Challenges, Opportunities, Responsibilities

Goals:
• Addressing the Impacts of Climate Change in the Arctic
• Stewardship of the Arctic Ocean
• Improving Economic and Living Conditions

Public Outreach Goals:
• Educate the U.S. public about why the Arctic matters and its strategic importance to our country
• Educate the public about climate change impacts in the Arctic and how they are affecting our country
• Educate the rest of the world about how the Arctic affects them.
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**Oil and gas in the Arctic**

Area north of the Arctic Circle has an estimated 90 billion barrels of undiscovered oil.

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© 2008 MCT
Source: U.S. Geological Survey
Graphic: Jutta Schiebe, East Polli

Arctic accounts for 13% of undiscovered oil, 30% of undiscovered natural gas, 20% of undiscovered natural gas liquids.