Alaska Region Update

AAPL OCS Workshop
The Woodlands, Texas

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MMS Alaska Regional Director

January 19, 2006
Today’s Topics

• Access
  – Lease Sales
    • Beaufort Sea
    • Chukchi
    • Cook Inlet
  – Economic Incentives
• The 2007-12 Five Year Plan
  – North Aleutian ?
• Info Sources
DOI Alaska Goals

• Increase *Access* to Prospective Lands

• Ensure Clarity of the *Permitting* Regimes

• Consider Reasonable *Incentives* Offshore

• Keep the *Environment* Safe and Available for Local Uses
# Alaska OCS Potential

(Risked, Undiscovered, Conventionally Recoverable)  
(MMS 2000 National Assessment)

<table>
<thead>
<tr>
<th>Region</th>
<th>OIL (Billion Barrels)</th>
<th>Gas (TCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95%</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Alaska OCS Total</strong></td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Chukchi</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Beaufort</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Hope</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Norton</td>
<td>0</td>
<td>0.05</td>
</tr>
<tr>
<td>Cook Inlet</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td>N.Aleutian (2005 est.)</td>
<td>0</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Where Have We Been?
The 5 Year Plan -- 2002-2007 -- Alaska

- Access
- Keeping Options Open

- Traditional Sales
  - Beaufort Sea
  - Cook Inlet

- Interest Based Sales
  - Chukchi Sea/Hope Basin
  - Norton Basin
Beaufort Sea – Sales 186 and 195

Sale 202 – scheduled March 2007
Proposed Notice of Sale – October 2006
• **Royalty Suspension** volumes/per lease
  - Up to 30 or 45 Million barrels, (depending on Zone A or B)
  - With price floor $21/barrel
  - With price ceiling ($39/barrel 1994 inflation adjusted)

Beaufort Sea Economic Incentives

• Royalty rate 12.5%
• Primary Term 10 years
• Minimum bid $15/$10
• Rental rate sliding
  - $3 – 12.50/acre (Zone A)
  - $1 – 8/acre (Zone B)
Chukchi Sea Sale 193

- Call in January 2005
  - interest
- NOI for EIS
  - closed Oct. 31
- Scoping
  - early 2006
- Sale
  - November 2007
    - *Pending 2007-12 5-Year decisions*
- No Polynya (near-shore)
- Last sale 1988
- Seismic – 2006, 7
  - Incidental Take Authorizations
Cook Inlet

- No Takers to Jan. 2005 call

- New Call Dec. 6, 2005
  - Now closed

- May 2007 Sale?
The Future: 2007-12 Five Year Plan

- **Next Step:**
  - Draft Proposed Program

- **What areas to consider for leasing?**
  - Size, timing, and location

- **Moratoria/withdrawal areas**
  - Keep? Modify? Expand?
  - North Aleutian Basin? (Bristol Bay)

- **Keep “special interest” sales in Alaska?**

- **Drop restricted joint bidding in Alaska?**
Preparation of the OCS Oil and Gas Leasing Program for 2007-2012

- 8/05: Draft Proposed Program [60-day comment period]
- 1/06: Proposed Program and Draft EIS [90-day comment period]
- 7/06: Proposed Final Program and Final EIS [60-day waiting period]
- 1/07: Approval
- 3/07: New program begins
- 7/1/07: Current program ends

* Request for Comments and Information [45-day comment period]
North Aleutian Basin [?] (Bristol Bay)

State of Alaska Sales
Governor’s LNG

Support in the Communities mixed
Kenai also sees benefits
Pebble Creek and other mines

Salmon runs a little better, but low prices
North Aleutian/Bristol Bay Basin

BASINS OF BERING SHELF AND PACIFIC MARGIN OFFSHORE

- OCS Planning Area Boundaries

North Aleutian Basin OCS Planning Area

Deep Abyssal Plains of the Bering Sea

Cold Bay

NORTH ALEUTIAN BASIN
Working with the Communities

- North Slope Borough
- Kenai Peninsula Borough
- Aleutians East Borough
- Tribes - Government-to-government
- AEWC -- the bowhead whale

- Keep communities informed
- Visits
- Consultation on Projects

- **Nuiqsut Paisanich:**
  Nuiqsut Heritage: A Cultural Plan

- **In this Place:**
NSB/AEWC/ICAS

• 7 Points
  – Offshore activities and the bowhead subsistence hunt
  – Conflict Avoidance Agreements and the Good Neighbor Policy
  – Public Input
  – Oil Spill Risk Assessments
  – Cumulative Effects and the NSB Comprehensive Plan
  – Scientific Studies and Peer Review
  – Bowhead Whale Feeding Study

• MOA – NV Kaktovik
Partnerships (present and future information sources)

- **ARLIS** – Alaska Resources Library and Information Services
  - www.arlis.org

- **Coastal Marine Institute**
  - University of Alaska

- **AOOS** – Alaska Ocean Observing System
  - www.aoos.org

- **NSSI** – North Slope Science Initiative
  - DOI, State of Alaska, North Slope Borough, et al
2006 Alaska Region Environmental Studies Plan
Planning ongoing for 2007

MMS Geological Information

http://www.mms.gov/alaska/ref/akref.htm

- **Geological Reports**
  - Beaufort Sea
  - Chukchi Sea
  - Norton Basin
  - Gulf of Alaska

- **Summary packages**
  - Beaufort Sea
  - Chukchi
  - Cook Inlet
  - Norton Basin
Upcoming Potential MMS OCS Sales

www.mms.gov/alaska/
907-334-5200

- **Beaufort Sea 202**
  - March 2007

- **Cook Inlet 199**
  - May 2007 - ??

- **Chukchi Sea 193**
  - November 2007
    - *Pending 2007-12*
    - 5-Year decisions

Alaska DNR: www.dnr.state.ak.us/
BLM Alaska: www.ak.blm.gov/
Beaufort Sea

Undiscovered Oil Pools for Beaufort Sea Planning Area

Largest Pool
Mean = 1,021 Mmbo
Range F95-F05 = 53-3,831 Mmbo

Undiscovered Gas Pools for Beaufort Sea Planning Area
(Non-Associated and Gas Cap)

Largest Pool
Mean = 6,908 Bcfg
Range F95-F05 = 836-22,163 Bcfg
Beaufort Sea Planning Area Oil (billion barrels) Gas (trillion cubic ft)
CRR 3.6 - 6.9 - 11.8 12.9 - 32.1 - 63.3
ECR ($18/bbl; $2.11/mcf) 0.0 - 1.8 - 6.6 0.0 - 2.9 - 9.7
ECR ($30/bbl; $3.52/mcf) 1.0 - 3.2 - 7.8 0.6 - 4.2 - 10.7

Beaufort Sea models assume that oil is transported through TAPS and on to West Coast markets. Natural gas produced with oil would be reinjected for enhanced oil recovery until oil depletion and then produced and transported by a future gas pipeline to outside markets.

- **Sale 202**
- **March 2007**
Chukchi Sea Planning Area

Oil (billion barrels)

<table>
<thead>
<tr>
<th>Case</th>
<th>CRR</th>
<th>ECR ($18/bbl; $2.11/mcf)</th>
<th>ECR ($30/bbl; $3.52/mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (F95)</td>
<td></td>
<td>8.6 - 15.5 - 25.0</td>
<td>1.4 - 6.1 - 11.0</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>0.0 - 1.0 - 7.2</td>
<td>1.4 - 6.1 - 11.0</td>
</tr>
<tr>
<td>High (F05)</td>
<td></td>
<td>13.6 – 60.1 – 154.3</td>
<td>not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>not available</td>
<td>not available</td>
</tr>
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</table>

Chukchi Sea models assume that oil is transported through TAPS and on to West Coast markets. Natural gas was not assessed owing to lack of gas transportation system and availability of known gas reserves close to current facilities at Prudhoe Bay.

**CHUKCHI SEA PLANNING AREA**

ECONOMICALLY RECOVERABLE OIL
(Gas is Not Taken to Market in Near Term)

**Undiscovered Oil Pools for Chukchi Sea Planning Area**

Largest Pool
Mean = 1,108 Mmbo
Range F95-F05 = 151-3,635 Mmbo

**Undiscovered Gas Pools for Chukchi Sea Planning Area**

Largest Pool
Mean = 16,159 Bcfg
Range F95-F05 = 353-34,023 Bcfg
The Burger Prospect

Chukchi Sea

BURGER CONDITIONAL* DISCOVERED RESOURCES-YEAR 2000

<table>
<thead>
<tr>
<th>Fill Model</th>
<th>Pool Area (Acres)</th>
<th>Gas Resources (Tcf)</th>
<th>Condensate (Mmb)</th>
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<tbody>
<tr>
<td>Minimum</td>
<td>52,516</td>
<td>2.389</td>
<td>7.629</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17.256</td>
<td>393</td>
</tr>
<tr>
<td>Most Likely</td>
<td>97,545</td>
<td>4.335</td>
<td>14.038</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31.384</td>
<td>724</td>
</tr>
<tr>
<td>Maximum</td>
<td>189,803</td>
<td>8.496</td>
<td>27.472</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63.210</td>
<td>1,404</td>
</tr>
<tr>
<td></td>
<td></td>
<td>371</td>
<td>3,370</td>
</tr>
</tbody>
</table>

BURGER GAS POOL, CHUKCHI SHELF

BURGER DISCOVERED GAS RESOURCES

Minimum Case: 7.629 tcf (2.389-17.256 tcf)

Most Likely Case: 14.038 tcf (8.017-31.384 tcf)

Maximum Case: 27.472 tcf (8.496-63.210 tcf)
Cook Inlet Planning Area

- **Oil (billion barrels)**
  - CRR: 0.3 - 0.8 - 1.4
  - ECR ($18/bbl; $2.11/mcf): 0.1 - 0.4 - 1.0
  - ECR ($30/bbl; $3.52/mcf): 0.2 - 0.6 - 1.2
- **Gas (trillions cubic ft)**
  - 0.7 – 1.4 – 2.5
  - 0.1 – 0.6 – 1.3
  - 0.5 – 1.0 – 1.7

Cook Inlet models assume oil and gas production is sent to local refineries and markets in Alaska.
Rank Plot, North Aleutian Basin Hypothetical Gas Pools (Conditional Bcf), and Cook Inlet Gas Fields (Bcf EUR)

Largest NAB Pool: 4645 Bcfg (Mean)
Largest CI Field (Kenai): 2427 Bcfg
North Aleutian Basin Pools (93)
Gas-Prone Plays 1, 2, & 6

Cook Inlet Gas Fields (16)

Cook Inlet Gas Fields (State)

<table>
<thead>
<tr>
<th>Pool Rank</th>
<th>Fields</th>
<th>EUR Gas Reserves, Bcf</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kenai</td>
<td>2427.15</td>
</tr>
<tr>
<td>2</td>
<td>North Cook Inlet</td>
<td>2218.05</td>
</tr>
<tr>
<td>3</td>
<td>Beluga River</td>
<td>1269.76</td>
</tr>
<tr>
<td>4</td>
<td>Other Proven/Undeveloped</td>
<td>300.00</td>
</tr>
<tr>
<td>5</td>
<td>Cannery Loop</td>
<td>131.77</td>
</tr>
<tr>
<td>6</td>
<td>Ivan River Group</td>
<td>113.85</td>
</tr>
<tr>
<td>7</td>
<td>Ninilchik</td>
<td>103.06</td>
</tr>
<tr>
<td>8</td>
<td>Wolf Lake</td>
<td>42.65</td>
</tr>
<tr>
<td>9</td>
<td>Sterling</td>
<td>26.06</td>
</tr>
<tr>
<td>10</td>
<td>Lone Creek/Moguawkel</td>
<td>7.00</td>
</tr>
<tr>
<td>11</td>
<td>West Fork</td>
<td>4.21</td>
</tr>
<tr>
<td>12</td>
<td>Nicolai Creek</td>
<td>2.93</td>
</tr>
<tr>
<td>13</td>
<td>North Fork</td>
<td>2.11</td>
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<tr>
<td>14</td>
<td>West Foreland</td>
<td>1.00</td>
</tr>
<tr>
<td>15</td>
<td>Albert Koloa</td>
<td>0.12</td>
</tr>
<tr>
<td>16</td>
<td>Birch Hill</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Cook Inlet field reserve data from AK Division of Oil & Gas (2005), 2004 Annual Report, tbls. 3.2, IV.6