AOGA Conference 2019

Corri Feige, Commissioner
Department of Natural Resources

May 30, 2019
## Major Recent Brookian Discoveries

<table>
<thead>
<tr>
<th></th>
<th>Smith Bay</th>
<th>Willow + West Willow</th>
<th>Pikka-Horseshoe/Narwhal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator(s)</td>
<td>Caelus</td>
<td>ConocoPhillips</td>
<td>Oil Search/ConocoPhillips</td>
</tr>
<tr>
<td>Reservoir Formation</td>
<td>Torok Fm</td>
<td>Nanushuk Fm</td>
<td>Nanushuk Fm</td>
</tr>
<tr>
<td>Penetrations to date</td>
<td>2</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Location</td>
<td>State Waters Offshore of NPRA</td>
<td>Federal Onshore Northeast NPRA</td>
<td>Onshore Colville Delta</td>
</tr>
<tr>
<td>Road/Pipeline Tie-in</td>
<td>~ 125 miles</td>
<td>~ 28 miles</td>
<td>~ 20 miles</td>
</tr>
<tr>
<td>Trap type</td>
<td>Turbidite Stratigraphic</td>
<td>Topset Stratigraphic</td>
<td>Topset Stratigraphic</td>
</tr>
<tr>
<td>Net Pay</td>
<td>183-223 ft</td>
<td>42-72 ft</td>
<td>&lt; 225 ft</td>
</tr>
<tr>
<td>Oil Gravity</td>
<td>40-45 degree API (calc)</td>
<td>41-44 degree API</td>
<td>30 degree API</td>
</tr>
<tr>
<td>Test Rate</td>
<td>No Flow Tests</td>
<td>&lt; 3,200 bopd vertical</td>
<td>~ 2,100 bopd vertical; 4,600 bopd horizontal</td>
</tr>
<tr>
<td>Contingent</td>
<td>1.8-2.4 BBO (est)</td>
<td>400-750 MMBO</td>
<td>1.15-1.4 BBO*</td>
</tr>
<tr>
<td>Recoverable Resource</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Production (Operator Releases)</td>
<td>&lt; 200,000 bopd</td>
<td>100,000 bopd</td>
<td>&lt; 120,000 bopd</td>
</tr>
</tbody>
</table>

* Oil Search estimates assume 2019 delineation drilling successful; moves some 3C resource to 2C (P50) resource category.
New Players – Big Potential

New Companies = New Interest
- Lagniappe
- Entek Energy Ltd.
- Pantheon
- Jade Energy
- Red Emperor
- Regenerate Alaska

Going Strong = New Findings
- ConocoPhillips
- Eni Petroleum
- Oil Search Alaska
- Repsol E&P USA
- Hilcorp Alaska

Working Interest Assignment Transactions Approved Fy18: 929
# Recently Drilled Exploration Wells

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Tinniaq 10, 11, 15, 16</td>
<td>Tinniaq 7, 8, 9</td>
<td>Horseshoe 1, 1A</td>
<td>Tinniaq 2, 6</td>
</tr>
<tr>
<td>Pika B, BST1, C, CST1</td>
<td>Puta 2, 2A</td>
<td>Icewine-2</td>
<td>CT-1, CT-2</td>
</tr>
<tr>
<td>CRU CD4-595</td>
<td>West Willow 1</td>
<td></td>
<td>Hacer-3</td>
</tr>
<tr>
<td>KRU 2S-315</td>
<td>Stony Hill 1</td>
<td></td>
<td>Icewine-1</td>
</tr>
<tr>
<td>Winx-1</td>
<td>Badami B1-07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrate-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nikaitchuq North-01 (Continued Drilling)</td>
<td></td>
<td></td>
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</tbody>
</table>

* More wells permitted, but drilling status currently uncertain

Green text indicates wells drilled on state lands
2018 Fall Lease Sale brought the 3\textsuperscript{rd} highest amount of winning bids since 1998

- Total Bonus Bid: $29,234,028.10
- Highest Bid Per Acre: $586.00
- Total Leased Acres: 243,950
Spring Cook Inlet Lease Sale Results:
Received 3 bids encompassing 10,286 acres awarded to Hilcorp Alaska

Upcoming Fall Lease Sale
North Slope, Beaufort Sea, Foothills, and SALSA
Tentative Sale Date: December 11, 2019
Offering three SALSA blocks
More Information on SALSA Block data and North Slope data at:
http://dog.dnr.alaska.gov/Library/SALSA
Possible joint lease sales with BLM’s NPR-A and ANWR sale
NORTH SLOPE EXPLORATION ACTIVITIES
PIKKA B AND C DRILLING UPDATE

- Pikka B is the thickest reservoir to date
- Total of 237 meters (780 ft) of core cut
- Could add up to 250 MMBBL to current 500 MMBBL

Core from Pikka B

Oil Search Full Year Results Feb 2019
Exploration Upside

- High chance of success in Horseshoe block
- 2020 drilling to test scale of Horseshoe resource
- Multiple Nanushuk play prospects identified on existing 3D seismic. To be targeted with future 3D seismic acquisition where none existing
- Additional Jurassic and Cretaceous and other proven plays throughout the area

Portfolio being developed to support sustained exploration program, currently identified > 1 Billion Barrels unrisked resource potential
Proposed Special Lease Sale
ALASKA SEISMIC SURVEYS - PUBLIC RELEASE IN PROGRESS -

Tax Credit Seismic Survey for Public Release
North Slope, Alaska

Seismic Data Release Status
Seismic survey showing data coverage:
- 3D surveys
- 2D surveys
- 3D marine
- 2D marine
- Statistical confidentiality areas
- Survey release in progress
- Survey released and available at Geophysical Map Library

Legend:
- Transected Pipeline
- Station Names
- Line & Coordinate Units
- General Land Management
- State of Alaska
- Federal Conservation District
- Survey of Land Management
- North Slope Borough Survey

Updated April, 2019 - State of Alaska
**Federal Developments**

- **Coastal Plain (ANWR) 1002 Leasing**
  - BLM issued Draft EIS
  - Anticipate Final EIS Record of Decision in 4Q 2019 or 1Q 2020

- **Coastal Plain 3D Seismic Permit**
  - SAExploration, Inc. targeting 2019-2020 season for acquisition
  - USFWS is developing Incidental Take Regulations (ITR) pursuant to the Marine Mammal Protection Act (MMPA).

- **NPR-A Integrated Activity Plan (IAP)**
  - BLM preparing a Draft EIS
  - Anticipates Final EIS and issuing a Record of Decision 1Q 2020
PUTTING ALASKA BACK ON THE MAP

Outreach at CERA Week
• Governor Dunleavy led small delegation to intensely target industry leaders
• Investments firms, E&P’s, Technology leaders & regulatory counterparts
• IHS Markit ranking North Slope a “Super Basin” for mature production setting with continued exploration upside

TPH Investor Conference
• 45 minute session dedicated to Alaska
  • High quality assets
  • Premier basins
  • Operational outputs
• 3 further inquiries already
Visit Our Booth #66

- North Slope and Cook Inlet Activity Maps
- SALSA Lease Area Details
- DGGS Publications
- Drone Footage
- Play-type Categorization Study
- Torok & Nanuskuk Information
- Expert Technical Staff

State of Alaska Open for Business
THANK YOU!