



Shell Beaufort Sea Program Update

Alaska

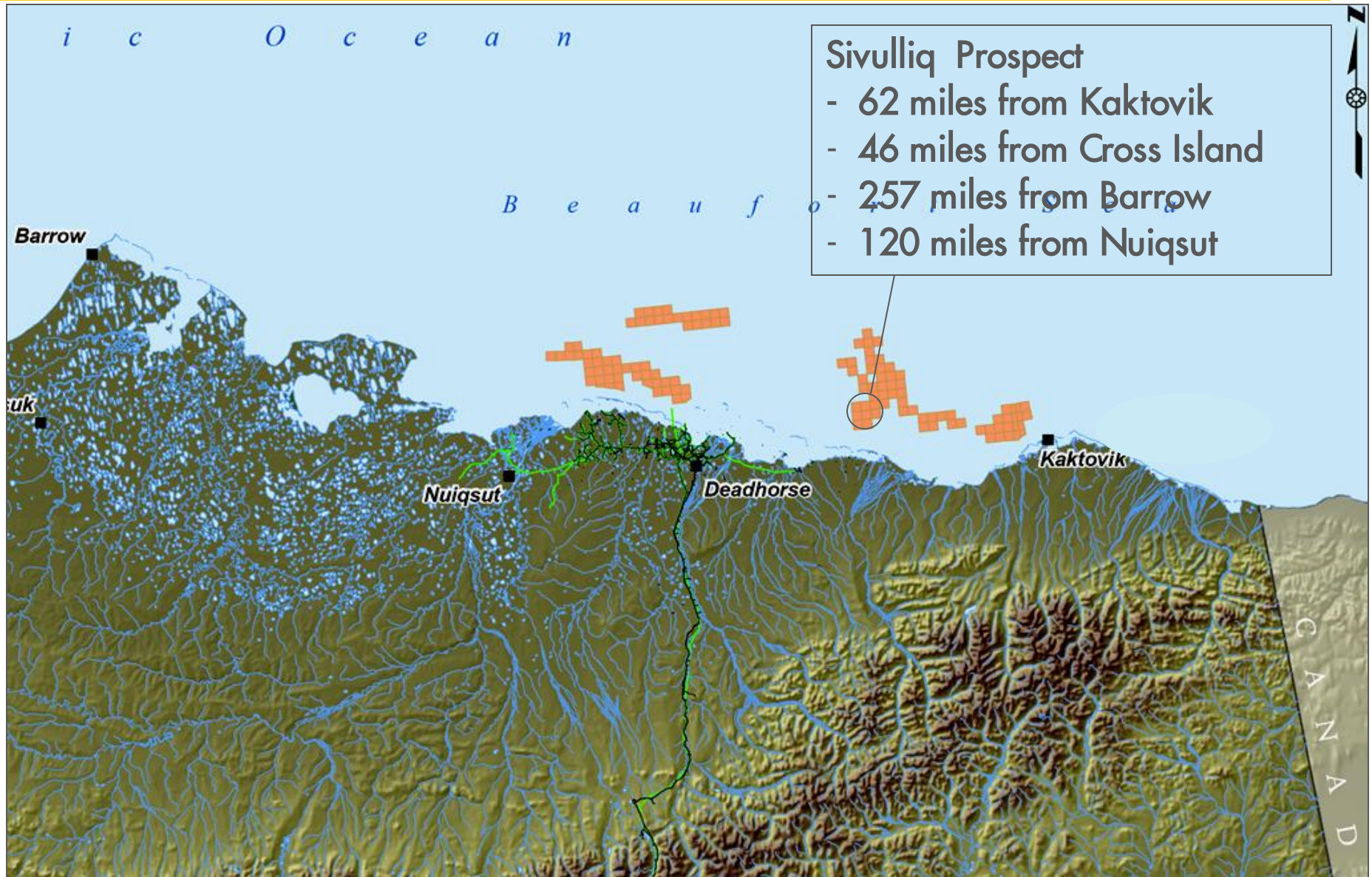
September 2010

Shell in Alaska

- 2011 Proposed Drilling Plans
- Mitigation
- New and Traditional Oil Spill Contingency Plan
- Additional Safeguards

2011 Proposed Drilling Plan

2011 Proposed Drilling Plan – Mid-July through Oct. 31, 2011



2011 Proposed Operations - Drill two offshore wells



Mitigation Shell has committed

- Communication Plan for avoiding conflicts with subsistence users
- Beaufort Sea shutdown and remove drilling rig assets by midnight August 24
- Zero Discharge of:
 - drilling fluids
 - cuttings after 20" casing
 - Treated sanitary and gray water
 - Ballast and Bilge water
- Collaboration and Communication with Whaling Associations, Walrus, Nanuq and Seal Commissions
- Commitment to hire Subsistence Advisors based in Beaufort Sea Villages
- Marine Mammal Observers on all vessels
- Robust Marine Mammal Monitoring Protocol
- Real time Ice and Weather Forecasting
- Crew change by helicopter and collaboration on routes to and from operations
- Deadhorse shorebase
- No transiting without communicating

Stakeholder Solutions

- Finding common ground with the people of the North Slope
- Incorporating feedback: air permit, discharge modifications, drilling blackout dates during whaling in the Beaufort Sea
- Revised program reflects our social performance goals – “Minimize impacts to people and the environment where we work”

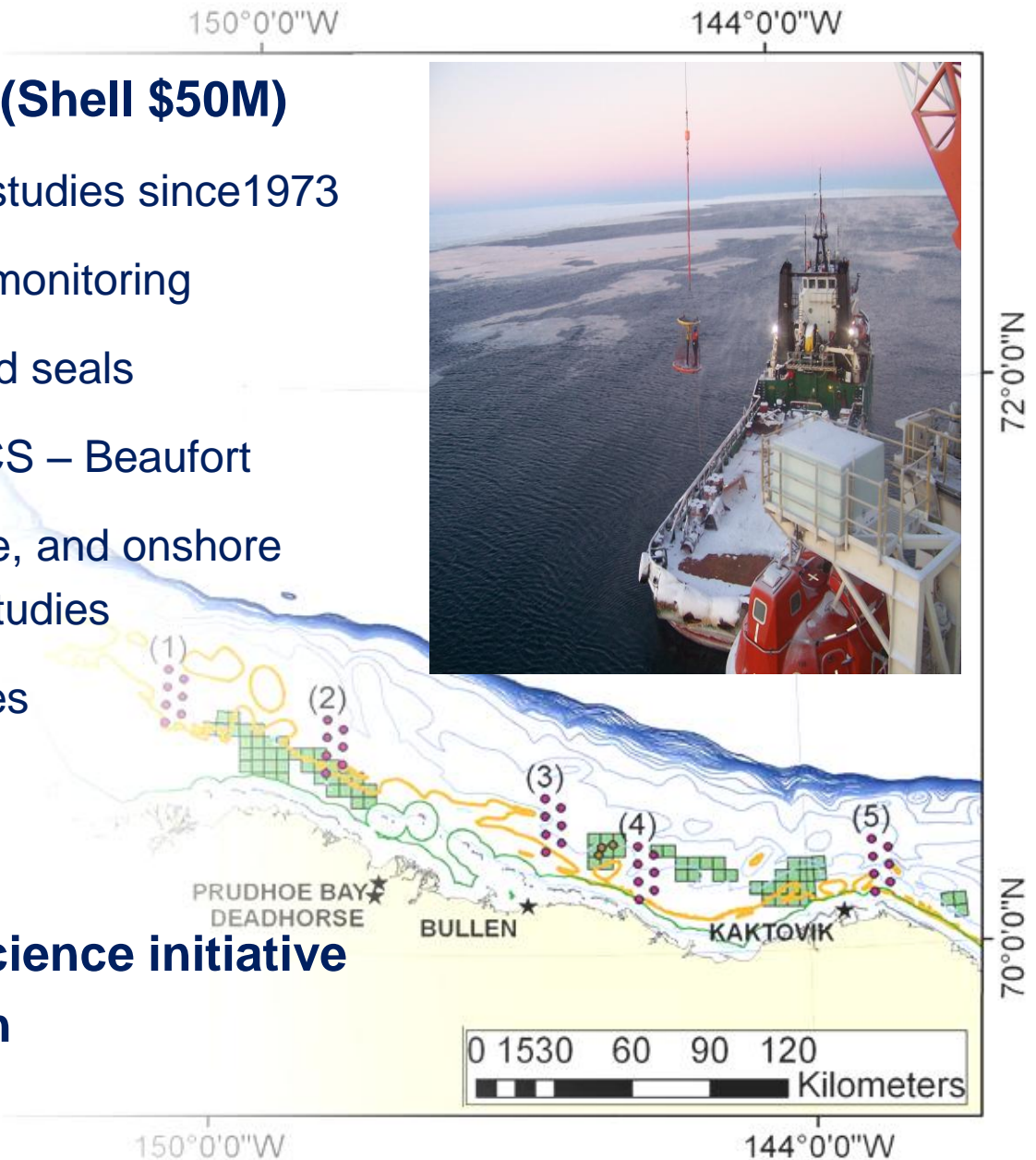


Baseline Science Supports Exploration In Alaska

■ \$500 Million and growing (Shell \$50M)

- 5000 independent scientific studies since 1973
- 5 years of marine mammal monitoring
- Tagging studies – walrus and seals
- First air quality station in OCS – Beaufort
- Ongoing offshore, nearshore, and onshore ecological characterization studies
- Traditional knowledge studies
- Health impact assessments

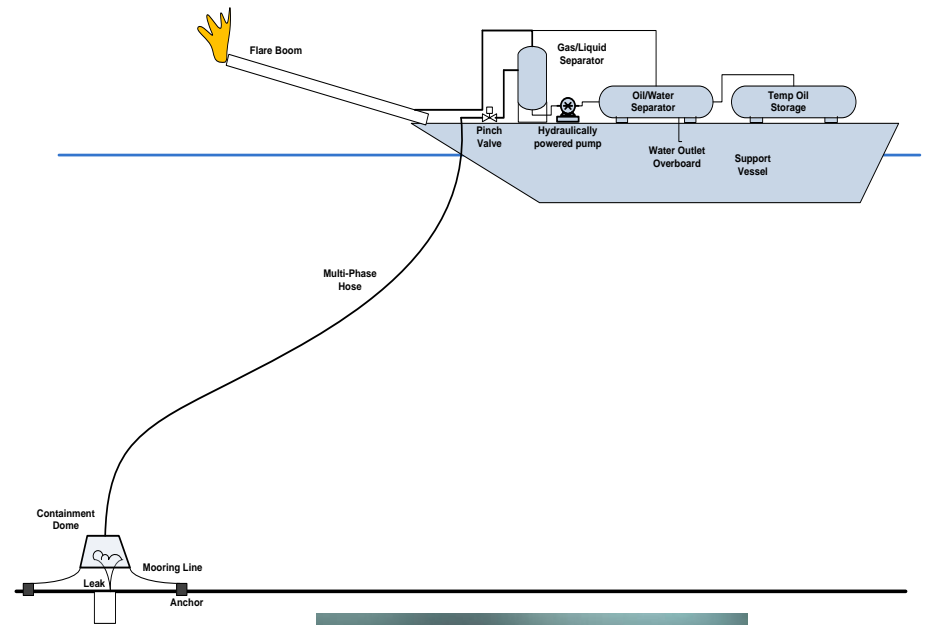
■ Up to \$5 million annual science initiative with North Slope Borough



New and Traditional Oil Spill Contingency Planning

Proposed Sub-sea containment system development

- Submitted new commitments to BOEM May (5th) 2010
- System to capture and recover hydrocarbons from well control incident
- Will be ready for 2011 Season
- Available for on site deployment



Containment Dome Concept



Containment and Recovery Concept

Oil Spill Contingency Plan Support

- State and Federal Standards reviewed and approved
- World class Contingency Plan reviewed by BOEM, EPA, US Coast Guard, FWS, NMFS, North Slope Borough and upheld in court(s)
- Shell response capabilities exceed required Response Planning Standard
- SINTEF (oil in ice research) study and trials



Shell Three-Tier Oil Spill Response

Offshore



Shell Three-Tier Oil Spill Response

Nearshore



Onshore Vessels

- landing craft and utility vessels





Additional Safeguards

Commitments

- **BOP – testing and enhancements**
 - Testing every 7 days instead of every 14 days
 - Use of second set of shear rams
 - Sub-sea remote operating panel relocation

- **Arctic containment system**

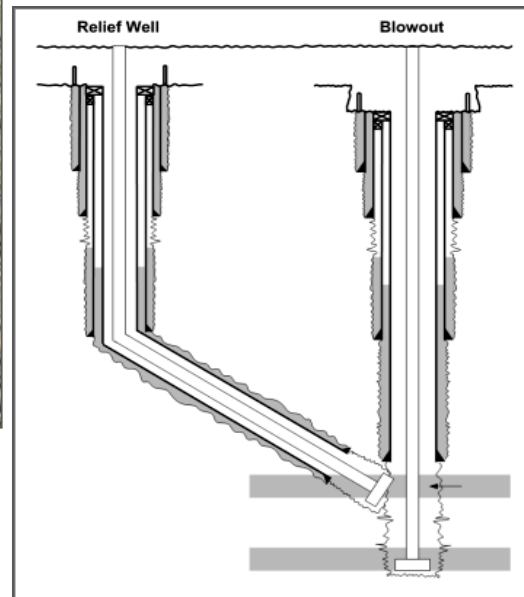
- **Second rig relief well capability**

Relief Well Strategy

- Primary response by Noble Discoverer drilling unit
- Second unit activated - Kulluk drilling unit
- Ready to respond and on site in a matter of days



The Kulluk has extensive Arctic experience having drilled numerous wells in the Canadian Beaufort Sea



Thank You