

Red Dog and the Northwest Arctic: 25 years – Looking back to the future

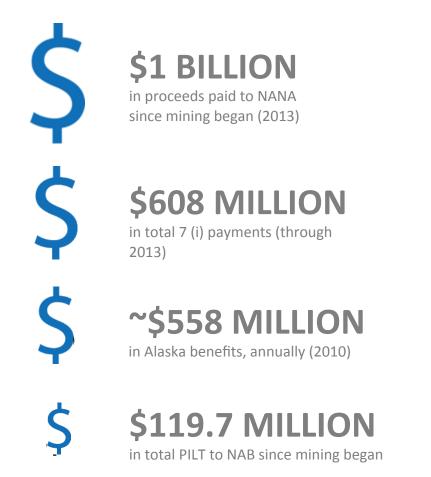


Hard work + Commodity Prices = \$UCCE\$\$



Some Red Dog Background

- Acquiring the property took work.
- The NANA people's ultimate decision to proceed with the mine – took many community meetings.
- The formation of the NWAB for local benefit (PILT) 1986
- The necessity of federal legislation to go through the Krusenstern National Monument
- The negotiation for the \$175 million in state loans that had to be approved by the legislature (Alaska Industrial Development Authority)







73% U.S. zinc production



54% Shareholder Hire

2013	Average Annual Jobs	Estimated Annual Wages
Direct	610	\$55 million
Indirect and induced	490	\$30 million
TOTAL	1,100 jobs	\$85 million

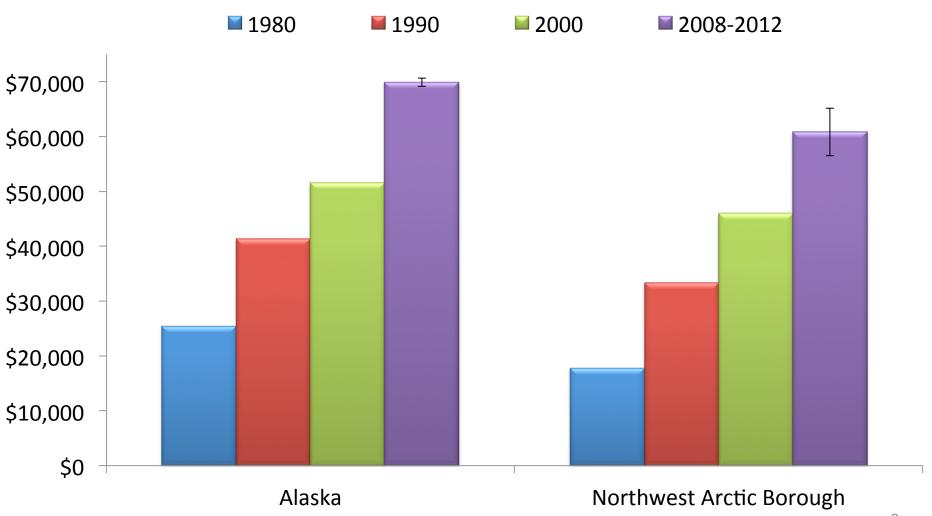
Annual Average Private Sector Wage Comparison between Teck Alaska, NWAB and Alaska, 2013



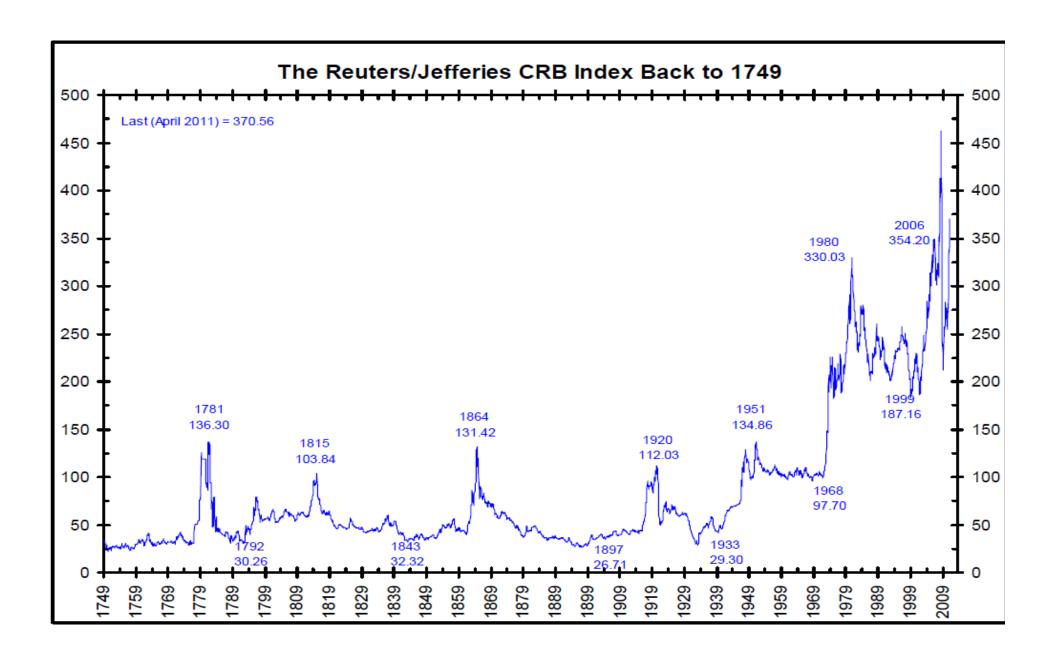
^{*}Excluding Red Dog wages.

Source: Teck Alaska, Alaska Department of Labor and Workforce Development, and McDowell Group estimates.

Alaska and NWAB Comparison Median Household Income

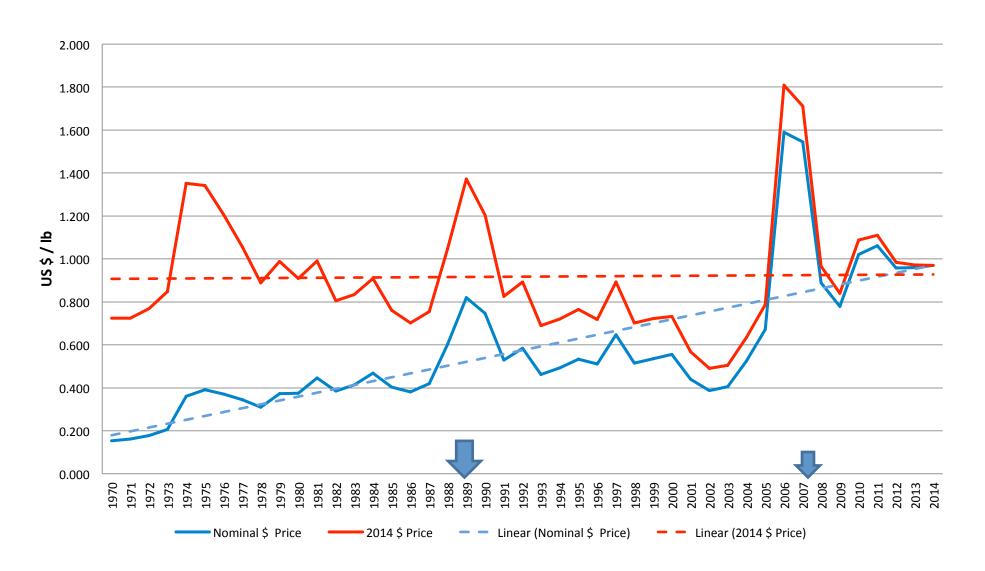


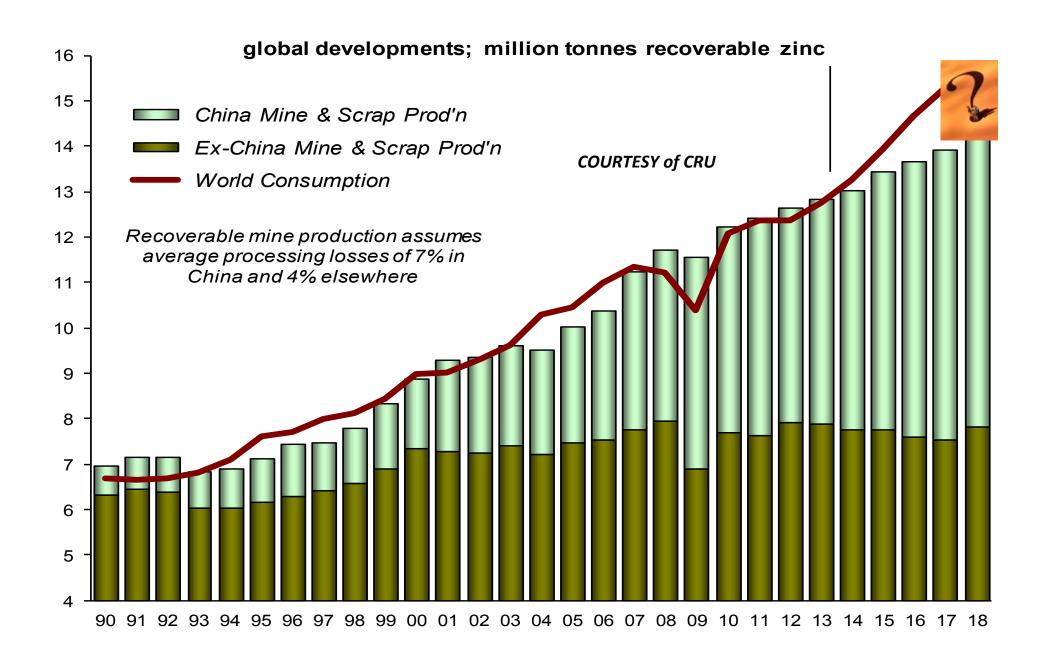
- State taxes and fees: \$27.9 million
 - \$16.3 million Alaska Mining License tax
 - 35% of State's total Mining License revenue FY2013
- AIDEA (road/port payments): \$29.3 million
- From 1990 to 2013:
 - \$208 million in AK Mining License tax
 - \$163 million to various state departments, programs, fees, services, corporate income tax
 - \$452 million to AIDEA



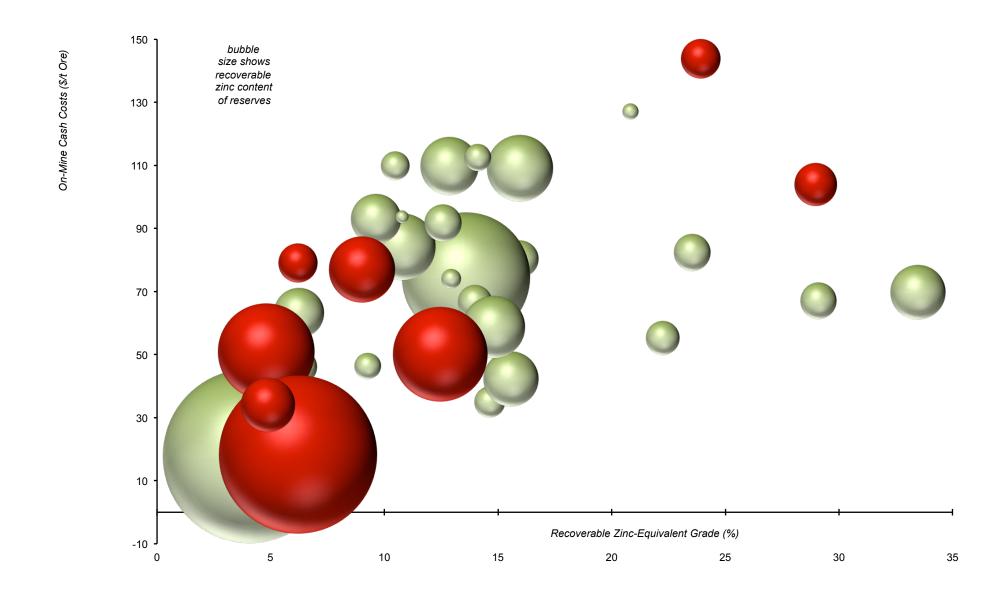
Commodity Prices Over Time

Nominal & Real 2014\$ Zn Prices Platts Metals Week price for North American SHG zinc

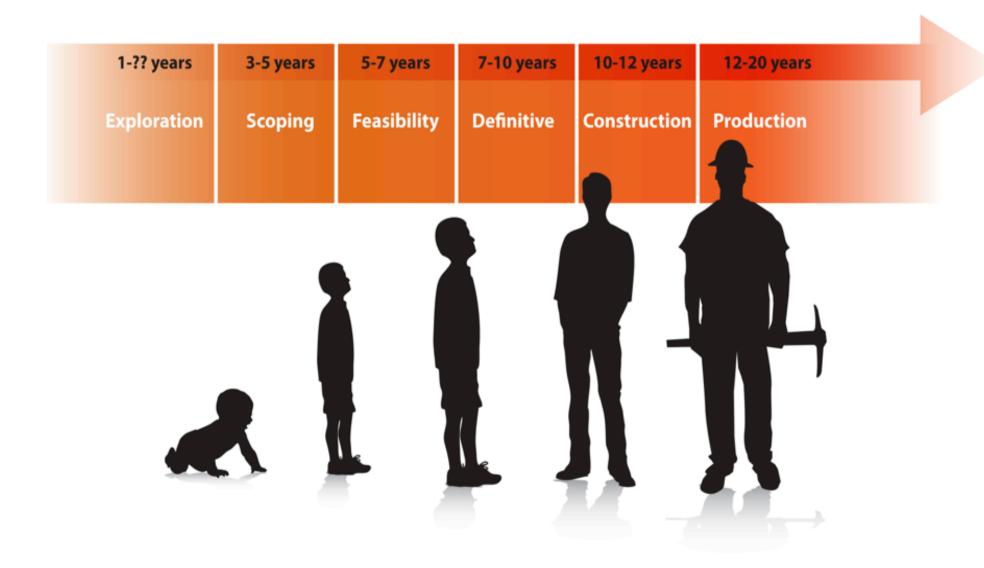




Why Look in the Arctic? What is the Outlook of Zn?



12% of the ZN resources in this database are above the Arctic Circle

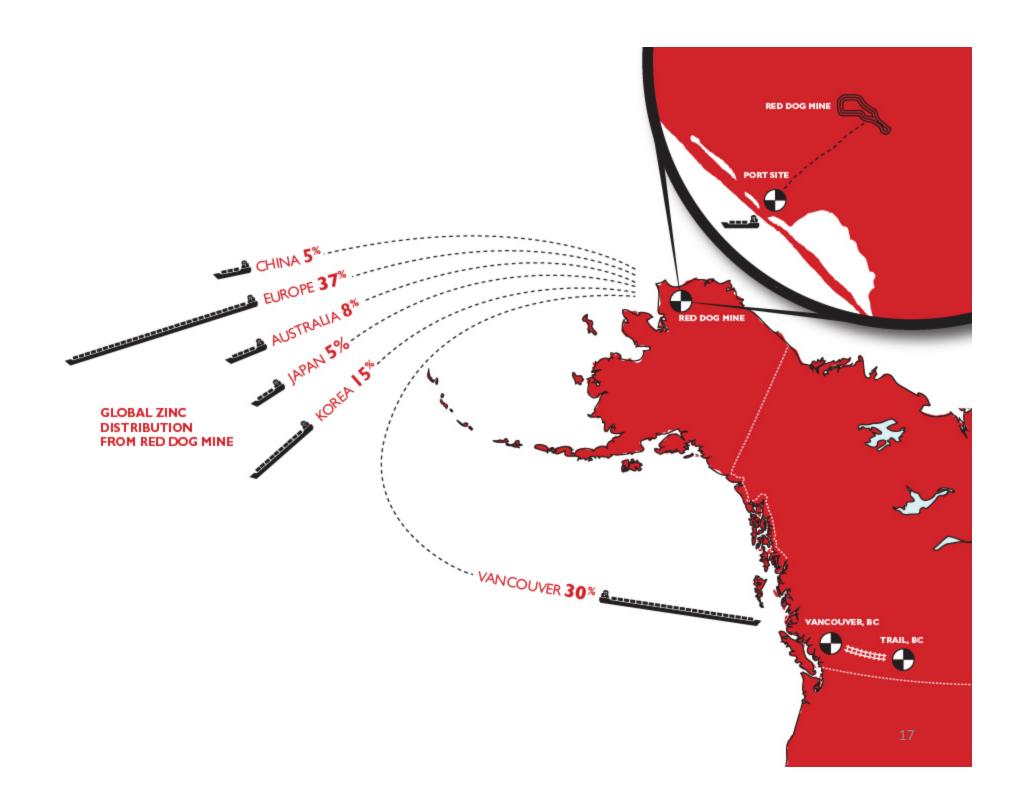


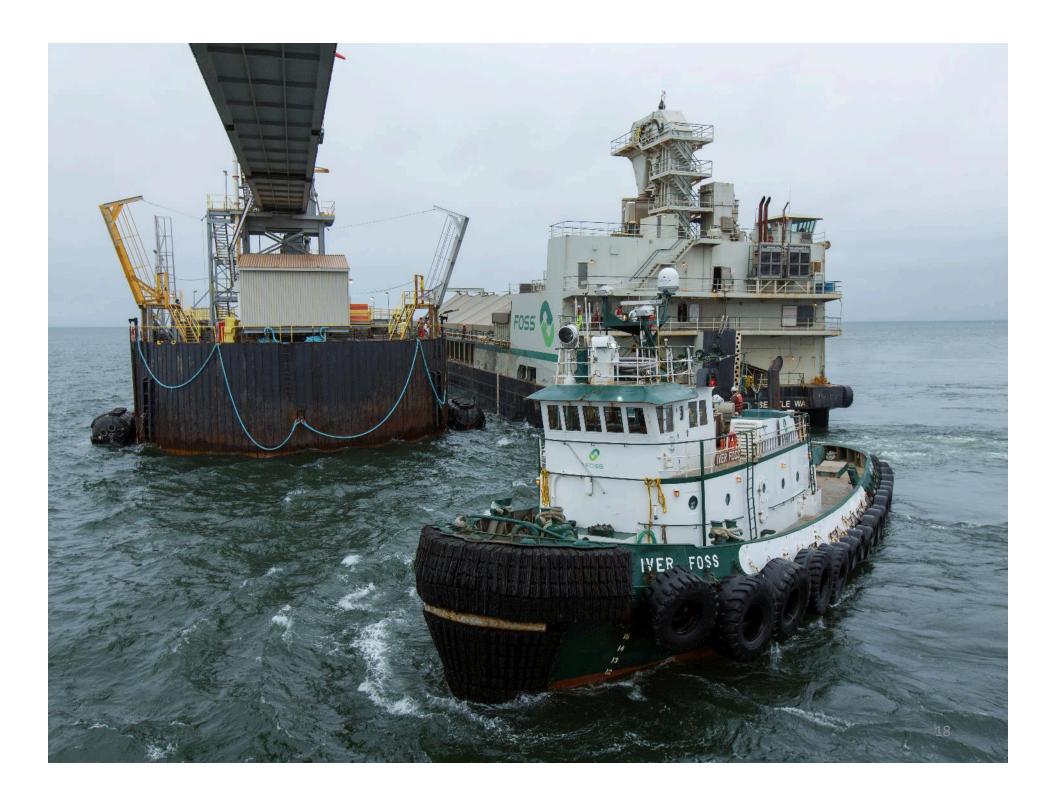
Alaska Examples

Courtesy of Council of Alaska Producers

	2003	2013
Average mining salary	\$70,750	\$100,000
CAT haul trucks	(789) \$2,000,000	(793F) \$4,100,000
Average diesel price per gallon	\$1.11	\$3.66
6 yard underground loader	\$570,000	\$1,100,000
40 ton underground haul truck	\$560,000	\$1,300,000







Utilization of the DMTS for local fuel delivery

Noatak & Kivalina Stove Oil Support

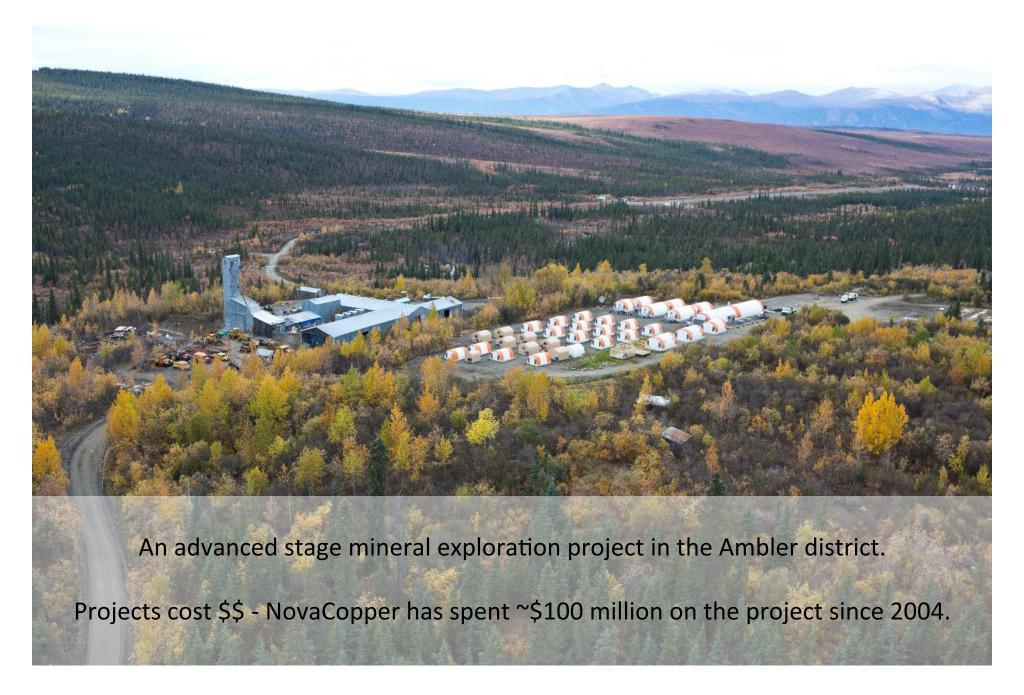






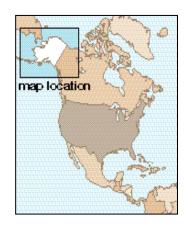


Resource Development = Shareholder Development





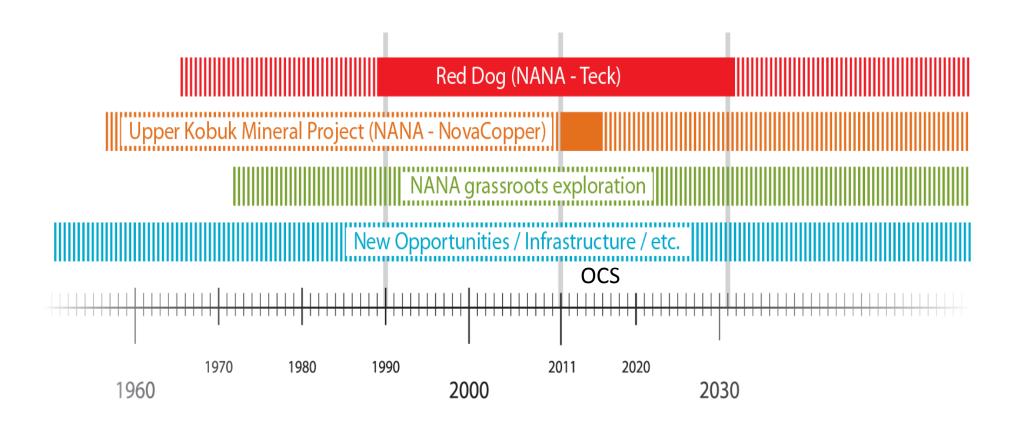
OTHER POTENTIAL

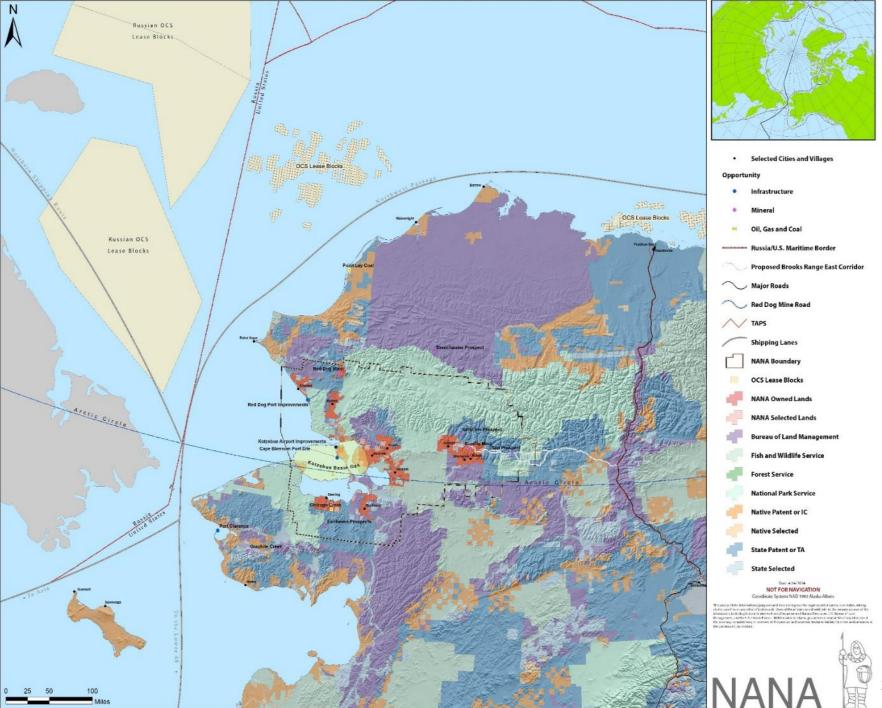


- Basin 350 x 80 miles
- Onshore NW AK and offshore Chukchi Sea
- Separated from Hope Basin by Kotzebue Arch
- Depocenters ~ 20,000 ft Tertiary & probably Cretaceous



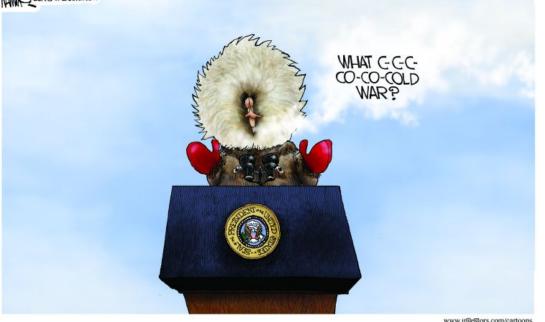
Responsible Mineral/Energy Development = Sustainable Economy

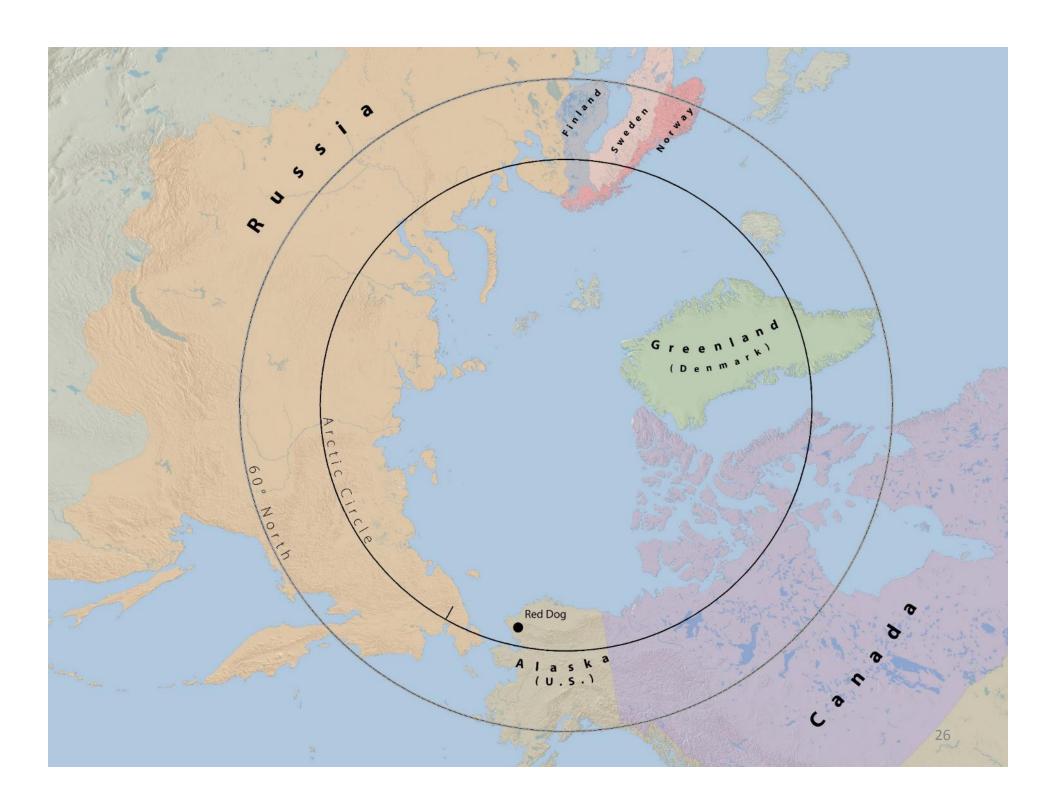






(Adapted from *The Economist,* November 10-16 2001)







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