

**HB**

**280**

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<TARGET><BILL>HB 280</BILL><SUBJECT>HB  
280</SUBJECT><COMM>HRES27</COMM></TARGET>

# FISCAL NOTE

STATE OF ALASKA  
2012 LEGISLATIVE SESSION

Bill Version HB280  
Fiscal Note Number \_\_\_\_\_  
( ) Publish Date \_\_\_\_\_

Identifier (file name) HB280-DNR-O&G-02-10-12 Dept. Affected Department of Natural Resources  
Title OIL & GAS CREDITS: KOTZEBUE/SELAWIK Appropriation Oil and Gas  
Allocation Oil and Gas  
Sponsor Rep. Joule, Millett, and Chenault  
Requester House Resources Committee OMB Component Number 439

**Expenditures/Revenues** (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	FY13 Appropriation Requested	included in Governor's FY13 Request	Out-Year Cost Estimates				
			FY14	FY15	FY16	FY17	FY18
<b>OPERATING EXPENDITURES</b>	<b>FY13</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants, Benefits							
Miscellaneous							
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

FUND SOURCE		(Thousands of Dollars)					
1002	Federal Receipts						
1003	GF Match						
1004	GF						
1005	GF/Prgm (DGF)						
1037	GF/MH (UGF)						
1178	temp code (UGF)						
<b>TOTAL</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

POSITIONS							
Full-time							
Part-time							
Temporary							

CHANGE IN REVENUES	***	***	***	***	***	***	***

Estimated SUPPLEMENTAL (FY12) operating costs 0.0 (separate supplemental appropriation required)  
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY13) costs 0.0 (separate capital appropriation required)  
(discuss reasons and fund source(s) in analysis section)

**Why this fiscal note differs from previous version (if initial version, please note as such)**

This is the initial fiscal note for HB 280.

Prepared by William C. Barron, Director Phone 907-269-8800  
Division Division of Oil and Gas Date/Time 2/10/12 5:00 PM  
Approved by Daniel Sullivan, Commissioner Date 2/10/2012  
Department of Natural Resources

FISCAL NOTE

STATE OF ALASKA  
2012 LEGISLATIVE SESSION

BILL NO. HB280

**Analysis**

HB 280 modifies AS 43.55.025 to provide a production tax credit for drilling the first three exploration wells in the Kotzebue and Selawik basin.

The credit would be equal to 100% of the cost of the first exploration well, 90% for the second well, and 80% for the third well. The maximum well expenditure eligible for the credit would be \$30 million per well. The credit would be in lieu of any tax credit under AS 43.55.023 for the exploration expenditure. If the wells drilled result in sustained production of oil or gas, 50% of the credit must be paid back over a 10-year period in equal installments.

The credit is more generous than the credits currently available to an explorer in the Kotzebue and Selawik basins under AS 43.55.023. In the event that the exploration well does not result in a commercial find, the credits reimburse the explorer for virtually all of the costs of the wells. If a commercial find is made, the explorer will recover most of their capital up-front, and only has to pay back half of the amount of the credit over the first 10 years of production. The pay-back requirement is not limited to a percentage of gross receipts, but is to be made in equal installments.

The impact on state royalties is indeterminate. A positive or negative impact is dependent upon 1) a commercial discovery being made and 2) whether the discovery and subsequent production is on state lands. The two previous wells drilled in the basin elicited no oil or gas. The Kotzebue/Selawik basin prospects appear to be onshore where there is little state land. In the basin area, onshore land ownership is mostly a mix of native corporation and federal lands. Oil or gas production outside state land generally prohibits the state from collecting royalties. However, if a discovery is made on federal land, the State and impacted communities might receive a share of the federal royalty.

Under HB 280, the Department has some direct administrative tasks to perform. The DNR must verify that the location of the well is the Kotzebue or Selawik basin, and verify that the well has reached the required depth of 2,000 feet. DNR can authorize wells to be drilled to less than 2,000 feet. The DNR must also verify that a well has reached a sustained production of oil or gas, which then triggers in the pay back obligation. These activities are within the normal scope of work for the Division of Oil and Gas; therefore, we expect no new positions or additional expenditures.

# FISCAL NOTE

**STATE OF ALASKA**  
**2012 LEGISLATIVE SESSION**

Bill Version HB 280  
 Fiscal Note Number \_\_\_\_\_  
 ( ) Publish Date \_\_\_\_\_

Identifier (file name) HB280-DOR-TAX-02-13-12 Dept. Affected Revenue  
 Title Oil & Gas Tax Credits: Kotezbue/Selawik Appropriation Taxation and Treasury  
 Allocation Tax  
 Sponsor Representatives Joule, Chenault, Millett  
 Requester (H) RES OMB Component Number 2476

**Expenditures/Revenues** (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	FY13 Appropriation Requested	Included in Governor's FY13 Request	Out-Year Cost Estimates					
			FY13	FY13	FY14	FY15	FY16	FY17
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Services								
Commodities								
Capital Outlay								
Grants, Benefits								
Miscellaneous								
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**FUND SOURCE** (Thousands of Dollars)

1002	Federal Receipts							
1003	GF Match							
1004	GF							
1005	GF/Prgm (DGF)							
1037	GF/MH (UGF)							
1178	temp code (UGF)							
<b>TOTAL</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**POSITIONS**

Full-time							
Part-time							
Temporary							

**CHANGE IN REVENUES**      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*      \*\*\*

Estimated **SUPPLEMENTAL (FY12) operating costs** \_\_\_\_\_ (separate supplemental appropriation required)  
 (discuss reasons and fund source(s) in analysis section)

Estimated **CAPITAL (FY13) costs** \_\_\_\_\_ (separate capital appropriation required)  
 (discuss reasons and fund source(s) in analysis section)

**Why this fiscal note differs from previous version (if initial version, please note as such)**

This is the initial version of the bill.

Prepared by Cherie Nienhuis, Commercial Analyst Phone 907-269-1019  
 Division Tax Date/Time 2/13/12, 12:00pm  
 Approved by Jerry Burnett, Director Administrative Services Date 2/13/2012  
Department of Revenue

FISCAL NOTE

STATE OF ALASKA  
2012 LEGISLATIVE SESSION

BILL NO. HB 280

Analysis

The revenue impact of this bill is indeterminate.

This bill expands the production tax credit authorized at AS 43.55.025 to a maximum credit of 100 percent of the total exploration expenditures for drilling to a depth greater than 2,000 feet (unless otherwise authorized by the commissioner of the Department of Natural Resources) for drilling an exploration well for the purpose of discovering oil or gas in the Kotzebue or Selawik basins. The bill proposes to grant the full 100 percent of exploration expenditures to a person who drills a qualifying well under this credit, 90 percent to a person who drills the second qualifying well under this credit, and 80 percent to a person who drills the third qualifying well under this credit. A maximum of \$30 million in exploration well expenditures per well will qualify under this credit, resulting in maximum credit limits of \$30 million, \$27 million, and \$24 million for the first three wells. Only expenditures occurring after December 31, 2011 and before July 1, 2016 would qualify under the bill. If an exploration well for which credit is received results in paying quantities of production, the person(s) who received the credit will pay back to the state 50 percent of the credit received in monthly installments over 10 years beginning 60 days after the start of sustained production of oil or gas.

Any credits issued as a result of this legislation could be eligible for a refund under the Oil and Gas Tax Credit Fund at AS 43.44.028 and would require appropriation by the legislature.

The bill has an immediate effective date.

The fiscal impact of this bill is indeterminate. If three qualifying wells are drilled at \$30 million apiece, the immediate revenue impact to the state would be \$81 million. Under this scenario, if paying quantities of production are found, the state could be reimbursed up to \$40.5 million of the credits over the 10 years following the start of sustained production.

The Department of Revenue could administer the provisions of this bill with existing resources.



## Representative Reggie Joule

Alaska State Legislature

District 40

### **Sponsor Statement for HB 280 Oil & Gas Tax Credits: Kotzebue/Selawik Basin**

HB 280 is designed to incentivize exploration drilling in the underexplored Kotzebue/Selawik Basin. The Kotzebue/Selawik Basin has shown potential, but has remained underdeveloped due to complications associated with its remote location. HB 280 is modeled after the Cook Inlet tax credits that successfully spurred exploration in that region. Economic growth and development in the Northwest region is crippled by the regions remoteness, high energy prices and the lack of reliable energy supplies, this legislation will strongly encourage companies to invest in this frontier basin. HB 280 has the potential to not only benefit Alaska through expanded exploration but local communities as well by increasing available local reliable and affordable energy resources.


The tax credits will apply to the first three persons that drill an exploration well to the depth greater than 2,000 feet for the purposes of discovering gas or oil, and are structured as follows:

- The first person that drills an exploration well is credited 100 percent of costs, or \$30 million, whichever is less;
- The second exploration well drilled is entitled to a credit of 90 percent, or up to \$27 million;
- The third exploration well is credited at 80 percent, or up to \$24 million.

If the exploration results in sustained oil and/or gas production from the discovered reservoir; then 50 percent of the credits awarded will be repaid to the state.

Incentivizing frontier basins for exploration that show a high potential for production of gas and/or oil near energy starved regions of Alaska will help support the Alaskan families and the economy. Frontier basin exploration is the next step Alaska must take to solve the high cost of energy in Rural Alaska while providing new opportunities for exportation and in-state use of our resources.

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A black and white photograph showing a helicopter on a grassy field. Several people are standing around the helicopter. The background is a flat, open landscape under a clear sky. The image is framed by a white border.

# **Geology and Hydrocarbon Potential of the Kotzebue (including Selawik) Basin, Northwest Alaska**

Lance Kilvagiaq Miller and Elizabeth Saagulik Hensley  
NANA Regional Corporation, Inc.

# Kotzebue Basin Location



- ▶ 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



# Basin Comparison

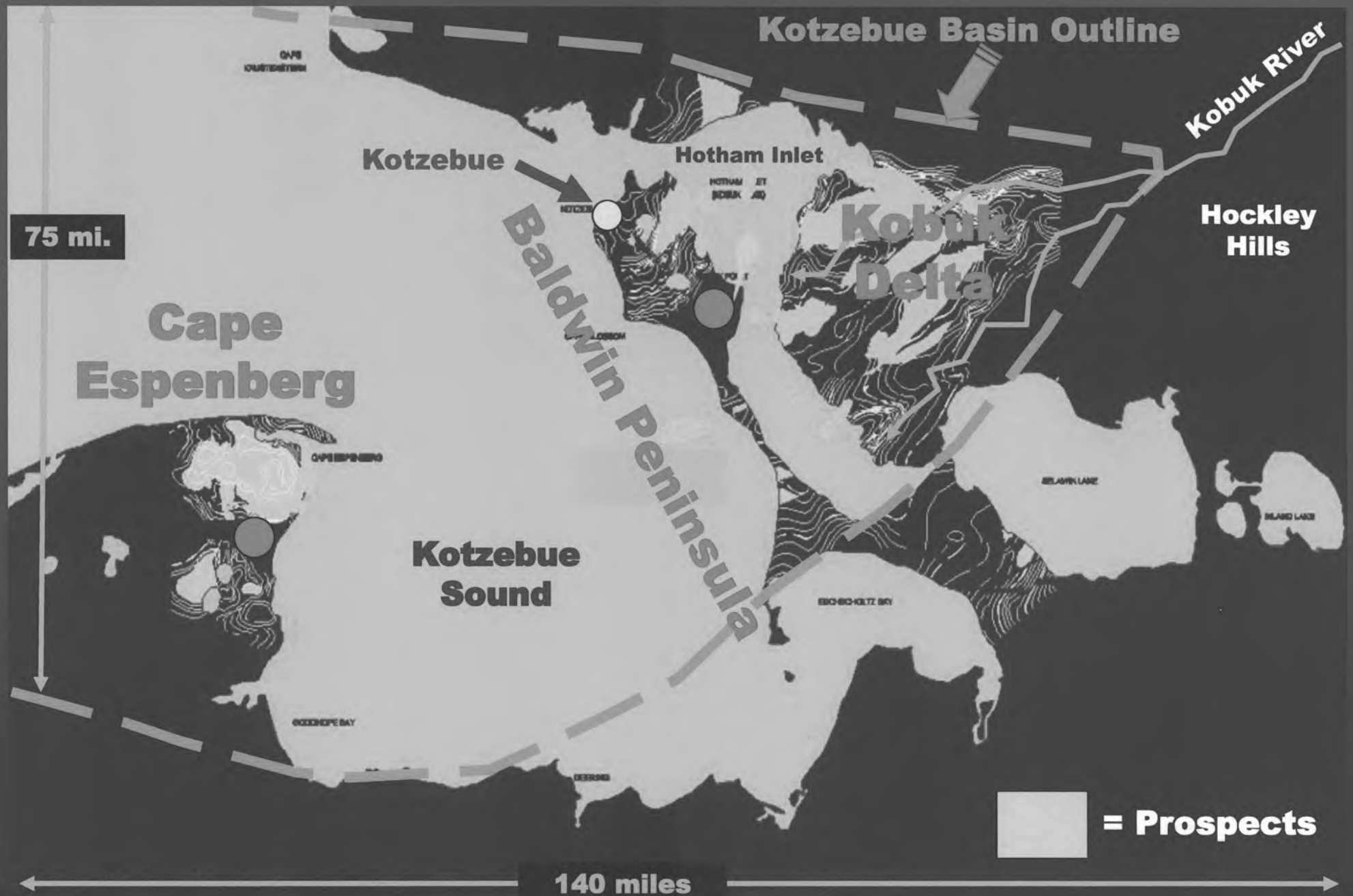


▶ Kotzebue Basin

▶ Cook Inlet Basin

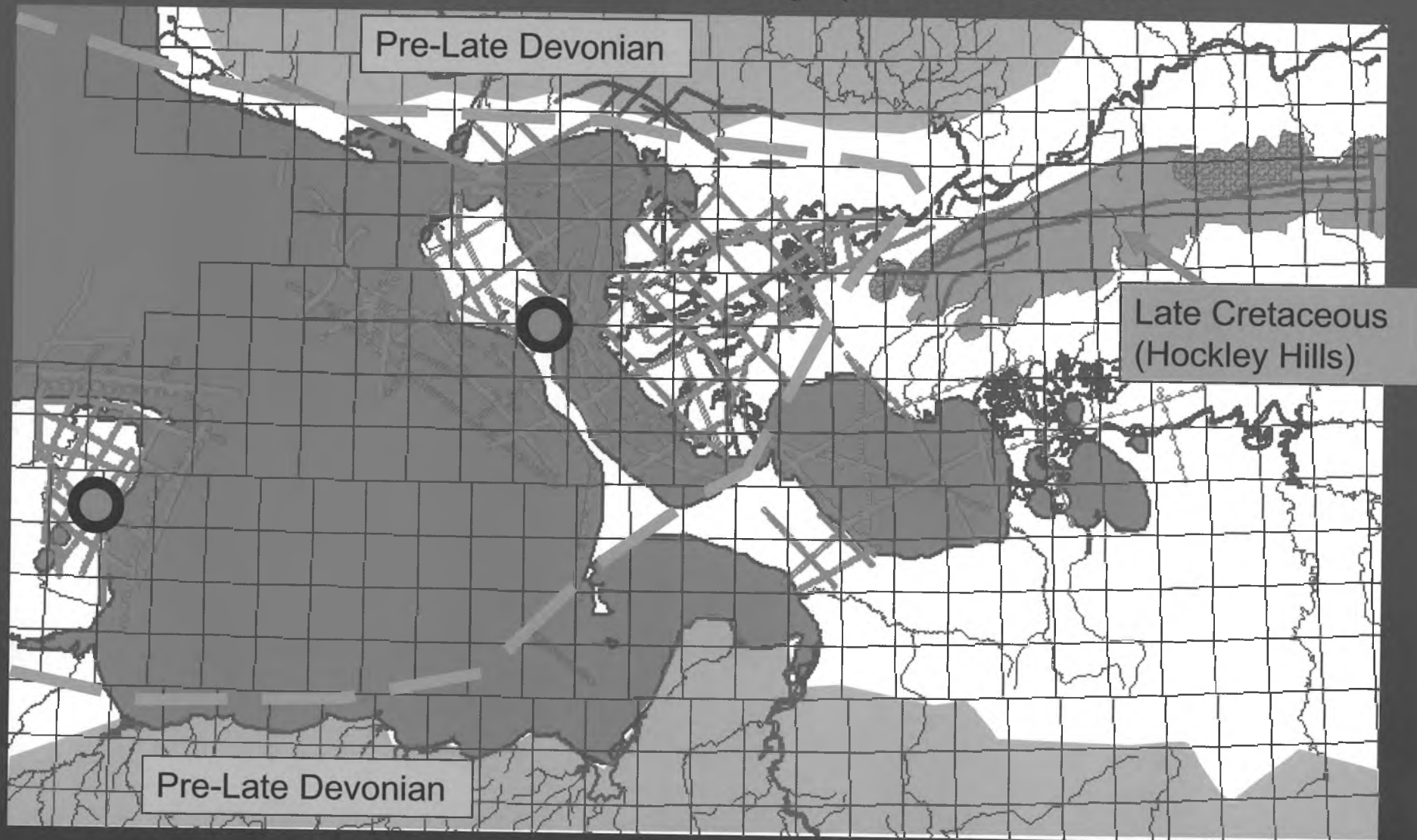
Base map from USGS: Geologic Map of North America

# Local Geography

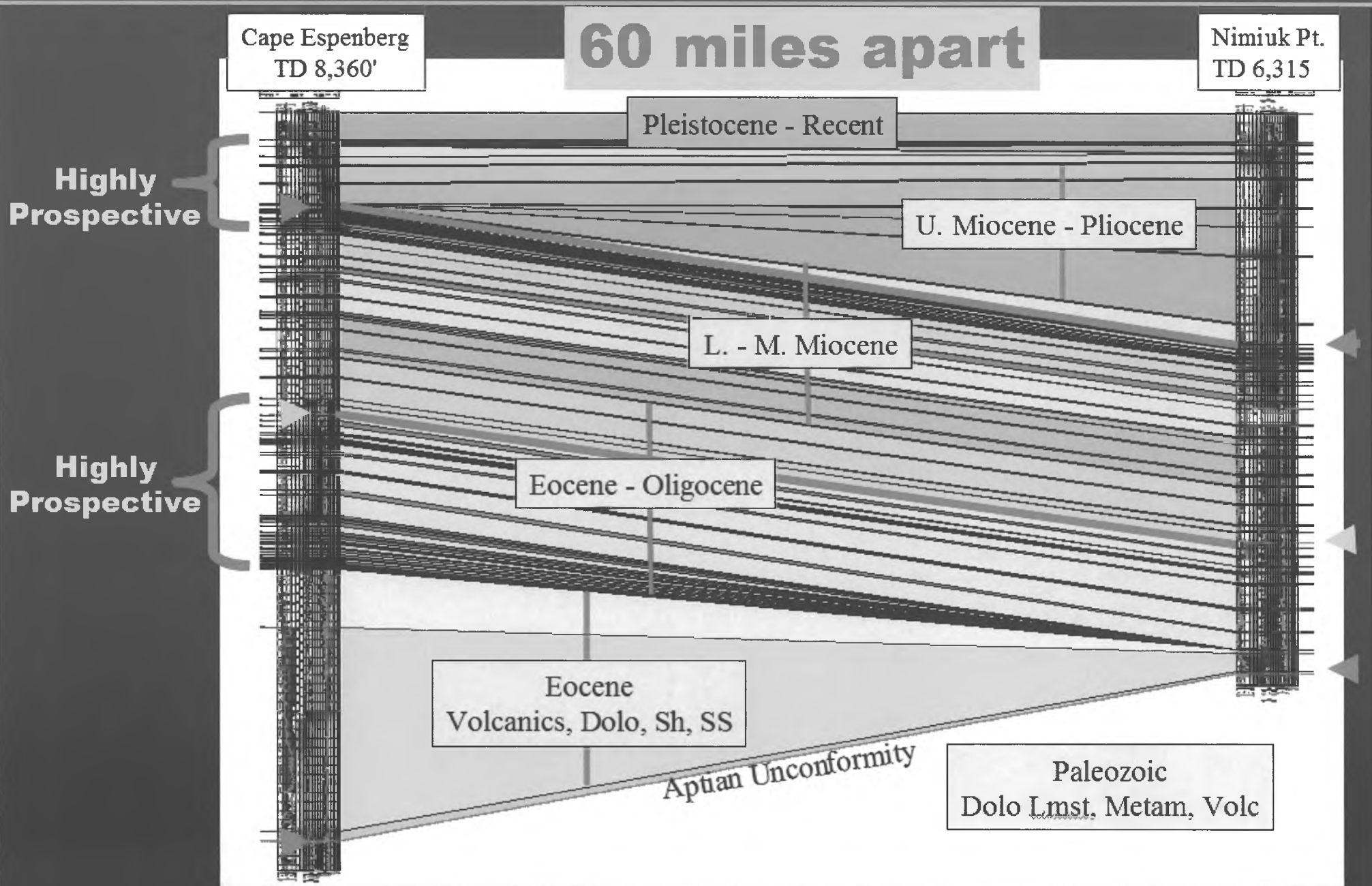


# Exploration History and Data

- ▶ SOCAL (now Chevron): frontier exploration - early to mid 1970s
- ▶ 1500 miles 2D seismic, gravity and aeromagnetic data
- ▶ Outcrop and subsurface studies and two stratigraphic test wells 1974



# Primary Reservoir Targets



# Basin Overview

▶ Time Structure: Top Acoustic Basement

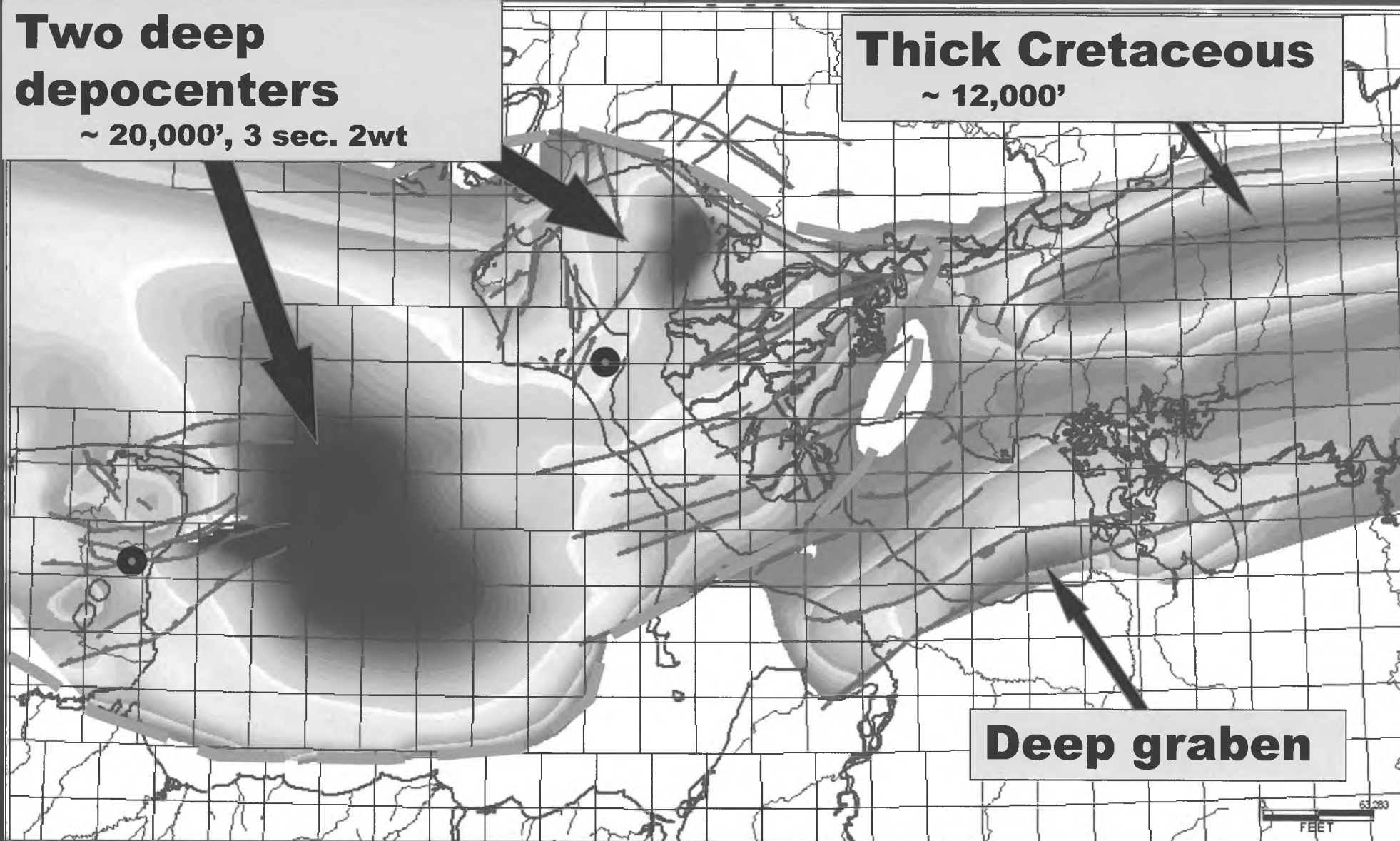
**Two deep depocenters**

~ 20,000', 3 sec. 2wt

**Thick Cretaceous**

~ 12,000'

**Deep graben**

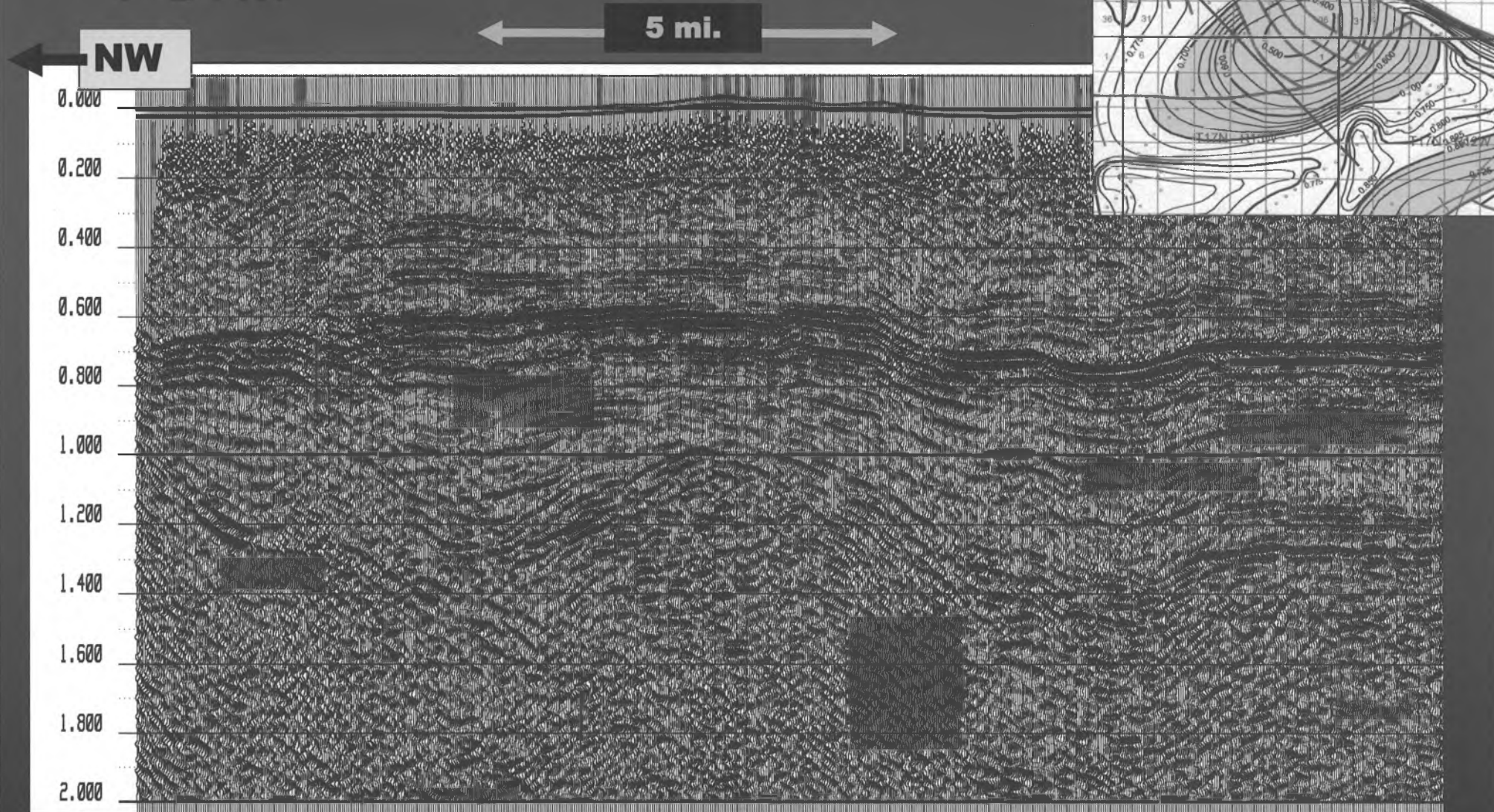


# ★ 2 of the 30 Prospects



# Amaouk Creek Prospect

▶ PSTM

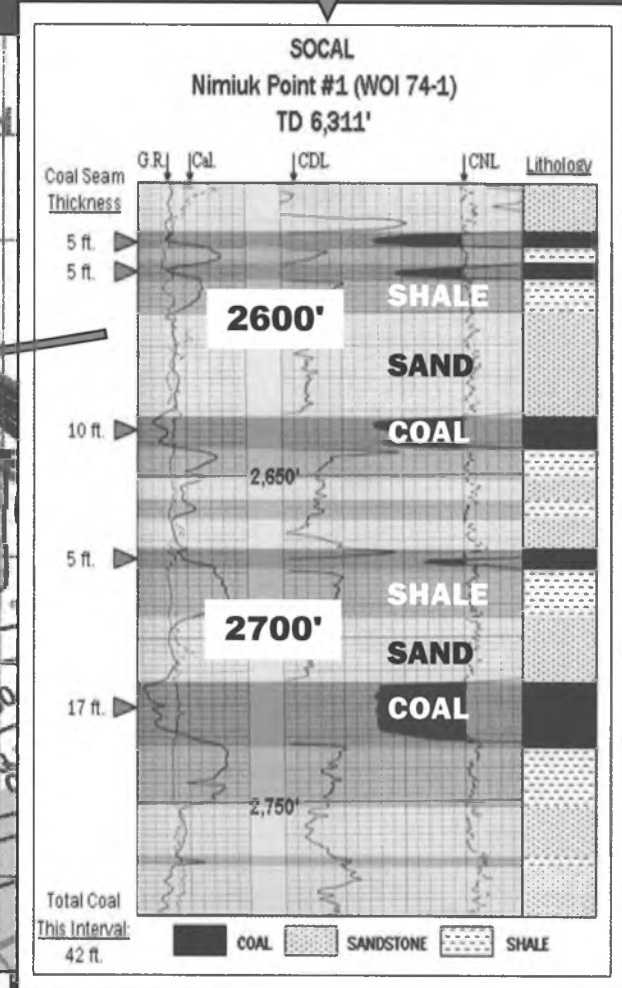
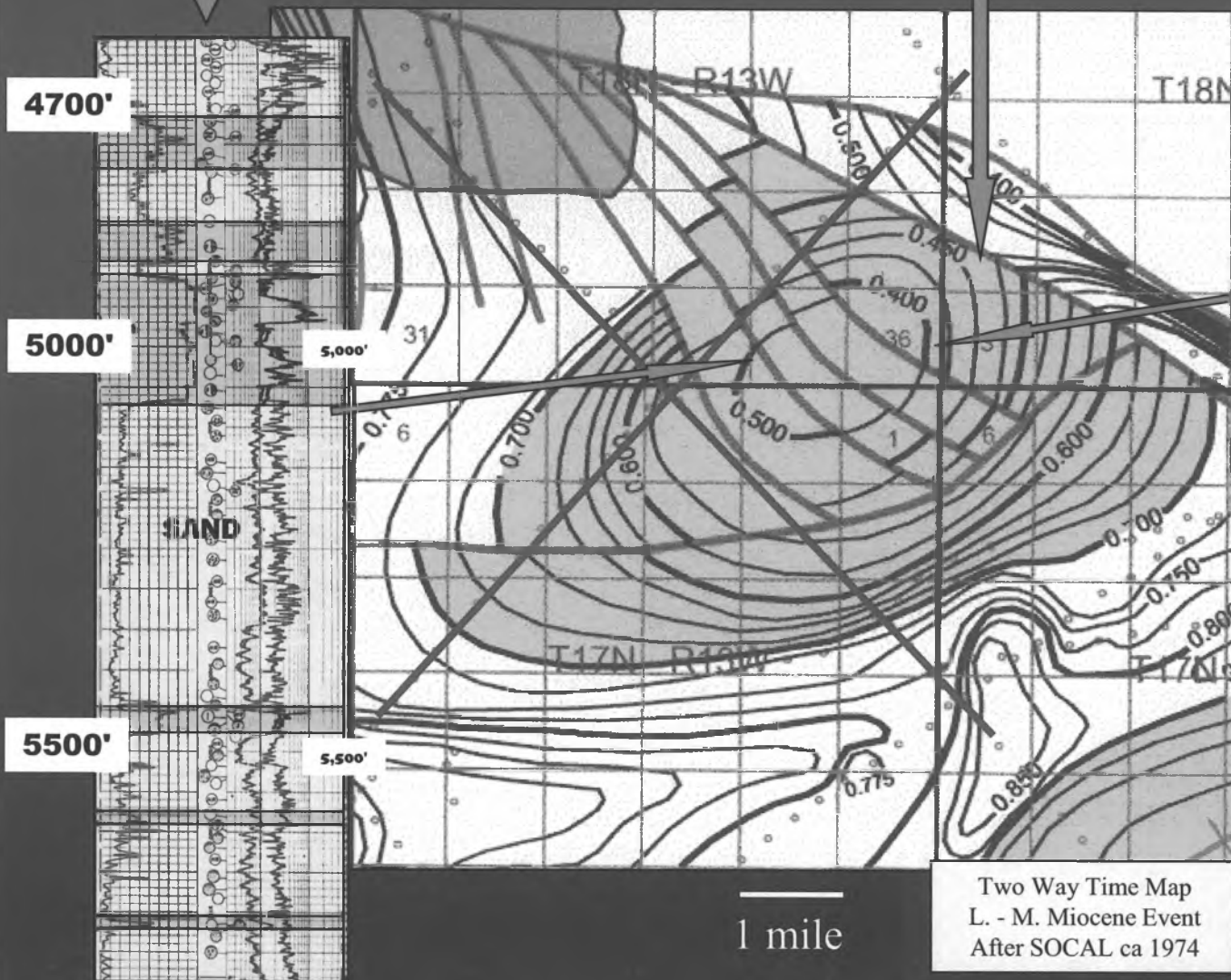


# Amaouk Creek Prospect

**Eocene – Oligocene Objectives**

27 square miles closure

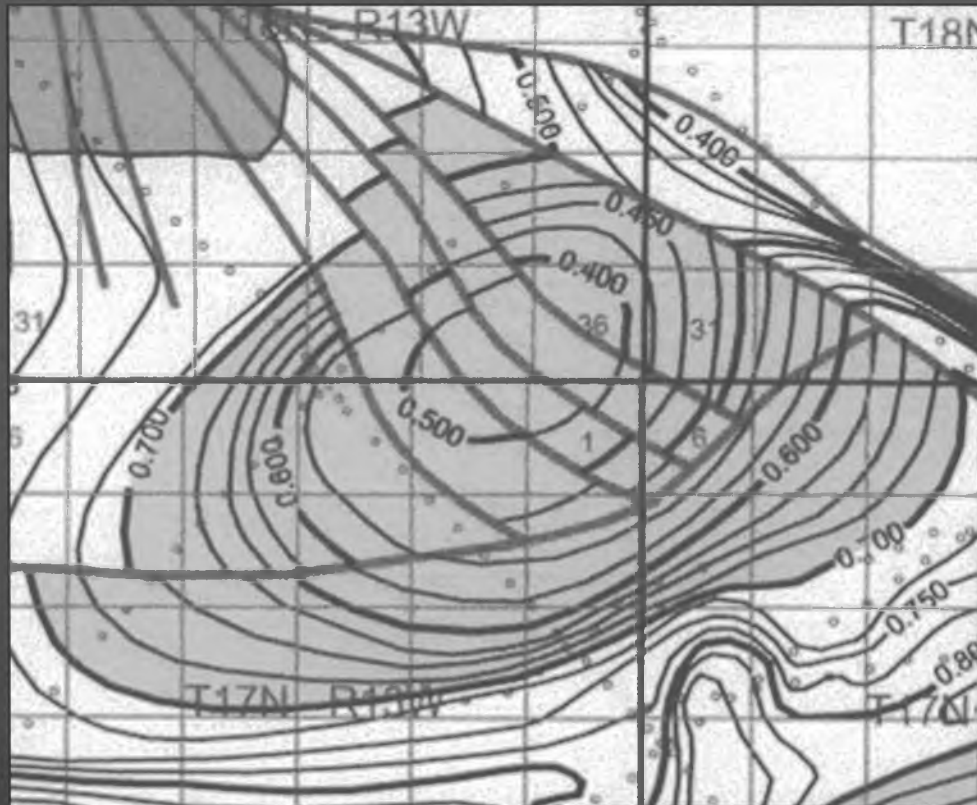
**Miocene Objectives**



# Amaouk Creek Prospect: Comparison to Partial Analogues

## Cook Inlet Gas Fields

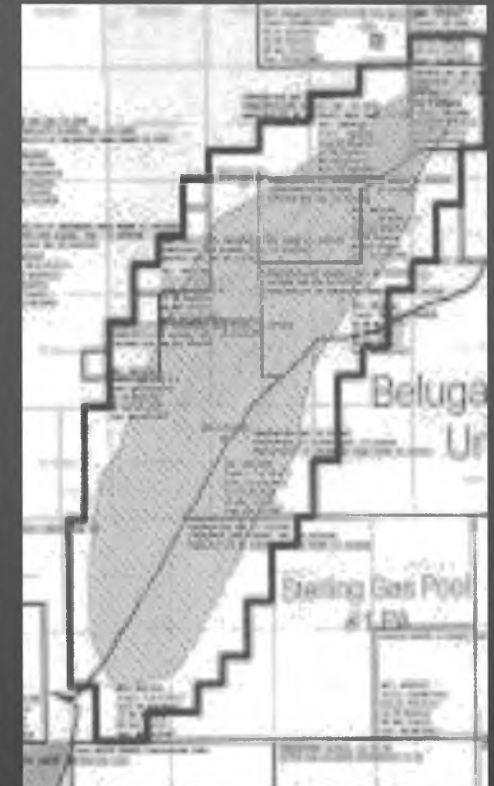
### Amaouk Creek Prospect



**Kenai Gas Field  
Structure Map  
Top Beluga Fm.  
Cum.: 2.4 TCF**



**Beluga River Gas  
Field  
Structure Map  
Top Sterling Fm.  
Cum.: 1.2 TCF**



Maps at same horizontal scale

# Key Points

- ▶ Major unexplored deep (20,000') sedimentary basin
  - ▶ similar in size to Cook Inlet & San Joaquin-Sacramento Basins
- ▶ Potential significant petroleum producing province
- ▶ Favorable hydrocarbon system
- ▶ Many large targets – structural and stratigraphic
- ▶ Has proved difficult to attract exploration financing
- ▶ This is a wildcat play
- ▶ Incentives will help with local, regional and perhaps statewide energy solutions

## Contacts

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A HUNT FOR GIANT OIL AND GAS RESERVES



# Northwest Alaska, LLC & NANA Regional Corp.

## NORTHWEST ALASKA OIL AND GAS PLAY

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### Southern Chukchi Sea – Onshore Kotzebue Basin



~2.2 million mineral acres (NANA fee)

~30 prospects: 3,000-9,000' depth

Most-likely risked reserves of 9 premier prospects:

3.1 billion barrels oil-equivalent

READY TO DRILL 2012

# Northwest Alaska, LLC & NANA Regional Corp.



## Project Summary

The Kotzebue Basin may contain giant oil and gas reserves. Located offshore under the southern Chukchi Sea and onshore in northwest Alaska, it is one of the major sedimentary basins of North America, with 20,000 feet or more of Tertiary and Cretaceous basin-fill. The basin is about the same size as the prolific Alaska Cooke Inlet Basin (cumulative 10 TCFG) and is interpreted to have a petroleum system similar to that of the Cooke, including:

- a self-sourcing biogenic (microbial) gas system associated with thick Tertiary nonmarine coals and carbonaceous mudstones that are in the present-day biogenic gas window at 0-6,000 feet, and
- a thermogenic oil-gas system in deeper basinal source areas between 6,000-20,000+ feet

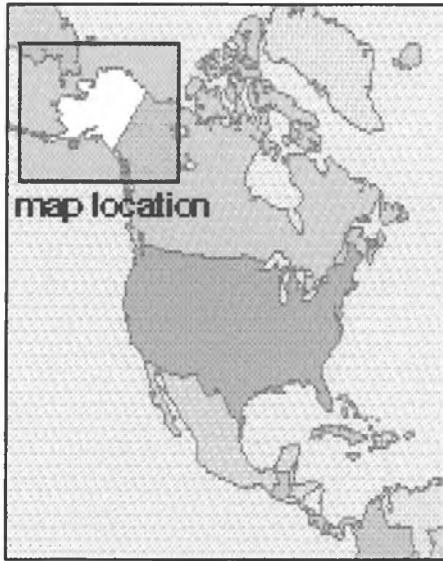
In the 1970s, SOCAL collected a vast amount of data in the area and drilled two stratigraphic test wells that encountered thick, highly-prospective sequences of interbedded sandstone, conglomerate, mudstone and coal, with oil and gas shows. These stratigraphic test wells did not evaluate prospects, but did demonstrate that hydrocarbons are present and that the components critical for major hydrocarbon accumulations are also present – thick and highly porous and permeable reservoirs (sandstone and conglomerate), source (mudstone and coal), seal (mudstone), and large potential traps (structural and stratigraphic). There is also potential in fractured and weathered basement reservoirs, and in shallow traps sealed by permafrost.

Approximately thirty prospects are identified, some of which are immense, potential giants. The Cape Espenberg Prospect, located near the cape, is a shallow anticlinal dome with approximately 70 square miles of structural closure. The Amaouk Creek Prospect, located north of the Kobuk Delta, is an anticline with approximately 30 square miles of structural closure. These two prospects are assigned most-likely risked recoverable reserves of 1.65 billion barrels oil equivalent.

NANA Regional Corporation controls the onshore portion of the basin (mineral interests covering 2.2 million acres) and is working jointly with NW Alaska, LLC to advance the exploration and development project. These companies are seeking one or more additional significant partners to join the project.

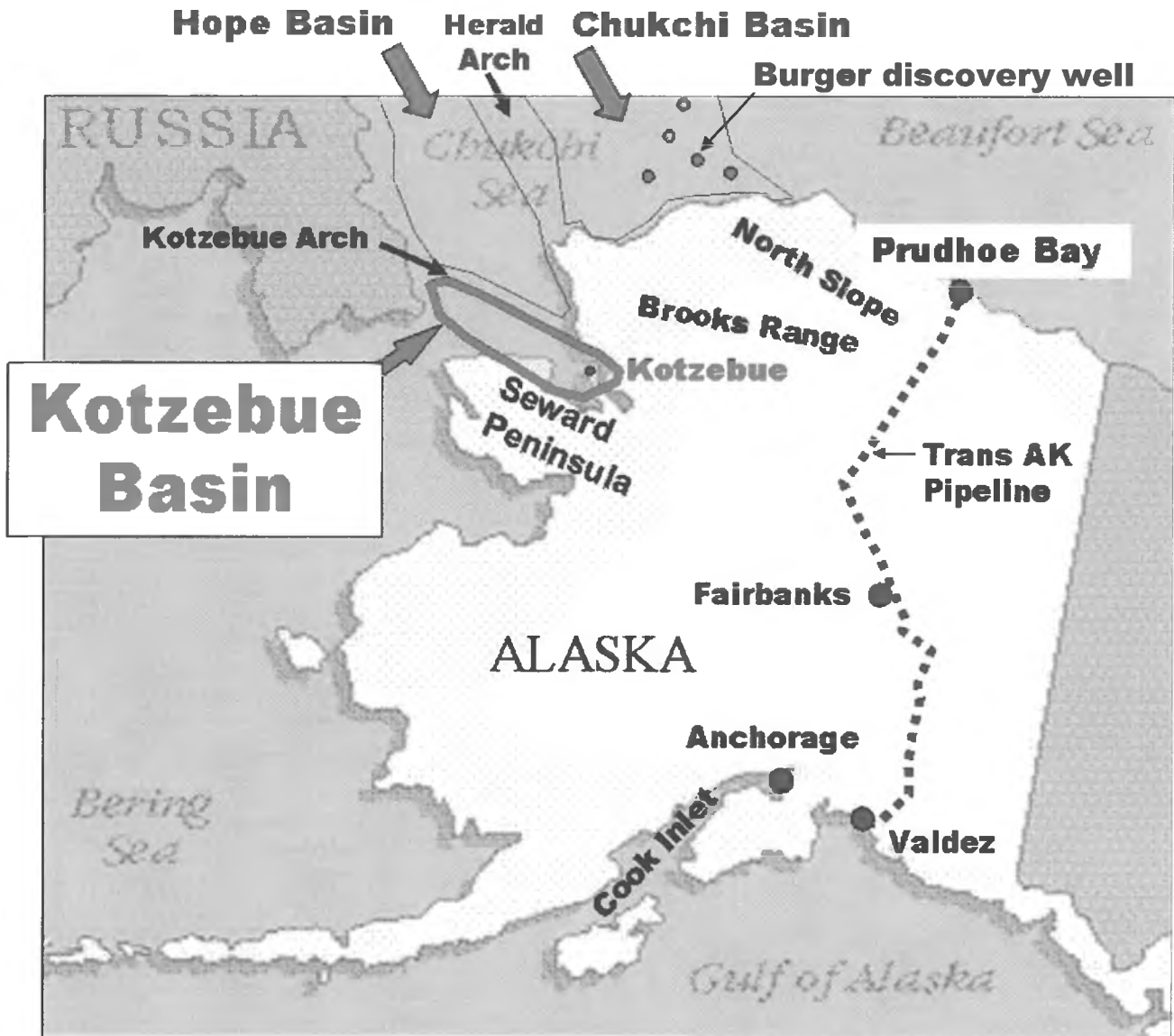
**Important Notice:** The data provided here are believed to be valid, and the interpretations are considered to represent reasonable judgment. However, NW Alaska LLC, NANA Regional Corporation and their associates, advisors and consultants, do not warrant the validity of the data and interpretations and shall not be liable for any losses or damages that stem from their use. Oil and gas exploration projects have intrinsic risks, including but not limited to loss of an entire investment. Actual project results may be substantially different from those postulated here. This oil and gas play is appropriate for sophisticated companies and individuals with significant experience in the petroleum industry, who should conduct their own evaluation of the data and risks. This is a nonexclusive offering, subject to prior sale, and may be withdrawn by the presenting parties at any time.

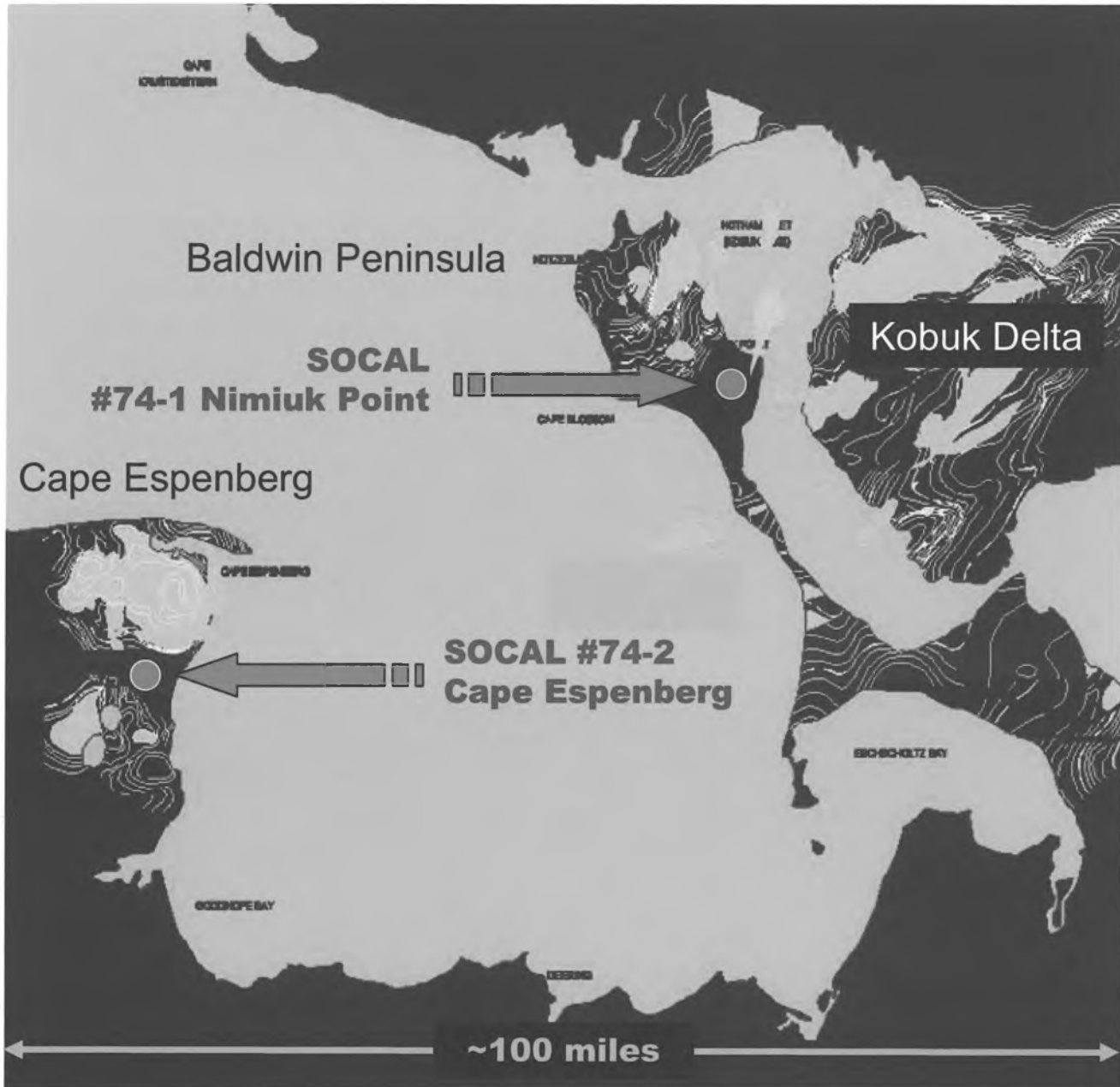
# Northwest Alaska, LLC & NANA Regional Corp.



The Kotzebue Basin is located primarily offshore under the southern Chukchi Sea, and also onshore under the lands of the NANA Regional Corporation. The oil and gas play is onshore, under NANA's 2.2 million mineral acres.

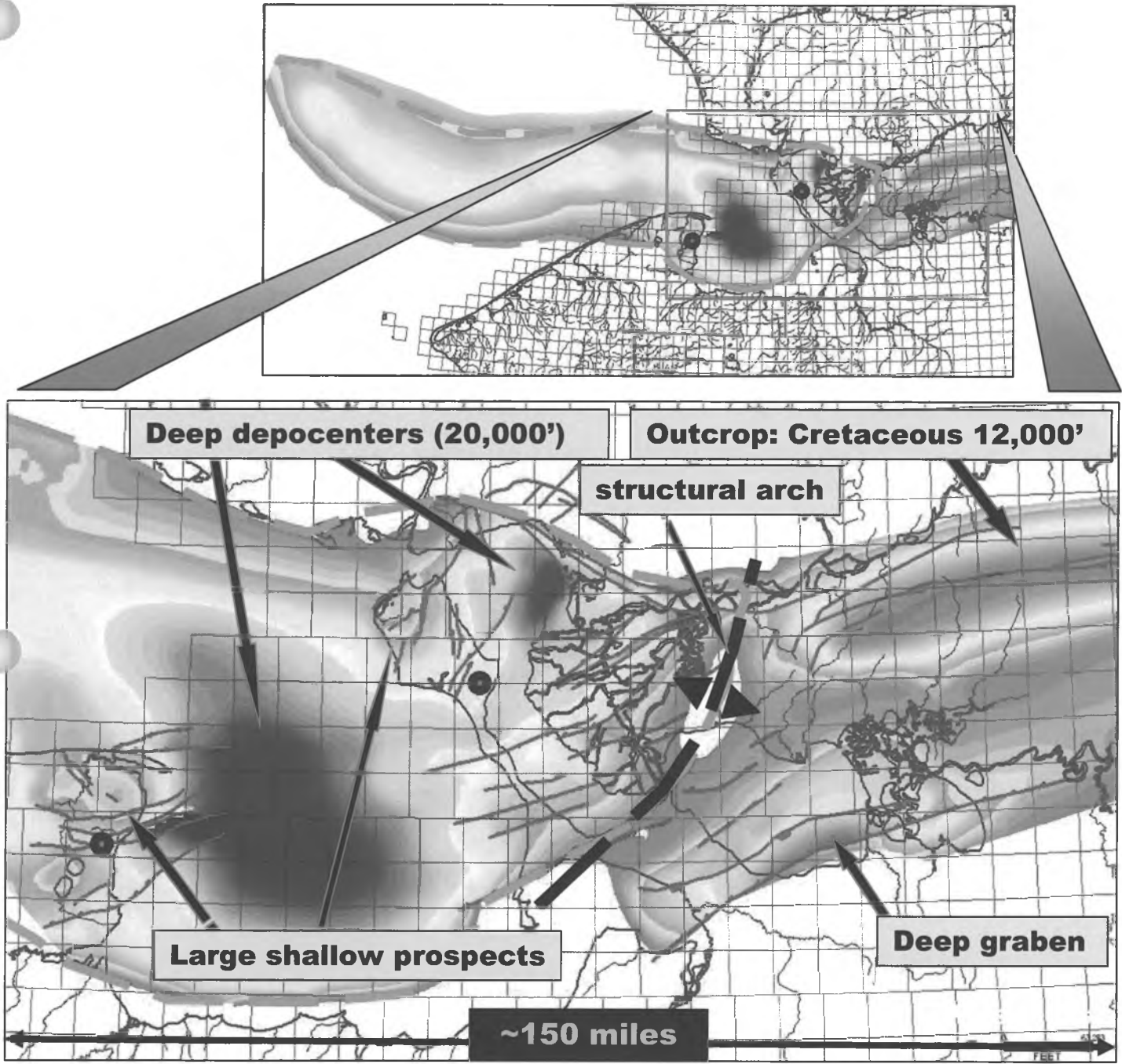
The basin is 350 miles long by 80 miles wide, and it contains 20,000 feet or more of Tertiary and Cretaceous basin-fill. Structural arches and sub-basins separate the Kotzebue Basin from the greater Chukchi Basin to the north, where significant oil-gas reserves have been discovered and billions of dollars spent on federal leases.



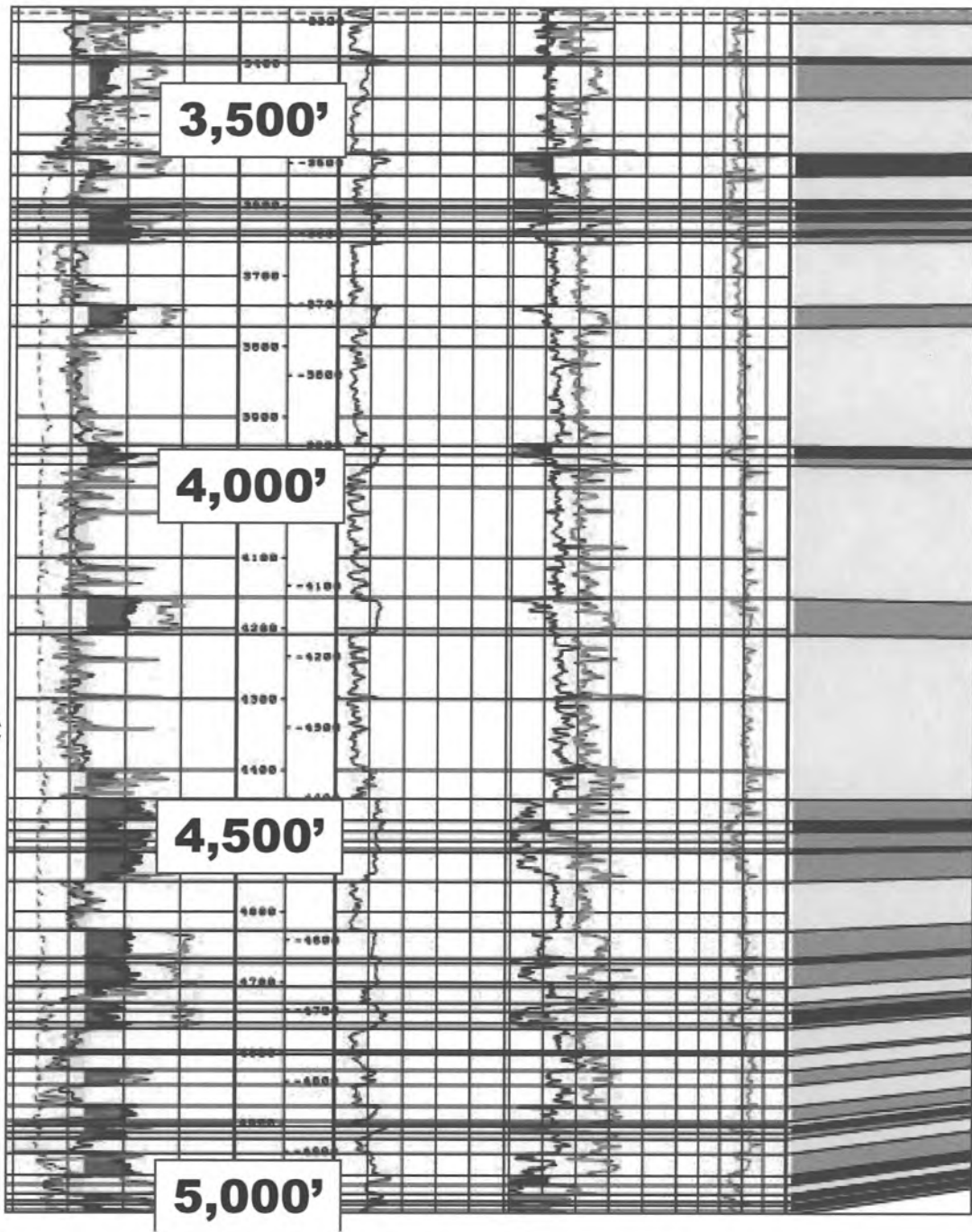


Shown here are areas of land (black), water (blue), petroleum prospects (orange) and the locations of the two stratigraphic test wells (red dots). Note that prospects occur primarily in three land areas: Cape Espenberg, the Kobuk Delta and the Baldwin Peninsula.

# Northwest Alaska, LLC & NANA Regional Corp.



Shown here is a Time Structure Map of Top Acoustic Basement (Paleozoic). Dark blue areas have approximately 20,000 feet of Tertiary and probably Cretaceous basin-fill above basement, grading to shallow areas in dark red. Note locations of large shallow prospects at Cape Espenberg and the Baldwin Peninsula, two major deep depocenters, a shallow structural arch on the east flank of the basin, and location of outcrops of 12,000' of Cretaceous. Locations of the two stratigraphic test wells also shown.

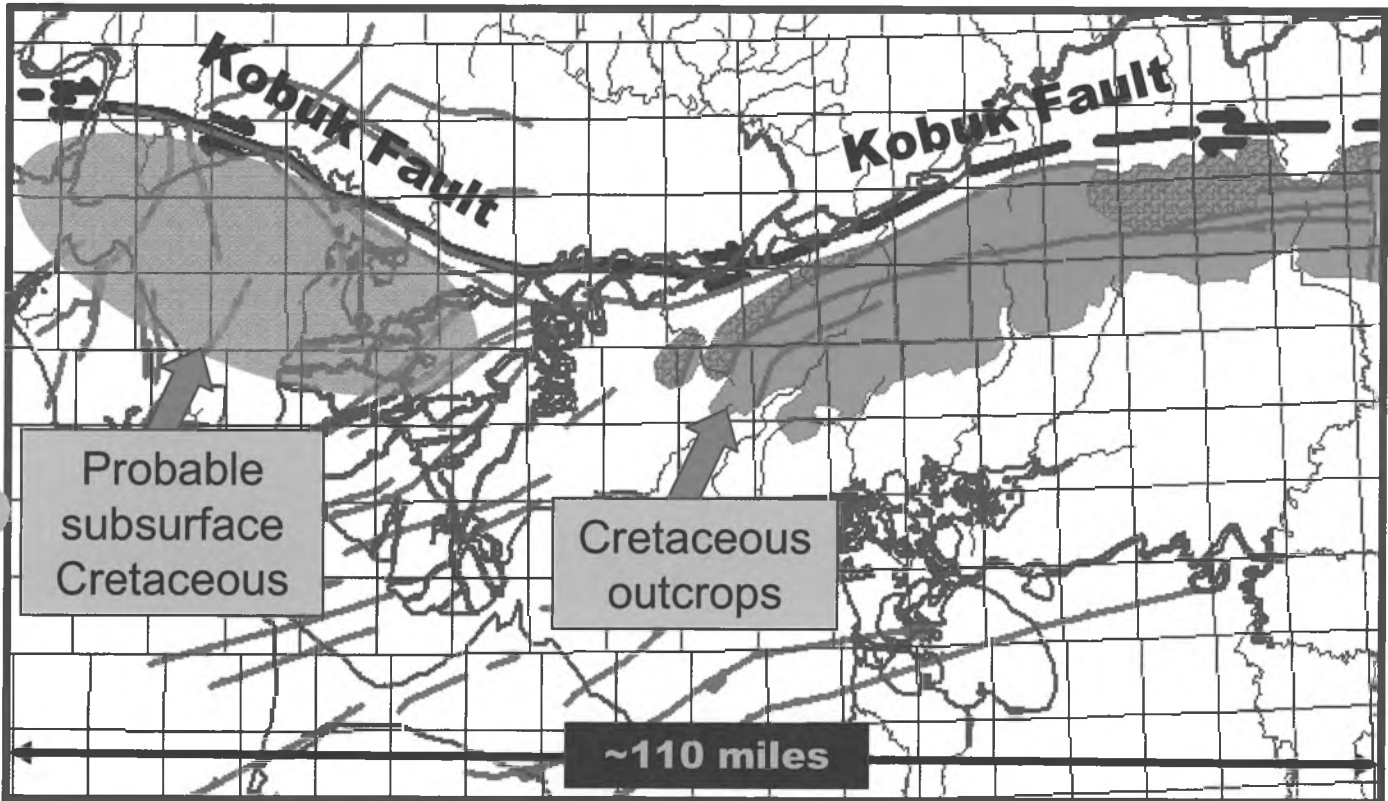


100 ft ⇕

Shown here is an example of a highly-prospective interval that was drilled in one of the stratigraphic test wells. It is a 1,700 foot thick interval of Eocene-Oligocene strata, comprised of thick, stacked sandstone reservoir targets (yellow), stacked layers of mudstone source and seal beds (brown), and layers of coal source rocks (black). There are about 15 distinct sand bodies (reservoir targets), 10-200 feet thick each. This is a primarily nonmarine fluvial sequence, probably a mixture of low sinuosity braided and high sinuosity meandering systems.

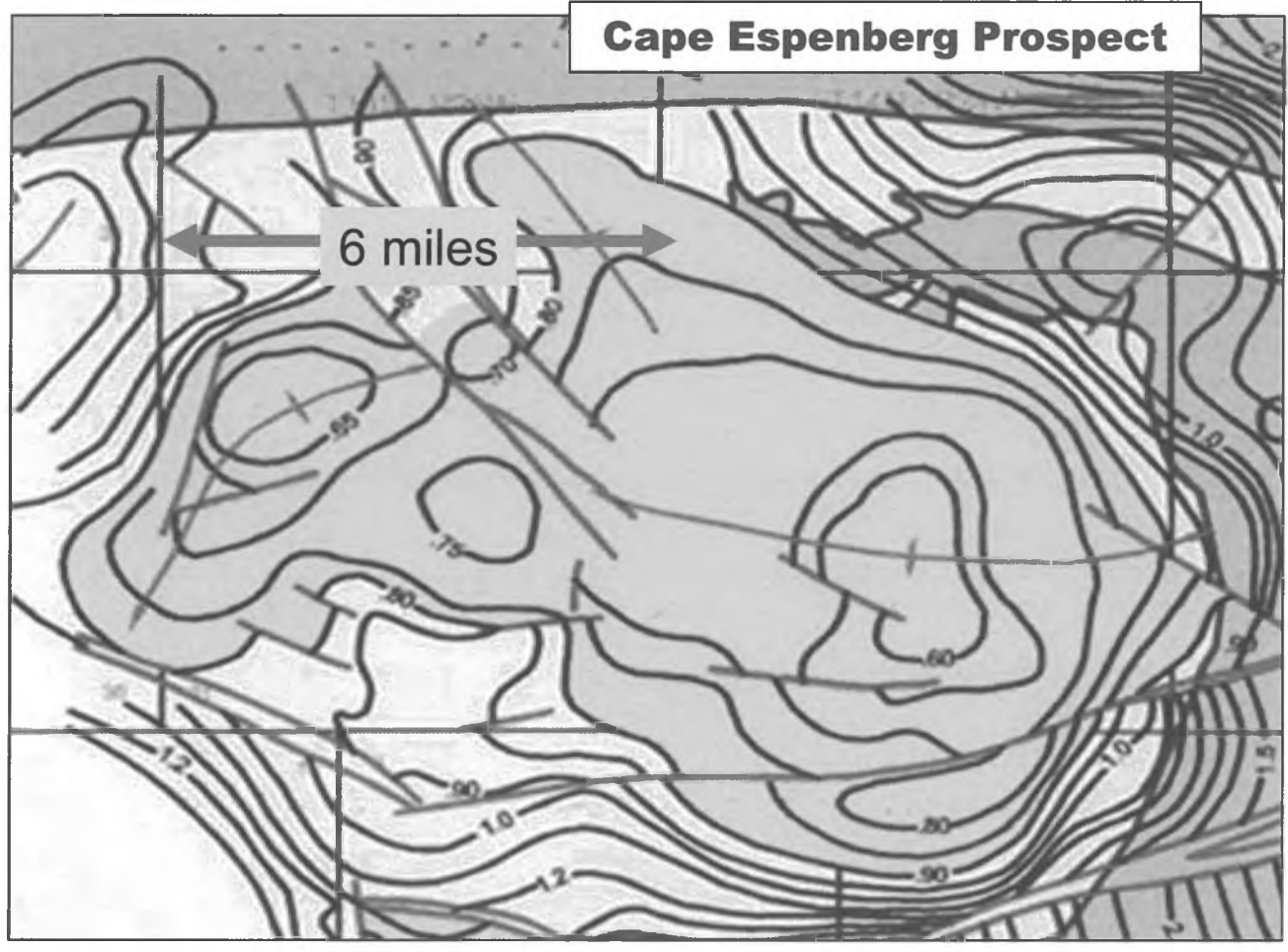
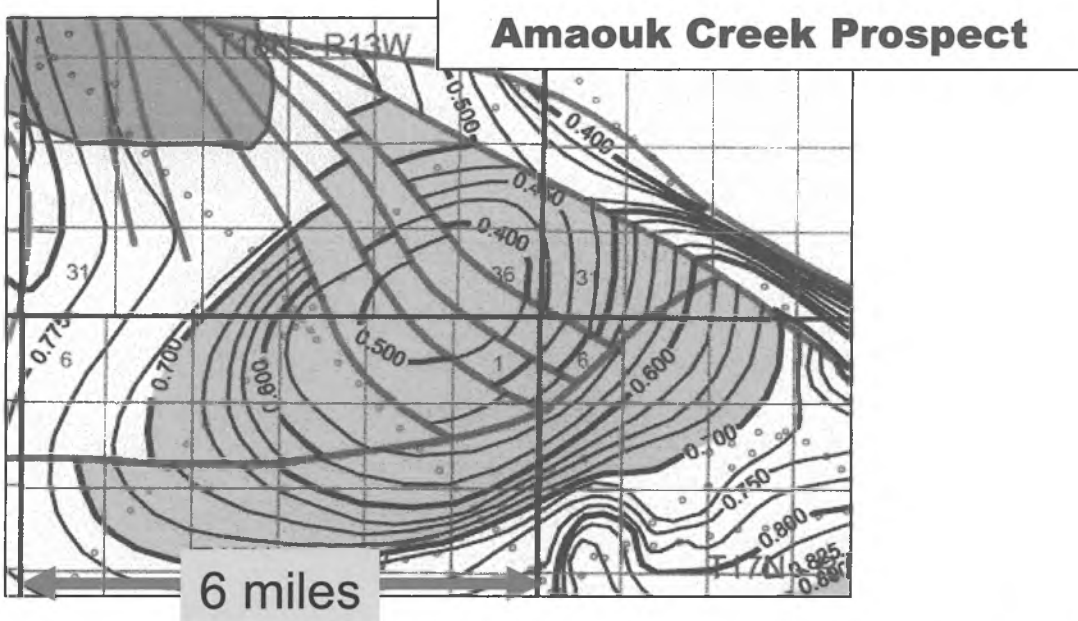
# Northwest Alaska, LLC & NANA Regional Corp.

Approximately 12,000 feet of Cretaceous sedimentary rocks are present in outcrops located about 12 miles east of the Kotzebue Basin (e.g., in the Hockley Hill area). The Cretaceous outcrops occur primarily on the down-dropped, southern side of the major right-lateral Kobuk fault and, based on seismic interpretation, also occur in the Kotzebue Basin. Cretaceous strata provide reservoir targets (sandstone and conglomerate), oil and gas source rocks (mudstone, shale, limestone, coal) and seals (shale and mudstone). Photos are of local outcrops of Cretaceous rocks.



# A HUNT FOR GIANT OIL AND GAS RESERVES

- Structure maps of two of the premier prospects
- Both maps at same horizontal scale



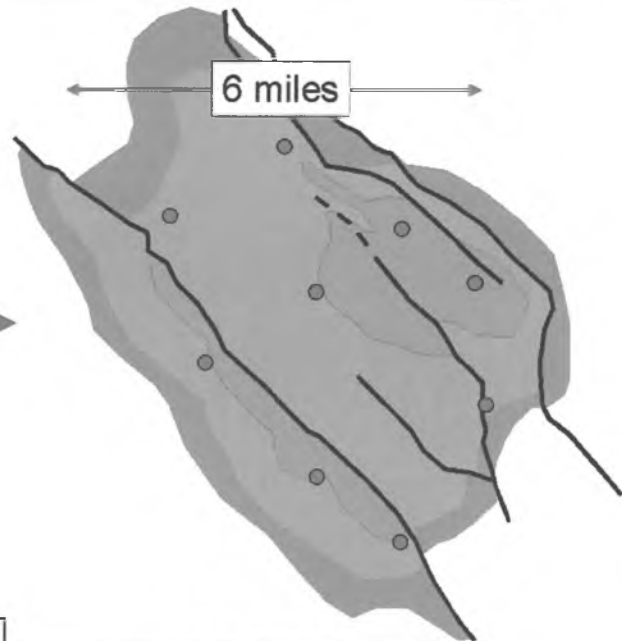


# A HUNT FOR GIANT OIL AND GAS RESERVES

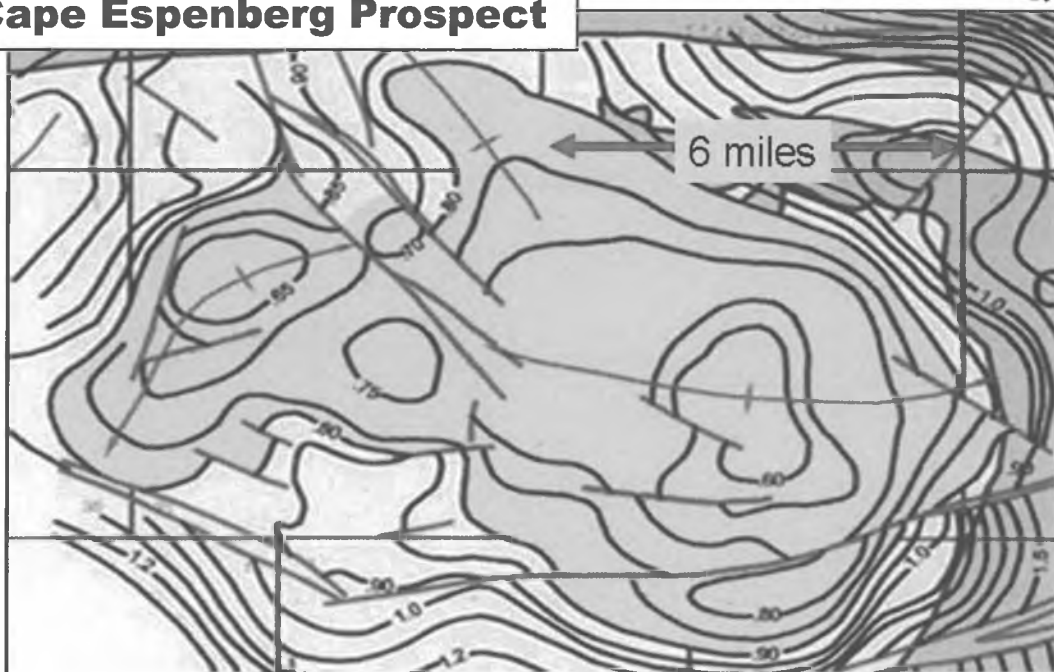


- **Comparison of the Cape Espenberg Prospect with the partial-analogue giant Suban Gas Field, South Sumatra Basin, Indonesia**
- **Both maps at same horizontal scale**

**Suban Gas Field  
Fractured-Weathered  
Basement Reservoir  
> 7 TCF gas-in-place**



**Cape Espenberg Prospect**

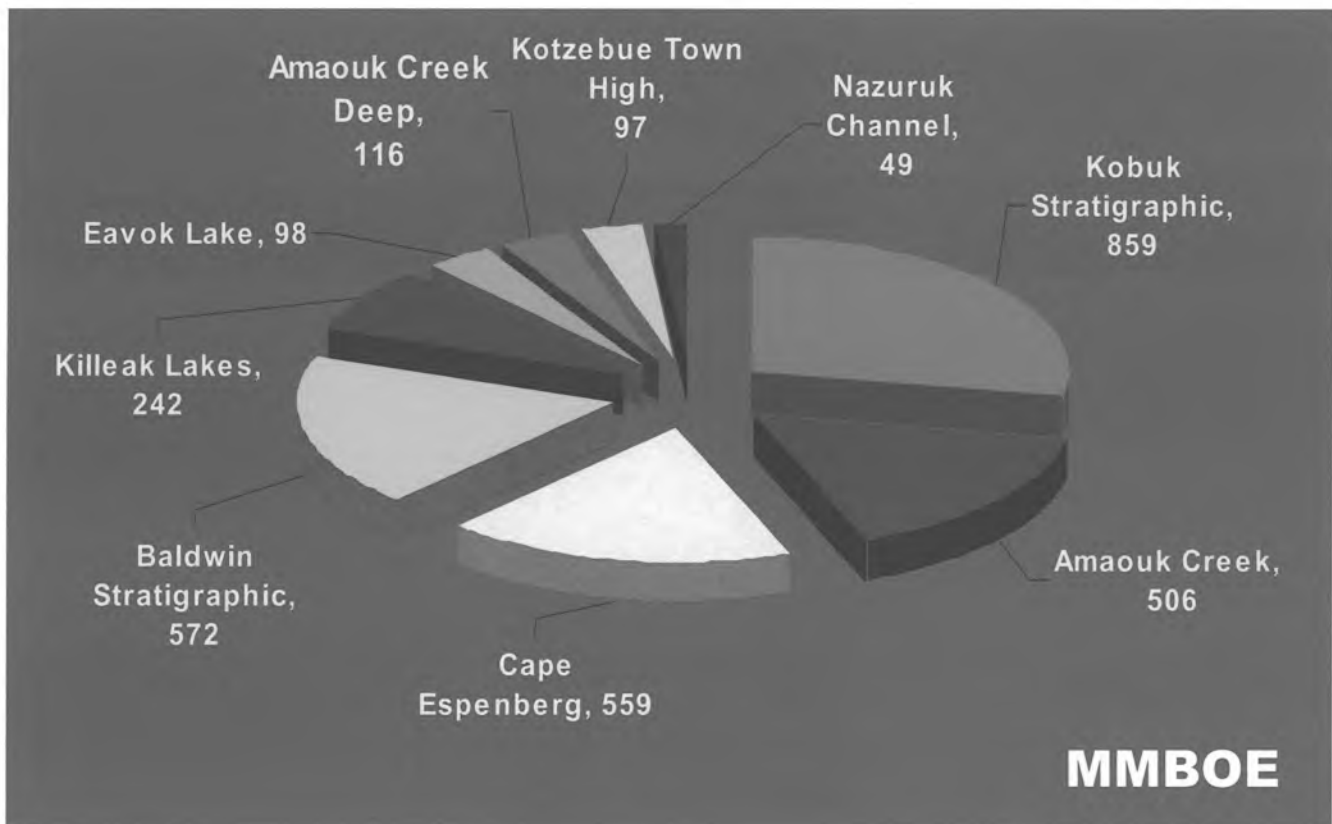


In addition to primary reservoir targets in stacked Tertiary sandstones, this prospect has deeper, secondary reservoir targets in Paleozoic (pre-Late Devonian) rocks, including limestone, dolomite, marble, schist and quartzite, which were subaerially exposed and weathered for millions of years. The Paleozoic has immense potential as weathered and/or fractured reservoir, similar to the that at the partial-analogue giant Suban Field (> 7 TCF original gas-in-place), although the Suban structure appears to be smaller.

# A HUNT FOR GIANT OIL AND GAS RESERVES



**For nine premier prospects:  
Risked, most-likely, recoverable reserves:  
2.8 billion barrels oil + 1.9 trillion cubic feet gas  
or  
3.1 billion barrels oil-equivalent**



A HUNT FOR GIANT OIL AND GAS RESERVES



# Northwest Alaska, LLC & NANA Regional Corp.

**NORTHWEST ALASKA OIL AND GAS PLAY**

**Southern Chukchi Sea – Onshore Kotzebue Basin**

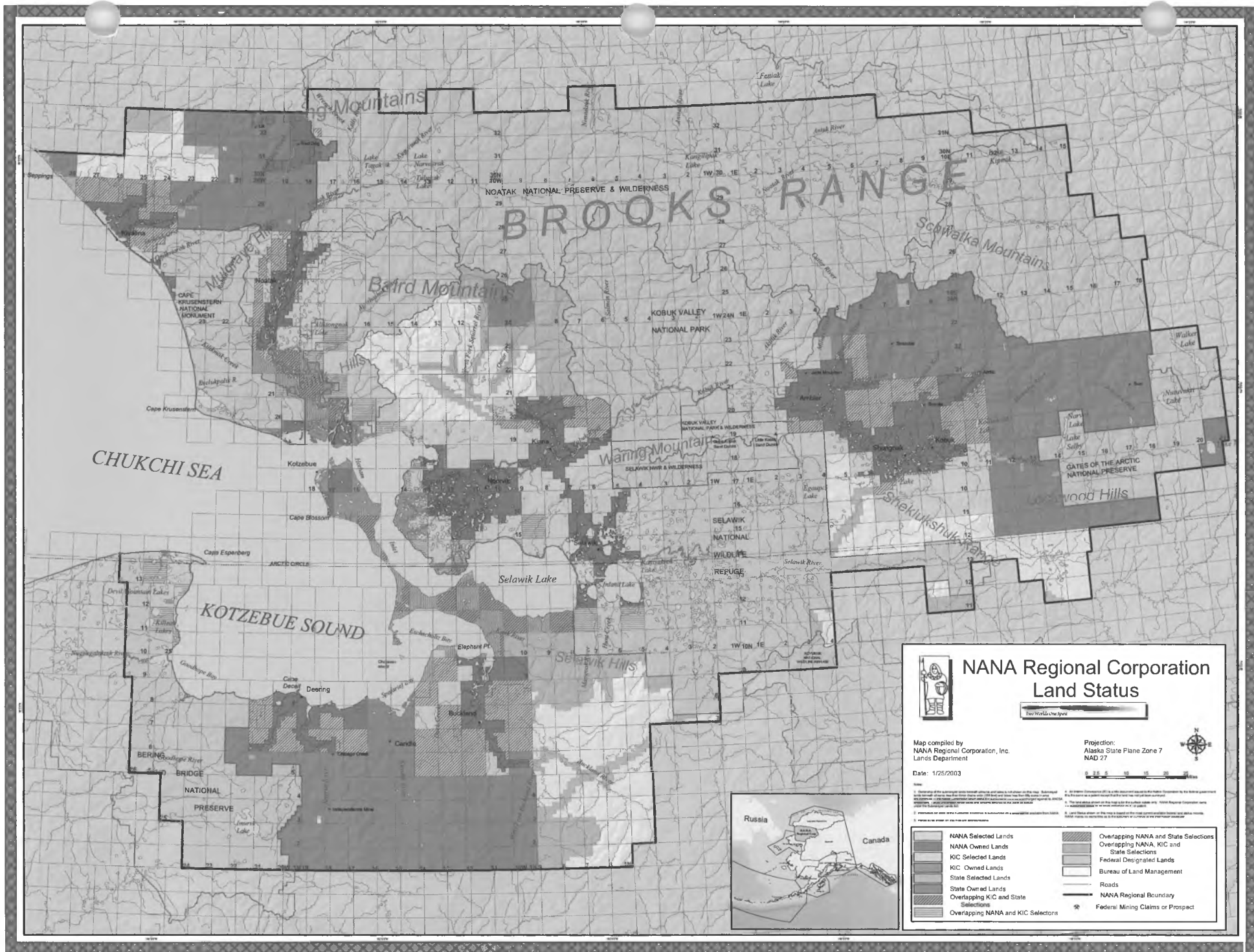
## Contact Information

Trio Petroleum LLC (Operator for NW Alaska, LLC)  
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Bakersfield, California, USA, 93309

office: 661.324.3911  
fax: 661.324.1122

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Steve Rowlee (vice president): [rowlee@triopetroleum.com](mailto:rowlee@triopetroleum.com)

Terry Eschner (consulting geologist)  
Sarlan Resources Inc. (president)  
P.O. Box 4587, Englewood, Colorado, USA 80155  
office: 303-220-8463  
fax: 303-770-6925  
[tbeschner@aol.com](mailto:tbeschner@aol.com)



## NANA Regional Corporation Land Status

Two World One Space

Map compiled by  
NANA Regional Corporation, Inc.  
Lands Department

Projection:  
Alaska State Plane Zone 7  
NAD 27

Date: 1/25/2003



- |  |                                      |  |  |
|--|--------------------------------------|--|--|
|  | NANA Selected Lands                  |  | Overlapping NANA and State Selections      |
|  | NANA Owned Lands                     |  | Overlapping NANA, KIC and State Selections |
|  | KIC Selected Lands                   |  | Overlapping NANA, KIC and State Selections |
|  | KIC Owned Lands                      |  | Federal Designated Lands                   |
|  | State Selected Lands                 |  | Bureau of Land Management                  |
|  | State Owned Lands                    |  | Roads                                      |
|  | Overlapping KIC and State Selections |  | NANA Regional Boundary                     |
|  | Overlapping NANA and KIC Selections  |  | Federal Mining Claims or Prospect          |

1. Ownership of the selections shown on this map is subject to the final determination of the Bureau of Land Management. 2. The map shows only the selections that are currently in effect. 3. The map shows only the selections that are currently in effect. 4. The map shows only the selections that are currently in effect. 5. The map shows only the selections that are currently in effect. 6. The map shows only the selections that are currently in effect. 7. The map shows only the selections that are currently in effect. 8. The map shows only the selections that are currently in effect. 9. The map shows only the selections that are currently in effect. 10. The map shows only the selections that are currently in effect.