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Figure 1. Alaska coal basins and coal occurrences [1].

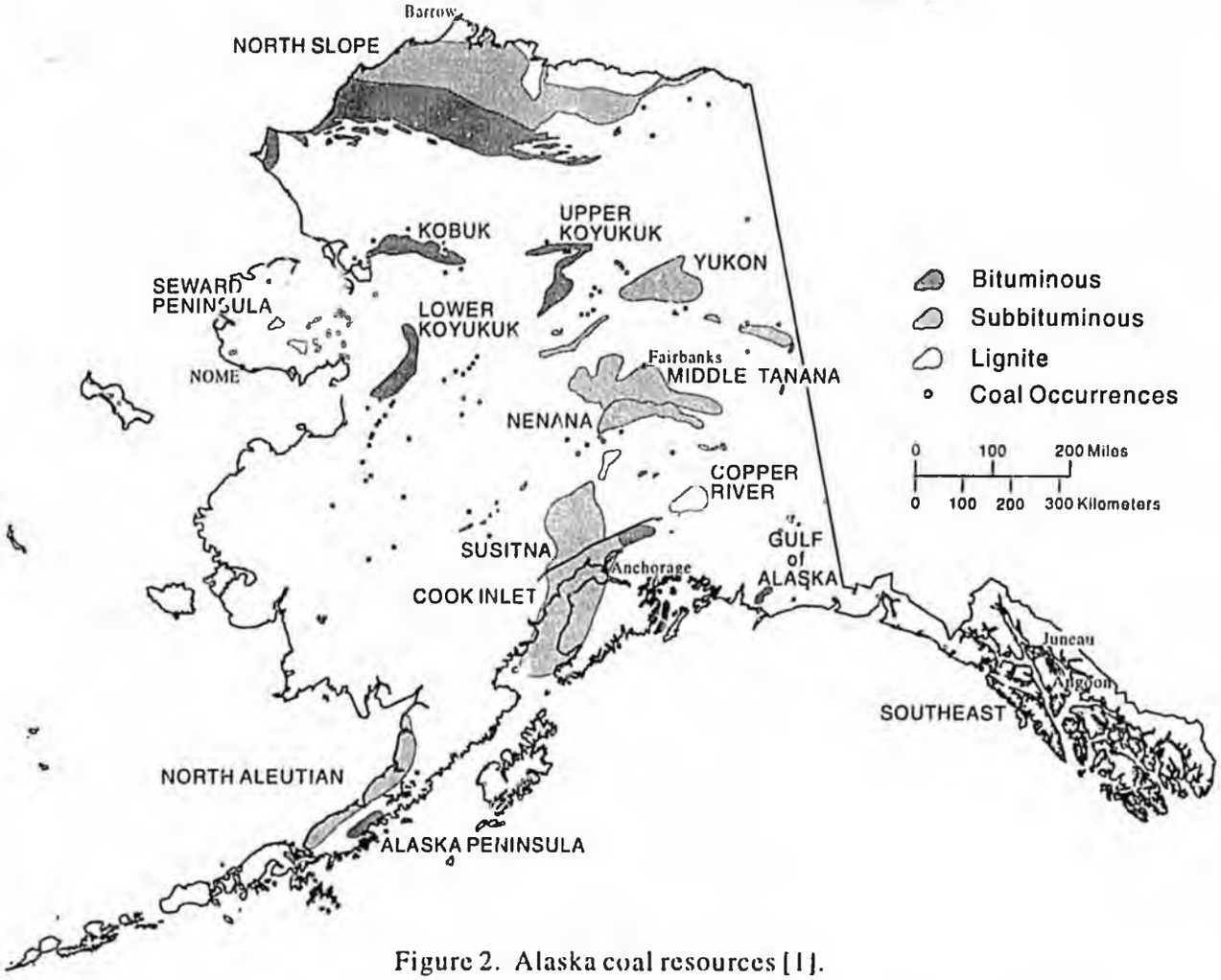


Figure 2. Alaska coal resources [1].

RANK OF COAL	BASIN	HYPOTHETICAL RESOURCES (Billion short tons)
BITUMINOUS COAL		
	North Slope	2,500
	Cook Inlet	500*
	Alaska Peninsula	3
	Gulf of Alaska	4
	Upper and Lower Koyukuk	1
	Kobuk	1
SUBBITUMINOUS COAL		
	North Slope	1,500
	Cook Inlet	1,000
	Nenana	15
	Susitna	3
	Tanana	45
	Yukon	1
	North Aleutian	No Estimate
LIGNITE COAL		
	Copper River	No Estimate
	Seward Peninsula	0.1

*Includes subsurface for Cook Inlet Basin from well data and Matanuska field coals.

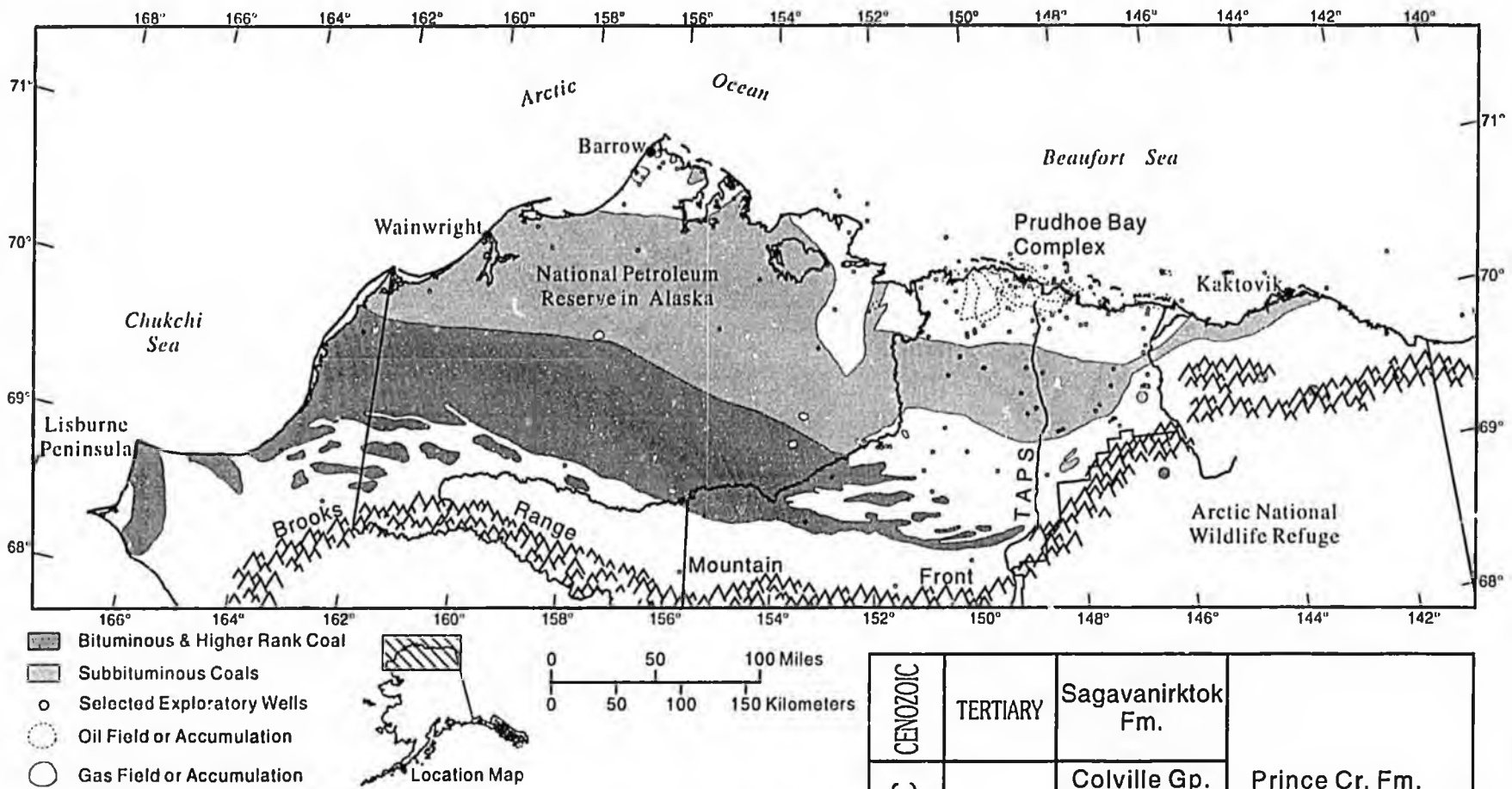


Figure 3. Extent of Northern Alaska Province (North Slope) coals [1].

CENOZOIC	TERTIARY	Sagavanirktok Fm.	
MESOZOIC	CRETACEOUS	Colville Gp.	Prince Cr. Fm.
		Nanushuk Gp.	Corwin Fm.
		Kuparuk Fm.	
	JURASSIC	Kingak Fm.	
	TRIASSIC	Sadlerochit Gp.	
PALEOZOIC	PERMIAN	Lisburne Gp.	
	PENN.		
	MISS.	Endicott Gp.	Kekiktuk Fm.
	DEVONIAN		Kapaloak Fm.

Figure 4. North Slope generalized stratigraphic column.

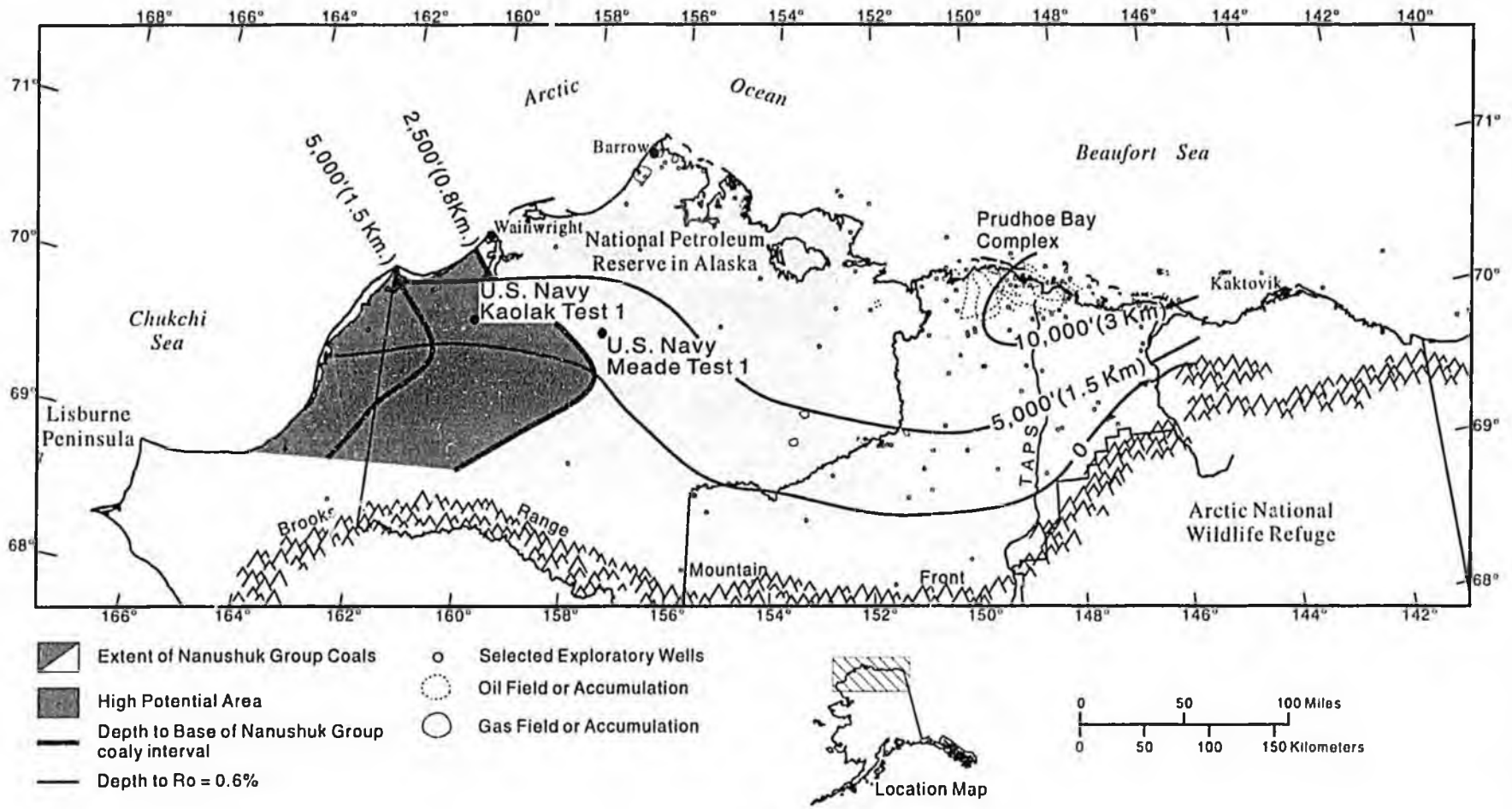


Figure 5. Extent of Nanushuk Group coals [9] and area of high coalbed methane potential.

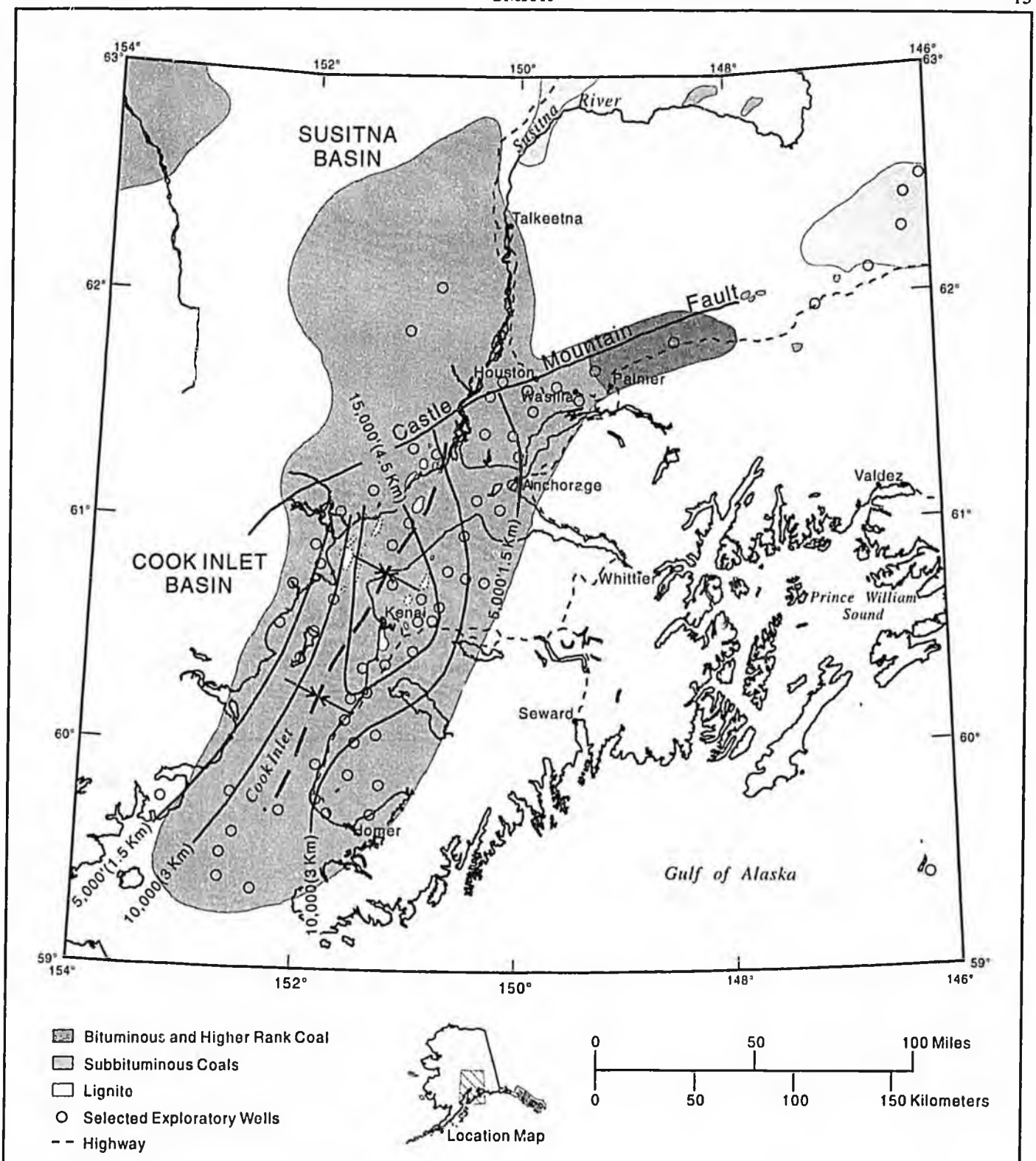


Figure 6. Extent of Cook Inlet-Susitna Province coals [1] showing the basin axis and contours showing depth to Ro = 0.6%.

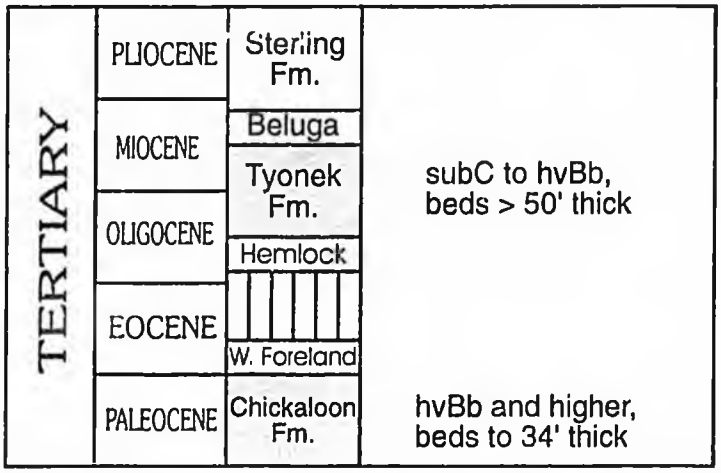


Figure 7. Cook Inlet generalized stratigraphic column.

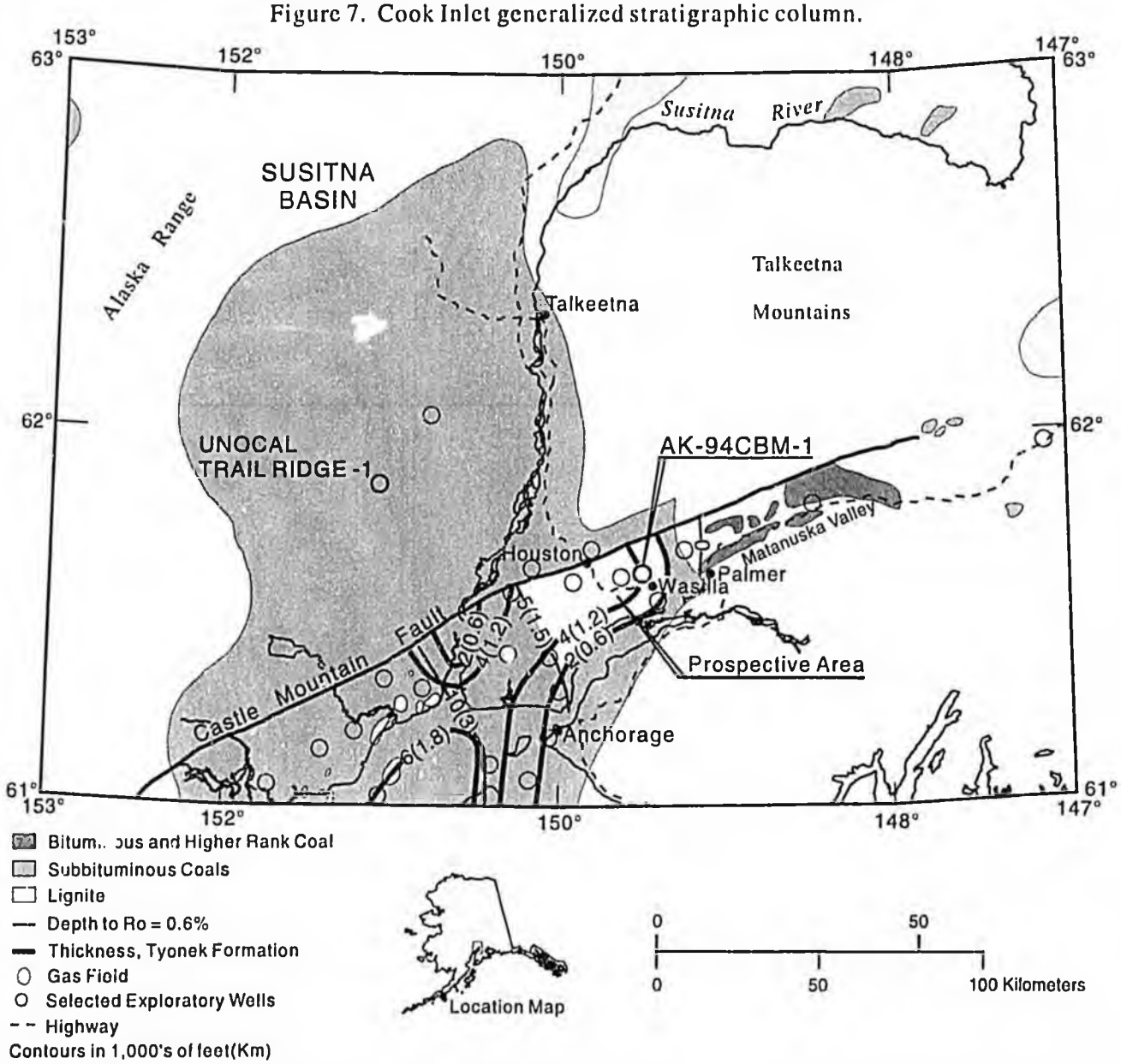
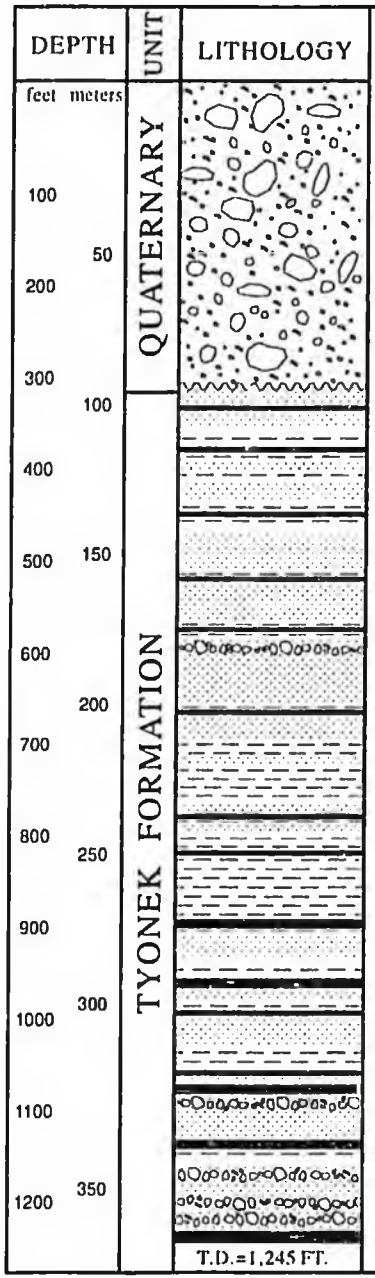


Figure 8. Extent of Susitna and upper Cook Inlet coals [1] showing Tyonek Formation thickness, depth to Ro = 0.6% and prospective area for Tyonek Formation coals.



Legend

- Coal
- Siltstone and mudstone
- Sandstone
- Conglomerate
- Glacial deposits

Seam No.	Gas (DAF) cm^3/gram	Gas (DAF) scf/ton	Moisture %	Ash %	Volatile Matter %	Fixed Carbon %	Ro %	$\delta^{13}C$
1	1.96	63	9.02	8.47	33.80	48.71	0.48	
2	4.14	132	7.13	19.60	32.78	40.49		
3	4.99	160	7.43	11.80	34.34	46/43		-48.9
4	5.31	170	7.96	8.26	34.55	49.23	0.47	
5	5.16	165	5.06	49.80	21.93	23.21		-49.3
6	5.54	177	6.02	14.30	33.84	45.84	0.56	-48.3
7	4.42	141	6.15	26.84	29.47	37.54		-47.0
8	5.94	190	7.17	5.57	37.50	49.76	0.52	
9/10	5.10	163	6.25	14.62	35.18	43.95		
11	5.73	183	5.53	40.18	23.42	30.87		
12	5.72	183	5.23	44.74	22.85	27.18	0.58	-43.3
13	7.66	245	4.82	42.00	30.15	23.03	0.58	-44.0

Figure 9. Coal analyses for AK-94CBM-1.

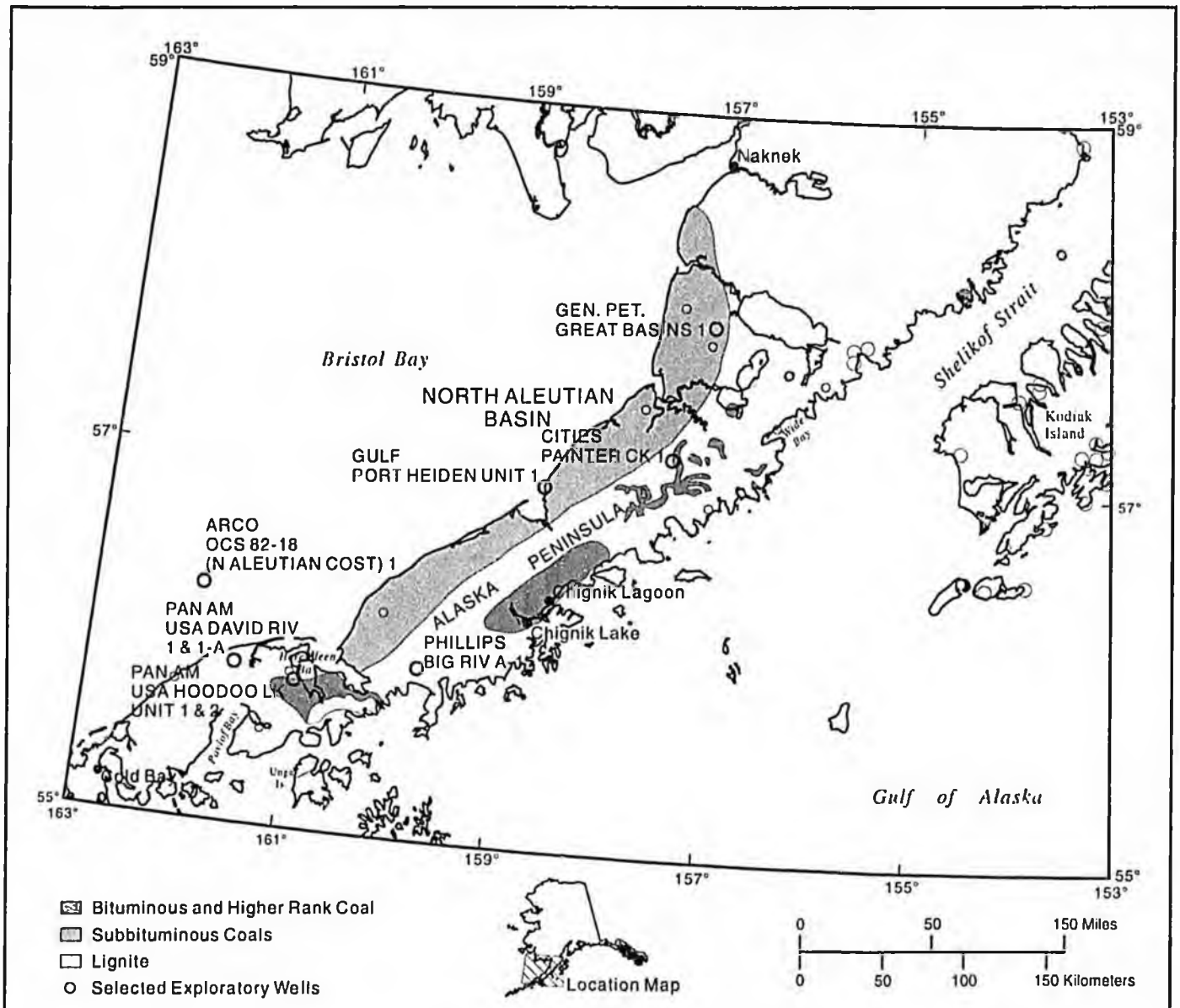


Figure 10. Extent of Alaska Peninsula Province coals [1].

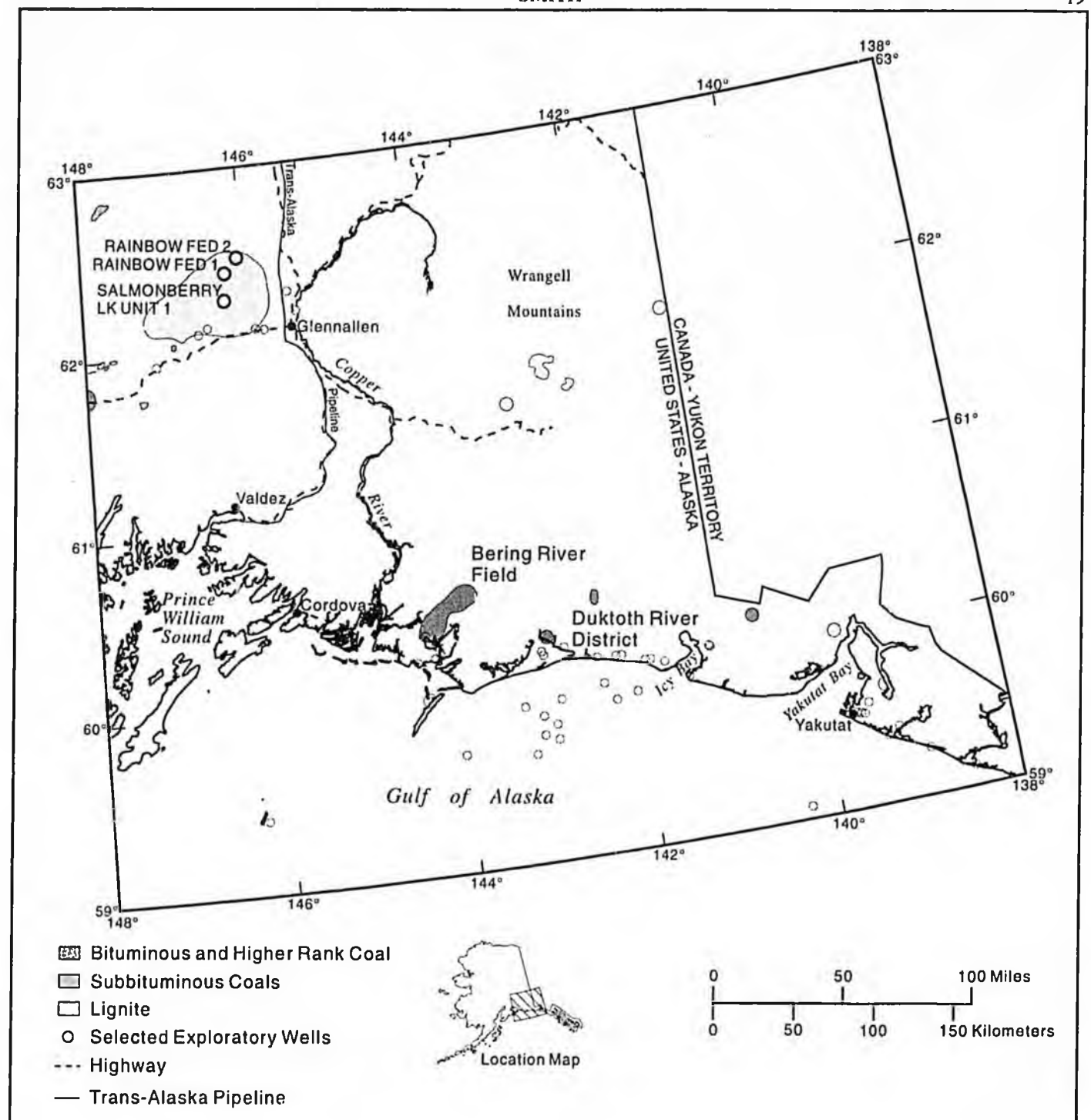


Figure 11. Extent of Gulf of Alaska Province coals and the Copper River Basin [1].

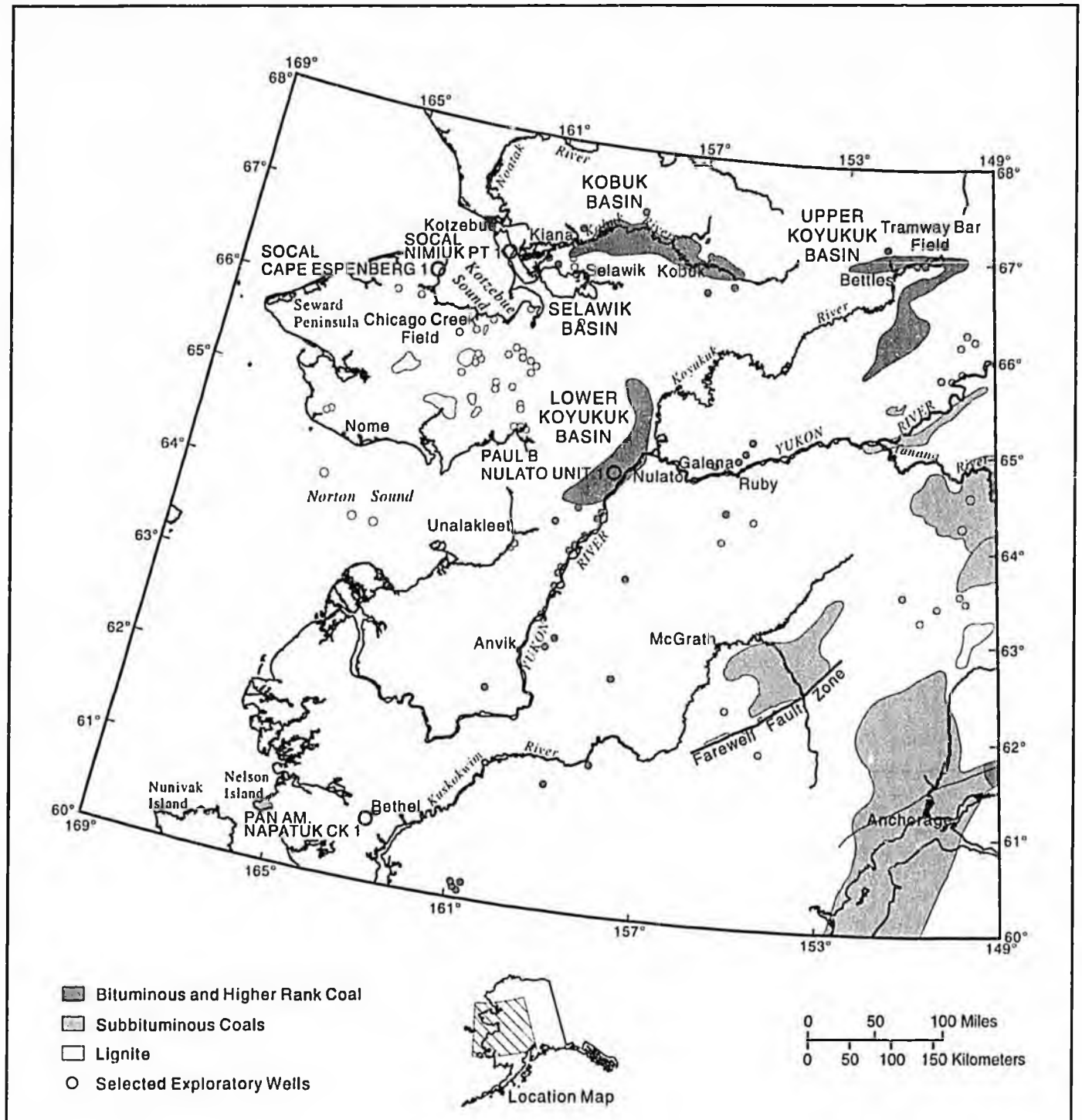


Figure 12. Extent of Yukon-Koyukuk and Seward Peninsula Provinces [1].

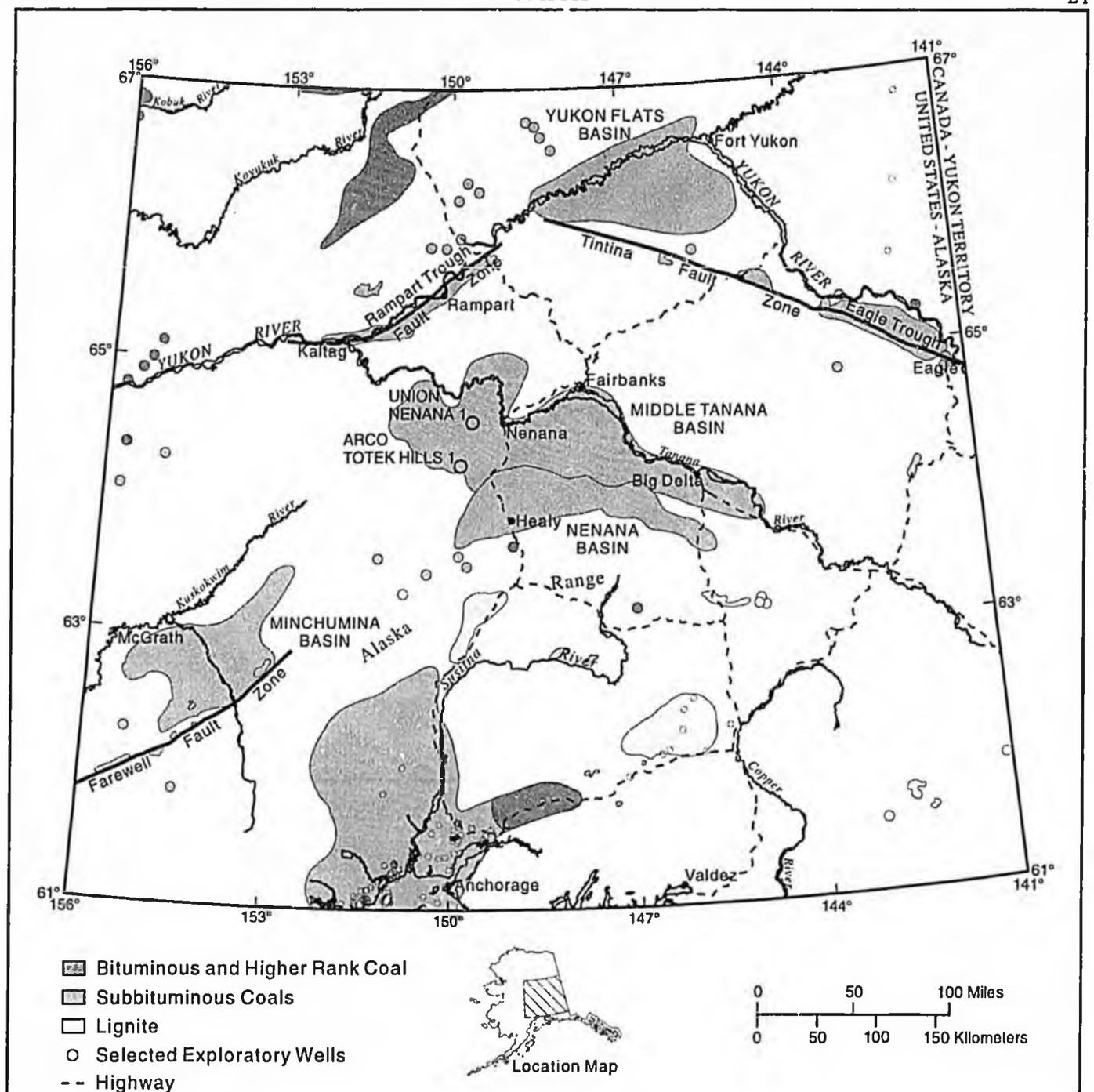


Figure 13. Extent of Nenana Province and Northern Yukon Province coals [1].

ISSUES CONCERNING COALBED METHANE DEVELOPMENT

- **MARKET**

  Cook Inlet has about a 10 to 12 year gas supply at current usage; CBM must compete with conventional gas. In rural areas, CBM must compete with current energy (usually diesel) source.

- **COST**

  Large scale Alaska oil and gas development must compete in a world market--Independents and majors need to keep overhead down in order to make CBM projects economic. In rural communities, economics for CBM may be more favorable.

- **REGULATIONS**

  AOGCC is currently revising drilling regulations, rig specifications, and bonding requirements to accommodate small-scale, low cost operations. Under their new regulations, permitting CBM wells should no longer be a problem. Other stratigraphic wells could still fall in a gray area as far as permitting is concerned.

  ADEC requires a $1,000,000 bond for exploratory drilling, however no bond is required for gas production wells. This bonding rule needs to be lowered for CBM exploratory wells to be more in line with the true environmental risks. Also, ADEC regulations make disposal of drilling wastes and all produced water expensive and difficult. Regulations are needed for easier disposal of nontoxic drilling wastes and produced water.

  ADOG is currently revising royalty reduction statutes for low margin projects such as CBM and is looking for ways to streamline leasing procedures.

- **OWNERSHIP**

  CBM ownership on state lands can be addressed on the leasing forms for both mining and oil and gas. Colorado is the only western state to do this and provides Alaska with an example. Ownership on private, native and federal acreage could still pose problems.

Coalbed Methane Summary

History.

Methane from coal seams is nothing new. Coal miners considered it a nuisance to mining operations. They found ways to produce it as early as the turn of the century in the US through drill holes to prevent mining accidents.

Compared to conventional gas production, production from coalbeds is very new. In the early 70's, US Bureau of Mines and US Steel started a program to produce methane before coal was mined, drilling the first coalbed methane wells in Alabama in 1971. Commercial production also began in Alabama in the Black Warrior basin in 1980.

The Windfall Profit Act of 1980 through the nonconventional fuel tax credit has greatly added to the current activity in developing this resource. The credit was about 90 cents per 1000 cf (mcf) in 1991 and slowly goes up each year with 1992 receiving 93.6 cents per mcf. Wells drilled after 1993 do not receive this credit.

What is coalbed methane?

Coalbeds are both sources and reservoirs for the gas formed from coalification-- the process of converting organic material from peat, lignite, subbituminous, bituminous, and finally anthracite. Through these stages both biogenic (swamp gas) and thermogenic gases, primarily methane, are produced Once the coal is saturated with gas, the gas migrates to the associated sediments, as is probably the case in Cook Inlet where at least the shallower gas reservoirs were probably sourced from the coals.

The coals can store high concentrations of the methane, as much as 3 to 4 times that of a sandstone reservoir under similar conditions. This is due to the extremely high internal surface area of the coal.

Gas is stored in both microporosity where it is absorbed within the molecular structure and micropores and macro- porosity, fractures and cleats similar to that of a conventional sandstone reservoir.

How is it produced?

The absorbed gas stored in the coal matrix or micropores, desorbs and diffuses through the coal. The gas migrates to the large pores and into the cleat and fracture system and finally into the well bore. In order to get this to happen, the pressure is lowered on the coal by removing the water, usually by pumping. Once a pressure gradient is established, methane then can diffuse into the fracture system and finally into the well bore.

A negative decline is usually established where water production starts out high and gradually lowers and gas production increases until the production decline finally occurs. Typical wells are projected to be long lived, 20-40 years.

Production rates and potential.

Two basins produce most of the US coalbed methane, although production is expanding to many other coal basins across the US. The San Juan in Colorado-New Mexico and Black Warrior in Alabama, where the first coalbed methane wells were drilled, account for over 95% of current production. The San Juan is the largest producer having produced 436 bcf from 2,087 producing wells. Total reserves are 50 TCF. US potential recoverable reserves exceed 500 TCF.

Coals have generally lower production rates than sandstone reservoirs because coal has smaller fractures and pore space which impede the flow of fluids and gases to the well bore. Typical wells in the San Juan basin produce 100,000 to 400,000 CFPD with some as high as 5 to 20 million CFPD. This compares with average Cook Inlet production rates in sandstone reservoirs of 6 million and individual Walakapa wells are projected to produce 1-2 million CFPD.

Evaluation.

The first step in the evaluation program is to review available well and geologic data to select well locations and to design data collection programs. These data include structure and stratigraphic maps, thermo-maturity, drilling records, logs, well tests, production records, gas content information, and fracture studies.

The next step in the evaluation is to collect gas content and permeability data from the first well or wells drilled. Gas content is quantified with conventional core, pressure core, sidewall core, and drill cuttings samples. The permeability of the fracture system is quantified with drill stem tests. Open hole logging of the well is also necessary.

Upon completion of the well, it is necessary to determine the coal gas storage capacity and the properties of the coal and non-coal rocks from core analyses. Natural fracture geometry is further quantified.

The final step in the evaluation is to combine all the above data and analyses to predict gas and water production. Completion methods and reservoir stimulation programs can then be designed.

Potential for Alaska.

Hypothetical coal reserves for Alaska exceed 5.5 trillion short tons or nearly 1/2 of the United State's coal reserves. These coals could contain up to 1,000 TCF of gas. About 9% of Alaska is underlain by subbituminous to bituminous coal that is found in many parts of the state. The areas of higher rank coals in a "relaxed" structural setting have the highest potential. The Matanuska Valley area of Cook Inlet, the foothills belt along the North Slope, and the Alaska Peninsula are promising areas, however further study of all the coal basins is needed to evaluate this resource. See "Coalbed Methane Potential for Alaska and Drilling Results for the Upper Cook Inlet" by T. N. Smith for more information.

Issues that effect coalbed methane development?

Market--Cook Inlet has about 10 to 12 years gas supply at the current consumption. CBM will have to compete with conventional gas to be marketable.
Cost--Drilling and production costs must be kept low in order for the lower volume CBM wells to compete conventional gas.
Regulations--Drilling and production regulations need changes to allow for the drilling of low cost, shallow wells.
Bonding--Bonding needs to be at levels that closer reflect the environmental and mechanical risks of CBM operations.
Ownership--CBM ownership must be clearly stated in leases and statutes to avoid conflicts between mining and oil and gas interests.

COOK INLET OIL & GAS

CLARION 1-19-96

Money will put CIRCAC on scene during spills

By KIRSTEN SCHULTZ
Peninsula Clarion

The U.S. Coast Guard may pay for a local oil industry watchdog group to observe spill cleanup operations in Cook Inlet.

If the money comes through, the Cook Inlet Regional Citizens' Advisory Council, criticized for its absence during last month's Kenai Pipe Line Co. spill, will be able to devote more time to monitoring future emergencies.

Capt. Ed Thompson, who oversees Coast Guard activities in Western Alaska, has asked CIRCAC to apply for the federal agency's Basic Ordering Agreement. The agreement allows the Coast Guard to fund spill response contractors if the oil company responsible for the spill refuses.

CIRCAC, which already has changed its policy toward oil spill response, will submit its application for the agreement in the next few months. It may take up to two years for the application to be accepted, but Thompson said if a spill happens during the interim, CIRCAC still would receive funding.

Thompson said the actual application for a Basic Ordering Agreement is somewhat of a formality. CIRCAC's application most likely will be approved.

Earlier this year, CIRCAC decided that to prevent liability problems its staff should not respond to spills. After the Dec. 5 Kenai Pipe Line spill, however, the council reversed its decision.

CIRCAC staff now are allowed to visit spill response command centers, as long as they aren't exposed to hazards or spend any extra money.

See CIRCAC, page 10

...CIRCAC

Continued from page 1

CIRCAC's executive director, Anne McCord, thinks being at spill response headquarters is necessary to get all the information to her member groups. But she's still looking for some direction on what her staff should be doing there.

Unlike Prince William Sound's RCAC, which has a multi-million dollar budget and hazardous-materials trained staff members who visit spill sites, the Cook Inlet council is just supposed to observe what's happening at headquarters.

"We always knew we had some role in a spill," she said. "We were a conduit for information. But (for on-site observation) our funding level's not that big."

Even with the Coast Guard's backing, CIRCAC probably won't be in the trenches, stepping through puddles of oil. Instead, if a big spill happens, it will be able to have someone at the command center 24-hours a day to follow events as they unfold, without worrying about who's going to pick up the tab.

The Coast Guard could pay for things like overtime, long-distance phone calls, and office supplies, among other things.

Thompson said he wants CIRCAC there because as federal on-scene coordinator of a spill, he needs to contact groups like commercial fishers, environmentalists and Natives, which CIRCAC represents.

He also wants to have someone at the spill command center who can answer community questions and provide information to area residents.

"(Cook Inlet) RCAC is the most logical group to do that," he said.

According to McCord, CIRCAC probably will discuss its role in oil spill response at the group's annual meeting, set for 10 a.m., Feb. 3, at the Cook Inlet Aquaculture Association building on Kalifornsky Beach Road.

CIRCAC has trouble filling 'green' seat

By KIRSTEN SCHULTZ
Peninsula Clarion 2-5-96

It's not easy being green.

Keeping the environmental seat filled on the Cook Inlet Regional Citizens' Advisory Council has been a challenge since the oil industry watchdog group formed in 1990 and this year is no exception.

The board's current environmental representative, Charles Dickson, wants to stay on the board, but this year's election turned into an argument over parliamentary procedure and voting irregularities at CIRCAC's annual meeting Saturday.

Alaska's environmental community, made up of 25 groups, is supposed to elect its own representative to the 13-member board. As in past years, CIRCAC received little response when it asked those groups for nominations to fill the seat, which Dixon has held since September of 1994. His term expired this month.

Such well-known organizations as Greenpeace, Alaska Center for the Environment, the Sierra Club and the Nature Conservancy didn't respond to two letters sent by CIRCAC staff, asking who they wanted to serve on the board.

In fact, only four of the groups wrote back with suggestions, including Dickson's. Public Awarness Committe for the Environment, based in Soldotna, which nominated him for a second term.

According to Kevin Harun, executive director of Alaska Center for the Environment in Anchorage, the state's conservation groups have decided to focus their efforts on a different environmental monitoring council, the recently created Cook Inlet Keeper program.

The Keeper program is funded by a $1 million settlement over oil industry water-quality violations in Cook Inlet. The group's initial funding is almost twice as big as CIRCAC's annual budget.

Environmental groups, said Harun, didn't think CIRCAC was productive or balanced, and withdrew their support "almost unanimously" in 1991.

Initially, Homer resident Larry Smith represented the environmental community on CIRCAC's board, but he too quit in 1991 after green groups complained that the council wasn't getting enough funding and was too tight knit with its oil industry charter companies, Harun said.

"The board didn't negotiate very hard for funding," Smith said. "There wasn't a lot of environmental bang for the buck."

Smith and Dickson, sandwiched around a three-year vacancy, are the only two people to ever sit in the council's green seat.

This year, those environmental groups that did vote had some trouble reaching consensus. Regroup, a central peninsula recycling organization, nominated one of its members only to change its mind after the deadline and vote for Dickson.

Council supports tugs for Cook Inlet

Staff report

The Cook Inlet Regional Citizens' Advisory Council board voted 10-1 Saturday to support tug escorts for Cook Inlet oil tankers.

At CIRCAC's board meeting, commercial fishing representative Ken Castner proposed the idea, saying that the oil industry watchdog group has danced around the issue for too long. "This council has never voted this issue up or down," said Castner, a westside setnetter.

Board member Marie Becker, a Nikiski business owner who represents the Alaska State Chamber of Commerce, opposed the measure. She said government shouldn't be adding more regulations while the industry is in decline.

The U.S. Coast Guard currently is looking at all waterways in the United States to decide which ones should have tug escorts for tankers. Currently, tankers traveling from Prince William Sound to Cook Inlet only are required to have tug escorts on the first part of their journey.

Cook Inlet Spill Prevention and Response Inc. has a vessel to help if a tanker looses power in the inlet, but Coast Guard Capt. Ed Thompson said he's not sure it would be able to handle such an emergency.

But Thompson also said that using tugs to dock at inlet ports wouldn't be safe either. Thompson would like to see additional training for CISPRI's Banda Seahorse crew, not a new vessel.

"We've got a little work to do," he said. But tugs are just "the solution du jour."

At a Saturday's meeting, the board directed CIRCAC executive director Anne McCord to apply for the U.S. Coast Guard's Basic Ordering Agreement. The agreement would pay for CIRCAC staff to be pre-

...CIRCAC

Continued from page 1

green seat — to send out another request for nominees, to keep the nominees and redo just the election, or to confirm Dickson for another term.

"We would like to stay out of arbitrarily selecting," said CIRCAC board member Glen Glenzer, head of the group's credentials committee. "We feel obligated to get as much participation as we can... We're not running a banana republic election."

Other board members thought Dickson was the election's clear winner.

"I can't help if there's apathy amongst the different recreational and environmental groups," said Joe Ray Skrha, the recreational representative on the board. "I think we had a fair election here. He did get the majority of votes."

Dickson also had a problem with the other candidates. Trout Unlimited voted for Kenai River guide Dennis Randa and Kodiak Audubon Society voted for Regroup's withdrawn nomination, Sanne Berrig. Those groups, Dickson said, don't know much about how the oil industry affects Cook Inlet water quality.

"An environmental seat and a person who represents wildlife conservation represent two different things," Dickson said.

But the board became bogged down in a procedural question — after 45 minutes of heated discussion they couldn't figure out just how many votes constituted a majority — and the group decided to wait until its next regular meeting in April for tempers to cool down.

Dickson will remain on the board until then. If CIRCAC's board decides to start from scratch, it could be another six months until the whole mess is sorted out — the 25 environmental groups would have up to 120 days to come up with a new list of nominees.

"We have got to do whatever is necessary to get these people interested," said Betty Glick, the president of CIRCAC's board. "We need that perspective."

Harun said he could see environmental groups returning to the CIRCAC fold if local members show an interest. Harun called Kenai Peninsula members of ACE after receiving CIRCAC's letters, but they told him Cook Inlet Keeper was the way to go.

Also at the meeting, Alan Hastings, an executive with the Cook Inlet Region Inc. Native corporation's oil and gas division, was approved for the board's Alaska Native seat. Other board seats are represented by municipalities, as well as commercial fishing and recreational groups.

Stewart Petroleum to drill near Anchor Point

Southern peninsula to get its first oil rig

By KIRSTEN SCHULTZ
Peninsula Clarion

Stewart Petroleum Co. has announced plans to develop its state oil and gas lease tracts near Anchor Point.

The Anchorage company plans to have a land-based rig in place by late this year or early next year, according to George Mason, Stewart's spokesperson.

"By that point the infrastructure and rig will be established and drilling begun," Mason said. "It's hard to say when production will actually begin."

According to the state Division of Oil and Gas, the rig will be a first for the southern Kenai Peninsula, which until now has stayed out of the oil patch. There are two natural gas wells in the area, one near Clam Gulch and the other inland from Anchor Point, but until now no company has invested in producing oil wells.

Stewart hasn't yet decided where the rig will go, but it most likely will be along the bluff, north of Anchor Point. "It's still too early" to tell, Mason said.

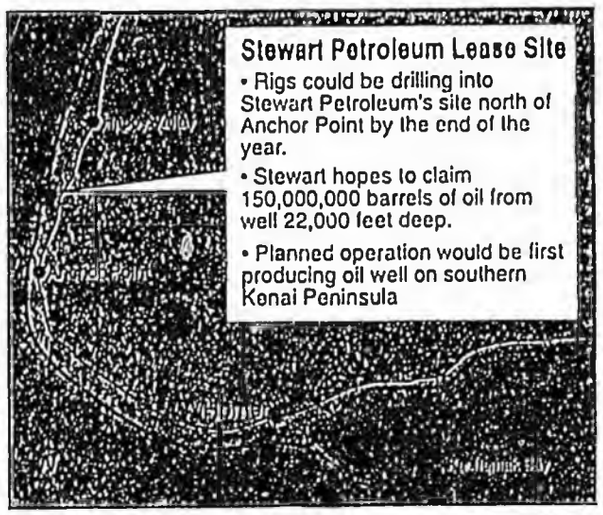
The leases, which Stewart acquired just over a year ago in the state's hotly debated Lease Sale 78, are part of the company's Cape Starichkof Prospect in Cook Inlet.

The prospect will be directionally drilled, starting on the shore and angling out to reach crude oil beneath the inlet floor. Stewart plans to drill as far down as 22,000 feet, a depth that no other oil drilling operation in Alaska has reached, according to the state.

"Twenty-two thousand is definitely a state record," said Jim Hansen, chief petroleum geophysicist with Oil and Gas.

Stewart estimates the Cape Starichkof Prospect to be worth between 100 million and 150 million barrels of oil.

See RIG, back page



...Rig

Continued from page 1

"There's an indication of oil there," Mason said. "There's both a history and indication there. That area is where the first discoveries were made."

Natural gas also is a possibility, but "oil is what they're after," he said.

Stewart didn't conduct any seismic testing, but came up with new estimates based on old data. Another company, Pennzoil, drilled a discovery well on the southern portion of the prospect in the late '60s.

The Division of Oil and Gas said two wells were drilled offshore of Cape Starichkof in 1967 — one showed natural gas and oil, the other just gas. "It was determined to be noneconomic" at the time, said Hansen. "For almost 30 years."

This new venture, Mason said, is a continuation of that oil discovery.

The big oil field, however, probably is located within the leases held by Stewart, which also will be the project's operator. Stewart snagged two leases in the area, seven miles north of Anchor Point, for about $36,000 in October of 1994.

Part of the tracts are onshore, between Mile 145 and Mile 151 of the Sterling Highway.

Nerox Energy Corp., based Outside, is Stewart's partner on the project.

Nerox also has interests in the West McArthur River Oil Field, discovered by Stewart in 1991. West McArthur River, which has one rig and several drill holes, is Stewart's only other production site in the state. That project also is directionally drilled.

The state has not yet received any permit requests from Stewart, according to Molly Birnbaum with Alaska's Governmental Coordination office. The company still must get approval from the state Department of Natural Resources, the state Department of Fish and Game and federal agencies before pushing ahead with the project.

Stewart Petroleum, which employs between 10 and 60 contract workers, is one of the largest oil producers in the inlet, second only to Unocal, according to Mason.

DEC

OVER-

VIEW

1/25/95

HOUSE RESOURCES COMMITTEE

Alaska State Legislature
House of Representatives

SUBJECT OF MEETING: DEC Overview

DATE: 1/25/95

PLACE: ROOM 124

NAME	REPRESENTING	BUSINESS/PERSONAL MAILING ADDRESS	ZIP	(H) PHONE	(W) PHONE	DO YOU WANT TO TESTIFY?		WHAT SUBJECT/ WHICH BILL?
JOHN BARNETT	BOARD OF STORAGE TANK ASSISTANCE	410 WILLOUGHBY JUNEAU, AK 99801		364-2848	465 5219	Y	(N)	
DAN KANOUSE	DEC - Admin Div	" "		789-1507	465-5021	Y	(N)	
LEN VERRELL	DEC Office of Commissioner	" "		789-2200	465-5700	Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	

HOUSE RESOURCES COMMITTEE
Roll Call and Members' Bill Votes

* (indicates first public hearing)

Room 124, Capitol Bldg. Mon., (Wed.) Fri.

Date: 1/25/95

Tape# 95-2 Joint

Time: 8:04 (am)/pm Time Adjourned: 9:20 (am)/pm

ROLL CALL:	PRES	ABS	TIME AR			
Rep. Joe Green	✓					
Rep. Bill Williams			8:08			
Rep. Scott Ogan			8:06			
Rep. Alan Austerman	(✓)		8:05			
Rep. Ramona Barnes			8:06			
Rep. John Davies			8:06			
Rep. Pete Kott			8:06			
Rep. Eileen MacLean			8:22			
Rep. Irene Nicholia			8:18			

Other Legislators Present

AGENDA:

Bill No.	Short Title	Action Taken
DEC	Overview	

OTHER

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FAX (907) 465-2029
Mail Stop 3101

130 Seward Street, Suite 400
Juneau, Alaska 99801-2105

Copies of minutes listed below were originally included in this file. The minutes are available on the legislative computer database. In order to save space copies of minutes have not been left in the files.

Mary Pagenkopf

House Resources
1-25-95 8:04 AM
DEC Overview

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEPARTMENT OVERVIEW
TO
HOUSE RESOURCES COMMITTEE

1/24/95

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 105
Juneau, AK 99801-1795
(907) 465-5050

Mission: To protect public health from environmental threats, and to conserve, protect and improve Alaska's environment for present and future generations.

Environmental Health Division 465-5280

Assures wholesome fish, meat, and dairy products for consumers and enforces basic standards of sanitation in public facilities.

- seafood inspection
- pesticide program
- laboratory monitoring operations, lab certification
- meat/poultry/animal health & dairy program
- environmental sanitation

Environmental Quality Division 465-5260

Ensures compliance with air, land and water pollution laws to protect public health and the environment.

- public drinking water
- air quality management
- water quality management
- solid waste management
- hazardous waste management
- industrial wastewater control
- domestic wastewater control
- pollution prevention office
- environmental analysis laboratory

Facilities Construction and Operation Division 465-5180

Provides financial and technical assistance to local communities for construction and operation of water, sewer, and solid waste projects.

- Village Safe Water program
- 50% matching grants for facility construction
- Alaska Clean Water Fund administration
- operator training and certification
- remote maintenance worker assistance

Spill Prevention and Response Division 465-5250

Improves the state's capability to prevent, respond to, and clean up pollution from oil and hazardous substances.

- government preparedness and response
- industry preparedness
- contaminated sites remediation
- underground storage tanks

Information & Administrative Services Division 465-5010

Provides overall financial, employee and informational services to the public and within the department.

- financial services
- personnel
- media/publications/library
- information systems and data management
- supply and procurement

FY96 Operating Budget Structure
Department of Environmental Conservation

BRU (Budget Request Unit)
Component

Administration BRU
- Commissioner's Office
- Information & Administrative Services
- Telecommunication Chargeback
- Response Fund Administration

Statewide Programs BRU
- Regional Management

Environmental Quality (EQ) BRU
- EQ Director
- Monitoring & Lab
- Drinking Water
- Wastewater & Water Treatment
- Solid & Hazardous Waste
- Air Quality
- Water Quality

Spill Prevention & Response (SPAR) BRU
- SPAR Director
- Contaminated Sites
- Underground Storage Tanks
- Industry Preparedness
- Government Preparedness

Environmental Health (EH) BRU
- EH Director
- Animal Industries
- Seafood/Sanitation Inspections
- Palmer Lab

Facility Construction & Operations (FCO) BRU
- Facility Construction & Operations

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Department of Environmental Conservation

Dopartmental Operating Budget - By Fund Source(000's)

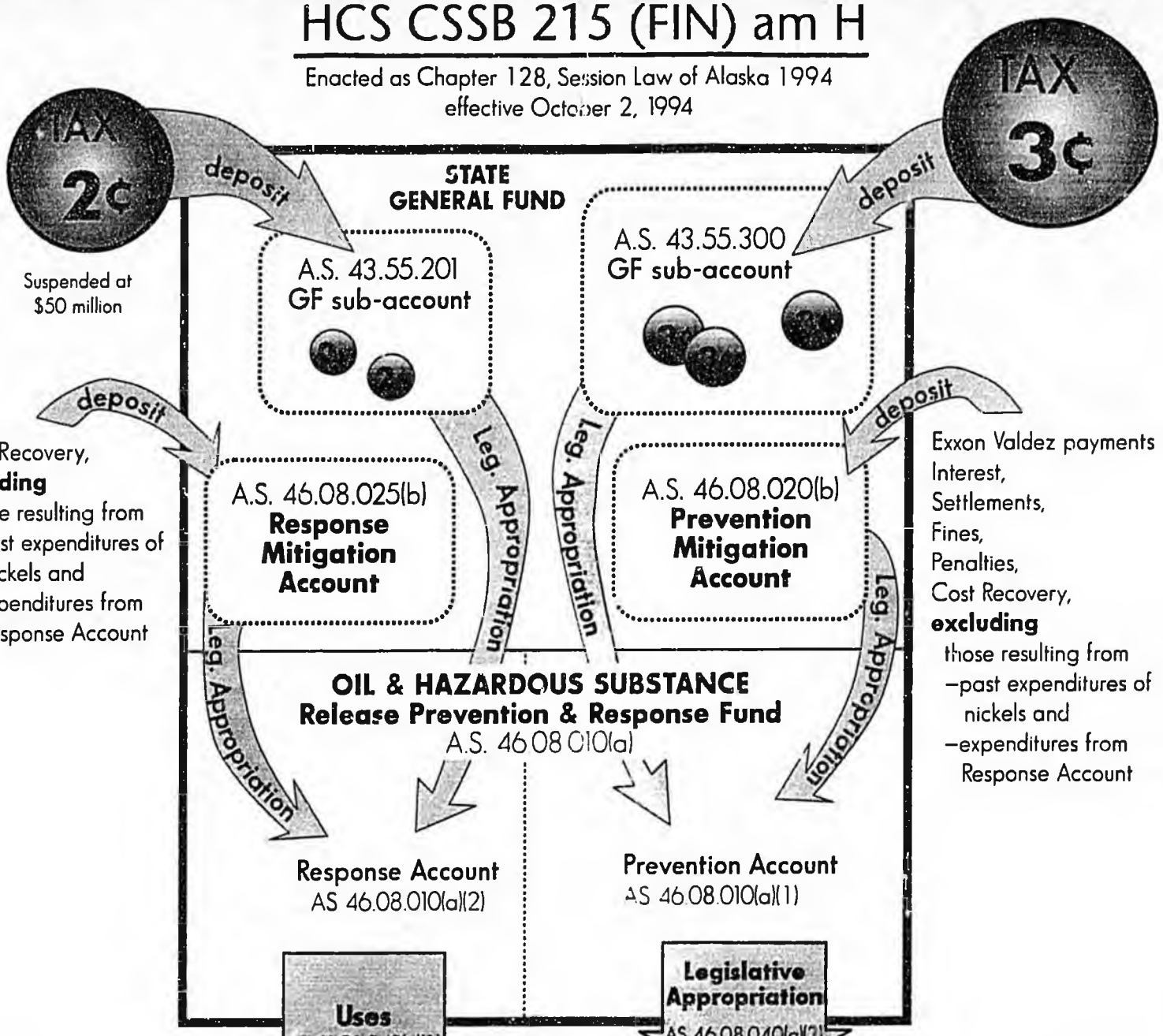
1/24/95

Fund Source	FISCAL YEAR (FY) AUTHORIZED										* FY96 GOV REQUEST
	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	
Federal	3,292.1	3,326.8	3,559.9	5,353.1	5,486.3	5,842.9	6,790.5	10,264.6	8,694.9	9,937.8	11,248.2
GF Match	1,427.2	1,352.9	1,438.2	1,786.7	1,798.3	1,959.9	2,182.7	2,474.7	2,435.0	2,448.3	2,572.6
General Fund (GF)	11,153.9	9,360.2	10,653.5	13,384.2	16,486.5	25,267.9	19,818.4	15,622.5	13,465.3	12,933.1	12,820.3
GF/Program Receipts	95.0	95.0	95.0	95.0	95.0	95.0	394.1	2,573.9	3,305.2	3,093.1	4,953.1
Interagency	331.8	393.6	428.1	456.5	470.2	549.8	454.5	449.0	1,120.0	980.7	624.5
Response Fund					4,371.8	6,810.8	7,193.7	10,627.7	11,370.6	10,342.9	9,858.9
CIP	511.9	750.5	806.5	944.3	729.8	740.5	335.7	337.7	433.7	1,144.9	1,256.4
Ak Clean Water Fund						88.4	90.5	92.7	127.7	149.8	296.5
Tank Fund							6,767.8	3,892.3	5,191.5	3,991.3	3,991.3
TOTAL	16,811.9	15,279.0	16,981.2	22,019.8	29,437.9	41,355.2	44,027.9	46,335.1	46,143.9	45,021.9	47,621.8
Front of Budget Items							46,085.5	42,780.0			
Spill Reserve									34066.1		
Response Fund (other agencies)									2569.4	2698.6	2266.5
EVOS Restoration									2284.6		
Grand Total	16,811.9	15,279.0	16,981.2	22,019.8	29,437.9	41,355.2	90,113.4	89,115.1	85,064.0	47,720.5	49,888.3

*** Subject to change**

HCS CSSB 215 (FIN) am H

Enacted as Chapter 128, Session Law of Alaska 1994
effective October 2, 1994



- Declaration of a release disaster emergency by the Governor
- DEC investigation, evaluation, and/or response to a release or threatened release which poses an imminent and substantial threat

- Investigate and evaluate release or threatened release of oil or a hazardous substance
- Cost recovery
- State master plan
- Oil and Hazardous Substance Response Office
- Contingency plan review
- Response preparedness and training
- Depots & corps
- Restoration
- Research & Development
- Capital projects
- Storage Tank Assistance Fund

Prepared by ADEC 1/95

U.S. ENVIRONMENTAL
PROTECTION AGENCY
REGION 10

STEVEN A. TOROK
CHIEF, STATE OPERATIONS SECTION

ALASKA OPERATIONS OFFICE
~~P.O. BOX 1331~~ 410 Willoughby Ave
JUNEAU, ALASKA 99801

(907) 586-7619

DNR

OVER-

VIEW

1/27/95

HOUSE RESOURCES COMMITTEE
Roll Call and Members' Bill Votes

* (indicates first public hearing)

Room 124, Capitol Bldg. Mon., Wed., (Fri.)

Date: 1/27/95

Tape# 95-3 Joint

Time: 8:02 (am)/pm Time Adjourned: am/pm

ROLL CALL:	PRES	ABS	TIME AR
Rep. Joe Green	✓		
Rep. Bill Williams			8:10
Rep. Scott Ogan	✓		
Rep. Alan Austerman	✓		
Rep. Ramona Barnes			
Rep. John Davies	✓		
Rep. Pete Kott	✓		
Rep. Eileen MacLean			
Rep. Irene Nicholia			8:20

Other Legislators Present

AGENDA:

Bill No.	Short Title	Action Taken
DNR	Overview	

OTHER

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Juneau, Alaska 99801-2105

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Mary Pagenkopf

House Resources
1-27-95 8:02 AM
Tape #95-3
DNR Overview

HOUSE RESOURCES COMMITTEE

Alaska State Legislature
House of Representatives

SUBJECT OF MEETING: DNR OVERVIEW

DATE: 1/27/95

PLACE: ROOM 124

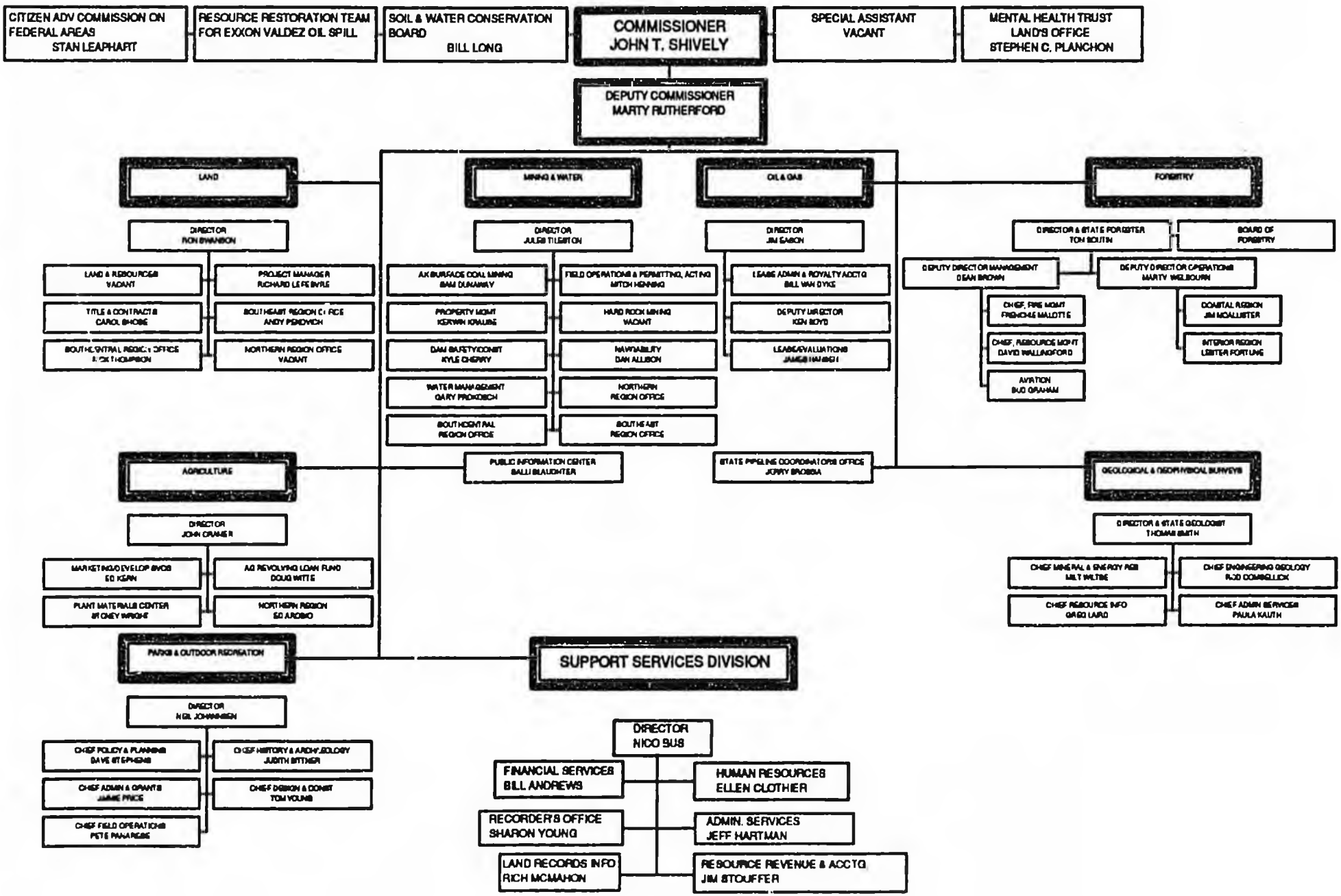
NAME	REPRESENTING	BUSINESS/PERSONAL MAILING ADDRESS	ZIP	(H) PHONE	(W) PHONE	DO YOU WANT TO TESTIFY?		WHAT SUBJECT/ WHICH BILL?
Nico Bus	DNR	400 Willoughby		9-3718	465-2406	Y	N	Overview DNR
Bill Garry	DNR-Parks	400 Willoughby		3-3365	465-4563	Y	N	Overview Parks
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	

Alaska Department of
NATURAL RESOURCES

OVERVIEW

January 27, 1995

ALASKA DEPARTMENT OF NATURAL RESOURCES



file: DNR942.opx

Updated: 1/17/95

Table of Contents

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THE DEPARTMENT OF NATURAL RESOURCES

OVERVIEW

- Charged by the Constitutions with the responsibility to manage and develop Alaska's land, water, and surface and subsurface resources.

- Oversees approximately 87 million acres of uplands and 65 million acres of tidelands, shore lands, and submerged lands and manages about 40% of the nation's freshwater resources.

- Consists of 8 divisions, the Pipeline Coordinator's office, Soil & Water Board, Mental Health Trust Land "Unit", and EVOS Trustees Council Staff.

- Operates offices in 22 Alaskan communities

- 597 full-time employees and 240 part-time employees (excluding emergency fire fighting positions).

THE COMMISSIONER's OFFICE

- Maintains offices in Juneau and Anchorage and sets departmental goals and policies and provides support services to DNR's divisions and 25 boards and commissions.

- Supports the Pipeline Coordinator's Office, the Citizen's Advisory Commission on Federal Areas, the Mental Health Trust Unit, EVOS Trustee Council staff, and the Soil and Water Conservation Board which are organizationally housed within the Commissioner's Office.

- Since 1977, Alaskans have saved 25% of the petroleum revenues received by the state. The State of Alaska annually deposits a minimum of 25% of each petroleum royalty dollar into the Permanent Fund. 65% of the Permanent Fund's principal is from the state's petroleum revenues, the majority of which comes from land managed by the **Department of Natural Resources.**

DIVISION OF OIL & GAS

- Ensure that prospective oil and gas lands are made available for competi-

tive leasing on a timely and predictable basis, and that the state receives full value for the sale of these resources. Three Lease sales are currently scheduled for FY'95.

- Advance innovative programs such as exploration licensing, expanded exploration incentive credits and coalbed methane that will promote exploration and development on both state and private lands in frontier interior basins.

- Ensure that all royalty, rental and bonus revenues due the state from leasing and production are received, and that shared federal royalties are properly received and allocated.

- Ensure that the surface operations of lessees and permittees are conducted in an environmentally, socially and economically sound manner.

- Advocate petroleum resource development throughout the state.

- Develop and advocate marketing strategies for Alaska oil and gas, including negotiating royalty oil purchase agreements with in-state refineries.

- Provide technical and policy support on oil and gas issues for the DNR Commissioner's and Governor's office and Alaska's Congressional delegation.

The division's programs enable Alaskans to enjoy low taxes, continued growth of the Permanent Fund, and direct and indirect employment as a result of oil and gas development and subsequent state and local spending. The division's "customers" are all of the residents of Alaska who benefit from the availability of oil and gas revenues for education, public safety, revenue sharing to communities, capital improvement projects, the Permanent Fund and other state and local programs.

DIVISION OF LAND

- Serves the state as a real estate developer and property manager by providing land for Alaskans to own and use.

- Issues and maintains sales contracts for parcels of land purchased by Alaskans.

- Issues leases that range from set-net fishing sites or aquatic farms to shore-based fish or timber processing facilities to North Slope oil support industry sites and commercial recreational lodge sites.

- Makes gravel and other materials available for residential, commercial, and industrial development; and is the states survey authority to establish property boundaries.

- Protects the state's assets by establishing and enforcing reasonable conditions to protect the environment when authorizing land use, stopping unauthorized uses, and planning for land and resource use and conservation.

- Responsible for stewardship of land retained in state ownership for public access, energy development, legislatively designated public use and recreation areas, and a host of the public use purposes.

- Maintains offices in Juneau, Anchorage, and Fairbanks to provide these essential services to all Alaskans.

STATE PIPELINE COORDINATOR - JOINT PIPELINE OFFICE

- The State of Alaska, BLM and other Federal agencies formed the Joint Pipeline Office in 1990. This was in response to the clear need for a coordinated approach to monitoring and regulating the Trans-Alaska Pipeline System (TAPS) and two pending gas pipeline projects.

- The office includes 65 employees, representing 11 federal and state agencies. Headed by the State Pipeline Coordinator and the Federal Authorized Officer, the JPO organization includes:

•ADNR	•USDI, BLM
•ADEC	•EPA
•ADF&G	•US DOT, OPS
•ADOL	•US Army COE*
•ADOT&PF*	•US Coast Guard*
•ADCG	

*Indicates not physically present in JPO.

- In response to congressional hearings on problems associated with TAPS, BLM and JPO have undertaken an accelerated contracting program to identify problems, identify recommended solutions and move to oversee the correction of identified problems.

- Monitors pipeline activities for compliance with the conditions of the right-of-way grant and lease, permit terms and conditions, and for compliance with applicable regulations for each agency.

- Responsible for permitting necessary for operation and maintenance of the pipeline system, as well as planning and permitting for three proposed gas pipelines.

- The 800-mile pipeline currently moves around 1.6 million barrels of oil per day from Prudhoe Bay to Valdez, where tankers transport the crude to west coast refineries.

- The pipeline has been in operation since 1977, and has safely transported over 10 billion barrels of oil to the Valdez terminal. Oil income accounts for about 85% of State revenue.

- Issues involving public safety and environmental protection, pipeline integrity and complaints by Alyeska employees of harassment, lack of training and lack of a quality assurance program and the JPO's response to these problems have all been the subjects of congressional hearings and are the areas JPO works most heavily in.

DIVISION OF FORESTRY

- Provides wildland fire management and suppression, enforces the Forest Resources and Practices Act and manages forest land.

- Protects the forest's natural values while supporting Alaska's economy through development of wood products in an environmentally sound manner.

- Major program contributions include:

  • State forest management consisting of: extensive public process; timber sale planning and design; contract administration; and reforestation. The state timber sale program supports regional timber industries and maintains diverse, productive forests for all forest users. Extrinsic programs include personal use timber and firewood, beach log salvage, Christmas trees, and forest access.

  • Forest Resources and Practices Act enforcement to ensure that timber management on private, municipal, and state land uses the best practices to provide jobs and timber receipts without bringing harm to water quality, fish habitat, and other forest resources. Private land responsibilities include very careful decisions on variations to the Act. Research and monitoring of the effectiveness of protection in the law is underway.

• Fire management to protect life, property, and resources threatened by fire, and to gain the benefits of fire for habitat and forest health in areas where other values are not threatened. Fight wildland fires in the most efficient and cost-effective manner to meet statutory requirements which provide wildland fire protection to all state, municipal and private lands. The 73 emergency fire fighter crews, predominantly from rural villages, and seasonal forest technicians fight fires in the Lower 48 during times of low fire incidence in Alaska.

• Stewardship and Community Forestry to disseminate forest management information and federal cooperative forestry funds to private owners and municipalities bringing the benefits of fire protection equipment, more productive commercial forests and enhanced urban forests to all Alaskans.

PARKS AND OUTDOOR RECREATION

- Maintains a large, mostly road-accessible highly developed park and recreation system.

- Operates more than 133 parks, recreation areas and historic sites, the state park system receives nearly 6 million annual visits, one quarter from non-resident tourists. Offers 2,500 campsites, fishing access sites, picnic area, visitor centers, trails, public use cabins and other recreation facilities, the park system is a key component for the state's tourism industry.

- **Parks Maintenance and Operations** - The division manages over $100 million in developed recreation facilities in a highly cost-effective manner. Revenue collected from the recreational User Fee program is invested into maintenance of restrooms, hauling trash, and repair of vandalism. Parks now collects nearly one-third of its field operations budget from camp-ground, boat launch, RV dump station and day use entry fees. The facilities are maintained and operated by a seasonal staff, temporary employees, over 30 private contractors, and more than 600 volunteers. They provide a variety of janitorial and facility maintenance services, and assist visitors at parks and campgrounds throughout the state.

- **Public Safety** - Parks staff inform and educate the visitors about hazards related to outdoor recreation, i.e. boating safety, stream crossing, wildlife encounters, etc. Thirty-two park rangers are commissioned as Peace Officers to enforce the law within state parks. They backup temporary employees, campground hosts, and members of volunteer "Park Watch" groups in deterring crime and behavior disruptive to park visitors. The vast majority of park rangers are seasonal employees.

- **Resource Management** - State parks receive a wide variety of recreational uses. Residents and visitors to Alaska pursue fishing, launch boats from Deep Creek, operate ATVs and snowmachines in Chugach State Park or Chena River Recreation Area, or hunt for moose in many parks. Park managers issue Park Use Permits. These permits authorize and control a variety of activities that have potential impact on park resources. These activities vary from competitive events, such as races to moving mining equipment across frozen park land to mining claims outside park boundaries.

- **Managing Commercial Uses** - State parks has developed public-private sector partnerships which allow for small business to work in state parks. In FY94, over 400 businesses were permitted or licensed to work in state parks, providing a range of services form canoe rentals to sport fishing guides.

- **Volunteerism** - State Parks has the largest volunteer program in Alaska. Park Managers recruit, train and utilize over 600 volunteer workers each year. Last year, approximately 2,000 people responded to volunteer recruitment information. The volunteer program allows the State Park system to maintain high standards and quality services in its facilities. The volunteer is motivated by opportunities to learn new skills, meet people with similar interests, see a new area of the country, and to contribute to a worthy cause.

- **Engineering Support** - Development of new campgrounds, structures and buildings and the rehabilitation, expansion, and repairs of existing facilities in over 133 park units requires program direction and oversight by registered engineers. Parks contracts for $2-4 million in construction each year. Engineers set design standards, supervise park designs, approve plans and specifications, and guarantee that construction is performed in compliance with approved plans.

- **History and Archaeology** - Manages the State of Alaska's historic preservation programs to identify, document, protect and restore sites and building, and to educate Alaskans and visitors about heritage resources. To carry out these programs, the Office of History and Archaeology seeks partnerships with local governments, Native organizations, historical societies, non-profit organizations, private owners and other government agencies. The Alaska Historical Commission advises the Governor on programs concerning history and prehistory, historic sites and building, and geographic names.

DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

- Generates, assembles, and disseminates geologic data and information pertaining to Alaska's subsurface estate of minerals, coal, oil and gas, construction materials, and geothermal energy.

- Provides strategic guidance to avoid or mitigate potential geologic hazards that could be encountered during volcanic eruptions, access corridor development, and construction of urban and rural village infrastructure.

- Geologic reference samples archived in the ADGGS Geologic Materials Center are a popular source of data for petroleum and minerals companies.

- Reports and archive materials provide the public with a primary source of Alaska geologic knowledge that is the basis for a continuing stream of Alaskan resource development and socially-oriented engineering projects.

- The organization and public dissemination of all types of Alaska geologic data as a prime function of the division.

- Geologic knowledge is fundamentally necessary for the state to generate a sustainable economy from its subsurface resources, protect the state's interest during ongoing state vs. federal land negotiations, preserve the integrity of the natural environment, and contribute to the safety of its citizens.

- Acts as technical consultants to agencies of the state of Alaska in matters related to resource endowments and geologic hazards.

- Locates, identifies, and inventories subsurface resources of economic value including minerals, coal, and geothermal energy and annually reports on mineral industry activities within the state.

- Conducts strategic field surveys and geologic inventories to identify the locations of potential oil and gas fields.

- Identifies sources of sand, gravel, and other construction materials needed by municipalities throughout rural and urban Alaska.

- Identifies potential sources of natural gas or coal resources needed for local heat and power generation in rural Alaska.

- Provides help to rural Alaskans and other agencies in assessing the character of surficial geologic units underlying and impacting sites for municipal construction projects.

- Makes pre-engineering assessments of access corridors to identify geologic hazards to roads, bridges, and other structures so that they can be avoided or mitigated during later design and construction of the state's infrastructure.

- Provides the state's direct line of communication with respect to hazards associated with volcanic eruptions.

DIVISION OF MINING & WATER MANAGEMENT

Mining Goals

- Was created as a direct response to budget reductions in the former Division of Water. The merged division is responsible for making available for use and development the state's mineral and water resources and for managing these resources to assure the state's best interests are met.

- Assures the maximum amount of the state's mineral resources are available for exploration and prudent development,

- Provides technical assistance and oversight as required by law to assure that other public resources are not unreasonably or unduly damaged,

- Maintains mining claim lease, coal lease and permit files in a cost effective and timely manner to assure revenues from the state's mineral resources are collected timely, and

- Makes files easily accessible to the mineral users and the public.

Water Goals

- Manage the state's water resources held in trust through timely and responsible adjudication of applications for water use.

- Ensure safety of dams,

- Collect, interpret, and disseminate water resource data essential for domestic and commercial uses including export, and for prudent development of Alaska's resources,

- Secure Quiet Title to submerged lands beneath navigable inland waters with priority to waterbodies having potential for economic development,

- Provide leadership in the cooperative resolution of water management issues,

- Implement procedures that assure a fair return for appropriation and for exportation of Alaska's water.

Significant objectives are:

- Administer State Coal Mining laws and promote development of coal resources
- Complete reclamation work on dangerous abandoned mine sites
- Assist permitting large-scale mining
- Maintain mineral property records
- Develop multi-year permit program
- Monitor/expedite multi-year reclamation plans
- Process/adjudicate 7,500 new mining claims
- Process/adjudicate annual labor/rental of 30,000+ mining locations
- Process deeds/contracts for ownership transfer, 4000 properties
- Adjudicate 450 APMA's
- Assist mining companies/small operators in permitting/compliance
- Inspection of dams for safety and maintain database of dams to ensure compliance
- Accept/process 1200 water-related applications
- Develop hydrological data to protect interests of individuals and communities from unexpected flooding & erosion
- Work with Federal agencies regarding navigability of 14 million acres of submerged lands
- Work with mining industry, providing hydrologic data necessary for mining operations
- Provide coordination of Alaska Water Management Council to ensure priorities are identified

DIVISION OF AGRICULTURE

- Represents a $30 million renewable resource industry.
- In 1993 agriculture employed in excess of 1500 Alaska residents at an average hourly salary of $7.50.
- The agricultural business also represents one of many opportunities to diversify the Alaskan economy by creating opportunity for in-state production and marketing of food and fiber.
- Supports the Alaska agricultural community through marketing and inspection services, agricultural land management and resource conservation services, competitive farm development and operating loans, and plant materials development and testing.

Agriculture Revolving Loan Fund:

- Conventional financing for agribusiness is generally not available in Alaska due to restricted ag land title, perceived risk, and lack of private sector experience in agricultural lending practices.
- In FY 94 the ARLF filled this critical gap by providing $1.9 million of low interest farm development, chattel, operating, and product processing loans.
- The ARLF through the Directors office has focused a great deal of its attention toward improving the delinquency rate of an inherited portfolio by restructuring loans to low risk borrowers with a productive history.
- Aggressively pursued delinquent loans through settlement action and/or litigation. As a result of this aggressive asset management program the projected value of land, equipment, stocks, judgements, and cash revenue returned to the ARLF portfolio in 1993, is $7.7 million.

Northern Latitude Plant Materials Center/Forest Nursery:

- Recognized as the authority in Alaska on reclamation, revegetation, wetland rehabilitation, and commercialization of plant varieties adapted to northern climates.
- Virus free seed stocks have also reduced the need for field applications of hazardous insecticides and fungicides which in many parts of the lower 48 have had a long term effect on water quality as well as other negative environmental impacts. Last year Alaska growers produced 13,000,000

pounds of potatoes with a market value of $2.4 million.

- Data collected by the PMC on plant performance as a result of out-state testing is used to develop standards and specifications required by state and federal mine land reclamation regs, state and federal highway construction projects with revegetation requirements, and bio-engineering standards for stream bank stabilization projects involving valuable fish and wildlife habitat protection.

- In July of 1993, the PMC program was expanded to include the commercial production of tree seedlings adapted to northern climates. A.S. 41.17 requires the reforestation of all harvested state, municipal, and private forest lands.

Soil & Water Conservation Board:

- The Land Conservation program within the Division is the responsibility of the Alaska Soil and Water Conservation Board and the 10 Soil and Water Conservation Districts authorized under A.S. 41.10.

- The Alaska Conservation program is part of an active network of 3,600 Soil and Water Conservation Districts throughout the lower 48 involving some 17,000 locally elected land owners.

- Federal program assistance is available in forest management, mine land reclamation, wildlife habitat enhancement, and recreational development on private lands in Alaska.

- Because the native community represents the largest private land owner in Alaska, new federal programs focused on rural economic development and multi resource management are also now available to regional and village corporations through the unique state, federal, private partnership offered by the Alaska Soil and Water Conservation Program.

Agricultural Contract Management:

- As part of the Area Planning process the division has been actively involved in the interpretation of soil surveys, land cover type mapping, and wetland inventories to effectuate the classification of these lands for inclusion into the current 595,000 acre agricultural land bank.

- From 1978 to 1989 the state actively pursued the sale and/or lease of lands for agriculture development. Although the Div. of Lands was responsible for conducting the sale of agricultural lands and the issuance of contracts,

the Div. of Agriculture has traditionally taken the lead with regard to identifying tracts for sale, disposal design, establishing the development schedules, the approval and monitoring of conservation plans, and tracking revenue and billing.

- The Division currently administers 135 active land sale contracts, 28 grazing leases covering 151,000 acres, and 12 reindeer grazing permits involving 3.6 million acres of state land.

- Over the next 20 years this program will generate in excess of 5.6 million dollars in principle and interest payments to the General Fund.

- To effectively adjudicate these legally binding contracts for compliance, 300 on-site field inspections annually are required.

Agricultural Product Inspection:

- The primary mission of this program is to prevent loss of product sales due to poor quality and prevent fraud and misrepresentation of agricultural products sold in Alaska.

- Allows producers to comply with a number of state and federal mandated product quality regulations.

- The Division has a number of interagency agreements to carry out USDA inspection requirements.

- A majority of the inspection services provided by the Division, are required before producers can sell to wholesale, retail, and military markets in Alaska. Specialized testing, grading, analysis and inspection of plants, seeds, vegetables, fruits, eggs, nursery and green house stock are performed on farm and in retail and wholesale outlets throughout the state.

- In FY94, Division staff conducted over 3,000 inspections on 340,000 packaged products to facilitate commerce.

- The expanding demand for wholesaler inspection has resulted in an increase in federal receipts. Because agricultural product inspectors have personal contact with both producers and purchasers, they provide a key link in the development of the Alaskan agricultural industry.

Agricultural Marketing Service:

- The main objective of this program is the increased utilization and

sales of competitively priced Alaskan grown commodities over similar imported products.

- As agricultural producers become more productive, the identification of niche markets, encouragement of value added processing, and influencing the demand for local products becomes increasingly important.

- Alaska currently occupies an average of 25 to 30% of the "in season" fresh market share from local grown potatoes, carrots, peas, and other cole crops. With an aggressive marketing campaign and support from the local producers it is reasonable to double the instate market share within the next 2 years.

- Other Alaskan commodities currently targeted for promotion under the ag marketing program are red meat (both domestic and semi-domestic), berries, and dairy products.

- Through 52 weekly market news reports, close coordination with military purchasing agents, the printing and distribution of farm product directories, transportation and product feasibility studies, the sponsorship of producer forums, the promotion of the Alaskan Grown campaign, expansion of the state wide farmers markets, and the Divisions participation in state fairs we hope to promote the increased wholesale and retail sales of Alaska grown commodities.

SUPPORT SERVICES DIVISION

Administrative Services

- Administrative Support Services which includes the Director's Office, enable the operating programs to concentrate on serving the public and make money for the state.

- Both major leases for DNR offices in Anchorage and Juneau were successfully re-negotiated saving the State in excess of $6.0 million in lease cost over the next 5 years and avoided the disruption and cost of having to relocate.

- The Financial Service Section oversees the preparation of the operating and capital budget, and accounts for $80.0 million in annual appropriation expenditures.

- The Human Resource Section handles payroll and personnel functions for approximately 840 permanent and 2,000 temporary and emergency employees.

- The Human Resources/Payroll Project directly contributes to the Department's success in meeting its goals by providing managers and employees with the necessary staff to ensure that a quality and motivated work force is maintained, that minimal time and expense is spent by managers on unnecessary labor disputes, and that Department staff is educated on the most current human resource related programs, laws, and rules.

- The Resource Revenue Collection and Accounting Section accomplishes revenue collection and accounting for all DNR programs. External customers are 73,000 citizens and businesses who made over 115,000 payments in FY94 providing $800 million in revenue.

- A portfolio of 33,936 subsidiary ledgers, including 17 types of contracts which bill, note defaults, and provide customer service for 10,000 lease and sales contracts are accurately maintained.

The Recorder's Office/UCC

- Provides a safe, secure and impartial place of record for all recorded instruments affecting real property in Alaska (deeds, mortgages, liens, and mining claims to name a few) and ensures ongoing public access to all records per statutory directive.

- Permanently preserves and protects all documents entrusted to its care for the long term benefit of all Alaskans.

- Operates recording facilities in fourteen rural and urban locations covering 34 recording districts (DNR staffs and operates offices in Fairbanks, Bethel, Nome, Juneau, Ketchikan, Sitka, Anchorage, Palmer, Kenai, Homer and Kodiak, while the Alaska Court System provides minimal front line recording services in Seward, Valdez and Glennallen).

- Maintains a computerized index of approximately three million documents recorded during the past 25 years, along with thousands of original hand written index ledgers and original transcript volumes dating from the late 1800's.

- Benefits the general public, business community, and mortgage and banking institutions who cannot function effectively without the public notice protection afforded by the recordation of their documents.

- Reported record setting revenues in FY94 by processing more than 250,000 documents and generating over $4.5 million (more than $2 million in excess of annual operating funding).

- Administers the Uniform Commercial Code central file office, a statewide repository for an estimated 20,000 secured transactions and search requests submitted annually.

- Keeps abreast of current technology options to ensure that ongoing operations remain effective and efficient, and continues efforts to increase the number of records available to the general public in every recording facility.

Information Resource Management (IRM)

- IRM produces over 10,000 resource integration maps annually, that describe ownership, access, status, resources, and base features.

- Maintains the state's land records information system - over 190,000 cases covering 130 million acres of land, involving two million transactions.

- Distributes over 200,000 microfilmed aperture cards of land status maps and surveys annually, to DNR public information and regional offices, various boroughs, and the University of Alaska.

- Provides mainframe computer programming support for the department's

applications.

- Maintains the state's graphic land record system of over 9,700 townships.

- Trains over 150 DNR employees annually in the operation of DNR's systems for tracking resource activities and revenues.

- Provides distributed computing systems which automate routine tasks and improve access to public information.

PUBLIC INFORMATION CENTER

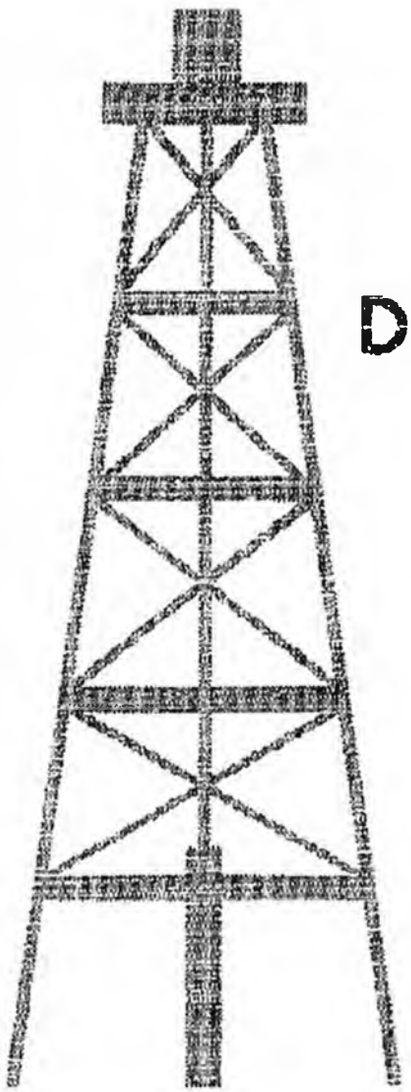
- The DNR PIC provides "one-stop shopping" for DNR's customers. Located in Anchorage, it provides services on a state-wide basis both directly and through support of DNR information offices in other locations.

- Services offered the public include help with land status research and applications for department authorizations, acceptance of payments, public use cabin reservations and information on DNR programs and activities.

- The PIC also sells or distributes DNR publications, maps, state park use decals and other DNR products. The PIC's staff supports DNR's divisions by serving as the initial point of public contact for the department, which allows division staff to more efficiently accomplish their missions; providing public affairs support; and providing internal communications and training.

- The PIC advocates for good customer service within the department, and alerts DNR managers to customer concerns.

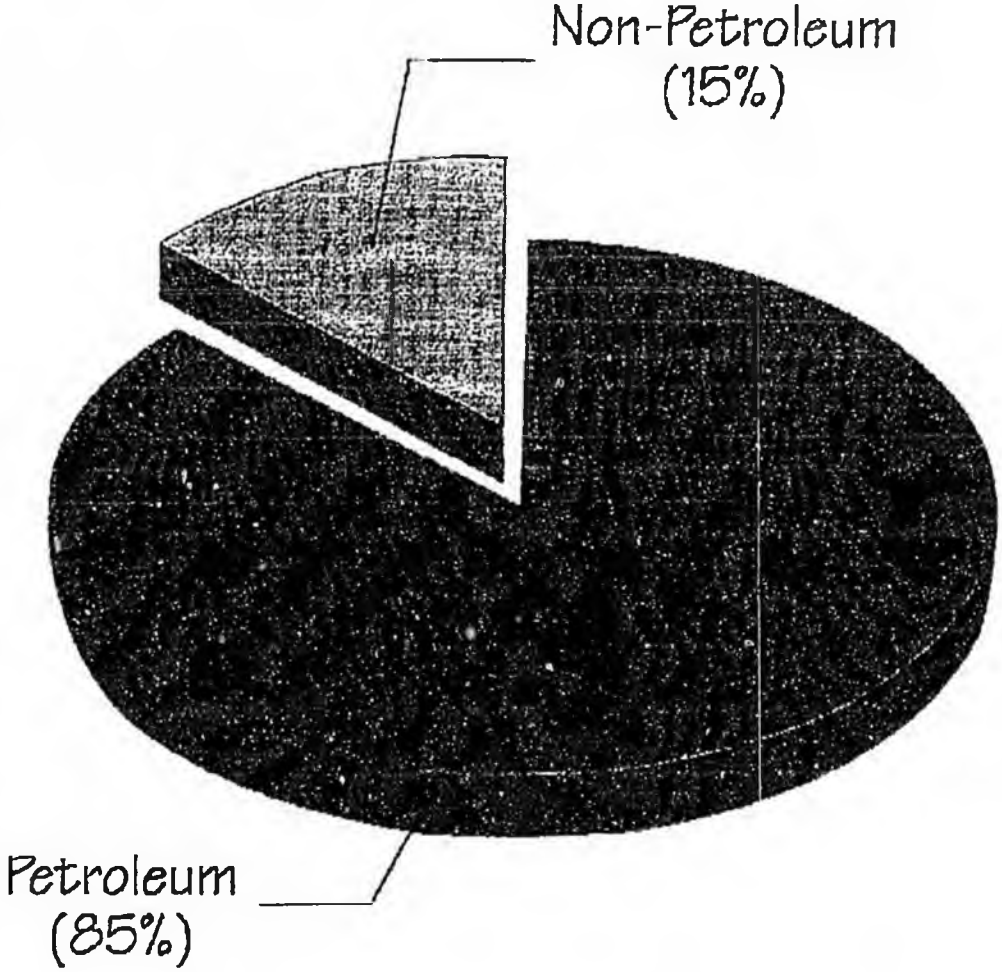
- The PIC is accessible for DNR customers with physical disabilities.



Division of Oil and Gas Overview

January, 1995

Where Our Money Comes From



Major Sources of Income (FY94):

BONUS:	$1.2 Million
RENTS:	$7.8 Million
ROYALTIES:	$696 Million
TAXES:	$727 Million

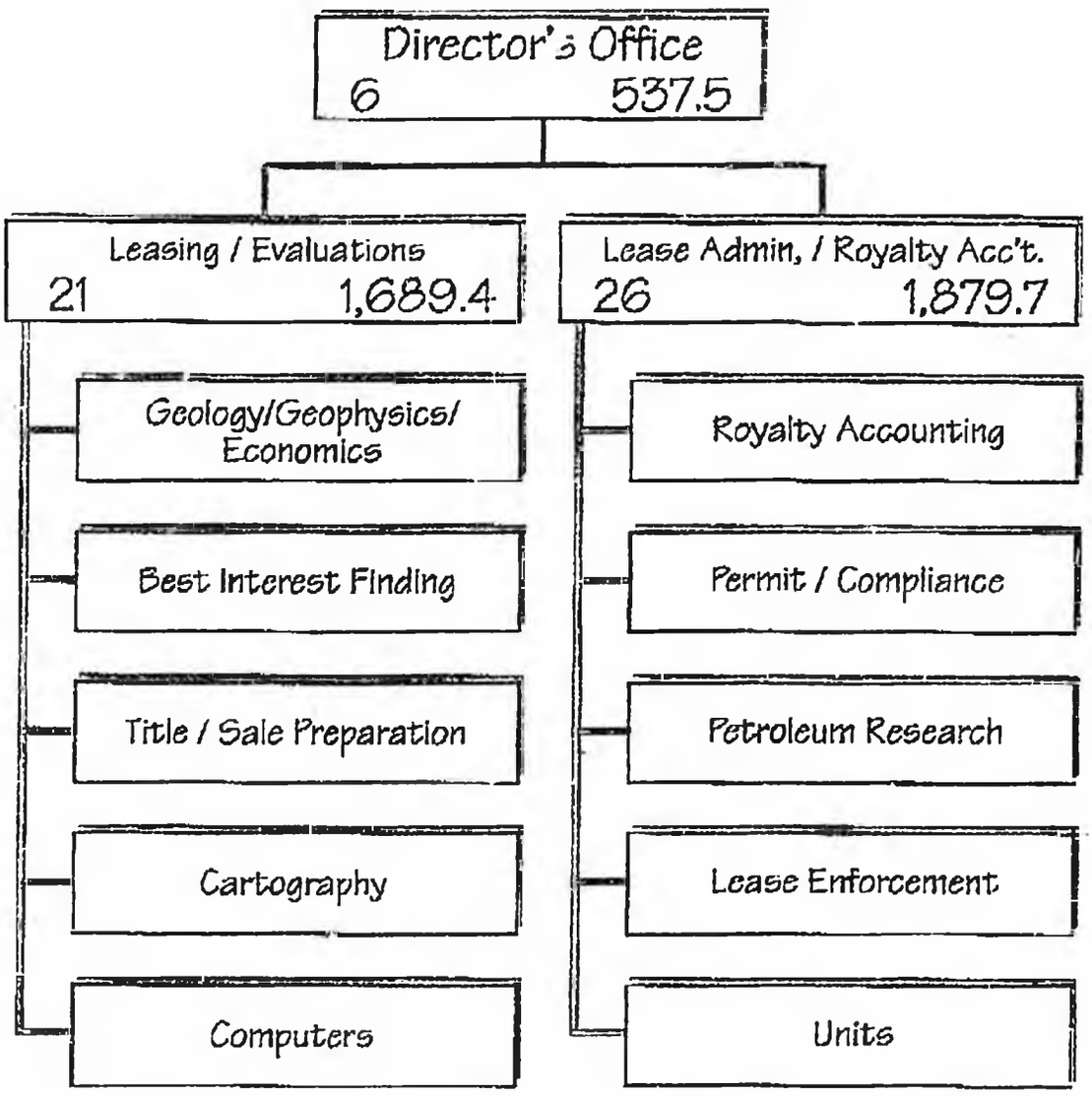
Lease Admin/Royalty Acc't

- Royalty Accounting
- In-Kind Sales
- Unitization
- Engineering
- Permit Compliance
- Lease Enforcement
- Production Forecast

Director's Office

- Policy Guidance
- Public Outreach and Information
- Royalty Settlements
- Marketing
- Market Analyses
- Lawsuits/Appeals
- Administration

Division of Oil and Gas Organization



Leasing/ Evaluation

- Five Year Schedule
- Best Interest Findings
- Public Hearings
- Title Search/Sale Prep
- Geology/Geophysics
- Economics

Recent Initiatives

- Exploration Licensing*
- Exploration Incentive Credits*
- Coalbed Methane**

*Regulations are in progress (DNR)

** Regulations being considered (AOGCC)

Our Statehood Act land acquisitions, in which the Division of Land plays a key role, establishes the foundation for Alaska's economic and resource base. After clear title is secured for this land, these state-owned lands and resources are analyzed for their appropriate uses. In a process that brings together a representation of Alaska's citizens and all major landowners- the Division of Land plans for use and development of its land and resources, guaranteeing through such planning activities access through issuance of rights-of-way, continued public use through designations such as the Recreation Rivers system, and areas designated for mining and other development.

Land use plans and their resulting land use classifications are required by law before we can dispose of state land. We have also found that land use plans greatly diffuse individual objections as land and resource uses are addressed on a more global scale rather than as an individual basis. A little more than one third of state land still has no land use plan in place. By this spring we will have completed the Yukatagn and Kenai area plans. Important areas that need plans include most of Southeast, Kodiak, Nenana River Corridor, including the Wolf Townships, and the 40-Mile to include the Taylor Highway. Other plans are over ten years old and need to be reviewed and updated because of changed conditions, uses and the need to convey land to local municipalities. Some of these are Bristol Bay, Susitna Basin, and the Copper River Basin.

The Division of Land serves the state as a real estate developer and property manager by providing land for Alaskans to own and use. We currently maintain about 1,000 sale contracts for parcels of land purchased by Alaskans, and we will have a land disposal late this summer for an additional 500 parcels for about 3,000 acres. The division also issues leases

that range from set-net fishing sites or aquatic farms to shore-based fish or timber processing facilities to North Slope oil support industry sites and commercial recreational lodge sites.

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The Division of Land makes gravel and other materials available for residential, commercial, and industrial development; and is the states survey authority to establish property boundaries.

The division protects the state's assets by establishing and enforcing reasonable conditions to protect the environment when authorizing land use, stopping unauthorized uses, and planning for land and resource use and conservation.

Finally, the division is responsible for stewardship of land retained in state ownership for public access, energy development, legislatively designated public use and recreation areas, and a host of the public use purposes. In our role as stewards, we also are available to serve as project manager on major development projects such as the Fort Knox Gold Mine. Coordinating state agencies with industry to form a working project team.

The division maintains offices in Juneau, Anchorage, and Fairbanks to provide these essential services to all Alaskans.

The division receives many requests for leasing state uplands and tidelands for long-term commercial and non-commercial activities. Many of these requests are associated with oil and gas development, shorebased fisheries development/processing, and recreational and tourism development for lodge or guiding activities. The division presently has 330 lease applications to awaiting action.

Many requests for use of state land do not require the user to obtain an interest in the land as the use or project is only for a short term and no permanent improvements are involved. In such situations, the division issues a permit, such as a land use permit, tidelands permit, military maneuver permit, mapping cabin permit, or guide permit. The division presently 237 permits to process.

Material sales play an important role to industry as the state sells material from sources normally where private sources are not available. Within the next several months, the division will sell an estimated 2.8 million cubic yards of gravel in the Northern Region, 2.5 of which is in support of oil and gas development activities on the North Slope. Over 50 material sales remain to be processed.

As of this time, there are 687 right-of-ways awaiting processing state-wide. These range from the simplest small drive to complex utility lines

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The division has approximately 142 remote and homestead parcels awaiting appraisal at this time.

Just as the federal government conveys land to the state, municipalities are certified to select land from the state. The total acreage committed by the legislature to municipalities under AS 29.65 is over 1.2 million acres. The Division of Land is responsible for certifying the acreage due municipalities and for processing municipal selections. This year we have certified 3 municipalities entitlements (Northwest Arctic (41-,438 acres), Lake and Peninsula (125,000 acres), City of False Pass (0 acres)) and will be certifying three more (Aleutians

East. Yakutat, Denali).

So far this fiscal year we have conveyed 19 parcels, totaling approximately 4,000 acres. Most are parcels needed for specific projects or public purpose. These include parcels in Whittier, Aleutians East Borough, Juneau, Chignik, Perryville, Wrangell, Fairbanks North Star Borough and Sitka.

During the remainder we will be processing 38 additional parcels, totalling approximately 93,000 acres. This will include small high parcels in Anchorage (Girdwood), Cordova, Valdez. We will also process larger parcels for the North Slope Borough, Aleutians East, Anderson and Skagway.

The current land obligation is approximately 648,000 acres to 21 municipalities. The division currently has applications pending for 315,000 acres, leaving approximately 333,000 acres not yet selected by municipalities. The division has conveyed 430,000 acres to date and has another 250,000 acres are pending survey by the effected municipalities.

AJ MINE

&

ALASKA MINERALS

2/22/95

HOUSE RESOURCES COMMITTEE
Roll Call and Members' Bill Votes

* (indicates first public hearing)

Room 124, Capitol Bldg. Mon., (Wed), Fri.

Date: 2/22/95

Tape# 95-21 Joint

Time: 8:04 am/pm Time Adjourned: am/pm

ROLL CALL:	PRES	ABS	TIME AR			
Rep. Joe Green	✓			Y		
Rep. Bill Williams			8:08	Y		
Rep. Scott Ogan	✓			Y		
Rep. Alan Austerman	✓			Y		
Rep. Ramona Barnes				Y		
Rep. John Davies	✓		9:06 (?)	N		
Rep. Pete Kott	✓			Y		
Rep. Eileen MacLean			8:12	N		
Rep. Irene Nicholia			8:15	N		

Other Legislators Present Elton

AGENDA:

Bill No.	Short Title	Action Taken
Presentations -	AJ Mine by Echo Bay	
	AK Minerals Commission	
SJR 6	Transfer Federal Land to	
	Post-1802 States	

OTHER

LEGISLATIVE REFERENCE LIBRARY

LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3808
FAX (907) 465-2029
Mail Stop 3101

130 Seward Street, Suite 400
Juneau, Alaska 99801-2105

Copies of minutes listed below were originally included in this file. The minutes are available on the legislative computer database. In order to save space copies of minutes have not been left in the files.

Mary Pagenkopf

House Resources
2-22-95 8:04 am
Tape #95-21, Side A, #000

HOUSE RESOURCES COMMITTEE

Alaska State Legislature
House of Representatives

DATE: 2/22/95

PLACE: ROOM 124

SUBJECT OF MEETING:
Presentations - AJ Mine by Echo Bay (Invit. only)
AK Minerals Commission
SJR 6 - Transfer Federal Land to Post-1802 States)

NAME	REPRESENTING	BUSINESS/PERSONAL MAILING ADDRESS	ZIP	(H) PHONE	(W) PHONE	DO YOU WANT TO TESTIFY?		WHAT SUBJECT/ WHICH BILL?
David Stone	Echo Bay	3100 Channel Dr. Juneau AK. 99	99801	789-5828	463-5704	(Y)	N	
Neil MacKinnon	MINERALS COMMISSION	1114 Glacier Ave Juneau	99801	586 3494	586 1254	(Y)	N	
Harold J Noyes	Minerals Com.	Dogon Ltd. 201 First Ave. Fairbanks	99701	452 4755	456 3422	(Y)	N	
Don Stevens	Minerals Comm	104.8 W. Int'l Airport Rd Anchorage AK	99518	561 8540	561 1941	(Y)	N	
Earl Beisthine	Minerals Com	P.O. Box 80148 Fbks, AK	99708	479-2563	479-2240	(Y)	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	
						Y	N	

FROM INFANCY TO MATURITY

Echo Bay Turns 30

by David G. Stone, Manager, Public Affairs, Echo Bay Alaska
Author of *Hard Rock Gold: the Story of the Great Mines that were the Heartbeat of Juneau*

ECHO BAY MINES was born 30 years ago, on the eastern shore of Great Bear Lake at Port Radium in the Northwest Territories of Canada, just 26 miles south of the Arctic Circle.

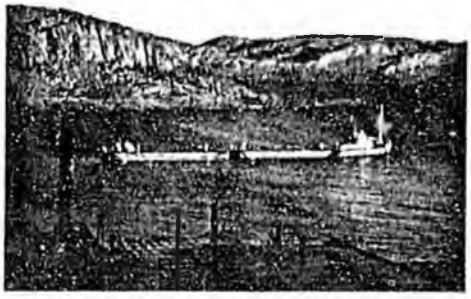
The company was formed on April 10, 1964, to mine silver that had been discovered earlier by Cominco in one of Great Bear Lake's bays – named, yes, Echo Bay.

The new mine was developed adjacent to the shut-down Eldorado Mine of Eldorado Mining and Refining Company, which first produced radium in the late 1930s for the Curies' experiments in France and then produced uranium during World War II for the Manhattan Project.

Uranium reserves were depleted and the mine was closed in 1960. Echo Bay acquired the mothballed camp and mill facilities from Eldorado.

From 1964 to 1982, Echo Bay was a steady producer of silver from the small 105-ton/day mine. We recovered a total of 35.5 million ounces of silver (and 5,000 tons of copper) during this period.

1970's aerial view of Port Radium.



Supply barge arriving at Port Radium.

John Zigarlick, Sr. aboard the "Silver John" at Port Radium. John was mine manager from 1964 until his retirement in 1973.

In the early years, the ore was incredibly rich. On one day in 1966, production of 38 tons yielded 43,000 ounces of silver.

Every summer, supplies were barged up the McKenzie River to Great Bear River, then across Great Bear Lake to Echo Bay.

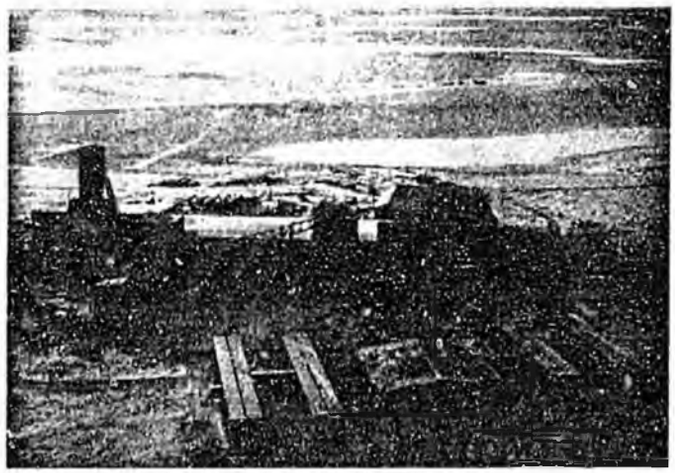
Then beginning in the early 1970s, a 420-mile ice road was built every winter over frozen lakes and portages between the lakes so that truck convoys could supply the mine from Yellowknife. People

also traveled to and from the mine in a DC-3 and later a Convair 640, which some will remember from early Lupin days.

Gold turned out to be the key to Echo Bay's future. With rapidly depleting silver reserves, the company optioned a gold exploration property in 1979 on Contwoyto Lake, 190 miles east of Port Radium. The property was owned by Inco (95%) and Dome Mines (5%).

After completing a fast-track underground exploration program and a feasibility study, the company made the production decision in August 1980.

The development of the Lupin Mine represented a logistical and climatic challenge. Located 250 miles northeast of the nearest community, Yellowknife, Lupin was inaccessible by any kind of conventional road. Everything that was needed to develop the mine had to be flown in on the company's Hercules C-130 cargo aircraft (which had been bought for the project) and then assembled under arctic weather conditions, often in the open.



At startup in 1982, Lupin, Echo Bay's first gold mine, had reserves of 1.4 million ounces; today it still has reserves of nearly one million ounces. The mine produced a record amount of gold in 1993, and on April 28 of that year, Lupin poured its two millionth ounce. The underground mine is located 56 miles south of the Arctic Circle in Canada's Northwest Territories.

Twenty months, 1,100 flights, US$100 million and plenty of "blood, sweat and tears" later, Lupin poured its first gold within three days of its target date on May 4th, 1982 – just as the Port Radium silver reserves were depleted.

Lupin poured its two millionth ounce on April 28, 1993. The mine is a tribute to the skills of the men and women of the Canadian North who built it and have run it 365 days a year for the past 12 years.

During the 1980s, Echo Bay went from being a small silver producer to one of North America's largest gold producers. After Lupin, the next step was taken in January 1985, when the company bought the Copper Range Company from Louisiana Land & Exploration. The key asset in Copper Range was a 50% interest in the Round Mountain Mine in Nevada, with Homestake Mining and privately held Case, Pomeroy owning 25% each.

Round Mountain began its present operations in 1977, making it a pioneer in gold heap leaching. It is now one of the world's largest open pit, heap leach gold mining operations. Although radically different from Lupin (open pit, heap leach versus underground mine,

mill), Round Mountain became a major operating and financial success.

Through early applications of what we now call Continuous Improvement Process principles, the Round Mountain team was immediately encouraged to follow up on its own ideas. As a result, Type II ore was proved to be economically recoverable, and capacity was soon increased. This reduced operating costs per ounce, and – despite inflation – those costs were still lower in 1993 than 1984, the year before Echo Bay became the operator.

Echo Bay acquired a 50 percent interest in, and became operator of, Round Mountain – one of the largest heap leach gold mines in the world – in 1985. The large-scale open pit mine had 1.8 million ounces of gold in reserves when Echo Bay acquired its interest, and much more gold than that has been found since. Today, Round Mountain, which is located in central Nevada, has total reserves of 7.1 million ounces.

So there we were in the mid-1980s, with the success of Lupin and Round Mountain under our belts, a gold bull market in progress, and wanting to grow further. Our next big "bite" was the acquisition of the gold properties of Tenneco, which had two main operating mines – McCoy and Borealis – late in 1986. Within two months of the acquisition, the discovery hole at McCoy's Cove deposit was drilled. For a brief period, we were the largest Canadian-based gold mining company.

Echo Bay's largest gold and silver producer, McCoy/Cove has two separate gold deposits a mile apart. McCoy was the only ore body known to exist on the property when Echo Bay acquired it in late 1986. Gold was discovered at Cove three months later. In 1993, 72 percent of McCoy/Cove's revenues came from gold, but the mine is the largest silver-producing mine in North America, and one of the three largest in the world.

At this point in our history we were successful developers, operators, and entrepreneurs. By using that wonderful tool called hindsight, we now realize we had several weaknesses. The most significant was a sometimes-faulty assessment of the ore grade in new deposits. This shortcoming caused us to move too fast in some aspects of our fast-track development of the Cove deposit, resulting in a reduction of Cove's reserves in 1989. At about the same time, we also experienced disappointment with the grade at Sunnyside in Col-

orado; we developed Kettle River before the Overlook deposit's discontinuity was discovered (which meant lower grade); and we invested heavily in the Muscocho group of companies in Canada, where – again – imperfect grade assessment was the main issue.

Sunnyside was one of the largest gold producers in Colorado. It ceased production in 1991 and is now being reclaimed.

Why so many mistakes on ore grade? And why didn't we learn from them? We did learn. The problem was that the mistakes were mostly concurrent. Echo Bay now has probably the best ore reserve compilation and review process in the industry. And that should be the subject of a future article in *Echo Bay Gold*.

McCoy/Cove has improved through the hard work and ideas of the team there. Now it is not only our lowest cost mine, it also has the distinction of being the largest silver producer in North America. As we mine, we are continuing to replace most of our production – it turns out that we were too conservative, and over-corrected reserves in 1989.

Kettle River achieved commercial production in early 1990. Located in the historic Republic gold district of northeastern Washington State, the mine is actually a series of small deposits mined in sequence to feed a central mill. During 1993, Kettle River expanded reserves by 31 percent and reduced cash costs by $17 per ounce.

At Kettle River, the exploration group has found satellite ore bodies in Lamefoot and probably K-2, which ensure a brighter future at that operation. Originally plagued with high cash production costs per ounce, the people at Kettle River continue to reduce costs and improve operations.

The early 1990s saw us working hard not only to improve our mine costs, but also to lower the debt incurred to fuel our growth in the late 1980s. We have succeeded at both. We would not have enjoyed our success of the 1980s nor survived our mistakes (and low gold prices) if it were not for the day-to-day commitment of all of us at Echo Bay.

Today we have four producing gold mines and two development properties in Alaska, and we are aggressively looking for properties within and outside North America. Production has grown from 118,000 ounces in 1983 to 873,900 ounces in 1993, plus 12.5 million ounces of silver. As we take a moment to recognize our milestone of 30 years in the mining business, we should be proud of our accomplishments. Our future will be different from the past, but no less challenging than what we have already faced.

Happy birthday, Echo Bay!

ECHO BAY MINES

370 Seventeenth Street
Suite 4050
Denver, Colorado 80202
Telephone: (303) 592-8000

Telecopier: (303) 592-8070

FACT SHEET

Echo Bay Mines is one of the largest gold and silver producers in North America. Its 1993 revenues were US$367 million. It has been mining precious metals for 29 years.

The company operates four gold mines -- two in Nevada, one in the Northwest Territories of Canada, and one in Washington state. Together, these four mines produced 874,000 ounces of gold and 12.5 million ounces of silver in 1993. One of its Nevada gold mines is also the largest silver-producing mine in North America (and third largest in the world).

Two development properties in Alaska provide large growth potential. Together, they could add more than 400,000 ounces of gold to the company's annual production once permitting and development are completed.

Echo Bay is leveraged to the price of gold. ECO's common stock rose 161% on the American Stock Exchange in 1993, compared to a 17% rise in the gold price. However, the stock is still well below its peak when the gold price was nearly $100/ounce higher.

Echo Bay is a precious metals "pure play." About 112 million common shares are outstanding. The shares are highly liquid. Slightly under 50% of the shares are owned by institutions. There are a total of more than 70,000 shareholders.

A changed management team provides seasoned leadership, and also new talent to aggressively spur the company's next growth phase. The company is actively searching for new gold deposits worldwide with a larger Exploration team, and has also launched a stepped-up search for corporate acquisitions through an expanded Corporate Development group.

The company has reduced its debt by more than $400 million over the past four years. Echo Bay has zero debt today, net of more than $250 million in cash and short-term investments.

May 1994

ALASKA JUNEAU PROJECT

- $80 million invested by end of 1994
- $300 million construction costs
- Annual gold production 365,000 ozs

EMPLOYMENT

- 450 jobs / payroll $21 million
- Commitment to local hire: Juneau, first; Southeast, second; and Statewide, third
- Training program established in partnership with University of Alaska Southeast

GOODS & SERVICES PURCHASES ANNUALLY

- Construction $15 million in Juneau
- On-going operations $44 million

TAXES & ROYALTIES ANNUALLY

- Royalty to City of Juneau $3.0 to $3.5 million
- Property taxes $4 million
- Sales taxes on local purchases $1 million
- State corporate and mining license taxes $5 million

KENSINGTON PROJECT

- 50/50 partnership between EBM & Coeur
- $80 million invested by 1994
- $180 million for construction
- $190,000 ozs gold production annually

EMPLOYMENT

- 340 jobs payroll $19 million
- Commitment to local hire: Juneau, first; Southeast, second; and Statewide, third
- Training program established in partnership with University of Alaska Southeast

GOOD & SERVICES PURCHASES FROM JUNEAU ANNUALLY

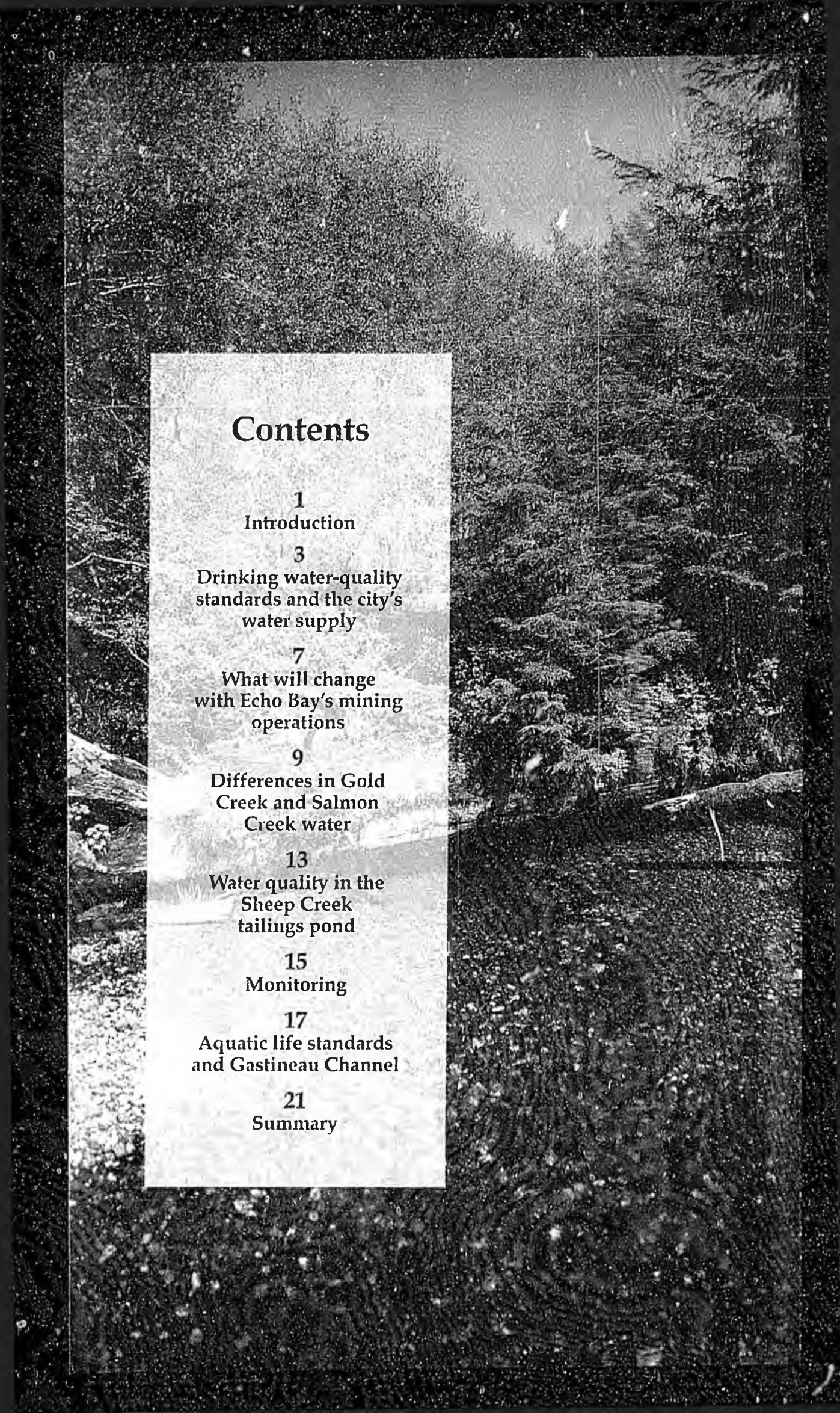
- Construction $6 million
- On-going operations $19 million

TAXES ANNUALLY

- Property taxes $1.5 million
- Sales taxes $ .5 million
- State corporate and mining license tax $2.5 million

We're concerned

about water quality



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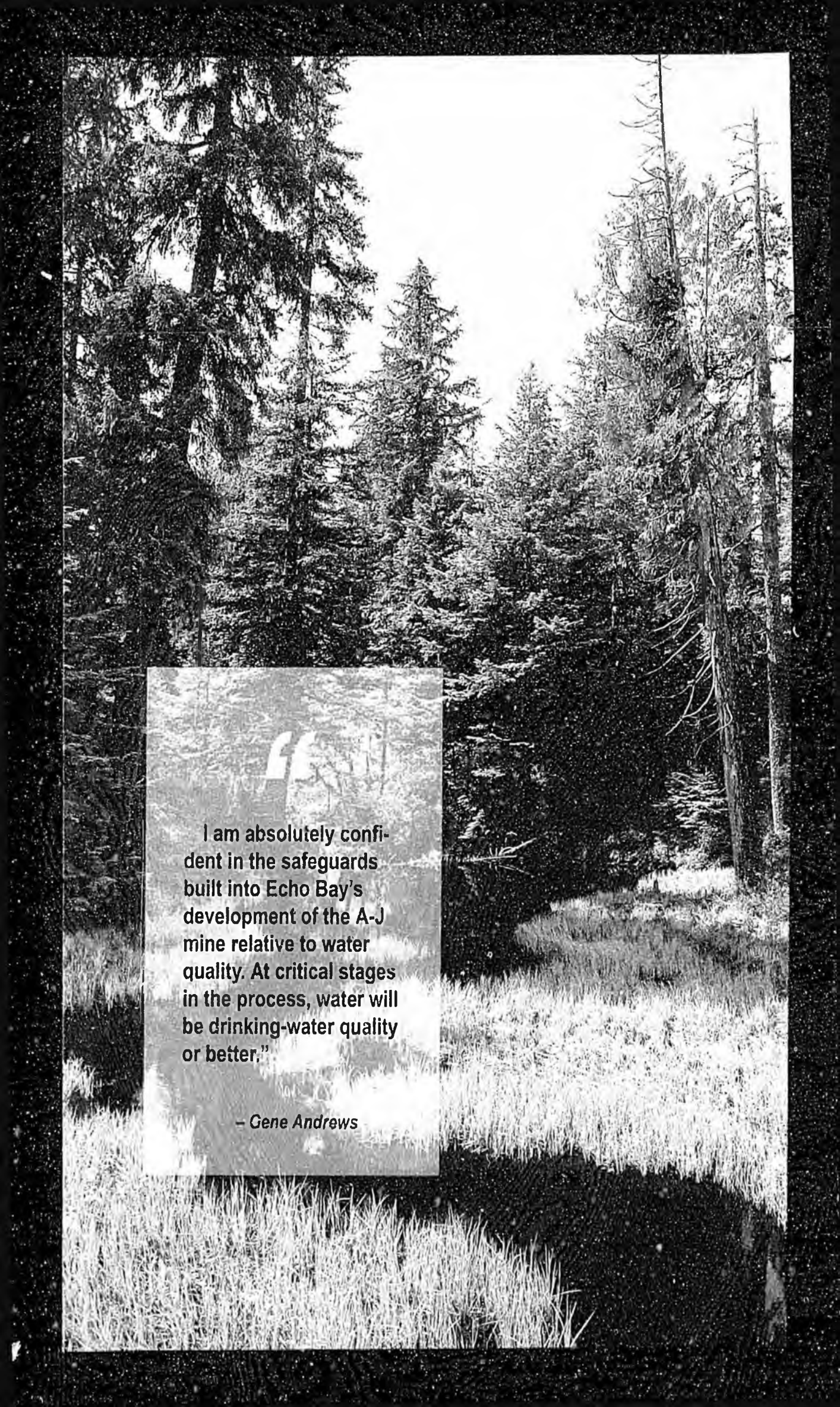
t Echo Bay Mines Alaska, we understand that some Juneau residents have concerns about how the reopening of the Alaska-Juneau mine will affect Juneau.

But the fears planted in the minds of Juneau residents about this project, specifically those related to the issue of water quality, aren't based on sound scientific information.

Some of the most noted experts in the field of biology, water quality and wastewater management, engineering and oceanography have conducted a myriad of scientific water-quality studies over the last six years.

After literally thousands of hours of research, they say that the quality of Juneau's drinking water supply and the water quality in Gastineau Channel won't be harmed by Echo Bay's reopening of the A-J.

That is why we ask you to take a few moments to understand just what some of our nation's top environmental scientists and engineers and other Alaskan experts have to say about the real impact Echo Bay's mining project will have on Juneau's water quality.



"I am absolutely confident in the safeguards built into Echo Bay's development of the A-J mine relative to water quality. At critical stages in the process, water will be drinking-water quality or better."

– Gene Andrews

Drinking water-quality standards and the city's water supply

ater-quality issues regarding Echo Bay's A-J Mine development can be separated into two areas: what effect the project will have on Juneau's drinking water and what effect there will be on aquatic life in Gastineau Channel.

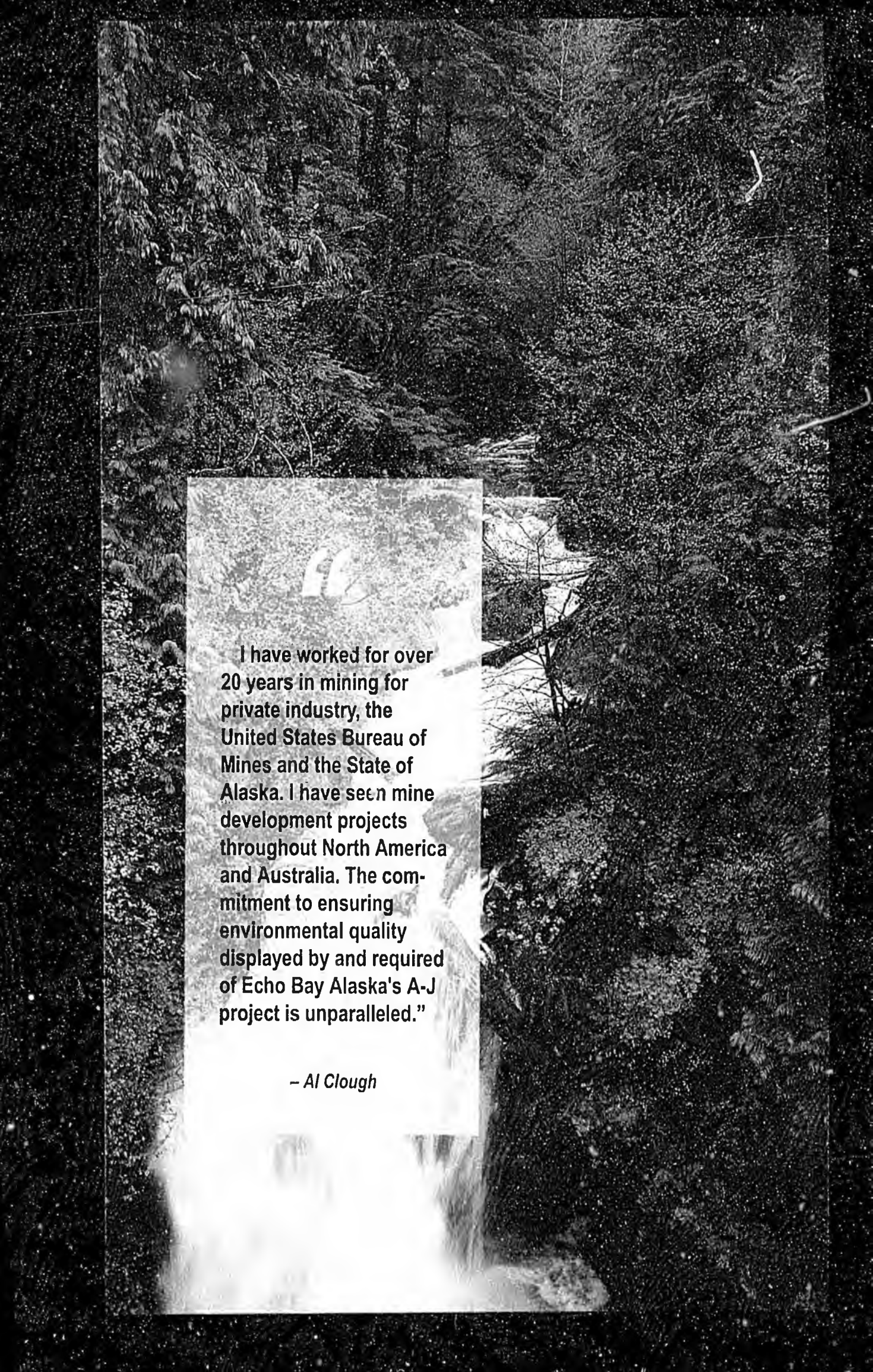
First, let's look at some of the issues regarding Juneau's drinking-water supply and the United States Environmental Protection Agency standards that apply.

Juneau's water supply comes from two sources, Salmon Creek Reservoir and Last Chance Basin wells, which includes water from Gold Creek.

The Salmon Creek water supply is currently out of service, until it can be upgraded to meet new Environmental Protection Agency drinking water treatment rules.

In 1993 the federal Environmental Protection Agency wrote tougher rules for municipal water supplies. The City and Borough of Juneau's water treatment facilities at Salmon Creek, though providing entirely safe drinking water, didn't meet the new EPA rules on how drinking water needs to be treated with chlorine.

– Gene Andrews is a civil engineer with a master's degree in wastewater management. Andrews has been a consultant on wastewater and water-quality projects for more than 24 years.



"I have worked for over 20 years in mining for private industry, the United States Bureau of Mines and the State of Alaska. I have seen mine development projects throughout North America and Australia. The commitment to ensuring environmental quality displayed by and required of Echo Bay Alaska's A-J project is unparalleled."

– Al Clough

CORRECTION

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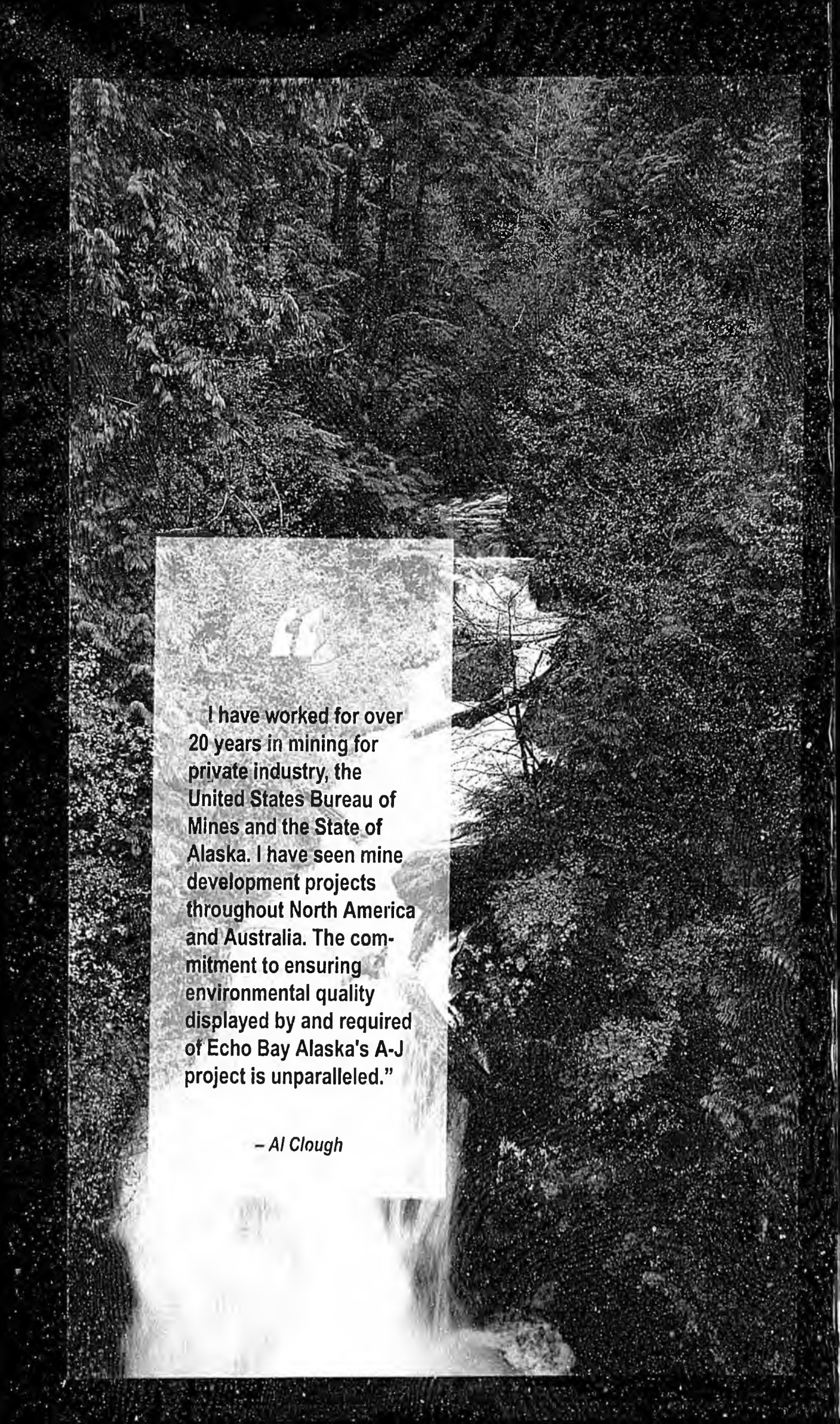

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