ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2324 SCOMM 96: HOUSE SPEC. COMM. ON OIL & GAS, 1995-1996

A Geologic Play Assessment for In-Place Resources

Output from the Computer

Gas fraction = 0.40
Conditional resources in place

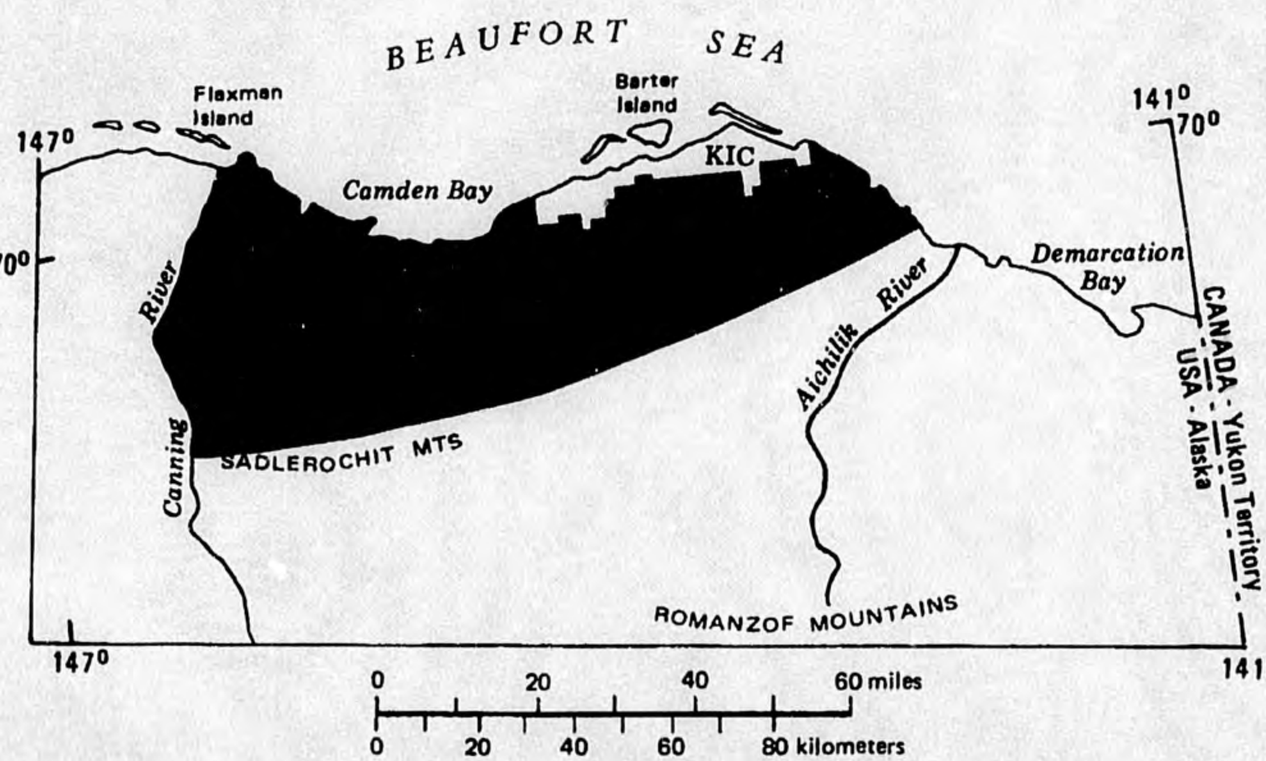
Fractile	Oil (million barrels)	Gas (billion ft^3)	BOE (million)
0.99	0.00	0.00	0.00
0.95	0.00	0.00	0.00
0.90	0.00	0.00	0.00
0.75	0.00	0.00	0.00
0.50	0.00	0.00	0.00
0.25	0.00	689.02	292.14
0.10	948.85	2927.37	1339.20
0.05	1927.34	5123.80	2619.52
0.01	5981.70	11366.90	7005.12

Fractile	Deposit size Conditional, 100% oil (million barrels)	Deposit size Conditional, 100% gas (billion ft^3)
0.99	11.112	15.476
0.95	41.465	53.727
0.90	70.171	148.026
0.75	174.012	417.946
0.50	538.918	1163.055
0.25	1323.921	2905.923
0.10	2925.320	5803.098
0.05	4333.508	7478.438
0.01	9932.547	14709.691

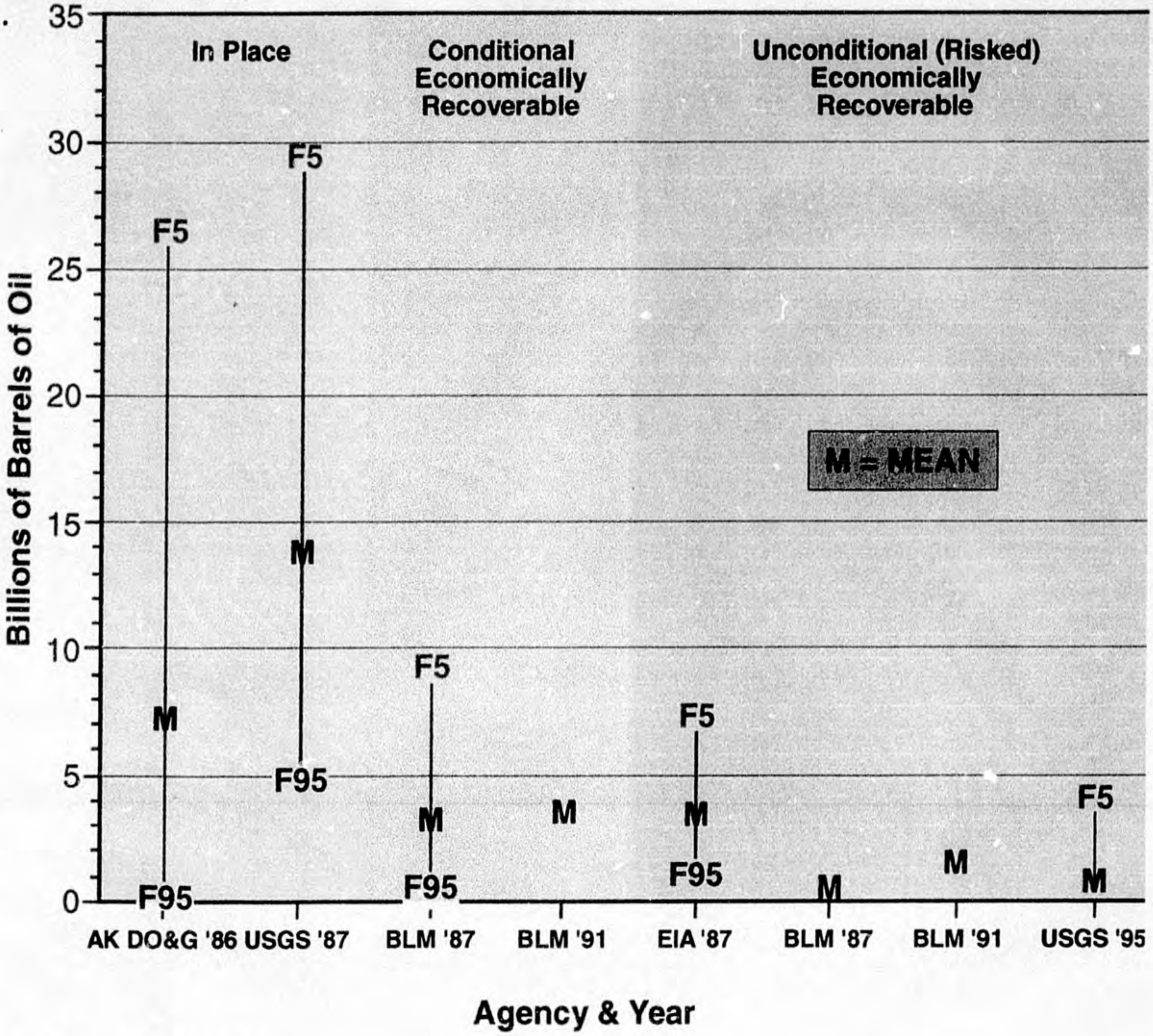
Input from the Evaluator

	Attribute		Probability that attribute is favorable or present
Play attributes	Hydrocarbon sources		1
	Timing		1
	Migration		1
	Potential reservoir facies		0.5
	Marginal-play probability		0.5
Prospect attributes	Trapping mechanism		0.3
	Effective porosity (>3%)		0.8
	Hydrocarbon accumulation		0.4
	Conditional-deposit probability		0.096
Hydrocarbon-volume parameters	Reservoir lithology	Sand	1
		Carbonate	0
	Hydrocarbon mix	Gas	0.4
		Oil	0.6

	Attribute \ Fractiles	Probability of equal to or greater than 1.00	0.95	0.75	0.50	0.25	0.05	0
Hydrocarbon-volume parameters	Area of closure (x10^3 acres)	0.6	3	10	12	15	30	100
	Reservoir thickness/ vertical closure (ft)	5	50	125	200	350	500	750
	Effective porosity (%)	3	7	13	15	18	23	30
	Trap fill (%)	1	5	25	50	75	95	100
	Reservoir depth (x10^3 ft)	5	8	10	12	18	22	28
	Number of drillable prospects (a play characteristic)	2	4	4	5	8	10	20



Areal distribution, input parameters, and resources in place for the Permian-Triassic Clastics North Play, Arctic National Wildlife Refuge, Alaska.



F95	Mean	F5	
0.08	7.22	26.52	AK DO&G in place 1986
4.8	13.8	29.4	USGS in place 1987
0.61	3.23	9.24	BLM Undiscovered conditional economically recoverable oil in 1987
	3.57		BLM Undiscovered conditional economically recoverable oil in 1991
1.2	3.45	7.35	EIA Unconditional (risked) economically recoverable oil 1987
	0.6137		BLM Unconditional (risked) economically recoverable oil 1987
	1.642		BLM Unconditional (risked) economically recoverable oil 1991*
0	0.898	4.129	USGS Unconditional (risked) economically recoverable oil in 1995

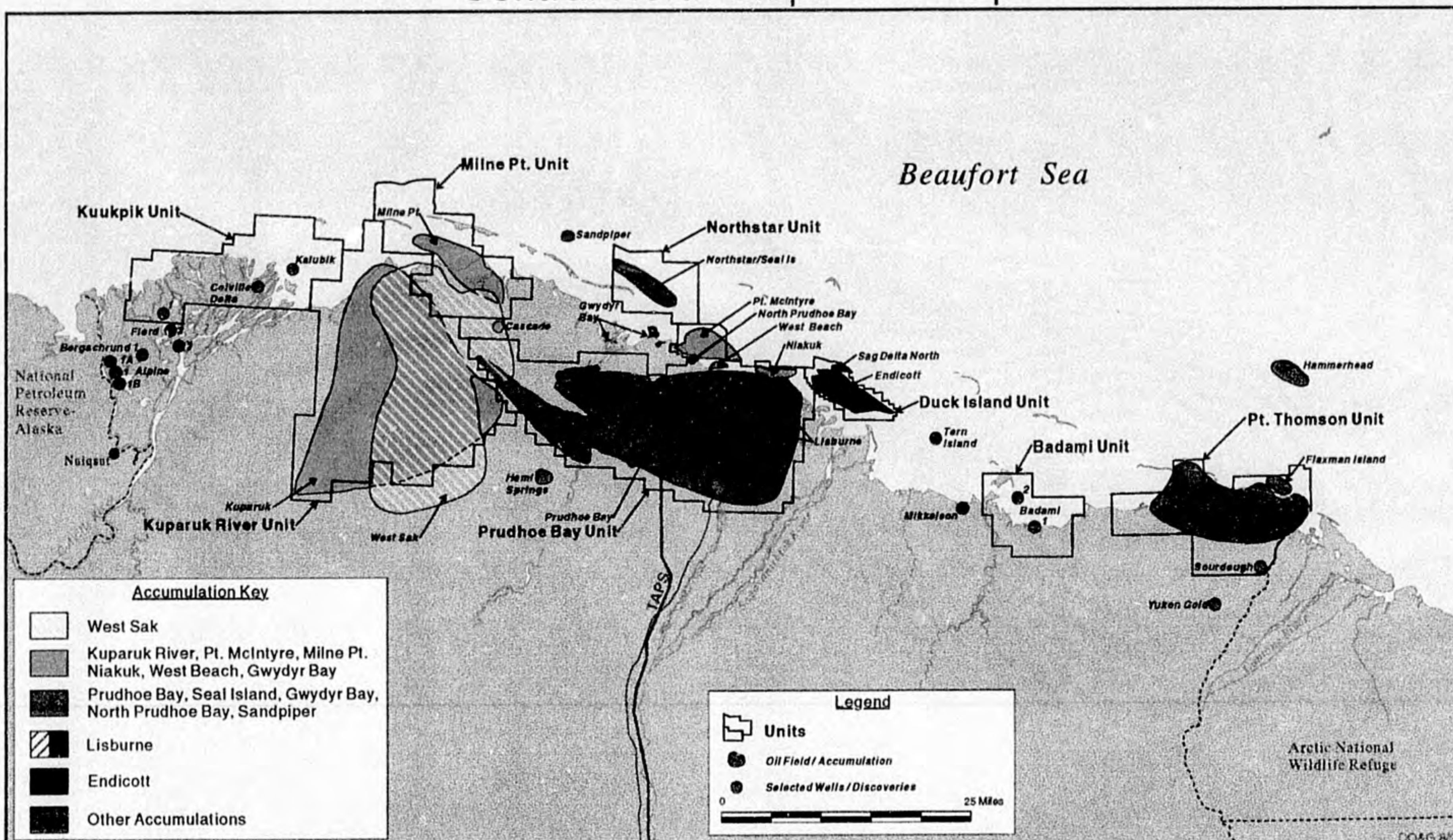
Billions of Barrels of Oil

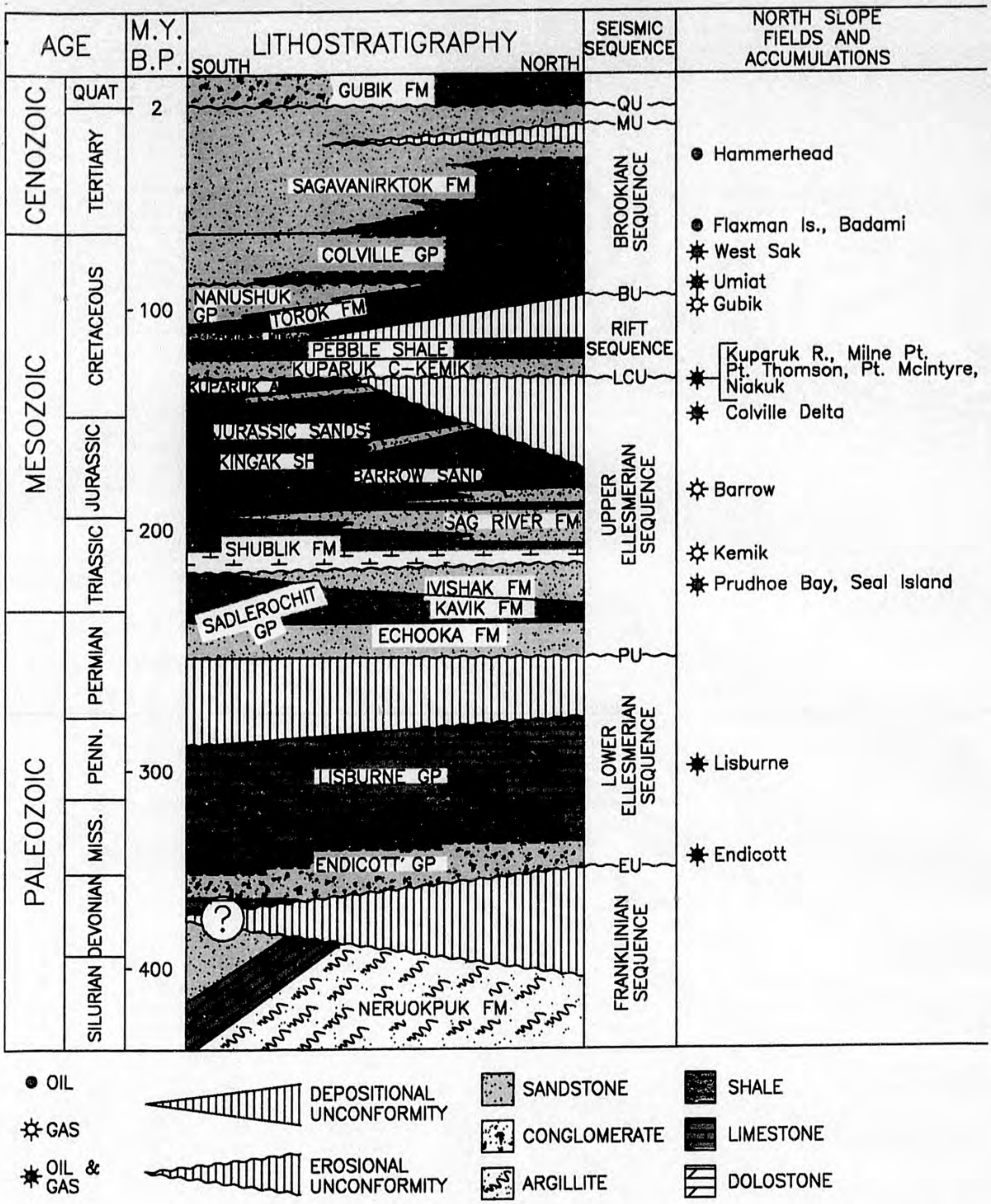
*Reflects a change in original probability from 19% to 46%

SOURCE: Alaska Division of Oil & Gas, June 1995

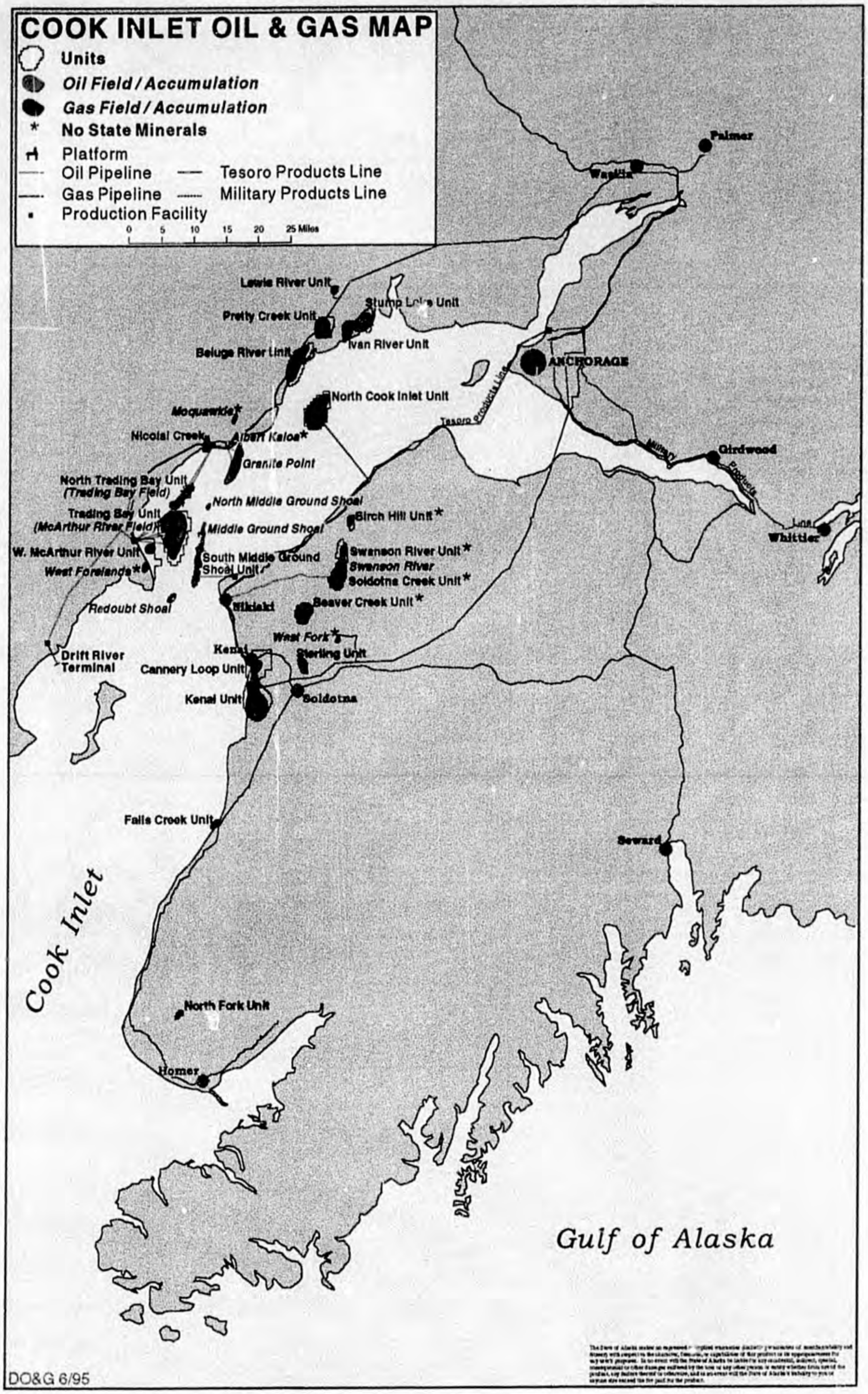
Estimates of Undiscovered Oil Resources in the Coastal Plain of the Arctic National Wildlife Refuge 1986 - 1995.

Central North Slope Unit Map





Generalized North Slope Stratigraphic Column displaying oil and gas reservoirs and associated accumulations.


COOK INLET OIL & GAS MAP
Units
Oil Field / Accumulation
Gas Field / Accumulation
No State Minerals
Platform
Oil Pipeline
Tesoro Products Line
Gas Pipeline
Military Products Line
Production Facility
0 5 10 15 20 25 Miles
Palmer
Wasilla
Lewis River Unit
Stump Lake Unit
Pretty Creek Unit
Ivan River Unit
Beluga River Unit
ANCHORAGE
North Cook Inlet Unit
Moquawkie
Tesoro Products Line
Nicolai Creek
Albert Kaloa
Granite Point
Girdwood
Military Products
North Trading Bay Unit
(Trading Bay Field)
North Middle Ground Shoal
Trading Bay Unit
(McArthur River Field)
Middle Ground Shoal
Birch Hill Unit
W. McArthur River Unit
South Middle Ground
Shoal Unit
Swanson River Unit
Swanson River
Soldotna Creek Unit
West Forelands
Whittier
Redoubt Shoal
Nikiski
Beaver Creek Unit
West Fork
Drift River
Terminal
Kenai
Sterling Unit
Cannery Loop Unit
Kenai Unit
Soldotna
Falls Creek Unit
Seward
Cook Inlet
North Fork Unit
Homer
Gulf of Alaska
DO&G 6/95

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3867 or 465-2450
FAX (907) 465-2029
Mail Stop 3101

130 Seward Street, Suite 409
Juneau, Alaska 99801-2105

MEMORANDUM December 6, 1995

SUBJECT: Areawide oil and gas leasing (Work Order No. 9-LS1341\A)

TO: Representative Norm Rokeberg

FROM: Jack Chenoweth
Legislative Counsel

The enclosed draft introduces the notion of "areawide leasing" in proposed AS 38.05.180(dd), bill section 4 of the draft. A lot of discretion is left to the director of lands and the commissioner of natural resources to develop "areawide leasing" under the department's authority to develop and adopt regulations, and that may not be in line with your thinking. The control on the exercise of the department's authority under any regulations adopted should be, in my judgment, legislative direction to the department, given by law, that one or more particular geographical areas should be opened to "areawide leasing." The commissioner could propose areas for inclusion under "areawide leasing" in the department's annual submission to the legislature under AS 38.05.180(b).

In our phone discussion, you indicated that North Slope acreage located between the Colville and Canning Rivers, presumably south or upslope from existing leases, and certain Cook Inlet acreage should be opened under "areawide leasing" principles. Legislative "permission" to open those areas--or any other--to "areawide leasing" could be given in this bill, by an additional uncodified section, or in other legislation.

These are my initial thoughts on this subject. Am I close to what you have in mind?

JBC:glc
95-462.glc

Enclosure

9-LS1341\A
Chenoweth
12/6/95

HOUSE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - SECOND SESSION

BY REPRESENTATIVE ROKEBERG

Introduced:
Referred:

A BILL

FOR AN ACT ENTITLED

"An Act revising laws relating to oil and gas leasing to authorize a program of areawide leasing."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* **Section 1.** AS 38.05.035(a) is amended to read:

(a) The director shall

(1) have general charge and supervision of the division and may exercise the powers specifically delegated to the director; may employ and fix the compensation of assistants and employees necessary for the operations of the division; and is the certifying officer of the division, with the consent of the commissioner, and may approve vouchers for disbursements of money appropriated to the division;

(2) manage, inspect, and control state land and improvements on it belonging to the state and under the jurisdiction of the division;

(3) execute laws, rules, regulations, and orders adopted by the commissioner;

(4) prescribe application procedures and practices for the sale, lease, or other disposition of available land, resources, property, or **interests** [INTEREST] in them**, including disposal of interests in land under areawide oil and gas leasing authorized under AS 38.05.180(dd) for an area in which area wide leasing has been specifically authorized by the legislature**;

(5) prescribe fees or service charges, with the consent of the commissioner, for any public service rendered;

(6) under the conditions and limitations imposed by law and the commissioner, issue deeds, leases, or other conveyances disposing of available land, resources, property, or [ANY] interests in them;

(7) have jurisdiction over state land, except that land acquired by the Alaska World War II Veterans Board and the Agricultural Loan Board or the departments or agencies succeeding to their respective functions through foreclosure or default; to this end, the director possesses the powers and, with the approval of the commissioner, shall perform the duties necessary to protect the state's rights and interest in state land, including the taking of all necessary action to protect and enforce the state's contractual or other property rights;

(8) [REPEALED

(9)] maintain such records as the commissioner considers necessary, administer oaths, and do all things incidental to the authority imposed; the following records and files shall be kept confidential upon request of the person supplying the information:

(A) the name of the person nominating or applying for the sale, lease, or other disposal of land by competitive bidding;

(B) before the announced time of opening, the names of the bidders, and the amounts of the bids;

(C) all geological, geophysical, and engineering data supplied, whether or not concerned with the extraction or development of natural resources;

(D) except as provided in AS 38.05.036, cost data and financial information submitted in support of applications, bonds, leases, and similar items;

(E) applications for rights-of-way or easements;

(F) requests for information or applications by public agencies for land <u>**that**</u> [WHICH] is being considered for use for a public purpose;

<u>**(9)**</u>[(10)] account for the fees, licenses, taxes**,** or other money received in the administration of this chapter**,** including the sale or leasing of land, identify their source, and promptly transmit them to the proper fiscal department after crediting them to the proper fund; receipts from land application filing fees and charges for copies of maps and records shall be deposited immediately in the general fund of the state by the director;

<u>**(10)**</u> [(11)] select and employ or obtain at reasonable compensation cadastral, appraisal, or other professional personnel the director considers necessary for the proper operation of the division;

<u>**(11)**</u> [(12)] be the certifying agent of the state to select, accept**,** and secure by whatever action is necessary in the name of the state, by deed, sale, gift, devise, judgment, operation of law, or other means any land, of whatever nature or interest, available to the state; and be the certifying agent of the state, to select, accept**,** or secure by whatever action is necessary in the name of the state any land, or title or interest to land available, granted, or subject to being transferred to the state for any purpose [;

(13) REPEALED

(14) REPEALED].

* **Sec. 2.** AS 38.05.035(e) is amended to read:

(e) Upon a written finding that the interests of the state will be best served, the director may, with the consent of the commissioner, approve contracts for the sale, lease, or other disposal of available land, resources, property, or interests in them<u>**. In**</u> [, AND, IN] addition to the conditions and limitations imposed by law, <u>**the director**</u> may impose additional conditions or limitations in the contracts as the director determines, with the consent of the commissioner, will best serve the interests of the state. The preparation and issuance of the written finding by the director is subject to the following:

(1) with the consent of the commissioner and subject to the director's discretion, **either** for a specific proposed disposal of available land, resources, or property, or of an interest in them**, or for a disposal under AS 38.05.180(dd) of land, resources, or property, or an interest in them**, the director, in the written finding,

(A) shall establish the scope of the administrative review on which the director's determination is based, and the scope of the written finding supporting that determination; the scope of the review and finding may address only reasonably foreseeable, significant effects of the uses proposed to be authorized by the disposal;

(B) may limit the scope of an administrative review and finding for a proposed disposal to

(i) applicable statutes and regulations;

(ii) the facts pertaining to the land, resources, or property, or interest in them, that the director finds are material to the determination and that are known to the director or knowledge of which is made available to the director during the administrative review; and

(iii) issues that, based on the statutes and regulations referred to in (i) of this subparagraph, on the facts as described in (ii) of this subparagraph, and on the nature of the uses sought to be authorized, the director finds are material to the determination of whether the proposed disposal will best serve the interests of the state; [AND]

(C) may, if the project for which the proposed disposal is sought is a multiphased development, limit the scope of an administrative review and finding for the **specific** proposed disposal to the applicable statutes and regulations, facts, and issues identified in (B)(i) - (iii) of this paragraph that pertain solely to a discrete phase of the project when

(i) the only uses to be authorized by the **specific** proposed disposal are part of that discrete phase;

(ii) the department's approval is required before the next phase of the project may proceed; and

(iii) the department describes its reasons for a decision to phase and conditions its approval to ensure that any additional uses or activities proposed for that or any later phase of the project will serve the best interests of the state; **and**

(D) shall, if the proposed disposal of interests in land occurs under an areawide oil and gas lease authorized under AS 38.05.180(dd) for an area in which areawide leasing has been specifically authorized by the legislature, include within the scope of the administrative review and finding the entirety of the area in which areawide leasing has been specifically authorized by the legislature;

(2) the director shall discuss in the written finding prepared and issued under this subsection the reasons that each of the following was not material to the director's determination that the interests of the state will be best served:

(A) facts pertaining to the land, resources, or property, or an interest in them other than those that the director finds material under (1)(B)(ii) of this subsection; and

(B) issues based on the statutes and regulations referred to in (1)(B)(i) of this subsection and on the facts described in (1)(B)(ii) of this subsection;

(3) a written finding for an oil and gas lease sale under AS 38.05.180 is subject to (g) of this section;

(4) a contract for the sale, lease, or other disposal of available land or an interest in land is not legally binding on the state until the commissioner approves the contract but, if the appraised value is not greater than $50,000 in the case of the sale of land or an interest in land, or $5,000 in the case of the annual rental of land or interest in land, the director may execute the contract without the approval of the commissioner;

(5) public notice requirements relating to the sale, lease, or other disposal of available land or an interest in land for oil and gas proposed to be scheduled in the five-year oil and gas leasing program under AS 38.05.180(b) **or in an areawide oil and gas leasing program under AS 38.05.180(dd)**, are as follows:

(A) before a public hearing, if held, or in any case not less than 180 days before the sale, lease, or other disposal of available land or an interest in land, the director shall make available to the public a preliminary written finding that states the scope of the review established under (1)(A) of this subsection and includes the applicable statutes and regulations, the material facts and issues in accordance with (1)(B) of this subsection, and information required by (g) of this section, upon which the determination that the sale, lease, or other disposal will serve the best interests of the state will be based; the director shall provide opportunity for public comment on the preliminary written finding for a period of not less than 60 days;

(B) after the public comment period for the preliminary written finding and not less than 90 days before the sale, lease, or other disposal of available land or an interest in land for oil and gas, the director shall make available to the public a final written finding that states the scope of the review established under (1)(A) of this subsection and includes the applicable statutes and regulations, the material facts and issues in accordance with (1) of this subsection, and information required by (g) of this section, upon which the determination that the sale, lease, or other disposal will serve the best interests of the state is based;

(6) before a public hearing, if held, or in any case not less than 21 days before the sale, lease, or other disposal of available land, property, resources, or interests in them other than a sale, lease, or other disposal of available land or an interest in land for oil and gas under (5) of this subsection, the director shall make available to the public a written finding that, in accordance with (1) of this subsection, sets out the material facts and applicable statutes and regulations and any other information required by statute or regulation to be considered upon which the determination that the sale, lease, or other disposal will best serve the interests of the state was based; however, a written finding is not required before the approval of

(A) a contract for a negotiated sale authorized under AS 38.05.115;

(B) a lease of land for a shore fishery site under AS 38.05.082;

(C) a permit or other authorization revocable by the commissioner;

(D) a mineral claim located under AS 38.05.195;

(E) a mineral lease issued under AS 38.05.205;

(F) a production license issued under AS 38.05.207;

(G) an exempt oil and gas sale under AS 38.05.180(d) of acreage offered in a sale that was held within the previous five years if the sale was subject to a written best interest finding, unless the commissioner determines that new information has become available that justifies a revision of the best interest finding; [OR]

(H) a lease sale under AS 38.05.180(w) of acreage offered in a sale that was held within the previous five years if the sale was subject to a best interest finding, unless the commissioner determines that new information has become available that justifies a revision of the best interest finding; **or**

(I) an oil or gas lease sale in an area that is part of an areawide lease under AS 38.05.180(dd) within an area in which areawide leasing has been authorized by the legislature if the lease sale was subject to a best interest finding for the area, unless the commissioner determines that new information has become available that justifies a revision of the best interest finding;

(7) the director shall include in

(A) a preliminary written finding, if required, a summary of agency and public comments, if any, obtained as a result of contacts with other agencies concerning a proposed disposal or as a result of informal efforts undertaken by the department to solicit public response to a proposed disposal, and the department's preliminary responses to those comments; and

(B) the final written finding a summary of agency and public comments received and the department's responses to those comments.

*** Sec. 3.** AS 38.05.180(b) is amended to read:

(b) The commissioner shall biennially prepare and, between the first and the 15th day of the first regular session of each legislature, notify the legislature of the availability of,

<u>(1)</u> a five-year proposed oil and gas leasing program consisting of a schedule of proposed lease sales and specifying as precisely as practicable the location of tracts proposed to be offered for oil and gas leasing during the calendar year in which the proposed program is made available to the legislature and the following four calendar years<u>**; and**</u>

<u>**(2) a proposed areawide oil and gas leasing program**</u>.

*** Sec. 4.** AS 38.05.180 is amended by adding a new subsection to read:

(dd) The director, with the approval of the commissioner, shall establish a program of areawide oil and gas leasing to operate with each area as to which the legislature has, by law, authorized areawide oil and gas leasing. Under the authority granted in this subsection,

(1) when the commissioner identifies tracts for inclusion in the proposed lease sale, the commissioner shall include at a minimum all of the tracts reasonably believed by the commissioner to cover the entirety of an oil or gas reservoir sought to be developed;

(2) the issuance and continuance in effect of a lease, or of any assignment or other transfer of a lease, under this subjection must be conditioned upon compliance with regulations adopted to implement this subsection.

*** Sec. 5.** REVISOR OF STATUTES TO REVISE REFERENCES. Due to the deletion of repealed paragraphs in AS 38.05.035(a) by sec. 1 of this Act, the revisor of statutes shall amend cross-references to the affected paragraphs in AS 38.05.035(a) that appear in the following statues: AS 38.05.133(e), 38.05.180(j)(6)(B), 38.05.275(c), and AS 41.09.010(d).

9-LS1342\A
Chenoweth
11/9/95

HOUSE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

NINETEENTH LEGISLATURE - SECOND SESSION

BY REPRESENTATIVE ROKEBERG

Introduced:
Referred:

A BILL

FOR AN ACT ENTITLED

"An Act relating to 'best-interest findings' for oil and gas leases."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 38.05.035(g) is amended to read:

(g) Notwithstanding (e)(1)(A) and (B) of this section, when the director prepares a written finding required under (e) of this section for an oil and gas lease sale scheduled under AS 38.05.180, the director shall consider and discuss

(1) in a preliminary or final written finding facts that are known to the director at the time of preparation of the finding and that are

(A) material to issues that were raised during the period allowed for receipt of public comment, whether or not material to a matter set out in (B) of this paragraph, and within the scope of the administrative review established by the director under (e)(1) of this section; or

(B) material to the following matters:

(i) property descriptions and locations;

(ii) the petroleum potential of the sale area, in general terms;

(iii) fish and wildlife species and their habitats in the area;

(iv) the current and projected uses in the area, including uses and value of fish and wildlife;

(v) the governmental powers to regulate oil and gas exploration, development, production, and transportation;

(vi) the reasonably foreseeable cumulative effects of oil and gas exploration, development, production, and transportation on the sale area, including effects on subsistence uses, fish and wildlife habitat and populations and their uses, and historic and cultural resources;

(vii) lease stipulations and mitigation measures, including any measures to prevent and mitigate releases of oil and hazardous substances, to be included in the leases, and a discussion of the protections offered by these measures;

(viii) the method or methods most likely to be used to transport oil or gas from the lease sale area, and the advantages, disadvantages, and relative risks of each;

(ix) the reasonably foreseeable fiscal effects of the lease sale and the subsequent activity on the state and affected municipalities and communities, including the explicit and implicit subsidies associated with the lease sale, if any;

(x) the reasonably foreseeable effects of oil and gas exploration, development, production, and transportation on municipalities and communities within or adjacent to the lease sale area; and

(xi) the bidding method or methods adopted by the commissioner under AS 38.05.180; [AND]

(2) **<u>in a preliminary or final written finding that is revised as required by (e)(6)(G) or (H) of this section, facts that are known to the director at the time of preparation of the revised finding and that require discussion under</u>**

(1) of this subsection; however, in making the revised finding, the director shall consider and discuss facts described in (1) of this subsection as to which new information has become available that justifies a revision and need not consider and discuss facts described in (1) of this subsection for which no new information has become available; and

(3) the basis for the director's preliminary or final finding, **or the director's revised preliminary or final finding,** as applicable, that, on balance, leasing the area would be in the state's best interest.

50908

LEGISLATIVE TELECONFERENCE NETWORK

SIGN-IN SHEET

SPONSOR: House Oil & Gas

SUBJECT: Bonding for oil & gas

START/END TIME: 10am DATE: 12-18

Invitation Only

PLEASE PRINT

	Name/Representing	Address	Zip	Phone No.	Testify	Observe	Bill No.
1.	Betty Cox - Brady & Company	PO Box 107502 Anch 99510		276-5617			
2.	Tom Chapple - ADEC	555 Cordova St Anch 99501		269-7686			
3.	JOE SAUTNER - ADEC	555 CORDOVA St. Anch. 99501		269-7539			
4.	Rob Mintz - Dept of Law	1031 W 4th Av ste 200 Anch	99501	269-5255	(respond to questions)		
5.	Paul Craig / Trading Bay	2900 Boniface Pkwy #610 99504		563-5686	x		
6.	Dave Johnston / AOGCC	3001 Porcupine Dr Anchorage	99501	279-1433	(respond to questions)		
7.	Dave Lappi	4900 Sportsman Dr. 99502		248-7188	X		
8.	Pat Foley	Box 100360 Anch AK	99516	265-6213			
9.	Brad Penn	PO BOX 196168 Anchorage, AK	99519	564-6428		x	
10.	ARDIE GRAY - AOGA	121 W FIREWEED, STE 207, ANCH	99503	272-7424		X	
11.	PADRAIC COUGHLIN	1031 W 4th Ave, Suite 200, ANCH	99501	269-5255			
12.	Katelyn Ohmer	480 W Tudor, Anch AK	99503	561-8050		X	
13.							
14.							
15.							

SCOMM

96:6

Alaska State Legislature

HOUSE OF REPRESENTATIVES

Official Business

HOUSE SPECIAL COMMITTEE ON OIL AND GAS

State Capitol
Juneau, AK 99801-1182

MEMORANDUM

TO: Susie Lowell, Chief Clerk

FROM: Representative Norman Rokeberg, Chairman NR
House Special Committee on Oil and Gas

DATE: November 8, 1995

SUBJECT: Meeting Schedule

**** PUBLIC NOTICE****

Monday, December 18, 1995, at, Anchorage LIO
5th Floor Conference Room, 716 West 4th Avenue

10:00 am - Noon	**WORK SESSION - Bonding Requirements For Oil & Gas Wells**
1:30 pm - 4:00 pm	**WORK SESSION - Areawide Leasing and Areawide Best Interest Findings**

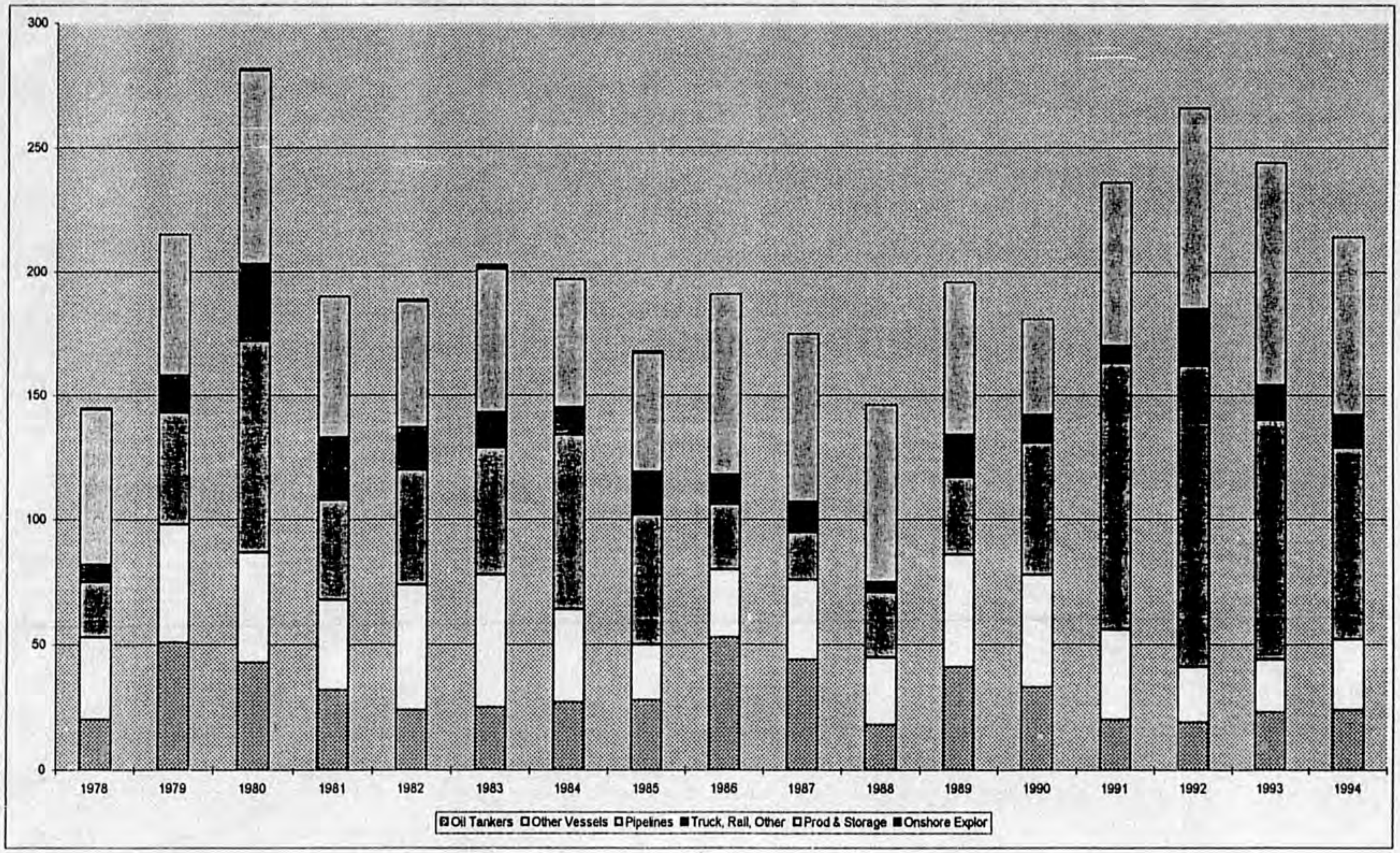
MEETING WILL BE TELECONFERENCED

D. Lappi

Worldwide Numbers of Oil Spills
Greater than 10,000 gallons

Source: Cutter Information Corp's annual "Oil Spill Intelligence Report"

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Oil Tankers	20	51	43	32	24	25	27	28	53	44	18	41	33	20	19	23	24
Other Vessels	33	47	44	36	50	53	37	22	27	32	27	45	45	36	22	21	28
Pipelines	22	45	85	40	46	51	70	52	26	19	26	31	53	107	121	96	77
Truck, Rail, Other	7	15	31	25	17	14	11	17	12	12	4	17	11	7	23	14	13
Prod & Storage	62	57	78	57	51	58	52	48	73	68	71	62	39	66	81	90	72
Onshore Explor	1	0	1	N/A	1	2	0	1	0	0	0	0	0	0	0	0	0
Totals:	145	215	282	190	189	203	197	168	191	175	146	196	181	236	266	244	214



D. Lappi

Worldwide Numbers of Oil Spills
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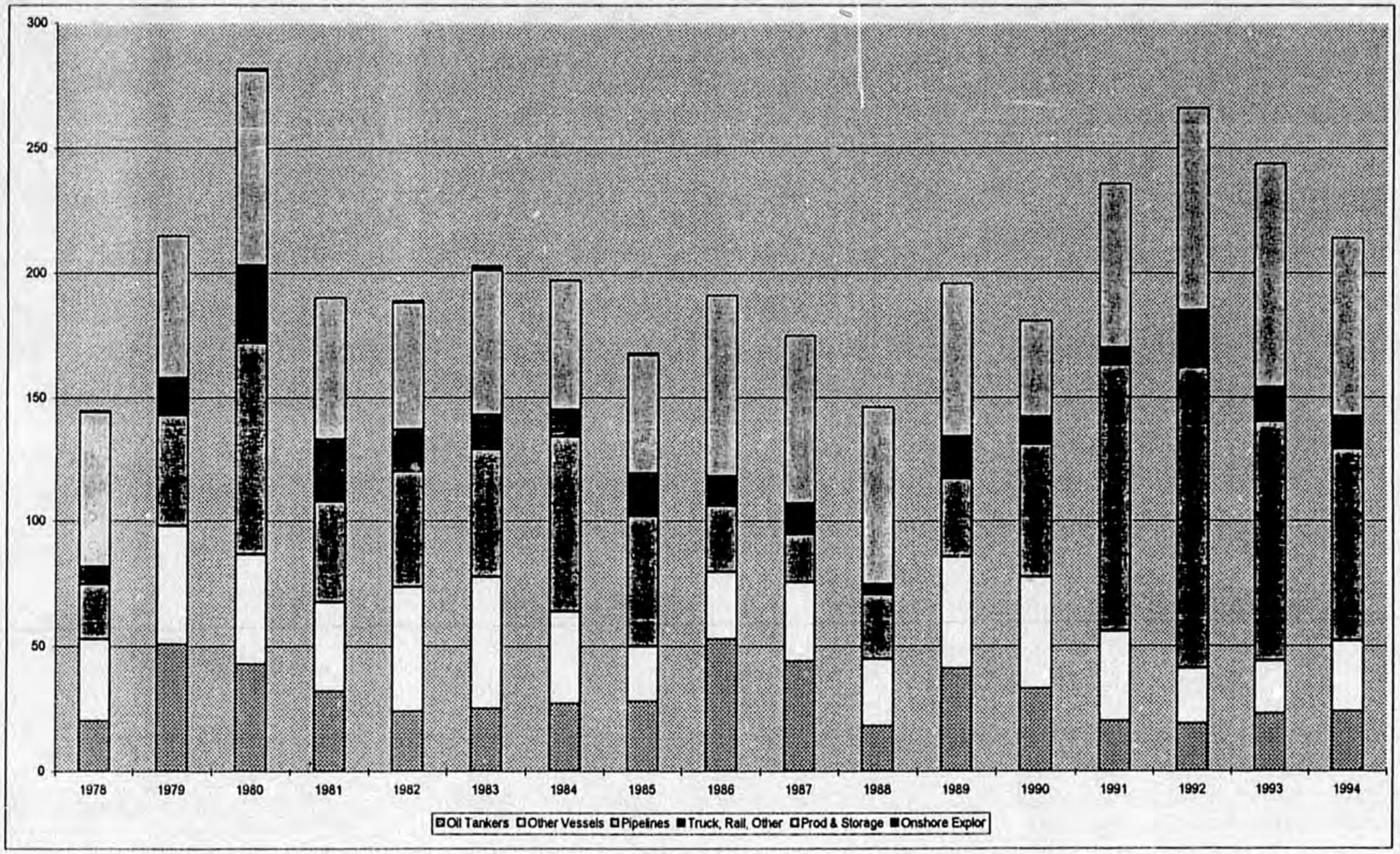
Other Vessels	33	47	44	36	50	53	37	22	27	32	27	45	45	36	22	21	28
Pipelines	22	45	85	40	46	51	70	52	26	19	26	31	53	107	121	96	77
Truck, Rail, Other	7	15	31	25	17	14	11	17	12	12	4	17	11	7	23	14	13
Prod & Storage	62	57	78	57	51	58	52	48	73	68	71	62	39	66	81	90	72
Onshore Explor	1	0	1	N/A	1	2	0	1	0	0	0	0	0	0	0	0	0
Totals:	145	215	282	190	189	203	197	168	191	175	146	196	181	236	266	244	214



STUDY PARAMETERS

Single well

Total Depth: 10,000 feet

Location: State Land

Type: Exploratory

Target: Gas and/or Oil

Use high end of any "range" provided by respondent

Careful questioning regarding *any* other financial responsibility requirements

called 20 states - that produce oil
& asked them about these

BONDING AND FINANCIAL RESPONSIBILITY REQUIREMENTS

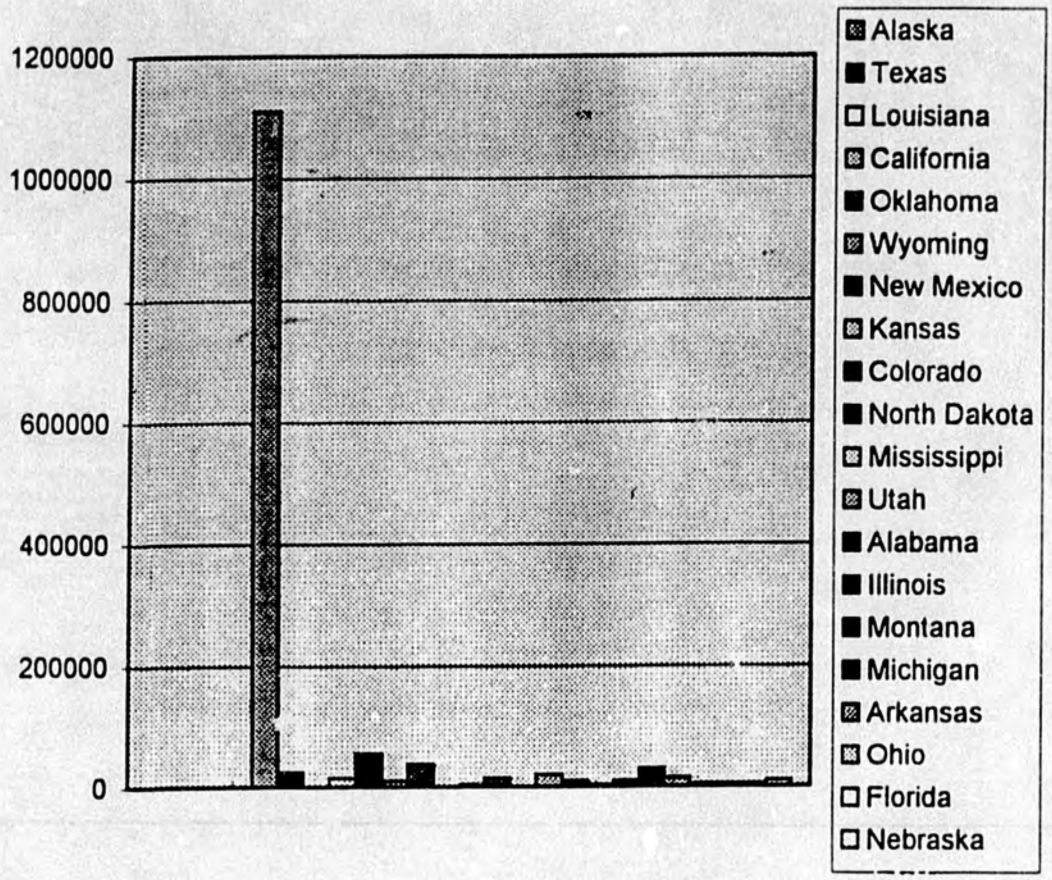
State	Bonding
Alaska	$1,110,000
Texas	25,000
Louisiana	-0-
California	15,000
Oklahoma	55,000
Wyoming	10,000
New Mexico	37,500
Kansas*	-0-
Colorado	5,000
North Dakota	15,000
Mississippi	-0-
Utah	20,000
Alabama	10,000
Illinois	3,000
Montana	10,000
Michigan	30,000
Arkansas	15,000
Ohio	5,000
Florida	4,500
Nebraska	5,000
ALBERTA (non-refundable fee)	10,000

Excluding Alaska:

Average = $13,950

Standard Deviation = $14,413

Alaska = 76 SD's above the national average



FINANCIAL RESPONSIBILITY REQUIREMENTS BY STATE

U.41.64L

DEPARTMENT OF NATURAL RESOURCES
Division of Oil and Gas

MEMORANDUM/TELEFAX

December 12, 1995

To: Ken Boyd, Director

From: Jim Haynes 269-8775
Jim

RE: Alaska Bonding Requirements

As discussed, we have reviewed Alaska's bonding requirements relative to oil and gas exploration and development with the standards of other oil and gas-producing states.

This overview is presented in four parts:

A. Oil and gas bonding requirements in other producing states,
B. Relevant Alaska statutes and regulations paraphrased (followed by the full text),
C. Comparison of the Paul Craig study with data obtained from the Interstate Oil and Gas Compact Commission, and
D. an overview of how the Alaska Division on Mining approaches bonding.

A. OIL & GAS BONDING IN OTHER STATES

The majority of oil and gas-producing states require security in the form of a bond, cash, certificate of deposit or irrevocable letter of credit.[1] Initially the primary purpose of bonding was to ensure proper plugging and abandonment of wells - based upon estimated plugging costs. In Alaska, this type of security is authorized, but not required, by AS 31.05.030(d)(4)[2] and administered by the Oil and gas Conservation Commission.

In recent years, additional security has been required to assure restoration of the environment, guarantee performance and/or provide for post-activity surface clean-up. A few states, including Alaska, require all three (see Table 1). In Alaska, responsibility for environmental contamination rests with ADEC; bonding is authorized and required at AS 46.03.830(a). In addition, DNR may require performance bonding (AS 38.05.020) but, the statute is imprecise and direction is provided by regulation.

Single well bonds range from $500 for wells under 500 feet in Kentucky, to a minimum of $1,110,000 in Alaska. Nine states set the amount required by depth of well (Alabama, California, Illinois, Kentucky, Missouri, New Mexico, New York, Utah and Wyoming).

Single well bonds in Oklahoma are established by a licensed "plugger" (those permitted to bid on state contract plugging are licensed by a commission after a review of their qualifications); the blanket bond amount is a set dollar amount.

Blanket bonds range from $10,000 (Montana, Tennessee and wells of less than 1,000 feet in Utah) to a $1,210,000 minimum in Alaska, $250,000 for offshore wells in California, $250,000 for more than 100 wells in Texas, and $1,000,000 in Florida.

Two states, California and Illinois, do not maintain individual bonds for the life of the well; they require completion bonds. Those in California are released after successful completion (defined as six months continuous production) or approved plugging and abandonment. Many wells are not subject to bond coverage as a result. In Illinois, security is held for two years, then, if the operator is not in violation, the bond is released. In addition, the operator is required to contribute an annual fee to a state plugging fund; the fee is based upon the number of wells owned. Failure to make payment results in a cease order on all production for that operator.

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[1] Twenty-eight states require some sort of security; all allow surety bonds, twenty-four allow the use of certificates of deposit, twenty-three allow cash and nine allow the use of a letter of credit. In addition, the State of Utah allows negotiable U.S. Bonds, and the State of Oklahoma permits a financial statement with a minimum net worth of $50,000 within the state.

[2] Each of the referenced statutes or regulations are addressed in more detail in section B.

Six states have expanded programs:

California - Wells that have been inactive (not produced for six consecutive months) for five years or longer and are unbonded are charged $100 per well per year.

Florida - There is a trust fund used as a mechanism for operators to obtain coverage if they are unable to obtain indemnity elsewhere. There is a single well first-year charge of $4,000, and $1,500 thereafter. A blanket bond is $30,000.

Pennsylvania - Pennsylvania has a program for operators (of not more than 200 wells) who were unable to obtain bonds for wells drilled prior to April 1985. It allowed for the submission of a fee ($50 per well or a blanket fee of $500 for 10-20 wells, or a blanket fee of $1,000 for more than 20 wells). The fee was non-refundable and paid each year that a bond was not filed. Legislation in 1992 amended the program to permit phased deposits of collateral to collateralize fully refundable bonds. An operator with up to 10 wells, not intending to operate additional wells, is required to deposit $250 per well initially, and then $50 per well annually until bonding obligations are met. For 11-25 wells, or when applying for a permit for additional wells, an operator must make a deposit of $2,000 and then deposit $1,150 annually, plus $150 for each additional well until obligations are met. For 26-50 wells, a deposit of $3,000 and then deposit $1,300 annually, plus $400 for each additional well. Operators of 51-100 wells must deposit $4,000 and then annually deposit $1,500, plus $400 for each additional well. Operators of 101-200 wells must deposit $8,000 then annually deposit $1,600, plus $1,000 for each additional well to be permitted. Operators of more than 200 wells are required to bond their wells fully and immediately. Operators who paid a fee in lieu of bond have that amount credited against the phased collateral payments.

Texas - To slow the growth of the number of abandoned wells and oil field sites to be addressed with state funds, 1991 legislation established financial responsibility requirements for oil and gas operators. Anyone conducting operations regulated by the Railroad Commission must file an annual organization report and submit a bond. The security covers oil and gas operations with several options available:

1. If only wells are involved, a bond of $2 per foot of the aggregate total depth of all of the operator's wells;

2. A blanket bond equal to

   a) $25,000 with 10 or fewer wells or with no wells, but other operations;
   b) $50,000 with 11 to 99 wells; or
   c) $100,000 with more than 100 wells.

3. If an operator can demonstrate an acceptable record of compliance with safety and pollution prevention rules during a previous forty-eight month period, an annual fee of $100;

4. An annual fee of 3-percent of the amount of the bond that would otherwise be required;

5. A first lien on oil field equipment with a salvage value equal to the amount of the bond that would otherwise be required.

If an operator chooses to pay a fee or file a lien rather than post a bond, the operator must pay a fee of $100 with each application for an extension of time to plug an inactive well.

If an applicant has, within the past 5-years, an outstanding violation of safety or pollution prevention rules, the Commission cannot accept a new drilling permit application.

West Virginia - The West Virginia Abandoned Well Act requires the bonding of all wells for either $5,000 per well or $50,000 for a blanket bond. For wells not bonded under the present requirement, if a hardship had been demonstrated (by July 1993), the state may require 20-percent of the bond amount to be in place by July 1994, with an additional 20-percent each year until fully bonded - but not later than July 1998.

Wyoming - An additional $2 per foot bond may required under the blanket bond when dormant well footage exceeds 12,500 feet. The state may allow the additional bond amount to be paid on a percentage basis over 18-months.

Kansas, Louisiana and Mississippi do not require security in the same manner as above.

Kansas - The state requires the licensing of operators and drillers. Licensing is considered a form of financial assurance; it allows the state latitude to work with operators or shut down production by suspending or revoking a license. Loss of production serves as a deterrent from defaulting on the responsibility to either plug or produce wells.

Louisiana - The Commissioner of Conservation has the authority to promulgate bonding rules and regulations but none have been enacted.

Mississippi - 1991 legislation authorized the Oil and Gas Board to require proof of financial responsibility for oil and gas wells.

The majority of states permit the regulatory agency to change the bond amount by regulation. In New Mexico and Oklahoma, authority is limited; there is some flexibility provided for individual wells or within a range set by the legislature. Bond amounts in California, Indiana, Kentucky, New York, Texas and West Virginia are established by legislation.

A number of states require separate financial assurances for site restoration or, in some cases, restoration is included in the plugging bond. Alabama, Florida, Pennsylvania, Utah and Virginia provide for site restoration as an obligation of the plugging bond. The amounts required for restoration range from $1,500 per well in Tennessee to $1,010,000 in Alaska.

Some states have the authority to place a lien on surface equipment or actually become owner of the equipment if an operator fails to comply with plugging regulations . Arizona, California, Illinois, Nebraska, Oklahoma and Pennsylvania may file liens on abandoned equipment. Kentucky claims property unless it is claimed by the lessee; liens cannot be filed. In Louisiana, prior to a sheriff's sale, and when appropriate, the Commissioner of Conservation is notified; a lien may be then placed that can follow to third parties. No lien authority exists in Michigan although, in practice, a contractor who removes equipment as part of a cleanup may dispose of the equipment and then credit the state for the salvage. In North Dakota equipment may be confiscated following a hearing after a well has been plugged. In West Virginia, the party conducting plugging operations or the surface owner may take equipment.

No state has the authority to operate a well in place of an insolvent operator. Nor may they contract with a firm or individual to operate a well in lieu of plugging. Likewise, no state has its own equipment and crew for well plugging operations; all states contract private operators for those plugging operations

A listing of bonding requirements follows in Table 1:

Table 1. Financial Assurance Requirements

State	Single Well	Blanket Bond	Restoration Bond
Alabama	$5,000 - $50,000 (based on depth)	$100,000	Included with plugging bond
Alaska *	$100,000 min.	$200,000 min.	$1,000,000 (ADEC) DNR requires an additional $10,000 (minimum) "clean-up" bond.
Arizona	$5,000 $10,000 < 10,000 ft $20,000 > 10,000 ft	$25,000	None
Arkansas	$15,000	None	None
California	$10,000 (0 - 5,000 ft) $15,000 (to 10,000 ft) $25,000 (> 10,000 ft) Released upon completion.	$100,000 onshore $500,000 offshore	None
Colorado	$5,000	$30,000	$2,000 to $5,000 when mineral interest is severed from the surface interest.
Florida	$50,000 to $100,000 Petroleum E&P Bond Trust Fund $4,000 first year; $1,500 thereafter.	$1,000,000 $30,000	Included with plugging bond.
Illinois	$1,500 < 2,000 ft $3,000 > 2,000 ft	$25,000 (0-25 wells) $50,000 (26-50 wells) $100,000 (+50 wells)	None
Indiana	$2,000	$30,000	None
Kansas	**	**	**
Kentucky	$1/ft. $500 min.	$10,000	None
Louisiana	None	None	None
Michigan	$5,000	$50,000	None

Mississippi	Proof of financial responsibility		
Missouri	$1,000 (0 - 500 ft) $2,000 (- 1,000 ft) $3,000 (- 2,000 ft) $4,000 (- 5,000 ft) $4,000 + $1/ft> 5,000	$20,000 (0 - 800 ft) max of 50 wells $30,000 (800-1,200 ft) max of 15 wells	
Montana	$5,000	$10,000	None
Nebraska	$5,000	$25,000	None
Nevada	$10,000	$50,000	None
New Mexico	$5,000 < 5,000 ft $7,000 5,100-10,000 ft	$50,000	$10,000 lease $20,000 blanket
New York	$2,500 < 2,500 ft $5,000 2,500-6,000 ft > 6,000 ft anticipated costs	$25,000 to $100,000 $40,000 to $150,000	Included with plugging costs
North Dakota	$15,000	$50,000 10 wells $100,000 no limit, but no more than 10 unplugged dry holes and abandoned wells	None
Ohio	$5,000	$15,000	None
Oklahoma	As established by licensed plugger	$25,000 or $50,000 net worth in the state	None
Pennsylvania	$2,500 fee in-lieu $50 per well per year 1 - 10 wells $500 year 10 - 20 wells $1,000 year > 20 wells	$25,000	Security covers drilling, plugging, water supply, replacement and restoration.
South Dakota	$5,000	$20,000	$2,000 per well $10,000 blanket
Tennessee	$2,000	$10,000	$1,500 reduced to $1,000 after initial reclamation.

Texas	Annual fee: $200 - $850 per well if not bonded.	$25,000 1-10 wells $50,000 11-99 wells $250,000 100+ wells	None
Utah	$1,000 < 1,000 ft $10,000 < 3,000 ft $20,000< 10,000 ft $40,000> 10,000 ft	$10,000 < 1,000 ft. $80,000 > 1,000 ft.	Includes plugging and restoration.
Virginia	$10,000 acre + $2,000 per acre of disturbed land.	$25,000 1-15 wells $50,000 16-30 wells $75,000 31-50 wells $100,000 51+ wells	Included plugging and restoration.
West Virginia	$5,000	$50,000	None
Wyoming	$ 5,000 < 2,000 ft $10,000 > 2,000 ft	$25,000 Additional amount may be required for dormant wells	None

Notes:

* In addition to plugging and abandoning, and restoration bonding, Alaska requires . . .

** Kansas licenses operators, drillers and pluggers. Suspension or revocation of a license causes a shutdown of operator statewide until compliance is restored.

B. ALASKA STATUTES AND REGULATIONS.

This paraphrasing is followed by the full text of the relevant statutes and associated regulations:

STATUTES - Title 38

The commissioner may adopt reasonable regulations . . . (AS 38.05.020(b)).

Rights may not be exercised . . . until . . . [the lessee] . . . makes provisions to pay the owner . . . for . . . damages sustained . . . by reason of entering upon the land. If the owner . . . refuses . . . to settle . . . an applicant . . . may enter upon the land . . . after posting a surety bond determined by the director . . . to be sufficient . . . to secure the owner payment for damages . . . (AS 38.05.130).

DNR REGULATIONS -

Every lease and permit may contain a provision requiring . . . an acceptable bond in the minimum amount required by the section . . . dealing with [that] specific mineral. The amount of the bond is . . . determined by the commissioner to be justified by the nature . . . of the risks involved . . .. Every bond must be conditioned upon faithful compliance with . . . the provisions of the lease or permit (11 AAC 82.600).

Before operations commence on a lease . . . a bond . . . of at least $10,000 must be furnished . . .. The commissioner . . . [may] . . . require a bond . . . greater than the amount specified . . . where a greater amount is justified . . . [by] . . . the degree of risk involved . . .. Any person . . . may furnish a statewide bond in the amount of $500,000. [However,] . . . the commissioner . . . [may] . . . require an additional unusual risk bond . . . (11 AAC 83.160).

[Within] a unit . . . in place of separate bonds . . . for each lease . . ., the unit operator shall furnish . . . a statewide oil and gas lease bond . . . (11 AAC 83.390).

As a condition of waiver . . . of a work commitment . . . the commissioner will . . . require . . . a performance bond or other security . . .. The amount . . . will be set by the commissioner . . . not to exceed $100,000 for each lease. The bond . . . will be released . . . upon fulfillment of the work commitment . . . (11 AAC 83.700).

TITLE 38 PUBLIC LAND
CHAPTER 05 ALASKA LAND ACT
ARTICLE 01 ADMINISTRATION
SECTION 38.05.020 AUTHORITY AND DUTIES OF THE COMMISSIONER.

(a) The commissioner shall supervise the administration of the division of lands.

(b) The commissioner may

(1) establish reasonable procedures and adopt reasonable regulations necessary to carry out this chapter and, whenever necessary, issue directives or orders to the director to carry out specific functions and duties; regulations adopted by the commissioner shall be adopted under AS 44.62 (Administrative Procedure Act); orders by the commissioner classifying land, issued after January 3, 1959, are not required to be adopted under AS 44.62 (Administrative Procedure Act);

(2) enter into agreements considered necessary to carry out the purposes of this chapter, including agreements with federal and state agencies;

(3) review any order or action of the director;

(4) exercise the powers and do the acts necessary to carry out the provisions and objectives of this chapter;

(5) notwithstanding the provisions of any other section of this chapter, grant an extension of the time within which payments due on any exploration license, lease, or sale of state land, minerals, or materials may be made, including payment of rental and royalties, on a finding that compliance with the requirements is or was prevented by reason of war, riots, or acts of God;

(6) classify tracts for agricultural uses and require the prequalification, including the submission of conservation plans, development plans, or other plans, schedules, or programs, of persons who apply to participate in an agricultural development project under AS 44.33.475;

(7) waive, postpone, or otherwise modify the development requirements of a contract for the sale of agricultural land if

(A) the land is inaccessible by road; and

(B) transportation, marketing, and development costs render the required development uneconomic;

(8) reconvey or relinquish land or an interest in land to the federal government if

(A) the land is described in an amended application for an allotment under 43 U.S.C. 1617; and

(B) the reconveyance or relinquishment is

(i) for the purposes provided in 43 U.S.C. 1617; and

(ii) in the best interests of the state.

TITLE 38 PUBLIC LAND
CHAPTER 05 ALASKA LAND ACT
ARTICLE 05 RESERVATION OF RIGHTS TO ALASKA
SECTION *38.05.130* DAMAGES AND POSTING OF BOND.

Rights may not be exercised by the state, its lessees, successors or assigns under the reservation as set out in AS 38.05.125 until the state, its lessees, successors, or assigns make provision to pay the owner of the land full payment for all damages sustained by the owner, by reason of entering upon the land. If the owner for any cause refuses or neglects to settle the damages, the state, its lessees, successors, assigns, or an applicant for a lease or contract from the state for the purpose of prospecting for valuable minerals, or option, contract or lease for mining coal or lease for extracting geothermal resources, petroleum or natural gas, may enter upon the land in the exercise of the reserved rights after posting a surety bond determined by the director, after notice and an opportunity to be heard, to be sufficient as to form, amount, and security to secure to the owner payment for damages, and may institute legal proceedings in a court where the land is located, as may be necessary to determine the damages which the owner may suffer.

TITLE *11* OFFICE OF THE COMMISSIONER
CHAPTER 82 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION *11 AAC 82.600* BONDING.

(a) Every mineral lease and permit may contain a provision requiring that an acceptable bond in the minimum amount required by the section of this title dealing with the specific mineral involved be filed before beginning any permit or lease operation.

(b) The amount of the bond is the amount determined by the commissioner to be justified by the nature of the surface, its uses and improvements in the vicinity of the lands, and the degree of the risks involved in the types of operations to be carried on under the lease or permit.

(c) Every bond must be either

(1) a corporate surety bond with a corporate surety qualified to do business as such in Alaska; or

(2) a personal bond accompanied by a deposit of cash in the amount of the bond, or negotiable federal or Alaska securities in a sum equal at par value to the amount of the bond together with a sufficient conveyance to the commissioner of full authority to sell the securities in the event of default in the performance of the conditions of the bond.

(d) Every bond must be conditioned upon faithful compliance with all the provisions of the lease or permit.

(e) The principal on any bond must be the lessee of record unless the lease is subject to an operating agreement which has been approved by the commissioner, in which case the operator may be the principal in place of the lessee of record.

(f) Bonds must be furnished on forms provided by the department.

HISTORY

Eff. 9/5/74, Register 51; am 7/22/79, Register 71

AUTHORITY.

AS 38.05.020

AS 38.05.145(a)

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 83 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 83.160 OIL AND GAS LEASE *BOND*.

(a) Before operations commence on a state oil and gas lease, a *bond* in the amount of at least $10,000 must be furnished to the department.

(b) The commissioner will, in his discretion, after notice and an opportunity to be heard, require a *bond* in a reasonable amount greater than the amount specified in (a) of this section where a greater amount is justified by the nature of the surface, the uses and improvements on or in the vicinity of the leased land, and the degree of risk involved in the types of operations proposed or being conducted on the lease. A statewide *bond* furnished under (c) of this section will not satisfy any requirement of a *bond* imposed under this provision but will be considered by the commissioner in determining the need for and the amount of any additional *bond* under this subsection.

(c) Any person holding any interest in any lease may furnish a statewide *bond* in the amount of $500,000. A statewide *bond* satisfies all the *bond* requirements to which an oil or gas lease is subject under the Department of Natural Resources except that the commissioner will, in his discretion, require an additional unusual risk *bond* under (b) of this section or specific lease provisions.

(d) All oil and gas lease bonds must comply with 11 AAC 82.600.

HISTORY

Eff. 9/5/74, Register 51; am 7/22/79, Register 71; am 6/29/80, Register 74

AUTHORITY.

AS 38.05.020(b)

AS 38.05.145(a)

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 83 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 83.390 UNIT BONDS.

In place of separate bonds required for each lease committed to a unit agreement, the unit operator shall furnish and maintain a statewide oil and gas lease *bond* under 11 AAC 83.160.

HISTORY
Eff. 9/5/74, Register 51; am 7/22/79, Register 71; am 6/28/81, Register 78
AUTHORITY.
AS 38.05.020
AS 38.05.145
AS 38.05.180

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 83 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 83.700 WORK COMMITMENT.

(a) If a work commitment is a condition of a lease, the terms of the work commitment will be specified in the notice of sale. The work commitment will state the minimum requirement for exploration and development on each lease. The lessee shall file reports with the commissioner substantiating adherence to the work commitment terms.

(b) The commissioner will, in his or her discretion, alter or abrogate the terms of the work commitment if the lessee demonstrates to the satisfaction of the commissioner that the lease will be unproductive or uneconomic under the terms of the work commitment.

(c) The commissioner will abrogate a work commitment if the lessee relinquishes the lease.

(d) The commissioner will, in his or her discretion, grant a single waiver of any term of a work commitment imposed on a lease under (a) of this section for a period not to exceed two years if the commissioner makes a written finding that conditions preventing fulfillment of the work commitment were beyond the lessee's reasonable ability to foresee or control. The commissioner will consider the following factors when determining whether the conditions preventing fulfillment of the work commitment were beyond the lessee's reasonable ability to foresee or control:

(1) the lessee's statement of the conditions that prevented fulfillment of the work commitment;

(2) the lessee's explanation of how those conditions prevented fulfillment of the work commitment;

(3) the lessee's explanation of how and why the lessee did not foresee or failed to avoid the conditions that prevented fulfillment of the work commitment;

(4) the lessee's explanation of why the conditions that prevented fulfillment of the work commitment were beyond the lessee's reasonable control;

(5) the lessee's plans to remedy the conditions that prevented fulfillment of the work commitment during the initial term of the work commitment;

(6) the lessee's plans to fulfill the terms of the work commitment during the term of the waiver; and

(7) other relevant information.

(e) The commissioner will, in his or her discretion, grant a single waiver of any term of a work commitment imposed on a lease under (a) of this section for a period not to exceed two years if the commissioner makes a written finding that the lessee has demonstrated, through good faith efforts, the intent and ability to fulfill the terms of the work commitment during the term of the waiver. The commissioner will consider the following factors when determining whether a lessee has demonstrated the intent and ability to fulfill the terms of a work commitment during the term of any waiver that may be granted:

(1) whether the lessee has undertaken appropriate actions to fulfill the work commitment, including but not limited to having acquired permits, materials, and financing necessary to fulfill the work commitment;

(2) reasons why fulfillment of the work commitment during the term of any waiver that may be granted is more likely than it was during the initial term of the work commitment;

(3) the lessee's specific plans and actions to be taken to fulfill the work commitment during the term of the waiver; and

(4) other relevant information.

(f) The length of time for a waiver granted under (e) of this section will be based on the time determined by the commissioner to be needed for the lessee to take the specific actions planned by the lessee to fulfill the work commitment during the term of the waiver.

(g) If a lessee fails to meet any term of work commitment by its due date, the lease will automatically terminate. In addition, any penalty provisions established by the commissioner in the work commitment stipulation or as a condition to any extension, alteration, or waiver will take effect immediately if the work commitment is not completed by its due date. For purposes of this subsection, the due date for a work commitment is its original due date under the work commitment stipulation to the lease, plus any additional time granted by extension, alteration, or waiver of the work commitment.

(h) As a condition of waiver of any term of a minimum work commitment under (e) of this section, the commissioner will, in his or her discretion, require the lessee to post a performance *bond* or other security acceptable to the commissioner. The amount of the performance *bond* or other security, if required, will be set by the commissioner in an amount not to exceed $100,000 for each lease. The *bond* or other security will be released to the lessee upon fulfillment of the work commitment. If, before the end of the waiver period granted under (e) of this section, the commissioner agrees to alter or abrogate the terms of the work commitment under (b) or (c) of this section, part of the *bond* or other acceptable security will forfeit automatically to the state in proportion to the portion of the waiver period that has elapsed, unless forfeiture is waived by the commissioner. If the work commitment is not fulfilled by the end of the waiver period, the performance *bond* or other security will forfeit automatically to the state. The commissioner will, in his or her discretion, establish additional terms or penalties as a condition of waiver of a work commitment.

HISTORY

Eff. 11/9/79, Register 72; am 9/25/85, Register 95

AUTHORITY.

AS 38.05.020

AS 38.05.180

DEC STATUTES - Title 46

A person may not cause or permit the operation of [an] . . . exploration facility . . . unless the person has furnished . . . proof of financial ability to respond . . .. Proof of financial responsibility required for an onshore exploration facility is $1,000,000 per incident.

Financial responsibility may be demonstrated by (1) self-insurance, (2) insurance, (3) surety, (4) guarantee, (5) letter of credit . . . or (6) other proof of financial responsibility . . . (AS 46.04.040).

DEC REGULATIONS -

The department . . . [may] . . . attach terms and conditions to . . . the posting of a performance bond . . . (18 AAC 15.090).

TITLE 46 WATER, AIR, ENERGY, AND ENVIRONMENTAL CONSERVATION
CHAPTER 04 OIL AND HAZARDOUS SUBSTANCE POLLUTION CONTROL
ARTICLE 01 OIL POLLUTION CONTROL
SECTION 46.04.040 PROOF OF FINANCIAL RESPONSIBILITY.

(a) A person may not cause or permit the operation of an oil terminal facility in the state unless the person has furnished to the department, and the department has approved, proof of financial ability to respond in damages. Proof of financial responsibility required for a crude oil terminal is $50,000,000 per incident. Proof of financial responsibility required for a noncrude oil terminal is $25, per incident, for each barrel of total noncrude oil storage capacity at the terminal or $1,000,000, whichever is greater, subject to a maximum of $50,000,000. For purposes of this subsection, an oil terminal facility that stores both crude oil and noncrude oil is subject to the financial responsibility requirements applicable to the type of facility that corresponds to the type of oil storage that predominates at the facility. However, if the facility stores more noncrude oil than crude oil, the $25 per incident, per barrel requirement of this subsection applies to each barrel of oil storage capacity at the facility.

(b) A person may not cause or permit the operation of a pipeline or an exploration or production facility in the state unless the person has furnished to the department, and the department has approved, proof of financial ability to respond in damages. Proof of financial responsibility required for

(1) a pipeline or an offshore exploration or production facility is $50,000,000 per incident;

(2) an onshore production facility is

(A) $20,000,000 per incident if the facility produces over 10,000 barrels per day of oil;

(B) $10,000,000 per incident if the facility produces over 5,000 barrels per day but not more than 10,000 barrels per day of oil;

(C) $5,000,000 per incident if the facility produces over 2,500 barrels per day but not more than 5,000 barrels per day of oil;

(D) $1,000,000 per incident if the facility produces 2,500 barrels per day or less of oil;

(3) an onshore exploration facility is $1,000,000 per incident.

(c) Except as provided in (m) of this section, a person may not operate a tank vessel or an oil barge within the waters of the state, or cause or permit the transfer of oil to or from a tank vessel or an oil barge, unless the person operating the tank vessel or oil barge has furnished to the department, and the department has approved, proof of financial ability to respond in damages. Proof of financial responsibility required under this subsection is

(1) $300, per incident, for each barrel of storage capacity or $100,000,000, whichever is greater, for a tank vessel or barge carrying crude oil;

(2) $100, per incident, for each barrel of storage capacity or $1,000,000, whichever is greater, subject to a maximum of $35,000,000, for a tank vessel or barge carrying noncrude oil.

(d) Except as provided in (k) of this section, it is not a defense to an action brought for violation of (a) - (c) of this section that the person charged believed in good faith that proof of financial ability to respond in damages had been furnished to, and approved by, the department.

(e) Financial responsibility may be demonstrated by (1) self-insurance, (2) insurance, (3) surety, (4) guarantee, (5) letter of credit approved by the department, or (6) other proof of financial responsibility approved by the department, including proof of financial responsibility provided by a group of insureds who have agreed to cover pollution risks of members of the group under terms the department may prescribe. An action brought under AS 46.03.758, 46.03.759, 46.03.760(a) or (e), 46.03.822, or AS 46.04.030(g) may be brought in a state court directly against the insurer, the group, or another person providing evidence of financial responsibility; however, the liability under this section of a third-party insurer is limited to the type of risk assumed and the amount of coverage specified in the proof of financial responsibility furnished to and approved by the department. The applicant, and an insurer, surety, guarantor, person furnishing an approved letter of credit, or other group or person providing proof of financial responsibility approved by the department shall appoint an agent for service of process in the state. For purposes of this subsection, an insurer, other than a group of insureds whose agreement has been approved by the department, must either be authorized by the Department of Commerce and Economic Development to sell insurance in the state or be an unauthorized insurer listed by the Department of Commerce and Economic Development as not disapproved for use in the state. In this subsection, "third-party insurer" means a third-party insurer, surety, guarantor, person furnishing a letter of credit, or other group or person providing proof of financial responsibility on behalf of an applicant under this section; "third-party insurer" does not include the applicant.

(f) Acceptance of proof of financial responsibility expires

(1) one year from its issuance for self-insurance;

(2) on the effective date of a change in the surety *bond*, guarantee, insurance agreement, letter of credit, or other proof of financial responsibility; or

(3) on the expiration or cancellation of the surety *bond*, guarantee, insurance agreement, letter of credit, or other proof of financial responsibility.

(g) The person whose proof of financial responsibility is accepted by the department under this section shall notify the department at least 30 days before the effective date of a change, expiration or cancellation in the surety *bond*, guarantee, insurance agreement, letter of credit, or other proof of financial responsibility. Application for renewal of acceptance of proof of financial responsibility under this section must be filed at least 30 days before the date of expiration.

(h) The department, after notice and hearing, may revoke acceptance of proof of financial responsibility if it determines that

(1) acceptance was procured by fraud or misrepresentation; or

(2) a change of circumstance has occurred other than a change specified in (f)(1) - (3) of this section, which would have warranted denial of the application.

(i) Financial responsibility under this section extends to a loss compensable under AS 46.03.760(e) or 46.03.822 and an assessment under AS 46.03.758, 46.03.759, 46.03.760(a), or AS 46.04.030(g).

(j) Upon acceptance and approval of proof of financial responsibility under this section, the department shall issue to the applicant a certificate stating that the state's financial responsibility requirements have been satisfied. The certificate must include the name of the facility, pipeline, tank vessel, or oil barge for which it is issued and the expiration date of the certificate.

(k) It is a defense to an action brought for violation of (a) - (c) of this section that the person charged relied on a certificate of approval issued under (j) of this section unless the person knew or had reason to know at the time of the alleged violation that the approval had been revoked or was expired.

(l) Notwithstanding the requirements of (e) of this section, the applicant may provide evidence of financial responsibility provided by an insurer or other person who does not agree to be subject to direct action in state courts or to appoint an agent for service of process if

(1) the department is satisfied that the insurance or other form of financial responsibility covers judgments under the statutes listed in (e) of this section;

(2) the applicant provides proof of $50,000,000, or the amount required by (a) - (c) of this section, whichever is less, in insurance or other form of financial responsibility that meets the requirements of (e) of this section; and

(3) the applicant provides a sworn statement or affidavit that insurance or other form of financial responsibility that meets the requirements of (e) of this section is not available in greater amounts.

(m) A tank vessel or oil barge that is conducting, or is available only for conducting, oil discharge response operations is exempt from the requirements of (c) of this section if the tank vessel or oil barge has received prior approval of the department. The department may approve an exemption under this subsection upon application and presentation of information required by the department.

TITLE 18 ENVIRONMENTAL CONSERVATION
CHAPTER 15 ADMINISTRATIVE PROCEDURES
ARTICLE 02 PERMIT PROCEDURES
SECTION 18 AAC 15.090 PERMIT TERMS AND CONDITIONS.

The department will, in its discretion, attach terms and conditions to a permit, variance, or approval, including operating, monitoring, inspection, sampling, access to records and reporting requirements, and the posting of a performance *bond* or other surety, that it considers necessary to ensure that all applicable criteria will be met.

HISTORY
Eff. 11/25/77, Register 64; am 11/7/87, Register 100
AUTHORITY.
AS 46.03.020(10)
AS 46.03.090
AS 46.03.100
AS 46.03.110
AS 46.03.160
AS 46.03.330
AS 46.03.720

TITLE 18 ENVIRONMENTAL CONSERVATION
CHAPTER 75 OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTROL
ARTICLE 02 FINANCIAL RESPONSIBILITY FOR OIL DISCHARGES
SECTION 18 AAC 75.255 SURETY.

(a) An applicant may demonstrate financial responsibility with a contract of surety, in full or in part, for the applicable amount required under 18 AAC 75.235(a). The applicant shall submit the contract of surety to the department on forms supplied by the department.

(b) The issuer of the contract of surety must

(1) be registered to do business in Alaska;

(2) possess a current certificate of authority to do business in the United States under 31 C.F.R. 223; and

(3) possess an underwriting limitation of risk at least equal to the amount of the *bond*, or in a lesser amount necessary to supplement other forms of proof of financial responsibility.

(c) An applicant may demonstrate financial responsibility by a contract of surety for an amount equal to the deductible of an insurance policy submitted under 18 AAC 75.250 or in combination with another means of proof.

(d) Termination or cancellation of a contract of surety that serves as proof of financial responsibility under AS 46.04.040 may not become effective until 60 days after the surety notifies the department in writing, by certified mail, at its office in Juneau, Alaska. The surety remains liable for any discharge occurring before the effective date of termination or cancellation.

HISTORY

Eff. 5/14/92, Register 122; am 11/26/94, Register 132

AUTHORITY.

AS 46.03.020
AS 46.04.040
AS 46.04.045
AS 46.04.070

AOGCC STATUTES - Title 31

The commission may require the furnishing of a reasonable bond . . . for the performance of the duty to plug each dry or abandoned well or the repair of wells causing waste (AS 31.05.030(d)(4).

AOGCC REGULATIONS -

An application for a Permit to Drill . . . must be . . . approved before drilling . . . wells. Information must be submitted at the time of filing the application for a Permit to Drill regarding a bond, as required by 20 AAC 25.025 (20 AAC 25.005).

The commission will require . . . [a] . . . bond . . . to ensure that each well is operated, maintained, repaired and abandoned in accordance with this chapter. The bond required . . . must be either a single-well bond of not less than $100,000, or a blanket bond of not less than $200,000 . . . (20 AAC 25.025(a) and (b).

A bond must remain in effect until the abandonment of all wells covered by the bond and final clearance of well sites are approved by the commission. The bond will then be released . . . upon written request . . . (20 AAC 25.025(d).

Approval of abandonment of a well and the release of the bond . . . constitute a presumption of proper abandonment, but does not relieve an operator of further claim by the commission (20 AAC 25.026).

TITLE 31 OIL AND GAS
CHAPTER 05 ALASKA OIL AND GAS CONSERVATION ACT
ARTICLE 01 ADMINISTRATION
SECTION 31.05.030 POWERS AND DUTIES OF COMMISSION.

(a) The commission has jurisdiction and authority over all persons and property, public and private, necessary to carry out the purposes and intent of this chapter.

(b) The commission shall investigate to determine whether or not waste exists or is imminent, or whether or not other facts exist which justify or require action by it.

(c) The commission shall adopt regulations and orders and take other appropriate action to carry out the purposes of this chapter.

(d) The commission may require

(1) identification of ownership of wells, producing leases, tanks, plants and drilling structures;

(2) the making and filing of reports, well logs, drilling logs, electric logs, lithologic logs, directional surveys, and all other subsurface information on a well drilled for oil or gas, or for the discovery of oil or gas, or for geologic information, and the required reports and information shall be filed within 30 days after the completion, abandonment, or suspension of the well;

(3) the drilling, casing and plugging of wells in a manner that will prevent the escape of oil or gas out of one stratum into another, the intrusion of water into an oil or gas stratum, the pollution of fresh water supplies by oil, gas or salt water, and prevent blowouts, cavings, seepages and fires;

(4) the furnishing of a reasonable *bond* with sufficient surety conditions for the performance of the duty to plug each dry or abandoned well or the repair of wells causing waste;

(5) the operation of wells with efficient gas-oil and water-oil ratios, and may fix these ratios;

(6) the gauging or other measuring of oil and gas to determine the quality and quantity of oil and gas;

(7) every person who produces oil or gas in the state to keep and maintain for a period of five years in the state complete and accurate records of the quantities of oil and gas produced, which shall be available for examination by the Department of Natural Resources or its agents at all reasonable times;

(8) the measuring and monitoring of oil and gas pool pressures;

(9) the filing and approval of a plan of development and operation for a field or pool in order to prevent waste, insure a greater ultimate recovery of oil and gas, and protect the correlative rights of persons owning interests in the tracts of land affected.

(e) The commission may regulate, for conservation purposes

(1) the drilling, producing and plugging of wells;

(2) the shooting and chemical treatment of wells;

(3) the spacing of wells;

(4) the disposal of salt water, nonpotable water and oil field wastes;

(5) the contamination or waste of underground water;

(6) the quantity and rate of the production of oil and gas from a well or property; this authority shall also apply to a well or property in a voluntary cooperative or unit plan of development or operation entered into in accordance with AS 38.05.180(p).

(f) The commission may classify wells as oil or gas wells for purposes material to the interpretation or enforcement of this chapter.

(g) When the commission finds sufficient likelihood of an unexpected encounter of oil, gas, or other hazardous substance as a result of well drilling in an area of the state, the commission may, by regulation, designate the area and specify a depth in the area as one in which wells or any boring into the soil in excess of the specified depth but not otherwise subject to this chapter are subject to the regulations and requirements adopted under this section. The designation of an area or specification of a depth under this subsection does not constitute a certification that no hazardous substance will be encountered in another area or at a lesser depth, and the state is not liable for any damages arising from such an unexpected encounter of a hazardous substance.

(h) The commission may take all actions necessary to allow the state to acquire primary enforcement responsibility under 42 U.S.C. 300h-4 (Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f-300j), for the control of underground injection related to the recovery and production of oil and natural gas.

TITLE 20 MISCELLANEOUS BOARDS AND COMMISSIONS
CHAPTER 25 ALASKA OIL AND GAS CONSERVATION COMMISSION
ARTICLE 01 DRILLING
SECTION 20 AAC 25.005 PERMIT TO DRILL.

(a) An application for a Permit to Drill (Form 10-401) must be submitted to the commission, and approved, before drilling, redrilling, or deepening the following types of wells:
(1) exploratory;
(2) development;
(3) service; and
(4) stratigraphic test.
(b) An application for a Permit to Drill must be submitted to the commission, and approved, before the re-entry of an abandoned well.
(c) The application for a Permit to Drill must be accompanied by the following:
(1) a fee of $100 payable to the State of Alaska, Department of Revenue;
(2) a plat identifying the property and showing the coordinates of the proposed surface, top of the objective formation and bottom-hole location referenced to governmental section lines;
(3) a diagram and description of the BOP equipment to be used, as required by 20 AAC 25.035(a)(1), and the pressure information required in 20 AAC 25.035(d)(2);
(4) a complete proposed casing and cementing program as required in 20 AAC 25.030;
(5) a diagram and description of the diverter system to be used as specified in 20 AAC 25.035(b), unless this requirement is waived by the commission;
(6) a drilling fluid program, a schematic diagram and description of the drilling fluid system to be used, and the information required in 20 AAC 25.033;
(7) for exploratory and stratigraphic test wells, a tabulation setting out the depths of predicted overpressured strata as required by 20 AAC 25.033(e);
(8) for exploratory and stratigraphic test wells, a seismic refraction or reflection analysis as required by 20 AAC 25.061(a);
(9) for offshore wells drilled from a mobile bottom-founded, jack-up, or floating unit, an analysis of seabed conditions as required by 20 AAC 25.061(b); and
(10) a copy of the proposed drilling program.
(d) For a well that is to be intentionally deviated, the requirements of 20 AAC 25.050(b) must be met.
(e) Each hole drilled below the conductor casing, unless drilled solely to straighten the original hole, sidetrack junk, or correct mechanical difficulties, is a separate well requiring a Permit to Drill. To provide for continuous operation, the commission will verbally approve the permit to drill the separate well; however, an application for a Permit to Drill (Form 10-401) for the separate well must be submitted on the commission's next working day.
(f) Each well must be identified by a name and number which is unique.
(g) Information must be submitted at the time of filing the application for a Permit to Drill regarding a *bond*, as required by 20 AAC 25.025.
(h) If actual drilling operations are not commenced within 24 months after issuance, the drilling permit expires.
(i) A drilling permit is not valid at a location where the applicant does not have a right to drill for, produce, and remove oil and gas.
(j) A survey plat certified by a registered land surveyor showing the precise surface location must be submitted before the completion or abandonment of the well. Only the first well drilled from a fixed platform or a multiple-well site must have a certified survey.

HISTORY
Eff. 4/13/80, Register 74; am 4/2/86, Register 97

TITLE 20 MISCELLANEOUS BOARDS AND COMMISSIONS
CHAPTER 25 ALASKA OIL AND GAS CONSERVATION COMMISSION
ARTICLE 01 DRILLING
SECTION 20 AAC 25.025 BONDING.

(a) The commission will require from the operator an appropriate *bond* and the filing of *Bond* (Form 10-402) to ensure that each well is operated, maintained, repaired, and abandoned in accordance with this chapter.

(b) The *bond* required in (a) of this section must be either a single-well *bond* of not less than $100,000, or a blanket *bond* of not less than $200,000, in favor of the Alaska Oil and Gas Conservation Commission.

(c) The *bond* must be by a

(1) corporate surety authorized to do business in Alaska; or

(2) certificate of deposit issued in sole favor of the Alaska Oil and Gas Conservation Commission from a bank authorized to do business in Alaska; a certificate of deposit may not be rolled over without prior commission approval.

(d) A *bond* must remain in effect until the abandonment of all wells covered by the *bond* and final clearance of well sites are approved by the commission. The *bond* then will be released by the commission upon written request of the operator.

HISTORY

Eff. 4/13/80, Register 74; am 4/2/86, Register 97

AUTHORITY.

AS 31.05.030

TITLE 20 MISCELLANEOUS BOARDS AND COMMISSIONS
CHAPTER 25 ALASKA OIL AND GAS CONSERVATION COMMISSION
ARTICLE 01 DRILLING
SECTION 20 AAC 25.026 CLAIMS.

Commission approval of the abandonment of a well and the release of the *bond*, required by sec. 25 of this chapter, constitutes a presumption of proper abandonment, but does not relieve an operator of further claim by the commission after the abandonment.

HISTORY
Eff. 4/13/80, Register 74
AUTHORITY.
AS 31.05.030

TITLE 20 MISCELLANEOUS BOARDS AND COMMISSIONS
CHAPTER 25 ALASKA OIL AND GAS CONSERVATION COMMISSION
ARTICLE 02 ABANDONMENT AND PLUGGING
SECTION 20 AAC 25.170 ONSHORE *LOCATION* *CLEARANCE*.

(a) The *location* of an abandoned well onshore or upon a historically stable island, must be cleared within one year following well abandonment or before expiration of operator's rights, whichever occurs first. The operator shall

(1) remove all materials, supplies, structures, and installations from the *location*;

(2) remove, adequately bury, or incinerate all loose debris occurring on or near the *location*;

(3) fill and grade all pits; and

(4) leave the *location* in a clean and graded condition.

(b) The commission will, in its discretion, grant an extension of time beyond one year following well abandonment, upon receipt of the form entitled Application for Sundry Approvals (Form 10-403), on which is stated

(1) a request for a specific time extension not to exceed one year;

(2) the reason an extension is necessary;

(3) a description of *location* *clearance* progress; and

(4) the expiration date of the operator's rights to enter the *location*

(c) Following completion of all work required in (a) of this section, on-site inspections at a time convenient to the operator will be made by a representative of the commission to

(1) verify a proper well marker as required in 20 AAC 25.120;

(2) verify the *location* condition at the time of inspection; and

(3) provide the operator and field representative a report of the inspection.

HISTORY
Eff. 4/13/80, Register 74; am 4/2/86, Register 97
AUTHORITY.
AS 31.05.030

TITLE 20 MISCELLANEOUS BOARDS AND COMMISSIONS
CHAPTER 25 ALASKA OIL AND GAS CONSERVATION COMMISSION
ARTICLE 02 ABANDONMENT AND PLUGGING
SECTION 20 AAC 25.172 OFFSHORE *LOCATION* *CLEARANCE*.

(a) After an offshore well is abandoned from a fixed platform, the site must be cleared before expiration of the operator's lease termination rights, by removing all casing, wellhead equipment, piling, structures, and other obstructions, to a depth at least 15 feet below the mudline floor or to a depth approved by the commission after review of sea bottom conditions. The operator must verify, by appropriate means approved by the commission, that the site has been cleared of all obstructions.

(b) For a well abandoned from a mobile bottom-founded, jack-up or floating drilling unit, the well site must be cleared before removal of the drilling unit from the *location* by recovering all casing, wellhead equipment, piling, and other obstructions, to a depth at least 15 feet below the mudline floor, unless otherwise approved by the commission. The operator must verify, by appropriate means approved by the commission, that the *location* has been cleared of all obstructions.

(c) For a well abandoned from an artificial gravel island or shifting natural island, the well site must be cleared within one year following abandonment, or before the time that the operator ceases to conduct activities necessary to ensure the integrity of the well site, or before expiration of operator's rights, whichever occurs first. The operator shall

(1) remove all casing and wellhead equipment to a depth of at least two feet below the mudline; the mudline for an artificial gravel island is defined as the depth of the sea floor when the island was constructed; the mudline for a shifting natural island is defined as the depth at which a horizontal plane constructed through the toe of the slope of the island intersects the well bore;

(2) remove all materials, supplies, structures, and installations from the *location*;

(3) remove from the *location*, or incinerate, all loose debris occurring on or near the *location*;

(4) fill and grade all pits; and

(5) leave the *location* in a clean and graded condition.

(d) Following completion of all work required in (c) of this section, onsite inspections at a time convenient to the operator will be made by a representative of the commission to

(1) verify the *location* condition at the time of inspection; and

(2) provide the operator and field representative a report of the inspection.

HISTORY
Eff. 4/2/86, Register 97
AUTHORITY.
AS 31.05.030

C. PAUL CRAIG STUDY.

PAUL CRAIG *
Bonding and Financial Requirements
(Telephone Survey)

State	Craig	IOGCC (as of December 1992)
Alaska	$1,110,000	$1,110,000
Texas	25,000	25,000
Louisiana	0	0
California	15,000	15,000
Oklahoma	55,000	As established by a licensed "plugger"
Wyoming	10,000	10,000
New Mexico	37,500	17,000
Kansas	0	Kansas licenses operators; suspension = statewide shut-down
Colorado	5,000	5,000
N. Dakota	15,000	15,000
Mississippi	0	Proof of financial responsibility
Utah	20,000	20,000
Alabama	10,000	5,000 to 50,000 based on depth.
Illinois	3,000	3,000
Montana	10,000	5,000
Michigan	30,000	5,000
Arkansas	15,000	15,000
Ohio	5,000	5,000
Florida	4,500	50,000 to 100,000 Petroleum E&P Bond Trust Fund + $4,000 first year; $1,500 thereafter
Nebraska	5,000	5,000

* For a single exploration well to 10,000 feet

D. DIVISION OF MINING BONDING REQUIREMENTS.

Paraphrasing of the relevant statutes and associated regulations is followed by the full text:

STATUTES

The commissioner shall require an individual performance bond in an amount not to exceed an amount reasonably necessary to ensure the faithful performance of the requirements of the approved reclamation plan. The commissioner shall establish the amount of the bond . . . to reflect the reasonable and probable costs of reclamation, but the bond may not exceed $750 for each acre of mined area (AS 27.19.040(a)).

The commissioner shall establish a statewide bonding pool . . . as an alternative to . . . bonds. A miner participating in the . . . pool shall contribute an initial deposit, not to exceed 15-percent of the reclamation bond, plus an additional non-refundable fee not to exceed five percent of the . . . bond. The commissioner shall refund the 15 percent deposit upon satisfactory completion of the . . . reclamation plan. . . . The commissioner may allow the bonding pool to be used to meet the requirements of AS 27.21.160 (AS 27.19.040(b)).

If the commissioner determines that a miner has violated . . . the reclamation plan and has failed to comply with a lawful order . . ., the commissioner shall forfeit the . . . bond and deposit the bond in the statewide bonding pool. The commissioner shall use the reclamation and administrative costs recovered . . . to supplement the forfeited bond . . .. If the commissioner is unable to recover the full cost of reclamation . . ., the commissioner may use the bonding pool to reclaim the site . . . (AS 27.19.040(c).

A miner not required to post a bond may submit a reclamation plan . . . and participate in the . . . pool AS 27.19.040(d).

After an application . . . and before a permit may be issued, the applicant must file . . . a performance bond . . . conditioned on faithful performance . . .. The bond must cover the area of land within the permit area on which the applicant will initiate and conduct . . . mining and reclamation operations . . .. As succeeding operations are initiated . . ., the permittee shall provide an additional bond or bonds to cover those increments . . .. The amount of the bond required . . . shall be determined by the commissioner and shall reflect the probable difficulty of the reclamation considering the topography, geology, hydrology, revegetation potential and similar factors relating to the area. The amount of the bond must be sufficient to assure the completion of the reclamation plan . . . in the event of forfeiture and . . . may not be less than $10,000 (AS 27.21.160(a)).

Liability under the bond must exist for the duration of the . . . operation and for the period of time of the permittee's responsibility under the performance standards established by regulation . . . (AS 27.21.160(b)).

The commissioner may accept a bond executed by the applicant without separate surety if the applicant demonstrates to the . . . commissioner that the applicant has sufficient financial means for the purposes of the bond (AS 27.21.160(d)).

The commissioner shall adjust the amount required . . . if the commissioner determines there is good cause . . . for the adjustment (AS 21.27.160(f)).

A permittee may file a request . . . for the release of . . . the permittee's performance bonds (AS 27.21.170(a)).

Within 30-days . . . or withn a longer period required by field conditions, the commissioner shall inspect . . . the reclamation work involved. In the evaluation, the commissioner shall consider the degree of difficulty to complete the reclamation, whether the pollution of the surface or subsurface water is occurring, the probability of continuance of the pollution, and the estimated cost of adating the pollution. Within 60-days . . . the commissioner shall notify the permittee . . . of the decision to release or not release . . . the performance bond (AS 27.21.170(b)).

The commissioner shall release . . . the bond . . . if the commissioner is satisfied that the reclamation . . . covered by the bond . . . has been accomplished . . . (AS 27.21.170(c)).

The commissioner may not release the bond if . . . [schedule] . . . (AS 27.21.170(d)).

REGULATIONS

. . .. Instead of posting an individual performance bond, a miner may participate in the bonding pool (11 AAC 97.425).

TITLE 27 MINING
CHAPTER 19 RECLAMATION
SECTION 27.19.040 RECLAMATION BONDING.

(a) The commissioner shall require an individual performance *bond* in an amount not to exceed an amount reasonably necessary to ensure the faithful performance of the requirements of the approved reclamation plan. The commissioner shall establish the amount of the performance *bond* to reflect the reasonable and probable costs of reclamation but the *bond* may not exceed $750 for each acre of mined area.

(b) The commissioner shall establish a statewide bonding pool for mining operations as an alternative to individual performance bonds. A miner participating in the bonding pool shall contribute an initial deposit not to exceed 15 percent of the reclamation *bond* plus an additional nonrefundable annual fee not to exceed five percent of the reclamation *bond*. The commissioner shall refund the 15 percent deposit upon satisfactory completion of the approved reclamation plan. If requested by the miner, the commissioner may apply the deposit to a new reclamation plan. The commissioner may allow the bonding pool to be used to meet the requirements of AS 27.21.160.

(c) If the commissioner determines that a miner has violated or permitted a violation of the approved reclamation plan and has failed to comply with a lawful order of the commissioner, the commissioner shall forfeit the performance *bond* and deposit the *bond* in the statewide bonding pool. The commissioner shall use the reclamation and administrative costs recovered under AS 27.19.070(a) to supplement the forfeited *bond* deposited in the statewide bonding pool for reclamation of the site subject to the forfeiture. If the commissioner is unable to recover the full cost of reclamation under AS 27.19.070(a), the commissioner may use the bonding pool to reclaim the site to the standards of this chapter.

(d) A miner not required to post a *bond* may submit a reclamation plan under AS 27.19.030(a) and participate in the *bond* pool.

TITLE 27 MINING
CHAPTER 19 RECLAMATION
SECTION 27.19.050 EXEMPTION FOR SMALL OPERATIONS.

(a) AS 27.19.030(a) and 27.19.040 do not apply to a mining operation

(1) where less than five acres are mined at one location in any year and there is a cumulative unreclaimed mined area of less than five acres at one location; or

(2) where less than five acres and less than 50,000 cubic yards of gravel or other materials are disturbed or removed at one location in any year and there is a cumulative disturbed area of less than five acres at one location.

(b) To obtain an exemption under (a) of this section, a miner shall file a letter of intent notifying the commissioner of the

(1) total acreage and volume of material to be mined;

(2) total acreage to be reclaimed; and

(3) reclamation measures to be used.

(c) A miner exempt under (a) of this section shall file an annual reclamation statement with the commissioner disclosing the total acreage and volume of material mined by the operation in the current year, the total acreage reclaimed, and the specific reclamation measures used to comply with AS 27.19.020. A miner does not qualify for an exemption under (a) of this section for subsequent operations unless the annual reclamation statement for the previous operation has been filed with the commissioner.

(d) A miner exempted from the requirements of AS 27.19.030(a) and 27.19.040 under (a) of this section that fails to reclaim a mining operation to the standards of AS 27.19.020 is required for two consecutive years to conduct each subsequent mining operation, regardless of size, under an approved reclamation plan and to post a performance *bond*.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.080 RENEWAL OF PERMIT.

(a) A permit issued under this chapter includes the right of successive renewal upon expiration, for areas within the boundaries of the permit area. An opponent of renewal of a permit has the burden of proving that the permit should not be renewed. Subject to (c) of this section, if a permittee applies for renewal of the permit, the commissioner shall renew the permit after public notice is given in the manner provided in AS 27.21.130 unless the commissioner finds, in writing, that

(1) the terms and conditions of the permit have not been satisfactorily met, and the permittee has not demonstrated to the satisfaction of the commissioner that the permittee is meeting and will continue to meet a schedule set by the commissioner under AS 27.21.240(a) or (b) for correcting a permit violation;

(2) the surface coal mining and reclamation operation of the permittee is not in compliance with the environmental protection standards of this chapter and regulations adopted under it;

(3) the requested renewal substantially jeopardizes the permittee's continuing responsibility on existing permit areas;

(4) the permittee has not provided sufficient evidence that the performance *bond* under AS 27.21.160 in effect for the operation will continue for the renewal period requested in the application, and that any additional *bond* required by the commissioner under AS 27.21.160 will be obtained; or

(5) information required by the commissioner in accordance with this chapter has not been provided by the permittee.

(b) The commissioner shall provide notice to the appropriate public authorities as provided in AS 38.05.945 before approving a permit renewal.

(c) If an application for renewal of a permit includes a proposal to extend the permittee's surface coal mining operations to include new land areas beyond the boundaries authorized in the permit, the commissioner shall review the part of the application that addresses the new land areas under the standards established in AS 27.21.180. However, if the surface coal mining operations authorized by a permit are not subject to the standards contained in AS 27.21.180(c)(5)(A) and (B), the part of the application for renewal that addresses new land areas previously identified in the reclamation plan submitted under AS 27.21.110 is not subject to the standards contained in AS 27.21.180(c)(5)(A) and (B).

(d) A permit may be renewed for an additional term of five years. The commissioner must receive the application for a permit renewal at least 120 days before the expiration of the permit.

(e) If a renewal application is received by the commissioner at least 120 days before the expiration date of the permit, and if the permittee has complied with AS 27.21.160, the permittee may continue surface coal mining operations under the permit after the expiration date of the permit until a final administrative decision on renewal is made.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.140 OBJECTION TO APPLICATION; INFORMAL CONFERENCE.

(a) A person who is or may be adversely affected by the issuance or revision of a permit or a federal, state or municipal agency may file written comments or objections to the permit or revision with the commissioner within 30 days after the last publication of the notice required in AS 27.21.130 and may include with the objection a request for an informal conference.

(b) The commissioner shall immediately provide a copy of any comments or objections filed under (a) of this section to the applicant and shall make them available to the public. If an informal conference is requested under (a) of this section, the commissioner shall hold an informal conference in the locality of the operations proposed in the application. Notice requirements and procedures for informal conferences must be set out in regulations adopted under this chapter.

(c) The commissioner shall notify the applicant, any person who filed a comment or objection under (a) of this section, and any participant in an informal conference held under (b) of this section, in writing of the decision to grant, condition, modify, or deny the permit or revision, and if the decision is not to grant the permit or revision, of the specific reasons for the decision. The commissioner shall provide notification of the decision within 60 days after an informal conference, or if there has not been an informal conference, within the time established in AS 27.21.180.

(d) If the application is approved, the permit shall be issued upon filing of the performance *bond* required by AS 27.21.160.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.160 PERFORMANCE *BOND*.

(a) Except as provided in (c) of this section, after an application for a permit has been approved and before the permit may be issued, the applicant must file with the commissioner, on a form prescribed and furnished by the commissioner, a performance *bond* payable to the State of Alaska and conditioned on faithful performance of the requirements of this chapter and the permit. The *bond* must cover the area of land within the permit area on which the applicant will initiate and conduct surface coal mining and reclamation operations within the initial term of the permit. As succeeding increments of surface coal mining and reclamation operations are initiated and conducted within the permit area, the permittee shall provide an additional *bond* or bonds to cover those increments in accordance with this section. The amount of the *bond* required for an area within the permit area shall be determined by the commissioner and shall reflect the probable difficulty of the reclamation considering the topography, geology, hydrology, revegetation potential, and similar factors relating to the area. The amount of the *bond* must be sufficient to assure the completion of the reclamation plan by the commissioner in the event of forfeiture and, for the entire permit area, may not be less than $10,000.

(b) Liability under the *bond* must exist for the duration of the surface coal mining and reclamation operation and for the period of time of the permittee's responsibility under the performance standards established by regulation under AS 27.21.210. The *bond* shall be executed by the applicant and, except as provided in (d) of this section, a corporate surety licensed to do business in the state.

(c) An applicant may deposit with the commissioner cash, negotiable bonds of the United States or of the state, or negotiable certificates of deposit of a bank organized or transacting business in the United States to satisfy the requirements of (a) of this section if

(1) the value of the deposit is equal to or greater than the amount of the *bond* required under (a) of this section;

(2) liability under the deposit is for a period of time described in (b) of this section; and

(3) the deposit is made under the terms which, under (a) of this section, would apply to a performance *bond*.

(d) The commissioner may accept a *bond* executed by the applicant without separate surety if the applicant demonstrates to the satisfaction of the commissioner that the applicant has sufficient financial means for the purposes of the *bond*. The commissioner shall adopt regulations to implement this section.

(e) The commissioner shall maintain a deposit under (c) of this section in a separate escrow account and shall annually pay the interest accruing on the deposit to the permittee.

(f) The commissioner shall adjust the amount required under (a), (c), or (d) of this section and the terms of the acceptance of that amount if the commissioner determines there is good cause, including changes in affected land areas or in the probable cost of future reclamation, for the adjustment.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.170 REQUEST AND RELEASE OF PERFORMANCE BONDS OR DEPOSIT

(a) A permittee may file a request with the commissioner for the release of all or part of the permittee's performance bonds or deposit. The permittee shall give notice in the manner set out in AS 38.05.945(b) and (c) except as provided by regulations adopted under this chapter.

(b) Within 30 days after receipt of a request under (a) of this section or within a longer period required by field conditions, the commissioner shall inspect and evaluate the reclamation work involved. In the evaluation, the commissioner shall consider the degree of difficulty to complete the reclamation, whether pollution of surface or subsurface water is occurring, the probability of continuance of the pollution, and the estimated cost of abating the pollution. Within 60 days after receipt of the request, or if a hearing relating to the request is conducted under (g) of this section, within 30 days after the hearing, whichever is later, the commissioner shall notify the permittee, in writing, of the decision to release or not to release all or part of the performance *bond* or deposit.

(c) The commissioner shall release all or part of the *bond* or deposit in accordance with the following schedule if the commissioner is satisfied that the reclamation or part of the reclamation covered by the *bond* or deposit has been accomplished as required by this chapter:

(1) if the permittee completes the backfilling, regrading, and drainage control of all or part of a permit area according to the reclamation plan, the commissioner shall release 60 percent of the *bond* or deposit covering the area;

(2) if the permittee completes revegetation of all or part of the permit area according to the reclamation plan, the commissioner shall release the balance of the *bond* or deposit covering the revegetated area except for an amount that would be necessary to hire a third party to reestablish revegetation;

(3) if the permittee successfully completes all of the surface coal mining and reclamation activities required by this chapter and the terms of the permit, the commissioner shall release the remaining portion of the *bond* after expiration of the period of time of the permittee's responsibility under the performance standards established by regulation under AS 27.21.210; however, a *bond* or deposit may not be fully released until all reclamation requirements are fully met.

(d) The commissioner may not release all or part of a *bond* or deposit under (c)(2) of this section if

(1) the permit area or part of a permit area covered by the *bond* or deposit is in violation of the performance standards established by regulation under AS 27.21.210; or

(2) a silt dam is to be retained as a permanent water impoundment under the performance standards established by regulation under AS 27.21.210 and the permittee has not, in the determination of the commissioner, made adequate provisions for the sound future maintenance of the silt dam.

(e) If the commissioner disapproves a request filed under (a) of this section, the commissioner shall notify the permittee of the decision in writing. The notice must include the reasons for the disapproval, a description of the actions necessary to secure the release, and notification of the permittee's right to a hearing under (g) of this section.

(f) If a request is filed with the commissioner under (a) of this section, the commissioner shall notify the appropriate municipality, if any, at least 30 days before the release of all or part of the *bond* or deposit.

(g) A person with a valid legal interest that might be adversely affected by release of a *bond* or deposit under this section or a federal, state, or municipal agency which has jurisdiction over an environmental, social, or economic impact involved in the permittee's operation or which has authority to develop and enforce environmental standards with respect to the permittee's operation, may, within 30 days after the last publication of notice required by (a) of this section, file written objections to the request with the commissioner, and may request a hearing. A permittee whose request for release of all or part of a *bond* or deposit is disapproved may request a hearing within 30 days after receipt of written notification of the disapproval under (e) of this section. If a hearing is requested, the commissioner shall inform the interested parties of the time and place of the hearing and shall hold the hearing within 30 days after the request for the hearing. The commissioner shall publish the date, time, and location of the hearing in a newspaper of general circulation in the locality for two consecutive weeks. The commissioner shall conduct the public hearing and any appeal according to the Administrative Procedure Act (AS 44.62) except as provided by regulations adopted under this chapter.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.190 REVISION AND TRANSFER OF PERMIT.

(a) During the term of a permit, the permittee may submit to the commissioner an application for revision of the permit, with necessary revisions to the permittee's reclamation plan.

(b) The commissioner may not approve an application for revision of a permit unless the commissioner finds that reclamation required by this chapter and the regulations adopted under it can be accomplished under the necessary revisions to the reclamation plan. The commissioner shall establish guidelines for determining the extent of revision for which all permit application requirements and procedures, including notice and hearing, shall apply. A revision which, in the commissioner's determination, requires significant revisions to the applicant's reclamation plan must, at a minimum, be subject to a notice and hearing requirement.

(c) A permittee may not apply under this section for an extension of the permit area, except by incidental boundary revision.

(d) A permittee may not transfer, assign, or sell a permit or the rights granted under a permit without the written approval of the commissioner. A successor in interest to a permittee may continue the surface coal mining and reclamation operation of the permittee until the successor's transfer application is granted or denied if the successor

(1) applies for a new permit within 30 days of succeeding to that interest; and

(2) obtains the same *bond* coverage as the permittee.

(e) After the commissioner issues a permit, the commissioner shall, within a time limit established by regulation, review the permit and may, for good cause, require reasonable revisions of the permit during the term of the permit. A revision under this subsection must be based on a written finding of the commissioner relating to the need for the revision and is subject to notice and hearing requirements established by the commissioner by regulation.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION /
ARTICLE 02 SURFACE COAL MINING
SECTION 27.21.250 PENALTIES.

(a) The commissioner may assess a civil penalty against a person if the person or the person's operation violates a condition of a permit or a provision of this chapter. If as a result of the violation the commissioner issues a cessation order under AS 27.21.240, the commissioner shall assess a civil penalty. The civil penalty may not exceed $5,000 for a violation. The commissioner may consider each day of a continuing violation as a separate violation for the purposes of this subsection. In determining whether to assess and the amount of a civil penalty, the commissioner shall consider the person's history of previous violations at the site of the operation, the seriousness of the violation, including the irreparable harm done to the environment and the hazard created to the health or safety of the public, the person's negligence, and the good faith of the person in attempting to achieve rapid compliance after receiving notification of the violation.

(b) Within 30 days after issuing a notice or order under AS 27.21.240 to a person, the commissioner shall inform the person of the amount of the penalty. The person notified of the penalty then has 30 days in which to pay the penalty in full or to contest either the amount of the penalty or the fact of the violation. If the person wishes to contest either the amount of the penalty or the fact of the violation, the person may submit to the commissioner a *bond* equal to the penalty amount at the time the person files an application for review. The *bond* shall be conditioned for the satisfaction of the penalty in full if the commissioner's determination of an occurrence of a violation and the assessment of a penalty are affirmed. An application for review is effective when the *bond* is approved by the commissioner. If the *bond* is not approved, the person charged with the penalty shall forward the proposed amount to the commissioner within 10 days of the disapproval of the *bond* for placement in an escrow account in order to make the petition effective.

(c) The commissioner shall assess a civil penalty under (a) of this section only after the person charged with a violation has been given an opportunity for a public hearing. If a public hearing is held, the commissioner shall make findings of fact and shall issue a written decision relating to the occurrence of the violation and the amount of the civil penalty which is warranted. The written decision may order the person to pay the penalty. The commissioner may consolidate a hearing under this section with other proceedings under AS 27.21.240. The Administrative Procedure Act (AS 44.62) applies to a hearing under this subsection except as provided by regulations adopted under this chapter. If the person notified of a penalty does not request a public hearing, the commissioner may assess the penalty and order its payment only after the commissioner has determined that the person committed the violation and has determined the amount of the penalty which is warranted.

(d) A civil penalty owed under this section may be recovered in a civil action brought by the attorney general at the request of the commissioner.

(e) A person other than a corporation who wilfully and knowingly violates a condition of a permit, an order issued under AS 27.21.240, or an order incorporated in a final decision under this chapter, except an order incorporated in a decision issued under (c) of this section, is guilty of a class C felony.

(f) If a corporation violates a condition of a permit, an order issued under AS 27.21.240, or an order incorporated in a final decision issued by the commissioner under this chapter, except an order incorporated in a decision issued under (c) of this section, a director, officer, or agent of the corporation who wilfully and knowingly authorized, ordered, or carried out the violation is subject to a civil penalty under (a) - (d) of this section and is guilty of a class C felony.

(g) A person who knowingly makes a false statement, representation, or certification, or knowingly fails to make a required statement, representation, or certification in an application, record, report, plan, or other document filed or required to be maintained under this chapter is guilty of a class C felony.

(h) A person who fails to correct a violation for which a notice of violation or a cessation order has been issued under AS 27.21.240 within the period or subsequent extension permitted for its correction shall be assessed a civil penalty of $750 for each day the failure or violation continues. The period for correction continues until

(1) the entry of a final order by the commissioner in a review proceeding initiated by the alleged violator in which the commissioner orders, after an expedited hearing, the suspension of the abatement requirements of the notice or order after determining that the alleged violator will suffer irreparable loss or damage from the application of those requirements; or

(2) the entry of an order of the court in a review proceeding under AS 44.62 initiated by the alleged violator in which the court orders the suspension of the abatement requirements of the notice or order.

(i) A person who, except as permitted by law, wilfully resists, prevents, impedes, or interferes with the commissioner in the performance of duties under this chapter is guilty of a class C felony.

TITLE 27 MINING
CHAPTER 21 ALASKA SURFACE COAL MINING CONTROL AND RECLAMATION
ARTICLE 04 GENERAL PROVISIONS
SECTION 27.21.998 DEFINITIONS.

In this chapter

(1) "alluvial valley floors" means the unconsolidated stream-laid deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation and windblown deposits;

(2) "applicant" means a person or other entity seeking a permit from the commissioner to conduct surface coal mining or underground mining activities under this chapter;

(3) "coal" means all forms of coal, including lignite;

(4) "commissioner" means the commissioner of natural resources or the commissioner's authorized representatives or agents;

(5) "department" means the Department of Natural Resources;

(6) "imminent danger to the health and safety of the public" means the existence of a condition or practice, or a violation of a permit or other requirement of this chapter in a surface coal mining and reclamation operation under which a rational person would not submit to exposure for fear of substantial physical harm;

(7) "operation" means a surface coal mining operation or a surface coal mining and reclamation operation;

(8) "operator" means a person engaged in coal mining who removes or intends to remove more than 250 tons of coal from the earth by coal mining within 12 consecutive calendar months in any one location;

(9) "other minerals" means clay, stone, sand, gravel, metalliferous and non-metalliferous ores, and other solid materials or substances of commercial value excavated in solid form from natural deposits on or in the earth, exclusive of coal, and those minerals that occur naturally in liquid or gaseous form;

(10) "permit" means a permit to conduct a surface coal mining and reclamation operation issued by the commissioner under the terms of this chapter;

(11) "permit area" means the area of land indicated on the approved maps submitted by the operator with the application which must be covered by the operator's *bond* as required by AS 27.21.160 and must be readily identifiable by appropriate markers on the site;

(12) "permittee" means a person holding a permit to conduct a surface coal mining and reclamation operation or underground mining activities under this chapter;

(13) "person" means an individual, partnership, association, society, joint-stock company, firm, company, corporation or other business organization;

(14) "reclamation plan" means a plan for the reclamation of an applicant's proposed surface coal mining operation submitted by the applicant under regulations adopted under AS 27.21.110;

(15) "significant imminent environmental harm to land, air or water resources" means a condition, practice, or violation which is causing or can be expected to cause an appreciable, reparable adverse impact to land, air, or water resources including, but not limited to, plant and animal life;

(16) "surface coal mining and reclamation operation" means a surface coal mining operation and the activities necessary and incidental to the reclamation of that operation after August 3, 1977;

(17) "surface coal mining operations" means

(A) an activity

(i) conducted on the surface of land in connection with a surface coal mine or, to the extent that the activity affects the surface of land, conducted in connection with an underground coal mine;

(ii) the products of which enter commerce or the operation of which directly or indirectly affects interstate commerce;

(iii) which may include contour, strip, auger, mountain top removal, boxcut, open pit, and area mining; the use of explosives and blasting; on-site distillation or retorting, leaching, or other chemical or physical processing of coal; and loading of coal for interstate commerce at or near the mine site;

(iv) other than an activity relating to the extraction of coal incidental to the extraction or other minerals under which the coal extracted does not exceed 16 2/3 percent of the total tonnage of coal and other minerals removed annually for purposes of commercial use or sale and other than a coal exploration activity subject to this chapter; and

(B) the areas on which an activity described in (A) of this paragraph occurs or where the activity disturbs the natural land surface, including adjacent land, the use of which is incidental to the activity; and affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of the activity and for haulage; and excavation, workings, impoundments, dams, ventilation shafts, entry ways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas, processing areas, shipping areas, and other areas upon which are situated structures, facilities, or other property or materials on the surface resulting from or incidental to the activity;

(18) "Surface Mining Control and Reclamation Act of 1977" means P.L. 95-87, 91 Stat. 447-532, 30 U.S.C. secs. 1201-1328, as amended;

(19) "unwarranted failure to comply" means the failure of a permittee to prevent or abate a violation of a permit or of this chapter because of indifference, lack of diligence, or lack of reasonable care.

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 87 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 87.070 DRILLING PERMIT.

(a) Unless authorized under 11 AAC 87.030, a drilling permit is required before the drilling, redrilling, or deepening of any well and before the reentry of an abandoned well. However, in an emergency, oral approval by the commissioner of any operation covered by 11 AAC 87.070 - 11 AAC 87.190 is sufficient.

(b) The application fee prescribed by 11 AAC 05.010 must accompany each application for a drilling permit. The application must include the following:

(1) the name and address of the landowner or lessee;

(2) a legal description and map of the parcel and well location;

(3) the name and address of the operator;

(4) the well name and number;

(5) the proposed bottom-hole coordinates for a directionally drilled well;

(6) the datum elevation or elevation of the derrick floor, rotary table, or kelly bushing, relative to surface level;

(7) the elevation of the ground, relative to sea level;

(8) the estimated depth of the intended zone of completion, relative to datum;

(9) the estimated planned total depth, relative to datum;

(10) a description of the proposed casing program as required in 11 AAC 87.120;

(11) a description of the blowout prevention equipment to be used and the information required by 11 AAC 87.130;

(12) a description of the proposed sump plan and method of sump abandonment;

(13) an indemnity *bond* as required by 11 AAC 87.080; and

(14) any other relevant information the commissioner determines necessary.

(c) For a well which is to be intentionally deviated, the application for the drilling permit must also include

(1) the surface and proposed producing interval locations;

(2) a plat drawn to an appropriate scale showing the path of the proposed wellbore in relation to all other vertical and deviated wellbores which are within a distance of 2000 feet from the proposed wellbore; the true vertical depths must be shown at frequent intervals along each wellbore; and

(3) a neat and accurate plat of the lease and all affected leases, showing the names of all affected owners and the surface and proposed producing interval locations of the well and all other wells within one-half mile of any portion of the new well; the plat must be drawn to a scale which will permit easy observation of all pertinent data.

(d) If drilling is not commenced within 24 months after approval, the drilling permit expires.

(e) Any proposed changes to the drilling permit must be approved by the commissioner.

HISTORY

Eff. 5/8/83, Register 86; am 1/1/86, Register 96

AUTHORITY.

AS 38.05.035
AS 41.06.020
AS 41.06.040
AS 41.06.050

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 97 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 97.425 BONDING POOL.

(a) A statewide bonding pool has been established by the department for mining operations subject to AS 27.19. Instead of posting an individual performance *bond*, a miner may participate in the bonding pool.

(b) To participate in the bonding pool each year, the miner shall pay into the pool a deposit of 15 percent of the miner's total *bond* amount determined under 11 AAC 97.420(a) for that year, plus an annual nonrefundable fee of five percent of the total *bond* amount for that year. These percentages are the same for all operations.

(c) Except for an operation whose *bond* amount is reduced below $750 per acre under 11 AAC 97.420(b), the percentages set by (b) of this section result in a bonding pool deposit of $112.50 per acre and an annual nonrefundable fee of $37.50 per acre.

(d) No reclamation plan approval goes into effect until the bonding pool deposit and annual nonrefundable fee are paid. The annual nonrefundable fee for the first year of a reclamation plan may not be prorated or reduced. Subsequent annual nonrefundable fees for any unreclaimed acreage are due by April 1 of each year that the reclamation is not completed or before the mining operation begins in each calendar year, whichever is earlier. If the amount of acreage requiring reclamation varies from year to year under the plan, the miner is responsible for making the appropriate payment, including an increased deposit when required, each year. If the acreage decreases, the miner may apply, under 11 AAC 97.435, for a refund of the excess deposit. The miner must pay the annual nonrefundable fee, and the increased deposit when required by the reclamation plan, without billing from the department. A late payment automatically suspends approval of the reclamation plan until full payment, including the late-payment fee set out in 11 AAC 05.010, is received, at which time the reclamation plan is automatically reinstated. During such a suspension, the miner may not engage in a mining operation.

(e) If the commissioner, in his or her discretion, allows a miner who is subject to the bonding requirement of AS 27.21.160 to participate in the bonding pool, the bonding pool is not obligated for an amount exceeding $750 per acre. Any additional *bond* amount required under AS 27.21.160 must be provided under one of the mechanisms allowed under AS 27.21.160 and 11 AAC 90.

HISTORY
Eff. 7/30/92, Register 123; am 1/4/95, Register 133
AUTHORITY.
AS 27.19.030
AS 27.19.040
Sec. 2, ch. 92, SLA
1990

TITLE 11 OFFICE OF THE COMMISSIONER
CHAPTER 97 (CHAPTER TITLE MISSING FROM SOURCE...)
SECTION 11 AAC 97.435 RELEASE OR DECREASE OF *BOND*, AND REFUND OF BONDI

(a) An application for release or decrease of the amount of a performance *bond*, or for refund of a deposit paid into the bonding pool, must include a sworn statement, executed under penalty of perjury, verifying that the miner has examined the requirements of his or her approved reclamation plan, has investigated the nature and extent of reclamation, and certifies as true that all applicable reclamation responsibilities have been completed.

(b) Before authorizing release of or decrease in the amount of the *bond*, or refund of a deposit paid into the bonding pool, the commissioner will inspect or review actions taken under the approved reclamation plan, and will make a written finding that each applicable requirement of the approved reclamation plan has been completed. The commissioner will, in his or her discretion, require the miner to submit photographs or other information documenting the reclamation, and, if no inspection takes place, the commissioner will base his or her finding and *bond* release on the miner's documentary evidence and sworn statement. If reclamation was done in accordance with the plan and with the miner's sworn statement, the commissioner's finding constitutes approval of the reclaimed area and releases the miner from liability under AS 27.19. If reclamation was not done in accordance with the plan and with the miner's sworn statement, the miner remains liable under AS 27.19, notwithstanding the commissioner's finding.

(c) If another agency with jurisdiction over the mining operation agrees to accept the miner's posting of a *bond* or *bond* pool deposit with the commissioner as satisfying its own *bond* requirement, and has filed a written request or entered into a cooperative management agreement under AS 27.19.060 to be notified before the commissioner releases or reduces the *bond* or *bond* pool deposit, the commissioner will give the other agency reasonable notice.

(d) Upon request by the miner and consent of the affected surety or financial institution, the commissioner will apply the performance *bond*, or the bonding pool deposit or a portion of it, to new acreage under a new reclamation plan or amendment to a reclamation plan submitted by the miner. The non-refundable annual fee is not transferable and is due for all new acreage to be mined.

HISTORY

Eff. 7/30/92, Register 123

AUTHORITY.

AS 27.19.040
AS 27.19.060
Sec. 2, ch. 92, SLA 1990

Alaska State Legislature
HOUSE OF REPRESENTATIVES

Official Business

State Capitol
Juneau, AK 99801-1182

HOUSE SPECIAL COMMITTEE ON OIL AND GAS

MEMORANDUM

TO: Members of the House Oil & Gas Committee

FROM: Representative Norman Rokeberg, Chair NR
House Special Committee on Oil & Gas

DATE: November 15, 1995

SUBJECT: Bonding Requirements Information For O & G Worksession 12/18/96

AS 46.04.040 - DEC $1 million On-shore Exploration Bond

Several ways to meet the financial responsibility requirements:

Self-insurance (usually very large companies)
General Liability Insurance which must have a direct access endorsement
for the State of Alaska for both spills and other liability
e.g. large operator $50 million pipeline and wharf - $800,000 premium; small operator $5 million project - $65,000 premium; or medium size operator $10 million project - $400,000 premium
(premium is based on project ~~risk~~ and operator track record)
Irrevocable letter of credit (must have a large cash asset base)
3rd Party Cash Guarantee
Financial Guarantee Bond $1 million - premium would depend on the financial capability of the operator - most of the small independent operators would not qualify for bonds

AOGCC WELL BOND- $100,000 for one well and $200,000 for two or more

DNR OIL AND GAS BOND - $100,000 for one well and $500,000 statewide at the time the well is drilled - general liability bond

Bonds differ in one major area: claims under bonds are paid directly to the State and the operator must repay to the surety company the amount of the claim. Insurance on the other hand pays the claim directly to the State but the operator does not have to reimburse the amount of the claim to the insurance company.

SCOMM

96:7

01/25/96 LEGISLATIVE TELECONFERENCE NETWORK SYSTEM LTN1150

11:20:13 PARTICIPANT LIST (ALL PARTICIPANTS) BY:FBX

TCN:60211 SCHEDULED FOR:01/25/96 11:15 TO 12:00 FOR:FBX

PUBLIC HEARING HOUSE SPECIAL COMMITTEE ON OIL AND GAS

LOCATION:FAIRBANKS
EXECUTIVE ORDE MR. MILTON WILTSE DGGS TESTIFY

ALSO ON LINE:

KEN BOYD IN ANCHORAGE AVAILABLE FOR QUESTIONS

NO. ___

FISCAL NOTE

Bill Version: E0 92

(H) Publish Date: 1-8-96

STATE OF ALASKA
1996 LEGISLATIVE SESSION

Revision Date:	Original	Dept Affected	Natural Resources
Title:	Consolidation of DNR Divisions	BRU:	Resource Development
		Component:	Oil & Gas Development
Sponsor:	Rules Committee		Geological Development
Requestor:	Governor Knowles	Component Serial No.	439/1031

Expenditures/Revenues (Thousands of Dollars)

OPERATING EXPENDITURES	FY97	FY98	FY99	FY00	FY01	FY02
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES	0.0	0.0	0.0	0.0	0.0	0.0
CHANGE IN REVENUES ( )	0.0	0.0	0.0	0.0	0.0	0.0

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY96) cost: $ none

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary)

Anticipated fiscal savings through consolidation of the Division of Oil & Gas with the Division of Geological and Geophysical Surveys has been included in the Governor's FY97 operating budget. The Oil & Gas Development component shows an anticipated savings of $25.0 in general fund, and the Geological Development component shows an anticipated savings of $25.0 in general fund/program receipts.

Prepared by: Nico Bus *Nico Bus* Phone: 465-2406

Division: Support Services Date: 4-Jan-96

Approved by Commissioner: *Nico Bus for John Shively* Date: 4-Jan-96

Agency: Natural Resources

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FINDINGS AND RECOMMENDATIONS ON THE ROLE AND STRUCTURE OF THE ALASKA DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS BY THE COMMITTEE ON PUBLIC GEOLOGY

by the Committee on Public Geology: Chairman David Hite, Marty Rutherford, John Eichelberger, Teresa Imm, Sue Karl, Al Clough, Chuck Hawley, and Dan Young[1]

EXECUTIVE SUMMARY

At the request of the Commissioner of the Department of Natural Resources (DNR), the Alaska Geologic Mapping Advisory Board established a committee to assess the role and function of the Division of Geological and Geophysical Surveys (DGGS) and the Director/State Geologist. Upon completion of the review the committee was to prepare a report for the Board and Commissioner. The report would provide recommendations regarding responsibilities, staffing, and type and interaction with partners and clients.

The committee met twice a month, commencing on March 10, 1995 and continuing to May 26, 1995. These meetings served to clarify issues, develop priorities, and gather input from the scientific community. External commentary was solicited from Alaskan geoscientists and a sampling of geological survey directors from other states. The committee recessed for the summer to prepare the final report. The final draft was approved by the committee on September 15, 1995.

The report's principal findings and recommendations are:

- The existence of a strong and committed geological survey is essential to a state as dependent on natural resources and as subject to recurring geological hazards as is Alaska. The mission and functions of the survey are those prescribed in the statutes which established the Alaska Division of Geological & Geophysical Surveys and the position of Director/State Geologist. To fulfill the mission of the Survey, the basin analysis and hydrogeology functions should be reassigned to the Survey.
- To maintain the activities of the Survey at a level that fulfills the charges put forth in the statutes, the state must sustain the Survey by providing adequate core funding, for which the current level is inadequate. This funding will provide for permanent staff salaries, facilities, and critical long-term programs and services. The committee recommends that the Survey be strongly encouraged to seek out external funding and support for expanded and additional high priority programs.
- The Survey should actively pursue and develop partnerships with those working toward a common goal--federal and state agencies, the Geophysical Institute, Native corporations, etc. The Survey is also encouraged to solicit clients who will provide funding for programs that are mutually beneficial and provide a specific product.
- The committee concludes that the Survey should remain within the Department of Natural Resources, where it can most effectively interact with its primary clients and be most responsive to its partners.
- The committee recommends that the Director/State Geologist should, at the discretion of the Commissioner, be located in Anchorage, with a minimum five year term. The committee further recommends

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[1] The statewide committee is composed of the Deputy Commissioner of DNR, geologists and geophysicists representing the Geophysical Institute (UAF), Arctic Slope Regional Corporation, U.S. Geological Survey, Department of Commerce, private hydrology/geohazards/environmental companies, mining industry, and petroleum industry. These individuals also participate in local governments, the Alaska Geological Society, the Alaska Miners Association, and various national organizations such as the American Institute of Professional Geologists, Geologic Society of America, and the American Geophysical Union.

that the position be filled through a national recruitment effort, with a screening panel, appointed by the Geologic Mapping Advisory Board, to identify the best qualified candidates for final selection by the Commissioner.

- The staffing level of the Survey should reflect the responsibilities put forth in the statutes. Appropriate staff additions should be reinstated in the areas of basin analysis (oil and gas related function) and hydrogeology. These staffing moves can be accomplished by filling recently and soon to be vacant positions or by transfer of full-time employees from other divisions within DNR. A core staffing level should be determined, subject to change with changing needs. The Survey should have the option to employ contract or temporary personnel, when necessary for specific programs.
- The committee recommends that, at the discretion of the Commissioner, the Survey locate a second office in Anchorage, to enhance communications and working relationships within DNR, with other state and federal agencies, and with key Anchorage-based client groups. These needs will be best served if the Director/State Geologist, basin analysis function, hydrogeologic function, and appropriate support are located in the Anchorage office.

These recommendations are intended to increase the Survey's efficiency, provide greater access to clients and the public, improve communication with state agencies and legislators, and broaden and strengthen the Survey's ability to meet its mission and serve the state of Alaska.

INTRODUCTION

Alaska's immense size and limited infrastructure have been serious impediments to the development and completion of detailed basic mapping/data acquisition programs. Currently only about seven percent (41,000 square miles) of the state have been mapped in sufficient detail (1 inch to 1 mile or 1:62,500) to allow useful resource evaluation and adequate assessment of potential geohazards. Reliance on other agencies, industry, and the federal government will not satisfy the need for unbiased, basic geological/geophysical data upon which the state and other DGGS clients can initiate activities.

Some other state agencies that work with geological data are largely regulatory in nature. These data are frequently gathered to support a specific position or objective and may not have adequate regional context. Thus, while much of the data is of good quality, it is too focused to be useful in a wider range of applications.

Federal agencies, such as the U.S. Geological Survey and Minerals Management Service, are currently being downsized with a proposed transfer of many functions to the states. Federal priorities are frequently quite different than those of the state of Alaska.

Private industry has a narrow focus when doing geological and geophysical work and does not have the resources or incentive to collect and inventory much of the data that the state would require for long-range resource and land-use planning. Also, industry, having spent their dollars, will keep any data acquired in proprietary status for as long as possible or until it no longer provides a competitive advantage. Data in the public domain will promote economic development of the state's resources.

The role of the survey and/or the proportion of its staff and budget dedicated to a particular endeavor may change significantly with time. Engineering geology, environmental geology, and hydrogeology are all areas that will grow significantly in the coming years. In addition, a greater emphasis on high-tech approaches to old problems and the emergence of new fields of expertise will cause pressure on the existing staffing profile. Growth in or emergence of these or other areas cause inevitable funding and staffing conflicts. The combination of stringent state rules on hiring and termination of employees and declining budgets make it difficult for DGGS to evolve at the pace required.

The long-term role and impact of the DGGS, on Alaska and its citizens, is profound and should be recognized. Virtually every aspect of life in Alaska is, in one way or another, influenced by natural geologic processes and/or resources. **A strong state survey is one of the best long-term investments that a resource-rich state like Alaska can make.**

With increased pressure on the state budget, due to a decline in revenues, the functions and needs of the DGGS have come under scrutiny on a number of fronts. As a result, funding for both staff and programs have been curtailed. In light of the critical role DGGS performs within the state, the need to address alternative sources of revenue, the changing technologic environment, and efforts to reduce or eliminate the DGGS, a committee was formed to review the role of public geology, especially DGGS, in Alaska and submit recommendations to the Commissioner of DNR. The committee was established through the auspices of the Alaska Geologic Mapping Advisory Board[2] at the request of the Commissioner of DNR. The findings of this committee are to be submitted to the Commissioner in October 1995. The committee was developed and constituted to provide a wide range of input from potential clients and partners.

The committee met regularly to identify and evaluate those issues related to the role of DGGS. The committee membership polled many professionals and DGGS clients within Alaska, seeking a broad base of opinion and concern regarding the current status of the DGGS and its future direction and emphasis. To further broaden the input, State Geologists and survey directors from nearly 20 states were interviewed. Most of these State Geologists were from western states with resource-based economies. Their input strongly supported views that the State Geologist should have a key role in state resource planning, an independent non-regulatory role for the survey, a fixed term of office for the director, an expanded partnering and external funding effort, and the maintenance of a strong and flexible core staff with the ability to expand by hiring contract or temporary personnel in times of increased activity.

The committee membership identified seven items of consideration critical to the present and future of DGGS in Alaska:

1. <u>Mission and functions of DGGS</u>
   Mapping
   Mineral occurrence databases
   Geochemical databases
   Geophysical databases
   Volcanic hazards databases
   Seismic hazards databases
   Hydrologic databases
   Basin analysis

2. <u>Funding sources for DGGS</u>
   Core funding
   Other state agencies (information for land planning or regulation)
   Federal agencies (information for land use; mineral or energy resources)
   Native corporations (mineral and energy resources; mapping; geochemical and geophysical databases)
   Mining consortiums (mapping; mineral, geochemical, and geophysical databases)

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[2] The Advisory Board was established to aid the Alaska Division of Geological & Geophysical Surveys in its goal of providing earth science information to the Alaskan public. A number of prominent leaders in the geological community with a variety of backgrounds and a broad spectrum of experience in Alaska have agreed to serve on the board. These members include: Chairman Gerald G. Booth (Cook Inlet Region, Inc.); Vice Chairman Dr. John Sims (Usibelli Coal Mine, Inc.); Secretary Mr. James Rooney (R & M Consultants); Dr. Harry Noyes (Doyon Ltd.); Dr David Hite (Hite Consultants); and Dr. Keith Crowder (University of Alaska Fairbanks, Department of Geology and Geophysics).

Energy consortiums (mapping, mineral, geochemical, and geophysical databases)
Communities (hydrologic databases; geologic hazards)
Infrastructure (geologic and geomorphic hazards)
Environmental consortiums (hydrogeologic and geochemical databases)

3. Partnering potential for DGGS
   State agencies (DOG, DMWM, DEC, DOT)
   University of Alaska, Geophysical Institute
   Federal agencies (USGS, DOE, BLM, NPS, EPA, DOD)
   Oil, gas, coal, geothermal companies
   Mining companies
   Hydrology, environmental, engineering firms
   Native corporations

4. Administrative location of DGGS
   DNR
   University system
   Independent state commission

5. Responsibilities and location of State Geologist
   Acquisition of funds
   Partnering arrangements
   Prioritization of projects
   Products and completion dates
   Staffing for projects
   Accessibility to partners and clients

6. Staffing of DGGS
   Core staffing and staff support
   Critical mass problems
   Staff flexibility
   Evolution of staff expertise
   Staff expansion and contraction capabilities

7. Physical location of DGGS
   Fairbanks, Anchorage, and/or Juneau
   University campus, state office buildings, and/or independent
   Isolation versus insulation

These items have been examined in light of DGGS' past, present, and anticipated future roles; results and demonstrable impact/influence on state resource and safety issues. The committee's recommendations are presented in the following sections of this report and represent virtually unanimous agreement on each element of the proposed action.

MISSION AND FUNCTIONS OF DGGS

The statutes establishing the DGGS clearly define the function and role of the DGGS and its director. By statute, the DGGS is to perform "systematic collection, recording, evaluation, and distribution of data on the quantity, location, and quality of water of the state...to the orderly domestic and industrial development of the state." Additionally, the DGGS is to collect, evaluate, archive, and distribute geologic data on earthquakes, volcanic eruptions, engineering geology, and other geologic hazards throughout the state that are of public interest and necessary to orderly, safe, and cost-effective development in the state. The statutes also state "the State Geologist shall conduct geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, geothermal resources...and shall conduct such other surveys and investigations as will advance knowledge of the geology of Alaska."

OIL AND GAS ACTIVITIES

Background

Oil and gas related data acquisition and distribution is an under-valued and probably under-utilized aspect of DGGS activities. Large, well established companies like ARCO and others with long histories in the state, possess extensive proprietary geological and geophysical databases. These databases have been developed over a period of 40 to 50 years but tend to be concentrated in geographic areas that have long and successful exploration histories. These databases have served these companies well and tend to give them a distinct advantage over competitors that are relatively late arrivals on the Alaska exploration scene. Companies that may want to enter the Alaskan exploration arena are, or would be, at a distinct disadvantage if there did not exist a volume of publicly available data upon which to plan their own data acquisition and develop a general understanding of the geological and hydrocarbon framework of a specific area. Even the established companies must access the public databases to expedite exploration efforts in the frontier basins.

Justification

Where long-time Alaskan exploration companies do possess an extensive database, they maintain the proprietary nature of the data and do not share it with the state. Even when working with a partner who may lack comparable data, these companies share only the minimum level of interpretation and not the critical basic data sets.

The clients requiring these databases are varied and represent a surprisingly large segment of the potential beneficiaries of energy exploration activities. Clients include:

- Industry: both established industry and newcomers to Alaska
- State Agencies: DEC (regulation of resources) and DOG (development of resources)
- Native Corporations
- Public, as beneficiaries of good development strategies

Even the largest and most well-established companies still do not have comprehensive databases in the little-explored interior basins and in the peripheral areas of the North Slope and Cook Inlet. It is in the state's best long-term interest to establish readily accessible resource assessments and to encourage exploration and development.

Recommendation

If the state plans to offer large tracts of acreage (block leasing) to a group of contending companies, it must have data approximating that held by the companies vying for the acreage. Without such a database, it will be impossible for the state to realistically evaluate the economics of the bids. Similarly, when tract leasing is intended to occur in areas outside the principal producing regions of the North Slope and upper Cook Inlet, many companies may lack data and hence, without a publicly available database, find themselves unable and unwilling to effectively compete in sales with short lead times. This reduces competition and return to the state. Thus, an ongoing effort to acquire and distribute oil and gas related data to appropriate state agencies and the petroleum industry is in the best long-term financial interest of the state. To best serve a diverse client base and assure credibility, it is important that data be acquired and maintained by a non-regulatory agency without an espoused economic objective.

Currently the DGGS and Division of Oil and Gas (DOG) have overlapping functions that can reasonably be considered to involve the acquisition, evaluation, archival, and distribution of basic geological/geophysical data pertinent to oil and gas exploration. Both DGGS and DOG have vital but separate roles in the generation/acquisition and handling of geological and geophysical data pertaining to oil and gas exploration. There is a need for DOG to have and work exclusively with certain confidential information pertaining to lease sales and related operations, without giving local well-established companies or individuals an advantage. DGGS should be acquiring, evaluating, archiving, and distributing information that needs to be available to everyone in the public domain. DOG should be doing specific tracts, as those being reviewed for pending lease sales, and DGGS should be working with and analyzing data on the regional scale, well in advance of any lease sale or tract offering.

There is a basin analysis function within DOG that duplicated the charges of DGGS. Basin analysis is the fundamental stage in the exploration process. It requires a wide range of data types, the integration of which provides a regional as well as prospect-specific understanding or interpretation of the geologic risk and hydrocarbon potential.

To remove this function from an agency which has a largely regulatory role and relocate it in DGGS is appropriate for purposes of objectivity. The transfer of the function to DGGS would involve at least one full-time employee associated with basin analysis from DOG with funding. The committee recommends that the position be located in Anchorage. The current oil and gas effort in Fairbanks is recommended to be transferred to Anchorage as soon as feasible because that is where a majority of the clients reside.

Expected Results

This reallocation of effort will not only enhance the credibility of the state's oil and gas data efforts but will also increase their utilization by placing these activities in one agency and making them more readily available to the Anchorage-based industry.

HYDROGEOLOGIC ACTIVITIES

Background

Alaska statutes state that the "systematic collection, recording, evaluation and distribution of data on the quality, location and quality of water of the state in the ground, on the surface of the ground or along the coasts, are in the public interest and necessary to the orderly domestic and industrial development of the state." The DGGS no longer has a hydrogeology group performing these vital functions.

Since Alaska derives the majority of its revenues from its resources, the lack of a hydrology group is detrimental to the economy of the State.

What major industries require fresh water? Every major industry in Alaska: oil and gas, commercial and sport fishing, timber, mining, agriculture and dairy, manufacturing and commercial. Understanding Alaska's water resources is paramount to enabling industry to thrive in our state. Industry needs fresh water and growing human populations need growing water supplies. Rural communities in Alaska do not have adequate water to support their populations. Many communities are living in third world conditions. Neither do these communities have adequate water to support industrial development that would encourage self-sustained economic development. Establishment of local economies in rural Alaska will relieve the pressure on government support. Alaska needs to increase its available water supplies to ensure economic and all other growth. The state needs to understand our water resources--water may be the most valuable resource in Alaska.

Needs of the State

Industry, the public, legislators, universities and regulatory agencies all need access to data on surface and ground water quality, stream flow measurements, meteorologic data, ground water levels, trace element distribution, well logs and geophysical logs. The State of Alaska must collect and disseminate this data, as well as maintain and expand existing databases. A brief outline of water information needs follows:

- Many of our rural communities lack the most basic of water needs (i.e., flush toilets). Hepatitis and other sanitation-related diseases are all too common in Alaska. Residents of many of these communities are frequently forced to live in poverty. Alaska needs to protect existing known water supplies and develop new sources of water for its more than 320 communities. With adequate water supplies, communities could develop industries like fish processing, creating local jobs and economic independence. Communities need technical data on ground water, surface water, and water quality plus technical assistance to develop water supplies. Public concerns about water quality and environmental impacts need to be addressed.
- The public needs to know when landfill leachate or coal mine drainage may affect their water supply and they cannot always get sufficient information from the Department of Conservation because the data often does not exist.
- The State of Alaska needs technical expertise to evaluate impacts from hazardous waste releases on state property to assist regulatory compliance actions, to evaluate enforcement actions, or to provide detailed risk analysis.
- Alaska's fisheries are dependent on water flow and water quality. Water quality data and in-stream flow measurements does not exist for much of the state. Alaska's fisheries need this data.
- The Department of Natural Resources is responsible for managing water rights. The department needs to know who has water rights, who has water wells, how the wells are being used and how proposed uses will impact existing water resources. This requires databases of wells and water quality, geology and hydrogeology. Technical studies of entire areas may be required to allocate water rights. The Department of Natural Resources needs hydrogeologists and chemists to conduct these studies and to provide technical assistance.
- Most of the water well database is inadequate and inaccessible for state and public needs. Alaska needs to update and maintain this database. Existing well logs should be scanned and distributed on CD-ROM to satisfy public needs.
- Collecting information about in-stream flow is critical to many industries. Alaska has vast numbers of streams in many diverse regions. This information is necessary for fisheries management, erosion control, hydroelectric projects and mining. Although data collection can be shared with federal agencies like the U.S. Geological Survey, Alaska needs to be responsible for this data on state lands.
- Mining, mine impacts, mineral exploration and mine regulation all depend on water quality, watershed analysis and water supply. The mining industry needs inventories, stream flow data, water quality data, ground water levels and quality, and watershed mapping.
- River erosion regularly impacts pipelines, roads, homes, railroads, residences, indeed rural communities. Maps showing potential hazards would reduce risk, allow for intervention and planning. The state needs river erosion data and prediction expertise. The state could produce the maps for less than we now pay for erosion prevention after damage occurs.
- The state needs to evaluate special flood hazards from glacier-fed lakes and rivers such as the Kenai and Beluga systems. Long-term monitoring will lead to understanding and prediction of "outbreaks" such as Lake George events or Yakutat glacier surges.

- ♦ Decision makers when evaluating hydroelectric projects, ADOT/PF when protecting roads from erosion, the Alaska Railroad when designing for erosion, Fish and Game when managing resources, and the public when exploring for water all need basin flow analyses, watershed mapping, and the technical assistance.
- ♦ The interaction of meteorologic impacts with stream flow is unknown in most of the state yet it is very important for resource management and development.

Client Funding Requirements/Budget Impacts

Many state agencies use ground water information and require expertise and thus represent potential funding sources. The DNR is responsible for allocating water rights and managing many of the state's water resources. Division of Mining and Water Management now has some of the hydrologists that formerly worked for DGGS. Other state entities that may be able to help fund hydrology studies include the Alaska Department of Fish and Game, Department of Community and Regional Affairs, and Alaska Industrial Development and Export Authority. The public is another source of revenues, from purchases of publications and maps. A strong potential also exists for DGGS to partner with the petroleum and mining industries.

Recommendations

In order to attract sufficient industry to help develop Alaska's vast resources the state needs to invest in cataloging its own water resources. Continued lack of development will likely result in additional decline of revenues into the next century. Alaska is more than 20 years behind other states in mapping its water resources. We must catch up.

The committee recommends that a hydrogeologic unit be reinstated within the DGGS.

STATE SEISMOLOGIST

Background

DGGS is charged by state statute with the responsibility of identifying, monitoring, and mitigating earthquake hazards. For more than a decade, the scientific focal point of this effort has been the Office of the State Seismologist, now at the University of Alaska Fairbanks Geophysical Institute (UAFGI) rather than DGGS. The State Seismologist and his or her deputy(s) operate the state seismic network and communicate information on earthquake likelihood, occurrence, magnitude, location, and effects from the net and related studies to appropriate state officials and agencies. The office, which was established by statute in 1984, has an interesting history that highlights some of the challenges to assigning a physical and administrative home to mission-oriented geoscience.

The state seismic network was first established in the 1960s with the U.S. Air Force funding and operated from the UAFGI. The primary motivation of the sponsor was monitoring of Soviet nuclear tests. Network operations remain at UAFGI today, and the net has grown to about 150 remote, self-contained stations dispersed around the state but concentrated in more populous regions. Funding has shifted from the military and, later, the Atomic Energy Commission and its successors, to the U.S. Geological Survey and State of Alaska. Support from the USGS is through the National Earthquake Hazard Reduction Program (NEHRP). The USGS contributes $250 K/year and also assigns its own staff to the laboratory. State support is through base funding for UAFGI and totals about $650 K/year. The university does not apply an overhead charge to the state funds, but 50 percent overhead is charged on federal expenditures. The overall strength of the Seismology Laboratory effort is greatly augmented by $550 K/year from the Volcano Hazards Program of the USGS for volcano seismology.