

2-5-88

BRIEFING ON
Oil & GAS
(JOINT with
SENATE RES.)

JOINT SENATE RESOURCES COMMITTEE AND SENATE OIL AND GAS

February 5, 1988

1:38 p.m.

MEMBERS PRESENT

Senator Jack Coghill, Chairman
Senator Bettye Fahrenkamp, Chairman
Senator Paul Fischer
Senator Jim Duncan
Senator Fred Zharoff
Senator Arliss Sturgulewski
Senator Dick Eliason
Senator Fanning

COMMITTEE CALENDAR

SENATE BILL NO. 304

"An Act relating to filing and recording, recordable documents, conveyances, plats, and platting authorities; and providing for an effective date."

Overview of the oil and gas policy management accounting practices

WITNESS REGISTER

Hugh Malone, Commissioner
Department of Revenue
P.O. Box S
Juneau, Alaska 99811

Bill Van Dyke
Petroleum Manager
Division of Oil and Gas
Dept. of Natural Resources

Chat Chatterton, Chairman
Oil and Gas Conservation
Committee
Department of Commerce
and Economic Development
3001 Porcupine Drive
Anchorage, Alaska 99501
(Testified via teleconference)

Bob Maynard
Assistant Attorney General
P.O. Box K
Juneau, Alaska 99811

PREVIOUS ACTION

SB 304 - See Resource Committee minutes dated 1/20/88, and 1/27/88.

ACTION NARRATIVE

TAPE 1, SIDE 1
Number 001

Senator Coghill called the Senate Resources meeting to order at 1:38 p.m.

Number 014

#SB304

The first measure to come before the committee was Senate Bill 304. Senator Coghill noted there was an amendment on the second page of the bill. He said section 5 was added which read, "(5) instructions that explain to the public the formal requirements that a document must satisfy to be recorded."

Number 33

Senator Sturgulewski moved for the adoption of the committee substitute for Senate Bill 304, Resources and asked unanimous consent. Senator Coghill asked if there were any objections. Hearing none, it was so ordered.

Senator Coghill informed the members the committee substitute for Senate Bill was before the committee. Senator Sturgulewski made a motion to move the bill with individual recommendations. Senator Coghill asked if there were any objections. Hearing no objections, the motion passed.

#

Number 091

Senator Coghill announced the next item on the agenda would be an overview of the oil and gas policy management accounting practices. Mr. Bill Van Dyke, Petroleum Manager for the Division of Oil and Gas within Department of Natural Resources was first to testify before the committee.

Mr. Van Dyke said he would be giving a brief overview of the royalty accounting and management of oil and gas. He said the oil is made pipeline quality, then it flows to pump station one where there is a royalty meter. From the meters there are meter tickets produced. He said that is the official spot where royalty is measured and volume is accounted for. Mr. Van Dyke informed the members that Standard Oil is the oil movements coordinator at Prudhoe Bay.

Mr. Van Dyke said they receive meter tickets, operative reports and a monthly royalty report which is filed by each of the lessees. They then cross check what comes in on the royalty reports to make sure it matches up with meter tickets, operative reports and numbers that the Alaska Oil and Gas Conservation Commission (AOGCC) has provided.

Number 190

Senator Eliason asked why a bank in Pennsylvania is used. Commissioner Hugh Malone said the First Pennsylvania Bank is a clearing bank and they are capable of providing services at a national level.

Mr. Van Dyke said as oil is produced at Prudhoe Bay it goes through cleaning and separation facilities. Some of that gas produced is burned as fuel to run equipment and provide heating. He said there is no royalty due on that gas.

He said there is a certain amount of oil that goes through the crude oil topping plant. Mr. Van Dyke noted there is a small refinery which makes diesel. He informed the committee members diesel is used mostly for well operations.

Number 260

Senator Sturgulewski asked how gas liquids are handled. Mr. Van Dyke said the gas liquids are blended with the crude oil, then the combined mixture goes through pump one and is metered. Senator Sturgulewski asked if there is a royalty determination on the combined mixture and asked what the value of product is. Mr. Van Dyke said they are presently having a disagreement determining what type of processing fee should be deducted. He said the disagreement is determining whether it should be the Prudhoe Bay field cost that was agreed on or a different number.

Number 284

Senator Sturgulewski asked if it is recorded separately so a value can be established. Mr. Van Dyke said the natural gas liquids are produced at a natural gas facility in Prudhoe Bay and that volume coming out is metered.

Senator Coghill noted there are four meters that are being tracked. One is for the liquids, one off the diesel plant, one from the Kuparuk oil field and the main meter at pump one.

Number 306

Mr. Van Dyke said the main meter for Prudhoe Bay is at pump one. He noted Kuparuk, Lisbourne and Endicott have separate meters and they all feed into pump one.

Senator Fahrenkamp asked if the figure of 40,000 is a correct figure for natural gas liquids. Mr. Van Dyke said some days there are 50,000 to 55,000 barrels output per day and there are hopes the plant could output more. Mr. Van Dyke said they receive the volume numbers on the royalty tickets and royalty returns. They then prepare bills for

inkind purchasers such as Mapco, Petrostar, Chevron, etc. for the volumes taken.

Senator Fahrenkamp asked if the state gets royalty on all the natural gas the companies burn. Mr. Van Dyke said not on the gas burned in the field. He said they receive royalty on the gas that is sold to Alyeska. He informed the members the first four pump stations use natural gas for fuel. Senator Fahrenkamp asked Mr. Van Dyke how he thinks the accounting procedure is working.

Mr. Van Dyke said he believes the system is working very well. He also noted there has been an independent petroleum accounting firm that has looked at the system and indicated they felt comfortable with it. He noted Legislative Audit looks at the records every other year.

Number 408

Senator Coghill asked if the gas, which is used to run the camps, is metered. Mr. Van Dyke said the gas used by Arco and Standard is used for free and the gas sold by a third party is metered. He also said 1/8 of the gas they burn, if sold somewhere else, would have a 1/8 royalty.

Mr. Van Dyke said when the central gas facility at Prudhoe Bay came on line, natural gas liquids were produced and shipped down the pipeline, the producers filed their monthly royalty return including their share of the natural gas liquids. They deducted a processing fee from the reported value.

Number 450

Senator Coghill asked how the volume is tied through the meters, to a price, when there isn't an established price. Mr. Van Dyke said the producers report a price.

Number 471

Mr. Robert Maynard, Assistant Attorney General came before the committee. He said the companies pay a royalty on all oil taken out of the system that is used by the pump stations below pump four. He said they report a number and the state can disagree with the number. Mr. Maynard said they do record and pay a royalty on those amounts. He referred to the natural gas used for field fuel and noted there is not a royalty obligation on that. Mr. Maynard stated the royalty question arises only when gas is removed from the unit.

Number 493

Senator Eliason asked at what point, certainly not at the well head, certainly not a pump station one where they have the count, is it at the market place on that particular day, that the oil is being delivered to that market. Is that where the final figures come from or how do you work that. Mr. Maynard said some of the companies accounted for the price of the oil as it value day it was removed from the field, the day it actually entered pump station one. Some of the companies value the oil on the day it actually arrived in the lower 48.

Number 509

Senator Coghill referred to the product going through pump one and the meter, it is laced with gas liquids, it goes into their system, they take their cut and put the balance back into the line and send it down through. Senator Coghill asked how value is determined for the product that is going to the refineries. Mr. Maynard said they are taking the position that once the gas liquid is butted with the oil stream, it becomes oil. He said the companies are taking the position that the gas liquids are not oil and should be treated as something different. Senator Coghill asked if the value of the oil is increased because it is being laced with gas.

Number 534

Mr. Maynard said the companies are trying to charge \$4 to \$7 as a processing fee for every barrel treated as gas liquids. Mr. Maynard said the oil companies are trying to say that every barrel they treat as gas liquids, are entitled to a processing fee of \$4 to \$7 per barrel. If it is treated as oil they only get \$.70. He said once it goes into pump one, the whole stream value is raised.

Number 568

Mr. Maynard told committee members there is a fairly complex accounting system used by the TAPS System called "quality bank" which charges or penalizes individual shippers, depending on whether it is crude or gas liquids, that are being injected into the system. If higher gravity crudes are being injected, there will be a credit. If lower crudes are being injected a company would have to pay more into the quality bank. He said the quality bank is supposed to equalize the cost of transporting crude oil of different grades

Number 602

Senator Fahrenkamp referred to unitization and how its done. She asked Mr. Van Dyke to explain how it works.

Mr. Van Dyke said they offer individual oil and gas leases for sale and administer those leases. People go onto those leases and drill exploratory wells. If they are successful and the surrounding lessees are successful, they would unitize, they join together and through a written agreement. They operate that field as if it were one big oil and gas lease.

Senator Fahrenkamp asked what the criteria is to determine who participates in the unit. Mr. Van Dyke said the people who have leases over that common oil and gas pool are the ones who are entitled to participate in that unit agreement.

Number 633

Senator Fahrenkamp asked if there is specific criteria of who makes the bottom line decision and what is the system of appeal.

TAPE 1, SIDE 2
Number 001

Mr. Van Dyke said they petition the commissioner and ask to come into the unit. The commissioner decides based on the technical information that is presented. He noted there are appeal rights. Mr. Van Dyke stated the Conservation Commission has that same authority on all leases in the state.

Number 041

Senator Fahrenkamp referred to not having a set criteria and asked if it is determined by each unit. Mr. Van Dyke told her it is determined by each application.

Number 105

Senator Coghill asked if the state has a formula to add acreage that has been dropped. Mr. Van Dyke said if someone goes outside an existing unit and drills, finds oil and gas, that is clear evidence of a find. He said he couldn't see how it could be denied to bring that lease in.

Senator Fahrenkamp referred to Sale 54 and asked who bid, what was taken in on it and what method was used. Mr. Van Dyke showed a map with some summary information on it. He stated there was a lot of competition for those tracts. Senator Fahrenkamp asked how people are notified of a sale. Mr. Van Dyke noted there is a mailing list and, as people call in, they are added. He noted they send notices to trade journals such as the Oil and Gas Journal and publish notices in local papers.

Senator Fahrenkamp asked what the incentives were on the sale. Mr. Van Dyke said they offered exploration incentive credit. Someone bids and wins a lease, they drill an exploratory well, they are allowed to credit 15% of that well cost or so many dollars per foot, against rents and royalties due the state.

Number 207

Mr. Van Dyke said the commissioner and Governor wanted to know what Canada and other states were doing as far as incentives. He said they then compiled a comprehensive report of a listing and analysis of what laws other states actually put on the books. He said they discussed, with the commissioner, which of those laws might or might not make sense for Alaska. He said they are presently under advisement. Senator Fahrenkamp asked that the committee be kept informed as to the status regarding the advisements.

Number 236

Senator Fahrenkamp referred to legislation passed, last year, regarding exempt sales. She asked if there has been any exempt sales held. Mr. Van Dyke said there was an amendment to statute number 38.05.035. He said those provisions will be used in a sale this coming June.

Number 256

Senator Coghill referred to lease sales and asked if all lease holders, in a particular lease sale, would have the same terms and conditions when they are issued. Mr. Van Dyke said in the most part all the terms and conditions for a lease sale are identical.

Number 321

Senator Fahrenkamp referred to Dr. Stansilaw from Cambridge Energy testifying before the Finance Committee. Dr. Stansilaw had said prices could go to \$12 and even lower. She asked if there is any kind of a provision in any policies of the department where the state, on their royalty part, could decrease production or have any control of what is produced.

Number 363

Mr. Maynard said this was looked at during the end of the Sheffield Administration. He said there are potential options but if the state went in and tried to close out Prudhoe Bay, lateral consequences occur elsewhere. He said there is a concept of economic waste which is sometimes used, as a basis, for regulating production. He said the Texas Railroad used this concept to cut production in Texas

when the prices dropped. Mr. Maynard said there is nothing in the state's leases which would allow that particular concept. He said the concept primarily used by the Oil and Gas Commission deals with physical waste in which economic considerations are a secondary consideration.

Number 390

Senator Fahrenkamp asked Mr. Maynard if there is a need for a statutory change? Mr. Chatterton said there are four oil producing states which have language in their statutes that deal with economic waste. He said the the U.S. can't do much to control the world price of crude even with our eight million barrels per day production. He said he didn't know what could be done to prevent this.

Number 434

Mr. Maynard said that preventing negative well head values and the possibility raising an already adequate price to a higher level are two different things. He said the only way the state would be able, under present law, to cut back production would be under the rubric or an announced goal of preventing waste of the resource.

Number 480

Senator Coghill referred to the lease and production contracts the state presently has in place. He asked if the state couldn't go to a statutory authority saying that economic waste, of our resource, is when oil is being pumped out at a negative return to the state. Mr. Maynard said theoretically the lease is still subject to exercise of governmental powers over conservation.

Number 494

Senator Fahrenkamp asked if we couldn't take our oil and put it into a holding tank. Mr. Chatterton said we could have our own Alaska strategic petroleum reserve and put royalty oil into it. He noted that we don't get any royalty until the environmental oil is captured and then we get 1/8 of the barrel. He said we could take all the 1/8 of the barrels and reinject it into a subsurface reservoir and bank roll it. Mr. Chatterton noted the only problem is we may not get all the oil back.

Number 529

Senator Fahrenkamp referred to under lifted provisions in cases of emergencies and asked if under lifting can go into effect in the case of waste and, if it could it be changed statutorily. Mr. Maynard told her the answer was no to both questions.

Number 538

Senator Fahrenkamp asked Mr. Chatterton if he believes the accounting system is working. Mr. Chatterton said their part is to try and assure the people of Alaska that the oil is being produced at "severed them from the property," and is accounted for, measured properly and honestly, and the quality of the oil is recorded and reported. He said there is not a question in his mind that a top notch job is being done.

Number 568

Senator Coghill asked Commissioner Malone to come before the committee. Senator Coghill asked if Mr. Malone feels the accounting procedures are satisfactory and protect the public's interest.

Number 583

Commissioner Malone said in as far the accounting and physical production of oil and gas leases in the state goes, he believes the information is adequate. It is basically the same system the producers are using. He said the real problem comes in when the engineers leave and the accountants take over.

Commissioner Malone referred to the zero well head value as it affects the tax area and said there is a legal way for the state to protect itself. That is to put a floor on severance tax. He said there is a way to do this on the tax side but royalty is more complicated because it is a contract.

TAPE 2, SIDE 1
Number 001

Mr. Malone noted he believes the state needs to make efforts in making sure they have information, on a current basis, that is in much greater detail than is being received at the present time. He indicated this problem could be brought up to date.

He said what can't be fixed are the complexity of the transactions that are inherent in national and international businesses.

Number 061

Senator Coghill asked if there isn't a way that certain reporting structures would be required.

Mr. Malone said the state does need to make more of an effort, on a current basis rather than a project basis, to

get data. The executive and legislative branches should be reviewing the data to make sure the tax and royalty laws are being administered. He suggested the legislature look at the structure of the laws to see if there are ways that the law could be made more simple. He said it would be best to do it through the legislative process.

Number 102

Senator Fahrenkamp asked in the event of oil spills, hazardous waste cleanups or bankruptcy, are their bonds sufficient to cover the cost.

Mr. Van Dyke referred to the oil and gas leases at Prudhoe and Kuparuk. The operators are required to post a bond to cover those lease operations and activities. Senator Fahrenkamp asked if the bonds are sufficiently covering spill areas? Mr. Van Dyke said as far as oil and gas operations and leases go, the bonds are sufficient.

Number 170

Mr. Chatterton said by regulation, the commission requires a \$100 thousand bond as a condition for issuing a permit for drilling a single well. A \$200 thousand bond is required for two or more wells. He said the \$100 thousand would be insufficient if the operator walked away. He also noted if the bonds were raised to a higher amount, it would be bad for independent operators as it is more difficult for them to obtain bonds.

Number 225

Senator Coghill told the committee these issues would be scheduled, before the Senate Resources Committee, at a later date. He adjourned the meeting at 3:23 p.m.

2/5/88

Cog Fanning
BF Eliason
Fischer Stojewski
Druca

Joint w/ Senate Resources
+ Senate Special Committee on
Oil & Gas.

BILL VAN DYKE — Div. Oil and Gas. —
Petroleum Manager —

Royalty Sub. R.R. and Maryland.

North Slope —

wade pipeline quality → P.S. #1.

royalty meter — meter tickets — volume

and Standard responsible —

also meter for Kuparuk + monthly royalty reports

Royalty payments were transferred to Bank in
Pennsylvania 1st Pen Bank

Topping plant — diesel — reported separately

~~Sub~~ NGL — separate accounting or value

blended system — so through PS #1
value —

processing fee — Purchase By field costs
or others

Royalty

~~Van Dyke~~

Independent Petroleum
+ Leg Audit — OK.

~~Sub~~

Current?

Vandyle yes. w/in a month.

Blasum meters other place on line -

Vandyle Yes. in Vadder

Arco + Standard use gas for free.

Quality Bank —

requesting higher gravity — credit.
lower — penal. —

differential payments — contribution to stream

relate to tariffs

for equalizing costs —

Unitization —

1) leases —

2) — fields cover

unit agreement to operate as one lease.
operated by one operator.

use well data, seismic, results from development
wells. — amended over time —

or state leases — commissioner makes final
determination

on all leases — AOGCC

looked at circle tangent methods —

2 circles wouldn't overlap

Sale 54 —

happy w # of companies —
dollar per acre but that good —

major bidders against each other.
maintain mailing list. —

Notify —

Early exploration — offered ex mentis credit.

allowed to credit up to 15% of well costs
total % of well or \$ ~~per~~ per foot.

Other incentives —

hosting + analysis of other states —

Exempt sales —

will use in June —
useful in North Slope —
later in Cook Inlet.

Cog

Lease terms + sales?

VinDyk

mostly identical — environmental strips
loyalty

Zero-wellhead — protect royalties?

not aware —

truly to prevent waste of resource.

reinvest royalty oil —

underlifting — for emergency —

triggered by lifting provisions.

Chat

measurements are being done —

meters checked daily.

any oil severed is accounted for accurately.

Malone

information adequate.

same systems that producers use.

floor or severance tax —
but ELR

80¢ / barrel

4.00¢

difficulty w/ setback —

accounting

- ① better detail from co's.
- ②. gather own empirical data.

Don

look at simplifying tax laws.

Bonds — are they high enough

Chot

— commission requires 100,000 bond. — single
200,000 — 2 or more.

would be insufficient for state to cover
down-hole abandonment.

large operators have no problem selling bond.
independents can't get underwriting —

adjourned.

3:20 —

JOINT MEETING OF SENATE SPECIAL COMMITTEE ON OIL AND GAS AND
SENATE RESOURCES COMMITTEE

February 5, 1988

Briefing on State oil and gas management, policies, and
accounting.

TO TESTIFY:

BILL VAN DYKE, Division of Oil and Gas, DNR

CHAT CHATTERTON, Alaska Oil and Gas Conservation Commission
(on teleconference)

ALSO ATTENDING:

DEBRA VOGT, Department of Revenue,

RICHARD FINEBERG, Division of Policy , OMB

BOB MAYNARD, Attorney General's Office

1. Ask for an overview of the division's role in implementing oil and gas policies.
 - A. How do other agencies, Revenue, Law, DEC, Fish and Game, OMB work with you?
2. Recent Oil and Gas Activity
 - A. What's been happening around the state in the oil and gas industry?
 - B. I've heard that the industry is expecting to increase drilling and exploration activity next year. Standard Alaska said it will spend about \$400 million and ARCO indicates it will spend about \$300 million.
 - 1) How does this compare to last year?
 - a) It's about double.
3. Review Five Year Plan
 - A. What lease sales are planned for the next year?

4. Results of Sale #54, Kuparuk Uplands

A. Who bid?

B. Who is notified of our lease sales?

1) We were told by Japanese oil industry executive at a recent conference that they were eager to integrate into upstream activities, like exploration and production. Should the state make an effort to actively solicit more interest in our lease sales?

C. The state offered incentive credits to companies willing to explore within five years. Can you explain how that works? Do you expect to offer these in the future?

1) The division did some research this fall on other tax incentives. Can you comment on the results? Can you explain:

a) Discovery Royalties, or

b) Royalty Holidays

5. Exempt Sales

A. Last year the oil and gas committee sponsored legislation that would help to streamline the exempt sales procedures. We hoped this would allow the division to hold exempt sales in areas of interest to industry in less time. Has this worked? Have you had any or planning any exempt sales?

B. Any other suggestions for legislation?

6. Tracking and accounting for state oil and gas

A. How is throughput determined?

- 1) Is there a meter somewhere? Where?
 - a) Yes. In Prudhoe Bay. But after the topping plant takes out what it needs. How much is that?
- 2) Who checks it? How often?
 - a) DNR checks it every other week. Is that enough?
- 3) Have you noticed any relationship between oil prices and throughput? When prices were at their lowest in 1986, what was the throughput?
 - a) It was high because high profits were being made in the refinery runs.
- 4) Do the other agencies, Revenue and the Oil and Gas Conservation Commission, use the same numbers?
 - a) No. They each have different figures. Why?
 - b) The most glaring example is that the throughput numbers being used for Revenue projections have been low and were recently revised upwards by 50,000 barrels per day to account for the NGL's produced.
- 5) Ask Chat Chatterton how he feels the accounting procedure is working.
 - a) He admits there are problems.

B. Protection of state resources in low or zero wellhead prices.

- 1) Dr. Stanislaw told us yesterday that prices could go to \$12 in the short term. Or even lower. He said there is nothing to stop it from going lower.
- 2) What can the state do in the event that oil prices drop to a level where the netback value is close to zero as it did in 1986? Do we have the authority to restrict production? Underlift?

7. Bonds required for oil and gas leases.

- A. How much is required? In the event of an oil spill or hazardous waste clean-up, and a company declares bankruptcy, are they sufficient to cover costs? Should they be increased?

8. NGL field costs negotiations.

- A. Can you review the background, discuss some of the disputed

issues and bring us up to date on the status of the negotiations?

9. Unitization

- A. Can you explain the procedures the division uses for unitizing oil and gas fields?
- B. What are the criteria for determining participating areas?
- C. How often are they reviewed?
- D. Other states use the "circle tangent method". Wouldn't that be simpler and lead to less controversy?
- E. Ask Chat Chatterton to explain how the Oil and Gas Conservation Commission handles unitization.
- F. Is it consistent with the Division of Oil and Gas? Is there a unified state policy?
- G. Are state resources and state revenues being drained as a result of unitization policies?

April 7, 1987

Katherine Fortney
State Division of Oil and Gas
Pouch 7-034
Anchorage, Alaska 99510-0734

Dear Kate:

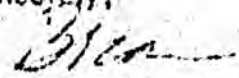
Burglin et al (Burglin) is requesting a written policy from the Division of Oil and Gas regarding P.A. (participating area) review. It is clear under II AAC 83.351 (c) "A participating area must be expanded to include acreage reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities, and must be contracted to exclude acreage reasonably proven through use of geological, geophysical or engineering data to be incapable of producing hydrocarbons in paying quantities, subject to approval by the commissioner. A revised division of interest or formula allocating production and costs must be submitted for approval under II AAC 83.271 at the time of expansion or contraction of a participating area."

The Division of Oil and Gas staff has emphasized initial P.A.'s in their recent decisions concerning P.A.'s. Burglin is requesting the division address Burglin's following concerns:

- (1) How often are P.A.'s reviewed by division staff?
- (2) When does an initial P.A. become a final P.A.?
- (3) How are initial P.A.'s clearly delineated?
- (4) Does the division staff take any initiative to expand or contract P.A.'s based on additional information?
- (5) Does the unit operator have any obligation to expand or contract a P.A. when additional information dictates a P.A. expansion or contraction?

If you have any questions concerning Burglin's request, you may contact Brian at 452-5149.

Sincerely,


Brian Burglin

BB/mug

cc: James Eason
Bill Van Dyke
Comm. Judy Brady

Senator Bettye Fahrenkamp
Senator Jack Coghill
Senator Don Bennett

(1)

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

PO BOX 7034
ANCHORAGE, ALASKA 99510-7034

April 17, 1987

(907) 762-4241

Mr. Brian Burglin
P. O. Box 131
Fairbanks, AK 99707

Dear Mr. Burglin:

I have reviewed your April 7, 1987 request to Ms. Catherine Fortney for a written policy regarding the Division of Oil and Gas's review and determination of participating areas (PAs) for oil and gas units.

In brief, the division agrees with you that the determination of participating areas is governed by 11 AAC 83.351, and that the configuration of participating areas, both initial and subsequent, must be determined on the basis of all geological and engineering data available at the time the PA is established or expanded/contracted. It is almost inevitable that some technical information pertaining to the establishment of participating areas will be proprietary, and not available to all parties within or adjacent to the unit; however, the division must, by the terms of 11 AAC 83.351, take all available information into account when approving a participating area.

The answers to your specific questions are as follows:

(1) Reviews of participating areas are generally triggered by internal unit action such as planned expansions or contractions of the unit area, or a request by one or more of the unit working interest owners for expansion or contraction of the participating area. However, the division may initiate a review and revision to an approved participating area on its own volition or at the request of others when new data are presented indicating that such a revision is necessary to protect the state's interest or the correlative rights of others.

(2) Generally there is no such thing as a "final" participating area until unit reserves are depleted. Participating areas are continually subject to review and expansion or contraction based on new technical data. For most oil and gas units, contraction of the unit area to exclude all lands outside of an approved participating area is tied to the date of establishment of the "initial" participating area (the first participating area within the unit). There may be no practical difference between "initial" participating areas and subsequent participating areas if sufficient data are available at the time the initial participating area is approved to confirm the distribution of reserves within the unit area.

How often is it continually?

(3) Initial participating areas are delineated on the basis of all geological, geophysical, and engineering data available to the division at the time the participating area is established. Data may be available from more than one source, and the separate parties, which may not have access to all information regarding the participating area limits, may not agree with one another's interpretations. In the case of conflicting technical data, the division reviews all information available, and makes an independent determination of an appropriate participating area based on the terms of the AAC 83.351.

WHAT SPECIFIC CIRCUMSTANCES
IS USED?

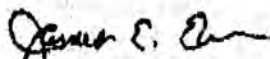
(4) Under certain circumstances, the division has initiated action for expansion or contraction of a participating area, particularly in those instances where data indicate that an existing participating area does not adequately and equitably represent the interests of all parties involved. However, normal practice is for one or more of the working interest owners of a unit to initiate action for expansion or contraction of a participating area. A lessee adjacent to the unit may also initiate expansion or contraction if that lessee possesses technical information showing that such action is warranted.

WHAT SPECIFIC TECHNICAL
INFORMATION?

(5) In general, under the terms of the AAC 83.351, the unit operator, representing the working interest owners of a unit, is obligated to expand or contract when additional information indicates that such an expansion or contraction is appropriate. This obligation is also usually reflected in the provisions of the various unit agreements.

I hope this is responsive to your questions regarding the division's policy in the establishment and expansion/contraction of participating areas. If you have any additional questions on the above, please feel free to contact me.

Sincerely,


James E. Eason
Director

cc: Judith M. Brady, Commissioner
Catherine Fortney, DNR/DO&G
Bill Van Dyke, DNR/DO&G
Cass Arley, DNR/DO&G

Senator Bettye Fahrenkamp
Senator Jack Coghill
Senator Don Bennett

April 28, 1987

James Eason
Division of Oil and Gas
P. O. Box 7034
Anchorage, Alaska 99510-7034

Dear Jim:

As Burglin et al. (Burglin) understands your 4/17/87 letter, the division generally does not review participating areas unless requested to do so by an interested party.

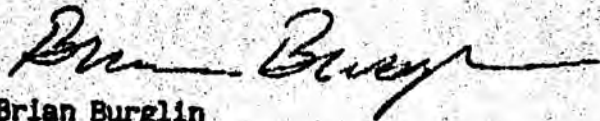
Burglin's concern with this policy is that in undeveloped gas fields there can be many years and substantial drilling activity which change initial geological interpretation before a participating area is reviewed by the division.

For example, the last participating area review and revision for the Beluga River Unit was made in 1977. From 1965 thru 1977 six (6) gas wells were drilled within the Beluga River Unit, during which time there were five participating area revisions of the Beluga River field. From 1978 to 1987 twelve (12) gas wells have been drilled with no participating area review by the Division of Oil and Gas. Mr. Bill Van Dyke confirmed that the Beluga River Unit participating areas had not been reviewed by the division staff in over 1 1/2 years, and was unaware of any Beluga River Unit participating area review since 1978. From 1985 thru 1986 eight (8) additional wells have been drilled in the Beluga River Unit. There is no economic incentive for a unit operator to initiate a participating area expansion or contraction when additional well data confirms, modifies, or rejects initial structural interpretation and estimated productive limits, once the original Working Interest Owners have lost their interest in the surrounding acreage, through unit contraction. Well data is usually confidential to adjacent lease holders or interested parties for at least two years after wells have been drilled.

Burglin feels the State's interest would be better protected if participating areas were reviewed on an annual basis and

1987/4/26/10
this review incorporated into unit plans of a development and operation, especially in undefined gas pools.

Sincerely,



Brian Burglin

BB/kd

cc: Commissioner Brady
Bill Van Dyke
Senator Fahrenkamp
Senator Coghill
Senator Bennett
Commissioner C. Chatterton

...and the proposed operations, including but not limited to the location and design of well sites, material sites, water supplies, solid waste sites, buildings, roads, utilities, airstrips, and all other facilities and equipment necessary to conduct the proposed operations;

(3) plans for rehabilitation of the affected unit area after completion of operations or phases of those operations; and

(4) a description of operating procedures designed to prevent or minimize adverse effects on other natural resources and other uses of the unit area and adjacent areas, including fish and wildlife habitats, historic and archeological sites, and public use areas.

(e) In approving a unit plan of operations or an amendment of a plan, the commissioner will require amendments he determines necessary to protect the state's interest. The commissioner will not require any amendment that would be inconsistent with the terms of sale under which the lease was obtained, or with the terms of the lease itself, or which would deprive the lessee of reasonable use of the leasehold interest.

(f) The unit operator may, with the approval of the commissioner, amend an approved plan of operations.

(g) Upon completion of operations, the unit operator shall inspect the area of operations and submit a report indicating the completion date of operations and stating any noncompliance of which the unit operator knows, or should reasonably know, with requirements imposed as a condition of approval of the plan. (EIT 6/28/81, Reg. 78; am 8/15/82, Reg. 83; am 3/18/83, Reg. 85)
Authority: AS 38.05.020 AS 38.05.145
AS 38.05.130 AS 38.05.180

11 AAC 83.350. APPROVAL OF FEDERAL UNITS. Repealed 6/28/81.

11 AAC 83.351. PARTICIPATING AREA. (a) At least 90 days before sustained unit production from a reservoir, the unit operator shall submit to the commissioner for approval a description, based on subdivisions of the public land or its aliquot parts, of the proposed participating area. The participating area may include only the land

reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to production of hydrocarbons in paying quantities. Under 11 AAC 83.321(a), the unit operator also shall submit to the commissioner for approval a proposed division of interest or formula setting out the percentage of production and costs to be allocated to each lease and portion of lease within the participating area. Upon approval by the commissioner, the area of productivity constitutes a participating area.

(b) A separate participating area must be established as provided in (a) of this section for each reservoir delineated, except that with the consent of the commissioner and all working interest owners, any two or more reservoirs or participating areas within the unit may be combined into one participating area. Separate participating areas may be established to distinguish between an oil rim and a gas cap within the same reservoir.

(c) A participating area must be expanded to include acreage reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities, and must be contracted or exclude acreage reasonably proven through use of geological, geophysical, or engineering data to be incapable of producing hydrocarbons in paying quantities, subject to approval by the commissioner. A revised division of interest or formula allocating production and costs must be submitted for approval under 11 AAC 83.371 at the time of expansion or contraction of a participating area. (EIT 6/28/81, Reg. 78; am 3/18/83, Reg. 85; am 3/30/84, Reg. 89)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.353. APPLICATIONS. Repealed 6/28/81.

11 AAC 83.356. UNIT AREA: CONTRACTION AND EXPANSION. (a) A unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations.

The commissioner will, in his discretion, contract the unit area to include only those lands then included in an approved participating area and lands that facilitate production including the immediately adjacent lands necessary for secondary or tertiary recovery, pressure maintenance, reinjection, or cycling operations. The commissioner will, in his discretion, after considering provisions of 11 AAC 83.303, delay contraction of the unit area if the circumstances of a particular unit warrant. If any portion of a lease is included in the participating area, the entire lease will remain committed to the unit.

(c) Any expansion or contraction of the unit area must be based on legal subdivisions of land as defined in 11 AAC 88.185.

(d) No land will be excluded from a unit area due to the depletion of hydrocarbons.

(e) Not sooner than 10 years from the effective date of the unit agreement, the commissioner will, in his discretion, contract the unit area to include only that land covered by an approved unit plan of exploration or development, or that area underlain by one or more oil or gas reservoirs or one or more potential hydrocarbon accumulations and lands that facilitate production as set out in (b) of this section. Before any contraction of the unit area under this subsection, the commissioner will give the unit operator, the working-interest owners, and royalty owners of the leases or portions of leases being excluded reasonable notice and an opportunity to be heard. (Eff. 6/28/81, Reg. 78; am 3/18/83, Reg. 85)

Authority: AS 31.05.110
AS 38.05.020

AS 38.05.145
AS 38.05.180

11 AAC 83.360. NOTATION OF APPROVAL. Repealed 6/28/81.

11 AAC 83.361. CERTIFICATION OF WELL TEST RESULTS. For the purposes of 11 AAC 83.301 — 11 AAC 83.395, a well will be considered capable of producing hydrocarbons in paying quantities, as defined in 11 AAC 83.395, when so certified by the commissioner following application by the lessee or unit oper-

ator. The commissioner will require the submission of data necessary to make the certification, including all results of the flow test or tests, supporting geological data, and cost data reasonably necessary to show that the production capability of the well satisfies the economic requirements of the paying quantities definition. (Eff. 6/28/81, Reg. 78; am 8/15/82, Reg. 83; am 3/18/83, Reg. 85)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.365. UNIT BONDS. Repealed 6/28/81.

11 AAC 83.366. UNIT OPERATING AGREEMENT. Any division of the unit operating agreement must be submitted to the commissioner before it takes effect. The unit agreement controls the respective rights and obligations of the unit operator, the working-interest owners, the State of Alaska, and royalty interest owners other than the State of Alaska in case of conflict between the unit agreement and the unit operating agreement. Where conflicts exist solely between working-interest owners, the unit operating agreement prevails. (Eff. 6/28/81, Reg. 78; am 8/15/82, Reg. 83)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.370. ALLOCATION OF INTEREST. Repealed 6/28/81.

11 AAC 83.371. ALLOCATION OF PRODUCTION AND COSTS. (a) The proposed or revised division of interest or formula allocating hydrocarbon production and unit operating costs among the leases in the unit area may not take effect until approved by the commissioner in writing. When requested by the commissioner, the lessee or unit operator shall promptly file with the commissioner all data that relates to the proposed or revised division of interest or allocation formula for all leases in the participating area. Before any disapproval of the proposed or revised division of interest or allocation formula, the commissioner will give the working interest and royalty owners reasonable notice and an opportunity to be heard. After the

the commissioner will approve the proposed revised division of interest or allocation formula as submitted unless he finds in writing that the formula does not equitably allocate production and costs among the lessees.

(b) If there is a separate division of interest or allocation formula among any of the parties holding an interest in the unit that is different from the division of interest or allocation formula approved by the commissioner, the parties to the separate division of interest or allocation formula not approved by the commissioner shall submit a copy of that formula to the commissioner and a statement explaining the reasons for the difference. (Eff. 6/28/81, Reg. 78; am 3/18/83, Reg. 85)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.373. SEVERANCE (a) Except as otherwise provided in this section and 11 AAC 83.356, where only a portion of a lease is committed to a unit agreement approved or prescribed by the commissioner, the commitment constitutes a severance of the lease as to the unitized and nonunitized portions of the lease. The portion of the lease not committed to the unit will be treated as a separate and distinct lease having the same effective date and term as the original lease and may be maintained thereafter only in accordance with the terms and conditions of the original lease, statutes and regulations. Any portion of the lease not committed to the unit agreement will not be affected by the unitization or pooling of any other portion of the lease by operations in the unit, or by suspension approved or ordered for the unit under 11 AAC 83.336(b).

(b) The commissioner will, in his discretion, grant up to a two-year extension of the lease term for that portion of a lease not committed to the unit agreement under this section.

(c) A lease having a well certified as capable of production in paying quantities before commitment to the unit agreement will not be severed. (Eff. 9-5-74, Reg. 51; am 7-22-79, Reg. 71; am 6-28-81, Reg. 79; am 5-15-82, Reg. 83)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.374. DEFAULT (a) Failure to comply with any of the terms of an approved unit agreement including any plans of exploration, development, or operations which are a part of the unit agreement, is a default under the unit agreement.

(b) The commissioner will give notice to the unit operator and defaulting party (if other than the unit operator) of the default. The notice will state the nature of the default and include a demand to cure the default by a specific date, which in the case of failure to pay rentals or royalties will be a date determined by the commissioner and in the case of any other default will be a date not less than 90 days after the date of the commissioner's notice of default.

(c) If a default occurs with respect to a unit in which there is a well capable of producing oil or gas in paying quantities and the default is not cured by the date indicated in the demand, the commissioner will, in his discretion, and after giving the unit operator and defaulting party (if other than the unit operator) reasonable notice and opportunity to be heard, terminate the unit agreement by making void, as to the termination to the unit operator as a defaulting party. Termination is effective upon mailing the notice.

(d) If a default occurs with respect to a unit in which there is a well capable of producing oil or gas in paying quantities and the default is not cured by the date indicated in the demand, the commissioner will, in his discretion, look to preserve the unit agreement by judicial proceedings. (Eff. 6-28-81, Reg. 78)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.375. CONFIDENTIALITY OF DATA. Repealed 2-1-83.

11 AAC 83.379. SIGNATURES. Each signature on the unit agreement must be notarized or attested by at least two witnesses. Corporate or other signatures made in a representative capacity must be accompanied by evidence of the authority of the signatory to act on behalf of the principal or by a reference to such evidence previously filed. The printed or typed name and address of each signatory to the unit agreement must be set out below the signature.

For the purpose of this section, an affected owner is an owner of a quarter section directly or diagonally offsetting any quarter section upon which the operation is proposed to be conducted. In areas where irregular-shaped properties are to be drilled, the commission will determine who is an affected owner.

(i) A directional survey report, required by (a)(3) or (e) of this section, must contain the following:

- (1) name of surveying company;
 - (2) name, title, and signature of person actually performing the survey;
 - (3) the date on which the survey was performed;
 - (4) type of survey conducted;
 - (5) method used in calculating survey;
 - (6) a complete identification of the well to as to indicate the name of the operator, the property name, the well number, and field name;
 - (7) the depth interval over which the survey was conducted; and
 - (8) a plat showing the surface location, the plotted well course, and the nearest property lines or unit lines.
- (j) An inclination survey report, required by (a)(2) of this section, must contain a tabulation of the depth and drift angles for all inclination survey points.

(k) The commission will, in its discretion, require the submittal of the original film, time sheets, charts, graphs, discs, and other data used to compile the survey required by (a)(3) or (e) of this section.

(l) Upon application, the commission will, in its discretion, waive all or part of the directional survey requirements of this section, or approve alternate means for determining the location of a bore hole. (Eff. 4/13/80, Reg. 74, am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20. AS 31.05.030, DRILLING UNITS AND WELL SPACING. (a) In areas where the fields the establishment of drilling units and a spacing pattern may be governed by special pool rules adopted in accordance with 20 AAC 25.530. In the absence of an order by the commission establishing drilling units or prescribing a spacing pattern for a pool, the following apply:

(1) a governmental quarter section constitutes the drilling unit for oil exploration; the surface location for a well exploring for oil must be at least 500 feet from the drilling unit boundary;

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(2) a governmental section constitutes the drilling unit for gas exploration; the surface location for a well exploring for gas must be at least 1500 feet from the drilling unit boundary;

(3) where oil has been discovered, not more than one well may be drilled to that pool on any governmental quarter section, nor may any oil pool be opened to the well bore closer than 500 feet to any quarter section line, nor closer than 1,000 feet to any well drilling to or capable of producing from the same pool, and

(4) where gas has been discovered, not more than one well may be drilled to that pool on any governmental section, nor may any gas pool be opened to the well bore closer than 1,500 feet to any section line, nor closer than 3,000 feet to any well drilling to or capable of producing from the same pool.

(b) An application for exception to the provisions of this section must set out the names of all owners and of all operators of governmental quarter sections directly and diagonally offsetting the quarter section where the oil well is located, or the names of all owners and of all operators of governmental sections directly or diagonally offsetting the section where the gas well is located. A plat must be attached, drawn to a scale of one inch equaling 2,640 feet or larger, showing the location of the well for which the exception is sought, all other completed and drilling wells on the property, and all adjoining properties and wells. The application must be verified by a person acquainted with the facts, stating that all facts are true and

that the plan correctly portrays pertinent and required data. The applicant for exception must send notice of the application by registered mail to all owners and to all operators noted above, and furnish the commission with a copy of the notice, date of mailing, and the addresses to which the notices were sent. The application for exception will be handled in accordance with 20 AAC 25.540.

(c) A well may not be re-entered for the purpose of producing oil on a property that is smaller than the governmental quarter section upon which the well is located or for the purpose of producing gas on a property that is smaller than the governmental section upon which the well is located.

(d) If two or more separately owned properties are embraced within a governmental quarter section to be drilled, or a well re-entered for oil, or a governmental section to be drilled, or a well re-entered for gas, persons owning the oil or gas rights may voluntarily pool their separate interests to form a drilling unit. A copy of the pooling agreement must be submitted to the commission. If one or more persons owning oil and gas rights fail to voluntarily pool their interests, the commission, upon petition or its own motion, and after public hearing, will, in its discretion, make an order pooling the owner's interests for the development of their land as a drilling unit. (Eff. 4/13/85, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.100

20 AAC 25.061. WELL SITE SURVEYS. (a) Near surface strata to a depth of 2000 feet in the well site area for all exploratory and stratigraphic test wells must be evaluated seismically by common depth point refraction or reflection profile analysis to identify anomalous velocity variations indicative of potential shallow gas sources. Analysis results must be included with the application for the Permit to Drill (Form 10-401).

(b) The well site area must be evaluated by sidescan sonar and other pertinent surveys to determine whether potential seabed hazards to drilling operations are present for each type of well listed in 20 AAC 23.005 to be drilled

offshore from a mobile bottom support vessel or floating unit. Survey results must be included with the application for Permit to Drill (Form 10-401).

(c) Upon request by the operator, the commission, in its discretion, will waive the requirements of this section. (Eff. 4/13/85, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.065. HYDROGEN SULFIDE. (a) When hydrogen sulfide gas is encountered, the operator shall notify the commission within 24 hours.

(b) If a well is to be drilled in an area where a formation to be penetrated is known to contain hydrogen sulfide gas or if hydrogen sulfide is encountered while drilling, each operator shall meet the requirements of API RP 49, "Recommended Practices for Safe Drilling of Wells Containing Hydrogen Sulfide."

(c) If there is an insufficient theory of drilling in an area to know whether hydrogen sulfide exists, the commission will specify, on the drilling permit, for the operator to comply with the minimum requirements for detection, monitoring, contingency and control, and training as follows:

(1) detection monitoring

(A) an automatic hydrogen sulfide monitor must be installed and must have a combination visual and audible alarm system located where it can be seen or heard from all parts of the location;

(B) the automatic hydrogen sulfide monitor must have a minimum of two probes, one at the shale shaker and one on the bell nipple; and

(C) in addition to the automatic hydrogen sulfide monitor, at least three manual detectors with an adequate supply of extra detector tubes must be available at the drill site;

(2) contingency and control

November 11, 1988

James Eason
State of Alaska
Division of Oil and Gas
Pouch 7-034
Anchorage, Alaska 99510

Re: Pretty Creek Unit Establishment of Initial Participating Area

Dear Mr. Eason:

Thank you for your prompt response to Burglin et al (Burglin's) October 22, 1988 letter.

Burglin does agree that the criteria for establishment of participating areas is set forth in 11 AAC 83.351, however, Burglin does not agree that the Division has consistently followed 11 AAC 83.351. At this time Burglin is unable to discern what methodology, if any, is used by the Division for the establishment of participating areas. When Burglin specifically demonstrated that the Division has not followed the criteria as set forth in 11 AAC 83.351 based on submitted data, the Division informs Burglin that the Division has the authority to "geologically compromise" the data submitted. This was acknowledged by Ms. Fortney's letter of 2/20/88 in which she states: "It is our belief that your contention that 11 AAC 83.351 does not give the Division of Oil and Gas the power to accept a compromise PA is without merit. 11 AAC 83.351, attached to this letter as Part II of Attachment 1, is completely silent as to the methodology by which the extent of a participating area is determined. All it requires is that the participating area include only the land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical or engineering data to be capable of producing or contributing in production of hydrocarbons in paying quantities."

In any unit with more than one working interest owner, there are bound to be differing technical interpretations of the available data. In that sense, each and every unit area and participating area application that comes into this office for approval is a "compromise" application. Not only is the State not explicitly prohibited from considering and approving such "compromise" applications, we are required to consider all interpretations submitted, including the "compromise" interpretations, and, if necessary, decide which interpretation best fits the available data.

In this case, where the working interest owners have not agreed on a consensus or compromise geologic interpretation of the area, any approved participating area will by necessity be a "compromise" for at least some of the parties involved. However, any initial participating area is subject to further revision in the future as newly acquired data indicate the need for such revision."

11 AAC 83.351 does not explicitly give the Commissioner or the Division their

November 11, 1986

James Eason

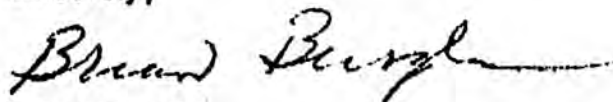
P. 2

assumed authority to compromise geological data. If the Division had the authority to "geologically compromise" participating areas, then 11 AAC 83.351 would not be needed. In Ms. Brown's decision letter of January 7, 1986 she states: "The regulation governing the establishment of participating areas (11 AAC 83.351) states that a participating area may include only the land reasonably known to be underlain by hydrocarbons or reasonably estimated through use of geological, geophysical and engineering data to be capable of producing or contributing to production of hydrocarbons in paying quantities, and that a participating area must be expanded to include acreage reasonably estimated through use of geological, geophysical or engineering data to be capable of producing or contributing to production of hydrocarbons in paying quantities. The division interprets this regulation to mean that all lands included within a defined hydrocarbon accumulation must be included within the participating area of a producing well."

To allow the Division to "compromise" a party out of a PA when that party has met and followed the criteria of 11 AAC 22.351 is definitely not in the compromised parties' best interest. Further, the Commissioner is required under 11 AAC 83.303 to "(3) provide for the protection of all parties of interest, including the state."

In conclusion, Burglin still feels that a hearing is needed to discuss the Division's "methodology" for the establishment of participating areas, whether the Division is willing to discuss it or not.

Sincerely,



Brian Burglin

BB/mbg

cc: Governor Steve Cowper
Senator Bettys Fshrenkamp
Senator Don Bennett
Rep. Mike Davis
Rep. Mike Miller

Rep. Nilo Koponen
Rep. Mark Boyer
Rep. Steve Frank
Commissioner Chatterton, AOGOC

May 27, 1986

Lonnie C. Smith
Commissioner
Alaska Oil and Gas Conservation Commission
3001 Porcupine Dr.
Anchorage, Alaska 99501-3192

Re: The application of CHEVRON U.S.A. INC. for an exception
to 20 AAC 25.055 to permit the drilling of a well in Pretty
Creek Unit.

Dear Commissioner Smith:

Burglin et al (Burglin) is filing written protest against any well location
exceptions requested by Chevron on behalf of the existing oil and gas owners
of the Pretty Creek Unit.

Burglin does not feel any proposed well location exceptions should be
granted in an approved unit in which no underlying reservoirs have been
clearly delineated. The productive limits of the Beaulieu and Sterling
formations within the Pretty Creek Unit have not been clearly delineated
at this time.

Chevron has not submitted a complete Unit Plan of Development for
11 AAC 83.343 which must include: "(1) engineering proposals, plans and
activities for the unit, including plans to delineate all underlying oil and
gas reservoirs, bring the reservoirs into production, and maintain and
enhance production once established;
(2) plans for the exploration or delineation of any lands in the unit not
included in a participating area".

The Division of Oil and Gas admittedly uses "compromised" geology for the
establishment of initial PA's (Participating Areas). To allow well spacing
exceptions in conjunction with "compromised" geology prior to clear delineation
of all underlying reservoirs is not in the best interest of the State of Alaska.

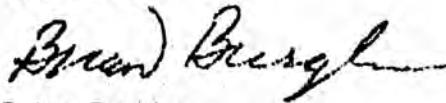
Compromised initial PA's (allocation of production) and liberal well-spacing
exceptions are two of the primary reasons why Burglin has recommended
the State of Alaska adopt the circle-tangent method for determining a PA.

Lonnie C. Smith
May 27, 1986
page 2

Adoption of the circle-tangent method would greatly restrict the use of
compromise PA's and well-spacing exceptions.

If you have any questions, please call Brian at 452-5110.

Regards,



Brian Burglin

cc: Rep. Mike Davis
Rep. John Ringstad
Rep. Steve Frank
Rep. Mike W. Miller
Sen. Don Bennett
Sen. Bettye Fahrenkamp
Kate Eortney, DNR

B6/plb

enclosures

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