

SCOMMM

#12:1

PIPELINE HEARING

TRANSCRIPT

March 6-10, 1972

OUTLINE OF PROPOSED TESTIMONY
BEFORE
THE SENATE COMMERCE COMMITTEE
AND
THE HOUSE LOCAL AFFAIRS COMMITTEE

2-6 p.m., March 6, 1972

1. Lieutenant Governor, H. A. Boucher - Introduction - overview of the problem.
2. Commissioner of Natural Resources, Charles Herbert - Description of Prudhoe Bay field , computation of royalty and severance taxes.
3. Attorney General, John E. Havelock - existing regulatory and taxation patterns.
4. Commissioner of Highways, Bruce Campbell - description of new state cost estimates.
5. Commissioner of Revenue, Eric E. Wohlforth - comparison of past and present estimates of costs and revenues and economic comparison of State versus private ownership.

Investment Officer, Larry Eppenbach - Methodology of State and private ownership cases.
6. Commissioner of Administration, Joseph R. Henri - Effect of private ownership on the State budget .
7. Herbert Temple, Temple, Barker & Sloane - Issues and objectives raised by industry to the State's public ownership proposal and General outline of financing plan proposed by Temple, Barker & Sloane.
8. Charles Kades, Hawkins, Delafield and Wood - Statutory outline of the authority bond program.
9. L. E. Crowley, Salomon Brothers - comments on financibility of the pipeline by the State.
10. Kuhn, Loeb & Company, Robert Macy - Comments on financibility of the pipeline by the State.

Mr. Rettig:

Has been scheduled for the purpose of receiving testimony, in support of and in opposition to the proposed legislation, having to do with the construction and operation of the oil and gas pipeline in Alaska.

For the record, let me say we will be considering a variety of bills and I will name them:

SB 313 relating to the leases of rights of way;

SB 314 relating to the safety standards for oil and gas transportation;

SB 315 relating the Alaska oil and gas transportation commission;

SB 294 relating to the leasing board;

HB 569 establishing the trans-Alaska authority,

HB 578 authority to issue general obligation bonds.

Before we commence if I might I would like to introduce Mr. Dick McVay, a representative who is going to co-chair these hearings with me, Mr. McVay, and try to introduce the members of the Senate Commerce Committee. I'd like to have Mr. McVay introduce the members of his State Affairs Committee.

Senator, Cliff Row, will you please stand:

Senator Christensen.

Senator Veeland

Senator Donyabe

Members of the State Affairs Committee that are in attendance, Mr. John Holm, Mrs. Helen Fisher, Mr. Frank Ferguson on, Mr. Ed Barber, Mr. John Huburt, Mr. Mike Rose, and Mr. Mike Miller.

Before we introduce the first witness that is expected to appear, I would like to just review some of the rules that we hope to maintain during the conduct of these hearings. As most of you are aware the hearings were announced more than a month ago,

to allow all the different parties ample time to study the proposed bills, and to prepare evidence and testimony for or against them. Lets hope that all data and statments presented will be fully open, complete and factual as possible under the circumstances.

Further, it is our hope that in these hearings any tendency to draw or form battlelines can be avoided, recognizing that in any battle generally there will be a winner and a loser, or perhaps even that all could be losers. Rather it is hoped that we can approach these matters with as little discomfort and suspicion as possible, in recognition of our common goal, that is the orderly, safe and profitable development of Alaska's resources in the awareness that Alaska can and must be an attractive area for investment and industries in order to realize full and profitable employment opportunities for citizens of this State. This is not to imply that disagreement is not expected. In fact sharply contrary views no doubt will be voiced throughout these hearings.

Questions from members of the Joint Committee and from other legislators will be encouraged while making the complete testimony. We will deviate from that occasionally as we are informed that certain witnesses may have to leave the City, in which case we will permit questions of that particular witness as we go along. Legislators are encouraged to formulate their questions as concisely and correctly to the subject as possible, and Mr. McVay, do you have any comments you'd like to make before we commence?

I would like to welcome the people here that are going to give the testimony particularly the out-of-town people who have come a long ways to be withus, we know its an inconvenient and we certainly appreciate having you here. I will read you the tentative schedule for the hearing so that you will plan to go on until 6:00 PM this evening, and begin tomorrow morning at 8:00 AM, going through until 11:00 AM, re-convening tomorrow afternoon at 2:00 o'clock, going through to 6:00 o'clock. And Wednesday again at 8:00 AM, to 12:00 PM, and at 1:30 PM to 6:00 PM, and Thursday

again at 8:00 AM, going through hopefully to the end of the hearing.

Thats all.

Thank you very much.

The plan of the meeting is have the proponents of the various measures speak concerning them first, and in this case it will be the State administration, following the completion of the testimony of both witnesses we will go directly to the presentation by the Federal pipeline committee, concerning SB 294. Following those presentations we will have the representatives of the industry present their views.

So to start it off I am going to call on Attorney General John Havelock to introduce his first witness. Mr. Havelock.

Thank you, Senator.

For our first witness today the State administration calls upon the Honorable Red Boucher, Lieutenant Governor of Alaska, to read his statement on behalf of William A. Egan, Governor. Lieutenant Governor Boucher.

(we might caution the witnesses that there are a lot of wires down here, so be careful when you come up here.)

Mr. Chairman, Ladies and Gentlemen:

I have been asked by Governor Egan to deliver his message to several committees and to the people of the State of Alaska, in his absence.

As Lieutenant Governor I have had opportunity to watch our chief executive deal with the agonizing realities of the delay in the pipeline construction and spiraling costs, and while appraisals that do not view a protion of our future totally through those coloi ed glasses are distasteful to some, I have never seen

our chief executive swerve from his duty to our stockholders, the people of the State of Alaska.

The future of our State is a brilliant one. No one knows this better than our governor who has devoted over thirty years of his life in service to Alaska and her people. There have been rocky shoals before, and our ship of state has navigated. They were not overcome by wishful thinking. We need not be at odds with our partners in the future, the oil industry. We recognize their corporate responsibilities. I am sure they as good citizens recognize our responsibility, and it is in this spirit that Governor Egan has asked that I read his message to the people of the State and the several committees, into the records.

(attached is Governor Egan's speech)

Mr. Havelock, will you present your next witness please.

Thank you, Mr. Chairman, and members of the committee. We appreciate the courtesy afforded us by the Chair, and arrangements made for the seating. We have handed out a list of witnesses which the State wishes to present. Although I appreciate the fact that many questions may be on the tip of the tongue as these witnesses speak, we appreciate being able to run through these witnesses to give us an overall view in advance. We are prepared in regard to members of the State Administration, to recall members of the State Administration individually, to respond to questions about their statements, or I will be available as when we get to an appropriate place to just take general questions, with the permission of the chair, and refer them to the appropriate member of the State Administration or consultants, for answers.

Mr. Peter Temple, who will speak on #7, the Advantages of State Ownership, Issues and Answers, has to leave today, and with the permission of the Chair I would like to interrupt our testimony at approximately 4:10 or 4:15 to allow Mr. Temple to come on. In the case of Mr. Temple we would hope that when he completes his remarks

would with the committees would have ask him, as far as any questions are concerned, as he will not be available later.

With that background, Mr. Chairman, at this time we would like to call the Honorable Charles Herbert, Commissioner of Natural Resources, who will speak to Alaska State and North Slope Oil. Mr. Herbert.

Mr. Chairman, Members of the Committee:

Perhaps it would be better if I got back to the map, here, from the beginning of this testimony. I want to outline something about the history of the development of oil on the North Slope, it would be short, and I presume it can be heard.

Can you all see the map that Mr. Herbert is working with here? This is a leasing map that shows the leases as of late last summer. It is the most recent one I happen to have.

In 1964 the State selected this land north of the green line, about one million, six hundred thousand acres. Now this land was considered to have a good potential for oil but no one at that time even thought that it would contain the largest oil pool ever found in North America, which is outlined in this orange area here. Now, that area doesn't mean that all of that would be productive. We know there are some dry holes, in it, and there is some argument as to what the limits of it are yet. But gives a general picture of where the Prudhoe Bay oil field is. Now, in 1964 the State held its first lease sale, largely in this area here. There was some interest in it in spite of the fact that prior to that lease sale there had been quite a lot of drilling down on the Federal land, without any success. It was recently successful and it did help the State economy at that particular time when it was pretty badly needed.

Now, there was greater interest shown in the subsequent lease sales two of which followed, and then finally what was generally considered to be the last try for oil on the North Slope, Arco, announced a major discovery in the heart of the Prudhoe Bay field.

tape 1

That was announced in 1968, in July, but actually the discovery was made the tail end of 1967.

So then the State selected another 2,854,000 acres, which is this area in here. Fortunately the land freeze came along and the State has not received tentative approval, and has not had an opportunity to lease any of these lands. However, you will note all these little squares that are filled are leases that are in effect, Federal leases that were in effect before the land was split. Some of those Federal leases have expired and quite a few will expire within a few years unless oil or gas is found on them.

Now in 1969, September 1969, fortunately considerable time, about a year had gone on since the announcement of the major discovery here, the area had been pretty well investigated, and that is the famous sale which brought in more money, I believe, than any other bonus sale held anywhere.

I can read off to you shortly the sales, the first one in 1964, December, some 476,000 acres leased; \$9.20 was the average pay per acre.

In 1965 420,000, and the average had gone up to \$15.25.

In 1967, the small sale, January, 1967, 42,000, the average price was \$34.87.

Then in September, 1969, 412,000, and the average price paid per acre was \$2,181.66.

That practically exhausted the State lands that were up there at that time, I'll come back to that.

The total bonuses then paid on this first selection have been \$912,450,585.07.

Now, what may we expect in the future? About other bonus sales? Well, we still have not leased, those plots which are shown in green. Now all of this has been offered, but they just didn't receive bids. There probably not the best in the world.



TAPE #2

When AIDA gets in. An amount that is a little difficult for us to determine right now will certainly be over a million acres. It depends upon what happens to the Federal leases that are existent now.

Then we also have the offshore lands. There has been a little leasing on the off-shore lands, not much but some. If they extend out to a line here, that is three miles beyond the outer islands, except that the Federal government has a little argument about a couple of holes in here that have to be settled yet. They are rather bothersome. We can figure that about 300,000 acres safely up there. So we are talking about still a million and a half acres and unquestionably more as leases are dropped here that will be available in the future. So since Alaska now already ranks second among all the States, very close to Texas, in the total value of oil, or the total amount of oil that is proven, why we can look forward to many years of activity in oil production in that area.

I don't believe I'd better read this now.

Now the Prudhoe Bay field alone has a proven reserve of 9.6 billion and 46 trillion cu ft of natural gas. Now to the west of Prudhoe Bay - I shouldn't have gotten down there - the Ugnaw has oil between - there has not been enough drilling for us to get a reliable estimate - our office up there says "well, you can probably figure a couple of hundred million barrels anyway" but we don't know that yet.

Now, those wells in the Ugnaw Field, that is to the West, the shaded area there, are not anywhere nearly as productive as the wells in Prudhoe Bay, so we don't know just exactly what going to be except that they will be an important addition

AGO 530564

to production up there.

Generally we feel that within the State lands there an estimate of proven and potential oil should be somewhere around 20 billion barrels of oil.

Now in addition to the production from State lands - no, I shouldn't have said that - we have other areas that probably will be developed. To the West here is the large twenty three million acre Naval petroleum reserve #4. That someday will certainly be open. We don't know when though. We certainly don't have much encouragement on it.

And to the east the Arctic Wild Life Range is close to leasing right now. But there is nothing in the law that would prevent it. And we do know that there is a major structure in here called the Marshbreak Anticline that very well could be an extremely important producer. There is a very well known and very highly regarded Canadian magazine called OIL WEEK. Their editors and experts looking over the Alaskan scene here, say that the North Slope should produce around 50 billion barrels of oil, which certainly would keep the pipelines going for quite a long, long time.

I think I should explain something about what the existing leases contain, what they amount to , and so on.

Now all the existing leases on the North Slope, the royalty is 12-1/2 percent, of the well earned value. However, those leases were issued prior to 1969, provide for a reduced royalty, down to 5% if a new field is made, is discovered on a particular lease. Now only one lease in Prudhoe Bay is entitled to this reduced royalty. And that privilege expires in 1978. Because the reduced royalty is in

Now all existing North Slope leases have a term of ten years, or as long as production is maintained. Leases may also be extended if they are committed to an approved unit agreement. A unit agreement, which are formed by pooling of interests of all leases on a geological structure, capable of or believed to be capable of producing oil and gas, carry specific drilling requirements, and must be approved by the Department of Natural Resources, if on State land, or by the U. S. Geological Survey if on Federal land, or by both, if there are both Federal and State leases involved in the unit.

Units are extremely important in conservation of oil and gas. It means that the pressure maintenance can be handled far better, and so on. Illustrative of that is the fact that the recovery from oil fields in the states has been going up as unitization has spread. Whereas in the early days I understand that some of the recovery from oil fields was down as low as ten or fifteen per cent, and the average for some time was around 20 or 25, it is now I believe 34%. We are estimating that Prudhoe Bay recovery will be 40%.

Now prior to 1969 all the leases on State land on which the State had received only tentative approval, were issued as conditional leases. The lease terms did not begin to run until the State received patent to the land. Now with the exception of the leases sold in September, 1969 sale, North Slope leases are conditional and the term of lease has not yet begun to run.

The wellhead price, which was already pretty well described in the Governor's statement, on which royalty and severance taxes are based, is stated in each lease as of #1: the price actually paid by a purchaser at the well (we just don't have any of those in Alaska) #2: the posted price by the lessee in the oil or gas field, which we do have. #3: the prevailing price paid to other producers. Now

since nearly all Alaskan oil is sold on the West Coast of the United States, the wellhead price determined by... the well head price is determined by the field price at the point of delivery on the West Coast less transportation charges. Since these charges are variable among producing companies, there is enough confusion in producing fields in Cook Inlet to get us into a lawsuit between the State and one of the producers. Since this matter is before the court I wouldn't care to comment much more on it except that I very much hope that there will be clear guidelines for the determination of wellhead prices in the North Slope, either established by a directive from the court or by a general agreement.

Now all oil and gas produced in State lands on the North Slope other than off-shore lands, is subject to payment of 2% of the gross value, that is the wellhead price, to the Alaska Native Fund, until such time as five hundred million dollars has been paid into that Fund from all sources of State income subject to such payment. Although provision for payment to the Alaska Native Fund effectively reduced the State royalty on the standard oil and gas lease, to 10-1/2%, that payment is treated in State accounts as an obligation against the State Treasury so we do not take it into account in estimates of State income from minerals.

The way we figure royalty after the deduction of the royalty from the wellhead price, the remaining value is subject to a State severance tax based on the rate of production from each producing well. This tax on oil is 3% on the first three hundred barrels, 5% on the next seven hundred barrels, 6% on the next fifteen hundred, 8% on all production over twenty-five hundred barrels per day. Severance tax on natural gas is 4% of the wellhead price, regardless of the rate of production.

Now I have an example here of the derivation of State income from royalty and severance tax. If we assume and this is strictly for simplicity sake, the wellhead price of \$1.00 a barrel, the State royalty at 12-1/2% would be 25 cents, leaving a residual value of \$1.75 that is taxable. I figure the severance tax - we don't know just what it will be at 7%. I note that the Governor's statement used 7-1/2%. We don't really know what the rate of production will be. Using 7% that is another 12 cents for severance tax, so we combine the 25 cents royalty and the 12 cents severance tax to get a State return of 37 cents per barrel, which is 18-1/2% of the wellhead price, and 18-1/2 or 19% is a fair figure to use when you estimate the value of the production from the North Slope.

Now, for natural gas, figuring it the same way, it is strictly 16% of the wellhead price.

I hope this may help some.

Thank you.

Thank you, Mr. Herbert.

Thank you Mr. Chairman.

JOHN HAVELOCK: Attorney General to the State of Alaska will now present his own statement.

I would like to give the committee some information about the Federal role in North Slope Oil, ITC Regulation, how it works, and the issue of Federal pre-emption.

The word "regulation" as applied to pipelines encompasses a broad spectrum of

North Slope.

Now, for natural gas, figuring it the same way, it is strictly 16% of the wellhead price.

I hope this may help some.

Thank you.

Thank you, Mr. Herbert.

John Havelock, Attorney General to the State of Alaska, who will now present his own statement.

Mr. Havelock: Thank you, Mr. Chairman. I would like to give the committee some information about the Federal role in North Slope Oil, ICC Regulation, how it works and the issue of Federal preemption.

The work "regulation" as applied to pipelines encompasses a broad spectrum of the police powers of the State. At this point I will discuss only economic regulation, meaning some form of control over the rates that may be charged for transporting oil or gas. As has been noted, these rates or tariffs, together with tanker rates, make up the transportation cost for oil. The transportation cost is subtracted from the refinery sale price of oil in order to arrive at the value of the oil as it comes out of the ground and before it is shipped anywhere.

Since our State revenues from severance taxes and royalties on North Slope oil currently depend on the wellhead value of the oil, the State has been studying the existing scheme of federal pipeline tariff regulation in order to see precisely

what controls there are to assure that a fair tariff rather than an exorbitant one will be charged. Simply stated, our conclusion is that if existing federal regulation applies to the Trans-Alaska pipeline and applies alone, no assurance is provided that tariffs will be reasonable from a State point of view. Nor, despite common carrier status, does it assure completely equal standing among all who might need access to it in later years for shipment of oil.

Existing federal regulation is shared by two agencies: the Interstate Commerce Commission (ICC) and by the Antitrust Division of the U.S. Justice Department. The Interstate Commerce Commission is given authority by specific statutes. The jurisdiction of the Justice Department arises out of the fact that the pipeline is a monopoly.

While it is clear from the factual situations and stipulations filed with the Department of Interior that the Trans-Alaska pipeline is a common carrier, it is not necessarily clear that under all circumstances the ICC necessarily has jurisdiction. In general, if there is a break in the ownership of the transportation facilities so that the pipeline is a completely separable operation, then there is a good possibility that ICC jurisdiction does not exist.

However, it is my understanding that the method by which the owners now plan to operate the tankerage portion would involve ICC jurisdiction over the entire transportation route including the pipeline.

The ICC has some jurisdiction over all common carriers engaged in the transportation of oil from one state to another state; but jurisdiction over pipeline is far more limited both by law and in its exercise, than the ICC's sway in other areas, such as trucking and shipping.

The Commission ostensibly determines what constitutes a "reasonable" tariff and whether any carrier is charging in excess of that standard. According to regulatory standards previously established by the ICC, that tariff includes a maximum profit of 8 per cent of the valuation of a pipeline. Under an antitrust consent decree, the maximum dividend allowable is 7 per cent.

In its determination of whether any given carrier exceeds this rate the ICC reviews data sent to it by owner companies regarding the valuation of a pipeline. The companies also publish their tariffs, which the ICC may challenge as unreasonable in the light of a given valuation.

The antitrust aspects of regulation stem from a compromise settlement entered into between the United States and various pipeline owners in 1940. That settlement was arranged to satisfy a federal complaint that the pipeline owners were taking too much profit, constituting an illegal rebate of tariffs to a few owners at the expense of all non-owners. Basically, it limits the dividend that a pipeline owner can take from pipeline operation to a percentage of pipeline valuation.

We will present later an analysis of specific weaknesses in this regulation of tariffs by the ICC and the Antitrust Division of the Justice Department. Immediately, however, four difficulties are obvious when we consider Alaska's situation.

First, regulation merely on profits or dividends as a percentage of valuation provides no control over costs. An increase in cost can be added directly to the tariff per barrel so as to maintain the same percentage of profit. Consequently, even under the most responsible management, cost control is not subject to the usual incentives. This situation also creates an incentive to shift costs from non-regulated operations to the pipeline operation since profits on non-regulated

operations will be enhanced and the costs will merit an increased return on the pipeline tariff.

Second, you will recall that profits are restricted to the sense that they are restricted to all, merely to a percentage of the valuation of the pipeline. This restriction does not distinguish between the ways in which funds for the pipeline are obtained. The result is that a high level of debt financing enhances the profit. Pipeline valuation may well be made up of a large percentage of lenders' money and only a very small percentage of owners' money. As a consequence, the actual profit the owners make on their money may be as much as 100 per cent per year. By contrast, other regulated public utilities are normally limited to a return that will adequately compensate those who have provided the cash to run the business. The pipeline owners will be making a profit on lenders' money as well as their own.

Third, on the basis of past performance, it may well take the ICC four years to establish a value for the Alyeska pipeline. Obviously, since its regulatory program depends on knowing the pipeline's valuation, it cannot regulate in a meaningful way during those four years.

Fourth, because of ICC procedures, the actual tariffs and profits on the Alyeska pipeline may be far higher than the 7 to 8 per cent limit I mentioned earlier. The reason is that the ICC will not consider the Alyeska pipeline alone initially in determining valuation. Instead, the ICC will lump it with all other American pipelines owned by the owners of Alyeska and in effect see that the over-all average tariff charged is "reasonable". By such an averaging procedure, tariffs and profits

on the Alaska pipeline may be set high since the overall figures may be brought down by lower rates on other lines.

How can an industry operate under such a weak regulatory program when it supplies a commodity that is a necessity to millions of users of gasoline and heating oil? The answer is that the industry is essentially self-regulatory. The owners of pipelines, who may also be producers, agree among themselves as to the fairness of particular tariffs. They operate under an unwritten rule not to wash their laundry in public. As long as the agreement is lived up to, no one complains; no one spurs a tariff investigation. The ICC has a right to complain on its own, but as a matter of practice in the years, it has never done so. With no complaints from any source, pipeline tariffs go unchallenged. Although the ICC has a section of personnel that review pipeline evaluations, no personnel are assigned to investigation or rate review otherwise.

Just from this brief explanation, it is clear that the ICC does not fully regulate the operations and tariffs of those pipelines which fall within its jurisdiction. It is also clear that federal law does not cover the whole area of pipeline regulation.

This brings me to the matter of pre-emption. Pre-emption is a legal doctrine which means, in the case of the Alyeska pipeline, that the State may not regulate the pipeline as to matters where specific federal legislation applies. Occupying the field the ICC does not regulate all aspects of all pipeline operation, even all aspects of economic regulation. For example, there is no effective regulation at all during the years when pipeline valuation is being set. Furthermore, unlike the situation with railroads, the ICC has no control over the construction of new pipelines, over the abandonment of pipelines, over security issues of pipelines, and

19D-1

no basis for regulating consolidations and acquisitions of control. As can be seen, the internal proprietary arrangements of owners are relatively free from scrutiny by the ICC. To the extent that the State interest in pipelines are based on proprietary agreements between the State and owners in the industry, and not, on their face, regulatory, the ICC review is limited. In view of the limited scope of action by the ICC, and the notable lack of action historically by the ICC, we believe that federal law does not govern the entire realm of pipeline regulation. The State, with its strong interest in the Alyeska pipeline, may thus regulate on its own and such regulation, if carefully prepared, would not be pre-empted by federal authority; to the extent that such legislation is pre-empted it would not have any effect on the residual authority which would be retained by the State under the authority of its Statutes.

Even if we assume that the State were challenged because the matter of federal pre-emption was held to be unclear, the courts are required to balance the interest of the State and of the federal government in the specific regulatory program. Since the State of Alaska's interest in this case is so overwhelming, Alaska has a much stronger argument than any other state for allowing it to impose effective regulations to protect the State's oil value. Lastly, even if pre-emption were allowed, the findings of a State regulatory body would have a strong effect as an advisory opinion to the federal body on the reasonableness and appropriateness of rates. The means for implementing such state regulations will be discussed later. I should like to point out in conclusion now, however, that the whole complex matter of regulation vanishes with State ownership of the pipeline. With ownership, the State itself will be establishing tariffs, instead of being plunged into a maze of corporate accounting procedures from which it hopes to exit with a knowledge of "whether tariffs are reasonable". Pipeline ownership is a most effective means of assuring that transportation costs stay low, and the wellhead value of our oil re-

mains high. Ownership simply and directly works to assure Alaskans that they will receive what is due them for oil that is taken out of the State forever.

That concludes my statement, Mr. Chairman.

With your permission, at this time I would like to call out of order, Mr. Peter Temple, of H. H. Temple, Barker and Sloane, who are pipeline consultants to the State of Alaska.

Thank you.

Mr. Temple: Members of the committee. My name, as explained, is Peter Temple. I am president of Temple, Barker and Sloane, economic consultants to the State, for the past several months, on the matter of the pipeline.

I would appreciate the opportunity of addressing this committee on essentially three points which have fallen within the scope of our work with the State.

First is the question of the desirability of pipeline - of state ownership of the pipeline. Is this indeed desirable, essentially from an economic point of view, and if so, why?

Secondly, I would like to review with you the objections that have been stated against ownership, chiefly by the oil companies, but by others as well, and finally to explore with you some of the alternative means of meeting the objections that have been raised and considering how, if at all, State ownership might be possible as a means of serving the interest of both the State and the oil companies, in this vital issue.

Turning first to the question of the desirability of State ownership, there are essentially three points which, taken together, I believe argue very strongly for consideration of State ownership of the pipeline.

The first has already been - - - the protection of the State's existing interest in royalties and severance taxes.

The second is the need to establish and maintain in Alaska, both an oil transportation system and a general economic climate that will be conducive to not only further exploration and development by the companies already on the North Slope, but other companies as well who may be necessary to maintain a competitive market for the leases, which are of major interests to the future of Alaska.

Finally, there is the opportunity for additional revenues to the State that could flow from State ownership.

I believe the principal in originating reason for considering State ownership is to protect the State's existing interest in royalties and severance taxes. And these interests are substantial. We have already heard discussions of the royalty ranging from 12 1/2 per cent and severance taxes ranging from 6 to 8 per cent, which means that the State has an interest ranging from 18 1/2 to about 20 1/2 per cent in every barrel of oil. We further know that the Trans-Alaska pipeline will have an estimated annual thru-put of about 750 million barrels. In assuming a well has a value of \$2.00 a barrel, that means the royalties and severance taxes would yield somewhere in the neighborhood of 300 million dollars a year. If the well had values as high as \$2.50 it could rise to three hundred and seventy-five. Now while at wellhead value, there is a matter of considerable speculation. I think it is clear that the interest to the State that we have been discussing is

approximately double the State's present recurring revenues from all sources. I find that a fairly formidable figure the interest that we are talking of protecting is approximately double the State's present recurring revenue from all sources. Now the question is, what jeopardy is realistically posed to these interests under private pipeline ownership? That jeopardy I believe arises from a combination of essentially three factors.

First is the fact that the royalties and severance taxes are as we have discussed, based on wellhead value.

Second is the difficulty of providing for adequate regulation and - - - of the pipeline tariffs and costs under ICC jurisdiction.

Thirdly the particular problem of regulation that is posed by the form of ownership that the companies are proposing for - - -, that of the undivided interest. Now let's look at each of these.

When we say that the royalties and severance taxes are based on wellhead value, what we mean is simply that they are based on the refinery sales price less cost of transportation to the refinery, and the transportation in this instance consists not only of the pipeline move but also the marine move to the refinery itself. Now this means obviously the State has an urgent concern with economics of both of these transportation moves since the tariffs on both are deducted before the royalty and - - - transportation for the State.

However, most of the comments that I will be making are addressed to the problem of the pipeline cost because they are somewhat larger and also more susceptible to State control at this point. I would like to underscore that the economic marine

move is likewise not a matter of indifference to the State.

Some indication of the sensitivity of the royalties and severance taxes and transportation costs can be seen in the fact that with the pipeline to full capacity a difference of one cent - one cent a barrel - in the tariff, is estimated to result in a difference of roughly one and one-half million dollars a year to the State, in royalties and severance taxes. A difference of one cent per barrel in the tariff is estimated to result in a difference of roughly one and one-half billion dollars a year to the State. Put another way, that means this: a one cent variation in the pipeline tariff involves a difference in state income equal to one per cent of your present recurring revenue. Now, what we see accordingly, I believe, is that the State has a vital interest in knowing the pipeline move and the marine move are both economically carried out and if the operations of both are efficient and if the costs are reasonable and rational. Now the question might well be raised, well then the oil companies likewise a motivation and interest in maintaining rational costs and tariffs, especially in view of the fact that an appreciable allowance attaches to the wellhead value. This, to think about it, it seems to argue that the companies have an interest exactly like that of the State in maximizing wellhead value. And within limits, that is true. But the limits may be important. First of all we have to recognize that the companies have heavy asset commitments in both the pipeline if they own it, and in their shipping operations. And they have an understandable interest accordingly in recovering all possible - - - costs and achieving maximum profit ability there. This may be possible.

Second, tax considerations may argue for allocating as large a proportion of earnings as possible to a company's pipeline operation. Now, do I understand, I think we have to recognize that the pipeline operation for the most part held and managed through pipeline subsidiaries and many of these subsidiaries have accrued

or will accrue under conditions of private ownership, a substantial tax loss carry-forward, which can be used to shelter their earnings, in some instances they can be used to shelter only pipeline earnings and they will, as I indicated, probably would accrue and increase the amount of losses in the early years of any TAPS operations.

Now if there is a specific time limit on the use of the tax loss carry forward whereas there is no time limit as we are aware on the depletion allowed, and this means that for some companies sound business strategy may argue for maximizing the pipeline tariff and profits for a given period in order to make sure that the tax law is beneficial to you, before the expire.

Our investigation of the TAPS - - -

P. Temple:

To the companies concentrating enough earnings in the pipeline to use those tax losses to their full. Now, one point to bear in mind is in making any choice between optimizing earnings along the wellhead, the pipeline and the shipping operations and these are essentially the three parts to which the oil companies can choose to allocate or concentrate, within constraints obviously, ah, revenues. The companies having 100% interest, collectively in the pipeline and in their shipping operations, whereas they have approximately an 80% interest in the wellhead owing to the fact that this state has approximately a 20% interest through the royalties and the severance taxes. I want to emphasize that in seeking to work out a sound business strategy, the oil companies are not doing anything improper or illegal, ah, in these motivations. It is to say that what is economically rational, from the viewpoint of the state, is not necessarily economically rational from the viewpoint of the oil companies. Now, given these differences in motivations, and given these differences in perspective, very honest differences as to what is reasonable, the quest in terms of the process or mechanism by which the state can be assured in the pipeline tariffs and costs and earnings, a reasonable, from his point of view, and that the state's royalties and severance taxes are based on a reasonable wellhead value. Now that process or mechanism by which the state can be assured in the pipeline tariffs and costs and earnings, a reasonable, from his point of view, and that the state's royalties and severance taxes are based on a reasonable wellhead value. Now that process or mechanism we know

is regulation and in this instance we are talking specifically of regulation in a situation where the ICC has jurisdiction. Now, this brings me to my second point which is the difficulty imposed in seeking to regulate under circumstances of the ICC jurisdiction. First of all, while there may be some differences among the lawyers as to the exact realities on jurisdiction, it seems to be fairly well foregone that TAPS, whether privately or publically owned, would be under the ICC _____ . The problem that then is posed for the state is that under the supremacy clause of the Congress, that Mr. Havelock just referred to, the state's approach to pipeline regulation must, at a minimum, be consistent with Federal approach. Moreover, even when consistent with the Federal approach. Moreover, even when consistent with the Federal approach the state is constrained, ah, in extending that approach in such matters as reasonableness of tariffs, for example, on the grounds that the Federal role preempts the right of the State to enter the field and that state entry might even be interpreted as interference with, or an unnecessary burden on interstate commerce. The legalisms of this will be addressed by others.

The key question from an economic viewpoint I believe, is whether under circumstances of ICC jurisdiction the state first can readily systematically and economically obtain the information it would require to satisfy itself under reasonable pipeline costs of the tariffs and second, if it can get that information and in the detail required, can it then promulgate or effectuate reasonable tariffs, costs and earnings given the historical criteria and standards that the ICC has employed in dealing with such matters.

Now before addressing those questions directly, let me make an observation about the ICC rule in pipeline regulation. Neither legally nor administratively does the ICC play the same role in pipeline regulation as it does in rail, truck or barge operations. Ah, the legal differences others will address for example is the administrative differences ah whereas for example the ICC does have a group who are concerned with making the annual evaluations required on pipelines. It does not have a specialized pipeline section as it has a rail section and a truck section. Ah, perhaps related to this is the fact that whereas it is commonly known that the ICC docket is continuously filled with litigations and hearings and cases on rail and truck rates and other matters, there's not been a single hearing with regard to pipeline rates before the ICC since 1940 and that hearing was not an ICC hearing, that is, was established earlier ah, was at the intervention of the Department of Justice and ended in the well known consent decree to which we referred earlier. I think it's significant that, that consent decree has perhaps more regulatory force today in pipeline operations than does the ICC itself. That perhaps speaks a good deal to the point that if the ICC isn't exactly moribund ah, in pipeline regulation it at least is inert. Now the reason for this I think has been alluded to that the real limitation on what the ICC will allow for rates is what shippers are willing to agree to, and if the shippers agree to the rate there will probably be no complaint and the ICC will not intervene. In thus in the circumstances of private ownership the shippers will be agreeing with their subsidiaries essentially on rates and if perchance there is a user of the pipeline who is not an owner the custom within the

industry has not really been to challenge the rate because the situation probably will reverse itself fairly soon in which one of the present owners will subsequently be a shipper or he does not have ownership interests.

But now lets address the question of data available within the constraints of ICC jurisdiction and then the problem of effectuating reasonable tariffs. As to data the standard chart of accounts withing the -----, that is employed by the ICC in pipeline regulation is much too gross to provide a truly meaningful insight in economic terms into the operating costs of the pipeline. It does not permit, as Mr. Havelock established, an assessment of overall economics, but not in details that would be relevant to the needs of the state in attempting to regulate the pipeline to establish the reasonableness of those rates. Second, the data tends to be more oriented to the evaluation and control of overall pipeline companies than to the evaluation and control of individual pipelines. Now thats a point we will come back to when we speak of the undivided interests problem. Now as to the problem of effectuating reasonable rates, the major difficulty here is that the ICC uses the return on fair value concept as the principle basis in rate making and in practice return on fair value has become return on replacement value which seems to have a rather dubious relationship with the operating realities of a pipeline. By using replacement value as the basis on which earnings are measured, the ICC in an inflationary economy is allowing an absolute increase in earnings every year since the replacement costs are theoretically increasing every year. The fallacy in this so called fair value concept is that pipelines are seldom, if ever, replaced. Abandoned, yes, when fields go dry or sometimes ripped up and installed elsewhere. They have virtually inexhaustible life and it's difficult to find a single instance of a pipeline ever being replaced as such. It may be replaced by a larger pipeline, but the concept of replacement of the line as such is virtually unknown, yet the ICC regulates rates essentially in the, on the, on the, on the assumption that replacement is the common rule of the industry. Now other measures which the ICC might reasonably employ which might result in quite a different rate structure, a return on equity, or

a return on the total invested capital. Some indication of how this would alter the rate structure I think might be found in the example of Humble Oil ah, in its pipeline subsidiary. By working under the ICC return on fair value concept in the year 1968 which gave it an implied limitation of 8% on fair value. The earnings of the Humble Oil pipeline subsidiary provided 30% return on sales and a 23% return on the stockholders investment. 23% return on the stockholders investment and a 30% return on sales. Now you want to think about those figures when you realize that is the level of profitability that would be allowed before the state would be entitled to come for its computation of the return on the well-head value. That is essentially the problem that we're concerned with here. Let's say if Alaska were to attempt to regulate the pipeline under ICC jurisdiction we'd have dual problem of getting data adequate to determine reasonable tariffs and then secondly attempting to effectuate changes in rate structure that are not consistent with the criteria employed by the ICC and which seem open to some question. But I think to get the problem of regulations full perspective you have to go to the next step and to understand the third of the factors to which I refer and that is the oil companies intended use of the ownership form know as the "undivided interest". Now, the ideal pattern of regulation, of rate rationalization, would be where we had a single pipeline owned by a single corporation and in a situation of that sort all cost and revenue information could be easily evaluated for rate rationalization and a single rate structure would be the result. Now what's involved in the undivided interest situation is about as far away from that simplicity as its possible to get. Under this form of ownership, the pipeline would be owned, not through a single corporation, but rather each of the seven companies will hold its interest in the line directly through its pipeline subsidiaries. I think it's easier to think of it perhaps as a partnership-type ownership, but the partnership of the companies is then integrated in the pipelines subsidiary. Now the most important thing is the impact this has on the tariffs. Under the undivided ownership pattern, undivided interest ownership pattern, the tariffs charged on the Trans-Atlantic, Trans-Alaska Pipeline will not be a function of the economics of that pipeline, but rather a function of economics of all of the pipelines owned by each of the companies.

I think that's a point you want to think about a great deal. The corollary of this is there will not be one rate structure which the State of Alaska would have to rationalize, but at least seven - one for each company that holds an interest in the pipeline. The complications posed here are pretty obvious:

Number 1 - This means one needs data to evaluate this not simply on the operations of Alyeska, but on all other pipelines that each company owns and operates. Think of the mountains of data that are required to make an assessment within that context.

Second: It calls for an evaluation of that data and the manpower and the cost requirements for that sort of rationalization are enormous. If your interest is in keeping consultants and lawyers occupied, it's a good way to go.

Thirdly, above all, is the difficulty then of trying to argue from whatever conclusions you come to because then the burden would be upon the state to rationalize and demonstrate in this welter of figures any differences of view that it may have with the oil companies or the ICC.

I submit that if the job of regulation is possible at all under these circumstances, it is surely one of the great and thankless labors of mankind and probably not readily within the capacity of any one of the states of the United States. I conclude accordingly that regulation within the context of ICC jurisdiction an undivided interest ownership affords very thin protection at best for the state's interest in royalties and severance taxes. This is the principle reason that state ownership merits the consideration of this committee.

And now may I address briefly the other two reasons that I think argue for consideration of state ownership. One is the necessity for maintaining a climate for encouraging further exploration and drilling on the North Slope, not only by the companies now there, but by others as well. This is necessarily, necessary to insure a strongly competitive market for peak release sales. The problem that is posed is the risk that ownership of the line by the companies now on the Slope could become a device for

minimizing future competition by making accessibility to the line unduly difficult or unduly costly. Now, I'm not saying this with any reference to the individual companies here involved. My reference point rather is the history of pipeline operations in the United States. This has been a problem that has plagued the industry from the time the first pipeline was layed and all of those who are familiar with the theory that ICC regulation is supposed to prevent this problem would be naive to assume it cannot arise in Alaska, as well as it has elsewhere. I think being able to assure future lease holders of equal access to and equal rates on a state owned pipeline would go far to assure the value of future lease sales.

Finally it is the matter of the incremental revenues that might accrue to the state if it owned the pipeline, the revenue from pipeline profits. It's clear that some profits would accrue and I've seen figures that argue it might rise as high as \$200 million dollars a year. I would make the observation, however, that its unlikely that state ownership will increase the profitability of the pipeline in strict economic terms. Incremental profitability that is talked of under state ownership derives chiefly from text considerations, namely the avoidance of the income taxes and tax exempt financing. These certainly can produce some significant savings but tax matters are always subject to legal and administrative interpretation, ah my own views that pipeline earnings could provide a significant addition to state revenues, assuming the proper tax approvals are received but that this is not the primary basis for considering state ownership. That is the protection of the states existing interest in royalties and severance tax.

I would like now, if I may, to return briefly to the question of the objection raised in state ownership. I think publically the oil companies have identified at lease three objections. The first is that they question whether the state is able to finance the pipeline without drawing an oil company credit in the form of the customary "hell or high water, thru-put agreement! Within the industry the typical instrument used to accomodate financing is a thru-put agreement and the term "hell or high water" is used to indicate that regardless of whether or not, under these agreements on ship oil, one

is obligated to pay for it. Highly binding, and within the oil industry when one speaks of a thru-put agreement, it is typically understood that the shipper pay, or "hell or high water" agreement is what is intended.

Now the oil companies are, I think, very understanding, I think, realistically have said if the state were to build and own the company, the pipeline on its own, could they do this without encumbering the credit of the oil companies and it's a very realistic objection. It hardly would be proper on the one hand for the state to own the pipeline and to finance it with the assets of the oil companies on the other. A second concern that has been raised by the companies is a matter of principle. A question of the propriety of the state moving into an area where private enterprise is prepared to invest. Thirdly, I believe publicly, the oil companies have indicated great concern that may, about the points that discussion and exploration might result in delay of the pipeline. Now I think privately, the companies have indicated a couple other concerns. One, they question the competence of the state to build a pipeline. Is it indeed a qualified source for what looms as one of the major engineering enterprises of world history. Second, even if the state could build the pipeline they've raised the question whether again undue delay might not result. Finally, I think there has been a good deal of concern about political manipulation that might result in state ownership of the pipeline. This could manifest itself in several ways; a higher cost of construction if under state ownership there were an inclination to use more local labor than might otherwise be used on the job. The question, likewise, if whether or not over the long term, the tariff structure might not be affected as fiscal problems arose and somebody suggested well isn't the easy solution to that problem to increase the tariffs on the pipeline, pump out a little more profit and apply that to the solution to our fiscal needs.

AGO 530587

These are the principle objections that have been expressed, but before turning to the question of how these objections might be addressed, I think it useful to recognize that there may be at least two respects in which the thought of state ownership may not wholly unwelcome to the oil companies. The first is that if the state owned the pipeline, it would relieve the oil companies of around 3 to 3 1/2 billion dollars worth of

financing they would otherwise have to undertake themselves. While we may think of the oil companies as being capable of financing almost anything, I think that if we understand a little bit of the situation in the industry today, some of the particular companies in the industry, this deserves a little further thought. The United States oil industry as a whole, in contrast with previous periods, is now in a relatively cash lean position. This has to do with the fact that there are many heavy cash obligations on the oil companies and what has been historically, a business that has been cash generating, is now a business that is increasingly going to banks and other financing sources. The cash is needed not only for exploration, of the type that is going on here, to try to expand domestic ----- sources, but also to expand refinery operations and to meet some of the demands for pollution control. Examination of the balance sheets of the companies that are on the North Slope reveals that the dead equity ratios of all of them, increased in the past several years confirming this point and that the current ratios have all declined. By dead ratio we mean the relationship of debt to equity in the total capital structure and by current ratio we're speaking solely of the relationship between their current assets and their current liabilities. Current assets being income, cash or income convertible into cash within the year - current assets being liabilities that must be met within the year.

Now against this background, the original estimated pipeline cost, has risen from 1 billion dollars to approximately 3 1/2 billion dollars. This means that the companies in this situation are now confronted with triple capital requirement than they originally planned for the pipeline. Further, they've had to invest and keep going their exploration and drilling activities on the North Slope, preliminary to pipeline construction. I think we can construe that from this front might be welcome to at least some of the companies. The second possible advantage I think, in state ownership is the possible reduced opposition to the pipeline from some of the environmental groups. Some of the environmentalists have gone on record to the effect that they would feel easier with state

ownership of the pipeline as opposed to private ownership. The advantage of this of course is that it could reduce some of the expected legal delays and thus speed the start of construction.

Now as to the question of how some of these objections, at least to the oil companies might be met in a matter compatible with state ownership and indeed made to serve both state and company interests. Of the five objections that I cited, the first was the objection to the use of oil company credit to finance the pipeline and I think everyone would agree that is a fairly realistic objection. The real question that was being raised is, "Does the state have the ability to finance the pipeline other than by itself?" I think that there are at least two alternatives that are open and both of these, let me say, are informal plans, they by no means are plans of the state at this point, and you will have further testimony regarding at least one of these plans within the next day or so from my associate, Mr. Gilderhouse. But the first of the plan is based on the rather simple premise of cooperation with the oil companies and with the concept that the pipeline would be constructed by Alyeska under contract to the state. And the essence of the agreement is first and foremost that there would be no thru-put agreement of the conventional 'hell or high water' take or pay variety, but rather that the companies would enter into an agreement with the State of Alaska, or its authority, whereby they would agree to ship through the pipeline a minimum number of barrels a year, on an annual basis. Further they would agree to use only the Trans-Alaska Pipeline for the shipment of oil from the North Slope until all the bonds associated with the pipeline were amortized. Finally, that they would sell or otherwise assign oil at the wellhead to another company, or to the state if need be, should they not plan to ship the required minimum, so that another company or the state could ship the oil. Further the state would, in these circumstances, try to provide the users with some reasonable assurance about rates, some sort of

formula approach to rate rationalization so it could be understood from the beginning that the type of political manipulation that the companies are concerned about would be sheltered as far as possible.

Finally, as I said, the Alyeska would construct the pipeline under contract to the State with full performance and completion guarantees. And that as I say would be the essence of the agreement, it will in no way encumber the oil companies' balance sheets or draw on their full faith in credit. It would employ Alyeska, which has the prime capability to build the pipeline to do it, and I think one of the things that's interesting is that they would have a mutual interest in trying to minimize construction costs on that basis. The companies would want to minimize the construction costs because the construction costs is a primary consideration in rate formulation and the State naturally is anxious to keep that cost as low as possible as well. That is I say, would be a financing approach that is based on the assumption of cooperation between the state and the oil companies. There is another financing plan that is possible that we've had some discussions on, that would involve bringing in financing, probably from a private party, and in the magnitude that would be required. But in that situation, we would not be presuming the condition that is modified thru-put agreement, such as discussed here.

Now the second objection that the oil companies raised was that the state was not competent to build the pipeline. I think, I believe the Governor has stressed this from the very beginning that the proposal would be that Alyeska would build the pipeline under contract to the state, under a tentative agreement. Insofar as the concern about the pipeline becoming a political instrument which might eventually be used to try to solve future fiscal problems, I think the key here would be the creation of a pipeline or transportation authority which in its design and in its appointments would be insulated as fully as possible, both

legally and administratively from political pressures. I think that the Port of New York Authority may be an example of the type of institution that can be structured today and on the one hand to meet a public need and on the other hand to reasonably protect it from political pressure. I think a way of greatly augmenting the benefit of a structure of that sort would be to appoint to it people who demonstrably had an understanding of oil companies interests here as well as the interests of the state and the taxpayers of Alaska. There is finally the question of, that was raised by the companies as a matter of principle and that is whether the, whether it was indeed proper for the state to seek to take over a business enterprise where private enterprise was prepared to come in and make an investment. I think the resolution of that problem is not something that's appropriate for somebody from outside the state to try to address. It obviously gets its philosophic consideration of the broadest nature, it is a matter that has to be rationalized. The only observation that I would make on it is that given the magnitude of the figures of the pipeline investment and oil company operations that were introduced here earlier in testimony. It is very clear that Alaska is, in all likelihood going to become something of the pattern that is known historically as a single commodity economy and it is also, I think, pretty well known to us that where you have a single commodity economy, a typically political power and a good deal of economic influence gravitates to those persons, or corporations who control the commodity and therefore it seems to me that the argument that it may be necessary for the state to step in and seek to hold some of that economic power in its own hands as a means of achieving political balance deserves consideration.

The final question of course that was raised by the pipelines was that of the possibility of delay if the state sought ownership, I think there that the principle hindrance of delay now, if we understand the signals from Washington correctly, is in terms of suits from the environmentalists. As I have said it

would seem to be distinctly possible that there would be lessening of tension on that front if the state were to _____.

Thank you Mr. Temple. We are going to have questions now from members of the Legislature. First, members of the Senate Commerce Committee. Mr. Temple, do you want to stay there for questions? First the members of the Senate Commerce Committee and then the House State Affairs Committee and then other legislators that may have a question for Mr. Temple. We're doing this out of order because Mr. Temple must leave Juneau this evening and I'd like to say this before we get started with the questions, will the press please use a little restraint in photographing the witnesses in front here today. It is very disconcerting to have their microphones knocked over in the middle of a presentation.

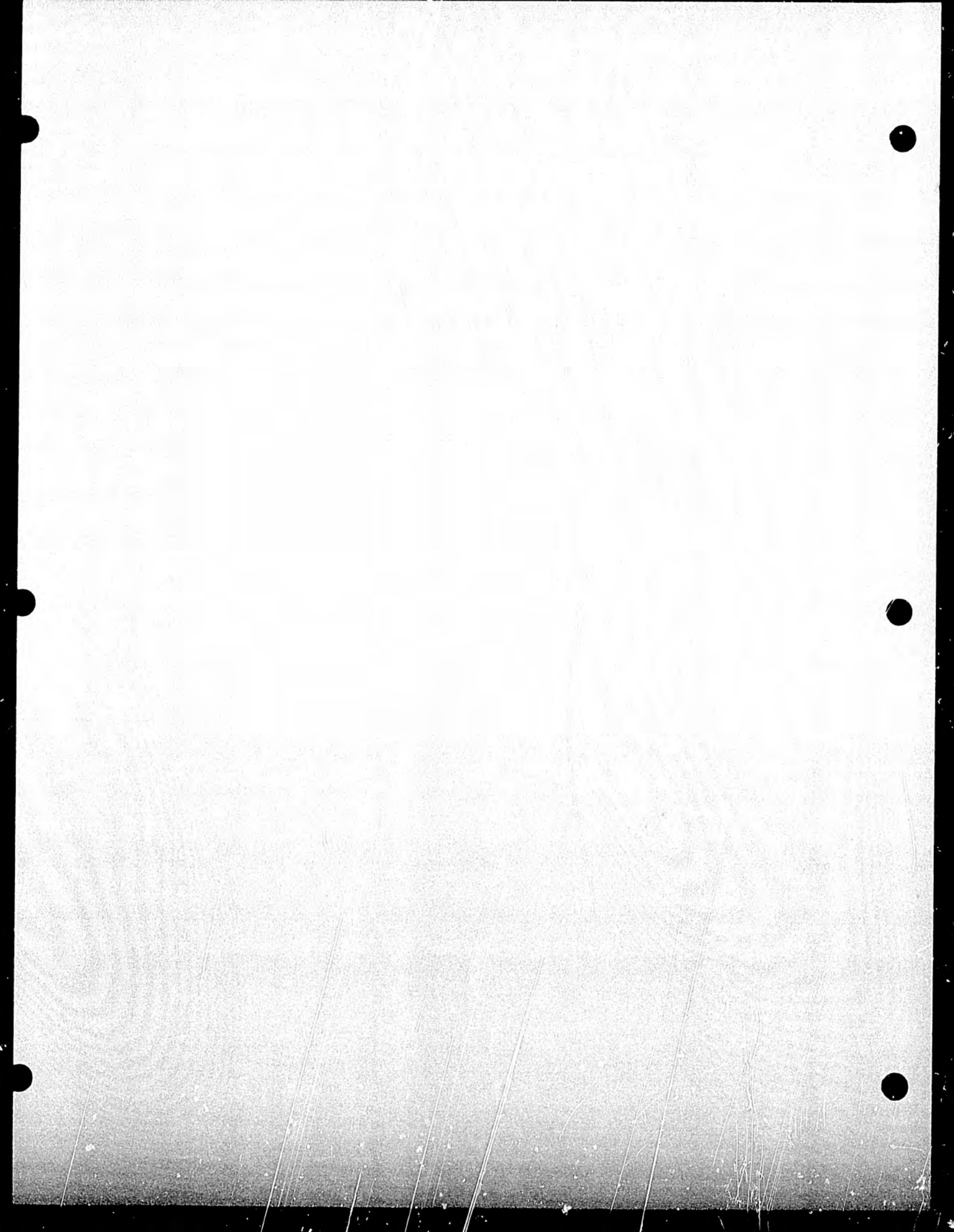
Members of the Senate Commerce Committee, do you have any questions? Senator Groh.

Senator Groh: Mr. Temple, in connection with your premise that ownership is the most desirable end here, my question goes to how we presently acquire the interests of Alyeska in what they have in the form of private property, some 800 miles of pipe that has apparently been paid for and is spread in three locations in Alaska. Do you envisage how we're going to get their interest in that particular property?

Mr. Temple: No. 1, I would say that if the state were preparing to assume ownership of the pipeline, it would have to be prepared to reimburse the oil companies for all proper expenditures to date, including those items you called out. In the process of doing that I expect the first requirement here would be an agreement, have to be an agreement between the companies and the state, if they were indeed interested in exploring. This is a possibility of mutual benefit.

Senator Groh: And would you envisage further that whatever administrative and other costs they have had to date in promoting the pipeline also be reimbursed to them?

Mr. Temple: I would say that the next step would be to try to draw up a list of criteria as to costs that would be properly supported by the state. I would not want to say that all costs as represented by the oil companies should necessarily be accepted by the state. I think the state would have to



TAPFY

Groth: to be expended. And their physical assets to date before ownership can proceed if the companies wouldn't agree to that. Doesn't that end the ownership discussion?

Temple: It ends the ownership discussion, I think only in so far as a financing plan based on the particular program I laid out. Other financing programs are possible.

Groth: You wouldn't suggest that the state duplicate 800 miles of pipeline?

Temple: No, I dare say that if the state, however in its infinite wisdom and this committee, should decide that they felt ownership was necessary that the state could exercise its powers to work out agreements whereby it would repurchase and build a pipeline. I understand.

Groth: But we don't have any powers of eminent domain over personal property. I want to know how you propose that the state get that personal property from the oil companies.

Temple: If it is taking, if the oil companies are ultimately decided they did not give up that property, there's no question., they would not have to do it.

Groth: So wouldn't it be more desirable from your view to find out from the companies whether they are willing to enter into that agreement at this stage of the proceedings before we pass ownership legislation?

Temple: I certainly think exploration with the companies is prime importance.

Groth: Absent their agreement we're not going to have any ownership ac-

ording to you.

Temple: I said I believe it is possible to have ownership by the state without their agreement. I think that's distinctly a less desirable alternative, but I can conceive that you could build the pipeline on your own if you choose to do it.

Groth: Just by duplicating what they have done in buying another 800 miles of pipe and leaving them with what they have.

Temple: It's theoretically possible, I agree with you it is economically absurd, but its possible if you decide that the interests of the State so requires.

Groth: Isn't your thru put agreement that you talk about really a thru put agreement, you say its a modified thru put agreement made with cooperation, but it's really in the final analysis a thru put agreement which you have their agreement on isn't it?

Temple: You have to have agreement, the essential difference, Senator between the typical thru put agreement and the one that I discussed, will be presented to you in much fuller detail, is that it in no way encumbers the balance sheet of the oil companies.

Groth: Then may perhaps Mr. Chairman, if I might just, one other question, indicate that the undivided interest ownership formula is an undesirable thing, if they went the other way wouldn't they be in violation of anti-trust?

Temple: I'm not sure that they, you mean if they had a corporation.

Groth: Yes, yes

Temple: Well, as you are will aware even the undivided interest ownership

pattern is being looked at in by Washington today, so I think that the issue of the anti trust does relate solely to the question of the ownership pattern. I think there are much larger operating implications that are under study.

Groth: But, it is clear that the single corporation procedure at least in so far as we know it would create more anti trust problems than the undivided ownership?

Temple: You are in the batteries of legalism that are beyond me. I can't really comment.

Groth: Thank you very much.

Young: Mr. Chairman, due to the Governor's prediction in the last few days you mentioned a while ago that by state ownership it might speed up the construction of the pipeline? I fail to see how this could happen even if we were to go to bond by next election for \$3 billion dollars. I can't even conceive selling these bonds very rapidly under the present situation, I can't see a speedy construction if possible. What did you base your statement on that would speed up construction.

Temple: The essential point that I was seeking to make here is that in so far as you anticipate legal delays from the environmental groups that would have a number of suits already filed, it is conceivable that some of those suits could be dismissed or dropped, in so far as state ownership was regarded as a satisfactory alternative by the environmental groups.

Young: What leads you to believe that I have nothing from environmental groups that they would be less likely to question the state's ability?

Temple: Let me first of all say that this is not a clear position by any means

I am going on statements that have been made to me by representatives of environmental groups, by and large they feel the pipeline probable is going to prove and that the best that could be done is have it go through under state ownership. The feeling that the environmental issues would be more carefully addressed by the state than they might by Aleyaska. I am saying I found it to be.

Young: Do you invision any difficulties selling the bonds that we pass at legislation as far as ownership goes?

Temple: I think the answer to that question is tied up in the question that previous Senator Ray, I think that if we are to sell bonds predicated on the type of approach that I just suggested that the first requirement obviously would be the sort of common understanding between the state and the oil companies. I think that if that agreement is arrived at there is no particuliar problem in selling the bonds, I would add one thing, that if the bonds are to be tax exempt, to very clear that the state must not draw on the full face and credit of the oil companies or tax exemptions lost., so this is an added incentive to make sure the financing indeed exhibit form that the oil companies seem to have indicated that they want.

Young: Mr. Temple, are you aware that the federal legislation they proposed does not allow this tax exemption?

Temple: I'm not aware of that. No.

Senator Meland: Mr. Temple one of the problems that the average resident of Alaska is going to be asking when he's going to be approving this is the estimated reserves are 20 million barrels I think, but the only proven reserves are something like 9.5 or something like that. Then is this a good business deal or not? How can I tell just Joe Blow in the street? Is this

Is this a good deal or not when we only know we have so much.

Temple: No. 1, I believe that the estimate is that if we take figure of proven reserves 9.6 billion barrels that would appear to be worth about 15 years in capacity use of the pipeline. Is that figure roughly correct? Secondly, I have been given to understand that the proven reserves are increasing on an annual basis and the likelihood is that by the time you get to the actual operation of the pipeline, the proven reserves will be substantially greater, I'm not an expert in these matters, so I can only tell you what I have understood and what forms the basis of my economic assumption, but if those points are correct, then it would seem to me that it is a pretty interesting deal to use your phrase for the people of Alaska to have a pipeline that would have 25 to 30 years of reasonably guaranteed life. Nothing in this light is certain, but I think that if there is anything certain the domestic requirements for oil is our prime energy source are good for at least that time bracket.

Mr. Holm: Yes, Mr. Temple, I was interested, you predicating a lot of your argument.. condemnation of the ICC and that is aloof or accomodating oil companies or its lethargic or non agressive or something like that. I would anticipate that the state would try to reverse that completely and try to enter into it as an interest party and with the ICC coming to life when the state challanges rate structure, wouldn't you expect then that maybe this 7 or 8% might be dropped drastically?

Temple: That's a perfectly reasonable question of what I've thought about fair amount. What change in behavior, you are really asking, can we expect from the ICC if the state gets in and plays a vigilant role? I would agree with you that I would expect it to be quite a change in the ICC's pattern. I have to tell you that I have been expecting the same change in the ICC for the last 25 years and I have watched the American railroads head into

bankruptcy, and therefore I can't really find satisfaction in that fact that the ICC will change it, but I'm not sure it's safe to make book on it.

Holm: Well, if we, I think that we darn well better see to it that they darn well change their policies whether or not we take over the ownership or not.

Temple: I would fully agree with them the question is, do you in Alaska have within your own resources the ability to force that?

Holm: Well, then if this did occur though, lets say that we did become a party to this and were effective in lowering this percentage. What effect would this have upon the argument for state ownership of the pipeline?

Temple: I would have to agree with you that if it is possible that you can accomplish truly effective regulation within the terms where you feel you can not worry about that cent a barrel change, then regulation does seem to be a buyable alternative. But you're placing a very big bet and there have been a great many people preceding you and me in the effort to reform the ICC. It remains perhaps the most obsolete of your regulatory institutions in Washington.

Holm: Well then, if 7 to 8% is too high, and we don't like the oil companies getting it, what rate of return would you expect the state to get?

Temple: As I indicated in my comments, it's my feeling that 7 to 8 % of fair value works out to be the ICC practices which is essentially replacement value. But, perhaps we should look to some other measures of profitability that are more commonly accepted in business today. Return on equity, return on total investment, is the cost consideration that Mr. Havelock spoke of.

All those it seems to me are germane to the interest, by focusing on the return on fair value or replacement value the ICC is indicating an essential preoccupation with ownership and not with the operating efficiency or economic utility of the entity it's concerned with.

Holm: Then did I gather from your other remarks also that you don't expect the ICC to be a party to any rates set by the state if the state assumes control of the pipeline?

Temple: I wouldn't say that. Anything may be possible, and I'm certainly not trying to forecast what the ICC response will be. I think the problem is partly legal, partly administrative and partly what people will accomplish with vigilancy to speak of. The legal realities are there. Mr. Havelock addressed them. There are certain presumptions on the part of the state. What it can do that is not consistent with the federal legislation on the subject. The second question is administrative whether that agency would indeed change its stripes as you suggested. The third factor in it is how much energy the people of Alaska would bring to that.

Holm: I can assure that we'll put in a lot. But if the state gets into the pipeline business, what's the argument for not getting into the oil tanker business too.

Temple: Well, if you raise a theoretical argument you can go into the pumping business as well. I would say that the pipeline perhaps involves a group of interests that are more immediately concerned with the State itself. The pipeline is within the state. The shipping operation would be outside.

Holm: I'll ask you one final question. You've predicated the whole argument upon the well head price being the basis for our extracting our value, the state's value or the state's invested interest in our resource. There's

There's been some proposals on the per barrel charge to be made. Wouldn't that throw it all into a cocked hat if we went into a per barrel charge?

Temple: I don't know what you mean by a cocked hat. It would seem to me those are alternatives that deserve examination.

Holm: What would happen to the state ownership plan if we were on a per barrel return for the oil?

Temple: I think the answer to that is "why suggestions in favor of state ownership" and my position is related to the fact that right now we have this pipeline move as the tension between the state and the oil companies. The state is concerned that the oil companies will behave in such a way that the state won't get its fair shake, and, likewise the oil companies are concerned that if the state owned it, they wouldn't get their fair shake. Now what you would do in the situation you described, as I understand it, is possibly remove the transportation cost as an issue and it might be a ----- decision.

Huber: Chairman McVey, I have just one short little housekeeping question. It will help me find the lowest common denominator in Mr. Temple's testimony. And that is, how do you Mr. Temple, personally see the issue of state ownership as against right of way leasing and control by the state's regulatory and contract powers, with private ownership at this point in time? In other words, from your testimony so far, where do you stand? Which one of the two routes do you at this time believe is best?

Temple: Well, as I've said in terms of my personal philosophic beliefs, I believe very strongly in free enterprise. The problem I see passed to the state, is that almost impossible to assure itself, in the combination of ICC jurisdiction and the undivided interest ownership, for the state to assure itself of the reasonableness of rates and costs and tariffs as related to

its interests in the pipeline. I believe that there is a responsibility on the part of you people who look out for the state's well being of the people of Alaska to be assured that the state understands what is going on here. And I'm concerned, frankly, that you will not be able to understand. So that in my oath to answer your question it would seem to me by the simple force of circumstances, I at this point would have to ----- for state ownership if I could not find any reasonable assurance that I would have visibility on those costs and tariffs that are so important to you.

Rose: Mr. Chairman, Mr. Temple, One thing that I wonder about is that in my own experience it seems that generally the state usually enforces regulations upon others much more than it does on itself. For example, in transportation, the state will insist on certain tariffs being applicable to the public but not applicable to the state contracts. If that kind of a history is true, then how could we expect better regulation by the state by its own line than regulation by the state of a privately owned line?

Temple: I think this is a matter that is bound up in the type of objection that I indicated the oil companies would have to state ownership. There's a risk of that type of political manipulation or you say you know we'll be more concerned about controlling others than ourselves. I think the only answer to that really -----the character of the authority that might ultimately be established...who will manage the line for the state and the character of the individuals who are appointed to it. That's the strength of any institution that I know of. That risk is there, and I think that if you do seriously consider state ownership you'll have to go the next step and ask how do we avoid that type of abuse.

Rose: I have another question Mr. Temple, I wonder about contracts are enforce, but they can also be breached. Everybody has the power to breach a

a contract of course and then face the possibility of damages. But, suppose that we have one thru-put contracts and you have come hell or high water agreement, and that for some reason the oil industry decides to either slow down or stop its operation in Alaska. And they say we are sorry but---other considerations have intravened into being and we just beat it. Any delay in the production at that point would meet a considerable cost to us in the debt burden, the interest on the debt burden would come. How would the state be able to withstand that kind of gaff.

Temple: Well, I think we have to ask what would be the motivation for the companies breaching the contract. I can see at least two possible motivations. No. 1, that an individual company decides for some reason or other, expedient for it to exploit its resources in Alaska. It is more economical for it to carry oil from some other source and it chooses accordingly, unilaterally to breach its agreement. Now that could be bound up in the economics of an individual company. I have to say I think that's an extremely remote possibility and we're really stretching, but it's a reasonable question. In that situation under the plan I suggested and it will be discussed more fully, at least two options are possible, No. 1, that some other company that would not be confronted by this same sort of unique economic pattern, might be willing to step in as long as it is profitable for one company up here to ship oil, it is presumably profitable for several. So that in that situation the first possibility is that another oil company will step in. The second possibility is in as I cited is that the State will step in and ship the oil. And then it would recover its transportation expense and it's marketing expense and make it the rest of the company.

Rose: But that would be dependent upon production.

Temple: That is correct.

Rose: But absent the production the state would not intercept.

Temple: I think that under your unitization agreements your production would be going forward its just that one company would be forsaking its particular sake.

Rose: I have one more area of concern here Mr. Temple, and that is what is the air pollution problem and other areas of concern finally bring about a breakthrough in the state of the art, and we go to some other form of propulsion than the internal combustion engine, then where would we be?

Temple: No question, that's a risk, if you think that's probable this is a bad way to go.

Rose: Thank you Mr. Chairman.

Barber: Mr. Temple, through the chairman. Indication so far seemingly tend toward State ownership of the pipeline. Should it however develop that such ownership was not feasible or impossible, do you believe that the state while it owns 20% of the oil value on the north slope should participate in a partnership ownership of the pipeline in order to insure proper bookkeeping, proper tariffs, proper protection, of the interest of the people of the State of Alaska.

Temple: I think that that would be a possibility as well, I think that the question in my mind however, is what would the state have to pay to acquire that particular interest and what are the merits of that particular approach on a cost benefit basis when you've gone through that, versus total ownership with some of the simplicities that it would involve. There is certainly something to be said to the proposal that you made, I'm not sure that partial ownership would be responsive to all of the problems that have been addressed. It would for example, give you improved visibility on what's going on, your absolutely

right, but you still have the difficulty then in trying to essentuate any reforms or promoting changes in the rate structure that you want. Cause your back again to the question of ^v, can you really carry these things out under the ICC Jurisdiction within the pattern of my undivided interest.

Miller: Mr. Temple, slightly on what Mr. Holm mentioned on the matter of strictly a cent per barral tax on the oil state now. Dosen't this present an oppertunity a lot simpleier mechenism than can bring a lot, the maximum amount of money with the minimum amount of recording worrying about ICC or any thing else.

Temple: I would have to agree with you completely in theory. I think it really turns on what is a negotiation settlement to arrive at. I would certainly have to include that as a possibility.

Miller: Have you had the oppertunity to explore this possibility, I mean obviously you didn't love it. Could research and aspiration al-
alturnitives but, have you had the oppertunity to really explore this possibility?

Temple: The answer to your question is yes, I have had a small opper-
tunity to explore it and I have not found a great deal of receptivity, in other words that does not mean it's impossible I found a great deal of interest in it.

Miller: I think one of the problems is that the dialogue between the State and the oil Companies and this so often happens, in matters of this sort, has not been all with desire. I question weather the oil companies still even though they are in the room fully understand the tension that is created wltin the State, by this difference over

transportation costs owing to the sensitivity of the royalties and severance taxes to the transportation moves. But I would hope that such a dialogue might well include consideration just as the proposal you have made.

Miller; Actually, you know there might be problems in the other 1/4 of the oil companies. Actually the choice is ours, even though they might not be all as wild about the agreement.

Temple: I believe that you have already entered into these agreements, now I suppose you could conscrew that this is a reinterpretation of the lease.

Rose: Have you given any thought to the possibility to assure a full disclosure, a good honest look at the books ect. having set such a device as a option to a 20% ownership, not actually having to buy, but being ready to exercise if it need be.

Temple: That proposal seems to me one step removed from the proposal from the gentleman at the end. If you have the option, that does not necessarily give you the visibility, of which you are seeking, on the dated information. If you exercise the option then your in the position that the man described where you are an owner, but then even though you do have the information or more information you still would have the question of weather or not you can really effect changes in working through the regulatory problems that I described. It would certainly improve your visibility, but you have to pay quite a price for an option, I assume and you then have to ask what the price is you are paying simply to improve your ability as opposed to affecting change.

Rose: You don't think that option could be obtained on basis of an agreement so as to avoid the possibility of outright ownership at this time.

Temple: You may pay nothing for the option, but the exercise is the option I assume would cost somebody some money.

Rose: You don't think it would be useful to be able to get his provision without having to have a fight.

Temple: I will try to answer you this way, I guess that if State ownership for some reason were forgone and you wanted then to still leave open the possibility of some degree of ownership, to approve visibility I would certainly consider it, but at the same time not commit any money now, then what you have suggested would perhaps be very worth consideration.

Senator Rader: Chairman, Mr. Temple, The proposal for state ownership seems to rest primarily on the possibility that we may not be able to effectively present our position.

Temple: yes

Senator Rader: What would your thought be if we permitted the construction of the pipeline as we presently plan, whether partnership or whoever it is, and then considered a condemnation action at some later date should it ever appear that if they ----. In other words, do we have to make the decision at this time that we have to buy the pipeline to protect ourselves? Why not rely so far as we can on regulatory authority whatever it may be, find out what it is, find out what the oil companies actually do by way of fairness in price and make our decision at the time by matter of condemnation.

Temple: I am not at all conversant with the legalisms of condemnations such as you describe. I do not know whether that is permissible within the, ant of the covenants you now have with the oil companies. I cer-

AGO 530607

tainly don't believe that it's called for under ICC regulation, at least I've never come across it. So, it would be difficult for me to envision the exact legal circumstances under which that could be carried out. Theoretically, it sounds possible. I always think it's regrettable to work with a gun at one's head, but I suppose that's possible.

Senator, are you through?

Senator Groh: Yes, thank you Mr. Chairman.

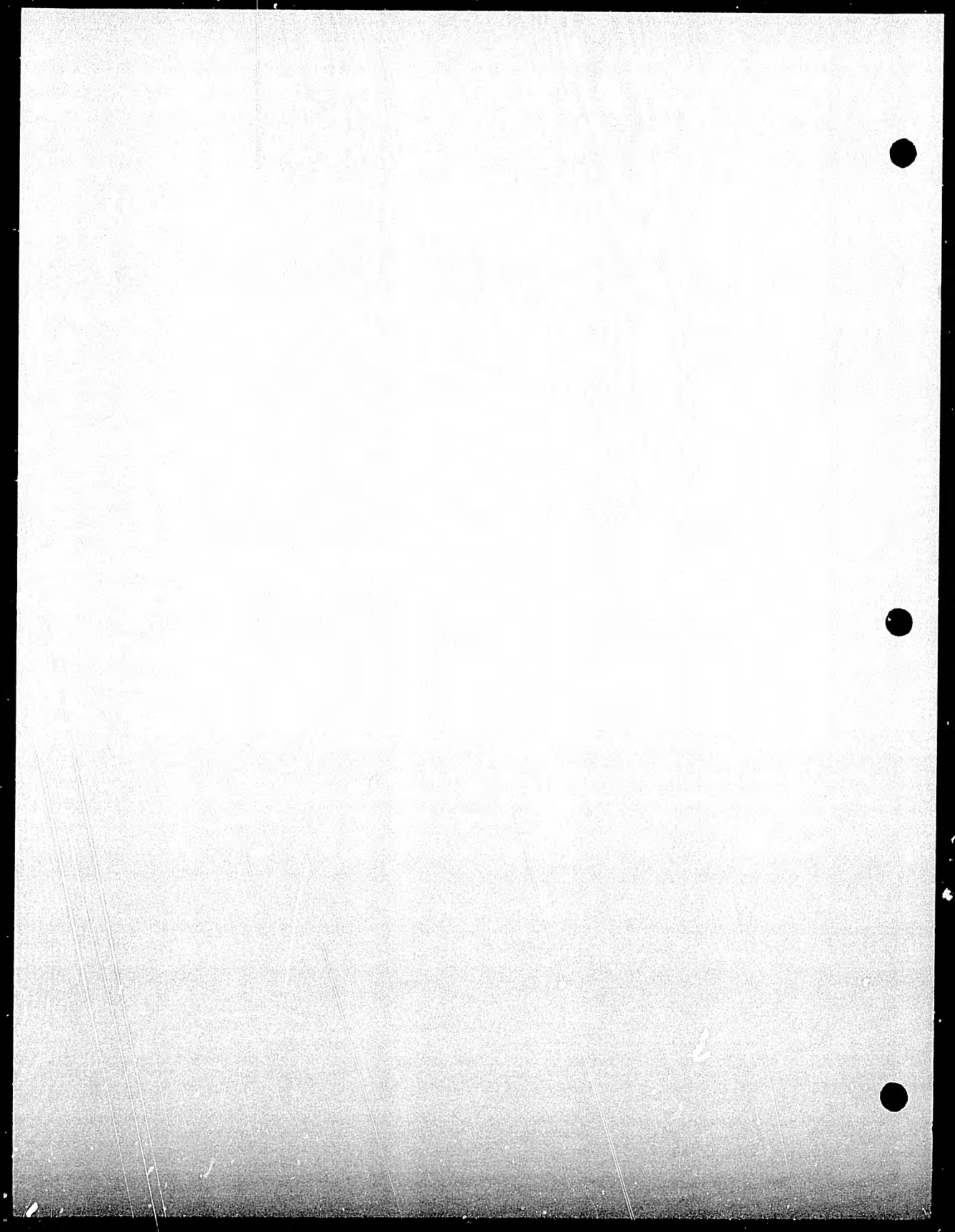
Chairman: Mr. Bowman and then Senator Josephson.

Mr. Bowman, Mr. Temple: In the projections about the pipeline, it has been stated that we probably have maybe a couple, or three, pipe oil lines and one or more gas lines. Would you advocate that the state own all of them?

Mr. Temple: Not at this time, I wouldn't so advocate, though I would not preclude that possibility. I would be a bit empirical on this. Watch the developments before making a decision one way or the other.

Chairman: Senator Josephson.

Senator Josephson: Mr. Temple, as I understand it, the governor's legislation is really for standby authority to opt for ownership of the executive branch sees that the public interest.....



Senator Josephson: What are the changes that might occur?

Mr. Temple: I can't comment anymore about the possibility or probability of changes of attitude in the oil industry than I can in the ICC. As I say I would hope that a dialogue between the state and the oil companies might examine a number of these possibilities and I assume that if logic could be found it might be as readily found in the near term as in the long term. I don't think either the state or the oil companies at this point can afford the luxury of long delay. It's imperative from your view point, it's imperative from their view point, make no mistake about that. Let this construction get started. I think the idea of delay which is incorporated in your remarks is perhaps the chief obstacle to the sort of deferred understanding that you speak of.

Representative Swanson: You mentioned that there are oppositions, you mentioned certain circumstances that increase costs, inflationary effected cash needs, position and so forth. I wondered if changes in any way in those factors might create a change in attitude assuming that they were to be hostile in their testimony here at this time.

Mr. Temple: I suppose that's possible.

Representative Swanson: Thank you, Representative Colletta. Mr. Chairman, I'd like to pursue just a little bit the remark that Senator Meland made about what we're going to tell the man on the street about the 3.5 billion dollar cost of the pipeline. I understood in your remarks that in the financing aspect of this, that it would be a profit on borrowed capital. Does this mean that we would make a profit regardless of how much money we would borrow to build the pipeline we're still entitled to a profit on the money?

Mr. Temple: I will now come to the ICC and ask them to plead my case. The way the ICC now operates, they make no distinction between equity capital and borrowed capital. Their frame of reference as I indicated for determining rates is what they call the fair value of the pipeline which effectively is replacement value. So, that in that

circumstance I would assume that this would also apply to the State of Alaska if it owned the pipeline under ICC jurisdiction.

Representative Colletta: Then we would be entitled to a profit on borrowed capital?

Mr. Temple: Under the present ICC mode of operation.

Representative Colletta: Mr. Chairman, Mr. Temple, in the early part of your testimony you made reference to depletion allowance and this is quite some interest to me. You're the first gentleman in a year and a half of hearings that I've been exposed to that has brought this factor into consideration. With a regulated line, hypothetically, at 7% and a depreciation allowance at double that amount of money at what point would your reservation that this is not an important factor in keeping the well-head price high?

Mr. Temple: The point that I made - first of all the depletion allowance at 23% is not figured on the same base when we're speaking of the 7% figure. That's 7% against a base of the total value of the assessed fair value of the pipeline. That is the base. If we're going to base it at 3.5 billion so that is the percentage against which the base, that's the base against which the percentages apply. Circumstances I cited, it could well be that in some situations the oil companies would have accrued tax losses in their operations. If they choose to employ under the undivided ownership situation and could be only offset against pipeline earnings. Now in that situation, and they rarely use even now the full 23% depletion allowance, there could be an incentive on the part of those people concerned with the pipeline subsidiary, to offset earnings against that tax loss as opposed to against the depletion allowance. Now the further justification to that would be the fact that at the well-head the oil companies have essentially a 80% interest vs a 100% interest within the pipeline.

Representative McViegh: Are there any other members of the Legislature that have a question for Mr. Temple?

Representative Farrell: Mr. Chairman, I don't want to mislead your testimony, but you're not arguing that state ownership and a strong or comprehensive regulations are mutually exclusive. You stated in your testimony that if state ownership succeeded that it would to an extent obviate the necessity for a regulatory machine. Is that true if the state were the owner of the Aleyeska Line and not the holder of the gas line that shoot the lines. Would you state that they're both necessary?

Mr. Temple: Absolutely!

Senator Josephson: Mr. Chairman I just have one question. As to the water carriage of petroluem, is that regulated by ICC or by the Maritime?

Mr. Temple: In this instance it is my understanding that the total move will fall within ICC jurisdiction.

Senator Josephson: Including the water carrier?

Mr. Temple: That is my understanding.

Senator Rettig: Mr. Temple, just one short question. First, may I ask you what time do you have to leave in order to catch your airplane?

Mr. Temple: That's a question I might better direct to somebody else, I'm on the 6:30 p.m. flight.

Representative McVeigh: He still has a half hour.

Senator Rettig: In your early remarks I think you referred to this undivided interest type of ownership of the pipeline. In your experience throughout the country is there a project cost of the pipeline and the likely tariff that would be required. Are you aware of any pipeline anyplace where the cost of transportation is as expensive as this is likely to be?

Mr. Temple: No, the indication that I have is certainly this is likely to be the costliest in terms of the throughout operating costs.

Senator Rettig: The most costly of which you're aware! You referred to the fact, I believe, that the oil companies in their establishing these tariffs for the Trans-Alaska pipeline they would merge in effect, their share of the operation of this pipeline with the operation of all other pipelines that they might own. Considering your first response where costs are lower in all other pipelines, wouldn't this merging or that sort of averaging, wouldn't that tend to lower the cost of transportation of the oil?

Mr. Temple: If we ^{went} ~~went~~ strictly on cost that might well be the case, Senator. The issue is that you are concerned not just with costs of the total of revenue, the total economics, the combination of revenue against costs may yield some losses in certain situations. It is conceivable here that the tariffs in Alyeska would be established on the basis of losses being sustained elsewhere. There is quite a variation in the profitability of pipeline companies. I made reference to Humble. They are a highly efficient and effective pipeline operating company. Few of the others are able to match them. So, I think, that we have to assume there would be some good and some bad. I think the drift of your question is, might not Alyeska occasionally benefit in this trade off? The answer is, it might. I think, the real issue is do the people of the State of Alaska want to play a game with their royalties and severance taxes that is really dependent on the economic well-being of a number of pipelines far removed from the state.

Senator Rettig: Thank you very much.

Representative McVeigh: Thank you Mr. Temple very much. We appreciate your being

with us this afternoon. Numerous other witnesses - we have time I believe for one more presentation this evening, but before we go onto that, why don't we take a five-minute break?

A. G. Havelock: Mr. Chairman at this time I would like to call the Honorable Bruce Campbell, Commissioner of Highways to discuss the cost information on building the Trans-Alaska Pipeline System. Mr. Campbell.

Bruce Campbell: READING TESTIMONY, Chairman.

McVey: Thank you Mr. Campbell. I believe at this time contemplating that Mr. Wohlforth's testimony is next and is likely to be a lengthy - rather lengthy one - I think we will use the rest of our time and depart from our announced schedule to permit questions by the committee of the four witnesses gathered by the Administration. I would like to request of those who ask questions to please stand up inasmuch as you can not have microphones and speak as loudly and clearly as you possibly can. Mr. Holm, Please.

Senator Holm: Yes, a question for Mr. Campbell. In your critique, you say 1972 construction costs, are you saying that if the line were built this year, with this year's labor prices, or if it went to bid this year for three or four of your - predicated on three or four of year head construction?

Campbell: Mr. Holm, what I am saying is, the costs we have are based on dollar value as it is today. If there is some change in what a dollar will buy in pipeline construction in three years, this effect has not been considered in the \$3.5 billion dollar construction costs.

Mr. Rose: Chairman. Mr. Campbell again. Mr. Campbell, the thing that --- the legislation I have seen prepared proposes a 3.5 billion bond issue which will - if approved now - will go to the voters in November, 1972, but wouldn't permit any

construction to begin or contracts to be written until 1973. And with normal inflation factor, the figure would be higher than the total bond-issue, would it not?

Campbell: I think the thing we are involved with here, Mr. Rose, is coming up with the date construction starts. This date, at this point in time, there is no one who has that answer. A variety of estimates of when this may start. Certainly to imply any inflation factors that may or may not exist - or for that matter deflation factors - we have got to have a date down the road that you are shooting for and we don't have one at this time.

Rose: Wouldn't we be between a rock and a hard place if we have a bond issue for less than we will have to spend?

Campbell: This could possibly be true. Yes. But I'm sure that as the permit - by the time the permit is issued, the final costs will continue to vary as environmental changes are placed upon the construction of the pipeline, we expect changes also inflation will have its effect.

Rose: Just one other, if I may, Mr. Chairman, that is that I have some difficulty with your presentation from the viewpoint, Mr. Campbell, that is that we start our 1972 pipeline figure with the year 2,000 barrel cost, with tanker costs spreading from 1977 - 78 - to 88 and how do we compare things at different times to arrive at that sum - computation or analysis at any particular point?

Campbell: Mr. Rose this question that you have asked will be answered when some of the witnesses behind me testify as to how the economic analysis were made. My presentation here is simply to verify that we did do this work and these are the figures that we have come up with. I am not the economic expert that can tell you how these fit into the determination of wellhead price.

Rose: Thank you Mr. Chairman.

Rettig: Are there any other questions of committee matters? Mr. Christenson.

Christenson: Mr. Campbell, supposing the voters turn down the bond issue. Then what would happen? Supposing it didn't pass?

Campbell: I'll defer that question to the Attorney General. (laughter)

Havelock: Senator Christenson. I think a clarification might be in order here. This is part of the problem our not having a full presentation and a problem we are going to continue to run into, that is why we had hoped to put on a presentation and then move on to the questions. We are tomorrow morning, we will have some amendments to offer to the Legislatrion in theory. Nothing is static in the consideration of these matters. We have numbers of amendments to propose. One of which will be to provide with the bond issues will not be ordinary general obligation bonds with the State, but will proceed to a revenue issue with a constitutional amendment which is in the process of being drafted which would permit the legislature under appropriate circumstances to pledge, if necessary various taxes or other revenues so as to make guarantees of those bonds. The effect of this will also be to remove this problem of what has cost overrun the \$3.5 billion, and we will have Mr. Kades talk tomorrow about this proposal. We will have a floor presentation on it.

Rettig: I did concur with Mr. Havelock yesterday that we would defer all questioning until the end of the presentations and I think in keeping with that understanding we will recess for now. Before we do however, I would like to state that tomorrow it is our plan to recess for short periods more ferquently than we did today in order to permit the room to be cleared and refreshed a little bit and again we would like to ask those who present questions - we do not have microphones - to

please stand up and face the audience so that they can be heard. It would be appreciated.

Havelock: Mr. Chairman, I would like the opportunity for the Committee's benefit tonight to distribute copies so they will have an overnight opportunity to look at these amendments.

Rettig: Thank you very much. With that we will recess brief hearings until 8:00 a.m. tomorrow.

STATEMENT OF WILLIAM A. EGAN
GOVERNOR OF ALASKA
AT PIPELINE OWNERSHIP AND REGULATION HEARING
JUNEAU, ALASKA
March 6, 1972

My Fellow Alaskans:

Before giving over the floor to a technical explanation of my legislative proposals and their background, I would like to give a brief explanation to the people of Alaska concerning the considerations which started me on the road to these conclusions and where I believe Alaska stands today.

Over a period of months my Administration has been deeply involved in studying and analyzing all aspects of the proposed trans-Alaska pipeline. My overriding concern in conducting this analytical review has been with the immediate and long-range best interests of all the people of Alaska.

At the time full-fledged study was initiated, we knew that hundreds of millions of dollars had already been lost to Alaskans as a result of the great delay in the start of construction of this mammoth project. The laboring man, the suppliers of other services and transportation, and the treasury of the State of Alaska had suffered immensely in this unprecedented denial of development. Numerous bankruptcies directly related to the North Slope oil resource development shut down had also occurred. The State's capability to make firm human resource and natural resource development plans had been seriously undermined because of the total deterioration of North Slope petroleum production plans.

As we commenced our investigation, several vital questions commanded our attention. Among them:

1. What is the total likely cost of the project?
2. Is State ownership of this unprecedented venture in the best interests of the people of Alaska?
3. Will State ownership bring more revenues to the people of Alaska than would private ownership?
4. Is State ownership feasible from a financing standpoint?
5. How is a fair wellhead value determined for the people's petroleum resources?

These and many more important questions have been explored in depth. If the people of Alaska are to receive fair return from the value of their crude oil resources, I believe ownership of the trans-Alaska pipeline should vest with the State of Alaska. I think

representatives of my Administration will present a convincing and adequate case for public ownership of this huge public utility conveyance, at these hearings.

About ten days ago, I requested the State Commissioner of Revenue to run several computer printout revenue projections, programming the latest likely construction cost figures as well as industry's scheduled throughput production volume rates. July 1, 1977, was programmed as the beginning trans-Alaska oil flow date in each printout. The various computer printouts will be made available at these hearings. None of these printouts paint a rosy picture. And I have been condemned in some quarters for telling it as it is, rather than burying these facts under the rug in an attempt to deceive the people.

The computerized projections, based on the most reliable increased pipeline figures available, clearly indicate that a more critical State budget revenue problem confronts Alaska in future years than we had previously felt possible. In addition to the ever escalating pipeline costs, industry contemplates a far slower production volume build-up after completion of the project than the time frame the State had worked into earlier projections.

The oil industry of America is permitted to develop the oil and gas resources owned by the people of Alaska under agreements, each in the form of a lease. Each company in the industry competes for the right to develop these resources by bidding a bonus sum. The highest bonus bid gets the privilege of developing the lease for the particular tract offered.

Each lease provides also for some of the income to go to the people of Alaska through the payment of a royalty of 12 1/2 per cent of the value of production as it occurs at the well. The State severance tax also provides a source of some income for the people of the State. The severance tax, in an approximate amount of 7 1/2 per cent on oil production, depending on the quantity of the oil, is also measured against wellhead value.

The need to protect Alaska's sustaining income is the basic source of the legislative program which I am urging today.

Value of oil at the wellhead is computed backwards from the price paid by the ultimate American consumer of oil and gas products. Although the wellhead price is customarily calculated only from the price paid at the refinery for crude oil, the cost of refining plus profits, and the cost of marketing and distribution plus profit, determine the price paid by the refinery. Finally, the cost per barrel of transportation from the North Slope to the refinery by pipeline and tanker plus profit is deducted.

When development of the North Slope was first contemplated by the Alaskan people, the cost estimates used still showed a fair

and equitable price per barrel at the well after all these deductions.

Low original estimates by the industry as to the actual cost of the pipeline, delay on construction of the pipeline and new and frequently changing design requirements have greatly increased the cost of the line. Inflation has also taken its toll on this picture. The estimated cost of the pipeline has moved from \$1.1 billion, the figure the Alyeska Service Corporation gave us as late as last summer, to \$3.5 billion, the figure our own cost engineering consultants gave us last month; and it may go higher with more delay.

While shrinkage of the wellhead value towards zero has not been encouraged by the industry, still, because single companies have operations integrated through to the consumer, it is still highly profitable for the industry to develop the oil even when the State gets nothing out of it.

Not only does the industry benefit from profit on the distribution and sale of products, on the profit from refining and on the profits from the operation of tankers but it enjoys a guaranteed profit on the transportation of oil by pipeline even if it doesn't put in a nickel of its own money. The fact that the pipeline, alone in the chain of processing from the well to the consumer, is a natural monopoly, free of the restraints of a competitive market place, is a vital factor in the consideration of solutions to the issues facing us.

Under Interstate Commerce Commission rules, pipeline profits or dividends are computed as up to 7 or 8 per cent of the value of the pipeline, regardless of the amount of equity invested. Joint and several ownership as proposed by the industry also allows the profits from the Alaskan pipeline to be effectively hidden in each owner's entire pipeline operation. Increase in costs of the pipeline from \$1.1 billion to \$3.5 billion under the public utility conditions enjoyed by the industry will give the pipeline owners a capability for increased profits in the amount of \$168 million. This is without regard to basic profitability relating to low equity investments and anticipated profits still accruing long after the pipeline has paid for itself. While the short-term ownership of pipelines is handicapped by a cash flow pinch, long-term ownership is invariably very profitable indeed.

The oil industry, its employees, and families have become an important part of the Alaskan society.

But we must still be mindful that the primary obligation of the companies involved is to the stockholders and board rooms in New York, Los Angeles, and Houston. Alaskans must be vigilant and forceful in the protection of their own interests. The sheer size of the enterprise in Alaska demands effective public control or we will have an economic state, larger and more powerful than the political state which contains it. The income from the trans-Alaska pipeline is greater than the revenue of the State.

The value of the pipeline exceeds all the assessed value of the State.

To assure that Alaskans do not lose control of their destiny, to strengthen the hand of the people of Alaska in our development partnership with the oil industry, and to assure that a reasonable share of the wealth of Alaska is enjoyed by her people, is why I have proposed that the State of Alaska undertake to own and finance the trans-Alaska pipeline. I have made this proposal mindful of the awesome size of the venture. But it is no bigger than our stake in it and the heritage we leave our children and their children. The cost of the line is borne by the value of the oil under any form of ownership. And it is our oil.

So that all aspects of the problems involved are adequately considered, I have also submitted the complementary proposals for taxation and regulation of the pipeline. The joint pipeline committee of the legislature has also prepared proposals worthy of consideration. I would hope that taking the best elements from each, we would also adopt a vigorous and effective package of tax and regulatory measures.

Though the experience with taxation and regulation in the other states has not been a particularly successful one, and though there are substantial legal hurdles to effective regulation, there are indications we could do the job much better.

Still, when all is said and done, we should measure such a package--the proposal for public ownership, or any other proposal made--against the same standard; what system offers the best arrangement for the protection of the long-term interests of the Alaskan people?

I hope all the people of Alaska will take the time to follow the testimony offered in the days ahead by my Administration and the oil industry and to assess the ensuing debate so that each citizen can make up his own mind on this issue so critical to the future of our State. What we come out with as this issue is resolved, the extent of Alaskan control and the extent of Alaskan benefits, depends in the end on the determination and vigilance of the Alaska people.

####

Statement of Charles F. Herbert
Commissioner of Natural Resources

In 1964 the State of Alaska selected 1,593,705 acres on the North Slope, between Naval Petroleum Reserve No. 4 and the Arctic Wildlife Range. The land selected was considered to have good potential for petroleum but none suspected that it would contain the largest oil pool ever found in North America. On the map, the lands north of the heavy green line are those selected in 1964 and the orange-shaded area covers the Prudhoe Bay oil field. I want to emphasize that not all of the land within the shaded area will be productive of oil or gas--in fact, there are a number of dry holes within the area shown as the oil field.

Although millions of dollars had been spent in an unsuccessful search for oil on Federal lands southwest of State lands, the first lease sale of North Slope lands by the State was moderately successful and provided revenue at a time when it was needed badly. Greater interest was shown in subsequent lease sales even though drilling on State lands had been disappointing. Finally, on what was said to be a "last try" for oil on the North Slope, ARCO announced a major discovery in July, 1968. The State then selected an additional 2,852,880 acres south of the original North Slope selection. This later selection, for which tentative approval by the Bureau of Land Management has not been received, lies between

the green and brown lines on the map. Note that over half of the area in the later selection is covered by leases. These are Federal noncompetitive leases which had been issued prior to State selection. Some have expired recently and many are due to expire within the next few years, unless oil or gas is found in productive quantities.

With oil interest at fever pitch, the State sold much of remaining tentatively approved North Slope lands at a lease sale on September 10, 1969. The total of bonus bids received at that sale is the largest ever recorded anywhere.

Bonuses received from the sale of State leases on the

North Slope:

<u>Date of Sale</u>	<u>Acres Leased</u>	<u>Bonus/Acre</u>	<u>Total Bonus</u>
Dec. 8, 1964	476,147	\$ 9.20	\$ 4,379,729.91
July 15, 1965	403,000	15.25	6,145,472.59
Jan. 24, 1967	42,397	34.87	1,478,777.23
Sept. 10, 1969	<u>412,548</u>	<u>2,181.66</u>	<u>900,041,605.34</u>
	1,334,092*	\$ 683.65	\$912,045,585.07

* This figure includes some offshore lands and some duplication caused by forfeiture of leases and subsequent re-leasing.

Bonuses on future sales of leases on the North Slope are most difficult to estimate. Certainly, there is little incentive to purchase leases in the area until such time as construction of a pipeline is assured. About all we know is that the State does own, or will own, land that can be offered for competitive oil and gas leasing.

We estimate that the following land may be offered at some future date:

Unleased land on which the State now has tentative approval	200,000 acres
Selected land, less valid Federal leases - at least	1,000,000 acres
Offshore lands between Pet. 4 and and the Arctic Wildlife Range	300,000 acres

Since Alaska now ranks second among the states in proven oil reserves, and will probably outrank the leading state, Texas, when more active drilling is resumed, Alaska can look forward for very many years to substantial income from oil and gas royalties and severance taxes.

The Prudhoe Bay field alone has a proven reserve of 9.6 billion barrels of oil and 26 trillion cubic feet of natural gas. To the west of Prudhoe Bay, the Ugnu field has oil but there has not been enough drilling to permit a reliable estimate of reserves. Wells in the Ugnu field are much less productive than those in the Prudhoe Bay field but they should add materially to North Slope production. Other potentially productive structures are known so we think that an estimate of 20 billion barrels of oil from State lands on the North Slope is justified.

In addition to production from State lands and offshore lands on the North Slope, oil and gas will be produced from lands that may be selected by Native Regional Corporations and from Federal lands that are or may be leased. We expect that someday Petroleum Reserve No. 4 will be developed, and there is some possibility that the very attractive Marsh Creek anticline in the northwesterly portion of the Arctic Wildlife

Range may be drilled. The highly regarded Canadian publication, OILWEEK, estimates that the Alaskan North Slope will produce 50 billion barrels of oil and many trillions of cubic feet of natural gas. Most certainly, oil and gas pipelines from the North Slope will be busy for many years.

In all existing leases on the North Slope, royalty is fixed at 12-1/2% of the wellhead value. However, leases issued prior to 1969 provide for a royalty of 5% of the production from a lease on which a discovery of a new field is made. Only one lease in the Prudhoe Bay field is entitled to the reduced royalty and that privilege expires in 1978, ten years after the date of discovery.

All existing North Slope leases have a term of ten years, or as long as production is maintained. Leases may also be extended if committed to an approved unit agreement. Unit agreements, which are formed by pooling of interests of all lessees on a geologic structure capable of, or believed to be capable of, producing oil or gas, carry specific drilling requirements which must be approved by the Department of Natural Resources if on State land, or by the U.S. Geological Survey if on Federal land. Prior to 1969, leases on lands to which the State had only received tentative approval were issued as conditional leases and the lease term did not begin to run until the State received patent to the land. With the exception of the leases sold in the September, 1969 sale, North Slope leases are conditional and the term of lease has

not begun to run.

The wellhead price of oil or gas, on which royalty and severance taxes are based, is stated in each lease as the highest of (1) the price actually paid by a purchaser at the well, (2) the posted price by the Lessee in the oil or gas field, or (3) the prevailing price paid to other producers. Since nearly all Alaskan oil is sold on the West Coast of the United States, the wellhead price is determined by the field price at the point of delivery on the West Coast, less transportation charges. Since these charges are variable among producing companies there has been enough confusion in the Cook Inlet Basin to cause a lawsuit between the State and one of the producers. Since this matter is now before the court I cannot comment further, other than to hope that clear guidelines for the determination of wellhead price are established either by directive from the court or by general agreement.

All oil and gas produced from State lands on the North Slope, other than offshore lands, is subject to a payment of 2% of the gross value (i.e., wellhead price) to the Alaska Native Fund, until such time as \$500 million has been paid into that fund from all sources of State income subject to such payment. Although provision for payment to the Alaska Native Fund effectively reduces State royalty on a standard oil and gas lease to 10-1/2%, the payment is treated in State accounts as an obligation against the State Treasury and so does not enter into estimates of State income from minerals.

After deduction of royalty from wellhead price, the remaining value is subject to a State severance tax based on the rate of production from each producing well. The tax on oil is:

- 3% on the first 300 barrels per day
- 5% on the next 700 barrels per day
- 6% on the next 1,500 barrels per day
- 8% on all production over 2,500 barrels per day

The severance tax on natural gas is 4% of the wellhead price, regardless of the rate of production.

Derivation of State income from royalty and severance tax is:

Assumed wellhead price of oil	\$ 2.00
State royalty @12-1/2%	0.25
Taxable value of oil	<u>1.75</u>
Severance tax @ 7% (best estimate)	0.12

Total State income then would be \$0.37, or 18-1/2% of the wellhead price, a percentage that is probably applicable to oil production from the North Slope, regardless of wellhead price. For natural gas, State income is 16% of the wellhead price.

3/6/72

Tape # 2 *Meter # 7131*
TESTIMONY OF ATTORNEY GENERAL JOHN P. HENNINGSEN
BEFORE THE SENATE COMMERCE COMMITTEE AND THE
HOUSE STATE AFFAIRS COMMITTEE
MARCH 6, 1972

3:52 PM

HR

The Federal Role in North Slope Oil
ICC Regulation: How It Works
Federal Pre-emption

The word "regulation" as applied to pipelines encompasses a broad spectrum of the police powers of the State. At this point I will discuss only economic regulation, meaning some form of control over the rates that may be charged for transporting oil or gas. As has been noted, these rates or tariffs, together with tanker rates, make up the transportation cost for oil. The transportation cost is subtracted from the refinery sale price of oil in order to arrive at the value of the oil as it comes out of the ground and before it is shipped anywhere.

Since our State revenues from severance taxes and royalties on North Slope oil currently depend on the well-head value of the oil, the State has been studying the existing scheme of federal pipeline tariff regulation in order to see precisely what controls there are to assure that a fair tariff rather than an exorbitant one will be charged. Simply stated, our conclusion is that if existing federal regulation applies to the Trans-Alaska pipeline and applies alone, no assurance is provided that tariffs will be reasonable from a State point of view. Nor, despite common carrier status, does it assure completely equal standing among all who might need access to it in later years for shipment of oil.

Existing federal regulation is shared by two agencies: the Interstate Commerce Commission (ICC) and by the Antitrust

U.S.

Division of the Justice Department. The Interstate Commerce Commission is given authority by specific statutes. The jurisdiction of the Justice Department arises out of the fact that the pipeline is a monopoly.

While it is clear from the factual situations and stipulations filed with the Department of Interior that the Trans-Alaska pipeline is a common carrier, it is not ~~entirely~~ ^{NECESSARILY} clear that under all circumstances the ICC necessarily has jurisdiction. In general, if there is a break in the ownership of the transportation facilities so that the pipeline is a completely separable operation, then there is a good possibility that ICC jurisdiction does not exist.

However, it is my understanding that the method by which the owners now plan to operate the tankerage portion would involve ICC jurisdiction over the entire transportation route including the pipeline.

The ICC has some jurisdiction over all common carriers engaged in the transportation of oil from one state to another state; but jurisdiction over pipeline is far more limited than ^{both} ~~by law and in its exercise~~, the ICC's sway in other areas, such as trucking and shipping.

The Commission ostensibly determines what constitutes a "reasonable" tariff and whether any carrier is charging in excess of that standard. According to regulatory standards previously established by the ICC, that tariff includes a maximum profit of 8 per cent of the valuation of a pipeline. Under an antitrust consent decree, the maximum dividend allowable is 7 per cent.

In its determination of whether any given carrier exceeds this rate the ICC reviews data sent to it by owner companies regarding the valuation of a pipeline. The companies also publish their tariffs, which the ICC may challenge as unreasonable in the light of a given valuation.

The antitrust aspects of regulation stem from a compromise settlement entered into between the United States and various pipeline owners in 1940. That settlement was ^{amended} ~~worked~~ out to satisfy a federal complaint that the pipeline owners were taking too much profit, constituting an illegal rebate of tariffs to a few owners at the expense of all non-owners. Basically, it limits the dividend that a pipeline owner can take from pipeline operation to a percentage of pipeline valuation.

We will present later an analysis of specific weaknesses in this regulation of tariffs by the ICC and the Antitrust Division of the Justice Department. Immediately, however, four difficulties are obvious when we consider Alaska's situation.

First, regulation merely on profits or dividends as a percentage of valuation provides no control over costs. An increase in cost can be added directly to the tariff per barrel so as to maintain the same percentage of profit. Consequently, even under the most responsible management, cost control is not subject to the usual incentives. This situation also creates an incentive to shift costs from non-regulated operations to the pipeline operation since profits on non-regulated operations will be enhanced and the costs will merit an increased return on the pipeline tariff.

Second, you will recall that profits are restricted ^{to} ~~the~~ ^{the} ~~sense~~ ^{that they are restricted at all,} ~~mere~~ ^{percentage} of the valuation of the pipeline. This restriction does not distinguish between the ways in which funds for the pipeline are obtained. The result is that a high level of debt financing enhances the profit. Pipeline valuation may well be made up of a large percentage of lenders' money and only a very small percentage of owners' money. As a consequence, the actual profit the owners make on their money may be as much as 100 per cent per year. By contrast, other regulated public utilities are ^{normally} limited to a return that will adequately compensate those who have provided the cash to run the business. The pipeline owners will be making a profit on lenders' money as well as their own.

Third, on the basis of past performance, it may well take the ICC four years to establish a value for the Alyeska pipeline. Obviously, since its regulatory program depends on knowing the pipeline's valuation, it cannot regulate ^{in a reasonable way} during those four years.

Fourth, because of ICC procedures, the actual tariffs and profits on the Alyeska pipeline may be far higher than the 7 to 8 per cent limit I mentioned earlier. The reason ^{is} that the ICC will not consider the Alyeska pipeline alone ^{initially} in determining valuation. Instead, the ICC will lump it with all other American pipelines owned by the owners of Alyeska and in effect see that the over-all average tariff charged is "reasonable". By such an averaging procedure, tariffs and profits on the Alaska pipeline

may be set high since the *overall* figures may be brought down by lower rates on other lines

How can an industry operate under such a weak regulatory program when it supplies a commodity that is a necessity to millions of users of gasoline and heating oil? The answer is that the industry is essentially self-regulatory. The owners of pipelines, who may also be producers, agree among themselves as to the fairness of particular tariffs. They operate under an unwritten rule not to wash their laundry in public. As long as the agreement is lived up to, no one complains; no one spurs a tariff investigation. The ICC has a right to complain on its own, but as a matter of practice, *in all the years* it has never done so. With no complaints from any source, pipeline tariffs go unchallenged. Although the ICC has a section of personnel that review pipeline evaluations, no personnel are assigned to investigation or rate review otherwise.

Just from this brief explanation, it is clear that the ICC does not fully regulate the operations and tariffs of those pipelines which fall within its jurisdiction. It is also clear that federal law does not cover the whole area of pipeline regulation.

This brings me to the matter of pre-emption. Pre-emption is a legal doctrine which means, in the case of the Alyeska pipeline, that the State may not regulate the pipeline as to matters where specific federal legislation applies. *occupying the field* The ICC does not regulate all aspects of all pipeline operation, even all aspects of economic regulation. For example, there is *efficiency* no regulation at

all during the years when pipeline valuation is being set. Furthermore, unlike the situation with railroads, the ICC has no control over the construction of new pipelines, over the abandonment of pipelines, over security issues of pipelines, and no basis for regulating consolidations and acquisitions of control. As can be seen, the internal proprietary arrangements of owners are relatively free from scrutiny by the ICC. To the extent that the State interest in pipelines are based on proprietary agreements between the State and ^{the industry} the industry, and not, on their face, regulatory, the ICC review is limited. In view of the limited scope of action by the ICC, and the notable lack of action historically by the ICC, we believe that federal law does not govern the entire realm of pipeline regulation.

The State, with its strong interest in the Alyeska pipeline, may thus regulate on its own and such regulation, if carefully prepared, would not be pre-empted by federal authority. *H. H. H. 292*

Even if we assume that the State were challenged because the matter of federal pre-emption was held to be unclear, the courts are required to balance the interest of the State and of the federal government in the specific regulatory program. Since the State of Alaska's interest in this case is so overwhelming, Alaska has a much stronger argument than any other state for allowing it to impose effective regulations to protect the State's oil value. Lastly, even if pre-emption were allowed, the findings of a State regulatory body would have a strong effect as an advisory opinion to the federal body. *H. H. H.*

302

The means for implementation of such State regulation will be discussed later. I should like to point out in connection now, however, that the whole complex matter of regulation vanishes with State ownership of the pipeline. With ownership, the State itself will be establishing tariffs, instead of being plunged into a mass of corporate accounting procedures from which it hopes to exit with a knowledge of whether tariffs are "reasonable". Pipeline ownership is a most effective means of assuring that transportation costs stay low, and the well-head value of our oil remains high. Ownership simply and directly works to assure Alaskans that they will receive what is due them for oil that is taken out of the State forever.

TESTIMONY OF STATE OF ALASKA
Trans-Alaska Pipeline Cost Estimates
March 6, 1972

My name is Bruce A. Campbell. I am Commissioner of Highways for the State of Alaska.

The single most important economic factor in any analysis concerning the ultimate impact of a trans-Alaska pipeline upon the State of Alaska is the initial capital cost of the line and its appurtenances. This factor is the prime variable in determining the yearly amortization cost and in determining the dividend which the owners may receive by virtue of the line's operation.

As many of you recall, the initial publicity concerning the pipeline estimated the cost of the project at approximately one billion dollars. In the ensuing three years there has been a variety of every-increasing estimates by owner companies and by Alyeska Pipeline Service Company ranging upward to the \$3.0 billion cost estimated by Alyeska in December of 1971. In looking for the true return to the citizens of the State of Alaska, it became immediately apparent that a reasonably accurate initial cost figure must be determined before any meaningful analysis could be performed.

In addition to State in-house capabilities, we engaged the consultant engineering firm of Tippetts-Abbett-McCarthy & Stratton to aid us in the determination of the probable cost. We also met with Alyeska Pipeline Service Company in December 1971 and learned something of their cost analysis. We were not, however, allowed access to the basic cost data so that a comprehensive analysis could be made.

Before making our cost estimates, we reviewed the basic designs of all the components of the pipeline. We especially reviewed such crucial items as total throughput capacity of the line, handling and dock facilities at Valdez, and proposed construction techniques in highly unstable permafrost areas. We are convinced that this line is now probably one of the most thoroughly engineered projects of its type ever proposed.

The line is proposed to be constructed in basically three phases. The first would be for a 600,000 barrel per day capacity, the second a 1,200,000 barrel per day capacity, and the last a 2,000,000 barrel per day capacity. The second two phases will require primarily the addition of pumping horsepower and tankage.

If you will review the handout given to you, you will find a breakdown of the costs of construction of the various major features of the project as we have estimated them.

Our total estimated cost of the project, based on 1972 dollar value, is 3.5 billion dollars, of which 2.9 billion dollars will be required for the initial phase, 249 million dollars for the second phase, and 314 million dollars for the third phase.

These costs are based on 1972 construction costs and do not contain any estimate for inflation. The costs that we have determined have been compared to the total cost of initial construction as prepared by Alyeska and compare reasonably well with their December 1971 projected cost of 3.0 billion dollars. Any inflation

which may take place and any increase in construction costs may modify these costs in future years. Concurrent with these cost studies we estimated what the operation and maintenance costs of the line would be and have shown these in the hand-out. These range from \$22 million in the first year to \$65 million at full through-put.

In order to evaluate the probable well-head price of the North Slope oil we, thru our engineers, investigated the probable refinery gate price of crude oil in the Los Angeles area. We have forecast the price variation of crude during the study period. Our estimated price ranges from \$3.45 to \$4.85 in the year 2000.

Tanker transportation costs were likewise studied and evaluated for the future years so that their eventual effect upon well-head price could be determined. The tanker costs were estimated at \$.45 in 1977 and range to \$.67 in 1988.

We believe that the cost items used in our analysis are as accurate as can be determined at this time and give us a firm basis for projecting economic impact on the State of Alaska.

Commissioner Eric Wohlforth will now discuss the revenue aspects of the proposals before you.

Testimony of Eric E. Wohlforth
Commissioner of Revenue

March 6, 1972

I am Eric Wohlforth, Commissioner of Revenue. I will summarize past projections of North Slope revenues and those presented today based on private ownership, and contrast the revenue effect of private ownership case with the case of a pipeline owned by the State.

The most recent public North Slope oil revenue projections, before those referred to the Governor last week, were made by the Division of Oil and Gas in cooperation with the Department of Revenue as part of the State's contribution to the federal pipeline Impact Statement released by Governor Egan on July 30, 1971. These projections were developed from a computer model which was based on the information then available to the State and showed numerous economic cases on differing assumptions again based on facts then assumed to be ascertainable.

The July 30 report states on page 166 that, "the originally estimated \$900 million cost of the pipeline has already increased considerably. Present cost estimates range from about \$1.0 to \$2.3 billion." The revenue projections used the assumption of \$1 billion as the lowest installed cost and \$2.5 billion

as the highest estimate. The footnote to this statement gives the backup for the State's cost estimates. It notes that as late as June 19, 1971 Alyeska furnished the State Department of Revenue an estimate of \$969 million as the cost of the entire contract and concludes with reference to a statement from Interior Secretary Rogers C. B. Morton in late spring of 1971 that environmental precautions are contributing to a higher price tag of around \$2.3 billion. This figure of \$2.3 billion total cost was used in the State's "most likely" estimate of North Slope revenues. The revenue estimates included in the State's Report developed from this estimate of total cost, assumed refinery values in fiscal year 1976, the then estimated start up year, of \$3.37, marine transportation costs of 44 cents, a pipeline tariff initially of 80 cents per barrel, giving a wellhead value of \$2.12. From these figures it was estimated that total royalties and taxes would amount to \$164 million a year in fiscal year 1976, the first year of pipeline operation. In the second year of operation, fiscal 1977, total revenue was estimated at \$278 million, the third year \$282 million, and the fourth year \$311 million. In the then estimated fifth year of production, fiscal 1980, the pipeline tariff was calculated at 47 cents a barrel with the marine transportation costing 52 cents leaving a wellhead value of \$2.56. In that year we showed a total of \$348 million in total royalties and severance taxes from the pipeline.

Other estimates were also run with different assumptions. For example, one set the pipeline cost at \$1 billion with again the initial production year assumed in fiscal 1976. A wellhead value of \$2.75, with lower marine transportation and tariffs produced \$212 million in revenues in the first year of production and the fifth year of production on this optimistic projection the State was assumed to capture \$412 million in oil pipeline revenues. A pessimistic case which assumed a pipeline cost of \$2.5 billion shows a wellhead value of \$1.76 in the initial year of 1976 and royalties and taxes of \$136 million in that year. In 1980, however, at a wellhead value of \$2.20 per barrel, royalties and severance taxes reached a figure of \$297 million. Incidentally, in all of these cases, one of the main reasons wellhead value increases over the years is that transportation costs go down as the volume of oil shipped increases.

Several important events have now come to light which have required the State to revise downwards drastically its revenue estimates. The first indication of the fact that the State was incorrect in assuming as it did in the Impact Statement that a production flow starting at 600,000 barrels per day would reach 1.7 million barrels per day in the second year of production was disclosed in the summary project description of the trans-Alaska pipeline system received by the State this fall. On page 55 of that document it is stated that

the pipeline system will be brought to its full capacity in stages. In the initial phase of operation the system will have the ability to transport 600,000 barrels per day. The report goes on to state that the second phase is tentatively scheduled to be completed approximately two years after initial start up. In this phase the system will have a design capacity of 1,200,000 barrels per day. The final phase is expected to be completed approximately seven years after initial start up at which time the pipeline will reach its ultimate capacity of 2,000,000 barrels per day according to the project description. In other words, there will be at least 500,000 barrels per day less production in the second year of operation and every year thereafter for the initial seven years.

The next shock to the State was disclosed by the SEC Registration Statement filed by British Petroleum Co., Ltd., on October 12, 1971. In the offering circular accompanying the registration statement the following statement is made at page 24:

... "The initial construction phase of the pipeline is expected to provide a minimum aggregate throughput capacity upon completion of 600,000 barrels per day. This capacity is designed to be expanded in two stages, the first stage resulting in a total capacity of 1,200,000 barrels per day, and the second in a total capacity of 2,000,000 barrels

per day. It is presently estimated that the cost of the pipeline upon completion to the 600,000 barrels per day capacity would be approximately \$2.3 billion, and that increasing the capacity to 2,000,000 barrels per day would increase the cost by approximately \$400 million." (Emphasis added.)

On November 10, 1971, Atlantic Richfield filed a Registration Statement with the SEC stating that:

... "The cost of the system upon completion to the 600,000 barrel per day capacity is presently estimated to be approximately \$2.4 billion, of which the Company will be responsible for approximately \$675 million. The additional cost to all participants of increasing the capacity to 2,000,000 barrels per day is estimated to be at least \$400 million." (Emphasis added.)

Thus, by mid November, the total pipeline cost had escalated to \$2.8 billion or \$500 million over the average case assumed in July when the State made its revenue estimates. In fact it increased \$100 million in less than one month

between SEC filings. This dramatic increase in pipeline costs revealed in official documents at the time of Governor Egan's first announcement on State ownership made it urgently necessary that the State finally determine the likely magnitude of pipeline costs. Commissioner Campbell has already indicated the independent study which the State has made through its consulting engineers, Tibbets, Abbott, McCarthy and Stratton, and the foundation for the present estimate of \$3.5 billion. These figures have just recently been developed along with an independent evaluation of operating costs so that for the first time the State can make a reasonable projection of the probable amount it can expect to capture from North Slope oil revenues.

The base case shown to you today in graphic form assumes the total pipeline cost of \$3.5 billion financed 90% by debt at an interest rate of 8%. It conforms to the Alyeska throughput assumptions of full production only in the seventh year of pipeline operation. It shows the same ICC permitted rate of return as shown in the State's projection in July. In the fourth year from the beginning of construction and the first year of production, or 1977, we now show a negative wellhead or no State oil revenues. This was the year comparable to that in which it was earlier shown that the State would capture at least \$164 million in revenues. The fifth year, 1978 the second assumed year of operation,

we earlier estimated \$278 million in State revenues. In those two years alone the net revenue loss to the State over earlier estimates amounts to \$442 million. By the sixth year or 1979 the new projection shows \$84.6 million in oil severance and royalty revenues. Earlier we estimated \$282 million for that year. The net loss by that year over earlier estimates is \$640 million. Not until the 15th year of the pipeline operation do royalties and severance taxes amount to near the amount shown to our previously calculated second year. In the 15th year we show severance and royalty revenues of \$277 million.

The question may be asked whether this is most pessimistic of cases which can be produced. The answer is clearly no for three reasons. In the first place the revenue loss figure mentioned above gives no effect to our expectation now of first pipeline operation in the year 1977, whereas in July we estimated a full year of revenues starting on July 1, 1975.

In the second place we show State taxes in each year of operation of approximately \$33 million. For the first three years of operation State income taxes are estimated to total approximately \$100 million or \$33 million a year. This assumes the full State income tax rate on pipeline profits. Experts have indicated that this may not be a realistic assumption. Even, however, with the most optimistic income tax estimate net revenue loss from earlier projections amounts to \$540 million during the critical first three years of operation.

Thirdly, calculation of the 7% permitted rate of return on valuation may err on the low side. The leading text on the subject "Petroleum Pipelines and Public Policy" by Arthur Johnson cites numerous instances of the slowness of the ICC to actually evaluate pipeline costs and its heavy reliance on industry figures. The Cook Inlet pipeline valuation itself took three years to complete.

The 7% figure is not high also when it is remembered there are seven separate proposed pipeline owners, each of which may aggregate earnings of other pipelines when the 7% rate is considered. It is entirely possible that higher return rates may be permitted until the valuation of the line is complete and even thereafter when earnings of other pipeline companies are aggregated to arrive at a total rate of return.

The next case presented shows the possible economic effect of State ownership of the pipeline. Financing is assumed in the amount of \$1 billion in each of the first two years of construction at 8%, \$900,000,000 in the third year of construction at 6-1/2%, \$250,000,000 at 8% in the first year of operation, and \$310,000,000 in the second year of operation. This case also assumes the same ICC permitted rate of dividend payout as assumed for the private case, namely, 7% which is a cash dividend payout limitation in each year of the projection. In arriving at the State's net cash flow, operating expenses, amortization, and interest on bonds are deducted from the gross income. During the

first year of operation net cash flow to the State through its tariff on the pipeline is \$230 million and royalty and severance taxes of \$15.7 million for a total of \$245 million. Obviously, in State ownership no federal or state income taxes are calculated on pipeline income. In the fifth year from beginning of construction or the second year of operation net cash flow is \$228 million which together with royalty and severance taxes of \$17 million produce a total of \$245 million. In the sixth year from the beginning of construction and the third year of operation net cash flow amounts to \$227 million through the tariff and total royalties and severance taxes amount to \$123 for a total of \$350 million. In the 15th year cash flow is reduced to \$183 million by reason of the fact that the pipeline has depreciated but total royalties and severance taxes amount to \$297 million for a total to the State treasury of \$480 million.

It is emphasized that this case makes almost identical assumptions to that for the private case described above. It should be emphasized that the net income shown to the State is computed after debt service on State bonds. To avoid a speculative argument on the possible differential between interest rates on the State's debt which may be tax exempt versus taxable interest on the private borrowing we show all but \$900,000,000 in State bonds at the same 8% rate. The main differences, of course, lie in the fact that the State is not subject to federal income tax and will receive no state income tax from pipeline operations

since it is the owner. The timing of the bond issues for both private and public ownership is the same although the term of the public bond issue is shorter indicating heavier debt service loads and the State of course is financing the pipeline 100% on a debt basis.

Numerous additional assumptions can be made on the question of the manner of public financing, the rate of return permitted either to the State or to private pipeline owners, interest rates payable by the State and private owners, the effective tax rate in private ownership, to mention only a few. We know that estimating the effect of economic projects based on events three to seven years away must rest on assumptions which are to a degree speculative. You will hear testimony that our assumptions are incorrect. The point is that no one can say with positive certainty what our revenue picture will be with the pipeline in private ownership. We have, however, tested prior assumptions based on official information now before us. This effort has convinced the administration that it must do what it can now to remove the uncertainty of the revenue picture in the late 1970's and in the 1980's. Mr. Eppenbach will explain how our projections were made and some of the detail on the charts before you.

Testimony of Lawrence Eppenbach
State Investment Officer

March 6, 1972

Mr. Chairman, Committee Members. In testimony already presented you have heard a great deal about revenues, costs of pipelines, calculations of royalties and severance taxes and permitted dividends. Rather than to add more numbers, more formulas, more calculations, I think it would be prudent now to pause and develop perspective on the numbers already given to you and about the many charts. To do this, I should like to talk first about how the State brought all of its pipeline information together to calculate what is really the most important piece of information thus far and that is an estimate of total revenue from the North Slope.

We employed a computer model which simulated each year, economic operation of the pipeline under varying conditions regarding ownership, financing, taxes, and earnings limitations. In a sense, an income statement was prepared each year for the owner of the line. This income statement does not appear so very different, at least in terms of its expressions, from that of any other income statement. Gross revenues to the pipeline are derived from its tariff charge on barrels of oil transported through the line. That gross revenue less the cost of operating and maintaining the line, less depreciation, and less interest costs for financing

the line, will produce a net income figure. From that we deducted any federal or state income taxes paid to yield a net after taxes income.

Similarly, the cash flow to a pipeline company is much like that of any other business. The net after tax income plus any additional cash flows which may be generated because the depreciation charge that is provided for in the income statement happens to be greater than the bond retirement actually made by the company. The only place that pipeline operation appears different, economically, to that of the ordinary company, is in the dividend payout allowed each year by the pipeline company to its owners.

That dividend is not some percentage of equity or some rate of return of capital investment, it is a percentage dividend allowed on the valuation of the pipeline as determined by the ICC. The ICC valuation approach takes into account many issues: original cost of the line, depreciation, percentage increases for going concern value, and additional percentage increases for inflation. Our computer model had to also simulate this ICC valuation. In general terms, during the first year of operation ICC valuation was about \$3-1/4 billion. In the following years it increases slightly as additional phases of operation were under way providing for higher throughput and then decreased in value as the line began to depreciate.

The dividend limitation on ICC valuation is a critical variable in the

economics of pipeline ownership. Our model, given a dividend rate calculated back up the income statement to find out what kind of tariff would have to be placed upon the pipeline in any year to provide gross revenue required to generate the appropriate cash flow for the dividend. During the first year of operation of the trans-Alaska pipeline, the 7% dividend limitation provides for a dividend to the parent company of over \$230 million, a legal dividend provided only to the owner of the pipeline.

If I may turn your attention now to the large chart: it is that very dividend that accounts for the vast difference between estimated income to the State of Alaska under conditions of public ownership on the top line, versus conditions of private ownership, the bottom line. You will note that both lines slope upward as the throughput of oil through the line increases, clearly shown as a step increase between operation of the line in phase one, a capacity of 600,000 barrels a day up to phase 2, a design capacity of 1,200,000 barrels per day. But the graph does not display all of the information which is in the tables alongside of it.

First, in public ownership, the major part of revenue during the early years is derived from dividends with positive and growing amounts of revenue coming from wellhead value royalty and production taxation. You will note that there are no state income taxes included here as a revenue source to the State

under conditions of public ownership.

Under conditions of private ownership, a very different case develops. Here in the initial year a total of about \$37 million should accrue to the State. Where does it come from? \$3.2 million of it only comes from the North Slope in the form of gas royalty and production tax payments. This is gas that is assumed to be shipped in a trans-Canadian gas pipeline. The remaining \$34 million comes from state income taxes. In the 7% dividend case displayed here there is no positive wellhead value for oil during the first two years of operation under private ownership. In this case, for there to begin to be some positive wellhead for oil during the first two years, the dividend payments must be no greater than 4.75% and even if the dividend were lowered to zero the State's income from royalty and severance tax of approximately \$53 million would be less than one third of that estimated as recently as last year.

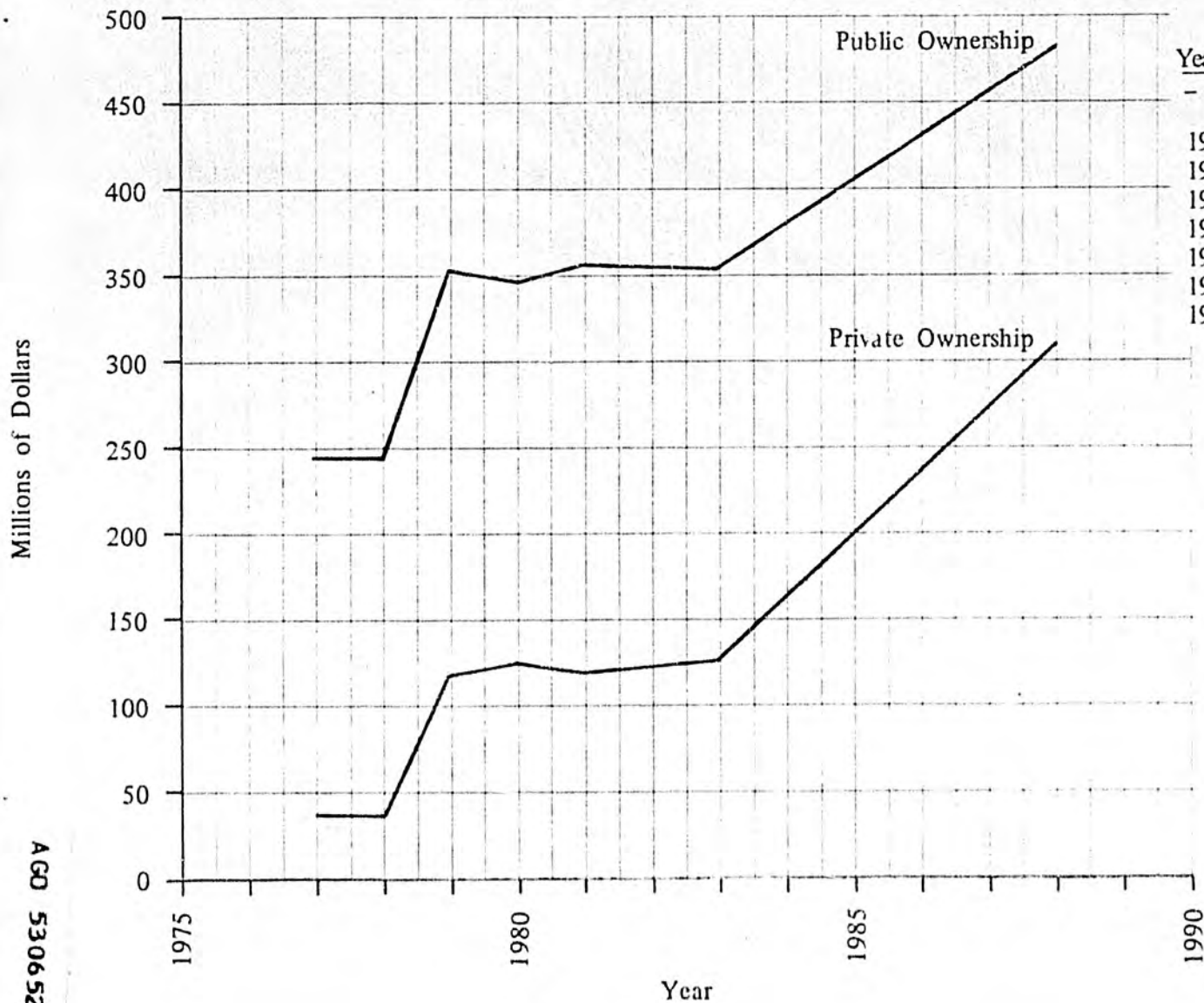
I shall present at the close of the testimony this afternoon a series of cases for the committee to study that explore this question of taxation and dividend limitation. For the present, however, let us return to these two cases that we have displayed before you. Again, they provide a legal 7% ICC dividend. In the private case even though a negative wellhead value is indicated for the first two years it is quite possible that the oil companies would still pump oil

as their true cost of shipping their own oil through their own pipeline may be different than their calculated cost of shipping the State's oil through their own pipeline. Not only is the dividend permitted legal, but together with the costs and throughput capacity limitations as stated in the Impact Statement, this case of private ownership of the line appears quite possible. So are the revenues it generates. Speaking next to the very important question of what these revenues will mean to the State will be the Commissioner of Administration, Joseph Henri.

STATE OF ALASKA
EXHIBITS TO
SUPPORT TESTIMONY
GIVEN BEFORE
SENATE COMMERCE COMMITTEE
AND
HOUSE STATE AFFAIRS COMMITTEE
CONCERNING REGULATION AND
OWNERSHIP OF THE TRANS-ALASKA PIPELINE
MARCH 6, 1972

AGO 530651

ESTIMATED INCOME TO STATE



Assuming Public Ownership

Year	Pipeline Income	Royalty & Production Payments	Total
(Millions of Dollars)			
1977	\$230.86	\$ 15.70	\$246.56
1978	228.00	17.28	245.28
1979	227.47	123.47	350.94
1980	224.60	122.26	346.86
1981	243.56	123.35	355.91
1983	234.69	117.53	352.22
1988	183.00	297.92	480.92

Assuming Private Ownership

Year	State Taxes	Royalty & Production Payments	Total
(Millions of Dollars)			
1977	\$33.73	\$ 3.22	\$ 36.95
1978	33.62	3.22	36.84
1979	34.01	84.66	118.67
1980	91.82	33.97	125.79
1981	82.91	37.05	119.96
1983	36.67	89.48	126.15
1988	30.98	277.15	308.11

AGD 530652

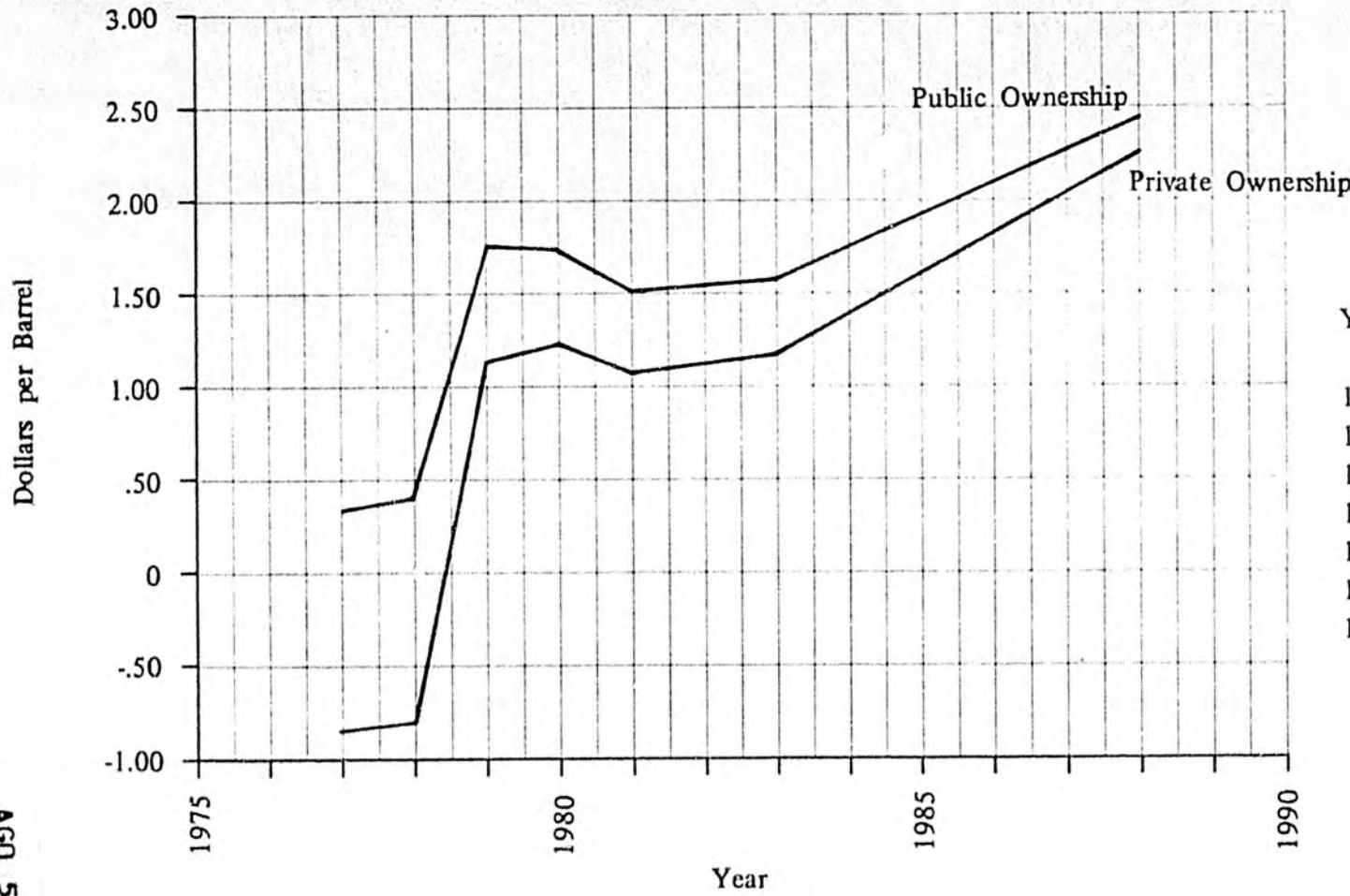
ESTIMATED CAPITOL INVESTMENTS

January 1972 prices

(Million of Dollars)

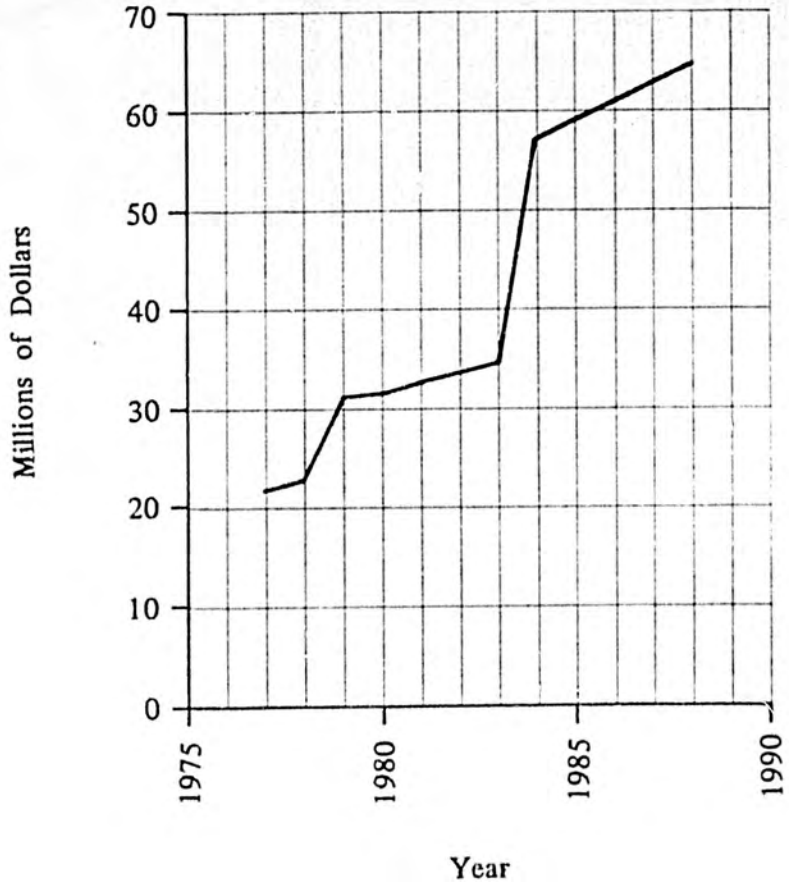
	Before start of Construc- tion	P H A S E I		P H A S E II		P H A S E III		Totals
		Construc- tion	Super- vision & Admin.	Construc- tion	Super- vision & Admin.	Construc- tion	Super- vision & Admin.	
Pipeline and stations	144.50	1,935.22	130.12	106.35	6.85	197.57	9.97	2,530.58
Valdez		219.04	13.57	130.75	5.00	101.84	5.00	475.20
Communications		<u>25.08</u>						<u>25.08</u>
Sub-total	144.50	2,179.34	143.69	237.10	11.85	299.41	14.97	3,030.86
Design Engineering	<u>273.70</u>							<u>273.70</u>
Sub-total	418.20	2,179.34	143.69	237.10	11.85	299.41	14.97	3,304.56
Roads and Airfields		133.00	6.15					139.15
Yukon Bridge		<u>8.50</u>	<u>.41</u>					<u>8.91</u>
Total	418.20	2,320.84	150.25	237.10	11.85	299.41	14.97	3,452.62
			2,320.84		237.10		299.97	3,452.62
			418.20					
GRAND TOTAL			<u>2,880.29</u>		<u>248.95</u>		<u>314.38</u>	<u>3,452.62</u>

Estimated Wellhead Price



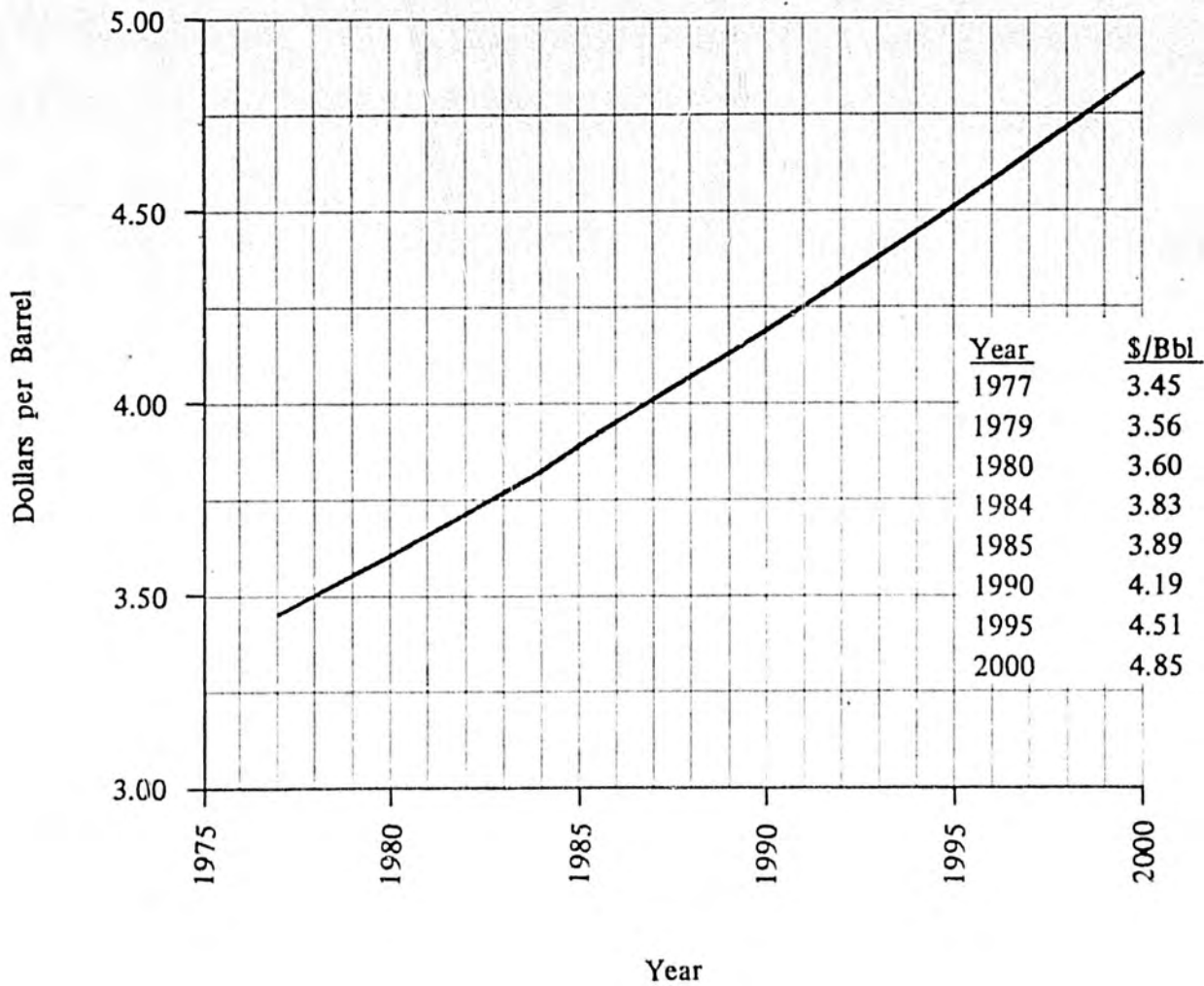
Year	Public Ownership	Private Ownership
1977	\$0.36	\$-0.84
1978	0.40	-0.80
1979	1.67	+1.12
1980	1.65	1.22
1981	1.51	1.09
1983	1.58	1.18
1988	2.45	2.27

Estimated Operating and Maintenance Cost
Public Ownership

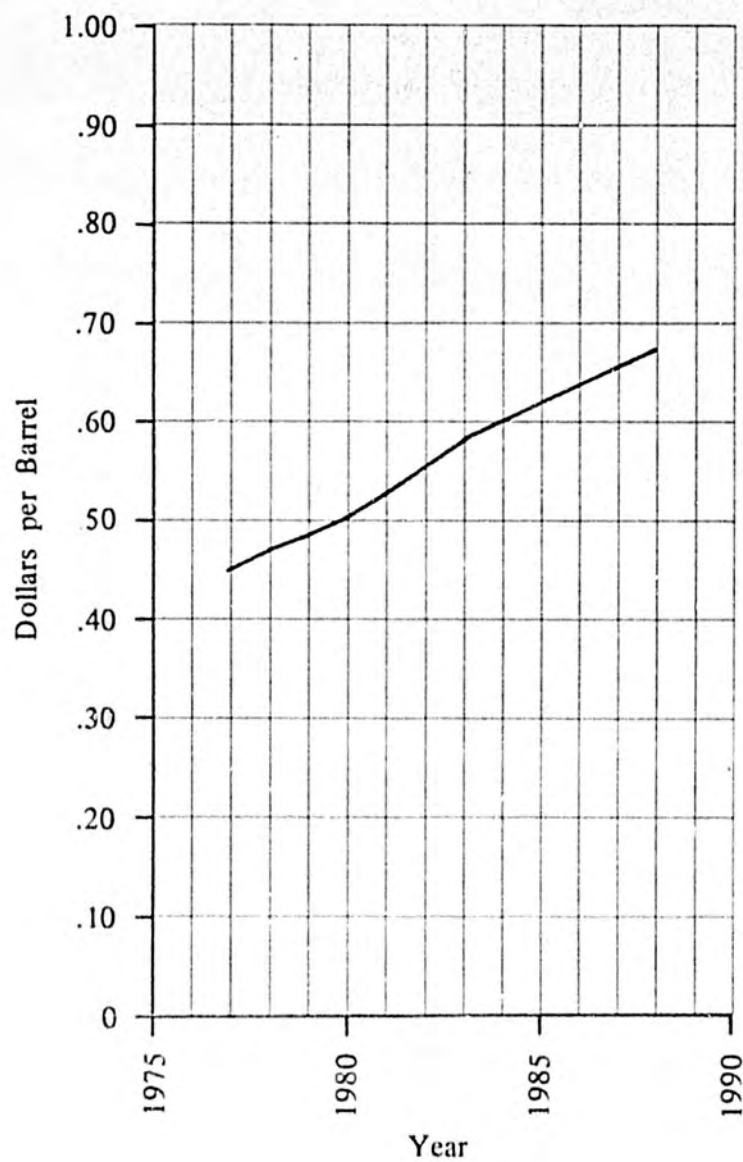


Year	Operating and Maintenance Cost
1977	\$21.99
1978	22.65
1979	30.89
1980	31.82
1981	32.77
1983	34.77
1984	57.42
1988	64.99

Estimated Refinery Gate Price of Crude
Los Angeles Area



Estimated Tanker Transportation Cost
Valdez to Los Angeles



<u>Year</u>	<u>\$/Bbl</u>
1977	.455
1978	.472
1979	.484
1980	.503
1981	.526
1983	.580
1988	.670

AGD 530657

ANALYSIS OF STATE INCOME
OF VARIOUS CONDITIONS OF
PIPELINE OWNERSHIP & OPERATION
STATE OF ALASKA
MARCH 6, 1972

The attached charts display the total income to the State under various conditions of pipeline ownership and operation. In every case total revenue to the State is the appropriate combination of dividends from pipeline ownership, state tax on pipeline income, and the total of oil and gas royalty and production tax payments.

Method of Analysis:

The major portion of the analysis was performed by an economic computer model developed to simulate pipeline operation each year under a variety of conditions. Under varying assumptions regarding ownership, debt structure, taxes and earnings limitations the computer model forecasts pipeline net revenues, cash flows, tariffs and wellhead values.

Description of key variables:

Variables held constant:

1. Total cost - equal to \$3.5 billion. This total cost reflects the full expenditure for engineering construction and overhead for the pipeline and terminal through all phases of construction.
2. Oil throughput - calculated at a rate consistent with the capacity limitations as stated in the Pipeline Impact Statement. The design capacity of the line for the first two years will be 600,000 barrels a day, for the next five years 1,200,000 barrels a day, and after seven years of operation would increase to 2,000,000 barrels a day. In addition, an efficiency factor of 85% was applied against the design capacity of the line to provide an effective daily average of 510,000 barrels per day during the first two years, 1,020,000 barrels a day for the next five years, and 1,700,000 barrels a day thereafter.

3. Operating expenses - were calculated by independent consultants to the State for operation of the trans-Alaska pipeline. Each year's operating expense estimate fully reflects the cost of labor, maintenance, fuel, materials, supplies, contingency reserves, insurance, and the effect of an assumed 3% price level increase each year.

4. Depreciation - was calculated on the basis of a straight line depreciation over a 30 year life to a salvage value of 15%.

5. ICC Valuation - was simulated on the following basis: pipeline investment less ICC calculated depreciation plus 6% of that value for going concern value plus 4% of original investment value each year.

6. Wellhead price calculation for oil -

Wellhead price (oil) = Refinery price less tanker charges less pipeline tariff.

a. Refinery prices - the price of Alaska crude oil at a typical District 5 refinery in 1977 is calculated to be \$3.45 rising approximately 5 cents each year thereafter.

b. Tanker charges - the charge paid to transport oil from Valdez to Los Angeles was calculated to be 45.5 cents per barrel in 1977 increasing to 52.6 cents by 1981 and 67.0 cents by 1988. The increase in tanker charges over this period of time was due to the estimated continuing increase in labor costs and purchase prices of tankers. These estimates were prepared for the State by Temple, Barker, Sloane, Inc. who used a computer model in their analysis.

c. Pipeline tariffs - as calculated.

7. Wellhead price calculation for gas - The price of gas at the wellhead was assumed to be 20 cents/MCF during the first year of production in 1977 and increases one cent every five years thereafter.

8. Effective royalty and severance tax rates - The royalty payments for both oil and gas were calculated at 12.5% of wellhead value. The severance tax rate for oil was assumed to be 7.2% for pipeline oil volumes less than 1.7 million barrels per day and 6.751% for 1.7 million or more barrels per day.

Wells with lower individual production rates are expected to contribute a significant share of oil during phase III operation of the pipeline. Because the severance tax rate varies with the volume of production at each well, a lower average tax rate of 6.751% was calculated to represent the effective average rate.

Variables:

1. Dividend limitation - The 1941 Consent Decree held that the dividend paid by the consolidated subsidiary pipeline company to its parent company must not exceed 7% of the valuation of the pipeline. The dividend is composed of net income after tax payments plus additional cash flow from any excess of depreciation charges greater than bond amortization payments. The dividend percentages calculated were 4%, 5-1/2%, and 7%.

2. Financing of pipeline:

a. Private Ownership - In the case of private ownership of the pipeline 90% of the cost of the pipeline was assumed to be financed by bonds of 30 year term with an 8% interest rate and semi-annual interest payments. The level debt service costs of five bond issues were calculated:

- Issue 1 - \$900 million for the first year of construction.
- Issue 2 - \$900 million during the second year of construction.
- Issue 3 - \$810 million during the third year of construction.
- Issue 4 - \$225 million during the first year of operation to finance phase two.
- Issue 5 - \$279 million during the fifth year of operation to finance phase three.

b. Public Ownership - In the case of public ownership of the line, 100% of the cost was assumed to be debt financed. All bonds are of 25 year average term with semi-annual interest payments:

- Issue 1 - \$1 billion for the first year of construction at 8% interest.
- Issue 2 - \$1 billion for the second year of construction at 8% interest.
- Issue 3 - \$900 million for the third year of construction at a tax exempt interest rate of 6-1/2%.
- Issue 4 - \$250 million at 8% during the first year of operation to finance phase two.
- Issue 5 - \$310 million at 8% during the fifth year of operation to finance phase three.

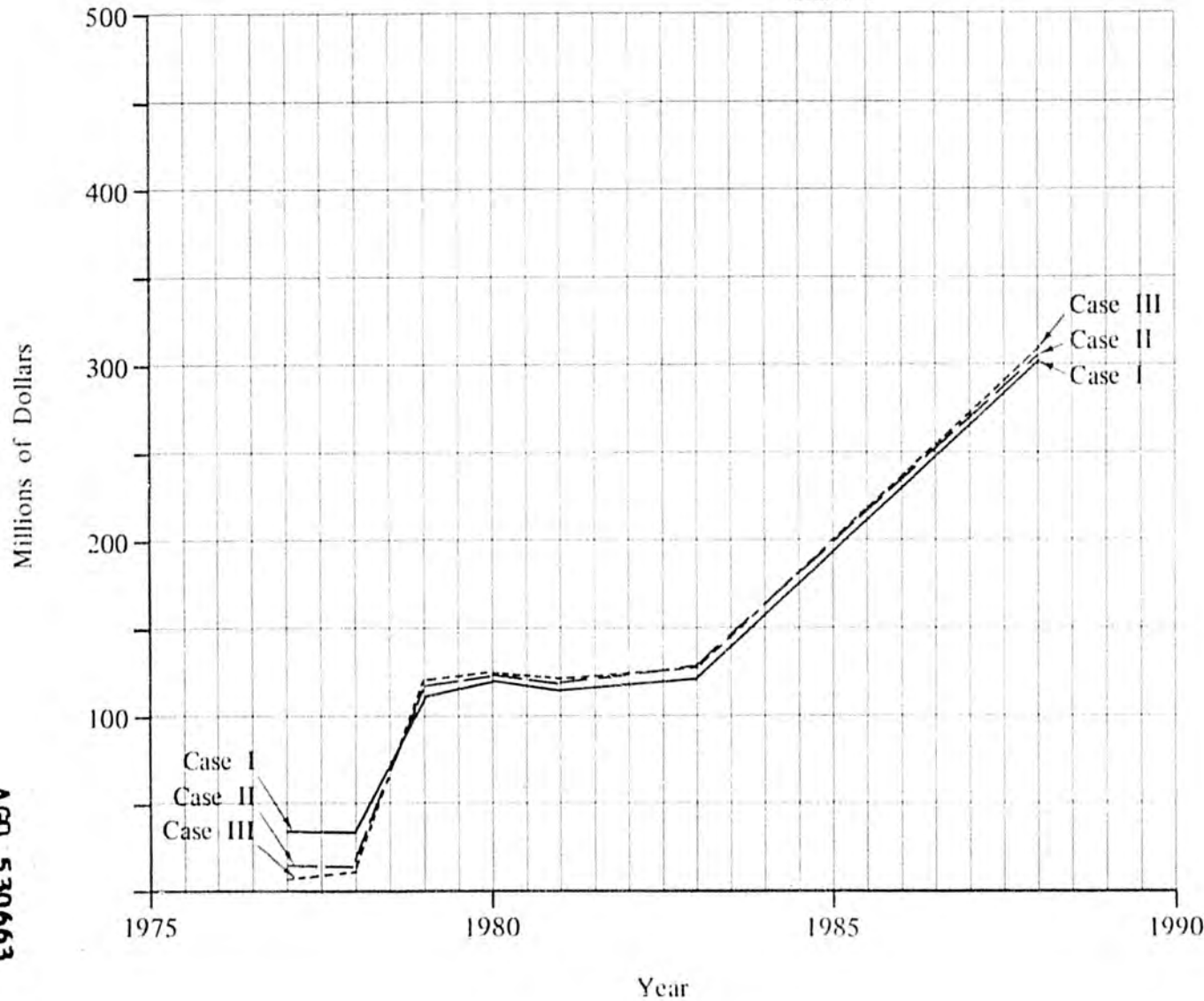
3. State and Federal tax on pipeline income:

Case 1. The full effective state income tax rate of 9.36% of net income and 43.51% of net income for federal income taxes.

Case 2. An overall tax rate of 30% with the same distribution between state and federal taxes as in Case 1. This calculates to be a state income tax rate of 5.31% of net income and federal tax rate of 24.69% of net income.

Case 3. That of no taxation with both state and federal taxes at a zero rate.

Estimated Income to State
Private Ownership
Chart I



AGO 530663

Case I - Base Case
7% Dividend Full 9.36% Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	\$33.73	\$ 3.22	\$ 36.95
1978	33.62	3.22	36.84
1979	34.01	84.66	118.67
1980	33.97	91.82	125.79
1981	37.05	82.91	119.96
1983	36.67	89.48	126.15
1988	30.98	277.13	308.11

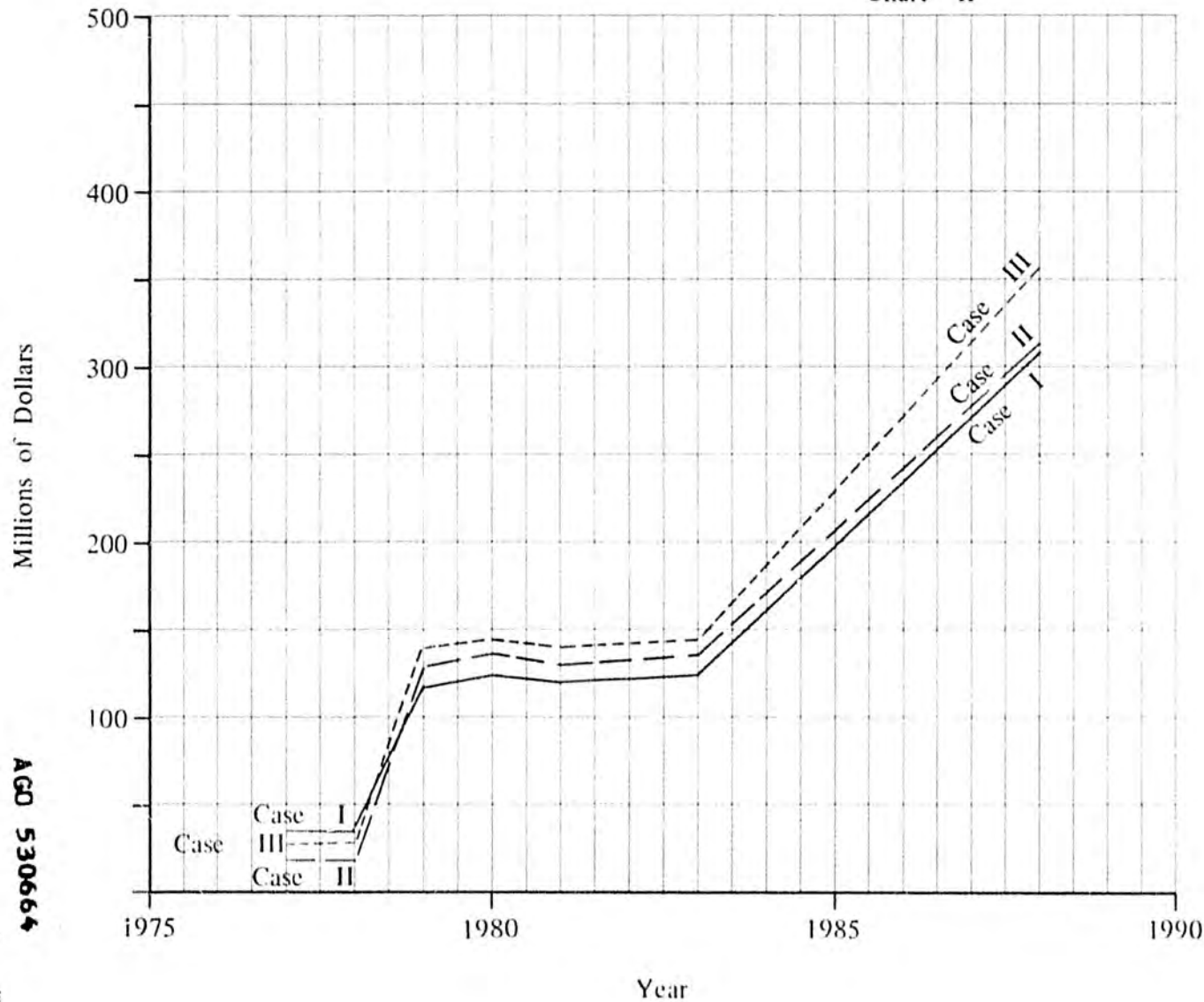
Case II
7% Dividend, Industry Average Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	\$12.88	\$ 3.22	\$ 16.10
1978	12.84	3.22	16.06
1979	12.99	106.98	119.97
1980	12.98	114.12	127.10
1981	14.15	107.22	121.37
1983	14.01	113.54	127.55
1988	11.83	297.46	309.29

Case III
7% Dividend Zero Income Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	0	\$ 9.68	\$ 9.68
1978	0	10.96	10.96
1979	0	120.78	120.78
1980	0	127.90	127.90
1981	0	122.25	122.25
1983	0	128.42	128.42
1988	0	310.03	310.03

Estimated Income to State
Private Ownership
Chart II



Case I - Base Case
7% Dividend Full 9.36% State Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	\$ 33.73	\$ 3.22	\$ 36.95
1978	33.62	3.22	36.84
1979	34.01	84.66	118.67
1980	33.97	91.82	125.79
1981	37.05	82.91	119.96
1983	36.67	89.48	126.15
1988	30.98	277.13	308.11

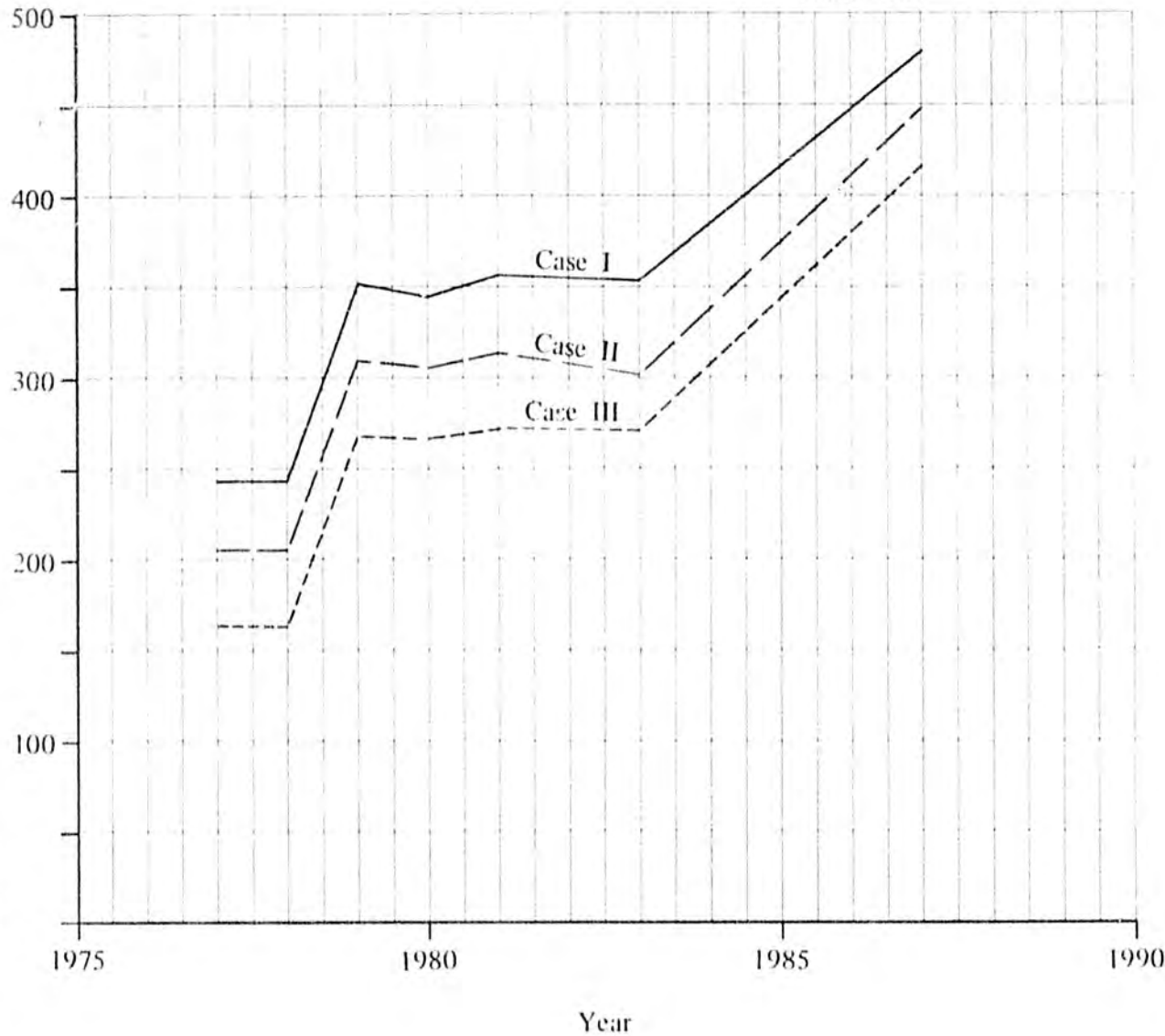
Case II
5.5% Dividend Industry Average Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	\$ 9.13	\$ 9.28	\$ 18.41
1978	9.13	10.44	19.57
1979	9.29	120.07	129.36
1980	9.33	127.04	136.37
1981	10.19	121.23	131.42
1983	10.19	127.05	137.24
1988	8.86	307.99	316.85

Case III
0% Dividend Zero Income Tax

Year	Pipeline Income	Royalty & Production Payments	Total
----- (Millions of Dollars) -----			
1977	0	\$ 28.28	\$ 28.28
1978	0	29.33	29.33
1979	0	139.10	139.10
1980	0	145.99	145.99
1981	0	141.87	141.87
1983	0	147.33	147.33
1988	0	356.11	356.11

Estimated Income to State
Public Ownership
Chart III



Case I - Base Case
7% Dividend

Year	Pipeline Income	Royalty & Production Payments	Total
--- (Millions of Dollars) ---			
1977	\$230.86	\$ 15.70	\$246.56
1978	228.00	17.28	245.28
1979	227.47	123.47	350.94
1980	224.60	122.26	346.86
1981	243.56	112.35	355.91
1983	234.69	117.53	352.22
1988	183.01	297.92	480.93

Case II
5.5% Dividend

Year	Pipeline Income	Royalty & Production Payments	Total
--- (Millions of Dollars) ---			
1977	\$181.39	\$ 25.00	\$206.39
1978	179.14	26.47	205.61
1979	178.72	132.64	311.36
1980	176.47	131.31	307.78
1981	191.37	122.16	313.53
1983	184.40	126.98	311.38
1988	143.79	305.29	449.08

Case III
4% Dividend

Year	Pipeline Income	Royalty & Production Payments	Total
--- (Millions of Dollars) ---			
1977	\$131.92	\$ 34.30	\$166.22
1978	130.28	35.65	165.93
1979	129.98	141.80	271.78
1980	128.34	140.36	268.70
1981	139.18	131.97	271.15
1983	134.11	136.44	270.55
1988	104.58	312.66	417.24

AGD 530665

Private ownership, 15 year projection with .07 dividend, low throughput option, .10 equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		523.36	522.72	532.25	507.05	551.62	544.75	523.28
Operating Expenses		21.99	22.85	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		242.28	241.80	240.87	214.91	234.27	227.30	204.26
Income before Taxes		169.84	189.27	171.24	171.06	186.54	184.64	156.00
State Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes		169.84	169.27	171.24	171.06	186.54	184.64	156.00
ICC ROFV (%)		12.50	12.61	12.68	12.03	12.09	12.29	13.78
CASH FLOW (\$ millions)								
Income after Taxes		169.84	169.27	171.24	171.06	186.54	184.64	156.00
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		28.22	30.53	33.02	35.71	41.02	47.99	71.03
Net Cash Flow		230.86	228.00	227.47	224.60	243.56	234.69	183.01
Tariff (cents)		281.15	280.84	142.96	136.19	148.17	146.32	84.33
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		7.00	7.00	7.00	7.00	7.00	7.00	7.00
Pipeline Valuation (\$ billions)		3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)		.18	.22	1.63	1.74	1.65	1.74	2.56
(\$ millions)								
Wellhead Value (oil)		34.39	41.18	608.21	646.09	614.32	647.14	1586.37
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		54.48	61.28	648.42	686.30	656.53	689.36	1660.08
Total Royalty & Severance (oil)		6.47	7.74	114.34	121.46	115.49	121.66	298.24
Total Royalty & Severance (gas)		9.68	10.96	120.78	127.90	122.25	128.42	310.03

Private ownership, 15 year projection with .07 dividend, low throughput option, .10 equity, .30 income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		596.15	595.32	605.63	580.36	631.57	623.89	590.14
Operating Expenses		21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		242.28	241.60	240.87	214.91	234.27	227.30	204.26
Income before Taxes		242.63	241.82	244.62	244.38	266.49	263.78	222.86
State Income Tax		12.88	12.84	12.99	12.98	14.15	14.01	11.83
Federal Income Tax		59.90	59.70	60.40	60.33	65.79	65.12	55.02
Income after Taxes		169.84	169.28	171.24	171.07	186.54	184.65	156.01
ICC ROFV (%)		12.50	12.61	12.68	12.03	12.09	12.29	13.78
CASH FLOW (\$ millions)								
Income after Taxes		169.84	169.28	171.24	171.07	186.54	184.65	156.01
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		28.22	30.53	33.02	35.71	41.02	47.99	71.03
Net Cash Flow		230.87	228.00	227.47	224.60	243.56	234.69	183.01
Tariff (cents)		320.25	319.81	162.67	155.89	169.64	167.58	95.11
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		7.00	7.00	7.00	7.00	7.00	7.00	7.00
Pipeline Valuation (\$ billions)		3.298	3.257	3.25	3.209	3.479	3.353	2.614
Wellhead Price (\$)		(.21)	(.17)	1.44	1.54	1.44	1.53	2.45
(\$ millions)								
Wellhead Value (oil)		(38.40)	(31.37)	534.83	572.78	534.37	568.00	1519.51
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		(18.29)	(11.26)	575.03	612.98	576.59	610.22	1593.22
Total Royalty & Severance (oil)		(7.22)	(5.90)	100.55	107.68	100.46	106.78	285.67
Total Royalty & Severance (gas)		3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance		(4.00)	(2.68)	106.98	114.12	107.22	113.54	297.46

Private ownership, 15 year projection with .055 dividend, low throughput option, .10 equity, .30 income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		525.48	525.53	536.00	511.60	557.01	552.04	534.12
Operating Expenses		21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		242.28	241.60	240.87	214.91	234.27	227.30	204.26
Income before Taxes		171.95	172.03	174.99	175.62	191.93	191.93	166.84
State Income Tax		9.13	9.13	9.29	9.33	10.19	10.19	8.86
Federal Income Tax		42.45	42.47	43.20	43.36	47.39	47.39	41.19
Income after Taxes		120.37	120.42	122.50	122.94	134.35	134.36	116.79
ICC ROFV (%)		11.00	11.11	11.18	10.53	10.59	10.79	12.28
CASH FLOW (\$ millions)								
Income after Taxes		120.37	120.42	122.50	122.94	134.35	134.36	116.79
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		28.22	30.53	33.02	35.71	41.02	47.99	71.03
Net Cash Flow		181.39	179.14	178.73	176.47	191.37	184.40	143.79
Tariff (cents)		282.29	282.32	143.97	137.42	149.61	148.28	86.08
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		5.50	5.50	5.50	5.50	5.50	5.50	5.50
Pipeline Valuation (\$ billions)		3.298	3.257	3.25	3.209	3.479	3.353	2.614
Wellhead Price (\$)		.17	.21	1.62	1.72	1.64	1.72	2.54
(\$ millions)								
Wellhead Value (oil)		32.27	38.43	604.46	641.53	608.93	639.85	1575.53
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		52.38	58.53	644.67	681.74	651.15	682.07	1049.25
Total Royalty & Severance (oil)		6.07	7.22	113.64	120.61	114.48	120.29	296.20
Total Royalty & Severance (gas)		3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance		9.28	10.44	120.07	127.04	121.23	127.05	307.99

Private ownership, 15 year projection with no dividend, low throughput option, .10 equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

Year:	4	5	6	7	8	10	15
INCOME (\$ millions)							
Gross Income	292.50	294.78	304.78	282.45	308.07	310.06	340.28
Operating Expenses	21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds	242.28	241.60	240.87	214.91	234.27	227.30	204.26
Income before Taxes	(61.03)	(58.72)	(56.23)	(53.54)	(57.01)	(50.05)	(27.00)
State Income Tax	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes	(61.03)	(58.72)	(58.23)	(53.54)	(57.01)	(50.05)	(27.00)
ICC ROFV (%)	5.50	5.61	5.68	5.03	5.09	5.29	6.78
CASH FLOW (\$ millions)							
Income after Taxes	(61.03)	(58.72)	(56.23)	(53.54)	(57.01)	(50.05)	(27.00)
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization	28.22	30.53	33.02	35.71	41.02	47.99	71.03
Net Cash Flow	.00	.00	.00	.00	.00	.00	.00
Tariff (cents)	157.13	158.36	81.86	75.87	82.75	83.28	54.84
Flow/Day	.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)	.00	.00	.00	.00	.00	.00	.00
Pipeline Valuation (\$ billions)	3.298	3.257	3.250	3.209	3.470	3.353	2.614
Wellhead Price (\$)	1.42	1.45	2.24	2.34	2.30	2.37	2.85
(\$ millions)							
Wellhead Value (oil)	265.25	269.17	835.68	876.69	857.87	881.83	1769.37
Wellhead Value (gas)	20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value	285.36	289.28	875.89	910.90	900.09	924.05	1843.09
Total Royalty & Severance (oil)	49.87	50.00	157.11	163.69	161.28	165.78	332.64
Total Royalty & Severance (gas)	3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance	53.08	53.82	163.54	170.12	168.03	172.54	344.44

Public ownership, 15 year projection with .04 dividend, low throughput option, no equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		392.41	391.44	420.42	440.76	499.90	502.09	509.29
Operating Expenses		21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		238.50	238.50	238.08	235.91	256.69	244.81	203.79
Income before Taxes		42.67	41.03	62.20	83.78	112.39	124.47	142.48
State Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes		42.67	41.03	62.20	83.78	112.39	124.47	142.48
ICC ROFV (%)		8.53	8.58	9.24	9.96	10.61	11.01	13.24
CASH FLOW (\$ millions)								
Income after Taxes		42.67	41.03	62.20	83.78	112.39	124.47	142.48
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		-0-	-0-	21.47	44.69	71.25	88.39	135.94
Net Cash Flow		131.92	130.28	129.98	128.34	139.18	134.11	104.58
Tariff (cents)		210.81	210.28	112.93	118.39	134.27	134.86	82.08
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		4.00	4.00	4.00	4.00	4.00	4.00	4.00
Pipeline Valuation (\$ billions)		3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)		.89	.93	1.93	1.91	1.79	1.85	2.58
(\$ millions)								
Wellhead Value (oil)		165.34	172.52	720.04	712.38	666.04	689.80	1600.36
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		185.44	192.62	760.24	752.59	708.26	732.02	1674.07
Total Royalty & Severance (oil)		31.08	32.43	135.37	133.93	125.22	129.68	300.87
Total Royalty & Severance (gas)		3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance		34.30	35.65	141.80	140.36	131.97	136.44	312.60

Private ownership, 15 year projection with .04 dividend, low throughput option, .10 equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

Year:	4	5	6	7	8	10	15
INCOME (\$ millions)							
Gross Income	424.42	425.07	434.76	410.79	447.24	444.17	444.85
Operating Expenses	21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds	242.28	241.60	240.87	214.91	234.27	227.30	204.26
Income before Taxes	70.90	71.56	73.75	74.81	82.16	84.06	77.57
State Income Tax	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes	70.90	71.56	73.75	74.81	82.16	84.06	77.57
ICC ROFV (%)	9.50	9.61	9.68	9.03	9.09	9.29	10.78
CASH FLOW (\$ millions)							
Income after Taxes	70.90	71.56	73.75	74.81	82.16	84.06	77.57
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization	28.22	30.23	33.02	35.71	41.02	47.99	71.03
Net Cash Flow	131.92	130.28	129.98	128.34	139.18	134.11	104.58
Tariff (cents)	228.00	228.35	116.78	110.34	120.13	119.30	71.69
Flow/Day	.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Pipeline Valuation (\$ billions)	3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)	.72	.75	1.90	1.99	1.93	2.01	2.68
(\$ millions)							
Wellhead Value (oil)	133.33	138.89	705.70	742.35	718.70	747.72	1664.80
Wellhead Value (gas)	20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value	153.43	158.99	745.91	782.55	760.92	789.94	1738.51
Total Royalty & Severance (oil)	25.07	26.11	132.67	139.56	135.11	140.57	312.98
Total Royalty & Severance (gas)	3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance	28.28	29.33	139.10	145.99	141.87	147.33	324.78

Public ownership, 15 year projection with .055 dividend, low throughput option, no equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		441.88	440.29	469.17	488.89	552.09	552.38	548.51
Operating Expenses		21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		238.50	238.50	238.08	235.91	256.69	244.81	203.79
Income before Taxes		92.14	89.89	110.94	131.91	164.58	174.76	181.69
State Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes		92.14	89.89	110.94	131.91	164.58	174.66	181.69
ICC ROFV (%)		10.03	10.08	10.74	11.46	12.11	12.51	14.74
CASH FLOW (\$ millions)								
Income after Taxes		92.14	89.89	110.94	131.91	164.58	174.76	181.69
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		-0-	-0-	21.47	44.69	71.25	88.39	135.94
Net Cash Flow		181.39	179.14	178.72	176.47	191.37	184.40	143.79
Tariff (cents)		237.38	236.53	126.02	131.32	148.29	148.37	88.40
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		5.50	5.50	5.50	5.50	5.50	5.50	5.50
Pipeline Valuation (\$ billions)		3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)		.62	.66	1.80	1.78	1.65	1.72	2.52
(\$ millions)								
Wellhead Value (oil)		115.87	123.66	671.29	664.25	613.85	639.51	1561.14
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		135.97	143.77	711.50	704.46	650.07	681.73	1634.86
Total Royalty & Severance (oil)		21.78	23.25	126.20	124.88	115.40	120.23	293.49
Total Royalty & Severance (gas)		3.22	3.22	6.43	6.43	6.70	6.70	11.79
Grand Total Royalty & Severance		25.00	26.47	132.64	131.31	122.16	126.98	305.29

Public ownership, 15 year projection with .07 dividend, low throughput option, no equity, no income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

	Year:	4	5	6	7	8	10	15
INCOME (\$ millions)								
Gross Income		491.36	489.15	517.91	537.02	604.28	602.67	587.73
Operating Expenses		21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds		238.50	238.50	238.08	235.91	256.69	244.81	203.79
Income before Taxes		141.61	138.75	159.69	180.04	216.77	225.05	220.91
State Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Federal Income Tax		-0-	-0-	-0-	-0-	-0-	-0-	-0-
Income after Taxes		141.61	138.75	159.69	180.04	216.77	225.05	220.91
ICC ROFV (%)		11.53	11.58	12.24	12.96	13.61	14.01	16.24
CASH FLOW (\$ millions)								
Income after Taxes		141.61	138.75	159.69	180.04	216.77	225.05	220.91
Depreciation		89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization		-0-	-0-	21.47	44.69	71.25	88.39	135.94
Net Cash Flow		230.86	228.00	227.47	224.60	243.56	234.69	183.01
Tariff (cents)		263.96	262.77	139.11	144.24	162.31	161.88	94.72
Flow/Day		.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)		7.00	7.00	7.00	7.00	7.00	7.00	7.00
Pipeline Valuation (\$ billion)		3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)		.36	.40	1.67	1.65	1.51	1.58	2.45
(\$ millions)								
Wellhead Value (oil)		66.40	74.81	622.55	616.12	561.66	589.22	1521.95
Wellhead Value (gas)		20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value		86.50	94.91	662.66	656.33	603.88	631.44	1595.64
Total Royalty & Severance (oil)		12.48	14.06	117.04	115.83	105.59	110.77	286.12
Total Royalty & Severance (gas)		3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance		15.70	17.28	123.47	122.26	112.35	117.53	297.92

Private ownership, 15 year projection with .07 dividend, low throughput option, .1 equity, full income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

Year:	4	5	6	7	8	10	15
INCOME (\$ millions)							
Gross Income	713.89	712.67	724.34	698.95	760.88	751.89	698.29
Operating Expenses	21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds	242.28	241.60	240.87	214.91	234.27	227.30	204.26
Income before Taxes	360.36	359.17	363.33	362.96	395.80	391.78	331.01
State Income Tax	33.73	33.62	34.01	33.97	37.05	36.67	30.98
Federal Income Tax	156.79	156.27	158.08	157.93	172.21	170.46	144.02
Income after Taxes	169.84	169.27	171.24	171.06	186.54	184.64	156.00
ICC ROFV (%)	12.50	12.61	12.68	12.03	12.09	12.29	13.78
CASH FLOW (\$ millions)							
Income after Taxes	169.84	169.27	171.24	171.06	186.54	184.64	156.00
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization	28.22	30.53	33.02	35.71	41.02	47.99	71.03
Net Cash Flow	230.86	228.00	227.47	224.60	243.56	234.69	183.01
Tariff (cents)	383.50	382.85	194.56	187.74	204.37	201.96	112.54
Flow/Day	.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Pipeline Valuation (\$ billions)	3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)	(.34)	(.80)	1.12	1.22	1.09	1.18	2.27
(\$ millions)							
Wellhead Value (oil)	(156.13)	(148.71)	416.12	454.19	405.05	440.00	1411.36
Wellhead Value (gas)	20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value	(136.03)	(128.61)	456.33	494.40	447.27	482.22	1485.08
Total Royalty & Severance (oil)	(29.35)	(27.96)	78.23	85.39	76.15	82.72	265.34
Total Royalty & Severance (gas)	3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance	(26.14)	(24.74)	84.66	91.82	82.91	89.48	277.13

Private ownership, 15 year projection with .07 dividend, low throughput option, .10 equity, .11 income tax option and no Ad Valorem tax. Total cost is \$3.5 billion at .08 for 30 years, two periods per year.

Year:	4	5	6	7	8	10	15
INCOME (\$ millions)							
Gross Income	613.16	610.54	620.70	602.05	653.78	642.18	579.97
Operating Expenses	21.99	22.65	30.89	31.82	32.78	34.77	64.99
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Interest on Bonds	161.52	161.07	160.58	143.27	156.18	151.54	136.17
Income before Taxes	340.40	337.57	339.98	337.70	366.79	357.84	280.77
State Income Tax	31.86	31.60	31.82	31.61	34.33	33.49	26.28
Federal Income Tax	148.11	146.88	147.92	146.94	159.59	155.70	122.16
Income after Taxes	160.43	159.10	160.23	159.16	172.87	168.65	132.33
ICC ROFV (%)	9.76	9.83	9.87	9.43	9.46	9.55	10.27
CASH FLOW (\$ millions)							
Income after Taxes	160.43	159.10	160.23	159.16	172.87	168.65	132.33
Depreciation	89.25	89.25	89.25	89.25	98.03	98.03	98.03
Bond Amortization	18.82	20.35	22.01	23.81	27.35	31.99	47.35
Net Cash Flow	230.86	228.00	227.47	224.60	243.56	234.69	183.01
Tariff (cents)	329.39	327.99	166.72	161.71	175.61	172.49	93.47
Flow/Day	.51	.51	1.02	1.02	1.02	1.02	1.70
ROCF (%)	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Pipeline Valuation (\$ billions)	3.298	3.257	3.250	3.209	3.479	3.353	2.614
Wellhead Price (\$)	(.30)	(.25)	1.40	1.48	1.38	1.48	2.47
(\$ millions)							
Wellhead Value (oil)	(55.41)	(46.59)	519.76	551.09	512.16	549.71	1529.69
Wellhead Value (gas)	20.10	20.10	40.21	40.21	42.22	42.22	73.72
Total Wellhead Value	(35.31)	(26.48)	559.97	591.29	554.37	591.93	1603.40
Total Royalty & Severance (oil)	(10.42)	(8.76)	97.72	103.60	96.29	103.35	287.58
Total Royalty & Severance (gas)	3.22	3.22	6.43	6.43	6.76	6.76	11.79
Grand Total Royalty & Severance	(7.20)	(5.54)	104.15	110.04	103.04	110.10	299.38