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to us at less than half the going price of "new" gas in the Cook Inlet area, delivered on the North Kenai Road.

Our alternative to competing at the $1.45 price level is to continue to utilize "Anchorage" reserves at Nikiski, as we are now doing, but to pay the same price we would have paid for royalty gas. We have verbal assurance that we can operate on this basis at Nikiski while we install the facilities necessary to shift to royalty gas, and we are proceeding with preparations to do so at the earliest possible date following legislative approval of the royalty contracts as revised. We hope to begin taking royalty gas as early as June, 1977.

Several questions arose over the two years it has taken to reach agreement of the several parties as to our use of royalty gas, and I will try to comment as information for those who review the actions taken. First, the royalty gas contract signed last year, and approved by the legislature, was contingent on APC working out an arrangement with Phillips to obtain delivery of the royalty gas through their pipeline from the platform to the Kenai LNG plant, and it required "take or pay" of 100% of the royalty gas. These elements led to problems which had to be resolved as has been done in the revised contracts which were executed last week. The differences are (1) that the delivery to shore will be made by Phillips for the State, with APC paying Phillips for the account of the State, at prices negotiated by APC with Phillips, and (2) that there will be no "take or pay": Phillips will make a best effort to deliver at least 3 BCF per year (roughly 55% of the total royalty), and APC will make a best effort to take all of the royalty which Phillips

can deliver, but neither party will be obligated to make extra investment or incur unreasonable extra operating cost.

Without obligation, APC expects Phillips to deliver essentially all the royalty and expects to take all the royalty, but only experience will tell the outcome of this expectation. Phillips may install one or more units of compression, and APC may install a pipeline to connect the royalty gas into its pipeline to Anchorage. Various factors outside the respective control of Phillips and APC have made it necessary to develop a best-efforts arrangement rather than the original "take or pay" of 100% of the royalty.

APC's royalty pipeline, if built, would provide several advantages:

1. It would essentially assure APC's ability to take all of the available royalty, all of the time, and gain the maximum benefit from royalty gas.
2. It would provide "back-up" for APC's North Road customers while royalty gas may not be available due to downtime of the LNG plant, the platform, or the Phillips pipeline or compressors.
3. It would provide APC with access to other than royalty gas in the vicinity of the Kenai LNG plant, which is at the center of several streams of natural gas--supplies to Swanson River for repressurizing, ammonia/urea manufacture, Pacific Alaska LNG, etc. Thus, the pipeline could give APC additional options on "new" gas from various sources.

4. It would provide an independent supply of gas to APC for emergency in the event of catastrophic failure of the Kenai gas field--well operations, dehydration, or compression--or of APC's pipeline from the field to Mile 16 of APC's pipeline to Anchorage.

Feasibility of the royalty pipeline depends on the possibility of exchanging royalty gas with Union-Marathon, final rate decisions of the Alaska Public Utilities Commission (APUC), final quantification of the amount of royalty gas to be delivered, flow through of the extra cost of royalty gas, and other factors including availability and cost of right of way. At present it appears that there is sufficient benefit from the royalty line to justify the investment by APC.

APC's experience with the APUC is such that royalty gas is particularly attractive: the flow through of its extra cost to end users has been authorized by the APUC, whereas no other purchase by APC can be made with flow through except by further hearings. This fact, plus the fact that it appears royalty gas will always be available (for the contract term) at less cost than any other likely "new" gas, make the royalty most advantageous to APC and its customers. Further, the precedent of this purchase of this royalty gas by APC should be helpful at a future date when other royalty gas may become available and feasible for purchase by APC.

It is clear that APC's action to purchase royalty gas is in the public interest. The price is the lowest available to APC and its

customers; the price is qualified to be not less than the State would have received by its continued export to Japan or by any comparable sale during the contract term within 100 kilometers of the Phillips platform; and a relatively modest investment is required by APC even including the royalty pipeline. Other "new" gas could involve meeting the currently competitive price of Cook Inlet gas ($1.45) and could involve pipeline costs or take or pay costs many times that for royalty gas. The quantity of this royalty gas is rather ideal for APC's present requirements. In 1976, APC's total purchases were 28.6 BCF compared to the required take or pay quantity of 26 BCF per year at the Kenai gas field. As structured, the royalty gas contracts would allow APC (and Phillips) to match their investment to market developments and thus provide the optimum conditions for such investment.

Clearly, Phillips has been a reluctant party in these contracts but has acted responsibly and reasonably and consistent with the public interest. Phillips preference has always been to retain the royalty gas and increase its value by liquefaction for export to Japan. That contract was originally 52¢ FOB Tokyo, but now is $1.95. Clearly the increase ($1.43) contains a substantial increase of profit (which is shared by the State through its royalty price). Clearly the 20¢ revenue which Phillips will realize by bringing the royalty gas on shore does not compare with the revenue and income Phillips would realize by its export.

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The 20¢ delivery/compression charge is obviously the most Phillips could charge, because it is the most APC would pay. The State is realizing the most it can from the royalty gas, because APC will not pay more for this gas. To suggestions, if any, that APC should not have accepted the delivery charge as contracted, APC would respond that it would be no more logical to require Phillips to accept less than their required price than for the State to accept less than it deems to be necessary for this gas.

APC will not increase its income by purchasing this royalty gas--it will simply recover most (not all) of its costs, by flow through. APC's objective in making this purchase is to prolong the life of its gas reserves and thus the availability of its "old" gas at "old gas pricing" for its customers.

APC firmly believes that the merit of its purchase of royalty gas has been established already in various arenas.

1. The APUC considered the subject in extensive hearings in 1975 and its order clearly contemplates the purchase and in fact, deemed the matter to be of urgent importance.
2. The Royalty Board and the Commissioner of Natural Resources have reviewed this matter at great length and have approved and authorized its present form.
3. The Attorney General has reviewed jursidictional aspects and agreed it is not contrary to the public interest or the laws of Alaska.

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4. The legislature, in its prior approval, has endorsed the concept and pricing of this purchase by APC.

Previously, support for this purchase by APC was given by the City of Anchorage, Chugach Electric Association, and Homer Electric Association. APC is not aware of any opposition to its purchase of this royalty gas (opposition by Pacific Alaska LNG was withdrawn in 1976, at the insistence of APC). When these various governmental and business approvals are considered, and when the alternative can only be that this gas would continue to be exported to Japan, APC believes that ample justification for the contracts has been made.

At present, APC has about 415 BCF of gas remaining under contract at the Kenai gas field. At 30 BCF per year, there would be 14 years of reserves now remaining. The royalty gas potentially available to June, 1984 is about 40 BCF, which is less than a 10% increase. APC is and has been attempting to reduce the growth rate of its gas sales through conservation measures such as waste heat recovery by power plants and by opposing and reducing the use of gas-generated electric heat. However, it is very likely that unavoidable growth will shorten APC's reserve life to 10 years or less. APC must look to the long term aspects of its gas supply in order to avoid future shortages and problems with the long-term (20 year) financing APC requires. Purchase of the royalty gas is a step, but only a step, in this direction. Royalty gas at 75¢ or 85¢ will be helpful to APC in its negotiations for additional "new" gas reserves, viewed in the context of competitive offerings at $1.45 or possibly a price equivalent to oil in future years.

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Delays in obtaining royalty gas can only diminish its benefit to APC and its customers because of the quantity available as well as the timing and impact of the purchase.

Very truly yours,

Dale Teel
President

DT/pm

Phillips

February 25, 1977

Mr. John Horn
Phillips Petroleum Company
Gas and Gas Liquids Division
Bartlesville, Oklahoma 74004

Dear Mr. Horn:

As you know, the State of Alaska entered into an agreement with the Alaska Pipeline Company on June 4, 1976 for the sale of the State's royalty gas produced from your company's North Cook Inlet Gas Field. The Alaska Pipeline Company and Phillips have been unable to work out a mutually satisfactory arrangement for delivery of the gas. The State of Alaska, through the Department of Natural Resources, is continuing to explore various ways this can be accomplished in the interest of all parties.

The Alaska Pipeline Company has proposed that the State enter into an agreement with your company to take delivery of royalty gas from your pipeline at a mutually agreeable point near the North Kenai Road. The State is presently exploring this possibility and your cooperation has been greatly appreciated. Several questions have been raised regarding this procedure. They are:

1. Will the Alaska Public Utilities Commission have jurisdiction over the Phillips pipeline if the State takes delivery at this point? The State's Attorney General has been asked for an opinion.

2. What charges would be made by Phillips for delivery of the gas to this point? What is the detailed justification of these charges?

3. We understand that as the field pressure declines, compressors will be installed to maintain production rate. What costs will be incurred by the State and what is the detailed justification of these costs?

4. What is your best forecast of the dates of installation of the first and future compressors and how will the cost to the State change with installation of additional compressors?

5. What is your best forecast of future production from this field? Will you share with the State your future production plans so that the State may plan accordingly to utilize its royalty gas?

6. The State understands your need to maintain production of your LNG plant and that your ability to deliver royalty gas to the State will change as the field pressure changes. Would you please explain this procedure and give us your best forecast of your ability to make delivery in the future?

Your response to the above would be greatly appreciated together with any further information that you may feel to be pertinent to the solution of this problem.

Would you please review the draft agreement prepared by Alaska Pipeline Company between Phillips and the State and recommend changes that may be of interest to your company?

Thank you for your cooperation. Your early response to the above will be greatly appreciated.

Very truly yours,

Donald G. Wold
Executive Director

DGW/jl

PHILLIPS PETROLEUM COMPANY
BARTLESVILLE, OKLAHOMA 74004 918 661 6600

NATURAL RESOURCES GROUP
Gas and Gas Liquids Division

March 3, 1977

Royalty Gas
North Cook Inlet Field

File: 1-Ho-115-77-C&GL

Mr. Donald G. Wold, Executive Director
Royalty Oil & Gas Development Advisory Board
Department of Natural Resources
Pouch M
Juneau, Alaska 99811

Dear Sir:

In your letter of February 25, 1977, you have requested certain information regarding whether Phillips could make the royalty gas from the North Cook Inlet Field available at an onshore location on the North Kenai Road, rather than in the field as provided in our lease with the State of Alaska. Information is listed by the numbers used in your letter:

2. Q. What charges would be made by Phillips for delivery of the gas to this point? What is the detailed justification of these charges?

   A. Since we had previously negotiated a place differential of 10¢ per Mcf starting with the calendar year of 1977 and increasing 6% per year thereafter with Alaska Pipeline Co., Phillips would be willing to utilize this approach with the State. Although this is a negotiated figure, the data supporting same is shown on Table I.

3. Q. We understand that as the field pressure declines, compressors will be installed to maintain production rate. What cost will be incurred by the State and what is the detailed justification of these costs?

   A. For the first compressor unit (approximately 3800hp) installed, compression charge would be 10¢ per Mcf increasing 6% per year from the year of installation. As later units are added, the compression charge will be agreed upon at that time. The above charge is the result of negotiations with Alaska Pipeline Company and is on the condition that Royalty gas would be handled only when there is surplus capacity in our gathering system and compressors. The above charge would be substantially higher if based on adding sufficient additional compressor capacity to assure the availability of capacity and would also entail a substantial minimum annual payment to cover these additional costs. Our calculations are attached as Table II.

4. Q. What is your best forecast of the dates of installation of the first and future compressors and how will the cost to the State change with installation of additional compressors?

4. Continued.

A. This is dependent on the amount of royalty gas taken by the State and also on other factors, such as, whether LNG in addition to current deliveries to Japan is sold to the south 48 states. Based on present information, we estimate that the first unit would be installed in 1978 or 1979.

5. Q. What is your best forecast of future production from this field? Will you share with the State your future production plans so that the State may plan accordingly to utilize its royalty gas?

A. Production has averaged 43 to 45 Bcf annually over the last several years. We visualize that production could increase to 55 Bcf or more per year including royalty gas taken in kind.

6. Q. The State understands your need to maintain production of your LNG plant and that your ability to deliver royalty gas to the State will change as the field pressure changes. Would you please explain this procedure and give us your best forecast of your ability to make delivery in the future?

A. Without compression, the volume available from North Cook Inlet Field will decline rather rapidly commencing in 1979. Producing at the 43 to 45 Bcf per year rate and with the installation of compressors, these rates are estimated to continue until 1983, after which the volume declines approximately 10% per year. If the higher rate of 55 Bcf per year is maintained, the volume will commence declining in 1984 at the rate of approximately 10% per year.

You will appreciate that, due to the number of unknown factors, the information provided above is based on our best estimates of the situation as it now exists. New developments could change these estimates.

John Horn

JH:jaw

cc: R. I. Swetnam

T A B L E I

PIPELINE

Estimated Present-Day Replacement Cost	at least	$25,000,000
Estimated Present-Day Replacement Cost Depreciated to 1977		17,300,000

ESTIMATED COSTS

	$/Year
Depreciation (20 Years)	$1,100,000
Rate of Return 15% on Depreciated Investment	1,520,000
Income Tax @ 52.9% (State & Federal)	1,700,000
Operating Expense	2,750,000
TOTAL	$7,070,000

Cost/Mcf @ 43 Bcf/Year = 16.4¢

Cost/Mcf @ 55 Bcf/Year = 12.9¢

TABLE II

COMPRESSORS
(FIRST UNIT)

To maintain capacity in the gathering system and compressors to handle the full 12.5% royalty gas volume, it will be necessary to install compressors at an earlier date. Also, it is estimated that to maintain this capacity it will be necessary to install an additional compressor unit over and above that required for maintaining deliveries without the State taking its royalty gas in kind. Estimated differential in compressor investment is $5,000,000.

Cost of Compression

	$/Year
Depreciation (10 Years)	$ 500,000
Rate of Return 15% on Average Investment	375,000
Income Taxes @ 52.9% (State & Federal)	420,000
Operating Expense	715,000
TOTAL	$2,010,000

Minimum Annual Payment	= $2,010,000
Royalty Gas Volume @ 43 Bcf/Year	= 5.4 Bcf
Royalty Gas Volume @ 55 Bcf/Year	= 6.9 Bcf
Cost/Mcf @ 5.4 Bcf	= 37.2¢
Cost/Mcf @ 6.9 Bcf	= 29.1¢

Phillips agreed with Alaska Pipeline Company's request to a compressor charge of 10¢/Mcf on a space-available basis and no minimum annual charge.

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March 10, 1977

Memo to: File

Subject: Rationale for Accepting Gathering and Compression Charges Proposed on North Cook Inlet Royalty Gas

By telephone March 10, 1977 Mr. Don Wold asked us to rationalize the acceptance of a 10¢/MCF charge for "gathering" and a 10¢/MCF charge for compressing royalty gas we have negotiated to purchase from the State of Alaska.

The State will escalate the price we pay for royalty gas to the highest price paid by other purchasers within 100 kilometers for similar quality and similar delivery conditions. We had offered to pay no more than the price the State would otherwise have received through the continued export of the royalty gas to Japan as LNG.

It thus is clear that the State places the State's interest above the interests of our ratepayers to the extent we have to pay more than would result from export of this gas. It does not follow that the Lessee who has made the investment required for production, gathering, and compression of royalty gas can be or should be held responsible to deliver the royalty gas at less cost than the Lessee determines to be necessary, fair, and reasonable. In fact, efforts by the State to do so will simply result in there being no agreement and no delivery of royalty gas by the Lessee.

The Lessee cannot be treated as a regulated operator under Alaska law, and the Lessee has the right to determine whether or not, and at what price, it is willing to share its facilities and install new facilities for the benefit of our ratepayers rather than for its shareholders. Clearly, the Lessee prefers not to share these facilities and will not do so if effort is made to assert that delivery of royalty gas onshore could have equal or greater priority than its contractual duty to delivery LNG to Tokyo, regardless of the revenue (price) received by Lessee.

The Lessee has provided (letter of 3-3-77) some cost estimates, reluctantly, to show the reasonableness of the prices accepted by us:

Table I: Pipeline (Gathering)

Annual cost is reported to be $7,070,000. Assuming all this cost is carried by 43 BCF or 55 BCF, the average cost is 16.4¢ or 12.9¢. The selection of 10¢ as being appropriate for gathering

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royalty gas is less than these average costs, but clearly more than the incremental cost, as it must be. There is no way for a third party to impose a different price on the Lessee, and the price of 10¢ is far below any alternative available to us. In fact, there is no such alternative except not to take royalty gas, and we are not obliged to do so. We bear all the risk that the cost of this gas will remain competitive and will be recoverable through our revenues.

Table II: Compressors (first unit)

Annual cost is reported to be $2,010,000. Assuming all this cost is carried by 43 BCF or 55 BCF, the average cost is 4.67¢ or 3.65¢. While the compression is not required except to deliver royalty gas (but all the gas must be compressed), the incremental cost here would be 37.2¢ or 29.1¢. However, the Lessee recognizes that during the contract term compression will be required even if royalty gas is not being delivered to us. The selection of 10¢ as being appropriate for the compression is less than the short term incremental cost but well more than the average cost. Again, there is no way for a third party to impose a different price on the Lessee, and we bear all risk that the cost of this gas will remain competitive and will be recoverable through our revenues.

If the two components are combined, the results are:

$9,080,000 annual cost @ 43 bcfy

21.12¢ average cost

versus 20.00¢ price requested

The price requested is below the reported average cost. Assuming no incremental cost for gathering (pipeline) however, the price requested is well above the incremental cost. In fact, there is an incremental cost for gathering (as to dehydration), and other down-hole expenses which are a function of production rate. We are not equipped to quantify these costs and there is no reason to do so. The essence of this matter is that the Lessee has offered us a price below average cost and above incremental cost which is acceptable to us and that we are the only party at risk.

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There are only two beneficiaries of this contract. We do not benefit, since we will simply recover our added costs from our rate payers. We believe Phillips will not benefit since they are reluctant and clearly prefer to process and ship the gas to Japan. We believe their profits in processing and selling the royalty gas to Japan would be much greater than the amount of income from the proposed compression and transmission charges net of incremental expenses. The State takes no risks and may benefit from a higher wellhead price. Our ratepayers benefit from the increased life of our committed reserves. If the transaction is not consummated then, the losers are the State and our ratepayers, which (through power distribution) include more than half of the State's population, from Homer and Seward to Talkeetna.

There is no way to require the Lessee to deliver royalty gas (at any price) and no way to disagree with the price(s) now offered. Clearly the end objective -- obtaining of royalty gas -- is in the public interest, and the State should place that interest foremost.

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