

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86 / 2

468 SCOMM13: JOINT COMM. ON GAS PIPELINE IMPACT 1974-76

Atlantic Richfield

Projected Financing Needs 1975-1977
(In millions)

	1975	1976	1977	Cumulative Total
Sources:				
Net income (a)	\$ 320	\$ 383	\$ 599	\$1,302
DD&A	375	425	494	1,294
Dry hole drilling costs	90	90	90	270
Deferred Federal income taxes	50	50	80	180
Cash flow from operations	\$ 835	\$ 948	\$1,263	\$3,046
BP note receivable	58	58	—	116
Sale of assets (b)	16	—	—	16
Issues of common stock	—	—	—	—
Long-term borrowings (b)	500	—	—	500
Total sources	\$1,409	\$1,006	\$1,263	\$3,678
Uses:				
TAPS outlays	\$ 512	\$ 544	\$ 188	\$1,244
Capitalized interest	61	110	79	250
North Slope development	200	144	76	420
Alaskan reserves tax	—	55	65	120
Capital expenditures (ex. No.Slope) (c)(d)	900	900	1,000	2,800
Cash dividends	157	157	157	471
Debt repayments	48(b)	117	24	189
Total uses	\$1,878	\$2,027	\$1,589	\$5,494
Indicated financing needs	\$ 469	\$1,021	\$ 326	\$1,816

(a) 1977 figure includes \$36 million of producing profit (23.2 million barrels @ \$1.54/bbl) and \$28 million of pipeline profit (23.2 million barrels @ \$1.21/bbl) based on pipeline throughput of 600,000 b/d from July 1 through year-end. Also included are estimated TAPS and field development ITC benefits of \$113.8 million.

(b) Through June 30, 1975.

(c) Excludes capital projects financed off-balance sheet estimated at \$300 million, \$300 million, and \$150 million in 1975, 1976, and 1977, respectively.

(d) Includes dry hole drilling costs shown above.

As a result of an improved level of 1977 cash flow associated with the initial buildup of Prudhoe Bay production and an assumed lower level of non-Alaskan capital spending, Arco's indicated 1975-1977 funds shortfall of \$1,816 million compares quite favorably with the figure of \$2,140 million contained in our May report, despite an intervening increase in both pipeline system and field development costs and the passage of the Alaskan reserves tax. Even with the assumption of restricted output of 600,000 b/d from July 1, 1977 through year-end, the writer estimates Arco will earn \$178 million (\$3.08 per share) from the North Slope for 1977. Also, depreciation and amortization charges and deferred Federal income taxes (calculated on the basis of a normalized pipeline throughput rate of 1.2 million b/d) are estimated to contribute \$19 million and \$21 million, respectively, to internally generated funds during the first six months of project operation.

North Slope derived investment tax credit benefits obviously represent a non-recurring source of earnings; nevertheless, the assumed availability of these credits provide yet another source of funds to meet pre-startup financing needs and a potentially sizable benefit to reported earnings in the 1975-1977 period under progress payment rules newly enacted under the Tax Reduction Act of 1975 (see footnote on page 18 for discussion of this treatment). To illustrate the amounts involved for Arco, the writer estimates ITC benefits will total to \$12 million (21¢ per share), \$37 million (64¢ per share) and \$114 million (\$1.98 per share) for 1975, 1976, and 1977, respectively. In succeeding years, as operating earnings begin their impressive rise, the amount of ITC will drop precipitously.

Once again, in attempting to gain additional insight into management's possible financing strategy, it is useful to segregate the TAPS project from the remainder of Arco's corporate activities. Assuming a 90%/10% and 30%/70% debt/equity ratio for TAPS and other corporate projects, respectively, the following breakdown of financing requirements results.

Financing Requirements & Arrangements
(In millions)

TAPS Project		Other Activities	
TAPS expenditures	\$1,529	Total uses (ex. TAPS) less total sources (ex. TAPS borrowings)	\$822
Capitalized interest	275		
Total TAPS	\$1,804	(\$4,000 less \$3,178)	
Less expenditures through 1974	310		
Remaining expenditures	\$1,494	Non-debt needed (\$822 x 70%)	\$575
TAPS financing to date(a)	865		
Remaining expenditures to be financed(\$1,804 less \$865)	\$ 939	Debt capacity (\$822 x 30%)	\$247
Equity needed (\$1,804 x 10% less \$75)	\$ 105		
Debt capacity (\$1,804 x 90% less \$790)	834		
Total to be financed	\$ 939	Total to be financed	\$822
Combined financing needs	\$1,761		
Debt	\$1,081		
Non-debt	\$ 680		

(a) Financing to date has included \$200 million of 8.7% Guaranteed Notes of 1981, \$250 million of 8% Guaranteed Notes of 1982; \$250 million of 8 3/8% Guaranteed Notes of 1983; and \$90 million of other intermediate and long-term debt. To cover short-term borrowing requirements, ARCO Pipeline also has available \$250 million of the parent company's unused \$532 million credit lines and a \$150 million four-year backup credit from a group of European and Canadian banks. Also included in financing to date is \$75 million of equity which is arbitrarily assumed to be available from ARCO Pipeline Company's existing shareholders' equity.

Arco has available a number of options to cover its \$680 million of imputed non-debt financing requirements. These include: (1) property sales, (2) a drawdown of working capital (3) sale of common stock, (4) advance payments by natural gas transmission companies, (5) advance sales of crude and/or natural gas, and (6) a further cutback in the level of non-Alaskan capital expenditures. Funds from property sales could be potentially significant if the company can successfully divest itself of the East Chicago refinery and the bulk of its Midcontinent marketing properties. Recent agreements have been concluded with three natural gas transmission companies providing for interest-free advances to Arco totaling \$720 million to finance the costs of exploration, development, and production of natural gas from the Prudhoe Bay field. Assuming necessary regulatory approvals are forthcoming, a sizable portion of these monies could be forthcoming by year-end 1977. Even with the likelihood of expenditures associated with the company's participation in the construction and/or lease of a trans-U.S. pipeline to move surplus North Slope crude to midcontinent markets prior to 1978, Arco continues to enjoy a comfortable financing burden.

Based on the financing pattern outlined above, including the sale of one million common shares at \$100 per share, the next table shows balance sheet data for 1974 and a projection for year-end 1977.

Atlantic Richfield

Partial Balance Sheet Data
(In millions)

	As of December 31	
	1974	1977
Long-term debt	\$1,219	\$2,800
% total capital.	26%(b)	39%
Minority interest	\$ 68	--
% total capital.	1%	--
Preferred stock	\$ 49	\$ 49
% total capital.	1%	1%
Shareholders' equity	\$3,406	\$4,337
% total capital.	72%	60%
Total capitalization	\$4,742	\$7,186
Common shrs. outstdg(c)	56.7	57.7
Book value per share	\$60.07	\$75.16

(a) Including \$500 million of long-term debt issued to date in 1975.

(b) Including the present value of noncapitalized financing leases (\$343 million), the ratio becomes 31%.

(c) Including common share equivalents (representing an additional 10,615,249 shares as of March 31, 1975).

As indicated in the right-hand column of the table, Arco's December 31, 1977 long-term debt comprises 39% of total capitalization — a position nearly identical to that developed in our May report. Unlike Sohio, where the parent company itself faces a significant financing burden which dictates some reliance on the sale of equity, Arco's assumed use of common stock rests mainly on cost of capital considerations.

Longer Term Earnings

Longer Term Earnings — The Standard Oil Company (Ohio)

The foregoing revisions in North Slope pipeline and production economics point to the need to also adjust our earlier projections for Sohio's earnings power by 1981. Additional specific assumptions underlying these revisions include:

- (1) Sohio Pipe Line Company's interest in TAPS will remain at 33.34%.
- (2) BP-Sohio's estimated 53.3% ownership in the main Prudhoe unit will provide Sohio with a similar percentage of actual production of 1.2 million b/d.
- (3) When output from the main unit reaches its estimated 1.5 million b/d potential, BP-Sohio's share will approximate 800,000 b/d (still 53.3% of the total); but under the terms of the merger agreement Sohio's interest before royalty will be 714,000 b/d. (The merger agreement is summarized in Appendix I of our May *Basic Report*.)
- (4) BP-Sohio's combined share of an additional 500,000 b/d of production will be 125,000 b/d or one quarter of the increment of which 31,250 b/d or 25% would accrue to Sohio under the BP merger agreement.
- (5) In view of the enormous political, procedural and economic difficulties involved in completing the natural gas transmission system to tap Prudhoe Bay gas, this earnings source is likely to start up sometime after 1981.

(See table on following page)

Standard Oil (Ohio)

Potential 1981 Earnings
(In millions)

Crude Price (Signal Hill 27°)	\$8.00	\$10.00	\$12.00
Production profit per barrel	\$1.20-\$1.39	\$1.92-\$2.18	\$2.67-\$2.92
North Slope production:			
Sadlerochit pool	\$362.8	\$566.4	\$752.5
Other pools (Lisburne/Kuparuk)	13.7	21.9	30.3
Total production profit	\$376.5	\$588.3	\$782.8
33.34% of equity in TAPS	177.9	177.9	177.9
Earnings from existing operations	150.0	150.0	150.0
Cost of added interest & deferred interest amortization	(33.0)	(33.0)	(33.0)
Total net earnings	\$671.4	\$883.2	\$1,077.7
Earnings per share	\$10.31	\$13.56	\$16.55

The earnings estimated here for the \$10.00 and \$12.00 per barrel crude prices correspond quite closely to those we had previously projected for \$8.00 and \$10.00 prevailing realizations under our earlier assumptions involving lower system costs and about \$55 million in 1981 natural gas profits. This illustrates how important the crude price scenario for 1980 and beyond has become for this highly capital intensive project. To date, limited prospects for other U.S. producing provinces and the continued viability of OPEC have provided good support for the view that lower 48 U.S. realizations will be more than sufficient to keep Valdez netbacks attractive. On balance, a sanguine view of crude price prospects is still appropriate, with even a bias toward the upper end of the range used here. However, the dynamics of the situation as outlined in the discussions on the State of Alaska and overall pipeline/wellhead economics dictate ongoing analysis over a range of possible prices and close monitorship of such evolving political elements, especially given the state's role as royalty owner likely to take its crude *in-kind*.

Longer Term Earnings — Atlantic Richfield Company

The incorporation of the revised pipeline and Prudhoe Bay field profitability parameters developed above, with the following specific set of assumptions for Arco, leads to an outline of possible 1981 earnings power for this large prospective producer of North Slope oil and gas.

Assumptions:

- (1) ARCO Pipeline Company's ultimate interest in TAPS will approach 24%.

- (2) Atlantic Richfield will have an approximate 21% interest in the main Prudhoe Bay reservoir (Sadlerochit) and as much as 33% of the additional 500,000 b/d of North Slope-production, provided it comes from currently leased acreage (i.e., not the Beaufort Sea), that may be needed to attain peak pipeline throughput of 2 million b/d in the 1980's.
- (3) Existing operations will earn \$9 per share in 1981, an 8% growth rate from 1975's base, mainly reflecting improved oil and gas realizations superimposed on a declining rate of output, and initial *modest* returns accompanying the company's aggressive petrochemical expansion program. To the extent that a higher crude price assumption has been used, a corresponding adjustment has been made to the expected earnings contribution from ARCO Chemical Company.
- (4) In view of the overwhelming political, procedural, and economic difficulties involved in completing a natural gas transmission system to tap Prudhoe Bay gas supplies, earnings from this source are unlikely in a 1981 time frame and have consequently been excluded from the following analysis.

Atlantic Richfield

Potential 1981 Earnings
(In millions)

Crude price (Signal Hill 27°)	\$8.00	\$10.00	\$12.00
Production profit per barrel	\$1.20-\$1.39	\$1.93-\$2.18	\$2.66-\$2.91
North Slope Production:			
Sadlerochit pool	\$159.2	\$250.6	\$334.6
Other pools (Lisburne / Kuparuk)	72.3	116.2	160.2
Total production profit	\$231.5	\$366.8	\$494.8
24% equity in TAPS	127.5	127.5	127.5
Earnings from existing operations	518.8	518.8	518.8
Total net earnings	\$877.8	\$1,013.1	\$1,141.1
Earnings per share	\$15.21	\$17.56	\$19.78

Earnings figures derived for the \$10 and \$12 per barrel cases conform quite closely with the results obtained using a price range of \$8-\$10 per barrel and natural gas earnings of \$1.08 per share in our May report. This demonstrates the importance that highly-unpredictable future trends in crude oil prices assume in any overall assessment of the economics of the North Slope project. For example, as is evident in the table above, the difference between the \$10 and \$12 per barrel price scenarios gives rise to a \$128 million (\$2.22 per share) variance in total North Slope crude oil production profit. To date, the need for a high price dictated by the marginal economics of new U.S. exploration* and the continued viability of OPEC have provided good support for our view that the likely prevailing level of lower-48 crude oil prices will be more than adequate to keep Valdez netbacks attractive.

H. C. WAINWRIGHT & CO.
Paul R. Leibman
Thomas A. Petrie

*A recent study by an independent petroleum consultant concluded that for a producer to earn a 15% DCF return on new oil investments after taxes in 1974, a \$12.73 per barrel gross oil price at the wellhead would be required.



801 WEST FIFTH AVENUE, ANCHORAGE, ALASKA 99501 • 907-279-1424

January 17, 1975

Mr. John M. Elliott
Executive Director
Legislative Affairs Agency
State of Alaska
Pouch Y - State Capitol
Juneau, Alaska 99801

Dear Mr. Elliott:

Thank you for your letter of January 9, 1975 inviting our firm to propose on the consulting engagement being directed by your Legislative Council to study the Alaska corporate income tax structure. As you correctly noted in your letter, our firm, in particular our Anchorage office, has closely followed the development of this study since its first public announcement. After reviewing your specific outline of matters to be covered in the study, however, we have had to reconsider the desirability of becoming involved with your study at its present stage. Our decision, regrettably, is that the immediate study objectives, particularly those outlined as points 1, 2, 3 and 4 in your letter, (copy enclosed) do not require the specific capabilities and expertise that our firm offers. Therefore, for reasons which I will briefly describe, we respectfully decline your invitation to consider our services as consultants for this stage of the Alaska corporate income tax study. I assure you of our continued interest in your Council's efforts and our willingness to assist in any facet of the undertaking where our firm's experience and expertise may be particularly beneficial.

Since we have expressed a continued interest in the development of this study over a period of several months, I would like to briefly describe the considerations that led to the decision that our participation as primary consultants at this stage of the corporate income tax study would not provide the most effective means of accomplishing the Council's outlined study objectives. Objectives 1, 2 and 3 outlined in your letter are in the nature of a statistical abstract of tax information which can only be gleaned from confidential tax returns. This information will almost certainly have to be compiled within and by the Department of Revenue. Even if such

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January 17, 1975

information should be made available for review by your consultant, we feel that our firm's continuing association and ethical responsibilities to our Alaska corporate and business clients, and the competitive ethics within our profession, would preclude our involvement with any such confidential records which might pertain to either our clients or our clients' competitors.

Study objective 5 presents practical as well as theoretical tax considerations where the experience and expertise of Price Waterhouse & Co. could prove very beneficial to your study group. Consideration of the questions outlined in objective 5, however, depend entirely on the development of reliable and meaningful statistical information under objectives 1, 2 and 3.

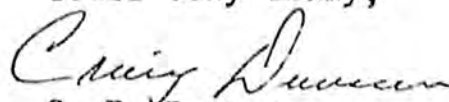
The additional items for consideration which you have listed in your letter seem to address several narrow areas which the Council may feel represent special interest "loopholes" or merely untapped revenue sources within the corporate income tax framework. In either case, we feel that our firm's consideration of such questions would place us in an untenable conflict of interest with clients that might be affected by legislative changes resulting from our recommendations. A conflict of interest situation would not be acceptable, of course, to either the Council, our firm or our clients.

* * * * *

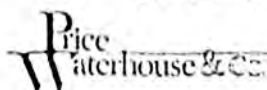
We would like to once again express our thanks for the time you have taken to answer questions regarding your Council's study and your extension of the opportunity to propose. We are vitally interested in Alaska and the Alaskan community and we look for an opportunity to express our interest through service to the community and to the State. As a final item of interest, I am enclosing a copy of the study by the Governor's Commission on Tax Reform for the State of Connecticut. I obtained this copy from Mr. Carl Ward, a partner in our Hartford office and a member of the Commission. Perhaps this example of what another state has done might provide your Council with additional ideas for consideration during the course of your study.

Again, we continue to be interested in the progress of your study and we express our appreciation for your consideration.

Yours very truly,


C. P. Duncan

Enclosures-
As stated


Price Waterhouse & Co.

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STATE OF ALASKA THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99801

January 9, 1975

Mr. Craig Duncan
Price Waterhouse & Company
601 West Fifth Avenue
Anchorage, Alaska 99501

Dear Mr. Duncan:

I am writing at this time in regard to the resolution passed during the 1974 legislative session requesting the Legislative Council to conduct a study of corporate income taxes in Alaska. Although the resolution called for the study to be presented to the legislature by the tenth day of the 1975 session, circumstances prevented the study from commencing until this time. Now, however, the Council has made a firm determination to proceed with the study, realizing that the time limits set forth in the resolution cannot be met. The Council is desirous of getting someone on board immediately, however, to commence work and to complete the study at the earliest possible time feasible. Price Waterhouse has expressed an interest in being considered when persons or firms were being considered to conduct the study. This letter is a formal invitation for Price Waterhouse to make a specific proposal to the Council should that be your wish.

Matters which the Council desires to be covered in the study are the following:

1. An analysis of corporate activity in Alaska by industry, size of firm and location;
2. What is the combined tax burden on various industries and firms of various sizes of the income, business license, property, severance and other state taxes;
3. To what extent are multi-state or multi-national corporations involved in Alaska industry - what is the amount of income apportioned to Alaska for multi-state or multi-national corporations doing business in Alaska;
4. How good is corporate compliance with the state tax laws, the multi-state compact, and the foreign tax treaty; and

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5. What would be the effect on State revenues and corporate tax burdens of deleting or otherwise changing special provisions (such as the depletion allowances, foreign tax credits, etc.) or changing the tax rates or tax structure. Would specific changes cause any significant change in incentives toward corporate activity or affect long range growth in Alaska?

Other items discussed with a view for inclusion, some of which would obviously be inherent in an examination of the matters listed above, would be:

1. Are particular industries or other classes of firms posing particular problems;
2. What specific reporting methods enable the avoidance of Alaska taxes and how much is involved;
3. What enforcement efforts are there and are they adequate. What is the Federal role and the multi-state role;
4. What potential revenues stand to be collected from various industries and various sizes of firms;
5. What special provisions relating to the taxation of corporations in general (ADR, DISC, etc.) and specific industries in particular (depletion allowances, foreign tax credits, etc.) currently give rise to significant "tax expenditures" by the state or will in the future;
6. How does Alaska's situation compare with other states, and
7. What, if any, legislation is needed?

If there are other pertinent areas that Price Waterhouse might feel should be included, you are invited to include same in any proposal forwarded to the Council.

Because of the fact that the present Legislative Council will go out of existence once the 1975 legislative session convenes, time is a critical factor as the Council is desirous of choosing the firm or person to conduct the study before that time. The next (and most likely the last) meeting of the Council will be held in Juneau on Friday, January 17th. If at all possible, a written proposal should be before the Council at that meeting. You are cordially invited also to have a representative make an oral presentation before the Council if you so desire. Estimated costs, approaches to meeting the Council's requirements, and some sort of preliminary timetable for the

Mr. Craig Duncan

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Jan. 9, 1975

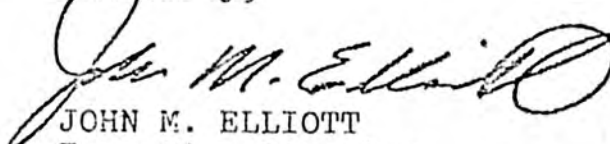
completion of the study should be included in any proposal you might desire to make.

If you have any questions concerning this matter, please feel free to give me a call at any time.

For your information, the meeting on the 17th will be held in this office (Room 109, State Capitol Building) commencing at 10:00 a.m. It will be possible, however, for me to set this matter for the afternoon if you desire to have someone present. That way, he could come to Juneau on the morning flight rather than having to arrive a day before the meeting.

Finally, a copy of the resolution, as passed by the legislature, is enclosed for your information and perusal.

Sincerely,


JOHN M. ELLIOTT
Executive Director

JME:hg

Enclosure: HCR No. 78, 1974

cc: Rep. Richard L. McVeigh
Rep. Tom Fink
Sen. Robert H. Ziegler, Sr.

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Wertheim

Joseph S. Clark, Jr.

January 16, 1976

ALASKAN TAX LEGISLATION

We continue to view the shares of Arco (88) and Sohio (70) as attractive long-term investments, although if Alaskan State Senator Huber's proposed tax legislation passes in its entirety, the stocks could demonstrate further nearer-term weakness as questions of still higher potential taxes would continue. In analyzing the investment issues involved, it seems appropriate to deal first with the financial impact of the proposed taxes on the companies' estimated 1978 earnings, and second, to analyze the possibility of further adverse tax legislation by Alaska at some future date. It is clear, for instance, that investors have not forgotten the recent history of rising oil company taxation worldwide, although investors sporadically seem to forget that Alaska is a state. While, of course, one can only speculate at the present time, we believe that while the Alaskan legislature will probably raise taxes somewhat and may raise taxes again in the future somewhat, tax levels will not be radically changed, and that over the long run, the profitability of Alaskan oil will equal or exceed the \$2.00 per barrel which we have assumed as a base level to generate 1978 profits of \$11.00 per share for Sohio and \$13.15 per share for Arco. Consequently, we believe that once the Alaskan tax issue is thoroughly discussed, it will be put to rest in a rational manner.

Our analysis is based on recent conversations with the oil companies involved, with Senator Huber and his staff, and with officials in the Alaskan Department of Revenue.

At this point in time, it is perhaps unnecessary to note that the Alaskan legislature will convene on January 19th to consider, among other legislation, a proposal by State Senator Huber to increase state taxes on Alaskan oil production. Senator Huber, a ~~liberal~~ Democrat but not an environmentalist, who is Chairman of the State Senate's ~~Ways & Means Committee~~ *Special Committee on Taxation* and is running for reelection this year, has for several months been attempting to construct a method of increasing future state revenues via higher taxes on Prudhoe Bay production. Presently, the severance tax is based on a sliding scale relating to the production volume by well and should average 8% for the high output Prudhoe Bay wells. The state income tax, which, like the severance tax, is deductible for Federal income tax purposes, currently is set at 9.36%.

Recognizing that our Alyeska pipeline tariff estimates may be lower than those projected by others (see Sohio Investment Recommendation dated

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March 24, 1975 for a complete discussion of our tariff assumptions), the following table summarizes our estimates of Prudhoe Bay profitability per barrel based on the current Alaskan tax structure. We have used two price assumptions for delivery in California, \$9.00 and \$12.00 per barrel:

	----- Per Barrel -----	
California Price	\$9.00	\$12.00
Tanker Cost	<u>0.50</u>	<u>0.50</u>
Valdez Value	\$8.50	\$11.50
Pipeline Tariff	<u>2.60</u>	<u>2.60</u>
P. B. Wellhead Price	\$5.90	\$ 8.90
Operating Costs	\$0.45	\$0.45
Severance Tax (8%)	0.47	0.71
Royalty (12.5%)	0.74	1.11
State Tax (9.36%)	0.40	0.62
Federal Tax (48%)	<u>1.84</u>	<u>2.88</u>
	<u>3.90</u>	<u>5.77</u>
Profit Per Barrel	<u>\$2.00</u>	<u>\$ 3.13</u>

Senator Huber's tax proposals have not yet been reduced to legislative form and therefore there are provisions that must be subject to some conjecture at the present time. Basically, as they relate to Prudhoe Bay production, they consist of three parts, an increase in the average severance tax from 8% to 13.5%, a clearer definition of the present 9.36% state income tax insofar as the oil industry is concerned (Huber feels that for one reason or another the full tax rate has not been paid by the oil companies on Cook Inlet production), and a so-called excess value or "windfall" income tax levied on unit profits above a certain level. Senator Huber's thinking has not yet been precisely defined as to the cut-off point between the 9.36% tax and the higher windfall tax, nor has the proposed windfall rate been defined. However, his current thinking on the latter item ranges from 25%-50%, levels that may well be unacceptable to business interests in the House. The proposed cut-off point seems to be based on profits derived from delivered California prices above \$7-\$9 per barrel. For example, if the cut-off price in California was \$8.00 per barrel and the oil companies' actual realization was \$12 per barrel, a state tax of, say, 37 1/2% would be applied to the \$4 per barrel difference.

Using the preceding rough assumptions, \$12 oil in California might be taxed by Alaska as follows:

	Cut-Off Price	Per Barrel	"Excess" Price	Total
California Price	\$8.00		\$4.00	\$12.00
Tanker Cost	0.50		-	0.50
Valdez Value	\$7.50		\$4.00	\$11.50
Pipeline Tariff	2.60		-	2.60
P. B. Wellhead Price	\$4.90		\$4.00	\$ 8.90
Operating Costs	\$0.45	\$ -		\$0.45
Severance Tax (13.5%)	0.66	0.54		1.20
Royalty (12.5%)	0.61	0.50		1.11
State Tax (9.36%)	0.30	1.11		1.41
Federal Tax (48%)	1.38	0.89		2.28
	3.40		3.04	6.44
Profit Per Barrel	\$1.50		\$0.96	\$ 2.46

The arithmetic of \$9 oil in California would be as follows:

	Cut-Off Price	Per Barrel	"Excess" Price	Total
California Price	\$8.00		\$1.00	\$9.00
Tanker Cost	0.50		-	0.50
Valdez Value	\$7.50		\$1.00	\$8.50
Pipeline Tariff	2.60		-	2.60
P. B. Wellhead Price	\$4.90		\$1.00	\$5.90
Operating Costs	\$0.45	\$ -		\$0.45
Severance Tax (13.5%)	0.66	0.14		0.80
Royalty (12.5%)	0.61	0.13		0.74
State Tax (9.36%)	0.30	0.27		0.57
Federal Tax (48%)	1.38	0.22		1.60
	3.40		0.76	4.16
Profit Per Barrel	\$1.50		\$0.24	\$1.74

Our present thinking is that the two preceding tables, which obviously are based on only one of many possible versions of Senator Huber's proposals to be modified by the legislature, represent worst case examples in terms of Alaskan taxation. We will outline our thinking on this subject later in this report.

The following table summarizes our per barrel net profit calculations:

	\$9 Cal. Oil	\$12 Cal. Oil
	Per Barrel	Per Barrel
Existing State Taxes	\$2.00	\$3.13
Possible New State Taxes	1.74	2.46

The preceding Prudhoe Bay net profit estimates translate into the following earnings projections for Arco and Sohio¹:

	Est. 1978 EPS		Est. 1978 EPS		% Decrease	
	<u>Present State Taxes</u>		<u>Possible New Taxes</u>			
	<u>\$9 Oil</u>	<u>\$12 Oil</u>	<u>\$9 Oil</u>	<u>\$12 Oil</u>		
Arco	\$13.15	\$14.90	\$12.75	\$13.85	(3)	(8)
Sohio	11.00	15.20	9.80	12.60	(12)	(17)

As noted earlier, the question of increased Alaskan taxation clearly involves more complex investment issues than those outlined in the preceding mechanical earnings computations. Short term, the investor must weigh the market's reaction to either positive or negative oil industry developments during the soon-to-be-convened Alaskan legislative session. Longer term, if taxes are raised this session, he must consider the logic for and against further increases at some later date. Critical in the investor's appraisal is his judgment as to what level of profitability is being discounted in the marketplace at the present time.

In sifting the available evidence, it is difficult to measure the Alaskan legislature's longer-range appetite for tax revenues from the oil industry. The current mood of the Alaskan legislature is difficult to assess. There are strong currents of environmentalist opinion favoring a slower-paced development of the state's resources. On the other hand, there are elements that believe industry should be given attractive incentives in natural resource development to reduce unemployment and to provide a broad industry base. Several non-oil company government observers in Juneau believe that taxes will go up this session, but that the House (the source of financial legislation) will balk at legislation as radical as Senator Huber seems ready to introduce. The Senator himself acknowledges that since each of his three tax proposals must be introduced as a separate bill to stand on its individual merits, rather than as a single package, his chances of success are diminished.

Unfortunately, the lower-48 oil producing states' oil tax structures, which do not differ materially from Alaska's present tax levels, provide little in the way of historical guidance. In contrast to Alaska, local oil taxation policies in these states have been and continue to be, influenced by strongly-entrenched independent oil and gas political interests. Similarly, it is difficult to find legal precedents other than Federal intervention that would prevent

¹ For background on these earnings estimates, see Investment Recommendations on Arco and Sohio dated 5/19/75 and 3/24/75, respectively, and subsequent Follow-Up Reports.

the state from raising taxes well above current levels, unless the oil companies could claim that such taxes were confiscatory or discriminatory in nature.

While we do not consider our impression of Senator Huber via long-distance telephone as particularly definitive, we got the impression of a realistic, practical man with Alaska's best interest at heart. He made two observations that seem pertinent. First, when asked whether or not he believed that tax increases in the coming session would be a prelude to further hikes in the future, he replied that his proposals were the basis for a "stable" state taxation plan that would be fair for the petroleum and other extractive industries. Second, he indicated that he was extremely conscious of the Federal government's attitude toward Alaska's taxation policies, since each \$1.00 increase in state taxes diminished Federal revenues by \$.48. He noted that Federal grants would continue to be a significant although diminishing contributor to the state's budget², and that Washington's attitudes toward state land use, Naval Petroleum Reserve 4, etc. were key factors in determining Alaska's long-term taxation policies.

In the above connection, it might be noted that the recently enacted Federal Energy Policy Act represented a compromise between those national legislators who felt that a high price is required (\$11.28 or more) in order to stimulate domestic energy production, and those who believed that inflation and other domestic political problems require a lower cost of energy to consumers. Since Alaskan wellhead prices will be substantially below the U.S. lower-48 new oil price of at least \$11.28, and since more future oil is expected to be found in Alaska than in other domestic areas (and at higher risk

² It is interesting to analyze Alaska's state budget over the next several years. While the \$900 million received in Prudhoe Bay bonuses has been long since spent, the fiscal (June 30) 1976 budget calls for a balance of outlays and receipts (including \$212 million from the reserve tax) at \$620 million. A similar balance at \$700 million is projected for fiscal 1977, including the last reserve tax payment. For fiscal 1976 and 1977, a non-oil industry revenue base of \$400 million and \$410 million, respectively, is projected. While state outlays are certain to increase rapidly in subsequent years, we estimate that incremental state revenues in 1978 at 1.2 million B/D from Prudhoe Bay will approximate \$1.3 billion, based on \$12 oil in California and the existing Alaskan tax structure. Assuming all Senator Huber's tax proposals become law, the \$1.3 billion production revenue figure would rise to \$1.7 billion, thereby implying total state revenues of \$1.7 billion and \$2.1 billion, respectively, before taking into account repayment of the reserve tax from severance tax revenues.

and cost), it seems reasonable to question whether or not the Federal government will be anxious to see the State of Alaska reduce incentives significantly without, on the other hand, reducing the price to lower-48 consumers. It is this factor, aside from the question of fair play or other potential business interests in Alaska, which will ultimately limit the level of state taxation, and which distinguishes the Alaskan situation from that of a foreign country. It also is interesting to note that if Alaska were to pass a bill comparable to Senator Huber's proposed excess value tax, other states in the lower-48 which have additional revenue requirements or significant oil reserves, such as California, Texas, Oklahoma, Louisiana, etc., might be expected to develop tax measures constructed in such a way as to place a windfall tax on certain profit levels. Production under certain levels and for independents could receive specific benefits, as is the case with depletion and stripper output today. For example, Marathon's profitable Yates production theoretically could be subject to windfall tax proposals which would not necessarily have the same impact on the smaller producer. Thus, the Federal government ultimately has to protect the basic integrity of its energy policy and its revenue sources, and consequently at some point would limit any extreme Alaskan tax measures.

Accordingly, in the last analysis, we believe that the Federal government will represent the ultimate controlling factor insofar as Alaskan taxation policies are concerned. In this connection, it is interesting to note that based on our unit profitability table on page 3, Alaska's total tax take amounts to \$3.72 per barrel, some 63% above our estimated Federal revenue of only \$2.28 per barrel. As noted above, it seems illogical to us that Washington will permit Alaska to undermine Federal revenues from a major natural resource, particularly in view of the enormous budget surpluses projected for Alaska by the end of the decade. Thus, the issue, if indeed it must be raised, may involve the historical question of Federal vs. states rights, an area where we believe the Federal government will prevail.

Regarding the current investment merits of Arco and Sohio, we believe that a total investment rate of return analysis, including dividend yield, is a helpful tool in such a determination. In the table that follows, we list for each company a series of terminal (1978) multiple alternatives ranging from 9 to 13 times based on a \$2.50 Prudhoe Bay wellhead profit, a level we view as a reasonable expectation at the present time. At this level of profitability, we estimate that Arco will earn \$13.90 per share and Sohio \$12.75 per share in 1978.

Two-Year Compound Annual Return

<u>Assumed Multiple</u>	<u>9x</u>	<u>10x</u>	<u>11x</u>	<u>12x</u>	<u>13x</u>
<u>Arco (90--1/15/76 Close)</u>					
1978 Objective Price	\$125	\$139	\$153	\$167	\$181
Annual Return (%)	19.8	26.7	32.4	38.3	44.0
<u>Sohio (72--1/15/76 Close)</u>					
1978 Objective Price	\$115	\$128	\$140	\$153	\$166
Annual Return (%)	28.4	34.5	41.1	47.9	52.0

In developing a case for a premium multiple for the shares of both companies -- the S&P 425 currently is priced at 10.9x our \$10.00 estimate for 1976 profits and a group of domestic oils³ at 8.6x projected results for the current year -- we once again stress the proprietary characteristics of both companies. In the case of Sohio, these include a pro-forma 1978 integration ratio of 150%, a reserve life index of over 20 years, cash flow over and above replacement requirements exceeding \$400 million in 1978, and above all, a superb management record as corporate fiduciary in implementing the right investment decisions at the right time.

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3	Current	Est. 1976	P/E
	<u>Price</u>	<u>Earnings P/S</u>	<u>Ratio</u>
Getty	\$173	\$14.25	12.1x
Marathon	43	5.80	7.4
Phillips	55	5.80	9.5
Shell	51	7.60	6.7
Standard-Indiana	43	5.90	<u>7.3</u>
Average			8.6x

Note: Wertheim & Co., Inc. and/or persons associated with it have a position in the common shares and/or options in certain of these companies.

Wertheim

Joseph S. Clark, Jr.

January 27, 1976

ALASKAN TAX LEGISLATION (II)NOTES ON JANUARY 20TH TRIP TO JUNEAU, ALASKA

At the present time, while uncertainty remains the most pervasive influence, we believe that the odds marginally favor the passage by the Alaskan Legislature in some form of Senator Huber's controversial excess profits tax bill (see Wertheim & Co., Inc. Industry Commentary Alaskan Oil Taxation -- 1/16/76). Two of his remaining bills (the fourth relates to pipeline taxes), dealing with a severance tax increase from 8% to an average 13.5% on high volume production such as Prudhoe Bay and the rationalization of the existing 9.36% state income tax, could eventually pass without strong opposition, although it is always possible that in the two months or so that probably will be required to pass legislation of this importance, compromises will occur in all tax areas. If the excess profits tax bill is passed, it is expected that two key provisions of this particular bill, relating to the windfall tax rate and the so-called cut-off price level (above which the higher state tax is to be applied), will be reduced. In this event, the impact on oil company profits would be less than in the example noted as "worst case" in our earlier memorandum.⁽¹⁾ We expect sentiment to ebb and flow at any given point in time on the issue of what could be the worst case. For instance, last Friday's liberal democratic Anchorage Daily News carried an article regarding possible legislation in the House more radical than Senator Huber's.

Senator Huber's severance tax bill was introduced onto the floor of the Legislature last Friday, January 23, and his remaining bills, unless they have to be redrafted, will be introduced to the State Senate and House late this week. At that point, the first of three readings will begin, comments received from interested parties, and the legislation will begin to be shuttled back and forth between various relevant committees.⁽²⁾

- (1) We used a 37.5% excess profits tax and a cut-off price in California of \$8.00/bbl. Based on a \$12.00/bbl delivered price in California, this resulted in a Prudhoe Bay producing profit of \$2.46/bbl. At \$9.00/bbl delivered price, profits were reduced to \$1.74/bbl.
- (2) Appendix 1 lists the key committees and committee members in both the House and Senate. It will be noted that Senator Huber is prominent as Vice Chairman of the State Affairs Committee, is Chairman of the Special Committee on Tax and Revenue, ~~and is a member of the Important Resources Committee.~~

Regarding the Anchorage Daily News article and oil legislation emanating directly from the House, Representative Steve Cowper (pronounced Cooper), who is Vice Chairman of a briefly convened House Finance Subcommittee on Tax and Revenue, is working on a bill roughly paralleling Senator Huber's. We have talked to Representative Cowper on the telephone. His legislation is lagging Senator Huber's from a timing (perhaps ten days to two weeks) and procedural standpoint. It also faces potential opposition from House committees before it reaches the floor. The House Finance Committee, chaired by Hugh Malone, is expected to recommend floor consideration, but the House Resources Committee, whose Chairman is Representative Neil Anderson (a native corporation legislator) will provide a more difficult test. The latter committee, which also is composed of conservative rural and business-oriented members, probably will hold extensive hearings, and an adverse recommendation for floor consideration is possible. We do not know the exact nature of Cowper's developing legislation but his economic research has been prepared by Michael Tanzer Economic Associates of New York City. We have not yet received a copy of the so-called Tanzer Report, which recently has been released in Juneau to all interested parties, but understand that it has a strong anti-oil industry bias in its analysis of oil company profitability in Alaska.

As noted earlier, passage of either Huber's or Cowper's oil legislation (or a combination of both) seems unlikely to occur for at least 60 days. Thus, resolution of the excess profits tax issue may not take place until early April. We will monitor developments between now and then intensively and expect to have an increasingly clear idea of the direction and likelihood of excess profits legislation as time passes.

The following notes are directed toward two general areas, background/sources and power structure analysis. In this connection and in appraising news from Juneau, it is important to distinguish between the various sources of information in terms of their particular bias. For instance, information emanating from Senator Huber's office may well represent the Senator's objectives rather than an unbiased appraisal of the facts. Similarly, information from local oil industry representatives may contain the reverse bias.

Individuals contacted during our recent trip to Alaska consisted of three basic groups. The first consisted of Senator Huber, his staff, and other members of the House and Senate. Of particular significance in the latter group was Senator Chancy Croft, who is President of the Senate and a key figure in the Legislature's power structure. The second contact area was with oil industry representatives in Juneau. The third was an experienced local businessman who has evaluated the Legislature for many years and is familiar with the state's political power base.

Our assessment of Senator John-Huber is that he is a tireless worker, a shrewd horse trader, and is getting a good deal of pleasure from his key role on this issue. Senator Huber, who is 51 years old and has worked his way up through the House to his present prominent position in the Senate, basically initiated the legislation last year that led to the reserve tax. He is viewed by some in Juneau as the power broker between the oil companies on one hand and Senator Chancy Croft and Representative Mike Bradner (the powerful Chairman of the House Ways and Means Committee) on the other hand. Croft and Bradner are both liberal Democrats and are believed to have higher political aspirations. While discussions were not held with Bradner, he is believed generally to reflect Croft's pro-Alaska, anti-oil industry bias. However, it should be recognized that if Croft or Bradner aspire to, say, the governorship or other higher political office, they should become increasingly sensitive to the political views of the Anchorage establishment -- the influential Republican Anchorage Times and the Anchorage financial community. This realpolitik could move Croft and Bradner into more conservative positions over the coming months.

Our conversation with Senator Croft indicated that he believes both the timber and fishing industries have exploited the State of Alaska in the past and he does not want this repeated by the oil industry. Thus, his public posture is that the oil companies should be taxed on such a basis as to produce a non-cyclical stream of substantial tax revenues, part of which can be set aside for future Alaskan generations when the oil runs out. He does not buy the argument that Alaska needs short-term revenues from lease bonuses, etc. and indicated that he feels positively inclined toward passage of all Huber's legislation. It was indicated that Bradner's public stance is roughly the same.

Our assessment of Huber's working staff on energy issues (consisting of two individuals, Ed Sterner, who does the basic economic research, and Frank Fleeks, a young lawyer who has researched the legal and constitutional background of Huber's proposed bills) is that they are, like Huber, extremely hard working and dedicated. They appear to be in their early or mid-20s. Their posture, generally speaking, is pro-Alaska and anti-oil company. We regard the general level of staff preparation, considering the staff's size and experience, as relatively high. It is our opinion, however, that the rationale for justifying a \$7-\$8/bbl cut-off price in California contains an important logical inconsistency. This delivered price level is considered to be that economic balancing point above which the oil companies earn an "excess" rate of return and below which the oil companies will be discouraged from investing in Alaska. The inconsistency obviously is that the \$7-\$8 figure is a delivered price before substantial transportation costs. Thus, to be logical, the bill should construe the \$7-\$8 cut-off price as representing a wellhead value, or conversely, if the cut-off price is to be a delivered price in California, transportation, etc. costs should be added to this level to es-

establish an \$11-\$12 cut-off price in California. We assume that the staff is aware of this inconsistency and our discussions with Senator Huber seemed to validate our conclusion. Our appraisal of Senator Huber's reaction was that this is an area, together with the excess profits rate, where significant compromise could occur. Other areas of compromise might involve the inclusion of an inflation factor and possibly a related 3% price incentive along the lines of the recently passed Federal Energy Act.

Our assessment of the oil companies' power base, in terms of voting factors, is that it will depend heavily on the native corporate representatives in the House and the Senate and the degree to which the Anchorage establishment can be mobilized to exercise some degree of restraint over the prevailing liberal sentiment in the Legislature. Regarding the former, the native legislators represent about 20% of the 20-member Senate and 40-member House. These percentages, however, tend to conceal the actual strength of native representatives who control additional votes well above their numerical position. As implied earlier, the native corporations are expected to oppose Senator Huber and Representative Cowper's legislation on the grounds that it will discourage oil company development of their 40 million acres of land and negatively impact their net profit interests outside of Prudhoe Bay negotiated with various oil companies.

In order to get some form of his windfall legislation through the Senate and House, Huber will have to put together a strong liberal coalition to offset the native votes and their influence on other legislators. He also will have to counter what will probably be increasing conservative pressures from Anchorage. On the other side of the ledger, the oil companies will have to implement their point of view with great care so that their efforts do not result in the opposite effect they intend to create. Moreover, they must make the difficult decision by the time the direction of the legislation is established, whether to oppose it on principle as a form of confiscation, or to negotiate out the best deal they can obtain.

As noted in our January 16 Industry Commentary, we believe that the Federal government will evince increasing interest in this legislation, both from the standpoint of potential oil revenue loss from Alaska, and, perhaps more significantly, from the far greater potential loss that would occur if an Alaskan precedent were used by California, Texas and other lower-48 states to place a windfall tax on certain profit levels. Equally important, the Federal government must become increasingly concerned over its potential loss of control over the economic incentives of its energy legislation.

In summary, we expect that the next few weeks will represent a period of legislative uncertainty and flux for the oil industry, during which time

the bad news may temporarily outweigh the good. As the legislative process progresses, however, we believe that reason will prevail as more conservative forces come into play, although an excess profits tax principle may well be established. We see no reason to change our conclusion expressed in our January 16 Industry Commentary that Arco and Sohio represent attractive long-term investments at current prices.

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Note: Wertheim & Co., Inc. and/or persons associated with it have a position in the common shares and/or options in Atlantic Richfield.

APPENDIX 1

SENATE

Chancy Croft, President

Finance

Ray (Chairman), Poland (Vice Chairman), Rader, Chance, Ferguson, Butrovich, Sackett.

Tax & Revenue⁽³⁾

Huber (Chairman).

Resources

Poland (Chairman), Meland (Vice Chairman), Croft, ~~Huber~~, Rader, Rodey, Butrovich, Orsini.

Rules

Rader (Chairman), Kerttula (Vice Chairman), Ray, Croft, Sackett.

Commerce

Kerttula (Chairman), Willis (Vice Chairman), Ziegler, Colletta, Bradley.

Judiciary

Ziegler (Chairman), Meland (Vice Chairman), Poland, Miller, Tillon.

Community and
Regional Affairs

Rodey (Chairman), Willis (Vice Chairman), Hohman, Tillon, Orsini.

State Affairs

Meland (Chairman), Huber (Vice Chairman), Ferguson, Colletta, Miller.

(3) Special Committee, not a standing committee.

APPENDIX 1

HOUSE

Mike Bradner, Chairman, Ways and Means Committee

<u>Finance</u>	<u>Malone</u> (Chairman), Buchholdt (Vice Chairman), Itta, <u>Cowper</u> , Guy, Gruening, Duncan, Naughton, Haugen.
<u>Tax and Revenue</u> ⁽⁴⁾	<u>Cowper</u> (Chairman).
<u>Rules</u>	Parker (Chairman), Cotten (Vice Chairman), Miller, Naughton, Specking.
<u>Judiciary</u>	Gardiner (Chairman), Bradley (Vice Chairman), Brown, Cotten, Parr, Eliason, Specking.
<u>Resources</u>	<u>Anderson</u> (Chairman), Smith (Vice Chairman), Osterback, Brown, Eliason, Hershberger, Rhode, Huntington, Swanson.
<u>State Affairs</u>	McKinnon (Chairman), Miller (Vice Chairman), Fischer, Wallis, H. Belme, M. Belme, Parker.
<u>Commerce</u>	Bradley (Chairman), Wallis (Vice Chairman), Freeman, Kelley, Rhode, Urion, Rudd, McKinnon, Fischer.
<u>Community and Regional Affairs</u>	Cotten (Chairman), Ostrosky (Vice Chairman), Freeman, Davis, Hershberger, Hackney, Ose, Rudd, Kelley.

(4) Finance Subcommittee.

Wertheim

Joseph S. Clark, Jr.

February 6, 1976

ALASKAN TAX LEGISLATION (III)THE TANZER REPORT

We continue to believe that the three key investment variables of the oil industry at the present time are (1) the world price of crude oil; (2) legislative developments in Washington; and (3) the progress and profitability of North Slope oil. The Alaskan Legislature's tax proposals represent the most important current development affecting the third key variable.

Moreover, as noted in our January 16 and January 27 Industry Commentaries, if the State of Alaska succeeds in establishing the precedent of excess profits taxation, an investor must raise the question as to the possibility of state taxation above certain levels in the lower-48 producing states. The issue, of course, transcends the oil industry and relates to all domestic extractive industries. Particularly vulnerable would be integrated companies in the forest products, non-ferrous metals, and coal industries where fabrication and/or marketing facilities downstream are subsidized by higher rate of return extractive operations upstream. To choose a random example, one wonders what the State of Washington's reaction to Weyerhaeuser's timbering profits (1) would be if Alaska passed an excess profits tax. As noted in our earlier Industry Commentaries, we believe that such an Alaskan precedent, if established, ultimately would result in a constitutional Federal vs. states rights conflict. We continue to believe that in such a confrontation the Federal government would prevail.

In view of the preceding comments, as well as the more direct implications for Arco, Sohio and Exxon, we expect to continue to monitor developments in Juneau closely.

The Tanzer Report is a highly-detailed study of potential oil company profitability from the Prudhoe Bay field, prepared for Representative Steve

- (1) Weyerhaeuser owns most of its timbering land in this area (in contrast to state-owned land in the case of Prudhoe Bay), but the analogy still seems valid since the Alaskan oil rights were "sold" pursuant to leases.

Cowper;⁽²⁾ Chairman of the Legislature's House Subcommittee on Revenue Sources, by Michael Tanzer Associates, a petroleum consulting firm in New York City. It seems unnecessary to dwell on the report's strong anti-oil company bias, its outdated investment figures for the Prudhoe Bay field, and its exclusion of the Alyeska Pipeline from the rate of return analysis. The full report, which is 195 pages long, is an extensive, scholarly, and sophisticated document, skillfully written to appeal to the individualistic aspirations of many Alaskan legislators, while at the same time advocating increased state involvement in the oil and gas industry. Its significance lies in its premise that profits above a certain return on investment within a discrete geographical area (i.e., the Prudhoe Bay field) should be subject to a state "windfall" tax. As such, the report parallels Senator Huber's staff work, which leans more heavily on the concept of an "energy equilibrium" excess profits price of \$7-\$8 per barrel delivered in California. While purportedly not to be used as a model for legislation, the Tanzer Report is bound to have an impact on the thinking of the Alaskan Legislature, but has not, as far as we have been able to determine, received wide publicity in the lower-48 states. The report may be summarized briefly as follows:⁽³⁾

Pre-tax wellhead profitability is calculated for Sohio/BP, Arco, and Exxon at three arbitrary delivered prices in California, \$10, \$13, and \$16 per barrel. Total transportation costs from Prudhoe Bay to Los Angeles are estimated at about \$4.00 per barrel over the life of the field: \$0.50 for tankers and \$3.50 for the pipeline tariff. Subtracting these costs from delivered prices, wellhead values of \$6.00, \$9.00 and \$12.00 per barrel, respectively, are derived. Deducting present Alaskan royalty and severance taxes of about 20% of wellhead values and operating costs of \$0.50 per barrel, company gross profits, before state and Federal income taxes, are computed to be \$4.30 per barrel, \$6.70, and \$9.70 per barrel, respectively.

Company capital investment in Prudhoe Bay by the end of 1976 is estimated at \$1.9 billion. By mid-1978, cumulative investment is projected to rise to \$2.5 billion,⁽⁴⁾ increasing to \$3.1 billion through the year 1982. Post-1977 capital and operating costs are based in part on data provided by

- (2) See Wertheim & Co., Inc. Industry Commentary, Alaskan Tax Legislation (II), dated 1/27/76, for a detailed outline of key legislators and committees in the State Senate and House.
- (3) Appendices A and B provide further summary detail. Appendix A presents Tanzer's own summary and Representative Cowper's 1/20/76 covering letter to Senator Croft and Representative Bradner enclosing the complete report. Appendix B is Senator Huber's staff's appraisal of the report which basically endorses Tanzer's approach.
- (4) At the present time, cumulative capital investment for the three companies in Prudhoe Bay seems almost certain to exceed \$3.4 billion by the end of 1977.

the engineering firm H. J. Gruy Associates, and all capital costs are converted to a post-tax basis to reflect Federal tax deductions for intangible drilling costs, etc. prior to the discounted cash flow rate of return analysis.

Given the preceding assumptions, the following table summarizes the Tanzer Report's conclusions regarding industry profitability at the three assumed delivered price levels in California, expressed in terms of annual discounted cash flow rate of return. Three arbitrary assumptions with respect to state income taxation are used -- an "existing" effective state tax of 5% (Case A--our own designation), a state income tax of 50% over the life of the field (Case B), and a state income tax of 50% through the year 1985 increasing to 80% over the balance of the field's life (Case C):

<u>Rate Of Return On Field Investment</u>			
<u>State Tax</u>	<u>\$10.00/Barrel</u>	<u>\$13.00/Barrel</u>	<u>\$16.00/Barrel</u>
----- (Delivered Price in California) -----			
Case A	28%	35%	40%
Case B	19	25	30
Case C	18	24	29

It can be seen that Tanzer's calculations show that oil company rates of profitability, even under high state income tax assumptions, range from 18% to 29% annually.

Three major additional conclusions are reached in the report:

1. Case B or C levels of taxation will not cause the oil companies to abandon Prudhoe Bay investment. This is not so much because of enormous sunk costs, but rather because alternative high rate of return producing opportunities elsewhere in the world are not available. Another reason is that the preceding rates of return are well above historical earnings on total capital investment for Sohio/BP, Arco, and Exxon -- the "minimal acceptable profit rate" thesis.
2. Major state tax increases are fair because of precedents in Norway, the U. K., and elsewhere. Underlying this argument is the doctrine of changing circumstances, the fact that Prudhoe Bay is on state-owned land, and the concept that "the State and its people are the ultimate owner of the resources in the ground."
3. The State of Alaska should consider investing in Alaskan oil exploration and development, particularly in view of the fact that the "profit rates the oil companies seek are clearly far higher than the State's cost of capital."

The preceding summary of the Tanzer Report may well indicate a degree of naivete which is not present in the original document. A careful reading of the report as a whole suggests that just the opposite is the case. Its premise, however, that the State of Alaska has the right to what amounts to an equity interest in Prudhoe Bay, without having advanced risk capital, runs counter to the American tradition of free enterprise.

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AGO 531897 B.

APPENDIX A

Alaska State Legislature

WHILE IN JUNEAU
POUCH V
JUNEAU, ALASKA
99811

REPRESENTATIVE
STEVE COWPER
110 NERLAND BUILDING
FAIRBANKS, ALASKA 99701



House of Representatives

January 20, 1976

Senator Chancy Croft
President of the Senate
Alaska State Legislature

Representative Mike Bradner
Speaker of the House
Alaska State Legislature

Gentlemen:

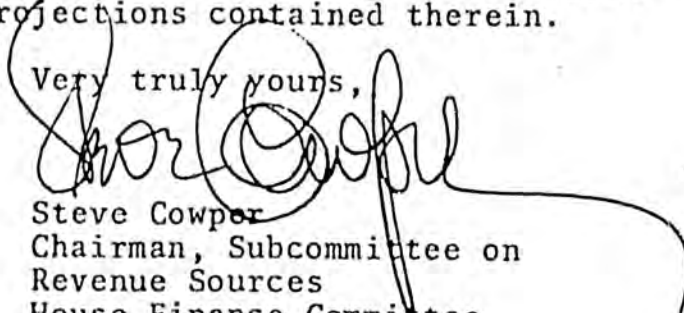
I am enclosing herewith a report entitled Alaska Prudhoe Bay Oil: Profitability and Taxation Potential, prepared by Tanzer Economic Associates, Inc., pursuant to a contract with the Legislative Affairs Agency.

The report is a survey of the profitability of oil production in the Sadlerochit formation by Sohio/BP, ARCO, and Exxon, which together own approximately 96% of the leases which are the subject of the report. The analysis is based in large part upon figures provided by the three companies involved, by the State Division of Oil and Gas, and by Gruy and Associates.

It should be clearly emphasized that the tax rates used in the models for the study are not indicative of legislative direction, but are figures arbitrarily chosen for the purpose of illustrating the effect of state taxation upon profitability. See, i.e., page 66 of the study. The rates will not provide a departure point for proposed legislation; in fact they were not meant to be used for that purpose.

A copy of the report is being sent to the major oil companies, along with a request that each company set forth its objections to the projections contained therein.

Very truly yours,


Steve Cowper
Chairman, Subcommittee on
Revenue Sources
House Finance Committee

SC:jab

AGO 531898

SUMMARY

The purpose of this Study was to analyze potential oil company profitability from Prudhoe Bay crude oil, as a guide to potential taxation of such profitability by the State of Alaska. The general approach was that estimates were made of the aggregate investment costs and potential profits for Sohio/BP, Arco and Exxon, together, who share an estimated 95% of Prudhoe Bay oil. All estimates were put on an annual after-tax basis for the 1964-95 period, in order to allow estimation of the companies' profit rates on a discounted cash flow (DCF) basis; this basis systematically takes into account the time value of money and is the compound interest profit calculation method used by the companies themselves. Calculations were then made of the effects of different State income tax rates on the companies' DCF profit rate and on the division of the Prudhoe Bay "oil pie" among the companies, the State and the Federal Government, respectively. In all cases an attempt was made to be conservative in estimating future company profitability.

Specifically, the Study first estimated per barrel wellhead values of Prudhoe Bay crude oil, by subtracting projected marine and pipeline transport charges from the delivered price in the Los Angeles area; throughout the

Study three possible Los Angeles prices were considered, with a medium price of \$13 per barrel and a low of \$10 and a high of \$16 (each held constant for the 1977-95 period). Total annual wellhead values were then estimated for the companies' 95% of the production from the Sadlerochit formation only, which was assumed to begin in 1977, peak at 1.7 million barrels per day in 1987, and drop at 15% per year thereafter (with the Study cutting off at 1995).

After subtracting from the wellhead values State royalty and severance taxes (estimated together at 20%) and current production costs, there were three gross profit series for the 1977-95 period (varying with price). Each of these series was assumed to be subjected to three possible effective State corporate income tax rates: 5% (as a rough measure of the existing tax structure), 50%, and 50% until 1985 and 80% thereafter. With an assumed Federal tax rate of 48%, calculations were then made of the nine possible after-tax profit series for the companies in the 1977-95 period. Each of these series was combined with the one estimated annual after-tax investment series for Prudhoe Bay. The result was nine possible company net cash flow series, each of which was subjected to DCF profitability analysis.

The Study's quantitative conclusions were as follows. First, under present tax conditions, the companies' DCF profit rates would be between 28% and 40% per year (compounded), with 35% per year being the profit rate under the

medium price assumption. Over the whole 1977-95 period, for a total investment of about \$3 billion, the companies would net between \$17 billion and \$36 billion, with \$26 billion being the medium price figure. Of a total Prudhoe Bay oil pie of between \$44 and \$93 billion (depending again on prices), the companies would get about 38%, the Federal Government 36%, and the State of Alaska only 26% (including severance and royalty).

Second, increasing the effective State corporate income tax rate from 5% to 50 % would still leave the companies a DCF profit rate of between 19% and 30% per year, with 25% in the medium price case. While the companies' profits would fall by half, they would still net between \$9 and \$19 billion. The State, however, would increase its total oil revenues sharply; for example, for the medium price case, they would rise from \$18 billion to \$42 billion. On average the State's share of the oil pie would jump to 61%, while the companies' share fell to 20% and the Federal Government's to 19%.

Third, the Study showed that under DCF methods of profit calculation, at high profit rates for the companies, cash inflows in later years have relatively little present value to them. Thus, an increase in the State's corporate income tax rate from 50% in 1977-85 to 80% in 1986-95 would reduce the companies' DCF profit rates by only one percentage point. At the same time, the State's total oil revenues for

{ the whole 1977-95 period would increase by about 25%. Under the sequential 50%:80% tax rate the State's share of the oil pie would increase to 71% while the companies' would fall to 15% and the Federal Government's to 14%. This illustrates the general principle that company profits in later years can be heavily taxed without affecting their present exploration and development incentives.

{ The Study also analyzed and discussed a number of qualitative questions. As regards possible mechanisms for future State oil profit taxation, it was concluded that an income tax, a severance tax, and a value added tax, would have similar effects in practice, while a reserves tax would be harmful. On the question of the effect of increased State taxes on the companies' exploration and development incentives, it was concluded that the likely profit rates, even after the tax increases, were probably sufficiently high to be adequate. The question as to the "fairness" of increasing company taxes was also considered. While this is largely a "value judgment" question, it was noted that without increased State tax rates the companies will be the prime beneficiaries of the windfall profits which have arisen from the quadrupling of oil prices by OPEC since late 1973, despite the fact that the oil lands belong to the State. It was further shown that even non-OPEC Governments, such as in Norway and Great Britain, have moved to capture a larger part of these windfall profits by increased taxes on the oil

C

companies.

The Study concluded with some general observations about future State oil policy. Two related questions were considered: how should the State use its increased future oil revenues, and should it move beyond being a passive royalty and tax collector and take a more active role in the oil sector. The Study's view was that in order to prevent Alaska's increased State oil revenues from being simply dissipated in inflation and/or a short-lived boom, with most of the money ultimately flowing out of the State, the State would have to play a more active role to help coordinate long run economic development. Moreover, a logical place for the State to utilize its oil revenues would be in the oil sector itself.

Thus, for example, the State should consider possibilities for investing in oil exploration and development in Alaska, either through joint ventures with oil companies or by contracting directly with specialized drilling companies (or the State might invest in refineries, petrochemicals, etc.). This might be particularly appropriate since the profit rates the oil companies seek are clearly far higher than the State's cost of capital. It was maintained that in recent years there has been a wider dispersion of oil knowledge and technological capability, and that it might be useful for the State to examine the recent successful experience of Government oil companies in countries like Mexico and India.

Finally, the Study concluded that in order for the people of Alaska and their representatives to make informed decisions about future State oil policy, a great deal more knowledge was needed by them; even if the ultimate decision is to remain a passive tax collector, such knowledge would help the State to maximize its benefits from this role. Informed policy decisions are particularly crucial in the oil sector because this is a non-renewable resource, the benefits of which belong not only to present but also future generations.

ALASKA
STATE LEGISLATURE

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APPENDIX B

MEMORANDUM

January 26, 1976

TO: Senate President Chancy Croft

FROM: Franklin D. Fleeks
Tax Counsel, Committee on Taxation and Revenue

SUBJECT: Summary of the Tanzer Report and Comparison with
Committee's Proposed Legislation

Senator Huber has directed that the attached staff report be prepared to familiarize you and the Committee members with the contents of the Tanzer report. This report was prepared under a contract with the Legislative Council Subcommittee on Taxation and Revenue, chaired by Senator John Huber. The supervision of the Tanzer contract was accomplished by vice chairman Representative Steve Cowper.

In addition, comparison was made with the proposed legislation drafted by this Committee. The report is submitted for information and comment.

AGO 531905

SUMMARY OF THE TANZER REPORT
AND A COMPARISON OF ITS CONCLUSIONS WITH THE
INTERIM SUBCOMMITTEE ON TAXATION AND REVENUE PROPOSED LEGISLATION

Prepared by:

Edwin Sterner
Research Analyst

Summary of the Tanzer Report

The Tanzer Economic Associates report, "Alaska's Prudhoe Bay Oil: Profitability and Taxation Potential," shows what has always been suspected. Prudhoe Bay will be a massively profitable venture which can supply the state with large revenues and still provide a favorable return on investments made. The Report's conclusions are strikingly similar to the conclusions upon which our proposed legislation is based.

Under the current state and federal tax structure, Prudhoe Bay will probably yield discounted cash flow (DCF) profitability rates of 28%, 35%, or 40% if oil sells on the west coast for \$10, \$13, or \$16 respectively (p. 51). (For a discussion of the DCF method of analysis, see III.A., pp. 32-36 of the report.) Such rates of return should be more than adequate incentives for exploration and development and could sustain much higher rates of taxation.

As an example, the profits of the field are taxed at a 50% state income tax rate. Assuming that the tax would actually be effective at that rate, DCF profitability rates for \$10, \$13, and \$16 oil drop to 19%, 25%, and 30% respectively (p. 60).

In a final case, the Report shows that the value of the investment would fall very little if a tax rate even higher than 50% were levied several years after the investment started yielding positive cash flows. In a simple case, one would probably still invest in a bank account that would have a net yield of 20% per year compounded for eight years, even if one knew that after eight years, the earnings would be taxed at 80%.

For the example used, the first eight years of Prudhoe Bay production are subject to the 50% income tax rate, and after eight years to an 80% income tax. This reduces the DCF profitability rates by only one percent to 18%, 24%, and 29% for the three prices.

In all cases, the rates of return should sustain exploration and development. The report concludes that if they are not sufficient, perhaps the state should consider financing at least the exploration phase of petroleum development.

Comparison of Tanzer Report Conclusions
with the Interim Subcommittee's Proposed Legislation

The proposed tax legislation is quite similar to the Report's examples. The proposed legislation suggests a 50% income tax rate on most income from Prudhoe Bay. Due to the fact that the income tax has been ineffective in the past, a tax is proposed which works like a severance tax with deductions for capital and operating expenses incurred only in Alaska. This method was chosen because it "automatically" fine tunes to the costs of each field and avoids the need to adjust rates for each field to treat them basically the same.

There are differences, however. These are more in method than in principle. A flat 50% tax would tax oil profits at 50% even if prices should fall. Although a large fall in prices is unlikely, the law should be prepared to react to it (especially in view of the national temperament and the mood of Congress). The point of the law is to raise revenues, not be vindictive. From the costs of Prudhoe Bay and its transportation, it appears that should prices for Alaskan oil fall, or be forced to

-fall, below seven to eight dollars per barrel on the west coast, returns to investment would be at levels where only the "normal" rates of corporate taxation could be warranted. Thus, there is a "circuit breaker" which in effect causes net income due to a west coast price of seven to eight dollars to be taxed at the regular state corporate rate of 9.4% and net income due to a higher price at 50%.

The report also assumes that severance taxes will not be changed. The legislation proposes that the basic severance tax rates be increased by approximately 60% for Prudhoe Bay oil. This would cause the state's royalty and severance tax portion of the wellhead value to rise from the 20% figure used in the report (p.56) to 23-24%. This tends to offset the fact that the "circuit breaker" keeps the average rate of net tax below 50%.

Finally the report suggests the possibility of using a system of tax rates graduated over a period of time. The problem with this seems to be administrative, and if it can be worked out, might be most valuable to the state. The example used suggests that after a certain number of years, a field would be subject to higher tax rates. Indeed, every few years, or even every year, the rates could be higher. This could raise significant problems, if as the higher tax years approach major investments are required to maintain the field. For instance, in the year before the higher taxes are imposed on Prudhoe Bay in the example, 227 million dollars in new wells are required. Anticipating the next year's higher tax rates, the producer might choose to shift that investment to a "new" field elsewhere, which is not subject to the higher tax for several years. A proliferation of "new" fields and prematurely declining old fields might result. This possibility could be avoided by allowing

production in an "old" field which is due to new investment to be taxed at the lower rates. The problems in determining what oil is due to "old" or "new" investment are obvious.

Although it does not allow the wide variation in rates such as the 50/80% report example implies, accelerated depreciation does much the same thing. It lowers the effective tax rates early in the life of the field and raises the rates when the accelerated depreciation is exhausted. Its common use and familiarity lends it to this situation. Since such higher rates would be some years off, implementation would not be needed now. The experiences of Norway and any others who are attempting this type of taxation should be watched closely.

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JAN. 26, 1976

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PETROLEUM INDUSTRY: Thoughts on Alaska and the U.S. Oil Economy J. Fischer

The Alaskan legislature is soon to begin deliberating a package of tax proposals designed to sharply (300%+) increase the state's anticipated tax revenues from the Prudhoe Bay field. These revenues will be apart from the state's royalty interest (12½%) in oil and gas production. The proposals encompass a modification of the corporate income tax structure, an increase in the severance tax, and the introduction of a steep excess-profits tax. The excess-profits tax, apparently to be in the range of 41-50%, would apply to the difference between the market value of North Slope oil delivered to the West Coast and a deemed value beginning at \$7 a barrel (the 1974 base level, we infer) and escalating over time. (The 50%, which we have seen in the literature, may include the state income tax of 9.4%.) The impact of these tax changes on the prospective earnings of the North Slope operators is discussed in a separate Note. We are concerned here with the broader implications of the proposed excess-profits tax.

We note that the issue of "Alaskan participation" arose once before, in 1972, when Alaska sought complete control over the pipeline right-of-way and an undivided 20% interest in the pipeline, while proposing a steeply progressive tax on pipeline earnings and a minimum take at the well head from royalty and severance tax payments. Alaska was then concerned that the pipeline would emerge as the principal profit center. It is now clear that unless OPEC prices should crack (which we deem improbable), the wellhead will prove to be the principal profit center. (The increase in the West Coast price of "new crude", even as modified by the new energy legislation, will have more than compensated for the escalation of pipeline construction costs, as reflected in the TAPS tariff.)

The companies are in a poor bargaining position today, as compared with 1972. The pipeline was then a concept. Today, the principal costs for transportation are sunk or firmly committed. Development of production facilities is well underway. The price of North Slope crude, on the West Coast or in the Midwest, will be governed by FEA ceilings (or one determined by Congress) for the initial years of production, and probably longer. The incidence of an excess-profits tax cannot be shifted. Alaska will be taxing an economic rent, and taxing it severely.

Alaska is apparently prepared to prescribe a "just price" for North Slope crude on the West Coast. We presume that the tax committees of the legislature will eventually prescribe a just price for natural gas as well. We note that the concept of the just price is an anathema to economists, except for regulated utilities. We doubt very much that Alaska will be prepared to sell its royalty oil and gas at the just price that will be controlling for tax purposes.

The thrust of the excess-profits tax mechanism appears to be to permit the North Slope companies to recover their capital and operating costs (including severance

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tax) and to make \$1 a barrel, pre-tax, before the bite of state income, state excess-profits, and federal income taxes. Prespectively, a critical question will be the rate at which the base price will be permitted to escalate relative to the prescribed market escalation for new crude.

The \$7 base price runs counter to the intent of national economic policy. Let us assume that with plausible escalation the base price is now roughly in line with the February 1 national composite of \$7.66 a barrel. However, Congress has not prescribed a rollback in the benchmark price for new crude to \$7.66 a barrel; the rollback will be to \$11.28. In short, Congress would permit producers of new crude at difficult frontiers to earn a superior return. One may call this incentive pricing and/or a reward for risk-taking. Alaska would take a large chunk of this back.

Economic returns that could be applied for exploration and development in Alaska, off the West Coast and off the Atlantic Coast, or applied for investment in enhanced recovery techniques or in "synthetic" energy fuels will, instead, go to fund social services in Alaska. Alaska appears prepared to seek to maximize its take from the presently proved reserves on the North Slope. The state would appear to be disregarding the disincentive it is creating for probing for additional reserves, onshore or offshore, on state leases. It may well be irrational--from the standpoint of return on capital--for the companies to drill in the Beaufort Sea, or for ARCO to continue exploration west of Prudhoe Bay.

We presume to compare Alaska's perceptions to those of many of the OPEC nations. The oil and gas will be leaving Alaska and the economic benefits conferred by these hydrocarbons will be realized by the "importing states." In contrast, Texas, Louisiana, California and other producing states enjoyed a surge of economic development within their own borders on exploiting indigenous resources. Alaska will probably never enjoy the economic and social benefits attending major investments in refineries and petrochemical plants. (It will also be spared the social costs, such as pollution, attending these same investments.)

Alaska may also believe that, like Norway and the United Kingdom, it is entitled to tax away a substantial portion of a windfall gain that has resulted from OPEC's pricing power. However, the analogy cannot be pushed too far. Britain and Norway have both continued to exhibit a decent respect for maintaining investment incentive. Moreover, these are sovereign nations and their oil-taxing policy is integrated with national energy policies. In contrast, Alaska would appear to be flouting the goals of emergent U.S. energy policy.

Under Alaska's proposed tax package, the state's take per barrel would be larger than that of the Federal Government. This prospect is not likely to bring joy to Washington. Moreover, the proposed excess-profits tax would appear to be much more onerous than that proposed in Congress for the U.S. petroleum industry as an entirety. There appears to be no plowback provision--credits for a range of eligible investments. Moreover, the tax-writing authorities in Washington were prepared to accord special treatment for new crude.

The timing of the Alaskan proposals is most unfortunate. It comes when the companies are most concerned with completing financing arrangements for bringing North Slope oil to market and when the FPC has just voided the advance-payments program for much of the North Slope gas. We presume that the state is preoccupied with firming up its revenue expectations in order to facilitate borrowing for its internal needs.

We are especially concerned that other states exporting oil and gas--most notably Texas and Louisiana--may eventually seek to emulate Alaska. In retrospect, they have been very generous to consumers in their revenue claims. Perhaps fortunately, the increasingly important Federal domain is beyond their grasp. The severance tax is a powerful

weapon. Imaginative tax experts can find any number of techniques for taxing economic rents on both old and new production. All producers except marginal operators may then be in an unfortunate position. The nation would ultimately be the loser, for exploration effort would inevitably slacken.

Initially, then, the North Slope producers and Alaska are once again found in an adversary position. Considerations of national energy policy may before long find the Federal Government and Alaska in an adversary relationship also. Eventually, the conflicting claims can encompass other states as well. These conflicts would be bearish for the industry. One can study the unfortunate position of the Canadian petroleum industry as Canada's Provinces and its Federal Government clash over shares in revenues. Periodically, the principal actors recall that the producers should be assured "adequate" returns.

The North Slope operators may well rue the day that Alaska became a state, but that is a bygone. Because of the companies' weak bargaining position in Alaska, their principal recourse is likely to be found in the Federal courts. We do not pretend to be experts at constitutional law. We anticipate, however, that a constitutional issue may be raised about the taxing of an economic value that arises beyond the state border, in the stream of interstate commerce. The companies may also allege that by creating a disincentive for further exploration effort, the excess-profits tax creates an undue restraint upon normal trade among the states.

Congress and the Administration may choose to exert pressure on behalf of the companies also. As a developing state, Alaska is not immune to the lure of proffered federal largesse or indifferent to its denial (as constrained by law). The pressure is most likely to be exerted if requested by the FEA or other producing states; political realities militate against the operators being helped by Congress in response to their own appeal. Equity for oil companies is not an attractive issue.

POINT OF VIEW

Only two weeks ago investors were concerned over how North Slope oil would fare at the hands of the Congress in 1977 under the pricing constraint imposed by the new energy Act. Today, they are worried about Alaska. Unfortunately, it will take time for the Alaskan legislature to debate, modify and enact the new tax proposals, and it will take time for the operators to prepare their appeal for relief. There is no urgency; production will not begin until the latter part of 1977. Only owners of Atlantic Richfield (\$88), Standard of Ohio (\$68 1/4), Exxon (\$92 1/8) and BP (\$11 5/8) may have a sense of urgency--especially owners of ARCO and Sohio.

We profess to optimism about the ultimate outcome, perhaps naively, because we would like to believe that state and national policies will recognize the case for rewarding exploration effort at difficult frontiers. Otherwise, we are all in for trouble. If a giant discovery like the North Slope is not allowed a superior rate of return, there is no reason for private capital to undertake exploration risk or for investors to own oil equities except as engines for cash flow over a finite

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AGO 531913

period of resource life. If the earnings prospects of the incremental producers are to be slashed, one might as well restrict one's investments to companies with a strong position in old reserves in the lower 48 states. If one is concerned that other states will emulate Alaska, perhaps the entire group should be avoided--certainly, the domestics. Perhaps only the internationals should be bought and held for superior yields and a total return expectation.

There is no denying that the past investment allure of the North Slope oils has been tarnished, probably irrevocably. We sincerely hope that Alaska will not look to British Columbia as a model for virtue or guidance. In that unhappy circumstance, the North Slope operators may yet ponder whether their shareholders might not be better served if their resource bases were to be nationalized.

MEMORANDUM
FROM THE RESEARCH DEPARTMENT

L.F. ROTHSCHILD & CO.
MEMBERS NEW YORK STOCK EXCHANGE, INC.

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November 19, 1975

THE TRANS-ALASKA PIPELINE AND PRUDHOE BAY
CRUDE OIL PRODUCTION
ANALYSIS OF UNIT COSTS AND PROFIT POTENTIAL.

There is considerable investor interest in the cost of building and operating the Trans-Alaska Pipeline, the profit to be derived from the line, and the potential profitability from crude oil production in the Prudhoe Bay Field on the North Slope. In order to provide some perspective on these questions, we have compiled several tables that summarize the latest data on pipeline costs, as well as our estimates of the unit tariff that might be established for transporting crude oil through the pipeline. When combined with the selling prices in Los Angeles, these pipeline estimates should provide an indication of the wellhead value and profit potential for North Slope crude oil production (on the assumption that all oil is tankered to the Los Angeles market). We still expect the pipeline to be completed by late 1976 or the spring of 1977 and think that testing should be completed by the summer of 1977. Initial production should start in 1977, and we expect throughput to reach 1,200,000 b/d in the winter of 1977 - 1978. Profits to the operating companies could be limited in 1977 but should be substantial in 1978. Thus far, 320 miles of the total 800 mile pipeline has been installed. In some weeks, as much as 35 miles of pipe has been laid. Considering the road construction, ditching, vertical supports, and terminal facilities, about 50% of the total construction had been completed as of October 27, 1975.

UNIT PIPELINE COSTS AND SELLING PRICES

Unit pipeline costs will be importantly influenced by the level of production. Therefore, we have developed cost estimates based on three different production levels; 1,200,000 b/d, 1,500,000 b/d and 2,000,000 b/d. The cost figures used are the latest available official estimates prepared by Alyeska Pipeline, increased by a 5% contingency factor and the cost of additional pumping stations to expand throughput. The pipeline will be a common carrier and should return a good profit to the owners. The current ownership of the Trans Alaska Pipeline is shown on the following page.

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AGO 531915

OWNERSHIP OF THE TRANS-ALASKA PIPELINE

Common Share Price 11/14/75		%
72	Standard of Ohio	33.34%
93	Atlantic Richfield	21.00
88	Exxon	20.00
12	British Petroleum	15.84
46	Mobil	5.00
43	Union	1.66
52	Phillips	1.66
16	Amerada Hess	1.50
		100.00%

While production volumes and pipeline tariffs lend themselves to reasonably accurate estimates, the question of future crude oil selling prices is more uncertain and, of course, a most important variable. At this time, there is considerable controversy as to where crude oil prices will be in three or four years. Prices on the West Coast will reflect not only the level established by U.S. Government controls but foreign price trends as well. There is a minority viewpoint that foreign oil prices will decline substantially from present levels as a result of sluggish consumer demand and new production coming on from non-OPEC sources. To us, this thesis is hard to accept, and we would be surprised if foreign oil prices dropped sharply from current levels. Landed prices for foreign crude oil on the West Coast are generally in the range of \$13.00 - \$14.00/barrel exclusive of the present \$2.00/barrel supplementary import fee. Domestic crudes have been selling as high as \$13.50/barrel but may be rolled back to the area of \$11.28/barrel under proposed legislation. In order to cover a broad price range, we are including in our statistical model prices from \$8.00 to \$13.00/barrel and the estimated profit potential at each level. Our long range thinking is that future price levels in the Los Angeles Basin will be in the general area of \$11.00 to \$12.00/barrel, and we would key in on the potential profits indicated at these prices.

PRUDHOE BAY UNIT

It is generally estimated that the Prudhoe Bay Field has recoverable reserves of almost 10.0 billion barrels, which can be produced at a rate of 1,500,000 b/d. Ownership distribution of the Prudhoe Bay Unit (a unitized group of owners of the field) has been under study for almost five years, and a preliminary ownership breakdown should be available in the near future. To arrive at a meaningful judgement of the future earnings potential indicated for each of the major participants in the Unit, we have listed below those companies that have reported North Slope oil reserves and have related these figures to the estimated reserves for the entire field. Thus, we have arrived at the following working estimates of the ownership of production from the Prudhoe Bay Unit. The uncertain nature of the estimates deserves emphasis.

ESTIMATED OWNERSHIP : THE PRUDHOE BAY FIELD

	Gross Reserves (Billion Barrels)	%
Standard of Ohio	5.100	51.0
Atlantic Richfield	1.970	19.7
Exxon	1.970	19.7
Mobil	.325	3.3
Phillips	.290	2.9
Other *	.345	3.4
Total	10.000	100.0

*Primarily Amerada Hess, Louisiana Land (23) and Getty (159).

EARNINGS IMPACT FOR EACH PARTICIPANT

Each member of the Prudhoe Bay Unit will be responsible for the marketing of its gross share of the oil produced. We have made a series of per share earnings estimates for both oil production and ownership of the pipeline based on varying levels of production and selling prices. These estimates are reproduced in the final three tables of this report and should be regarded as a final summary of the numerous variables which have to be reconciled in this exercise.

SUMMARY

Because of the rising costs of building the pipeline and developing the Prudhoe Bay Field and the changing tax structure for the industry, the initial per barrel cost for North Slope oil has risen sharply over the past few years. Since oil was first discovered on the North Slope, the depletion allowance has been stricken from the federal tax law and the State of Alaska has increased its severance tax to 8%. We would not rule out some further changes in the tax laws. To us, the initial profit potential is far from being a "bonanza" and, if some Washington proponents of a crude oil price rollback are successful, the viability of producing and transporting North Slope oil and gas could be threatened. The same could be said if foreign oil prices drop sharply and bring down the domestic price structure. The latter threat may well be present for some time. We are encouraged that recently proposed legislation makes some allowance for high cost domestic oil such as that from the North Slope.

Based on production of 1,500,000 b/d and a selling price of \$11.00/barrel, our calculations indicate an annual profit potential of \$600 million from the pipeline and \$1.2 billion from production, a total return of 18% on the estimated \$10 billion initial investment; not a terribly attractive return based on the numerous political and economic risks involved, and well below our earlier estimates. In view of the declining profit return and the potential price threat, one could wonder if the entire North Slope/Trans Alaska pipeline project is attractive in view of the risks involved and available alternative investments.

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The final long-term merits of the entire Alaskan project will be importantly influenced by the future returns to be realized from the sale of known natural gas reserves and, of course, additional oil and gas discoveries which should be made on the North Slope. Prospects for the latter appear to be particularly attractive.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

/bjg

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AGO 531918

Pipeline Costs:

\$ Millions

Cost of Construction (\$6,375 x 105% *)	6,700
Capitalized Interest (1974 - 1977)	1,450
Total	8,150

Annual Operating Costs:

Pipeline Amortization - \$8,150 x 92.5% ** ÷ 35 yrs.	215
Interest Costs at 10% x (85% of \$8,150 million) (a) ..	693
Operating Costs (Labor, fuel, maintenance, etc.)	70
Ad Valorem Tax (b)	160
Income Taxes (c)	431
Net Profit - 7% x \$8,150 million	571
Total Annual Costs	2,140

Pipeline Tariff Per Barrel (438,000,000 bbls./yr.) ... \$ 4.89
(Includes a pipeline profit of \$1.30)

* Allowance for contingency.

** Assumes 7.5% salvage value.

(a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.

(b) 2% of the assessed value of exploration and production assets.

(c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	4.90	4.90	4.90	4.90	4.90	4.90
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	5.40	5.40	5.40	5.40	5.40	5.40
Indicated Wellhead Value	2.60	3.60	4.60	5.60	6.60	7.60
<u>Operating Costs</u>						
Royalty (12.5% of Wellhead Value)	.33	.45	.58	.70	.83	.95
Severance Tax (8% of Wellhead Value)	.21	.29	.37	.45	.53	.61
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.13	1.33	1.54	1.74	1.95	2.15
Operating Profit	1.47	2.27	3.06	3.86	4.65	5.45
Taxes at 53% (b)	.78	1.20	1.62	2.05	2.46	2.89
Net Profit	\$.69	\$1.07	\$1.44	\$1.81	\$2.19	\$2.56

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

AGO 531919

Pipeline Costs:

\$ Millions

Cost of Construction (\$6,700 + \$500)	7,200
Capitalized Interest (1974 - 1977)	1,450
Total	8,650

Annual Operating Costs:

Pipeline Amortization - \$8,650 x 92.5% * ÷ 35 yrs.	229
Interest Costs @ 10% x (8,650 x 85%) (a)	735
Operating Costs (Labor, fuel, maintenance, etc.) ...	70
Ad Valorem Tax (b)	173
Income Taxes (c)	471
Net Profit (7% x \$8,650 million)	606
Total Annual Costs	2,284

Pipeline Tariff Per Barrel (547,500,000 bbls./yr.).. \$ 4.17
(Includes a pipeline profit of \$1.11)

* Assumes 7.5% salvage value.

- (a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.
- (b) 2% of the assessed value of exploration and production assets.
- (c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	4.15	4.15	4.15	4.15	4.15	4.15
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	4.65	4.65	4.65	4.65	4.65	4.65
Indicated Wellhead Value	3.35	4.35	5.35	6.35	7.35	8.35
<u>Operating Costs</u>						
Royalty (12.5% of Wellhead Value)	.42	.54	.67	.79	.92	1.04
Severance Tax (8% of Wellhead Value)	.26	.35	.43	.51	.59	.67
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.27	1.48	1.69	1.89	2.10	2.30
Operating Profit	2.08	2.87	3.66	4.46	5.25	6.05
Taxes at 53% (b)	1.10	1.52	1.94	2.36	2.78	3.20
Net Profit	\$.98	\$ 1.35	\$ 1.72	\$ 2.10	\$ 2.47	\$ 2.85

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

AGO 531920

Pipeline Costs:

\$ Millions

Cost of Construction (\$7,200 + \$300)	7,500
Capitalized Interest (1974 - 1977)	1,450
Total	8,950

Annual Operating Costs:

Pipeline Amortization - \$8,950 x 92.5% * ÷ 35 yrs.	237
Interest Costs @ 10% (\$8,950 x 85%) (a)	761
Operating Costs (Labor, fuel, maintenance, etc.)	70
Ad Valorem Tax (b)	179
Income Taxes (c)	494
Net Income (7% x \$8,950)	627
Total Annual Costs	2,368

Pipeline Tariff Per Barrel (730,000,000 bbls. per yr.) \$ 3.24
(Includes a pipeline profit of \$.86)

* Assumes 7.5% salvage value

- (a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.
- (b) 2% of the assessed value of exploration and production equipment.
- (c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	3.25	3.25	3.25	3.25	3.25	3.25
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	3.75	3.75	3.75	3.75	3.75	3.75
Indicated Wellhead Value	4.25	5.25	6.25	7.25	8.25	9.25
<u>Operating Costs</u>						
Royalty (12.5% of Wellhead Value)	.53	.66	.78	.91	1.03	1.16
Severance Tax (8% of Wellhead Value)	.34	.42	.50	.58	.66	.74
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.46	1.67	1.87	2.08	2.28	2.49
Operating Profit	2.79	3.58	4.38	5.17	5.97	6.76
Taxes at 53% (b)	1.48	1.90	2.32	2.74	3.16	3.58
Net Profit	\$1.31	\$1.68	\$2.06	\$2.43	\$2.81	\$3.18

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

AGO 531921

	PER BARREL					
Selling Price	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Unit Profit	.69	1.07	1.44	1.81	2.19	2.56
	*	*	*	*	*	*

Producing Profits	%	Annual Volume (Mil. Bbls.)	PER SHARE					
Standard of Ohio (38,256,000 shares)	51.0	223.4	\$4.03	\$6.25	\$ 8.41	\$10.57	\$12.79	\$14.99
Atlantic Richfield (57,834,000 shares)	19.7	86.3	1.03	1.60	2.15	2.70	3.27	3.82
Exxon (225,324,000 shares)	19.7	86.3	.26	.41	.55	.69	.84	.98
Mobil (102,289,000 shares)	3.3	14.5	.10	.15	.20	.26	.31	.36
Phillips (76,113,000 shares)	2.9	12.7	.12	.18	.24	.30	.37	.43
Total Production	100.0	438.0						
			*	*	*	*	*	*

Pipeline Profits	%	Share of Profits (Mil.)	PER SHARE					
Standard of Ohio 33.34		\$190.0	\$4.98	\$4.98	\$ 4.98	\$ 4.98	\$ 4.98	\$ 4.98
Atlantic Richfield 21.00		120.0	2.07	2.07	2.07	2.07	2.07	2.07
Exxon 20.00		114.0	.51	.51	.51	.51	.51	.51
Mobil 5.00		29.0	.28	.28	.28	.28	.28	.28
Phillips 1.66		9.5	.12	.12	.12	.12	.12	.12
Total 100.00		571.0						
			*	*	*	*	*	*

Total Profits	PER SHARE AGO 531922					
Standard of Ohio	\$9.01	\$11.23	\$13.39	\$15.55	\$17.77	\$19.93
Atlantic Richfield	3.10	3.67	4.22	4.77	5.34	5.89
Exxon	.77	.92	1.06	1.20	1.35	1.49
Mobil	.38	.43	.48	.54	.59	.64
Phillips	.24	.30	.36	.42	.49	.55

	PER BARREL					
Selling Price	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Unit Profit	.98	1.35	1.72	2.10	2.47	2.84
	*	*	*	*	*	*

Producing Profits	%	Annual Volume (Mil. Bbls.)	PER SHARE					
Standard of Ohio*..... (38,256,000 shares)	51.0	279.2	\$6.59	\$9.09	\$11.58	\$14.14	\$16.63	\$19.12
Atlantic Richfield	19.7	107.9	1.83	2.52	3.21	3.92	4.61	5.30
Exxon	19.7	107.9	.47	.65	.82	1.01	1.18	1.36
Mobil	3.3	18.1	.17	.24	.30	.37	.44	.50
Phillips	2.9	15.9	.20	.28	.36	.44	.52	.59
Total Production	100.0	547.5	*	*	*	*	*	*

Pipeline Profits	%	Share of Profits (Mil.)	PER SHARE					
Standard of Ohio	33.34	\$202.0	\$5.28	\$5.28	\$ 5.28	\$ 5.28	\$ 5.28	\$ 5.28
Atlantic Richfield	21.00	127.3	2.20	2.20	2.20	2.20	2.20	2.20
Exxon	20.00	121.2	.54	.54	.54	.54	.54	.54
Mobil	5.00	30.3	.30	.30	.30	.30	.30	.30
Phillips	1.66	10.1	.13	.13	.13	.13	.13	.13
Total	100.0	606.0	*	*	*	*	*	*

Total Profits	PER SHARE					
Standard of Ohio*.....	\$11.87	\$14.37	\$16.86	\$19.42	\$21.91	\$24.40
Atlantic Richfield	4.03	4.72	5.41	6.12	6.81	7.50
Exxon	1.01	1.19	1.36	1.55	1.72	1.90
Mobil	.47	.54	.60	.67	.74	.80
Phillips	.33	.41	.49	.57	.65	.72

*Sohio has a 100% net profits interest in the first 600,000 b/d of its net production and a 25% net profits interest in production between 600,000 b/d - 1,050,000 b/d. Assuming Sohio has 51% of the output, 600,000 b/d would be reached at gross production of 1,344,500 b/d. Therefore, Sohio's net per barrel profit will be lower between 1,344,050 and 1,500,000 b/d. The per share earnings figures have been adjusted accordingly. **AGO 531923**

	PER BARREL					
Selling Price	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Unit Profit	1.31	1.68	2.06	2.43	2.81	3.18
	*	*	*	*	*	*

Producing Profits	%	Annual Volume (Mil. Bbls.)	PER SHARE					
Standard of Ohio (38,256,000 shares)								
Atlantic Richfield (57,834,000 shares)								
Exxon (225,324,000 shares)								
Mobil (102,289,000 shares)								
Phillips (76,113,000 shares)								
Total Production	100.0	730.0	*	*	*	*	*	*

Since the Prudhoe Bay Unit is estimated to produce only 1,500,000 b/d this chart cannot be completed.

Pipeline Profits	%	Share of Profits (Mil.)	PER SHARE					
Standard of Ohio	33.34	\$209.0	\$5.46	\$5.46	\$ 5.46	\$ 5.46	\$ 5.46	\$ 5.46
Atlantic Richfield	21.00	131.7	2.28	2.28	2.28	2.28	2.28	2.28
Exxon	20.00	125.4	.56	.56	.56	.56	.56	.56
Mobil	5.00	31.4	.31	.31	.31	.31	.31	.31
Phillips	1.66	10.4	.14	.14	.14	.14	.14	.14
Total	100.0	627.0	*	*	*	*	*	*

Total Profits	PER SHARE					
Standard of Ohio						
Atlantic Richfield						
Exxon						
Mobil						
Phillips						

[UNCERTAIN]

IN CONNECTION WITH ARBITRAGE ACTIVITIES L.F. ROTHSCHILD & CO. MAY HAVE EITHER LONG OR SHORT POSITIONS IN SOME OF THE ISSUES MENTIONED IN THIS MEMO AND MAY FROM TIME TO TIME BUY OR SELL SOME OF THE ISSUES MENTIONED.

AGO 531924

MEMORANDUM
FROM THE RESEARCH DEPARTMENT



Rosario S. Ilacqua
Michael L. Gordon
Warren M. Shimmerlik

A handwritten signature in dark ink, which appears to read "John Huber", is written over the typed names of the authors.

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December 2, 1975

THE TRANS-ALASKA PIPELINE AND PRUDHOE BAY
CRUDE OIL PRODUCTION
ANALYSIS OF UNIT COSTS AND PROFIT POTENTIAL

(Corrected version - replaces similar memo of November 19, 1975)

There is considerable investor interest in the cost of building and operating the Trans-Alaska Pipeline, the profit to be derived from the line, and the potential profitability from crude oil production in the Prudhoe Bay Field on the North Slope. In order to provide some perspective on these questions, we have compiled several tables that summarize the latest data on pipeline costs, as well as our estimates of the unit tariff that might be established for transporting crude oil through the pipeline. When combined with the selling prices in Los Angeles, these pipeline estimates should provide an indication of the wellhead value and profit potential for North Slope crude oil production (on the assumption that all oil is tankered to the Los Angeles market). We still expect the pipeline to be completed by late 1976 or the spring of 1977 and think that testing should be completed by the summer of 1977. Initial production should start in 1977, and we expect throughput to reach 1,200,000 b/d in the winter of 1977 - 1978. Profits to the operating companies could be limited in 1977 but should be substantial in 1978. Thus far, 320 miles of the total 800 mile pipeline has been installed. In some weeks, as much as 35 miles of pipe has been laid. Considering the road construction, ditching, vertical supports, and terminal facilities, about 50% of the total construction had been completed as of October 27, 1975.

UNIT PIPELINE COSTS AND SELLING PRICES

Unit pipeline costs will be importantly influenced by the level of production. Therefore, we have developed cost estimates based on three different production levels; 1,200,000 b/d, 1,500,000 b/d and 2,000,000 b/d. The cost figures used are the latest available official estimates prepared by Alyeska Pipeline, increased by a 5% contingency factor and the cost of additional pumping stations to expand throughput. The pipeline will be a common carrier and should return a good profit to the owners. The current ownership of the Trans Alaska Pipeline is shown on the following page.

IN CONNECTION WITH ARBITRAGE ACTIVITIES L.F. ROTHSCCHILD & CO. MAY HAVE EITHER LONG OR SHORT POSITIONS IN SOME OF THE ISSUES MENTIONED IN THIS MEMO AND MAY FROM TIME TO TIME BUY OR SELL SOME OF THE ISSUES MENTIONED.

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AGO 531925 +

OWNERSHIP OF THE TRANS-ALASKA PIPELINE

Common Share Price 11/26/75		%
70	Standard of Ohio	33.34%
91	Atlantic Richfield	21.00
86	Exxon	20.00
12	British Petroleum	15.84
46	Mobil	5.00
41	Union	1.66
53	Phillips	1.66
15	Amerada Hess	1.50
		<u>100.00%</u>

While production volumes and pipeline tariffs lend themselves to reasonably accurate estimates, the question of future crude oil selling prices is more uncertain and, of course, a most important variable. At this time, there is considerable controversy as to where crude oil prices will be in three or four years. Prices on the West Coast will reflect not only the level established by U.S. Government controls but foreign price trends as well. There is a minority viewpoint that foreign oil prices will decline substantially from present levels as a result of sluggish consumer demand and new production coming on from non-OPEC sources. To us, this thesis is hard to accept, and we would be surprised if foreign oil prices dropped sharply from current levels. Landed prices for foreign crude oil on the West Coast are generally in the range of \$13.00 - \$14.00/barrel exclusive of the present \$2.00/barrel supplementary import fee. Domestic crudes have been selling as high as \$13.50/barrel but may be rolled back to the area of \$11.28/barrel under proposed legislation. In order to cover a broad price range, we are including in our statistical model prices from \$8.00 to \$13.00/barrel and the estimated profit potential at each level. Our long range thinking is that future price levels in the Los Angeles Basin will be in the general area of \$11.00 to \$12.00/barrel, and we would key in on the potential profits indicated at these prices.

PRUDHOE BAY UNIT

It is generally estimated that the Prudhoe Bay Field has recoverable reserves of almost 10.0 billion barrels, which can be produced at a rate of 1,500,000 b/d. Ownership distribution of the Prudhoe Bay Unit (a unitized group of owners of the field) has been under study for almost five years, and a preliminary ownership breakdown should be available in the near future. To arrive at a meaningful judgement of the future earnings potential indicated for each of the major participants in the Unit, we have listed below those companies that have reported North Slope oil reserves and have related these figures to the estimated reserves for the entire field. Thus, we have arrived at the following working estimates of the ownership of production from the Prudhoe Bay Unit. The uncertain nature of the estimates deserves emphasis.

ESTIMATED OWNERSHIP OF THE PRUDHOE BAY FIELD

	Gross Reserves (Billion Barrels)	%
Standard of Ohio	5.100	51.0
Atlantic Richfield	1.970	19.7
Exxon	1.970	19.7
Mobil	.325	3.3
Phillips	.290	2.9
Other *	.345	3.4
Total	10.000	100.0

*Primarily Amerada Hess, Louisiana Land (23) and Getty (169).

EARNINGS IMPACT FOR EACH PARTICIPANT

Each member of the Prudhoe Bay Unit will be responsible for the marketing of its gross share of the oil produced. We have made a series of per share earnings estimates for both oil production and ownership of the pipeline based on varying levels of production and selling prices. These estimates are reproduced in the final three tables of this report and should be regarded as a final summary of the numerous variables which have to be reconciled in this exercise.

SUMMARY

Because of the rising costs of building the pipeline and developing the Prudhoe Bay Field and the changing tax structure for the industry, the initial per barrel cost for North Slope oil has risen sharply over the past few years. Since oil was first discovered on the North Slope, the depletion allowance has been stricken from the federal tax law and the State of Alaska has increased its severance tax to 8%. We would not rule out some further changes in the tax laws. To us, the initial profit potential is far from being a "bonanza" and, if some Washington proponents of a crude oil price rollback are successful, the viability of producing and transporting North Slope oil and gas could be threatened. The same could be said if foreign oil prices drop sharply and bring down the domestic price structure. The latter threat may well be present for some time. We are encouraged that recently proposed legislation makes some allowance for high cost domestic oil such as that from the North Slope. *FED energy Bill*

Based on production of 1,500,000 b/d and a selling price of \$11.00/barrel, our calculations indicate an annual profit potential of \$600 million from the pipeline and \$1.2 billion from production, a total return of 18% on the estimated \$10 billion initial investment; not a terribly attractive return based on the numerous political and economic risks involved, and well below our earlier estimates.

The final long-term merits of the entire Alaskan project will be importantly influenced by the future returns to be realized from the sale of known natural gas reserves and, of course, additional oil and gas discoveries which should be made on the North Slope. Prospects for the latter appear to be particularly attractive.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

/bjg

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AGO 531928

Pipeline Costs:

\$ millions

Cost of Construction (\$6,375 x 105% *)	6,700
Capitalized Interest (1974 - 1977)	1,450
Total	8,150

Annual Operating Costs:

Pipeline Amortization - \$8,150 x 92.5% ** ÷ 35 yrs.	215
Interest Costs at 10% x (85% of \$8,150 million) (a) ..	693
Operating Costs (Labor, fuel, maintenance, etc.)	70
Ad Valorem Tax (b)	160
Income Taxes (c)	431
Net Profit - 7% x \$8,150 million	571
Total Annual Costs	2,140

*No Separation
State or Federal*

Pipeline Tariff Per Barrel (438,000,000 bbls./yr.) .. \$ 4.89
(Includes a pipeline profit of \$1.30)

* Allowance for contingency.

** Assumes 7.5% salvage value.

(a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.

(b) 2% of the assessed value of exploration and production assets.

(c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	4.90	4.90	4.90	4.90	4.90	4.90
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	5.40	5.40	5.40	5.40	5.40	5.40
Indicated Wellhead Value	2.60	3.60	4.60	5.60	6.60	7.60

Operating Costs

Royalty (12.5% of Wellhead Value)	.33	.45	.58	.70	.83	.95
Severance Tax (8% of Wellhead Value)	.21	.29	.37	.45	.53	.61
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.13	1.33	1.54	1.74	1.95	2.15
Operating Profit	1.47	2.27	3.06	3.86	4.65	5.45
Taxes at 53% (b)	.78	1.20	1.62	2.05	2.46	2.89
Net Profit	\$.69	\$ 1.07	\$ 1.44	\$ 1.81	\$ 2.19	\$ 2.56

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

AGO 531929

Pipeline Costs:

\$ Millions

Cost of Construction (\$6,700 + \$500)	7,200
Capitalized Interest (1974 - 1977)	1,450
Total	8,650

Annual Operating Costs:

Pipeline Amortization - $\$8,650 \times 92.5\% \div 35$ yrs.	229
Interest Costs @ 10% x ($8,650 \times 85\%$) (a)	735
Operating Costs (Labor, fuel, maintenance, etc.) ...	70
Ad Valorem Tax (b)	173
Income Taxes (c)	471
Net Profit ($1\% \times \$8,650$ million)	606
Total Annual Costs	2,284

Pipeline Tariff Per Barrel (547,500,000 bbls./yr.).. \$ 4.17
(Includes a pipeline profit of \$1.11)

* Assumes 7.5% salvage value.

- (a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.
- (b) 2% of the assessed value of expliration and production assets.
- (c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	4.15	4.15	4.15	4.15	4.15	4.15
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	4.65	4.65	4.65	4.65	4.65	4.65
Indicated Wellhead Value	3.35	4.35	5.35	6.35	7.35	8.35
<u>Operating Costs</u>						
Royalty (12.5% of Wellhead Value)	.42	.54	.67	.79	.92	1.04
Severance Tax (8% of Wellhead Value)	.26	.35	.43	.51	.59	.67
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.27	1.48	1.69	1.89	2.10	2.30
Operating Profit	2.08	2.87	3.66	4.46	5.25	6.05
Taxes at 53% (b)	1.10	1.52	1.94	2.36	2.78	3.21
Net Profit	\$.98	\$1.35	\$1.72	\$2.10	\$2.47	\$2.84

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

Pipeline Costs:

\$ Millions

Cost of Construction (\$7,200 + \$300)	7,500
Capitalized Interest (1974 - 1977)	1,450
Total	8,950

Annual Operating Costs:

Pipeline Amortization - \$8,950 x 92.5% * ÷ 35 yrs.	237
Interest Costs @ 10% (\$8,950 x 85%) (a)	761
Operating Costs (Labor, fuel, maintenance, etc.)	70
Ad Valorem Tax (b)	179
Income Taxes (c)	494
Net Income (7% x \$8,950)	627
Total Annual Costs	2,368

Pipeline Tariff Per Barrel (730,000,000 bbls. per yr.) \$ 3.24
(Includes a pipeline profit of \$.86)

* Assumes 7.5% salvage value

- (a) With the commencement of production, substantial sums will be applied to the outstanding loans and interest payments should decline at a significant rate.
- (b) 2% of the assessed value of exploration and production equipment.
- (c) Effective 53% tax rate is composed of 48% federal tax and 9.36% state tax (deductible for computing federal taxes). We have also allowed for investment tax credits estimated at \$500 million and deductible at a rate of \$100 million/year for the first five years.

Per Barrel Profit on Gross Production:

Selling Price (Los Angeles)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Pipeline Tariff	3.25	3.25	3.25	3.25	3.25	3.25
Tanker to L. A.	.50	.50	.50	.50	.50	.50
Total Transportation	3.75	3.75	3.75	3.75	3.75	3.75
Indicated Wellhead Value	4.25	5.25	6.25	7.25	8.25	9.25
<u>Operating Costs</u>						
Royalty (12.5% of Wellhead Value)	.53	.66	.78	.91	1.03	1.16
Severance Tax (8% of Wellhead Value)	.34	.42	.50	.58	.66	.74
Ad Valorem Tax (a)	.09	.09	.09	.09	.09	.09
Production Costs	.25	.25	.25	.25	.25	.25
Amortization	.25	.25	.25	.25	.25	.25
Total Operating Costs	1.46	1.67	1.87	2.08	2.28	2.49
Operating Profit	2.79	3.58	4.38	5.17	5.97	6.76
Taxes at 53% (b)	1.48	1.90	2.32	2.74	3.16	3.58
Net Profit	\$1.31	\$1.68	\$2.06	\$2.43	\$2.81	\$3.18

(a) 2% of the pipeline's assessed value.

(b) Effective 53% rate is composed of 48% federal income tax plus 9.36% state tax (deductible for computing federal taxes).

AGO 531931

GROSS PRODUCTION - 1,200,000 b/d (438,000,000 barrels/year)

	<u>PER BARREL</u>					
Selling Price	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Unit Profit	.69	1.07	1.44	1.81	2.19	2.56
	*	*	*	*	*	*

<u>Producing Profits</u>	<u>%</u>	<u>Annual Volume (Mil. Bbls.)</u>	<u>PER SHARE</u>					
Standard of Ohio (53,502,724 shares)	51.0	223.4	\$2.64	\$4.10	\$ 5.51	\$ 6.93	\$ 8.38	\$ 9.80
Atlantic Richfield (57,834,000 shares)	19.7	86.3	1.03	1.60	2.15	2.70	3.27	3.82
Exxon (225,324,000 shares)	19.7	86.3	.26	.41	.55	.69	.84	.98
Mobil (102,289,000 shares)	3.3	14.5	.10	.15	.20	.26	.31	.36
Phillips (76,113,000 shares)	2.9	12.7	.12	.18	.24	.30	.37	.43
Total Production	100.0	438.0	*	*	*	*	*	*

<u>Pipeline Profits</u>	<u>%</u>	<u>Share of Profits (Mil.)</u>	<u>PER SHARE</u>					
Standard of Ohio 33.34	33.34	\$190.0	\$3.26	\$3.26	\$ 3.26	\$ 3.26	\$ 3.26	\$ 3.26
Atlantic Richfield 21.00	21.00	120.0	2.07	2.07	2.07	2.07	2.07	2.07
Exxon 20.00	20.00	114.0	.51	.51	.51	.51	.51	.51
Mobil 5.00	5.00	29.0	.28	.28	.28	.28	.28	.28
Phillips 1.66	1.66	9.5	.12	.12	.12	.12	.12	.12
Total	100.00	571.0	*	*	*	*	*	*

<u>Total Profits</u>	<u>PER SHARE</u>					
Standard of Ohio	\$5.90	\$ 7.36	\$ 8.77	\$10.19	\$11.64	\$13.06
Atlantic Richfield	3.10	3.67	4.22	4.77	5.34	5.89
Exxon	.77	.92	1.06	1.20	1.35	1.49
Mobil	.38	.43	.48	.54	.59	.64
Phillips	.24	.30	.36	.42	.49	.55

			PER BARREL						
Selling Price			\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00	
Unit Profit			.98	1.35	1.72	2.10	2.47	2.84	
			*	*	*	*	*	*	
Producing Profits		%	Annual Volume (Mil. Bbls.)	PER SHARE					
Standard of Ohio*	51.0	279.2	(257.5)	\$4.15	\$5.72	\$ 7.29	\$ 8.90	\$10.46	\$12.03
(60,928,724 shares)									
Atlantic Richfield	19.7	107.9		1.83	2.52	3.21	3.92	4.61	5.30
(57,834,000 shares)									
Exxon	19.7	107.9		.47	.65	.82	1.01	1.18	1.36
(225,324,000 shares)									
Mobil	3.3	18.1		.17	.24	.30	.37	.44	.50
(102,289,000 shares)									
Phillips	2.9	15.9		.20	.28	.36	.44	.52	.59
(76,113,000 shares)									
Total Production	100.0	547.5							
				*	*	*	*	*	*
Pipeline Profits		%	Share of Profits (Mil.)	PER SHARE					
Standard of Ohio	33.34	\$202.0		\$3.32	\$3.32	\$ 3.32	\$ 3.32	\$ 3.32	\$ 3.32
Atlantic Richfield	21.00	127.3		2.20	2.20	2.20	2.20	2.20	2.20
Exxon	20.00	121.2		.54	.54	.54	.54	.54	.54
Mobil	5.00	30.3		.30	.30	.30	.30	.30	.30
Phillips	1.66	10.1		.13	.13	.13	.13	.13	.13
Total	100.0	606.0							
				*	*	*	*	*	*
Total Profits		PER SHARE							
Standard of Ohio *		\$7.47	\$9.04	\$10.61	\$12.22	\$13.78	\$15.35		
Atlantic Richfield		4.03	4.72	5.41	6.12	6.81	7.50		
Exxon		1.01	1.19	1.36	1.55	1.72	1.90		
Mobil		.47	.54	.60	.67	.74	.80		
Phillips		.33	.41	.49	.57	.65	.72		

*Refer to footnote on page 11 for explanation of Sohio's outstanding common shares and per barrel profit potential.

	PER BARREL					
Selling Price	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00
Unit Profit	1.31	1.68	2.06	2.43	2.81	3.18
	*	*	*	*	*	*

Producing Profits	%	Annual Volume (Mil. Bbls.)	PER SHARE					
Standard of Ohio								
(60,928,724 shares)								
Atlantic Richfield								
(57,834,000 shares)								
Exxon			Since the Prudhoe Bay Unit is estimated to produce only 1,500,000 b/d this chart cannot be completed.					
(225,324,000 shares)								
Mobil								
(102,289,000 shares)								
Phillips								
(76,113,000 shares)								
Total Production	100.0	730.0	*	*	*	*	*	*

Pipeline Profits	%	Share of Profits (Mil.)	PER SHARE					
Standard of Ohio	33.34	\$209.0	\$5.46	\$5.46	\$ 5.46	\$ 5.46	\$ 5.46	\$ 5.46
Atlantic Richfield	21.00	131.7	2.28	2.28	2.28	2.28	2.28	2.28
Exxon	20.00	125.4	.56	.56	.56	.56	.56	.56
Mobil	5.00	31.4	.31	.31	.31	.31	.31	.31
Phillips	1.66	10.4	.14	.14	.14	.14	.14	.14
Total	100.0	627.0	*	*	*	*	*	*

Total Profits

Standard of Ohio	
Atlantic Richfield	
Exxon	
Mobil	
Phillips	

[UNCERTAIN]

AGO 531934

STANDARD OIL OF OHIOFULLY DILUTED COMMON SHARES OUTSTANDING BASED ON
PRODUCTION LEVELS AT PRUDHOE BAYPrudhoe Bay
PRODUCTION

----- SOHIO COMMON SHARES -----

	-- Barrels Per Day --		Presently Outstanding	Equivalent Shares Issued to BP	Fully Diluted Total
	<u>Gross</u>	<u>Sohio Net #</u>			
3/31/75	-0-	-0-	27,324,093	8,932,000	36,551,000**
10/2/75	-0-	-0-	29,468,724	8,932,000	38,613,000**
	448,000	200,000	29,468,724	13,806,000	43,274,724
	560,000	250,000	29,468,724	15,740,000	45,208,724
	672,000	300,000	29,468,724	17,866,000	47,334,724
	784,000	350,000	29,468,724	20,218,000	49,686,724
	896,000	400,000	29,468,724	22,830,000	52,298,724
	1,008,000	450,000	29,468,724	27,894,000	57,362,724
	1,120,000	500,000	29,468,724	29,034,000	58,502,724
	1,232,000	550,000	29,468,724	30,222,000	59,690,724
	1,345,000	600,000	29,468,724	31,460,000	60,928,724
	1,500,000	669,375	29,468,724	31,460,000	60,928,724

51% of Net Production

**As reported in October 2, 1975 prospectus.

*As Sohio's net production rises, the number of shares it will have to issue to BP increases and its net profits interest is adjusted. Sohio has a 100% net profits interest in the first 600,000 b/d of net production and a 25% net profits interest in production between 600,000 b/d and 1,050,000 b/d. After providing for the 12.5% state royalty, we estimate Sohio's 51% share of net production would reach 600,000 b/d at a gross production level of 1,344,500 b/d. Therefore, Sohio's per barrel profit on gross production between 1,344,500 b/d and 1,500,000 b/d would be about 25% of that on gross production at lower levels. The above table lists the additional common shares to be issued to BP as production rises. Also, the per share profit potential for Sohio has been adjusted to reflect both the increased number of shares to be outstanding as well as the reduced per barrel profit figure anticipated after gross production exceeds 1,344,500 b/d.

IN CONNECTION WITH ARBITRAGE ACTIVITIES L.F. ROTHSCHILD & CO. MAY HAVE EITHER LONG OR SHORT POSITIONS IN SOME OF THE ISSUES MENTIONED IN THIS MEMO AND MAY FROM TIME TO TIME BUY OR SELL SOME OF THE ISSUES MENTIONED.

AGG 531935

SCOMM

#13:10

Note out 3/4/74

BILL AND RESOLUTION REQUEST

Request for Bill (if needed)
By Thomas
Subject:

Pensions--Return of funds

retirement

Drafter (Russ) ten
Assigned by J
Date in 2-26-74 Due on _____

Recorded ☒
Draft 1 2 3 4 5 6 FINAL
OK for final Thomas
Deliver to _____
Date delivered _____

Instructions to typist
SPONSOR BLANK

Special Instructions

Thomas says he has heard that if a person pays into a pension fund in Alaska, then for some reason doesn't qualify, he can't get back the money he has paid in. If this is so, wants to make it so he can.

OBJECT OF LEGISLATIVE ACTION

Bill

- ___ Determine appropriate AS section, chapter or title (including latest supplement) to amend. Legislator may specify.
- ___ Check with revisor of statutes concerning section numbering.

Resolution

- ___ Use special resolution request work form for basic facts and addressees. Record and proceed on this form.

SOURCES OF LAW AND FACT

- ___ Journals and Legislative Reporting Service for previous session bills.
- ___ Check with agency concerned (with requestor's permission).
- ___ Laws of other states.
- ___ Bar Foundation Bill Reporting Service.
- ___ Publication "Suggested State Legislation."
- ___ Professional and industrial groups and services (with requestor's permission).
- ___ Alaska Delegation newsletters.
- ___ Other _____

INTERPRETATION

- ___ AS annotations.
- ___ Shepard's Citations.
- ___ Alaska Attorney General Opinions.
- ___ Legal Reference Works.

LEGAL CHECK

- ___ Constitutional aspects considered.
- ___ Conformity with one-subject rule.
- ___ Law not local or special unless general will not suffice.
- ___ Subject reflected in title.
- ___ Alaska Supreme Court rules checked for 2/3 majority vote requirement.

DRAFTING CHECK

- ___ Organize bill.
- ___ Provide effective date clause if effective date other than constitutional; reference to in title;
- ___ Style, grammar, and words.
- ___ Read three times: 1 - for meaning; 2 - for clarity and simplicity; and 3 - for loopholes or misapplication.
- ___ Recheck AS citations and internal references.

ADVICE AND CONSULTATION

- ___ Confer with appropriate staff members.
- ___ Consult with legislator.
- ___ Advise revisor of final numbering.
- ___ Make recommended changes.
- ___ Submit for final approval.

ALASKA
STATE - LEGISLATURE

March 4, 1974

MEMORANDUM

Dear Senator Thomas:

In reference to your request for a bill that would provide that any pension funds paid in must be returned if later the person does not qualify, we checked with the Division of Retirement and they say this is already done. Not only must the pension funds be returned, but interest must be paid on those funds. If I can do anything more on this please contact me and we'll go from there.

Russ Mulder

LAA

AGO 531937

Notes
Retirement - Admin.

Noted and 3/4/74

BILL AND RESOLUTION REQUEST

Request for Info
By Tillion
Subject:

Retirement Credits--Legislators

Drafter (Russ) Ken
Assigned by J
Date in 2-20-74 Due on _____

Recorded ☒
Draft 1 2 3 4 5 6 FINAL

OK for final Tillion

Deliver to _____

Date delivered _____

Instructions to typist

Special Instructions

Banfiled has a bill in canceling the \$4000 expense allowance and adding the \$4000 to their salaries. One of the reasons given is so that legislators receive credit for 13,000 not 9000. Clem thinks that under 39.35.680 (4) that \$4000 is already credited toward their retirement benefits. My first impression from reading it is no, see what you think and check with department. Allwances are not compensation I don't think in the ordinary sense of the word

OBJECT OF LEGISLATIVE ACTION

Bill

- ___ Determine appropriate AS section, chapter or title (including latest supplement) to amend. Legislator may specify.
- ___ Check with revisor of statutes concerning section numbering.

Resolution

- ___ Use special resolution request work form for basic facts and addressees. Record and proceed on this form.

SOURCES OF LAW AND FACT

- ___ Journals and Legislative Reporting Service for previous session bills.
- ___ Check with agency concerned (with requestor's permission).
- ___ Laws of other states.
- ___ Bar Foundation Bill Reporting Service.
- ___ Publication "Suggested State Legislation."
- ___ Professional and industrial groups and services (with requestor's permission).
- ___ Alaska Delegation newsletters.
- ___ Other _____

INTERPRETATION

- ___ AS annotations.
- ___ Shepard's Citations.
- ___ Alaska Attorney General Opinions.
- ___ Legal Reference Works.

LEGAL CHECK

- ___ Constitutional aspects considered.
- ___ Conformity with one-subject rule.
- ___ Law not local or special unless general will not suffice.
- ___ Subject reflected in title.
- ___ Alaska Supreme Court rules checked for 2/3 majority vote requirement.

DRAFTING CHECK

- ___ Organize bill.
- ___ Provide effective date clause if effective date other than constitutional; reference to in title;
- ___ Style, grammar, and words.
- ___ Read three times: 1 - for meaning; 2 - for clarity and simplicity; and 3 - for loopholes or misapplication.
- ___ Recheck AS citations and internal references.

ADVICE AND CONSULTATION

- ___ Confer with appropriate staff members.
- ___ Consult with legislator.
- ___ Advise revisor of final numbering.
- ___ Make recommended changes.
- ___ Submit for final approval.

ALASKA
STATE LEGISLATURE

MEMORANDUM

March 4, 1974

Dear Clem:

In regard to information request relating to whether or not your legislative \$4,000 would be counted as or, added to, your service credit computations, the Division of ~~Rxx~~ retirement is 99% sure it would not. They will check further and if they find out differently they will let me know. I'll naturally contact you if I hear anything from them.

Russ Mulder

LAA

AGO 531939

note out 2/27/94

BILL AND RESOLUTION REQUEST

Request for Bill
By Bevrie
Subject: State Teachers Retirement System; Major Medical Insurance
Drafter Russ
Assigned by 8
Date in 2/15/74 Due on ASAP
Reg. taken by: Stu

Recorded ☒
Draft 1 2 3 4 5 6 FINAL
OK for final Bevrie
Deliver to Bevrie
Date delivered _____

Instructions to typist
House H.F. 55

Special Instructions

OBJECT OF LEGISLATIVE ACTION

Bill

- ___ Determine appropriate AS section, chapter or title (including latest supplement) to amend. Legislator may specify.
- ___ Check with revisor of statutes concerning section numbering.

Resolution

- ___ Use special resolution request work form for basic facts and addressees. Record and proceed on this form.

SOURCES OF LAW AND FACT

- ___ Journals and Legislative Reporting Service for previous session bills.
- ___ Check with agency concerned (with requestor's permission).
- ___ Laws of other states.
- ___ Bar Foundation Bill Reporting Service.
- ___ Publication "Suggested State Legislation."
- ___ Professional and industrial groups and services (with requestor's permission).
- ___ Alaska Delegation newsletters.
- ___ Other _____

INTERPRETATION

- ___ AS annotations.
- ___ Shepard's Citations.
- ___ Alaska Attorney General Opinions.
- ___ Legal Reference Works.

LEGAL CHECK

- ___ Constitutional aspects considered.
- ___ Conformity with one-subject rule.
- ___ Law not local or special unless general will not suffice.
- ___ Subject reflected in title.
- ___ Alaska Supreme Court rules checked for 2/3 majority vote requirement.

DRAFTING CHECK

- ___ Organize bill.
- ___ Provide effective date clause if effective date other than constitutional; reference to in title;
- ___ Style, grammar, and words.
- ___ Read three times: 1 - for meaning; 2 - for clarity and simplicity; and 3 - for loopholes or misapplication.
- ___ Recheck AS citations and interal references.

ADVICE AND CONSULTATION

- ___ Confer with appropriate staff members.
- ___ Consult with legislator.
- ___ Advise revisor of final numbering.
- ___ Make recommended changes.
- ___ Submit for final approval.

A Bill to provide for Major Medical Insurance for Retired Teachers

Present Problem

Some School Districts provide part or all major medical insurance for their employees but upon retirement the group plan is no longer available.

Retired teachers at age of 55 or 60 must shop for very expensive insurance to be covered until they are eligible for Medicare. And in some cases can not get insurance.

Solution

The State Major Medical Insurance (Blue Cross, Washington/Alaska) provides for retirees to continue coverage at the group rate by paying the group premium.

A Bill should be written to revise the state insurance to provide for:

1. An open enrollment period of 60 days in which any teacher retiring under the State Teachers Retirement may elect to be covered at the state group rate by payment of the premium.
2. An open enrollment period until January 1, 1975 in which any teacher now retired may enroll upon payment of the state group premium.

Held for sponsor action

BILL AND RESOLUTION REQUEST

Request for Bill
By Meehins
Subject: Higher step increases for
state troopers who have
additional ed + for experience
Drafter _____
Assigned by Meehins
Date in _____ Due on _____

Recorded ☒
Draft 1 2 3 4 5 6 FINAL
OK for final _____
Deliver to _____
Date delivered _____
Instructions to typist _____

Special Instructions AS 39.075.150 (4) seems to apply

OBJECT OF LEGISLATIVE ACTION

Bill

- ___ Determine appropriate AS section, chapter or title (including latest supplement) to amend. Legislator may specify.
- ___ Check with revisor of statutes concerning section numbering.

Resolution

- ___ Use special resolution request work form for basic facts and addressees. Record and proceed on this form.

SOURCES OF LAW AND FACT

- ___ Journals and Legislative Reporting Service for previous session bills.
- ___ Check with agency concerned (with requestor's permission).
- ___ Laws of other states.
- ___ Bar Foundation Bill Reporting Service.
- ___ Publication "Suggested State Legislation."
- ___ Professional and industrial groups and services (with requestor's permission).
- ___ Alaska Delegation newsletters.
- ___ Other _____

INTERPRETATION

- ___ AS annotations.
- ___ Shepard's Citations.
- ___ Alaska Attorney General Opinions.
- ___ Legal Reference Works.

LEGAL CHECK

- ___ Constitutional aspects considered.
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- ___ Organize bill.
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- ___ Recheck AS citations and internal references.

ADVICE AND CONSULTATION

- ___ Confer with appropriate staff members.
- ___ Consult with legislator.
- ___ Advise revisor of final numbering.
- ___ Make recommended changes.
- ___ Submit for final approval.

2-22

Orsini by request

*Section 1, AS 44.46.030 is repealed.

*Section 2, AS 44.46.040 is repealed.

*Section 3, AS 44.46.050 is repealed.

*Section 4, AS 46.03.020 is renumbered AS 46.03.080 and a new AS 46.03.020 reads:

AS 46.03.020 ENVIRONMENTAL CONSERVATION COMMISSION

a. There is created within the Department of Environmental Conservation, an Environmental Conservation Commission consisting of seven members appointed by the governor. In so far as practicable, these members shall be: a licensed physician knowledgeable in environmental health, a professional engineer experienced in the field of environmental engineering, an attorney knowledgeable in the field of environmental law, a representative of a local or regional environmental control agency, an industrial representative experienced in environmental protection, a representative of an environmental conservation organization, and one member chosen at large. The Commission shall select its own chairman from among its members.

b. The Commissioner of Environmental Conservation shall serve as a non-voting member of the Commission and shall act as Commission secretary.

c. No voting member of the Commission can be an officer or employee of a State Department or agency.

d. Of the members of the Commission first appointed by the Governor, two shall be appointed for a term of one year, two for a term of two years, and three for a term of three years. Initial terms begin on July 1, 1974. Thereafter, all appointments shall be made for terms of three years, beginning on July 1 of the year in which the appointment is made. Members of the Board shall serve at the pleasure of the governor. In case of a vacancy other than one arising by expiration of term, an appointment to fill the vacancy shall be made by the Governor for the remainder of the unexpired term.

*Section 5, AS 46.03.030 is renumbered AS 46.03.090 and a new AS 46.03.030 reads:

AS 46.03.030 MEETINGS.

The Commission shall hold at least two regular meetings each year and additional meetings which the Chairman considers desirable, at a place and time fixed by the Chairman.

Further, special meetings shall be called by the Chairman upon the written request of three members. Four members shall constitute a quorum.

*Section 6 AS 46.03.040 is renumbered 46.03.100 and a new AS 46.03.040 reads:

AS 46.03.040 EXPENSE AND PER DIEM OF COMMISSION MEMBERS

Each member of the Commission is entitled to travel expenses and per diem allowed by law for each day going to and from and for each day in actual attendance at Commission meetings and other meetings or conferences authorized by the Commission.

*Section 7 AS 46.03.050 is renumbered 46.03.110 and a new AS 46.03.050 reads:

AS 46.03.050 COMMISSION PERSONNEL

The Commissioner of Environmental Conservation shall, with the approval of the Commission, employ an executive director who may be a member of the Commission and who shall be an experienced administrator. The Commission may employ engineers, examiners, hearing officers, experts, clerks, accountants and such other assistance as it considers necessary and shall set the compensation for them when compensation for these employees has not already been established by the State.

*Section 8 AS 46.03.060 is renumbered 46.03.120 and a new AS 46.03.060 reads:

AS 46.03.060 ADMINISTRATIVE SUPERVISION.

The Commission is under the general administrative supervision of the Commissioner of Environmental Conservation.

*Section 9, AS 46.03.070 is renumbered AS 46.03.130 and a new AS 46.03.070 reads:

AS 46.03.070 POWERS OF THE COMMISSION

In addition to the powers conferred on it by law, the Commission shall have the power to:

1. Adopt regulations necessary to effectuate the purposes of this chapter including by way of example and not limitation, regulations providing for:

A. Control, prevention and abatement of air, water, land or subsurface land pollution.

B. Safeguard standards for petroleum and natural gas pipeline construction, operation, modification, or alteration.

C. Protection of public water supplies by setting standards for the construction, improvement and maintenance of public water supply systems.

D. Collection and disposal of sewage and industrial waste.

E. Collection and disposal of garbage, refuse and other discarded solid material from industrial, commercial, agricultural, and community activities or operations.

F. Control of radiation sources to prohibit and prevent unnecessary radiation.

G. Control of pesticides.

H. Such other purposes as may be required for the implementation of the policy declared in Sec. 10 of this chapter.

2. Conduct investigations and hold hearings and compel the attendance of witnesses and the production of accounts, books and documents by the issuance of subpoenas.

3. Act as a hearing board for appeals submitted by persons affected by regulations or orders issued pursuant to this chapter.

*Section 10. The original AS 46.03.080 is renumbered AS 46.03.140, and AS 46.03.080, originally 46.03.020, is amended to read:

AS 46.03.080 POWERS OF THE DEPARTMENT

The department shall have power to

1. enforce the provisions of this Chapter and all of the orders, regulations, and rules adopted by the Commission pursuant to this chapter;

2. enter into contracts necessary or convenient to carry out the functions, powers and duties of the Department;

3. review and appraise programs and activities of State Departments and agencies in light of the policies set out in Section 10 of this Chapter for the purpose of determining the extent to which the program and activities are contributing to the achievement of that policy and to make recommendations to the departments and agencies including but not limited to environmental guidelines;

4. consult and cooperate with

A. Officials and representatives of any non-profit corporation or organization in the State;

B. Persons, organizations and groups, public and private, using, served by, interested in or concerned with the environment of the State;

5. Appear and participate in proceedings before any State or Federal Regulatory agency involving or affecting the purposes of the Department;

6. Undertake studies, inquiries, surveys, or analyses it may consider essential to the accomplishment of the purposes of the department. These activities may be carried out by the personnel of the department or in cooperation with public or private agencies including educational, civic and research organizations, colleges, universities, institutes and foundations.

7. At reasonable times enter and inspect with the consent of the owner or occupier any property or premises, to investigate either actual or suspected sources of pollution or contamination, or to ascertain compliance or noncompliance with any regulation promulgated under this chapter. Information relating to secret processes or methods of manufacture discovered during investigation shall be confidential.

8. Advise and cooperate with municipal, regional, and other local agencies and officials in the State to carry out the purposes of this Chapter.

9. Act as the official agency of the State in all matters affecting the purposes of the Department under federal laws now or hereafter.

*Section 11. The original AS 46.03.090 is renumbered AS 46.03.150 and AS 46.03.090 was originally AS 46.03.030.

*Section 12. The original AS 46.03.100 is renumbered AS 46.03.160 and AS 46.03.100, originally AS 46.03.040, is amended to read:

AS 46.03.100 ALASKA ENVIRONMENTAL PLAN

b. The department shall submit the first plan to the commission for approval on or before January 1, 1975. The commission shall submit the original plan and periodic revisions of the plan to the governor. The plan is effective upon approval by the governor and shall serve thereafter as a guide to the public, state government, and political subdivisions of the State in the development of the environment and natural resources of the State.

*Section 13. The original AS 46.03.110 is renumbered AS 46.03.170. AS 46.03.110 was originally AS 46.03.050.

*Section 14. The original AS 46.03.120 is renumbered AS 46.03.180. AS 46.03.120, originally AS 46.03.060, is amended to read:

AS 46.03.120 WATER POLLUTION CONTROL PLAN.

The department shall with the approval of the commission develop comprehensive plans for water pollution control in the State and conduct investigations it considers advisable and necessary for the discharge of its duties.

*Section 15. The original AS 46.03.130 is renumbered AS 46.03.190. AS 46.03.130, originally AS 46.03.070 is amended to read:

AS 46.03.130 POLLUTION STANDARDS

After public hearing, the commission [department] may adopt standards and make them public and determine what qualities and properties of water indicate a polluted condition actually or potentially deleterious, harmful, detrimental or injurious to the public health, safety or welfare, to terrestrial and aquatic life or their growth and propagation, or to the use of waters for domestic, commercial, industrial, agricultural, recreational, or other reasonable purposes.

*Section 16. The original AS 46.03.140 is renumbered AS 46.03.200. AS 46.03.140, originally 46.03.080, is amended to read:

AS 46.03.140 QUALITY AND PURITY STANDARDS

After study and public hearing held upon due notice, the commission [department] may establish standards of quality and purity or group the designated waters of the state into classes as to minimum quality and purity, or both. The commission [department] shall classify waters in accordance with considerations of best usage in the interest of the public. The commission [department] may alter and modify classifications after hearing.

*Section 17. The original AS 46.03.150 is renumbered AS 46.03.210. AS 46.03.150, originally AS 46.03.090, is amended to read:

AS 46.03.150 PLANS FOR POLLUTION DISPOSAL

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The commission [department] may require the submission of plans for sewage and industrial waste disposal or treatment or both for a publicly or privately owned or operated

industrial establishment, community, public or private property subdivision or development.

*Section 18. The original AS 46.03.160 is renumbered AS 46.03.220. AS 46.03.160 was originally AS 46.03.100.

*Section 19. The original AS 46.03.170 is renumbered AS 46.03.230. AS 46.03.170 was originally AS 46.03.110.

*Section 20. The original AS 46.03.180 is renumbered AS 46.03.24. AS 46.03.180, originally AS 46.03.120, is amended to read:

AS 46.03.180 TERMINATION OR MODIFICATION OF WASTE DISPOSAL PERMIT.

c. A person subject to a permit termination or modification as described in a. and b. of this section, upon written request and in accordance with the rules of the commission, is entitled to a hearing before the commission on the termination or modification. Following the hearing the termination or modification may be affirmed, altered, or withdrawn.

*Section 21. The original AS 46.03.190 is renumbered AS 46.03.250. AS 46.03.190, originally AS 46.03.130 is amended to read:

AS 46.03.190 COMPLIANCE ORDER

a. When, in the opinion of the department, a person is violating or is about to violate regulations and standards established under the provisions of secs. 120-160 [60-100] of this chapter or any other regulations concerning water pollution, the department shall notify the person of its determination and notice do not constitute an order under sec. 820 of this chapter.

d. Within 30 days of receipt, a person affected may make application for a hearing before the commission to review the compliance order. Failure to make application for hearing within 30 days of receipt of a compliance order constitutes a waiver of the recipients' right of review.

e. The commission [department] shall hold a hearing within 20 days of receipt of the application. After hearing the Commission [department] may rescind, modify or affirm a compliance order.

*Section 22. The original AS 46.03.200 is renumbered AS 46.03.260. AS 46.03.200 was originally AS 46.03.140.

*Section 23. The original AS 46.03.210 is renumbered AS 46.03.270. AS 46.03.210 was originally AS 46.03.150.

*Section 24. The original AS 46.03.220 is renumbered AS 46.03.280. AS 46.03.220, originally AS 46.03.160, is amended to read:

AS 46.03.220 ADDITIONAL CONTAMINANT CONTROL MEASURES.

a. The department may require that notice be given to it before the undertaking of the construction, installation or establishment of particular types of classes of new air contaminant sources specified in its regulations. Within 15 days of its receipt of the notice, the department shall require, as a condition precedent to the undertaking, the submission of plans and other information it considers necessary in order to determine whether the proposed undertaking will be in accord with applicable regulations in force under secs. 200-210 [140-150] of this chapter.

b. Within 30 days of receipt of the plans and information for a proposed undertaking, the department shall either approve the undertaking and issue a permit, or if the department determines that the proposed undertaking will not meet the requirements of secs. 200-210 [140-150] of this chapter and applicable regulations, it shall issue a prohibition order against the undertaking.

c. A person subject to a prohibition order as described in b. of this section on written request, and in accordance with regulations of the commission [department], is entitled to a hearing before the Commission on the order. Following the hearing the order may be affirmed, modified or withdrawn.

*Section 25. The original AS 46.03.230 is renumbered AS 46.03.290. AS 46.03.230, originally AS 46.03.170, is amended to read:

AS 46.03.230 VARIANCES

a. A person who owns or is in control of a plant, building, structure, establishment, process or equipment may apply to the commission [department] for a variance from applicable emission control regulations. The commission [department] may grant the variance, but only after public hearing following due notice, if it finds that

1. the emissions occurring or proposed to occur do not endanger human health or safety; and

2. compliance with the rules or regulations from which variance is sought would produce severe hardship without benefits to the public.

b. No variance may be granted under this section until the commission [department] has considered the relative interests of the applicant, other owners of property likely to be affected by the emissions and the general public.

c. A variance granted under a. of this section, shall be for periods and under conditions consistent with the reasons for it and within the following limitations:

1. if the variance is granted on the ground that there is no practicable means known or available for the adequate prevention, abatement or control of the air pollution involved, it shall be only until the necessary means for prevention, abatement, or control become known and available, subject to the taking of substitute or alternate measures that the department may prescribe;

2. if the variance is granted on the ground that compliance with the particular requirement from which variance is sought will necessitate the taking of measures which, because of their extent or cost, must be spread over a considerable period, it shall be for a period not to exceed the reasonable time which in the opinion of the commission [department] is necessary. A variance granted on this ground shall contain a timetable for taking action in an expeditious manner and shall be conditioned on adherence to the timetable and shall be for not more than five years;

3. if the variance is granted on the ground that it is justified to relieve or prevent hardship of a kind other than that provided in c.1. and 2. of this section, it shall be for not more than one year.

d. The commission [department] may upon application renew an existing variance on terms and conditions and for periods which would be appropriate on initial granting of a variance. If complaint is made to the commission [department] on account of the variance no renewal of it may be granted unless, after public hearing on the complaint following due notice, the commission [department] finds that renewal is justified. Application shall be made at least 60 days before the expiration of the variance. Immediately upon receipt of an application for renewal the commission [department] shall give public notice of it.

e. A variance or renewal is not a right of the applicant but shall be in the discretion of the commission [department].

f. No variance or renewal granted under this section may be construed to prevent or limit the application of the emergency orders of the commissioner issued under sec. 820 of this chapter.

*Section 26. The original AS 46.03.240 is renumbered AS 46.03.300. AS 46.03.240 was originally AS 46.03.180.

*Section 27. The original AS 46.03.250 is renumbered AS 46.03.310. AS 46.03.250, originally AS 46.03.190, is amended to read:

AS 46.03.250 MOTOR VEHICLE POLLUTION

a. As the state of knowledge and technology relating to the control of emissions from motor vehicles may permit or make appropriate, and in furtherance of the purpose of this chapter, the Commission [department] may provide by regulation for the control of these emissions. The regulations may prescribe requirements for the installation and use of equipment designed to reduce or eliminate emissions and for the proper maintenance of this equipment.

d. When the commission [department] has issued regulations requiring the maintenance of features or equipment in or on motor vehicles for the purpose of controlling emission from the vehicles, no motor vehicle may be issued a certificate of inspection and approval if required, unless the required features or equipment have been inspected in accordance with the standards, testing techniques and instructions furnished by the commission [department] and have been found to meet those standards.

*Section 28. The original AS 46.03.260 is renumbered AS 46.03.320. AS 46.03.260, originally AS 46.03.200 is amended to read:

AS 46.03.260 LIMITATIONS

Secs. 200-300 [140-240] of this chapter do not

1. grant to the department jurisdiction or authority with respect to air contamination existing solely within commercial and industrial plants, works or shops;

2. affect the relations between employers and employees with respect to or arising out of a condition or air contamination or air pollution; and