ALASKA LEGISLATURE COMMITTEE FILES 1983-1984 8672
2794 SRES N. ANCH. LAND AGREEMENT - PETROLEUM PRICING

PARTIAL INDEX

Phrase	Contract Pages	Amendment Pages
Access	13, 19, 28	4
Bridge	18, 26, 31, 32	8
Chugach State Park	25, Ex. C	
Consent	2, 10, 11, 16, 22, 23, 25, 26	
Conveyance	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 24	2, 6
Crossing	5, 24, 26	
Eagle River	4, 6, 28, 30, 31, Ex. B, Ex. B	
Easement	4, 7, 17, 19, 24, 28	4, 6
Exhibit A	4, 31	7
Exhibit B	4	
Exhibit C	10	
Exhibit D	13	4
Exhibit E	14	7
Exhibit F	14	7
Exhibit G	28	
Income	17	
Land Bank	10, 11, 12, 23, 25, Ex. C	
Land Management Plan	15, 16, 21, 23, 24	
Management	1, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26	
Mental Health Lands	13, Ex. E, Ex. F	
Military Lands	3, 4, 5, 6, 7, 14, 15, 16, 17, 18, 20, 23, 26, 27, Ex. B	2, 7
Public Irterest Lands	16, 17, 18, 20	
Public Purposes	17	
Railroad	4, 5, 9, 24	3, 5, 7

Phrase	Contract Pages	Amendment Pages
Reconvey	7, 9, 10, 11, 12, 18, 23	2, 3
Recoveyance	7, 10, 11, 12, 18, Ex. C	
Section 14(c)(3)	15	
Section 14(f)	26	
Submerged Lands	4, 5	
Subsurface Estate	22, 26	
Surface Estate	7, 8, 23, 28	
Township 17 N, 3 E	12, Ex. D	
Trail	18	4
Utilities	18	

Anchorage Daily News

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Negotiators arrive at land decision

By STAN JONES
Daily News reporter

The possibility that the U.S. Army will someday give up part of the Fort Richardson Army base has led to an agreement settling the future of nearly 110,000 acres of land at the north end of the Anchorage Bowl.

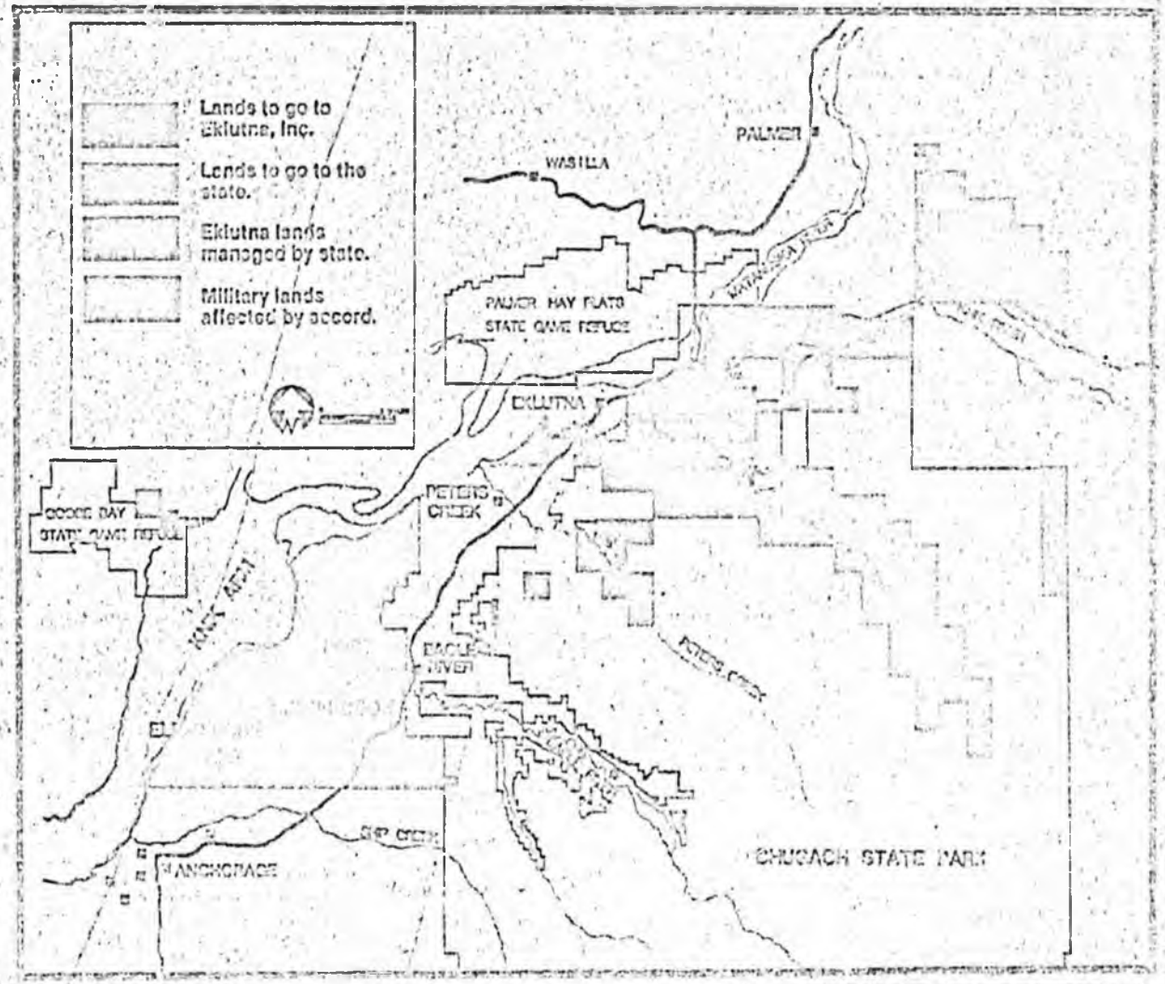
Unveiled Friday by the municipality of Anchorage, the state of Alaska and the Native corporation Eklutna Inc., the agreement covers 41,000 acres of Fort Richardson, some 27,000 acres of land selected by Eklutna Inc. within Chugach State Park under the Alaska Native Claims Settlement Act, thousands of additional acres of state and Native corporation land, rights of way for the Alaska Railroad should it be transferred to the state, a Knik Arm crossing site and three approaches to it, and a future seaplane base near Eagle River.

"The agreement takes a l of land in the north part Anchorage with a variety of problems that would take a great amount of time and weeping and gnashing of teeth and money to solve in a way that has everybody doing what they do best," said Division of Parks Director Chip Dennerlein, who represented the state in the negotiations.

The agreement springs from a provision of the 1980 Alaska National Interest Lands Conservation Act allowing the city, the state and Eklutna Inc. to determine how to divide up Fort Richardson if Washington, D.C., ever decides to dispose of it. Although Washington has no plans to do so at present, it will be bound by the agreement if it changes its mind.

On the way to carving up Fort Richardson, the three parties also settled a number of unrelated issues, including the disposition of land contested by the state and Eklutna Inc., and two lawsuits the Native corporation had filed against the federal government.

"The agreement requires the federal government to contribute land to settle the outstanding Native land claims and to provide land for municipal expansion and state management objectives," Gov. Jay Hammond



State signs Eklutna swap deal

By BETSY BRENNEMAN
Daily News reporter

JUNEAU — The Sheffield administration has signed off on the North Anchorage Land Agreement, deciding it did not need legislative approval to do so.

Legislators say they are pleased that the long-standing land ownership dispute between the state, Eklutna, Inc. Native village corporation, and the Municipality of Anchorage has been settled to the apparent benefit of all the parties. But at a briefing Monday, some legislators said they felt they should have been consulted before final approval was given.

Getting that approval was apparently the intent of the Hammond administration, which had withheld its signature since March of last year when the agreement was put in final shape.

At a briefing for legislators Monday, Commissioner of Natural Resources Esther Wunnicke said the Department of Law decided that because the settlement involved lands in disputed ownership, rather than a trade of lands owned by the state, the legislature's approval was not required.

The agreement covers about 100,000 acares north of Anchorage and south of Palmer. Its major provisions will allow the state a free lease and the authority to manage 27,000 acres of land in the northern portion of Chugach State Park previously claimed by Eklutna and will retain public ownership of Native selected lands in Palme. Hayflats State Game Refuge and another 11,000 acres of land in the Jim and Swan lakes area.

In return, Eklutna will gain title to large portions of Fort Richardson and Elmendorf Air Force Base, should the federal government decide the bases are surplus property, and the corporation will get more than 60 percent of developable mental health lands in the north Anchorage area that had been under dispute.

A provision in the Alaska Lands Act passed by Congress in 1961 opened the way for the federal government to relinquish military lands as a means of resolving the land conflicts and avoiding costly court fights.

Chip Dennerlein, director of public services for Anchorage, said without the agreement, the federal government would have had more control. Now, instead, it is bound by what the three parties involved in the dispute have decided.

Dennerlein said without the settlement, there would have been years of controversy about Eklutna's development of the land within Chugach State Park that has high public-use value and only marginal commercial value.

Anchorage residents will notice some immediate effects of the settlement, according to Jerry Wertzbaugher, municipal attorney. They will find they no longer have to trespass to use the northern half of the state park, especially the Eklutna Lake Valley, the Palmer Hayflats State Game Refuge, and the Jim and Swan lakes area. They will also notice that Eklutna will begin developing some of its land and that the state will begin making improvements for public use in the Eklutna Lake Valley, Wertzbaugher said.

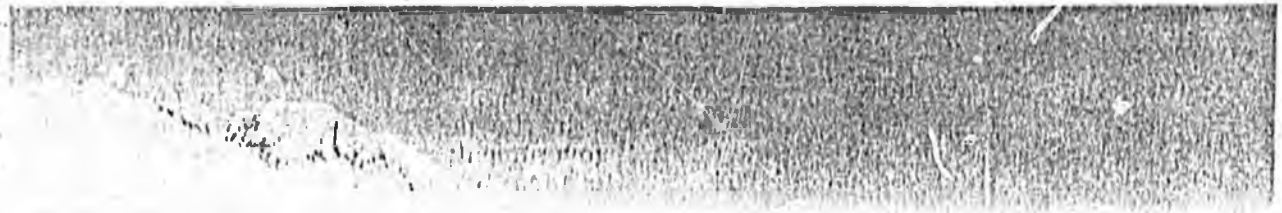
Anchorage and Eklutna are getting title to lands they may never have gotten otherwise and the federal government can hold onto its military land as long as it wants. It will also be a great planning document for the municipality, Wertzbaugher and Dennerlein said, because the future of Fort Richardson land is now known and Eklutna will be allowed to develop in a logical fashion.

Individual Native allotments, separate from the Native corporation's land selections, will remain untouched in the settlement.

Right-of-way agreements for the Alaska Railraod and the Knik Arm Crossing have also been left intact.

Bettye Fahrenkamp, D-Fairbanks, chairwoman of the Senate Resources Committee, said after the legislative briefing that she was pleased with the settlement, but wasn't satisfied with the reasons given for bypassing the legislature when final state approval was given.

Whenever state land is involved, Fahrenkamp said, "It's our trust to represent the citizens, if for nothing more than checks and balances." She said she would be checking into the legal opinion on the matter, not in an antagonistic way, but "to make darn sure people were within their rights."



Knowles

Continued from Page B-1

makes a lot of

Bank ro armed

A man apparent his demands robbe View late Monday The man walke View Dr. about 5:1 handed a teller a were not revealed. undisclosed amoun Witnesses repor authorities.

The suspect is tall and in his m thick, brown mus rimmed glasses, a The robber was la the Glenn Highway

Vehicl may re air in t

From staff and wire report

The state Depart Environmental Cons and Alaska's two mo lous cities have agree tively on a plan for to operate a ve tion and gram.

If

Negotiators reach agreement on land

Continued from Page A-1

said in a statement released Friday in Juneau. "It's a good solution for all parties involved."

Mayor Tony Knowles said that the agreement "provides for rational, open direction in the event of unknown, future, federal land actions."

One major and immediate effect of the agreement will be to allow the state to take over the management of 27,000 acres of land selected by the Eklutna Inc. within the boundaries of Chugach State Park. Much of the land involved is not only of value as recreational space, but also provides access to other areas of the park.

"If we didn't have the management of these lands," said Dennerlein, "we could write off the north half of Chugach State Park in terms of public use."

Most of the land to be managed as parkland, about 20,000 acres, is in the Eklutna Valley near Eklutna Lake. Other parcels are in the Peters Creek, Little Peters Creek, and Meadow Creek areas, Dennerlein said.

Although the state would immediately receive authority to manage the lands, it would not acquire title until lands from the military base became available to replace the parklands Eklutna Inc. would transfer to the state.

Even if the transfer of the military base is long delayed, the state's management authority will continue as the

The agreement would provide the municipality with 3,000 acres of community service lands and half of any surplus lands from the military base up to a total of 15,900 acres.

Eklutna Inc. would be entitled to the other half of any military surplus lands, up to 15,900 acres, half of the revenue from public service lands established by the agreement. 3,600 acres north of the Knik River, and 12,900 acres of land — about 3,000 of which are considered potentially developable — in the area of Eklutna village. In return, Eklutna Inc. will drop two lawsuits against the federal government that had tied up some of the lands now to be transferred to or managed by the state.

The agreement commits the municipality and Eklutna Inc. to cooperate in developing a general land management plan for north Anchorage.

The 41,000 acres of military land covered by the agreement start at Ski Bowl Road, according to Dennerlein, and run north to just south of the Birchwood Airport. Before the military base was established during World War II, the land had been part of the Eklutna Indian Reserve, Dennerlein said.

It is not likely that the entire 41,000 acres would ever become available, he said. The parties to the agreement think that about half of it is a more likely figure if any is ever declared surplus by the federal government.

would receive:

- 21,570 acres within the Palmer Hay Flats Game Refuge, Chugach State Park, at Edmonds Lake, and along the Knik River;
- 11,360 acres north of the Knik River and considered of high value for fisheries, wildlife and public recreation;
- Rights of way for the Knik Arm crossing and three alternative approaches;
- 2,500 acres on the Eagle River flats and a 500-foot corridor along the river within the military reserve as public interest land;
- 3,840 acres of moose habitat within the military reserve as public interest land;
- 1,280 acres at Goose Bay;
- A 200-foot corridor for the Alaska Railroad if it is transferred to the state;
- Either Clunie or Six-Mile Lake and 160 adjacent acres to develop a floatplane base;
- 1,000 acres for transportation uses, possibly as a railroad yard;
- 80 acres for a campground near Eklutna Glacier;
- 150 acres in the Eagle River Valley for public recreation;
- Rights of way along Plumbly and Maude roads across Eklutna lands, and
- A gravel site along the Knik River that is constantly replenished with material washed downstream by the river.

The agreement has been submitted to Interior Secretary James Watt for his concurrence and to the state legislature, which must ratify it

PETROLEUM PRICING

COMMENTS ON

ALASKA PETROLEUM PRODUCT PRICING REPORT

PREPARED BY PACIFIC-ALASKA, INC.

PRESENTED TO

ALASKA SENATE RESOURCES COMMITTEE

BY

JOHN C. LEUTWYLER
MANAGER, STRATEGIC PLANNING
OPERATIONS & BUSINESS PLANNING
CHEVRON U.S.A. INC.

JUNEAU, ALASKA
MAY 2, 1983

GOOD AFTERNOON. I AM JACK LEUTWYLER, MANAGER OF STRATEGIC PLANNING, OPERATIONS & BUSINESS PLANNING DEPARTMENT OF CHEVRON U.S.A. INC. I AM PLEASED TO APPEAR BEFORE YOU TODAY TO PROVIDE OUR COMMENTS ON THE STUDY ENTITLED "ALASKA PETROLEUM PRODUCT PRICING," PREPARED FOR YOUR COMMITTEE BY PACIFIC-ALASKA INC.

FIRST SOME GENERAL COMMENTS ON THE REPORT AND ON PETROLEUM PRODUCT PRICING IN ALASKA.

THE AUTHORS ARE TO BE COMMENDED FOR THE ASSIMILATION OF A LARGE DATA BASE OF PRODUCT PRICES AND A REASONABLY ACCURATE UNDERSTANDING OF THE SUPPLY AND DISTRIBUTION PATTERNS OF PETROLEUM PRODUCTS IN ALASKA. ON THE OTHER HAND, WE DO NOT AGREE WITH THEIR PRINCIPAL CONCLUSIONS WHICH SUGGEST THAT PRODUCT PRICES ARE BASED ON THE COST TO THE SUPPLIER OF PRODUCING AND TRANSPORTING ITS PRODUCT TO ANY GIVEN GEOGRAPHIC AREA. THIS IS IMPOSSIBLE IN A COMPETITIVE ENVIRONMENT BECAUSE NO TWO SUPPLIERS HAVE THE SAME COST OF SUPPLYING PRODUCT TO A GIVEN DESTINATION.

IT IS COMPETITION THAT ESTABLISHES PRODUCT PRICES EXCEPT, OF COURSE, IN THOSE AREAS WHERE THERE IS ONLY ONE SUPPLIER, E.G., WESTERN ALASKA. ALTHOUGH THE ALTERNATE COST OF MOVING PRODUCT FROM THE WEST COAST MAY REPRESENT A NON-ALASKA REFINER'S COST TO SUPPLY, THE PRICE THE PRODUCT WILL COMMAND IN THE ALASKA MARKET WILL BE DICTATED BY OTHER FACTORS -- THE MOST IMPORTANT OF WHICH IS THE DEMAND FOR THAT PRODUCT RELATIVE TO OTHER SUPPLIES AVAILABLE. THE GREATER THE VOLUME OF SUPPLY AVAILABLE, THE GREATER THE COMPETITION. ALSO, THE GREATER THE NUMBER OF COMPANIES SUPPLYING PRODUCT, THE GREATER THE COMPETITION. AND, OF COURSE, THE FUTURE GROWTH POTENTIAL OF THE AREA WILL AFFECT THE NUMBER OF SUPPLIERS WHO MIGHT BE WILLING TO MARKET AT A LOSS NOW IN ANTICIPATION OF POTENTIAL FUTURE PROFITS AS THE MARKET DEVELOPS.

IN THE FINAL ANALYSIS IT BOILS DOWN TO THE MARKETER'S PERCEPTION OF THE LONG RANGE PROFITABILITY OF "DOING BUSINESS" AT A GIVEN LOCATION. IF A COMPANY DOES NOT BELIEVE IT CAN COMPETE PROFITABLY

IN A GEOGRAPHICAL AREA BECAUSE OF ITS HIGH COST OF RAW MATERIAL OR LACK OF AN IN-STATE REFINERY, THEN IT MUST RECONSIDER ITS FUTURE PRESENCE IN THAT AREA.

CONVERSELY, TO MINIMIZE PRODUCT PRICES AT THE CONSUMER LEVEL, THE STATE OF ALASKA MUST FOSTER THE ENVIRONMENT NECESSARY TO ENCOURAGE COMPETITION WITHIN THE STATE. THE PRIMARY MEANS WHICH IS AVAILABLE TO THE STATE TO ACHIEVE THIS OBJECTIVE OF MINIMIZING CONSUMER PRICES IS THE ALLOCATION OF STATE ROYALTY OIL. DISTRIBUTION OF THIS OIL ON AN EQUAL BASIS IN TERMS OF PRICE AND PREMIUMS, AND CONTRACT TERM TO ALL OF THE IN-STATE REFINERS WOULD CAUSE THE STRONGEST COMPETITIVE ENVIRONMENT TO EXIST. IF DIFFERENT "PREMIUMS" ARE CHARGED TO DIFFERENT PURCHASERS OF ROYALTY CRUDE, THE STATE IS INTRODUCING AN INEQUITY WHICH WILL IMPACT ON EACH REFINER'S ABILITY TO COMPETE. A VIVID EXAMPLE IS THE ADVERSE IMPACT ON COMPETITION IN THE FAIRBANKS AREA WHICH HAS RESULTED FROM NORTH

POLE REFINERY'S ACQUISITION OF A LONG TERM ROYALTY CRUDE CONTRACT AT AN EFFECTIVE SUBSTANTIAL "DISCOUNT."

ON THE OTHER HAND, WITH THE GROWING SURPLUS OF REFINING CAPACITY ON THE WEST COAST IT MAKES NO ECONOMIC SENSE TO ENCOURAGE ADDITION OF NEW CAPACITY IN ALASKA WHICH MUST COMPETE WITH THE GROWING SURPLUS OF EFFICIENT REFINING CAPACITY ON THE WEST COAST. WE BELIEVE ALASKANS SHOULD CONSIDER UTILIZING THIS EXISTING SURPLUS CAPACITY IN ORDER TO SUPPLY THE WIDE VARIETY OF PRODUCTS NECESSARY TO MEET THEIR NEEDS. IN ORDER TO AMORTIZE A NEW INVESTMENT, A REFINER IN ALASKA MUST CHARGE A HIGHER PRODUCT PRICE THAN WHAT IT COSTS A WEST COAST REFINER TO PRODUCE THAT PRODUCT IN ITS FULLY DEPRECIATED PLANT IN THE LOWER 48 AND SHIP IT TO ALASKA. THESE CONCEPTS ARE BASIC ECONOMIC PRINCIPLES WHICH WOULD APPLY TO ANY PRODUCT IN ANY MARKET. FOR EXAMPLE, AN ACCEPTABLE RETURN ON $100 MILLION OF NEW REFINERY INVESTMENTS TO PROCESS AN ADDED 30 MBD OF CRUDE, COULD ADD MORE THAN 5¢/GAL TO PRODUCT COST IF COMPETITION

IN THE MARKET PLACE WOULD ALLOW IT. THIS IS PRECISELY WHY CHEVRON CHOSE NOT TO INCREASE ITS CAPACITY AT NIKISKI, DECIDING INSTEAD TO UTILIZE THE EXCESS CAPACITY AVAILABLE ON THE WEST COAST TO SUPPLY PRODUCTS AT MORE ECONOMIC PRICES.

* * *

NOW, REGARDING SPECIFIC CONCLUSIONS OF THE STUDY, WE HAVE THE FOLLOWING COMMENTS:

1. <u>WE DO NOT BELIEVE THAT ALASKAN PRICES ARE UNFAIRLY HIGH</u>. SINCE COST IS A MAJOR FACTOR IN ANY COMPANY'S DECISION TO COMPETE IN ANY MARKET, OUR PRIMARY CONCERN WITH THE STUDY IS THE AUTHORS' APPARENT LACK OF UNDERSTANDING OF <u>ALL</u> OF THE COSTS ASSOCIATED WITH SELLING PETROLEUM PRODUCTS IN ALASKA. IN DEVELOPING WHETHER POSTED PRICES AT A GIVEN GEOGRAPHICAL LOCATION ARE "LEGITIMATE," THE STUDY ONLY LOOKED AT THE POSTED PRICE OF THE PRODUCT AT ONE

LOCATION AND ADDED THE "COST" TO TRANSPORT THE PRODUCT TO THE OTHER LOCATION. THE TRANSPORTATION COST ASSUMED WAS THAT QUOTED BY COMMERCIAL SHIPPER(S) OPERATING BETWEEN THE TWO LOCATIONS. THIS IS A GROSS OVER-SIMPLIFICATION. THE STUDY DID NOT INCLUDE THE COST TO MOVE PRODUCT THROUGHOUT THE VARIOUS TERMINALS OF WHICH THERE ARE MANY IN ALASKA BECAUSE OF ITS GEOGRAPHICAL CONFIGURATION. NO COST WAS INCLUDED FOR IN-TRANSIT LOSSES WHICH TYPICALLY AMOUNT TO ABOUT 0.3% OF THE VOLUME INVOLVED IN EACH PIPELINE, MARINE AND RAIL MOVEMENT. BECAUSE OF THE GEOGRAPHY AND THE SMALL VOLUME OF PRODUCT DEMAND, THERE ARE SURCHARGES WHICH THE STUDY NEGLECTED TO INCLUDE, ASSOCIATED WITH: (A) MOVING PRODUCTS IN SMALL BARGES AND SMALL OR LIGHT-LOADED TANKERS, (B) LIGHTERING COSTS WHERE A VESSEL CANNOT MOVE TO A DOCK FULLY-LADEN, AND (C) A MYRIAD OF OTHER "FEES" FOR SPECIAL PORT CHARGES, WHARFAGE AND DEBALLASTING COSTS. NO COST WAS INCLUDED FOR THE COST ASSOCIATED WITH CARRYING THE PRODUCT IN INVENTORY WHICH IS SIGNIFICANT WHEN INTEREST RATES ARE HIGH AND SUPPLY LINES LONG

WITH SLOW TURNOVER ONCE IT ARRIVES AT THE DELIVERY POINT. PRODUCT TIEUP IS TYPICALLY 2-3 MONTHS IN ALASKA AND CAN BE CONSIDERABLY LONGER WHERE PORTS ARE ICE BOUND FOR MOST OF THE YEAR. ALASKAN PRICES DO NOT APPEAR HIGH WHEN ALL OF THESE MISCELLANEOUS COSTS ARE CONSIDERED.

2. ALASKAN PRICES HAVE NOT FLIP-FLOPPED RELATIVE TO WEST COAST PRICES.

IT APPEARS THAT THE STUDY HAS ASSUMED THAT PLATT'S WEST COAST POSTED PRICES REPRESENT CONSUMER TANK WAGON (CTW) PRICES. THE PLATT'S POSTINGS ACTUALLY REPRESENT "RACK" PRICES FOR UNBRANDED JOBBERS WHO PURCHASE IN LARGE VOLUMES IN EXCESS OF 6000 GAL LOTS AT THE SUPPLY POINT. THESE "RACK" PRICES MORE NEARLY TRACK "SPOT PRICES" PREVAILING AT THE APPLICABLE WEST COAST LOCATIONS AT ANY GIVEN MOMENT. THESE SPOT PRICES CAN FLUCTUATE WIDELY -- PARTICULARLY IN A SHORTAGE SITUATION -- AND DIFFER SIGNIFICANTLY FROM A CTW PRICE WHICH REPRESENTS THE PRICE FOR A SMALL VOLUME

DELIVERY TO THE CUSTOMER'S FACILITY. THE PLATT'S PRICES IN JANUARY 1980 FOR WEST COAST PRODUCT WERE CONSIDERABLY HIGHER THAN OUR CORRESPONDING CTW PRICES BECAUSE OF THE FAST RUNUP IN PRICES OCCURRING AT THAT TIME RESULTING FROM THE SHORTAGE CREATED BY THE IRANIAN CRUDE CURTAILMENT. ON THE OTHER HAND, THEY WERE TYPICALLY LOWER IN '81 AND '82 WITH THE ONSET OF THE PRODUCT SURPLUSES IN THE SPOT MARKET. THIS ABERRATION EXPLAINS THE "FLIP-FLOP" NOTED IN THE STUDY. IF TRUE WEST COAST CTW PRICES HAD BEEN USED IN THE REPORT INSTEAD OF PLATT'S POSTINGS OF "RACK" PRICES, THE STUDY WOULD HAVE SHOWN THAT ALASKAN CTW PRICES WERE CONSISTENTLY HIGHER THAN THE WEST COAST. THIS IS TO BE EXPECTED CONSIDERING THE UNIQUE DYNAMICS OF THE ALASKAN MARKETPLACE.

3. REFINERY PROFITABILITY CALCULATIONS ARE MISLEADING.

LASTLY, WE BELIEVE THAT THE STUDY'S REPRESENTATIONS OF REFINERY PROFITABILITY ARE VERY MISLEADING. THE CASUAL READER COULD CONCLUDE THAT THE CALCULATIONS REPRESENT PROFITABILITY OF A

MARKETER'S ENTIRE ALASKAN OPERATION. THIS, OF COURSE, IS NOT TRUE BECAUSE ALL MARKETERS HAVE SUBSTANTIAL INVESTMENTS FOR OTHER ACTIVITIES DOWNSTREAM FROM THEIR REFINERY. FOR EXAMPLE, CHEVRON'S INVESTMENT IN ITS SERVICE STATIONS, TERMINALS, BULK PLANTS, TRUCKS, BARGES AND TANKERS FAR EXCEED ITS REFINERY INVESTMENT. IF THESE INVESTMENTS ARE INCLUDED, WHICH THEY SHOULD BE, THEN THE OVERALL PROFITABILITY OF CHEVRON'S OPERATON IN ALASKA WOULD BE SUBSTANTIALLY LESS THAN THAT REFLECTED IN THE STUDY, WHICH BY THE WAY, CANNOT BE CONSTRUED AS EXCESSIVE BY ANY MEASURE.

* * *

TO SUMMARIZE, MARKET PRICES IN THE RAILBELT ARE ESTABLISHED BY COMPETITION -- NOT BY THE COST TO DELIVER ALTERNATE PRODUCT FROM THE WEST COAST. IN THOSE AREAS WHERE THERE IS NO COMPETITION, FAIR MARKET PRICES ARE CHARGED BY CHEVRON BASED ON WEST COAST PRICES PLUS TRANSPORTATION DISTRIBUTION AND MARKETING EXPENSE --

Western Alaska

FOR EXAMPLE IN WESTERN ALASKA. WE BELIEVE OUR PRICES ARE FAIR IN ALL AREAS OF ALASKA WHEN THE FULL COST OF MARKETING PRODUCTS IN ALASKA ARE CONSIDERED. FINALLY, WE URGE THAT THE STATE OF ALASKA SELL ITS ROYALTY CRUDE AT EQUITABLE PRICES TO ALL REFINERS TO ENCOURAGE COMPETITION WHICH WILL ULTIMATELY PROVIDE PRODUCTS TO ITS RESIDENTS AT THE LOWEST PRICE. IN THIS REGARD, CHEVRON HAS BEEN ATTEMPTING TO PURCHASE ALASKAN ROYALTY OIL ON A LONG-TERM BASIS FOR SEVERAL YEARS AND THE LEGISLATURE IS CURRENTLY CONSIDERING A PROPOSAL TO SELL CHEVRON 18 MBD REFLECTIVE OF THE CAPACITY OF OUR NIKISKI REFINERY. CONSISTENT WITH THE ARGUMENTS OUTLINED ABOVE, AND AS POINTED OUT BY CHEVRON'S BOB ALFREY IN HIS REMARKS TO THE JOINT MEETING OF THE HOUSE AND SENATE RESOURCES COMMITTEE ON APRIL 20, CHEVRON NEEDS ANOTHER 20 MBD OF ROYALTY OIL IN ADDITION TO THE CURRENT CONTRACT BEING CONSIDERED TO SUPPORT ITS TOTAL COMMITMENT TO DEMANDS IN ALASKA INCLUDING THE VOLUMES IMPORTED. WE NEED TO BE ABLE TO PURCHASE THE FULL 38 MBD TO

REMAIN COMPETITIVE WITH THE OTHER IN-STATE REFINERS WHOSE TOTAL ALASKA DEMANDS ARE BACKED 100% WITH ROYALTY CRUDE.

TO REITERATE AND EMPHASIZE THIS POINT -- WE KNOW THAT MANY, OR MORE LIKELY ALL OF YOU HAVE SOUGHT ASSURANCE THAT THE SALE OF ROYALTY OIL TO IN-STATE REFINERS WILL TRANSLATE INTO LOW PRODUCT PRICES FOR ALASKANS.

COMPETITION WILL DETERMINE MARKET PRICES IN THE FUTURE IN ALASKA AS IT DOES ELSEWHERE.

ROYALTY OIL MUST BE MADE AVAILABLE ON AN EQUITABLE BASIS TO GUARANTEE THE STRONGEST POSSIBLE COMPETITIVE ENVIRONMENT. WE BELIEVE THAT THIS IS THE ONLY WAY YOUR OBJECTIVE OF LOWEST POSSIBLE PRICE IN ALASKA CAN BE ACHIEVED.

THAT COMPLETES MY FORMAL REMARKS. I WILL BE PLEASED TO RESPOND TO YOUR QUESTIONS.

Alaska State Legislature

BETTYE FAHRENKAMP, Chairman
ROBERT H. ZIEGLER, SR., Vice Chairman
DICK ELIASON
PAUL FISCHER
VIC FISCHER
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
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JUNEAU, ALASKA 99811
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Senate

Committee on Resources

MINUTES

May 2, 1983
3:10 p.m.

Senate Finance Room
5th Floor, Capitol

MEMBERS PRESENT

Senator Fahrenkamp, Chair
Senator Ziegler, Vice Chair
Senator P. Fischer
Senator V. Fischer
Senator Mulcahy
Senator Sturgulewski

CALENDAR

Hearing on Alaska Petroleum Product Pricing Study.

Louis F. DeLong, of Pacific-Alaska, Inc., explained how Mr. Pernela and he had approached the study, what data had been used and its sources, and how conclusions had been drawn. He noted that there was a lack of meaningful data on petroleum pricing. DeLong also pointed out that, although the Alaska Public Utilities Commission is required to annually review tariffs, APUC has never had such a hearing.

Lloyd M. Pernela, of Pacific-Alaska, Inc., led the Committee through the appendix to the study, explaining the meaning of the tables contained there. He stated that the purpose of the report was to create a mechanism to begin talks to determine where mark-ups occur. He stated his belief that Alaskans were paying unnecessarily high prices for heating oil and gasoline. He pointed out that their research showed that Alaskans are paying a premium for gasoline and heating oil over and above the additional transportation costs necessary for marketing these products.

As a basis for the study, Pernela said they considered, among other things: the historical pricing pattern of Gulf Coast, West Coast, and Cook Inlet products; supply and demand functions; refiners proximity to crude sources; state royalty oil pricing and supply policies; refining methods and capacity;

transportation means; and an assessment of the competitive relationship between the in-state refiners.

John C Leutwyler, Chevron USA Inc., did not agree with the conclusions suggesting that consumer prices are dependent on the cost to supply. He said competition establishes product prices, and that prices are not unnecessarily high in Alaska. He pointed out the reasons he felt the report was inaccurate. (NOTE: Mr. Leutwyler provided written testimony to the committee which is available for inspection.)

John L. Seawell, President of MAPCO Alaska Inc., requested that his letter to Sen. Fahrenkamp dated 4/8/83 be entered into the record as his testimony. He questioned numbers used in the report, cities selected for price comparisons, and accuracy of conclusions drawn in the report.

Reed Williams and Dennis Juren of Tesoro Alaskan Petroleum Company, felt that Tesoro's prices are consistently lower than West Coast prices; that comparison to outside markets was unfair, as competitive factors existing in the Lower 48 do not exist in Alaska; that the study's numbers were different than statistics which Tesoro had available; and that there were about 40 errors and omissions in the report, leading them to believe the study is inaccurate and not supportable by fact. (A written copy of Tesoro's response to the study is available from the Committee.)

Louis DeLong and Lloyd Pernela of Pacific-Alaska responded to the prior testimony, defending the methods and material used to prepare the report. (A transcript of DeLong's and Pernela's rebuttal testimony is available from the Resources Committee.)

Senator Fahrenkamp invited participants to provide further written comments to the Committee.

The meeting was adjourned at 5:07 p.m.

Alaska State Legislature

BETTYE FAHRENKAMP, Chairman
ROBERT H. ZIEGLER, SR., Vice Chairman
DICK ELIASON
PAUL FISCHER
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Senate

Committee on Resources

MEMORANDUM

TO: SENATE RESOURCES COMMITTEE MEMBERS

FROM: SENATE RESOURCES COMMITTEE STAFF

RE: TESORO, CHEVRON AND MAPCO RESPONSE TO THE ALASKA PETROLEUM PRODUCT PRICING REPORT.

DATE: MAY 2, 1983

Attached for your information and review are the responses of the three companies mentioned in the DeLong-Pernela Petroleum Pricing Report.

Chevron U.S.A. Inc.
575 Market Street, San Francisco, CA 94105-2856

APR 12 1983

April 11, 1983

Operations and Business Planning
R. R. Bowles
General Manager
J. J. Motroni
Manager, Operations Planning
O. V. Larsen
Manager, Business Evaluation
J. C. Leutwyler
Manager, Strategic Planning
M. A. Javinsky
Manager, Investment Planning
R. F. Morse
Manager, Legislative and
Regulatory Evaluation

ALASKA PETROLEUM PRICING STUDY

Ms. Bettye Fahrenkamp, Chairman
Senate Committee on Resources
Alaska State Legislature
Pouch V State Capitol
Juneau, AK 99811

Dear Ms. Fahrenkamp:

Your letter of February 25 to Mr. Jim Howard requested Chevron's comments on the subject study prepared by Messrs. DeLong and Pernela. At the recent meeting with you and Mr. Palmer and Messrs. Alfrey, Leutwyler, Plummer, and Walsh on March 29, we committed to respond to your request and return to discuss our comments with you. We appreciate the opportunity to offer our comments which we have summarized below:

General Comments on Approach

The authors are to be commended for the assimilation of a large data base of product prices and a reasonably accurate understanding of the supply and distribution patterns of petroleum products in Alaska. On the other hand, we do not agree with their conclusions which suggest that product prices are established in any given geographical area based on the cost to the supplier of producing and transporting its product to that market. This is impossible in a competitive environment because no two suppliers have the same cost of producing/transporting a product to a given destination. Each supplier has different raw material, manufacturing, distribution, marketing, and overhead costs. It is competition that establishes product prices except, of course, in those areas where there is only one supplier, e.g. Western Alaska. Although the alternate cost of moving product from the West Coast (where that product also has a "cost" based on its alternate market value - not its cost to produce) may represent a non-Alaska refiner's cost to supply, the price the product will command in the Alaska market will be dictated by other factors - the most important of which is the demand for that product relative to other supplies available. The greater the volume of supply available, the greater the competition which will drive price down. Also, the number of companies supplying product has an impact on the supply/demand situation and competition. The future growth potential of the area will attract suppliers who might be willing to market at a loss now in anticipation of potential future profits as the market develops.

In the final analysis it boils down to the marketer's perception of the long range profitability of "doing business" at a given location. If a company does not believe it can compete profitably in a geographical area because of high cost of raw material supply or lack of an in-state refinery, then it will reconsider its future presence in that area.

Conversely, to minimize product prices at the consumer level, the State of Alaska will find it desirable to foster the environment necessary to encourage competition within the state. This objective can be accomplished, at least in part, if the state sells its royalty oil to all customers on an equitable basis. If different "premiums" are charged to purchasers of royalty crude, the State is introducing an inequity which will impact on refiners' ability to compete. This can only lead to increased prices for Alaska product.

Concerns with Study Conclusions

1. We do not believe that Alaskan prices are unfairly high.
Since cost is a major factor in any company's decision to compete in any market, our primary concern with the study is the authors' apparent lack of understanding of all of the costs associated with selling petroleum products in Alaska. For example, in developing whether posted prices at a given geographical location are "legitimate," the study looks at posted prices at another location and adds the "cost" to transport the product from that other location. The transportation cost assumed is that quoted by the commercial shipper(s) operating between the two locations. This is an over-simplification because there are terminalling costs associated with delivering the product to and receiving the product back from the shipper. In addition, there are typically in-transit product losses - e.g., 0.25 to 0.33% of the product is "lost" in each pipeline, marine or rail movement, and these are cumulative if more than one mode of transportation is involved. Because of Alaska's geography and relatively small volume of product demands, there are surcharges associated with: (a) moving products in small barges, light loaded tankers or very small tankers (significantly smaller than the GPM size assumed in the study), (b) lightering costs where the vessel cannot move to the dock fully laden and pilot fees where port configurations have special hazards, and (c) a myriad of other "fees" for special port charges, wharfage and deballasting costs. Finally, no charge has been included for the working capital cost associated with carrying inventory which is significant when interest rates are high and the inventory can be tied up for several days or even months because of long supply lines and slow turnover once it arrives at the delivery point because of low demand. These periods can approach 2-3 months for product sold in Fairbanks (and even longer periods in Western Alaska where ports are ice-locked for much of each year). On attached Table I, we have compared our estimated costs to move diesel from San Francisco to Anchorage with those reflected in the study. This comparison shows that actual cost to move product is 4-6¢/gal. more than reflected in the study.

2. Alaskan prices have not flip-flopped vis-a-vis West Coast prices.
It appears that the study has assumed that Platt's West Coast posted prices represent CTW prices. The Platt's postings actually represent "rack" prices for unbranded jobbers who purchase in excess of 6000 gal. lots. These prices more nearly track "spot prices" prevailing at the applicable West Coast locations at any given moment, and can be very different from a CTW price

because the spot price represents the acquisition cost of a large volume (e.g., a full ship's cargo) of product. These spot prices can fluctuate widely - particularly in a shortage situation - and differ significantly from a CTW price which represents the price for a small volume delivery (that Chevron defines as 400 to 6000 gal.) at a location supply point. The Platt's prices in January '80 for West Coast product were considerably higher than our corresponding CTW prices because of the fast runup in prices occurring at that time resulting from the shortage created by the Iranian crude curtailment. On the other hand, they were typically lower in '81 and '82 with the onset of the product surpluses in the spot market. This aberration explains the "flip-flop" noted in the study. If true West Coast CTW prices had been used instead of Platt's postings, the Alaskan CTW prices would have been consistently higher than the West Coast. This is confirmed by a comparison of Chevron's CTW postings summarized on the attached Table II.

3. Refinery Profitability Calculations are Misleading

Lastly, we believe that the study's representations of refinery profitability are very misleading. The casual reader could conclude that the calculations represent profitability of a marketer's entire Alaskan operation. This, of course, is fallacious because all marketers have substantial investments for other activities downstream from their refinery. For example, Chevron's investment in its service stations, terminals, bulk plants, trucks, barges, and tankers far exceed its refinery investment. If these investments are included, then the overall profitability of Chevron's operation in Alaska would be substantially less than that reflected in the study.

The above represent our major concerns. We have noted some apparent errors in the calculations but we see no purpose in elaborating on them here. We would be pleased to discuss them with you if you wish.

To summarize, market prices in the Railbelt are established by competition - not by the cost to deliver alternate product from the West Coast. We believe these prices are fair when the full cost of marketing products in Alaska are taken into consideration. Finally, we urge that the State of Alaska sell its royalty crude at equitable prices to all refiners to encourage competition which will ultimately provide products to its residents at the lowest price.

Further to the above, Chevron has been attempting to purchase Alaskan royalty oil on a long-term basis for several years and the legislature is currently considering a proposal to sell Chevron 13 MBD reflective of the capacity of our Nikiski refinery. Consistant with the arguments outlined above and as discussed with you recently, Chevron needs 38 MBD of royalty oil to produce its total volume of demands in Alaska including the volume of products imported. We need to be able to purchase the full 38 MBD to remain competitive with the other in-state refineries whose total Alaska demands are backed with royalty crude.

If you have any questions, please call Jack Leutwyler at (415) 394-3282.

Very truly yours,

R. R. Bowles /JCL

R. R. BOWLES

Attachments

TABLE I

ESTIMATED COSTS TO MOVE DIESEL FUEL

SAN FRANCISCO TO ANCHORAGE

(¢/GAL)

	JAN '80		JAN '81		JAN '82	
	REPORT	CHEV	REPORT	CHEV	REPORT	CHEV
SAN FRANCISCO TO ANCHORAGE[1] FREIGHT, WHARFAGE & LOSS ALLOW.	3.1	6.3	3.1	4.7	3.0	4.7
ANCHORAGE TERMINALLING COST	-	1.4	-	1.4	-	1.4
INVENTORY CARRYING COST[2]	-	1.5	-	1.3	-	0.8
TOTAL COST	3.1	9.2	3.1	7.4	3.0	6.9
CHEVRON vs REPORT COST		+6.1		+4.3		+3.9

(1) REPORT DATA FROM TABLE II-B-1a-c

(2) BASED ON 30-DAY HOLDING TIME WITH PROJECT VALUED AT S.F. CTW AT PRIME INTEREST RATE

TABLE II

CHEVRON'S CTW POSTED PRICES

(¢/GAL)

	JAN '80	JAN '81	JAN '82
LEADED REGULAR MOGAS			
SAN FRANCISCO	74.5	97.3	109.8
ANCHORAGE	76.5	99.3	115.8
FAIRBANKS	82.4	105.2	121.2
DIESEL - DF2			
SAN FRANCISCO	71.3	87.5	98.7
ANCHORAGE	75.1	94.2	106.0
FAIRBANKS	72.4	96.9	114.4

Tesoro Alaska Petroleum Company

W. Reed Williams
Vice President

April 29, 1983

Senator Bettye Fahrenkamp, Chairman
Senate Committee on Resources
Alaska State Legislature
Pouch V
State Capitol
Juneau, Alaska 99811

Re: Alaska Petroleum Product Pricing (APPP) Study

Dear Senator Fahrenkamp:

In response to your request, we have submitted under separate cover a detailed analysis of the above-referenced study. In addition, the following executive summary reports the conclusions of our review and analysis of the Alaska Petroleum Product Pricing (APPP) Study.

APPP Assertion:

Petroleum product prices charged by refiners in Alaska exceed the price of those products on the U.S. West Coast, plus freight to Alaska.

Tesoro Alaska Finding:

Tesoro Alaska's prices for gasoline, diesel and home heating oil in Alaska are consistently lower than the "West Coast plus freight" price and, in many instances, Tesoro Alaska's prices in Alaska are equal to or lower than West Coast prices excluding freight:

AGO 786854

8700 Tesoro Drive San Antonio, Texas 78286 (512) 828-8484

CENTS/GALLON AVERAGE PRICE DIFFERENCE VERSUS KENAI
1981-82

	Los Angeles	Portland	Seattle
Regular Gasoline	4.79	3.94	3.83
Heating Oil/Diesel	2.52	(0.07)	(0.23)

Note: Actual freight cost from the West Coast to Alaska is 6.5¢ to 7.5¢ per gallon

APPP Assertion:

The Alaskan market is somewhat isolated and, therefore, competitive factors that may be at work in the West Coast market do not exist in Alaska.

Tesoro Alaska Finding:

A price correlation study of West Coast and Alaska prices indicates that Alaska prices neither substantially lead nor lag West Coast prices over time, but reach the point of highest correlation with contemporaneous movement. This suggests that the California, Oregon, Washington, Alaska market area is competitive with prices sensitive to movements within the area:

1981-82 PRICE CORRELATION
(1.0 = exact)

	Los Angeles	Portland	Seattle
Regular Gasoline	0.81	0.90	0.88
Heating Oil/Diesel	0.69	0.60	0.58

APPP Assertion:

A pro forma analysis of Tesoro Alaska's refining profits suggests the Company realized an after tax cash flow of $42.4 million in 1981 and $55.5 million in 1982.

Tesoro Alaska Finding:

It was not necessary for APPP to construct a "pro forma" earnings analysis because Tesoro Petroleum Corporation's 1982 Annual Report, which was publicly available approximately two months prior to the publication of the APPP study, discloses the actual operating profit for Tesoro's Alaskan operations in 1981 and 1982.

The actual cash flow after deducting unallocated overhead, interest expense and pipeline operating profits for the years 1981 and 1982 was $22.2 million and $29.9 million, respectively, or about half the amount calculated by the APPP study. The return on investment calculated according to the same methodology as used in the APPP study, but using depreciated current value for the investment, is as follows:

	APPP	ACTUAL
1981	43%	14%
1982	57%	20%

Tesoro Alaska's analysis has also identified 40 additional specific errors, omissions, or misrepresentations in the text of the APPP study, the combination of which suggests that the study findings, as related to Tesoro Alaska's operations, are incorrect and not supportable by fact, some examples of which are as follows:

	APPP	ACTUAL
° Crude movement cost Drift River to Nikiski ($/Bbl)	$0.24	$2.02
° Crude movement cost Valdez to Nikiski	$0.41	$0.89

° In calculating Kenai refinery gate prices, the APPP study failed to deduct Federal taxes, State taxes, local transportation costs, trade discounts and jobber/dealer discounts from posted terminal prices, resulting in an overestimate of refinery gate prices by more than $7.50 per barrel.

We will be happy to discuss the details of our analysis with the Senate Resource Committee, as well as any legislator, in depth at your request.

Very truly yours,

W. Reed Williams

W. Reed Williams

WRW:dr

MAPCO ALASKA, inc.

April 8, 1983

Honorable Bettye Fahrenkamp
Chairman, Senate Committee on Resources
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Re: Alaska Petroleum Product Pricing Report

Earlier this year North Pole Refining ("NPR") received a copy of the PACIFIC-ALASKA, INC. report entitled "Alaska Petroleum Product Pricing" ("Pricing Report") dated February 1, 1983. We have reviewed this report which was prepared for the Senate Resources Committee by Lloyd M. Pernela and Louis F. DeLong.* In response to your specific request, we submit the following comments.

The focus of our comments will be on three areas: (i) price comparisons of no. 2 heating fuel, (ii) price reporting of jet A-1 fuel sales (principally at Fairbanks International Airport), and (iii) rate of return on investment. However, before addressing these areas, we will address several issues raised in the introduction to the Pricing Report and also provide some general comments which we feel are illustrative of omissions and errors in the Pricing Report and which, therefore, raise considerable doubts about the conclusions and opinions contained therein.

In the introduction of the Pricing Report an allegation is made that there is an apparent need for greater legislative oversight which would require more information from the industry on profit margins and return on investment. Although NPR does not want to assume the role of evaluating and ruling on constitutional and statutory issues, we nevertheless feel that current statutes are adequate to protect the consumer of petroleum products in Alaska. We believe the State Legislature and State administrative agencies are fulfilling their duties to the citizens of Alaska.

*Messrs. Pernela and DeLong are former employees of NPR. Also, Mr. DeLong sued MAPCO Inc., the parent company of NPR and MAPCO Alaska Inc., in April 1982. The suit has not been finally resolved.

The introduction further indicates that the Legislature's primary intention in providing royalty crude oil to in-state refiners was that it result in lower product prices to Alaskans. This supports the erroneous belief we feel is held by many Alaskans that royalty oil represents a special commercial advantage for in-state refiners. The fact is that NPR pays more for Alaska's royalty crude oil than it pays to any of its other crude oil suppliers. This misbelief is fueled by incomplete or misleading statements such as that found on page 61 of the Pricing Report: "Since NPR is close to the ANS crude oil source it has a geographical advantage over other users of ANS and one questions how much premium NPR must obtain for its heating oil relative to West Coast sources." The Pricing Report fails to mention the fact that approximately 60% of the crude oil used by California refiners is produced in California, with crude oil transport costs averaging substantially less than $1.00 per barrel, an amount considerably less than the tariff amount per barrel NPR pays to transport its ANS crude oil. Also, one must not lose sight of the fact that NPR, due to its geographical location, is the only Alaska and West Coast refinery which is not able to select different types of crude oil to purchase and, therefore, does not have the advantage of market place competition for pricing of the crude oil it runs at its refinery.

In general, the Pricing Report omits pertinent data or information and contains incorrect or imprecise statements and data which, if addressed or corrected, would significantly alter the conclusions reached in the Pricing Report. Some of the major omissions are:

1. In many instances, the origin of the data used in the text and in the tables appended to the Pricing Report is unknown. There simply is a consistent lack of documentation of the sources.

2. We question the cities (West Coast) selected with which to compare heating fuel prices with Fairbanks and Anchorage. As will become more evident in our discussion of no. 2 heating fuel, the cities selected may not provide valid or meaningful comparisons.

3. When discussing the cost of crude oil at NPR during 1980-1981, the Pricing Report fails to take into account the federal crude oil entitlement and small refinery bias programs. For instance, the tables on pages 59 and 61 omit the distortions in pricing patterns caused

by the DOE price control program resulting from regulating variances in the cost of crude oil. Furthermore, while NPR initially may have received a benefit under these programs, in the latter part of the period these programs resulted in cash outlays and, consequently, increased costs of doing business.

4. Even more glaring is the failure of the Pricing Report to discuss the impact of decontrol on crude oil costs and petroleum product prices. For instance, on page 56 the first paragraph in part provides:

> The pricing of petroleum products in Alaska . . . is of highest concern to Alaskans because of the magnitude of the fuel and gasoline cost increases that have occurred over the last three years in Alaska. There have been significant decreases in crude oil pricing and petroleum product prices in the Lower 48/worldwide.

Yet, the Pricing Report never addresses straight forward the increase in crude costs (and resulting increase in petroleum products prices) which occurred after decontrol in early 1981. And, of course, it has only been in the last twelve months or so that there have been decreases in crude oil pricing and petroleum product prices.

5. In the tables on pages 95-97 of the Pricing Report return oil costs have been omitted.

Examples of some of the errors contained in the Pricing Report are:

1. On page 16 the Pricing Report states that the GVEA pipeline interim tariff of 8.6 cents per barrel is still in effect. The tariff was changed to 6.8 cents during 1980.

2. The last paragraph on page 16 also states "the return oil is not assessed a tariff." The return oil is assessed the TAPS transportation tariff from the GVEA connection to Valdez in addition to the quality bank penalty referred to in the same paragraph. With respect to the quality bank referred to on page 16, an amount of 22 cents per degree API was proposed by the pipeline owners effective January 1, 1983. The

amount initially charged was 10 cents per degree API. The whole issue of the quality bank is pending in a proceeding before the FERC.

3. On page 17 in the first paragraph there is a statement that "most of the ANS producers publish a price at the ANS [sic]". Actually, only ARCO posts a price for ANS at Pump Station No. 1.

4. On pages 22 and 23 the Alaska Railroad's tariff for fuel oil (for volumes of 20 million gallons or more) between Anchorage and Fairbanks in December 1982 was 6.67 cents per gallon (not 7.90 cents per gallon) and 6.78 cents per gallon in January 1980 (not 6.17 cents per gallon).

5. On page 59, the "gross" price markups do not add up. Also, the CTW prices printed do not match those routinely gathered by NPR, although in some cases they fall within the range of our CTW prices.

6. Also on page 59 the Pricing Report defines both MARGIN and MARKUP. While it may not be an error to redefine "margin" or "markup" to mean something different from their normal meaning in business and commerce and as defined in Webster's, the use of the terms as redefined in the following text of the Pricing Report can be very misleading to a reader who interprets "margin" and "markup" as normally understood.

7. Although Mid America Pipeline Company is a subsidiary of MAPCO Inc., Mid America Pipeline Company did not acquire Earth Resources Company as reported on page 41; rather, MAPCO Inc. did.

Rather than attempting to point out all the incorrect statements and data, we feel our effort is better spent addressing in some detail the two major products which NPR produces and also discussing in a more general nature rate of return on investments.

PRICE COMPARISONS - NO. 2 FUEL OIL

Pages 58-65 of the Pricing Report are devoted to "Heating Oil Pricing in Alaska", with the focus primarily on the price of no. 2 heating fuel in Fairbanks compared to selected West Coast cities and Anchorage. We will deal with each comparison separately.

The Pricing Report spends several pages comparing Fairbanks and West Coast heating fuel prices.* We do not find the conclusions in the Pricing Report consistent with statistical data published by the Fairbanks North Star Borough's Community Research Center ("FNSB"). The FNSB Energy Report consistently shows no. 2 heating fuel selling to the consumer for less in Fairbanks than it does in Seattle. This report shows the Fairbanks price to be lower than that in Seattle by 2 cents per gallon in November 1980 and 13 cents per gallon in October 1982. In fact, the FNSB report shows that the price in Fairbanks is lower than the average of U.S. Cities (which average is derived from data published by the U.S. Bureau of Labor Statistics). Table I attached to this letter sets forth the FNSB data.

Furthermore, as anyone familiar with no. 2 heating fuel knows, this fuel has a common name but the physical characteristics necessarily vary considerably to reflect the climatological conditions of the geographical location in which the fuel is used. Comparing no. 2 heating fuel in Fairbanks with no. 2 heating fuel on the West Coast, as was done in the Pricing Report, is like comparing the cost of Cadillacs with the cost of Chevrolets because it fails to address differences in pour points (basically a factor of the amount of kerosene blended). West Coast no. 2 heating fuel requires little or no kerosene mixed with the heating fuel to achieve the pour points required in the West Coast markets. NPR's no. 2 heating fuel runs 40% to 50% kerosene, depending on the season, which makes it a significantly more valuable product.**

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*It is difficult to evaluate the comparisons used in the Pricing Report because in some instances "apples and oranges" have been compared. On pages 60-64, among others, the Pricing Report compares a Platt's contract dealer bulk fuel price (which has been designated CTW in the Pricing Report) to an actual CTW Fairbanks price. However, Platt's published prices are actually contract prices for large volumes at pipeline and barge terminals or, in other words, prices before the middleman handles the product while the Fairbanks CTW is for the most part the price after at least one middleman has handled it.

**On pages 58 and 59 of the Pricing Report, the NPR pour point information is inaccurate. Among other things, NPR does not produce a zero pour no. 2 heating fuel. Additionally, NPR's no. 1 heating fuel has a pour point of -60°F.

The Pricing Report also compares the price of no. 2 heating fuel in Fairbanks and Anchorage, despite the fact that the authors apparently do not consider comparisons with Anchorage to be valid.* Yet, the Pricing Report goes on to compare heating fuel prices in Fairbanks and Anchorage (again without making any allowance for the differences in pour points) and alleges that NPR posted prices are higher than Anchorage.** This conclusion is contrary to what we found in the tables contained in the Pricing Report*** and what public data shows. Public data compiled by the FNSB shows that the price per gallon paid by the residents of Fairbanks has been less than that paid by the residents of Anchorage. This data is set forth in Table II attached to this letter.

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*On page 61 in the first full paragraph the Pricing Report states:

> Anchorage is not the best basis of comparison because of the extensive use of natural gas in home/industrial heating . . . . Consequently, a more valid comparison is that made between NPR and Seattle, San Francisco, and Los Angeles.

The inference appears to be that Anchorage does not have enough sales of heating fuel because of the dominance of natural gas and, therefore, the price of heating fuel in Anchorage is "artificially" lowered because it is set by natural gas. (On page 5 the Pricing Report states that "Anchorage has the lowest cost heating energy in the entire United States".) However, sales of heating fuel in Anchorage are in the neighborhood of 30 million gallons a year. Furthermore, when compared to the three West Coast cities, Anchorage has the winter climate which most closely resembles Fairbanks and therefore should represent a more valid comparison.

**On page 24 the Pricing Report states: "If the NPR Posted prices in Fairbanks were identical to the Anchorage postings, then the residents of Alaska's Interior would save over $15.7 million on their fuel costs." This statement simply is incorrect and is not supported in the Pricing Report.

***For instance, refer to Tables IV-I-1a and IV-K-1a. Comparing line two of each table indicates that for ten of the twelve months in 1982 the retail price of no. 2 heating fuel in Fairbanks was less than in Anchorage.

Further, the benefit brought to the Interior of Alaska consumers by NPR is readily apparent in the FNSB published data which shows heating fuel prices in Fairbanks changing from significantly higher than Anchorage prior to NPR's existence to lower than Anchorage after NPR came on stream.

PRICE REPORTING - FAI JET A-1 FUEL SALES

Pages 29-35 of the Pricing Report address commercial jet fuel sales. The Pricing Report asserts that the price of jet fuel in Fairbanks is higher than in Anchorage and this higher price differential maintained by NPR is the reason for the market shift from Fairbanks International Airport ("FAI"). The posted prices at FAI cited in the Pricing Report are not those of NPR. They are of a higher priced supplier who sold less than 2% of the fuel dispensed at FAI during the past several years.

NPR played the major role in developing the international air cargo traffic at FAI. Needless to say, NPR is intensely interested in maintaining Fairbanks airline jet fuel volumes since these volumes, or lack of, affect the profitibility of the refinery. Certainly, volumes would be seriously affected if NPR products were priced out of the market, thus eliminating or reducing aircraft refueling business at the Fairbanks airport.

However, despite our efforts at FAI, there has been a shift of some airline traffic to Anchorage. It must be recognized that airline fueling operations at Fairbanks, like any other international airport, are affected by world-wide economic conditions. It is no secret that many, if not all airlines, have seen profits eroded considerably, if not eliminated competely, in recent years. Consequently, airlines have looked to effectuate operational efficiencies and reduce costs wherever possible. One method is to reduce station personnel and station operating costs by consolidating operations at a single airport in the same geographical area. Such appears to be the case with FAI. Some of the international carriers have consolidated their operations in Anchorage, moving their cargo flights to Anchorage since the Anchorage airport has the facilities and amenities the carriers feel are necessary to accommodate international passenger flights, but which are deemed by the airlines to be lacking at the Fairbanks airport.

NPR's marketing people are in constant touch with major international airline representatives to see what can be done to maintain or increase business at the Fairbanks airport.* NPR pricing policies are designed to attract airline fueling business at FAI, not drive it away.

RATE OF RETURN - INVESTMENT

A meaningful rate of return on investment must take into consideration the capital required to build facilities, the moneys required to handle daily inventories and accounts receivable and the stream of earnings over the life of the business. Failure to include all of these costs in the calculations will distort the final results. The Pricing Report falls into this latter category.

The total dollars invested in NPR is about three times the fixed asset base estimated in the Pricing Report. This fact by itself overstates the rate of return in the report by a factor of three without going into the many costs of doing business that were completely ignored in the Pricing Report. In addition, there was no consideration given to the added risks of constructing a refinery in the Interior of Alaska.

Similarly, it can be misleading to focus on a short time period and draw conclusions from the resulting data.** Based on two years of assumed financial data, the Pricing

---

*Contrary to the implication on page 33 of the Pricing Report, NPR sells jet fuel at FAI and Anchorage by individual contracts with airlines and not to an airline consortium. In fact, no airline consortium of any type exists at Fairbanks. Similarly, and contrary to what is stated on pages 31-33 and 86 of the Pricing Report, in Anchorage there is no consortium buying jet fuel for airlines. The consortium in Anchorage was formed for the purpose of handling distribution of jet fuel after it has been purchased by the individual airlines.

**For instance, a review of available data shows that revenues of the State of Alaska were up four times in four years from 1979 to 1982. If that is all one relied upon, one could assume that revenues would quadruple every four years forever and, consequently, by the year 1994 revenues of the State would be up by $256 billion, which may not be an appropriate forecast.

Report alleges that the Tesoro and NPR refineries are paying for themselves in about two years. However, the Pricing Report fails to consider the cost of money during construction, prior years of start-up and operation, and the stream of earnings over the life of the facility. The fact of the matter is that since start-up, NPR has yet to recover its capital costs. Assuming the business climate remains favorable during the period, the projected rate of return for NPR the next five years is at best about 15 to 17.5% each year.

In conclusion, we (i) are not certain of the origin of the numbers used in the text and various tables of the Pricing Report, (ii) question the cities selected for price comparisons, and (iii) believe the Pricing Report contains obvious factual errors which raise substantial questions about the conclusions reached. We have attempted to point out some major issues or points which we feel respond to those issues which truly were the focus of the State Legislature in having a report prepared. Finally, we sincerely believe that our investment in NPR has resulted in a monetary savings to the Interior consumers of our products and has greatly benefited and continues to benefit the Fairbanks area.

Very truly yours,

John L. Seawell
President, MAPCO Alaska Inc.

JLS/fb
Attachments (2)

cc: Mr. W. H. Thompson, Jr.

TABLE II
HOME HEATING OIL COST COMPARISONS
(Per Gallon Delivered to Consumers)

	October 1976	October 1977	October 1978	October 1979	October 1980	October 1981	October 1982
Fairbanks Average	0.571	0.614	0.603	0.776	1.033	1.242	1.145
Anchorage	0.46	0.508	0.52	0.846	1.045	1.223	1.19

Data compiled by Fairbanks North Star Borough Community Research Center.

*The FNSB Community Research Center has not developed the above information for each month of each calendar year.

TABLE I
HOME HEATING FUEL OIL COST COMPARISONS
(Per Gallon Delivered to Consumers)

	November 1980	March 1981	June 1981	September 1981	December 1981	March 1982	October 1982
Fairbanks	1.06	1.21	1.21	1.21	1.24	1.20	1.15
Anchorage	1.07	1.20	1.23	1.23	1.24	1.25	1.19
Seattle	1.08	1.25	1.27	1.27	1.30	1.28	1.28
S. Cities	1.03	1.29	1.26	1.24	1.25	1.21	1.21

Fairbanks data calculated by the Fairbanks North Star Borough Community Research Center. Anchorage, Seattle and U.S. Cities Average compiled by FNSB Community Research Center from U.S. Bureau of Labor Statistics.

*Note that the above months are the only months for which the FNSB Community Research Center Compiled the Comparisons.

ALASKA PETROLEUM PRODUCT PRICING

A review of industry practice and policy
and its effect upon
energy costs to Alaskans

Prepared for the
SENATE RESOURCES COMMITTEE:

Senator Bettye Fahrenkamp, Chairman
Senator Robert H. Ziegler, Vice-Chairman
Senator Paul Fischer
Senator Richard I. Eliason
Senator Vic Fischer
Senator Bob Mulcahy
Senator Arliss Sturgulewski

by
Louis F. DeLong
Lloyd M. Pernela

PACIFIC-ALASKA, INC.
Fairbanks, Alaska

February 1,1983

TABLE OF CONTENTS

TABLE OF CONTENTS CONT'D

ACKNOWLEDGEMENTS

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LIST OF TABLES IN APPENDIX

LIST OF TABLES IN APPENDIX (CONT'D)

CHAPTER ONE

INTRODUCTION

A. PURPOSE OF STUDY

Alaskans in the different regions across our State do not share uniformly in the economic benifits associated with the production and development of our State's vast energy resources. The dichotomy is most striking. For example, Anchorage has the lowest cost heating energy in the entire United States while most other Alaska communities ,conversely, have the highest energy costs in the entire United States. Alaska's closeness to major petroleum energy resources would suggest other than high petroleum prices. Questions, therefore have arisen as to why one Alaskan should pay twelve times what it costs another to heat his home. Also, why should the prices of motor gasoline and diesel oil vary so drastically throughout the state? Are the differences in price justified or not? To determine the answer to these questions, this review of State and industry petroleum product policy is being undertaken.

The Legislature is required by law (see *) to see that the economic benefits of our State energy resources are shared by all Alaskans. For example, the legislature's intention in providing Alaska's royalty crude to in-state refiners, was that it should result in lower petroleum product prices to Alaskans. (see **). This has not been the result, and numerous communities and individuals have challenged the lack of Administrative compliance of Legislative intent, thru resolutions and petitions.

There is an apparent need for greater Legislative oversight. To provide that oversight, the Legislature will require better information than it has been receiving on the fundamental aspect of the industry; that of profit margins and return on investment.

* Section 2, Article VIII, Constitution of Alaska

** AS35.05.183, AS38.06.070

The Senate Resources Committee, in the fall of 1982, asked Pacific -Alaska, Inc. to investigate petroleum product pricing policy in Alaska. The focus was centered upon petroleum liquids because of the many complaints received from the public on the pricing of these products throughout Alaska. The natural gas industry was not considered, since it operates as a utility under the Alaska Public Utilities Commission and, as such, its costs and prices are subject to a publicly supervised "rates board".

The petroleum pricing investigation was Alaska consumer directed; that is, it reflects cost elements based upon the delivered cost of fuel and energy to the Alaska consumer. Our mission as developed was:

(1), Identify and review pertinent International and United States petroleum pricing policies;

(2), To review Alaska petroleum pricing policy, including but not limited to, crude costs, petroleum transportation costs, refiner's, wholesaler's and distributor's markup;

(3), To identify and review past State petroleum pricing incentive programs;

(4), To provide an analysis of the relationships among the in-state refiners, namely, Chevron, Tesoro and North Pole;

(5), To determine the competitive relationships between the Alaska refineries and "outside" refiners importing petroleum products into Alaska; and

(6), Based on the study findings, to recommend to the Legislature changes in existing legislation and regulations to insure a more competitive petroleum pricing environment throughout Alaska.

B. BACKGROUND TO PETROLEUM PRODUCT PRICING

The study of petroleum pricing is a multi-faceted endeavor. The average consumer of petroleum products probably does not realize the complex process that occurs in the manufacture, transportation and marketing of a gallon (or barrel) of petroleum product, be it gasoline, heating oil, or jet fuel. The path from a barrel of crude oil to the delivered refined product has distinct definable parts: namely crude production, crude transportation, product refining, product transportation, wholesaling, and distribution to consumer.

Each of these entities that contribute in making available a gallon of petroleum product to the final end user seeks compensation (including profit) for their investments of material and manpower in Alaska. In this study, the contributions that each entity makes in manufacturing, transporting and marketing the finished petroleum product is reviewed over the 1980-1982 period.

The pricing process starts with crude oil which must be sought, found, produced, cleaned and marketed. Once a buyer-seller relationship is established between the crude oil producer and a refiner for the crude oil it must be transported to the refiner's facilities. Of course, the value of a particular crude oil to a refiner is related to the petroleum products that can be made from the crude in question at the refiner facilities, namely the amount of the more valuable products (jet fuel, gasoline, diesels) that can be made from a crude oil when considering the cost of that crude at his refinery.

The transportation of the crude oil can be as simple as in the case of the North Pole Refinery receiving crude oil directly from the Trans Alaska Pipeline System (TAPS), or as complicated as in the case of Tesoro or Chevron who may secure crude oil from multiple sources namely, by TAPS in conjunction with the right size tanker from Valdez to Nikiski, from Cook Inlet by tanker or pipeline to Nikiski, and from overseas crude sources where the movement is in large ocean going vessels.

When the crude oil arrives at the refinery the decision has to be made as to what petroluem products will be made from the crude or mix of crudes. This decision involves taking into account product inventories in the refinery's market area, the drawdown of these product inventories, and the competition's refinery production and marketing efforts. In the case of the Chevron and North Pole refiners, which are currently running only ANS crude oil, and whose facilities are limited to simple distillation and blending of refined products, the decisions are fairly straight forward.

The Tesoro refinery on the other hand, is somewhat more sophisticated, allowing for more flexibility. The Alaska in-state refiners, however, do not have the flexibility that the large refiners on the West Coast

or the Pacific Rim enjoy, since these latter plants are fairly complex and have a greater ability to alter the physical composition of the refined fractions in the crude oil. The refiner offers his products at a rack price to both consumers (large volume) and wholesalers, and this price compensates him for the crude purchased, his operating and administrative expenses, and should provide him an adequate return on his investment. An attractive return on refinery investments is 15-20 % (DCF).

The wholesaler is generally responsible for receiving products from the refiner(s) and transporting these petroleum products to his terminal facilities where he maintains an inventory of products for sale, primarily to the distributors in the area serviced by his terminal. The wholesaler operates, generally under a company logo, e.g. Union, Chevron, and sells to distributors that also sell under that same logo. For example, a Chevron distributor will receive petroleum products from a terminal that supplies Chevron refined petroleum products and will market these directly to the public. The wholesaler does not generally deal with the consumer directly. Some wholesalers in Alaska do market directly to consumers that require large volumes at a "consumer tank wagon" (CTW) price. The wholesaler's primary function, however, is to maintain an adequate supply of petroleum products for the distributors that work thru him. For this service the wholesaler includes in his price to his distributors a fee that compensates him for handling the refined products and for his maintenance of inventory, plus a reward for his investment of money and time.

The consumer obtains his petroleum products from a distributor, either thru a service station or a heating oil delivery service. The distributors in general do not maintain product inventories but rely upon the wholesaler's terminal facilities, excepting in the remote areas of Alaska where the distributors do have some inventory capability. The distributor maintains a fleet of delivery vehicles which pick up products at the wholesaler's (in some cases directly from the refinery) terminal and delivers the required refined petroleum products to the individual customers. The distributor, in-turn, bills the end-user a price which reflects his cost of petroleum products, a return on his investment and time and the

recovery of his operating expenses, plus a profit element.

The consumer during the past few years has seen higher and higher prices charged to him on petroleum products he purchases and is becoming frustrated in his inability to obtain an explanation for these cost increases. The local distributor points to the wholesaler who in turn points to the refiner who mentions fluctuating crude prices, drastic imbalances between supply and demand, etc. There is little dialogue relating to the real issues, namely the relationship of petroleum prices with crude quality/cost, supply-demand, transportation, marketing costs and profit margins. Furthermore, because of the capacity of the limited number of entities making up the petroleum sector in Alaska, coupled with the difficulty that new entrants have in entering the market, the petroleum industry in Alaska operates in a limited entry environment. Because of this situation, the Alaska petroleum industry may be less than responsive to the dynamic economic forces of a "free market."

In the following pages an analysis of all the elements that contribute to the final refined petroleum product prices will be reviewed. In addition comparisons will be made on component markups (difference between transfer prices between two parties) over time, petroleum product pricing relative to the more responsive market on the West Coast, and the pricing and profitability of the Alaska refiners. After these relationships have been discussed, an executive summary addresses the cost-pricing relationship of petroleum products in Alaska.

C. DATA SOURCE

The information required to conduct this study on petroleum products pricing in Alaska was obtained from public data in conjunction with discussions with various refiners, wholesalers, and distributors.

The Alaska crude oil data was available thru the State Department of Natural Resources. The data on other crude costs was obtained from industry publications: Platt's OILGRAM Price News, Oil and Gas Journal, Petroleum Intelligence Weekly, and The Petroleum Economist.

The retail pricing of heating oils in Anchorage and Fairbanks is monitored by the Fairbanks North Star Borough (FNSB) Community Research Center. They also monitor heating oil prices in Anchorage.

The Lundberg Survey started monitoring Anchorage gasoline retail, wholesale prices and distributors' product margins in September 1981. Retail gasoline data for Fairbanks is monitored by the FNSB. The Lundberg data on gasoline prices for West Coast cities and Anchorage was used in the comparative analysis section.

Terminal consumer tank wagon (CTW) postings for heating oil, bunker fuel, fuel oils, and gasoline prices for Seattle, Los Angeles and San Francisco were obtained from Platt's OILGRAM price summaries. The U.S. Department of Energy "Monthly Petroleum Product Price Report" was a source of U.S. retail, CTW, and wholesale prices averages.

Public posted CTW prices (minimum 400 gallon purchase) were made available to the study by a number of wholesalers. In all instances, the actual wholesale prices were deemed proprietary and kept confidential so that the "in-house" relationships between CTW and wholesale prices was not exposed. To do so would have given the wholesaler's competitors an advantage in bidding for a customers business.

The CTW prices are representative of some wholesale prices but not all. For example, price discounts are known to exist to large industrial customers, but their magnitude is not known. The important point to keep in mind is that this price interface between wholesaler and distributor may vary about the averages, but this variance will not significantly affect the magnitude of the decision and conclusions.

Prices ex refinery, which are public information, were obtained from a variety of sources, and in many instances were cross checked against wholesalers acquisition costs corrected for transportation costs. In those cases where variances in costs did appear, they were minimal and little effect on the margin/profit analysis was noted.

The marine transportation costs were derived from (a) "Worldwide Tanker Nominal Freight Scale", published semi-annually by the Worldscale Association, New York, with monthly average freight rate assessments by type/size of vessel (AFRA) and (b) "American Tanker Rate Schedule" published by the Association of Ship Brokers and Agents, New York. Both these sources present a rate between two harbors, e.g. Nikiski and Los Angeles. Two other references of note are "Alaskan Tanker Fleet Economics" by Martingale, Inc. for the Alaska State Legislature dated December 20,1978 and "The Jones Act and Its Impact on the State of Alaska" prepared by Simat, Helliesen and Eichner for the Alaska Statehood Commission dated July 1982. There was general agreement between these studies and the published rates.

This study on Alaska petroleum pricing uses, the most expensive transportation rate, namely General Purpose Marine (GPM) tanker rates between Alaska ports and between Alaska and West Coast and Indonesian ports. Using GPM tariff is a most conservative assumption since it debited Alaska refiners a higher transportation cost than actually incurred. This was done because it was not possible to obtain the vessel rates in effect during the study period nor the actual size of the vessels used in transporting crude and petroleum products. The effect of using GPM tariffs was to deflate refinery margins/profits and to deflate the apparant differences between West Coast postings and Alaska petroleum product postings.

The Alaska Railroad provided their petroleum tariff over the study period, 1980 -1982. The Alaska Public Utilities Commission provided the intra-state pipeline tariffs.

The petroleum products demand and supply was derived from data from various sources: those already mentioned, the Port of Anchorage (volume), the State Department of Revenue (DR; consumption), the State Division of Energy and Power Development (DEPD; refiners supply), the ARR (volumes), the pipeline companies, the Army CORPS of Engineers (port volumes), State Department of Transportation and Public Facilities (DOTPF; airport volumes), the Federal Defense Fuel Supply Commission (DFSC; volumes), State Department of Natural Resources (DNR; consumption and production) and the U.S. Coast Guard (port volume movements). The DR which reported monthly data on consumption

and fuel type dropped its tabulation of regional totals in June 1982, leaving a large void in petroleum product consumption data.

CHAPTER TWO

ALASKA PETROLEUM PRICING AND TRANSPORTATION

In Alaska, the effect of transportation on petroleum products and crude oil prices is significant. Historically, the pricing of Alaska's petroleum products has been based on rack prices at a refinery in California or Washington State plus marine transportation including terminal fees. That pricing basis is radically changed today, although vestiges of the old system continue in spite of the fact that Alaska produces its own crude oil and has four operating refineries which utilize in State as well as "outside" crudes.

The Alaska crude oil prices at a production location are determined by a net-back process where-in the value of the crude at the West Coast/U.S. Gulf Coast refinery(s) is determined; then the transportation costs from the refinery to the producing field including the field gathering costs are subtracted from the value of the crude at the refinery(s). The result is the well-head price of that crude oil. Since the bulk of the ANS crude oil is used outside of Alaska, the Alaska refiners, who do not incur as large a crude oil transportation cost, pay a lower cost for their crude.

A. COOK INLET CRUDE OILS

The first Cook Inlet field the Swanson River Field was discovered July 19,1957. The field peaked in production in 1972 at 199,000 barrels per calender day (BPCD). The 1981 production at 31 million barrels was equal to 85,000 BPCD and is dropping at the rate of about 15 per cent annually. The source of a "sweet" crude (low sulfur content) of high gravity (average 35.4 degrees American Petroleum Index, hereafter refered to as API) close to the Alaska market was the impetus for the construction of the two Nikiski refineries in the sixties.

The Cook Inlet crudes are collected at one of two separate terminals: the Cook Inlet Pipeline Company terminal at Drift River on the west side of Cook Inlet and the Kenai Pipeline Company terminal at Nikiski on the east side. The price for Cook Inlet crudes is posted at the terminal by those willing to purchase these crudes for use in their refinerys: ARCO, Chevron, Mobil, and Union. In September of 1982 their base price (for 34.0 API and 35.0 API) varied from $26.20 per barrel (PB) to $27.45 PB as published in Platt's OILGRAM news. These postings adjust for differences in gravity of the oil received. Table II-A-1 summarizes the gravity of the various Cook Inlet Fields which vary from 40 API to 27 API, and which over the entire area average 35.4 API.

The State of Alaska in 1981 had approximately 77,800 BPCD of production on its Cook Inlet leases. The State receives 12.5 % of this oil either in-value (at the price the oils are sold at by the crude producers) or may take its Royalty oil volume in-kind (actual ownership of the oil and responsible for its disposition/sale). The State's Cook Inlet royalty oil (in-kind) is sold to Tesoro. The cost in 1981 averaged $28.71 PB whereas in 1982 it was $28.28 PB. This price is an average of the Cook Inlet postings in effect over a given month. Table II-A-2 summarizes the monthly volumes and the price paid by Tesoro. Remember that the posted offer on the Cook Inlet crudes at the producing field reflects the value of these crudes to refineries on the West Coast less their transportation costs. Tesoro therefore enjoys a transportation advantage (about $1.40 PB of crude oil) over West Coast refiners who process Cook Inlet crudes. On the other hand, for west side crude, Tesoro must incur a small transportation fee ($.24 PB) from the Drift River terminal to the Nikiski terminal by barge or tanker.

Tesoro relies heavily upon Cook-Inlet crude oil to meet its crude requirements so that Tesoro will have to seek other crudes by the middle eighties because of Cook Inlet declining production. Chevron has already modified its plant (designed for "sweet" Cook Inlet crudes) to process ANS crude oil.

B. THE TRANS ALASKA PIPELINE SYSTEM

The Trans Alaska Pipeline system (TAPS) moves crude from the Alaska North Slope (ANS) at Prudhoe Bay to Valdez, a deep water port on the Gulf of Alaska. The thru-put of the pipeline is determined by the field production limits set by the Alaska Oil and Gas Conversation Commission. The Sadlerochit Field's production is set at an annual 1.5 MM BPCD and the Kuparik field at 160 M BPCD.

The TAPS is owned and operated by eight oil companies; the largest corporate holding in TAPS is by the combination of SOHIO and British Petroleum. The owners each operate as a separate pipeline company; their initial filed tariffs filed with the ICC now within the Federal Energy Regulatory Commission averaged $6.20 PB. The current average of the eight different tariffs is $5.84 PB: however, the final tariffs have not been set by FERC. When they are set, the pipeline transportation bills will have to be retroactively adjusted for each shipper in the line. This transporation adjustment will then, retroactively in effect, change the price of the ANS crude oil at the well-head. Table II-A-3 summarizes the individual pipeline company rates.

A shipper of ANS crude using TAPS can pay one of eight different tariffs to move his crude from the ANS to Valdez or an intermediate point. Since most shippers seek the cheapest pipeline tariff, that owner of the cheapest capacity may not have enough "space" and the shipper's request will have to be prorated (space granted would be smaller than the request), and for the remainder of his volume he would go to the other carriers.

All shippers must participate in the TAPS quality bank which adjusts for crude quality entering the TAPS. At the North Slope, Kuparik field production (24 API) and the Sadlerochit field (26.4 API) enter the system. North Pole Refinery's "return oil" is injected into TAPS at about 19.4 API. All of the crude oils entering are comingled, and the crude oil received at Valdez is fairly uniform in quality and not much different from the Sadlerochit field crude (because of the

dilution effect) at the North Slope. All shippers are also assessed a line loss and fuel used volume which is approximatly 10 cents PB at todays crude costs.

The intra-state pipeline tariff for ANS crude oil moved from the North Slope thru TAPS to North Pole or Nikiski is regulated by the Alaska Public Utilities Commission (APUC), which inherited the responsibilities of the now defunct Alaska Pipeline Commission (APC). The intra-state tariff set by the APC is based on the revenue requirements of the pipeline owners, including a fair return on their investment book value. The APUC rate for movements from the ANS to Valdez is identical to the FERC rate, $5.84 PB. The APC rate for movements to North Pole averages $3.67 PB, and was approved on an interim basis using the carriers' original filed tariff. The APC rate has not been changed, even though the FERC filed rates have dropped 36 cents PB. (See Table II-A-3).

The difference in the TAPS tariff, between North Pole and Valdez provides the refinery at North Pole with a crude acquisition cost advantage over a refiner who receives his crude from Valdez of about $2.17 PB. The tariff difference recognizes North Pole as being much closer to ANS than Valdez.

NPR receives crude oil from TAPS thru the Golden Valley Electric Association's (GVEA) eight inch diameter pipeline. The design capacity of the system (pipeline and metering station) is 50,000 BPSD. The return oil from NPR, primarily residual but also unsold refined products, is reinjected into TAPS via GVEA's six inch diameter return line. The GVEA pipeline is regulated by the APUC. The original APC interim tariff of 8.6 cents PB of crude entering the refinery is still in effect. The return oil is not assessed a tariff. NPR pays into the quality bank a penalty of $.15 PB per API on about 7 API change. This seven degrees is the difference in gravity between the crude oil received into NPR and the returned oil pumped back thru GVEA pipeline into TAPS.

C. ALASKA NORTH SLOPE CRUDE OIL

The value of the Alaska North Slope (ANS) crude determined for State severance tax and royalty in-value payments is defined in an agreement between the crude oil producers and the State of Alaska as the selling price (at the point of transfer) of the oil less the transportation costs required to bring the oil from the ANS to the point of title change. The State's Royalty oil under currently producing leases is 12.5 volume per cent. Today most of the ANS producers publish a price at the ANS; the crude oil in-value and serverence tax payments to the State are based on this number. The fact that each crude oil producer reports a different monthly value to the State for the same crude oil reflects each end users various transportation costs and the different value of the crude oil at the end use refineries.

Based on current effective TAPS tariffs, the royalty oil in-value price at the well head was $25.64 PB in Feb'81 --- immediately after Federal decontrol of crude oil pricing. From this base price it decreased to a low of $18.42 PB in Mar'82, rose to $20.37 PB by Aug'82, and has now fallen to the current value, $19.97 PB. Table II-A-4a/c outlines these price trends over the 1980 -1982 period. As shown in the Table, the delivered price of ANS crude oil at NPR was $30.14 in Feb'81, fell to $22.83 in Mar'82, rose to $24.91 in Aug'82 and was $24.15 in Nov'82.

D. MARINE RATES

In the previous section the movement of crude oil from Valdez to Nikiski or other West Coast locations was outlined to show how it affected the cost of crude oil used in Alaska. The marine tanker rates used in this study are the published rates by the Worldscale Association and the Association of Ship Brokers and Agents. These rates define a base tariff per ton for a movement between two ports either a round trip or leg of a multi-port journey. Monthly factors that bring the semi-annual published rates current; these adjustments

are published monthly in various petroleum trade journals for different size tanker: General Purpose, Medium, Large 1, Large 2, VLCC, ULCC and Single Voyage (dirty). For the month of June 1982 the average freight rate assessments (AFRA), as a per cent of Worldscale published rates, were 184, 138, 78, 55, 40, 32, and 63, respectively. Port fees such as Anchorage's 7 cents PB are not included.

The calculated transportation costs, utilizying General Purpose Marine (GPM) tanker rates assumed in this study are shown in Table II-B-1a/c for crude oil, kerosene, and gasoline for ports connecting to Alaska locations and for tanker movements within Alaska. Table II-B-2a/c gives the Medium tanker rates for comparison. The General Purpose Marine tariff rate was chosen because it is the most conservative of the rates, since it utilizes the highest transportation costs to and within Alaska. In effect it overstates the refinery's and marketer's cost, since most tanker movements to/from Alaska are in larger vessels than the GPM category. Not knowing what size vessels each company utilizes for its marine movements, a tariff was chosen which could be improved upon in actual operations. Some of the pertinent tariff rates for Jun'82 are shown below.

General Purpose Marine Tariffs, June 1982

CRUDE	Drift River to Nikiski	$ .24 PB
	Valdez to Nikiski	$ .41 PB
	Indonesia to Nikiski	$3.39 PB
	Valdez to Los Angeles	$1.34 PB
GASOLINE	Los Angeles to Anchorage	$2.73 PB
	Los Angeles to Ketchikan	$1.73 PB
	Anacortes to Anchorage	$1.93 PB
	Anacortes to Ketchikan	$1.01 PB

The two Nikiski refineries (Tesoro and Chevron) supply petroleum products to Alaska coastal communities ,such as Valdez, Dutch Harbor, Ketchikan, Homer, Kodiak and the Alaska fishing fleet, and export some refined petroleum products to California, e.g. residual oil and light straight run naphtha. These coastal/export movements originate by petroleum product tanker(s) from the dock at Nikiski.

Marine freight rates are important to Alaskans for four reasons:

(a) they dictate the value of Alaska's crude oils,

(b) they determine Alaska's "closeness advantage" (e.g. at Nikiski a refiner can receive ANS crude at $.93 PB cheaper than a refiner in Los Angeles; Drift River terminal Cook Inlet crudes at approximately $1.10 less than a refiner in Los Angeles),

(c) they greatly influence the price level that an outside refiner can sell his petroleum products in Alaska, and

(d) they influence an Alaskan refiner in his ability to sell his "surplus" products in the West Coast market.

In a competitive market (ignoring economy of scale issues), the refiner on the West Coast would market his gasoline from his tank terminal to Alaska at a West Coast price plus gasoline marine freight; namely, terminal price plus $2.73 PB (transportation cost Los Angeles -- Anchorage). This assumes that there are no refineries in Alaska or any Alaska crude production. Such is not the case.

E. THE NIKISKI PIPELINE

The Nikiski Pipeline operates from the Nikiski refineries on the Kenai Peninsula to the Port of Anchorage terminal area. The ten-inch diameter products pipeline began operation on September 25,1976 and was constructed at a cost of slightly more than 22 million dollars. It is seventy miles long, and has a capacity of 40,000 barrels per day. Based on a thirty year life and an average thru-put of 21,000 barrels per day, the APC set the first year tariff rate at 68.8 cents PB, or 1.64 cents per gallon. The pipeline is owned and operated by the Tesoro Alaska Pipeline Company, a wholly owned subsidary of Tesoro.

At Nikiski the pipeline accepts petroleum products either from the Tesoro or the Chevron refinery. At the Port of Anchorage deliveries can be made to any of the petroleum products receiving terminals.

Refined products from the two Nikiski refineries destined for Anchorage and the regions served from Anchorage (Railbelt) move by this pipeline; the thru-put volumes reflect the volume of products

supplied to this market.

Nikiski Products Pipeline Annual Thruput

year	BPCD
1977	14.8M
1978	17.0M
1979	20.8M
1980	20.7M
1981	23.7M
1982	27.5M

The 1982 average annual pipeline thru-put (from the Chevron and Tesoro refineries) has increased more than 32% above the 1980 levels. This increase is primarily the result of the Tesoro's increased refinery capacity and the corresponding increase in the production of unleaded gasoline and commercial jet fuel in January 1981. During this 1980-1982 period Tesoro also captured a larger share of the Anchorage market, because of their geographical competitive advantage compared to "outside" refiners who previously supplied these products.

F. THE PORT OF ANCHORAGE

The Port of Anchorage receives petroleum product tankers at its dock and then directs petroleum supplies to any of the terminals located in the dock area: namely, the U.S. military, Tesoro, Union, Chevron, the Airline Consortium (formerly Shell's) or Texaco terminals. The Nikiski Pipeline can also deliver petroleum products to each terminal and each terminal in turn, can deliver petroleum products to the Anchorage International Airport via the six-inch 750 BPH products pipeline owned by the airline consortium. The petroleum product terminals in turn, can deliver to the Military Terminal and its Pipeline which connects with Elmendorf AFB and Fort Richardson. The only Anchorage Port terminal capable of receiving petroleum products from the Alaska Railroad (i.e. North Pole Refining's products) is Texaco. All terminals, on the other hand, are capable of delivery to the Alaska Railroad or to tank truck(s).

All petroleum movements across the Anchorage Port dock or its attendent property are taxed and recorded. The annual marine volumes (this excludes the Nikiski Pipeline volumes into the Port terminals) from 1976 to present, as shown below, indicates a dramatic decrease in the volume of petroleum product "imported" from "outside" Alaska. These figures also indicate the inability or desire of "outside" refiners to compete with in-state refiners.

PORT OF ANCHORAGE ANNUAL PETROLEUM MOVEMENTS
thousands of barrels per calender day

	IMPORTS			
year	foreign	domestic	total	exports
1976	7.1	25.7	33.4	
1977	8.4	13.9	22.4	
1978	7.9	11.4	19.3	.1
1979	7.1	5.9	13.0	.4
1980	4.8	6.5	11.2	.4
1981	1.1	6.1	7.2	
1982	.5	5.1	5.6	.4

The decreases in imported refined petroleum products into Anchorage are directly attributable to the following:

i. The Nikiski Pipeline eliminates the need to bring petroleum products by barge from the Nikiski refiners; the petroleum products are moved directly to the petroleum product terminals in Anchorage and, in turn, a large amount is transferred to the Anchorage International Airport.

ii. The North Pole Refinery which supplies Interior Alaska refined petroleum products except gasoline. NPR supplies jet fuel to both the Anchorage International Airport as well as the Fairbanks International Airport.

iii. The increased capacity of both the NPR in 1980 and the modifications to the Tesoro Refinery in 1978 and 1981.

iv. The decontrol of oil in January 1981, and the withdrawal of a foreign fuel supplier to the Anchorage jet fuel market.

v. The geographical economic advantage that an in state refinery has over "outside" refineries, because of its crude costs and

product transportation advantage.

The decreasing amounts of imported refined petroleum products into Alaska does indicate the increasing self sufficiency and ability of the Railbelt refiners to supply and successfully compete for that region's petroleum product requirements. Furthermore, thru various plant modifications and expansions at the Tesoro and North Pole refineries, the local supply of petroleum products has become more in line with demand.

The requirement for imports into Alaska is discussed in Chapter III (see jet fuel and demand-supply sections). The export of petroleum products to California thru the Anchorage Port is a result of the North Pole Refinery supplying Alaska's Interior demands. The movement of petroleum products from North Pole thru the Anchorage Port to destinations outside the State is by the preferential ARR Tariff 8-T, Item 445, i.e. is 92 cents per 100 pounds which is less than the ARR's largest volume tariff (lowest price) between Fairbanks and Anchorage for in-state consumed products at 101 cents per 100 pounds (Item 635).

G. THE ALASKA RAILROAD

The Alaska Railroad (ARR) provides tankcar and tank train service from Anchorage to various locations on its system. The primary petroleum movements are between the Anchorage Port terminal area and the Interior Alaska terminals: Nenana, Fairbanks, North Pole Refinery, and Eielson AFB.

The ARR's Tariff Number 8-T, "Local and Joint Rates On Petroleum and Petroleum Products, Carloads" defines the transportation rates for petroleum products in tankcars owned by the shippers. Table II-C-1 summarizes the changes in the tariff since January 1980. The average tariffs in effect for any given month during the 1980-1982 period are summarized in Table II-C-2 for motor gasoline (mogas) and in Table II-C-3 for heating oils.

The heating/diesel oil tariff (for volumes of 20 million gallons plus) between Anchorage and Fairbanks has risen from 6.17 cents per gallon

(c/g) in January 1980 to 7.90 c/g at the end of December 1982 or roughly 28 %. The State of Alaska consumer price indices over this period suggest that only a 21 % increase was needed to keep up with inflation on operation costs. The December 1982 tariff for movements of petroleum products from NPR to Nenana was 4.57 c/g; the tariff for the movement from Anchorage to Nenana was 7.90 c/g. The transportation savings therefore of supplying the Nenana market from Fairbanks versus Anchorage amounts to 3.5 c/g.

The cost of petroleum products in Alaska's Interior will obviously be higher if petroleum products have to be shipped to Fairbanks from Anchorage. The NPR, however, does not incur these transportation costs for the petroleum products it markets in the Interior of Alaska. If manufacturing costs are assumed about equal for a refiner in Anchorage and in Fairbanks, then the Anchorage refiner can not effectively compete in the Fairbanks region because the rail transportation cost is an added expense; the same argument is valid when a Fairbanks refinery ships petroleum products to Anchorage. In effect, a refinery in Alaska can only compete in the "other fellows market" if its total of petroleum product costs and operating costs are less than its competitor (refiner) by at least the amount of the transportation (ARR tariff) cost.

The "barrier" effect of the tariff expense is vividly detailed in the table below. The NPR refinery was completed in the latter part of the summer of 1977, and a major debottleneck project was completed in November 1980. The volume of petroleum products moved by the ARR from Anchorage to points east of Nenana as shown in the table below indicates that the ARR lost over 6,400 barrels per day (b/d) during the 1976-1982 period. This volume represents a revenue loss to the ARR of $7.8 million in 1982.

ALASKA RAILROAD PETROLEUM MOVEMENTS
(from Anchorage to points east of Nenana)

year	BPCD	+/-
1976	9,141	----
1977	9,170	+29
1978	4,506	-4,664
1979	3,177	-1,329
1980	3,399	+222
1981	2,592	-807
1982	2,682	+90

The majority of the ARR movements north from Anchorage are gasoline (mogas), aviation gasoline (avgas), and propane; refined petroleum products not produced by the NPR refinery and therefore must be obtained from Anchorage.

The ARR's confidentiality rules for a single shipper preclude disclosing the NPR volumes moved south to Anchorage; however, the Port of Anchorage recognizes that NPR moves a petroleum product to the West Coast. Also, it is known that the airlines "consortium" at the Anchorage airport which purchased the Chevron and Shell airport facilities purchases jet fuel from NPR at the Anchorage terminal site. Furthermore, during a given week, the NPR has operated two tank trains a week, plus up to twenty 20,000 gallon tank cars between North Pole and Anchorage to serve the Anchorage International Airport. Each tank train consists of eight 23,000 gallon tank cars. It is estimated that NPR supplied to the Anchorage International Airport about 2,600 BPCD of jet fuel in 198[illegible] and 2,300 BPCD in 1982. THE VOLUME OF PETROLEUM PRODUCT TRAFFIC ON THE ALASKA RAILROAD MOVING SOUTH TO ANCHORAGE IS ABOUT EQUAL TO THE VOLUME MOVING NORTH TO THE ALASKA INTERIOR.

The amount of petroleum products that were manufactured and sold in the Interior of Alaska (except for gasoline, AvGas, and propane) is reflected in the production level of NPR at approximately 13,200 b/d in 1982. If the NPR posted prices in Fairbanks were identical to the Anchorage postings, then the residents of Alaska's Interior would save over $15.7 million on their fuel costs. This assumption is reviewed

in more detail in Chapter IV.

H. THE MILITARY PIPELINES AND TERMINALS

The Defense Fuel Supply Center (DFSC) purchases petroleum products for the military operations in Alaska. The military operates various terminal facilities and pipelines in Alaska.

The major petroleum terminals are Whittier with 330 MB of storage, Anchorage with 358 MB, Haines with 390 MB, Fort Wainwright with 204 MB and Eielson AFB with 304 MB.

The Whittier terminal is located at the ice-free deep water port of Whittier on Prince William Sound. Petroleum products purchased for the military by DFSC on the West Coast for delivery to Railbelt region are delivered to this port terminal; the Whittier Military pipeline moves petroleum products (primarily JP-4) to the Anchorage port Military terminal; a distance of 61.7 miles. The eight-inch diameter line has a design rating of 24 MBPSD and cost $12.6 MM in 1967. At that time all of the military's Railbelt requirements were imported into Alaska, and an ice free port such as Whittier was desirable.

The Anchorage Military terminal serves Elmendorf AFB and Fort Richardson by feeder pipelines; the terminal also places petroleum products on ARR. The seventeen tanks at the military terminal connect with the various petroleum terminals at the Anchorge Port and can receive petroleum products from the Whittier pipeline. Shipments from NPR pass thru one of the petroleum terminals and then into the military terminal. Military shipments from the Nikiski refineries move by the Nikiski pipeline to the terminal.

The Eielson AFB and Fort Wainwright located in Alaska's Interior are connected directly to NPR by means of the old Haines Military products pipeline. This 27-mile section of the original eight-inch diameter 626-mile pipeline is still maintained and transports petroleum products from North Pole to the two bases. The design rating of this pipeline is 9,360 BPSD.

CHAPTER THREE

ALASKA PRODUCT DEMAND AND SUPPLY

A. ALASKA PRODUCT PURCHASE AND SUPPLY DATA

The State of Alaska consumption of petroleum products based upon State Department of Revenue (DR) data, exceeded 64 MBPCD in 1980, 66 MBPCD in 1981, and 76 MBPCD in 1982.

The data reported by refiners (NPR does not report) to the State Division of Energy and Power Development (DEPD) indicates direct sales by refiners of petroleum products to Alaskans at 67 MBPCD in 1980, 63 MBPCD in 1981, and 59 MBPCD in 1982.

Further, the State Department of Natural Resources (DNR) annually reports to the Legislature estimated petroleum product consumption in Alaska, and DEPD annually presents to the Legislature the State's energy plan which also projects and presents consumption estimates for the State.

Clearly, since all of the above do not agree, there is no one good source of petroleum product consumption. The sale of motor fuel petroleum products to final end user must be recorded and the amount of taxable or exempt volumes reported to DR. Table III-D-1 and Table III-D-2 summarize the reported volumes for taxed and exempt volumes by category, and reports end-use for the 1980-1982 period. Problems with this data, which is collected for only tax purposes, are the (a) confidential seal placed on it; (b) the very apparent lack of consistency in the DR report's classifications over the years; (c) no published information on who is reporting (when comparing current DR volumes with DEPD refiner volumes, the large increase in 1982 is most likely due to expanded reporting requirements than actual increase). Also, since the report addresses only motor fuel, some volumes, although exempt, are not reported: for example heating oil.

Furthermore, the regional breakdown is by the Alaska Judicial Districts. This breakdown was discontinued in June 1982, so that it is now not possible to identify petroleum product volumes for Southeast Alaska, the Yukon River Basin, North and Northwest Alaska, and South of the Alaska Range.

Tables III-D-3 and III-D-4 summarize the data by petroleum product type. The data indicates the following motor fuel use by Alaskans:

DR Motor Fuel Report Summary

Product	MBPC	
	1981	1982
Jet Fuel	26.1	29.1
Av-Gas	1.2	1.2
Gasoline	12.7	14.4
Diesel	26.1	31.6
Total	66.1	76.3

The large amount of diesel use reflects a number of industrial applications: electric generation, construction equipment, TAPS pump stations and both domestic and foreign fishing industry in Alaska waters.

The seasonality of Aviation Gasoline, and Motor Gasoline is reflected in the summer highs. The utilization of diesel, peaks both in the summer (construction activity) and during the winter when cold weather greatly increases heating oil consumption.

The DEPD data, which is refiner oriented, goes back to the days of Federal oil control and specifically mandated "buy-sell relationships", and "fuel set aside programs" of the U.S government, between those entities that refined petroleum products and those that purchased them. These (confidential) reports are required of all refiners by the U.S. Department Of Energy and a copy is sent to DEPD, the State agency responsible for the program administration. The reported data does not include NPR, nor does it include volumes of petroleum products purchased and sold by other than refiners, e.g. a wholesaler's volumes purchased in Anacortes Washington and brought into the State for sale. The data ,however, does include the volumes of petroleum products supplied by Texaco, Union, Chevron, Mobil, and

Tesoro.

The DEPD refiner data is confidential at the refiner level. Table III-E-1 and III-E-2 detail the information by month and year on a BPCD basis. The following summarizes that information.

DEPD REFINER SUPPLIED PETROLEUM PRODUCTS

Product	MBPCD	
	1981	1982est.
Propane	.3	.2
MoGas	12.3	12.9
#1 Oils	2.5	2.9
#2 Oils	13.8	14.4
AvGas	1.0	2.7
Jet A-1	19.3	18.2
Jet B; JP-4	1.6	1.5
#5;#6;Bunker	12.6	6.3
Total	63.4	59.2

The DEPD data, as reviewed, is not complete: many months lack refiner(s) inputs. NPR (at over 13 MBPCD of petroleum products) is not included, nor is ARCO's 14,100 BPCD refinery at the ANS and the TAPS pump stations' topping plants along the pipeline. These petroleum product volumes are included in the DR summaries. IF THE NPR VOLUMES ARE ADDED TO THE DEPD NUMBERS THE ANNUAL DEMAND FOR PETROLEUM PRODUCTS IN ALASKA WOULD BE 75.8 MBPCD IN 1981 AND 72.1 MBPCD IN 1982 AS SUPPLIED BY REFINERS.

The two data sets were analyzed in detail and when used in conjunction with other sources provided key details to develop the Railbelt scenario of demand and supply. Most data is of value when you know what it is telling you or not telling you; that requires knowledge of Alaska, refining, transportation, and the private and institutional framework of each particular piece of information.

B. Defense Supply Purchases

The Defense Fuel Supply Center (DFSC) in Arlington, Virginia purchases petroleum fuels for use by the military in Alaska. The requirements of the various petroleum products are defined in an annual solicitation which lists the points of delivery and the volume at each location. The wholesalers and refiners then submit bids on these lots. The DFSC selects the lowest price(s) offered. The volumes in Alaska are significant. The FY 1981 solicitation was for over 70 MM gallons of JP-4 to the Railbelt, 21 MM gallons of JP-5 to Kodiak and Adak, 9.8 MM gallons of arctic diesel fuel (DF-A), 0.5 MM gallons of Aviation Gasoline (AvGas) and 7.5 MM gallons of motor gasoline.

NPR in both 1981 and 1982, was awarded the Interior Alaska volumes and generally all of the Railbelts DF-A. The 45 MM gallons of JP-4 at Elmendorf AFB in 1981 was awarded in approximately thirds: Chevron, Tesoro, and one outside contract through Whittier. In FY 1982, NPR also replaced Tesoro as a supplier of JP-4 at Elmendorf AFB. The supply of these products does not follow the Federal government FY starting date of October 1, but rather from the contract award date. For example, the FY 1983 contract was awarded in December 1982, the FY 1982 contract was awarded in March 1982 and this required DFSC to "stretch" the FY 81 deliveries to the March 1982 date. In general the volume of products solicited by the military has slightly declined over the 1980-1982 period reflecting a constant budget and increased product prices.

C. COMMERCIAL JET FUEL SALES

Jet fuel in Alaska is big business. Commercial sales at the State's two largest airports, Anchorage and Fairbanks, will exceed 23,500 BPCD in calender year 1982. This volume, using Anchorage's posted terminal prices (which are lower than Fairbanks) will have a gross sale value in excess of $424 million. Jet fuel accounts for fully 60 per cent of an airlines operational costs.

Alaska has experienced a large growth in its two largest International airports (Anchorage and Fairbanks) and the jet fuel usage is shown in Table III-F-1. Since 1977 the jet fuel usage has increased by over 46 %, which is equivalent to an annual compounded growth rate of about 8 %. This growth has been shared by both airports, but not equally, as shown in the Table.

The dominant airport for jet fuel sales is Anchorage, at over 19,900 BPCD of Jet A-1 (1982). In 1978 its sales were 95 % of the Railbelt volume; however, Anchorage's position declined to 80 % in 1981 but has since risen to over 84 % in 1982. With the recent completion of the new International terminal at Anchorage, that airport's dramatic growth of domestic and international sales should continue.

Prior to 1978 the Fairbanks' airport serviced primarily domestic flights. In 1978 NPR began the sale of Jet A-1 fuel to domestic carriers based in Fairbanks, and to International cargo carriers traveling between the Orient and Europe. NPR was able to serve the International carriers because it offered a lower jet fuel price than Anchorage, coupled with a worldwide shortage of jet fuels. In addition Fairbanks claimed a faster airport turn around time, better weather during the winter, and a possible operational cost savings because of the shorter air routes between the Orient and Europe via Fairbanks compared to Anchorage. The availability of Jet-B (as a replacement for Jet A-1, a higher priced fuel) at Fairbanks at a low price was also an attraction for cargo carriers destined to foreign ports.

It is interesting to trace the events that have effected the change of market shares as outlined in the Table III-F-1. Fairbanks in 1979 did not have the airport accomodations to handle the foreign passenger traffic. The State in anticipation of serving foreign passenger carriers operating between the Orient and Europe upgraded the Fairbanks airport, but the anticipated passenger traffic did not occur. The reasons as to why the shift occurred from Anchorage to Fairbanks and then back from Fairbanks to Anchorage are discussed below.

As outlined on Table III-D-2, (summary of the DR Motor Fuels Reports), the Anchorage airport up until early 1982 received foreign produced jet fuel, listed as "Bonded Jet Fuel", a term from the oil control period. This product was supplied by Shell which, under the U.S. Department of Energy buyer-seller program, was bound to a supply commitment. The program mandated that in the case of an emergency or oil shortage, Shell (or Shell's contracted supplier) deliver supplies to the contracted buyer(s) that existed at the time the buy-sell program went into effect; in this case the air carriers at the Anchorage airport. With the decontrol of oil and the termination of all buy-sell relationships, Shell elected to not serve its Anchorage customers and this left a supply gap in the Railbelt region for jet fuel to the airlines.

To counteract this deficiency of jet fuel supplies to the Anchorage air carriers there was formed, in the summer of 1981, a "consortium" to purchase the required jet fuel at Anchorage. To minimize handling costs at Anchorage Port and Airport the "consortium" subsequently purchased Shell's pipeline from the Anchorage Port to the airport, Shell's terminal facilities at the Anchorage Port, and both Shell's and Chevron's product terminals at the airport. The cost of these acquisitions was reported at near $15MM.

The Anchorage "consortium" in 1982 purchased its jet fuel requirements from the Railbelt refiners (estimated at 15,870 BPCD), from West Coast refiners (estimated at 3,490 BPCD), and in December 1982 imported the annual equivalent of 540 BPCD of foreign derived Jet A-1. As discussed at the end of this Chapter, there does not exist sufficient Railbelt jet fuel production capacity to meet the large Railbelt jet fuel demand; imports are therefore necessary. The "consortium" is now in a very strong buyer position because there is only one buyer. This advantage is somewhat offset, however, because jet fuel demand in Alaska still exceeds Alaskan production so that the Alaska refineries are pricing their jet fuel to the airlines (consortium) on the price that the "consortium" is paying for their imported jet fuel landed into Alaska.

The above explanation does not explain the shifts in airport market shares between Anchorage and Fairbanks. The reasons for this market

shift can be found in the price of jet fuel sold at the airports involved. Table III-F-2 lists typical jet fuel terminal postings for Anchorage and Fairbanks for the period from January 1980 to the present. It is obvious that Fairbanks was an attractive airport in the first half of 1980 because of a lower price than Anchorage (maximum of 6.9 c/g lower). Furthermore the data indicates that in the fall of 1980, a major pricing policy change occured at NPR which has continued to the present day. This apparent pricing policy change eventualy negated any price attraction at the Fairbanks Airport, and in fact resulted in a higher price at Fairbanks than Anchorage (highest at 8 cents and currently 4.8 cents per gallon). THIS HIGHER PRICE, MORE THAN ANY OTHER REASON, IS THE CAUSE OF THE LOSS OF CARGO CARRIER BUSINESS TO THE ANCHORAGE AIRPORT IN 1982.

The fact that NPR IS SHIPPING JET FUEL TO ANCHORAGE AND ABSORBS THE ARR FREIGHT COST OF OVER SIX CENTS PER GALLON (at the largest volume tariff) would suggest that NPR COULD BE COMPETITIVE IN FAIRBANKS BY OFFERING A LOWER PRICE WHICH WOULD ATTRACT AIR CARRIERS. NPR is closer to the Fairbanks marketplace. The fact tht NPR is selling jet fuel in Anchorage at an obviously lower price than in Fairbanks and, in addition, paying the freight bill to achieve the lower net-back sale, is a puzzle.

NPR appears to have elected a pricing policy for jet fuel that associates a jet fuel price at or near parity with #1 heating oil rack price at NPR, because both products "come from the same kerosene storage tank". If this premise is accepted, then a drop in Fairbanks Jet A-1 price would also justify a drop in the price of heating oil, something which NPR appears reluctant to do. NPR seems willing to forgo attracting jet fuel sales/carriers to Fairbanks by lowering its jet fuel prices and is willing to absorb the ARR freight costs on the 2310 BPCD of jet fuel it sells to Anchorage.

Possibly this is why in December 1982 Japan Airlines moved the fueling of two 747 cargo flights, between Tokyo and New York City, from Fairbanks to Anchorage; this action diverted 990 BPCD of jet fuel sales to Anchorage from Fairbanks. Previously, in July 1982, Korean Airlines had returned to Anchorage from Fairbanks.

The indications are that the cost of jet fuel in the "Lower 48" is cheaper than the Anchorage CTW postings by 10 -19 cents per gallon. The airlines therefore will have an incentive to move, where possible, to the cheaper source of jet fuel since the cost of (jet) fuel is the major cost (60%) of an airlines operational expense.

A further development in the jet fuel demand for the Railbelt airports (Anchorage and Fairbanks) is the introduction of the fuel efficient aircraft (747SP) that can travel from Tokyo direct to Europe or New York City. Japan Airlines currently overflies Anchorage on European passenger flights, and plans to drop a DC-10 route between Tokyo and New York City in July 1983. This DC-10 route (two flights daily) currently refueling in Anchorage accounts for roughly 740 BPCD. As more efficient aircraft join the International carrier fleet, the demand and need for Anchorage and Fairbanks as a refueling point will tend to become less.

An interesting development is occurring in the supply of jet fuels to both Anchorage and Fairbanks with the entry of the "consortium" as a supplier to the airlines. One of the first benefits that the airlines received when the "consortium" started operations was to minimize the markup (difference between ex refinery and airport posting) on jet fuel sales. It is estimated that this markup was as high as 16-18 cents per gallon. The "consortium" has probably reduced this by 10 to 13 cents per gallon.

Another potential reduction that the "consortium" seems to be pursuing is a reduced price of jet fuel from the refineries in Alaska. The jet fuel sold in Alaska has a premium built into it which makes it higher priced than jet fuel supplies brought in from the "Lower 48". The Consortium, by importing foreign source cheap jet fuel, is upsetting the demand supply balance of the refineries and forcing them to down grade their jet fuel to kerosene (heating or diesel oils) which in turn, requires the refineries to reduce crude throughputs or export kerosene. This is painful to the refineries from a profitability standpoint, and the "consortium" by continuing to import foreign source cheap jet fuel will force the refineries to a price level that makes imported jet fuels marginal to the consortium.

D. RAILBELT DEMAND

The demand for petroleum products in the Railbelt was determined from a number of data sources, including but not limited to: the volumes and types of petroleum products moved thru the ports of Anchorage, Whittier, and Nikiski; the production of products at the Alaska refineries and the product/crude oil movements through the GVEA, Nikiski, and Whittier pipelines. Utilizing the above data and formulating an input/output model, the 1981 and 1982 Railbelt demand on a BPCD basis was determined as outlined below:

RAILBELT PRODUCT DEMAND

	MBPCD	
Product	1981	1982
MoGas	10.2	10.8
JP-4	4.6	4.6
JET B	1.7	.5
AvGas	.9	.7
Jet A-1	20.1	23.0
#1 HO/diesel/DFA	1.6	1.8
#2 HO/diesel	4.4	4.3
#4 FO	.6	.8
Asphalt	.6	.9
Total	44.0	46.5

The Railbelt volumes shown above reflect actual purchases and deliveries by refiners and wholesalers. Not included in the above figures are the TAPS turbine fuel manufactured and used exclusively by TAPS. Also year to year inventory changes would modify some of the above numbers in a minor way. For example, the changes in yearly inventory of the asphalt mix used in the manufacture of asphalt by Union at their topping plant at their Anchorage terminal is a clear indication of the types of problems encountered when interpreting data. In this example the numbers presented above do not reflect inventory carry-overs or drawdowns, yet in 1981 Union used 1980 asphalt in their plant, whereas in 1982 they imported asphalt mix and used it all in that year. The apparant "increase" in asphalt demand

therefore, as shown in the above table, is understated. This can be appreciated from a review and understanding of all of the facts.

Another example is Aviation Gasoline (AvGas) which apparantly declined a third in 1982. This is only partially correct, because in 1981 a large volume was imported carried over into 1982. However, the Railbelt in 1982 did experience a high decline in the demand for air freight transportation through Anchorage during the 1982 summer fishing season.

The Military JP-4 volumes were unchanged while motor gasoline saw an increase. The increase in #1 diesel is probably due to the diesel oil shipped by NPR to the ANS in 1982, however the demand for #2 heating oil and diesel would appear to be about equal for the two years. The use of #4 oil by the electric utility in Fairbanks is a function of coal as an alternative fuel for electric power.

E. ALASKA'S IN-STATE AND WEST COAST REFINING CAPACITY

Alaska has vast crude oil resources, and four companies own refineries in the State that utilize that crude and produce petroleum products for use in the regions that they serve. The table below summarizes the refineries by location and crude capacity.

Alaska In-State Refining Capacity

		Capacity	
Company	Location	BPCD	BPSD
ARCO	Prudhoe Bay	14,000	14,200
Chevron U.S.A.	Nikiski	22,000	na
MAPCO	North Pole	46,000	na
Tesoro	Nikiski	48,500	51,053
total		130,500	136,831

(Reference: "Oil and Gas Journal: 1982 Annual refining survey)

The next sections will discuss each Railbelt refiner. The ARCO refinery at Prudhoe Bay serves the operations at the North Slope and is a simple distillation operation manufacturing diesel fuel (1,890 BPCD). Our analysis did not address this refinery nor the simple topping plants located on the TAPS which provide diesel fuel (total of 5,930 BPCD) for the power turbines at the three pump stations. ONLY TWENTY STATES IN THE UNION HAVE MORE REFINING CAPACITY THAN ALASKA.

Alaska refiners operate "in the shadow" of the refining capacity on the West Coast. Historically, the refiners on the West Coast were the suppliers of petroleum products to Alaska. For example, in Southeast Alaska and the West Coast of Alaska these refineries still provide the bulk of the petroleum products. The Railbelt has become near self sufficient for petroleum products but, as previously discussed, some products are imported even into this region.

The West Coast refiners are important to Alaska petroleum product pricing because they are the "other" alternative as discussed in Chapter II. The table below summarizes the capacity on the West Coast

by refiners who operate in Alaska.

West Coast Refiner Serving Alaska Refining Capacity

State	Company	Location	Crude BPCD
California	Chevron	Bakersfield	26,000
	Chevron	El Segundo	405,000
	Chevron	Richmond	365,000
	Mobil	Torrance	123,500
	Texaco	Willmington	75,000
	Union	Los Angeles	108,000
	Union	Rodeo	111,000
	Total		1,213,500
Washington	Mobil	Ferndale	71,500
	Texaco	Anacortes	78,000
	Total		149,500
TOTAL			1,363,000

The total capacity in California is 2,487 MBPCD with forty refineries. The total capacity in Washington State is 389 MBPCD with seven refineries. With demand for petroleum products falling in California and Washington spare refining capacity exists. This capacity could be utilized to provide Alaskans petroleum products if they can be competitive, after paying for marine and handling in getting the product(s) to Anchorage which is the "gateway" to Alaska's largest marketplace, the Railbelt.

In the following discussions and analysis remember that the Alaska refiner/wholesalers who own and operate refineries on the West Coast have a refining capacity which exceeds by ten times the Alaska in-state refining capacity, and most own marine terminal facilities at the Port of Anchorage.

F. CHEVRON U.S.A. NIKISKI REFINERY

Chevron U.S.A. states that its initial sale of petroleum products in Alaska occured in 1889. They market products throughout the State and are the sole supplier to eighteen rural Alaska depots which, in turn, transship to other communities. Chevron also participated in the development of the Swanson River crude oil field (a Cook Inlet field) in the late fifties. In 1963 Chevron completed construction of a 22,000 BPCD refinery at Nikiski to process "sweet" Cook Inlet crudes from their Swanson River field (50 per cent interest), the Middle Ground Shoal (10 per cent), and their one-third interest in two of Shell's off-shore platforms.

The State of Alaska encouraged the construction of the Chevron Nikiski refinery through the Alaska Industrial Incentive Act (AS 43.25), which exempted the refinery from State income taxes for a period of ten years after the start of operations (AS.43.25.010.a) and exempted their property for a period of ten years from all city and borough property taxes (AS 43.25.010.b).

The Chevron U.S.A. corporation is one of the world's largest integrated petroleum and chemical corporations. In 1981 Chevron's share of the U.S. gasoline market was 5.2 per cent compared to Exxon's 6.8 per cent and Amoco's 7.3 per cent. The Chevron FY 1981 report stated that their profit in 1981 declined $19 million to $931 million, based on total sales of $17.883 billion. The Lundberg Newsletter indicated that Chevron's gasoline volumes in 1981 declined some 12 per cent from 1980 levels. Corporate operating statistics are summarized below.

Chevron U.S.A. Corporation FY Summary

	All Petroleum Activity			Total Corporation		
	$ MM					
	income	assets	sales	income	assets	sales
1980	931	9,260	17,883	2,401	22,162	41,553
1981	1,230	11,783	20,275	2,380	23,680	45,229

The Chevron nikiski refinery is twenty years old and continues to be part of the Chevron West Coast network of refineries with over 796,000

bpcd of refining capacity.

In 1963 Chevron at Nikiski invested more than $1 million in a vacuum distillation system to produce asphalt (shipped as an asphalt mixture) imported from Chevron's California refineries. In 1981 Chevron invested $150 thousand to modify the distillation still to process ANS crude oil. The assessed value of the plant by the Kenai Borough (see Table III-G-1) is currently 22.3 million dollars based on a replacement and depreciation methodology; the refinery entered the Kenai Borough tax role in 1974 at a value of $9.2 million. The refinery employs about twenty people.

In 1969 Chevron's Cook Inlet crude production totaled more than 76 MBPCD, which they ran in part in their Nikiski refinery and transported the remainder to their California refineries. In 1980 Chevron's production of Cook Inlet crude declined to 7 MBPCD (less than 10 per cent of the peak). In 1980 Chevron entered into a crude exchange agreement with Tesoro to supply them Chevron's Cook Inlet production. Chevron then modified its distillation facility to process ANS crude oil. During the summer season Chevron does not process crude oil but rather charges an asphalt mixture which, in a separation process, yields kerosene and about 1900 BPSD of asphalt, which is trucked to Anchorage and other locations in Alaska.

The Chevron refinery can be best characterized as a simple distillation unit and, in concept, is very similar to NPR with the exception of vacuum asphalt separation. Chevron currently processes ANS crude oil at a maximum throughput under 19 MBPSD. The maximum production of refined products that they can manufacture from ANS Crude oil is:

Straight Gasoline	4 per cent
JP-4	6 per cent
Jet A-1	13 per cent
#1/#2 Diesel	21 per cent
Residual	56 per cent

Chevron exports the straight run gasoline (light naphtha) to their El Segundo refinery (near Los Angeles) for processing into other petroleum products. The residual is sent to Chevron's Richmond

refinery (near San Francisco) for cracking into lighter petroleum products. A large percentage of the Nikiski Chevron production is moved from Nikiski to the various Alaska Gulf terminals, including Valdez, Kodiak, Dutch Harbor and Ketchikan. The kerosene fraction (15 to 18 per cent) from the distillation of ANS crude oil can meet both the Jet A-1 and #1 heating oil/diesel specifications. This permits flexibility in marketing kerosene derived refined products. The Chevron facility, when producing asphalt, imports a mixture of asphalt and kerosene which are both easily marketed in Alaska during the summer construction season.

Chevron is one of the major importers of gasoline into the State. The Lundberg survey states that Chevron is responsible for 40 per cent of motor gasoline retail service station sales. Chevron primarily imports Chevron's premium unleaded gasoline and receives other gasolines from Tesoro.

Chevron in its request to DNR for 45,000 BPCD of State Royalty oil, proposed that it would expend nearly $10 million at Nikiski to expand the refinery's capacity to 25,000 BPCD of ANS, therby increasing the production of refined petroleum products. The other 20,000 BPCD would offset the amount of petroleum products they import into Alaska from its California refineries. The actual amount of ANS processed at the Nikiski plant would vary depending upon the demand for asphalt.

Chevron, in a letter dated March 23,1981 to the DNR, tied the sale of Royalty oil to the price Alaskans pay for petroleum products; specifically it stated"

"..increased refinery operation by Chevron will insure a competitive refining/marketing climate in Alaska, and tend to hold down the cost of petroleum products to end-use consumers."

"Chevron has an extablished in-state refining and marketing network which can be expanded to insure a competitive market, and thereby maintain lower cost of products for Alaskan consumers."

"..it is in the States' best interest on a long-term basis to use the Royalty oil to:

(1) Further the economic development of the State and,

(2) Hold down the cost of petroleum products to the citizens of the State."

"Chevron is proposing to pay the State of Alaska 55 cents per barrel above the in-value price which the State has contracted to sell under contracts to..Alpetco..NPR...This Additional 55 cents per barrel will increase States' revenue by $6 million per year.."

G. MID AMERICA PIPELINE COMPANY'S NORTH POLE REFINERY

Mid America Pipeline Company (MAPCO), through a corporate takeover, acquired the assets of Earth Resources Company (ERC) in January 1981. Among the assets acquired was the 46,500 BPSD North Pole Refinery (NPR) located at North Pole, Alaska, approximately 13 miles southeast of Fairbanks. MAPCO is an integrated energy company involved primarily in the domestic exploration and development of oil and gas, pipeline operations, coal and mineral mining, and refining and marketing of petroleum products. In FY 1981 ending December 31,1981, MAPCO's total sales were approximately 2.2 Billion (MMM) dollars on total assets of $1.6 MMM; the total operating profit (before tax) was $134 million (MM).

MAPCO through the ERC acquisition also operates the 50,000 BPSD Delta refinery at Memphis, Tennessee. The two refineries' total sales were $844MM on $266MM assets, and yielded an operating profit of $37MM. This information was obtained from Mapco's latest annual report and indicates that the Memphis refinery operated at a loss. This is not the exception on profitability of refiners in the Lower 48, since most operated in the red in 1981.

MAPCO's refining profits constituted 28 per cent of the corporate profit (all from NPR) in FY 1981, compared to only 18 per cent share in the previous year. The two refineries averaged 80,776 BPCD in FY 1981, with NPR operating at approximately 95 % capacity.

NPR obtains its crude oil exclusively from the Alaska North Slope (ANS) by way of the Trans Alaska Pipeline System (TAPS) and the Golden Valley Electric Association's (GVEA) 2.4 mile six-inch and eight-inch pipelines. NPR returns approximately two-thirds of the crude (the