

**Federal Energy  
Hearings  
1976**

**Federal Energy Hearings**

*Public Hearings*

**Anchorage**

**1976**

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P R O C E E D I N G S

CHAIRMAN JACK B. ROBERTSON presiding:

Good morning, I am Jack B. Robertson, Regional Administrator of the Federal Energy Administration, Region X, based in Seattle, Washington.

I'll introduce to you today the members of the panel - starting at my extreme left is Lt. Commander Terrance Woods, Officer-in-Charge of Naval Petroleum Reserve 4, the Department of the Navy; next to him is William C. McConkey, Director, Alaska State Energy Office; next to Mr. McConkey is Mr. George Gryc, Regional Geologist, Western Region, U.S. Geological Survey, Department of the Interior; next to me is Mr. Fred Chiei, Deputy Regional Administrator for Alaska, Federal Energy Administration, Region X. Then continuing on my right is Dr. Robert Davies, Director of the Strategic Petroleum Reserve Office, Federal Energy Administration in Washington, D.C.; next to him is Mr. Curt McVee, Alaska State Director, Bureau of Land Management.

\*

Also in the audience is Michela English, Staff Assistant Strategic Petroleum Reserve, and Mr. Charles Dewey, General Counsel's office, National Federal Energy Administration.

\*

\*

1 This public hearing is being held in conjunction with the  
2 report to Congress on Naval Petroleum Reserve Number 4,  
3 Section 164 of the Energy Policy and Conservation Act,  
4 which became law on December 33, 1975 requiring that:

5 The Administrator of the Federal Energy  
6 Administration shall, in cooperation and  
7 consultation with the Secretary of the Navy and  
8 the Secretary of the Interior, develop and submit  
9 to the Congress within 180 days after the date of  
10 enactment of this Act, a written report recommend-  
11 ing procedures for the exploration, development,  
12 and production of Naval Petroleum Reserve Number 4.  
13 The report shall include recommendations for pro-  
14 tecting the economic, social, and environmental  
15 interests of Alaska natives residing within the  
16 Naval Petroleum Reserve Number 4 and analysis of  
17 arrangements which provide for (1) participation  
18 by private industry and private capital, and (2)  
19 leasing to private industry. The Secretary of  
20 the Navy and the Secretary of the Interior shall  
21 cooperate fully with one another and with the  
22 Federal Energy Administration Administrator; the  
23 Secretary of the Navy shall provide to the Admini-  
24 strator and the Secretary of the Interior all  
25 relevant data on Naval Petroleum Reserve Number 4

1 in order to assist the Federal Energy Admini-  
2 stration in the preparation of such report.

3 \*

4 The Federal Energy Administration believes that ex-  
5 ploration, development and production of Naval Petroleum  
6 Reserve Number 4 should proceed in a manner compatible  
7 with protection of the social, economic and environmental  
8 interests of Alaska natives residing in the area. Federal  
9 Energy Administration also shares the view of Alaska's  
10 State and local officials that these actions be considered  
11 for their potential impacts on the interests of all resi-  
12 dents of the State.

13 In order to prepare a comprehensive report, and to  
14 assure maximum protection of the interests of Alaska's  
15 people, Federal Energy Administration is augmenting ex-  
16 isting information on the potential impacts of the actions  
17 authorized by Congress by seeking comment from interested  
18 parties. To this end, Federal Energy Administration is  
19 particularly interested in obtaining at these hearings  
20 data, views and arguments on the following topics:

21 Basic Information and Data with Respect to Naval  
22 Petroleum Reserve Number 4. This information which we  
23 seek includes estimates of undiscovered and recoverable  
24 resources, data and geologic and geophysical aspects of  
25 the reserves, and climatic and meteorologic data.

1 We would also appreciate any information on existing and  
2 proposed transportation networks such as pipeline corri-  
3 dors, proposed transportation networks such as pipeline  
4 corridors, the existing labor base, the cost and the  
5 availability of material.

6 \*

7 The Scope of Alternative Exploratory Programs Necessary  
8 to Explore NPR 4. FEA is seeking information to help  
9 it develop a number of alternative programs which would  
10 reflect varying rates of exploration as well as the poten-  
11 tial exploratory zones. Based in part on data developed  
12 at these hearings, FEA will define alternative exploratory  
13 programs in terms of geophysical programs adequate to ex-  
14 plore the stratigraphic and structural areas of interest;  
15 exploratory well requirements including location, depth,  
16 and timing and environmental control needs. We also seek  
17 information on the extent to which environmental intensity  
18 of exploration, climate and other uncertainties will affect  
19 each possible program.

20 \*

21 Alternate Development and Production Efforts Needed to  
22 Bring NPR 4 into Production at the Earliest Time and/or  
23 Maximize the Present Value of the Reserve. FEA will  
24 define three alternative development and production  
25 scenarios (based on a small, medium and large find of oil)

1 needed to meet the Government's oil and gas development  
2 goals. In order to define these scenarios, FEA is in-  
3 terested in estimates of possible resource and identifi-  
4 cation of existing and potential constraints to such  
5 development.

6 \*

7 Alternate Means of Achieving Government Exploration Goals  
8 for NPR 4. FEA seeks data on a range of alternative  
9 institutional arrangements and the distribution of the  
10 costs, risks, and benefits of each. This includes  
11 possible participation by private industry, government or  
12 a combination of both.

13 \*

14 Social, Economic and Environmental Impacts of NPR 4  
15 Exploration, Development and Production of the State of  
16 Alaska and on Alaskan Natives. FEA is interested in  
17 views that focus on specific environmental problems and  
18 specific recommendations to ameliorate any adverse impacts.  
19 We also seek comments on socioeconomic issues such as the  
20 role of local and native groups participating in the de-  
21 velopment process, the cost to the State of Alaska and  
22 native Alaskans of providing facilities and services,  
23 benefits to the State and natives from NPR 4 development,  
24 the impact of new finds on native lands, and provisions  
25 which might be made by the Government as part of its NPR 4  
development program to accomodate native interests.

1 Facts and opinions presented at this hearing will be used  
2 by FEA for our own guidance in preparing the report. We  
3 will also use testimony presented here to help guide con-  
4 tractors who are assisting us in the report preparation.  
5 The information gathered here can be extremely valuable to  
6 FEA. It will help us to reflect the real concerns as well  
7 as the real opportunities seen by residents of Alaska in  
8 oil production from NPR-4.

9 \*

10 Before we turn to the first speaker, I would like to set  
11 the guidelines for conducting this hearing. Since this  
12 will not be an 'evidentiary' or 'judicial' type of hearing  
13 there will be no cross-examination of the speakers pre-  
14 senting their statements. Questions may be asked only by  
15 the members of the panel conducting the hearing, and the  
16 presiding official will not accept questions directed to  
17 panel members. However, any person who wishes to direct  
18 a question to another person in regard to that person's  
19 testimony at this hearing may submit the question in writ-  
20 ing to this table. The presiding official will determine  
21 whether the question is relevant and whether time limit-  
22 ations permit it to be presented to the person to whom it  
23 is addressed for an answer. If the question is allowed,  
24 it will be asked by the presiding official.

25 \*

1 To provide the FEA with as much pertinent information and  
2 as many views as can reasonably be obtained, and to provide  
3 interested persons with equitable opportunities to express  
4 their views, the hearing will be conducted in accordance  
5 with the following procedures:

- 6 1) Speakers will be called to testify based on the  
7 list of those people who, in response to the  
8 notice of this hearing, have been scheduled to  
9 present oral statements. A copy of this is  
10 available on the table in the back of the room.
- 11 2) The speakers have been allotted a specific time  
12 for their oral statements. However, any speaker  
13 may submit additional written data or statements.  
14 Fifteen copies should be addressed to Executive  
15 Communications, Federal Energy Administration,  
16 Room 3309, Box FU, Washington, D.C. 20461. If  
17 any of you have difficulty in supplying the  
18 number of copies the Federal Energy Administration  
19 will print the copies at its own expense at its  
20 Anchorage office.
- 21 3) A transcript of the hearing will be made and the  
22 entire record, including the transcript, will be  
23 retained by the FEA, and made available for in-  
24 spection at the Anchorage office of the Federal  
25 Energy Administration, Room G-11, Federal Office

1 Anchorage, Alaska, between the hours of 8:00 A.M.  
2 and 4:30 P.M., Monday through Friday. Anyone  
3 may make arrangements with the court reporter to  
4 purchase a copy of the transcript.

5 \*

6 I would like to emphasize that the purpose of this hearing  
7 is to gather information on the exploration, development  
8 and production of NPR 4. I would therefore ask you to  
9 direct your discussion to these topics.

10 \*

11 The FEA is genuinely interested in your comments and we  
12 will carefully consider all comments made. The time and  
13 effort you have contributed are appreciated. You can be  
14 assured that your comments will receive careful  
15 consideration.

16 \*

17 I now call the first speaker, William C. McConkey, Director,  
18 Alaska State Energy Office - he now will speak for the State  
19 of Alaska.

20 MR. McCONKEY:

21 My first comment is a sincere statement of appreciation  
22 and welcome to the Federal Energy Administration and other  
23 gathered experts in this field from the Federal Government,  
24 to discuss with the State and the people of the State the  
25 development of another major energy resource.

1 As the people from the Federal Energy Administration are  
2 aware, the State has requested of Administrator Zarb -  
3 an Open Door policy on the development of this State in  
4 many of the energy matters in the Energy Policy Conserv-  
5 ation Act of 1975--and we appreciate your efforts to re-  
6 spond to that request and to meet with us in this effort  
7 of working out hopefully a statement of joint progress as  
8 we develop PET 4.

9 \*

10 The State of Alaska has established a working group in a  
11 post-haste manner to develop an official State position  
12 on the development of PET 4 in detail, as outlined in  
13 writing by Mr. Davies to Commissioner Martin. Commissione  
14 Gallagher of Revenue, Commissioner Martin of Natural  
15 Resources, Commissioner McInnery of Community Regional  
16 Affairs, and myself and others are in the process of pre-  
17 paring a rather detailed long-written State position on  
18 the questions which you have raised in the papers you have  
19 supplied us and will present that to you at your time con-  
20 straint, at the time you wish it presented.

21 \*

22 In addition the State of Alaska itself is taking this  
23 opportunity through this hearing and the one to be held  
24 in Barrow I believe on Saturday, to also listen to what  
25 the people as individuals, corporations and commercial

1 concerns of this State have to say because that after all  
2 is the basis for the State's position or where the State's  
3 position should come from.

4 We also are going to be beneficiaries of these hearings  
5 in addition to the Federal Energy Administration.

6 \*

7 We also of course must pay quite a bit of attention to the  
8 desires and intentions and concerns of the North Slope  
9 Borough - the North Slope Regional Native Corporation.  
10 We will be spending quite a bit of time in the next few  
11 days discussing this matter with them.

12 \*

13 I do add however and will make some basic statements of  
14 philosophy, raise some specific questions, and then from  
15 my own particular office's viewpoint address the internal  
16 energy requirements in the State of Alaska and how this  
17 might impact it and for a few moments here and then will  
18 give the rest of my time back to the chair and the next  
19 speaker.

20 \*

21 We are concerned of course about the socioeconomic environ-  
22 mental interests of the people of Alaska, that is and should  
23 be our major concern. There is some discussion in  
24 national and local press about the energy crisis and the  
25 responsibility of the State of Alaska and in our sister-

1 States that are energy-producers such as Wyoming and  
2 Montana and others, to meet our obligation to the entire  
3 nation to provide those resources necessary to supply  
4 our energy. We are willing, always, to be that kind  
5 of aggressive participant meeting the national problems.  
6 However, the State government does have as its prime re-  
7 sponsibility the people of this State - and what needs to  
8 be understood, is where we will come from in the discussions  
9 ahead.

10 \*

11 What we are looking for is an orderly development and a  
12 development which meets the needs of the people in the  
13 State - and, at the same time will take the resources that  
14 although are on Federal land are within the boundaries of  
15 this State and allow them to be transported in some form  
16 to our sister-states.

17 \*

18 We are concerned about the social impact, the impact on  
19 our family structure, the impact on our cities, the impact  
20 on our rural villages, on the native way of life, the  
21 shortages which were not foreseen as when the pipeline was  
22 built, the housing crunch, the impact indeed on peoples  
23 mentality as when for the first time in their life they  
24 fight traffic - coming from Chicago, Washington, D.C. and  
25 Seattle I sometimes feel some of our people wouldn't know

1 a traffic jam if they saw one but everything is relative.  
2 We are suffering from that impact, we are suffering from  
3 capital shortages that major industry, major commercial  
4 people could make up - if the interest rates go up - -  
5 it hurts the small business man.

6 \*

7 We are of course concerned about the environment, we are  
8 very interested about what kind of use you will let the  
9 land have in addition to exploratory and maybe production  
10 drilling. The caribou herds in the north have been de-  
11 pleted to very dangerous levels - the kind of safeguards  
12 that are going to be required to keep that from happening  
13 any further. This is more than just a wild-life pre-  
14 servation interest this is also a subsistence hunting  
15 interest and we all have a concern for our historical  
16 heritage in all these manners.

17 \*

18 So we ask you that you concern yourselves with the socio-  
19 economic impact. Let it go a step beyond what we have  
20 experienced the first time in the oil pipeline where we  
21 start looking at the real effect on peoples psychic and  
22 the way they live and as we would term that nebulous term  
23 'quality of life' - that those also be met. They are  
24 very important to us'

25 \*

1 There is a marketing problem and development problem if we  
2 go by the definition of timing that we wonder about - if we  
3 find oil - if all of us together find oil in great amount  
4 in PET 4 we wonder how that will be transported but we also  
5 where it will be refined and how it will be transported  
6 across the Lower 48.

7 If we are to develop PET 4 on a schedule quickly and we  
8 have also found independent of this effort FEA studies con-  
9 cerning the refining capacity of the west coast, that there  
10 is not adequate refining capacity and neither is there per-  
11 haps adequate piping capacity in the midwest and on into the  
12 east, are we in effect going to be developing and digging  
13 and therefore suffering an impact prematurely - and that we  
14 will not be able to refine what oil we may discover and be  
15 in the strange position of producing something to ship for  
16 export when we are indeed working for Project Independence  
17 if we so believe.

18 \*

19 So timing is important in the development when we're talking  
20 about oil. But what if we find literally multiple  
21 millions and trillions of cubic feet of gas instead of oil  
22 or in addition to! We don't have a gas pipeline built  
23 yet, we would hope that the Federal Energy Administration  
24 and the other Federal Agencies involved here today would  
25 VIGOROUSLY, and we stress the word 'vigorously' aid the

1 efforts for those who would like to build that gas pipe-  
2 line across Alaska, those who are convinced then that  
3 the Alaska gas that is found here can be indeed delivered  
4 to sister-states outside with some degree of timeliness  
5 without interterminal delays by our sister-nation of Canada,  
6 and then that also the State of Alaska might have some  
7 use of that gas.

8 \*

9 If the gas goes across another line either from Prudhoe  
10 Bay in the present Slopes or from where you are developing  
11 or proposing to develop in NP 4 - and then we don't see  
12 that we will have any particular use of that gas, depend-  
13 ing on FPC ruling, or at least we would probably have to  
14 build a separate pipeline at great expense to the State-  
15 so there is every benefit to this State and ability to  
16 have gas to use if the delivery of that gas would go  
17 across the State of Alaska as opposed to across Canada.  
18 And then of course there's the environmental problems  
19 if we're taking anything across any Arctic wildlife  
20 refuges that we're not very happy about; and then there's  
21 the obvious national benefit of not getting involved in  
22 balance of payment deficit while all that going across  
23 Canada, and at the same time if we're really sincere about  
24 keeping good relations with Canada we're sure that the  
25 Robert Frost poem about 'Good Fences Make Good Neighbors'

1 might also help because as the northern tier State until  
2 you're doing business with the Canadians in energy re-  
3 sources can be a warm matter (if you want to ask for a  
4 pun) -but the heat can come out of those exchanges.

5 \*

6 So if we're going to find gas up there, what kind of gas  
7 line, where we're going to go - I would hope that the FEA  
8 and other people would support us in this desire to put  
9 this gas line that we're presently concerned with and any  
10 other if we find what may be found up there across Alaska  
11 to continue.

12 \*

13 Let me address the State government and demands upon the  
14 State government. There are some obvious demands that  
15 will hit State government when there's any major develop-  
16 ment in the State - in land use planning how do you manage  
17 the land. That becomes a severe problem, not just out  
18 there in Washington but in paper work, in management de-  
19 cisions within the Administration - in our Joint Federal-  
20 State Land Use Planning Commission, I'm sure you can hear  
21 that addressed in detail later from Mr. Parker and others,  
22 but within the State government in the community and  
23 regional affairs. Yes our communities are impacted but  
24 what happens within the State government in just management  
25 problems, and meeting the paper work requirements, staffing  
and benefits and so on.

1 We know that our highways are destroyed and that we need  
2 additional funds from the U.S. Congress because there is  
3 not as you know in the highway funds now money for main-  
4 tenance of highways; they'll help you build one but not  
5 maintain it. If we have three hundred million dollars  
6 worth of damage on our highways in one year because of  
7 this particular pipeline being built now what will this  
8 do to any other damages in the State? We can get money  
9 from the Federal Government to build runways and airport  
10 assistance under some programs but what about maintenance?  
11 What about an airport that is built to handle Supercubs  
12 and now we're landing Hercules on them! When we go for  
13 maintenance money this takes an Act of Congress often.

14 \*

15 This needs to be taken into consideration - that what may  
16 fit the Washington definition of assistance on a new pro-  
17 ject, when you start to impact a state under any kind of  
18 assistance - we may need some new definitions. I would  
19 hope that this study and the study coming as the result  
20 of the President signing the bill the day before yesterday,  
21 would go beyond the initial stage and start looking at oper-  
22 ation, maintenance and management costs for ths State.

23 \*

24 This is one more example (Jack please don't be offended at  
25 me bringing this up one more time because every time we

1 have a hearing I do) - this is one more example of where  
2 the energy resources of the State of Alaska are going to be  
3 developed because of the national and international energy  
4 crisis, and yet the amounts of money supplied to the State  
5 Energy Office and the State of Alaska by the Federal Energy  
6 Administration, to work on energy-management problems, is  
7 the smallest amount of money of any single State in the  
8 United States - we get even less than Iowa, Kansas, some  
9 States with minimal energy problems other than the standard  
10 supply. Here we're faced with the problem of the largest  
11 energy-management problem of all the States - we receive  
12 less financial assistance from the Federal Energy Admini-  
13 stration than any other State.

14 \*

15 We would like to see that drastically changed and changed in  
16 a hurry. We have nothing but the highest compliments to  
17 pay to Fred Chiei, his terribly overworked staff (and that  
18 needs to be increased to some large degree) - to enable him  
19 to give us the assistance that we need in interpreting  
20 Federal Energy Administration paper work, regulations, new  
21 hearings, new bills, new plans which are all required.  
22 The management difficulties facing the State are often over-  
23 looked - we look in terms of how many new miles of road,  
24 how many new miles of pipeline, of airport facilities - but  
25 it goes much deeper than that - it's a huge management

1 problem - because we have those efforts and those problems  
2 to carry on with what we had before this development.

3 \*

4 I am reminded of the fellow who said "I have employee  
5 relation problems every day and I am self-employed". When  
6 you add two or three hundred more employees under some of  
7 our Commissioners, some of our Department heads, Division  
8 heads - and you have that many more people to worry about  
9 when they go out on strike, then the whole administrative  
10 problem becomes rather severe.

11 \*

12 We are also good on planning in this Administration, and in  
13 public participation, and in listening to what the public  
14 wants. Hearings like this we hold once a day and tomorrow  
15 we'll hold one up in Barrow - and on Saturday. But then  
16 you can believe that this is going to be a continual debate  
17 in the State of Alaska - and there are sizeable issues that  
18 come up as the result of this. I'll give you one specific  
19 example: we built a haul road to help build the pipeline for  
20 the oil - now what happens to that haul road? That is con-  
21 suming a great deal of time in the State, in the Legislature  
22 and in Growth Policy Council, in the Division of Policy  
23 Planning Development in my office. What do we do with  
24 that haul road - what will it cost - how will it be maintained  
25 and all that stuff!

1 So there are tremendous sideline issues much after you're  
2 gone, many peripheral things that require a lot of manage-  
3 ment analysis and time.

4 \*

5 Those things all need to be considered and considered well  
6 because of the national energy crisis.

7 \*

8 If I might just briefly then talk about the internal energy  
9 requirements of this State and what a major impact like  
10 this can do to us and can do for us. We see this as an  
11 opportunity, we see this as an additional opportunity with  
12 perhaps the purchase of whatever we can find up there as  
13 royalty doesn't really fit since this is your product, but  
14 the possibility of petro-chemical plants if we're talking  
15 about gas - obviously we need refining capacity to meet our  
16 own needs here within the State of Alaska, and we will for  
17 years and years to come. Will this be an additional source  
18 of product to meet our needs here - we'd like to know that  
19 and we'd like to work in a development program. So that  
20 is an option.

21 As part of the reserve program within the Energy Conserva-  
22 tion Policy Act of 1975 we know there is going to be as the  
23 result of some of this development reserves stored as we  
24 talked earlier this morning and we would like to have our  
25 stored in Alaska (if that's the case) if any of it is to  
come out of PET 4.

1 There is a section as I understand it, and I can be easily  
2 corrected if I'm wrong, but there is a part of the develop-  
3 ment of PET 4 which involves saving some of it for the use  
4 of small refineries - small refiners and smaller companies.  
5 Well, to meet Alaskan requirements we don't need the large  
6 California or Texas size, we would hope that if that is the  
7 case that some of this crude can be used by the people here  
8 in the State of Alaska so we no longer have to pay that  
9 additional transportation cost from California or whatever.  
10 And as I discussed with Mr. Davies at breakfast this  
11 morning, although we do not fit the Customs receipts de-  
12 finition of an importer because we're not importing from  
13 Indonesia (and we do view California somewhat friendlier  
14 than Indonesia) we are still an importer in the State.  
15 Anything that comes in on a boat or airplane rather than  
16 driven across we have to import at some expense because  
17 of the distance of our finished products - and sometimes  
18 we can't get them in time. We've had extreme shortages  
19 of diesel fuel for our generators and we've had to work  
20 very carefully with Mr. Chiei who has been exceedingly  
21 helpful in finding product and redistributing product so  
22 we can meet our initial requirements in the State.

23 \*

24 If it's crude oil and if there is a clause and if there is  
25 a provision (as I think there is) that some of the PET 4

1 product can be used for the smaller refiners - we think we  
2 meet that and we would hope that-that be made available  
3 here. And the same if we discover gas - we would like to  
4 see that gas made available for use within the State.

5 \*

6 I don't necessarily mean in the case of gas that we would  
7 like to see it used to produce electricity, we think that  
8 indeed is folly, but both in gas and oil we can be very  
9 well an exporter of product, to Canada perhaps, to our  
10 sister-States down below (as we refer to them, or outside)  
11 and indeed perhaps to the far east - adding a great deal  
12 to the balance of payments in our international trade  
13 situation. We are in a strategic transportation cross-  
14 roads of the world and I think we can add a great deal to  
15 the international marketing efforts of the United States.  
16 We would like to see those kinds of high capital-intensive  
17 well-paying good jobs, environmentally safe kinds of in-  
18 dustrial development in the State in spite of what some of  
19 our detractors might say.

20 \*

21 So we would hope there is a provision for the use to meet  
22 the energy requirements and industrial possibilities within  
23 the State of Alaska. There is another part of this de-  
24 velopment project though which is perhaps less obvious to  
25 you and that is, when you do come into the State you become

1 to some degree an energy drain upon the State, in that you  
2 will be requiring not only for your project but for the  
3 people involved in your project in their homes, their auto-  
4 mobiles, their childrens classrooms, an additional energy  
5 drain on our supply, much of which is imported right now.  
6 This causes severe problems, it causes pricing difficulty,  
7 the supply and demand slowly and surely inch their way up,  
8 and just the actual supply itself of product.

9 \*

10 We are in a severe problem right now of several of our  
11 communities because of the lack of supply - we have problems  
12 in Fairbanks which is certainly not a rural community, -  
13 we take much for granted in this effort. In the Barrow  
14 area, the North Slope, it's a miserable situation if the  
15 barges don't get through. I would certainly hope that in  
16 any planning for any development or before that exploration  
17 and then development that the PET 4 or Interior lands -  
18 that the energy requirement is met, planned for from ex-  
19 ternal sources, paid for by external sources - so that we  
20 don't have to worry, my office does not have to worry - is  
21 what will the impact of this be on Bethel or Egichik or  
22 Cold Bay or Fairbanks, Anchorage or wherever - that there  
23 will not be a shortage of product if that is planned for -  
24 for storage or whatever.

25 \*

1 And finally we would hope that the whole effort is looked  
2 at as a total systems approach so that we don't discover  
3 some mistakes down the road - that the timing is consider-  
4 ed, and that work with the other developments efforts -  
5 that this isn't going on alone, that this is one energy  
6 effort within the State of Alaska, that this is one ex-  
7 ploratory effort within the State of Alaska.

8 \*

9 We have other people looking for other things, we have  
10 ERDA looking for uranium, we have mineral peoples looking  
11 for copper and other things. With the price of gold in  
12 London we even have a few guys on mules looking for gold  
13 again. We would hope that the exploration efforts  
14 and/or the developments would be timed and would take into  
15 consideration at least these other developments. If the  
16 Native Corporations, as an example Doyon is doing a great  
17 deal of exploration on its lands, we don't know what all  
18 the others might be, we don't know what the wildcatters  
19 if there are any or the majors might have in mind, but as  
20 you're discussing with them that this would devolve into  
21 some sort of systematic thought-out approach so that we  
22 don't have more problems than perhaps are necessary.

23 \*

24 I think Mr. Chairman that I have said what I have to say  
25 without saying perhaps something I shouldn't. I will

1 find that out of course after the Governor reads my  
2 transcript - whether I've said something I should not  
3 have.

4 But once again, on behalf of Governor Hammond and the rest  
5 of the State officials who are working with you, we are  
6 sincerely appreciative of your coming to the State with your  
7 views and to hear our views and the views of the citizens  
8 of our State. Thank you!

9 \*

10 CHAIRMAN ROBERTSON:

11 Thank you Mr. McConkey for that complete and thoughtful  
12 statement on behalf of the State of Alaska.

13 I would ask the members of the panel if they have any  
14 questions of Mr. McConkey?

15 DR. DAVIES:

16 I would like to make one comment first - two days ago the  
17 President signed a Bill authorizing the production of Naval  
18 Petroleum Reserves and the transfer of NPR 4 to the  
19 Department of Interior -you mentioned in your remarks he  
20 set aside from this production for small refiners - neither  
21 the Bill that the President signed two days ago nor the  
22 Energy Policy and Conservation back in 1975 authorized any  
23 production of Naval Petroleum Reserves 4. The Bill that  
24 was signed a couple of days ago of course did authorize  
25 production from the other Naval Petroleum Reserves and a

1 business set aside. Part of this study that we are doing  
2 and a follow-on study required by the bill that was signed  
3 two days ago will require us to examine methods and pro-  
4 cedures for the exploration and ultimate development of  
5 NPR 4, which could include as is suggested small business  
6 set aside as part of the study that could be included.

7 \*

8 One comment you did make that intrigued me and I'd like to  
9 follow up with you for a minute on it, is when you mentioned  
10 about the additional energy drain as the result of the de-  
11 velopment - and the obvious example we have is the current  
12 pipeline construction. Does the State or anyone else  
13 that you know of have any data on just what that additional  
14 requirement is as the result of the construction?

15 MR. McCONKEY:

16 Well yes, in a couple of ways - I don't know whether Fred's  
17 office has tried to separate it or not but we do have from  
18 Revenue Department the amount of fuel that is sold here;  
19 we also have that amount which is purchased by the indivi-  
20 dual large contractors and so on. In Fairbanks there  
21 have been additional studies made by the Fairbanks impact  
22 organization people in measuring that in all sorts of  
23 consumer effects.

24 My office got into the act much too late to set up an  
25 organizing effort tracking them. To answer your question

1 yes, there is some data in various formats that can be  
2 found and supplied. Some of the concerns are very  
3 specific, construction, lack of storage around the con-  
4 struction site and then having to fly the stuff back in  
5 just drains your aviation gas which you're not really  
6 counting on.

7 So the thing is a very complex matter that causes the  
8 shortages just like the Domino Theory - what happens up  
9 here I may run out over here - because we do keep this  
10 kind of facts. Now we are at a fraction of one hundred  
11 percent of the current requirements - we have not run out  
12 per se except that we have had some juggling problems at  
13 times and we do not want to ever run out or to be in that  
14 position, we want this planned for.

15 CHAIRMAN ROBERTSON:

16 I'll ask Mr. Chiei to respond from the standpoint of his  
17 office.

18 MR. CHIEI:

19 To answer your question we do have records that show the  
20 fuel requirements as used by the line contrasted to its  
21 effect of impact on the civilian requirements - so those  
22 would be available to all who want through the local office.

23 MR. McCONKEY:

24 Thank you.

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CHAIRMAN ROBERTSON:

Any other questions?

DR. DAVIES:

My other comment was on the haul road, you say the State has not made any determination yet as to whether the -- as to the ultimate disposition of the haul road?

MR. McCONKEY:

That is correct.

DR. DAVIES:

Do you think that disposition will be made before we have to conclude this study?

MR. McCONKEY:

No sir -- and that's without knowing when your study has to be really complete

DR. DAVIES:

June of this year.

MR. McCONKEY:

No sir.

CHAIRMAN ROBERTSON:

Mr. McVee!

MR. McVEE:

I have a question Bill - you mentioned about the impacts development would have upon the lands and concerns and probably Commissioner Parker would speak more to this -- I am very interested in that comment. It is something we

1 are concerned about at BLM - the question is though that  
2 those geologic structures up there may not recognize the  
3 artificial boundaries of the Petroleum Reserve - and the  
4 Native Corporations have selected several million acres on  
5 the Slope and the development of those acres, if they do  
6 make a find of oil and gas on them I imagine will have  
7 similar type impacts as to activities within the reserve.  
8 Has there been any thought given in the State Government  
9 whereof it might tie the controls or development or con-  
10 straints on those private lands similar to what would occur  
11 on PPET 4?

12 I think we're all in the same boat and we're all concerned  
13 about impacts of development yet we're dealing with two  
14 separate things, Federal lands and private lands.

15 MR. McCONKEY:

16 Well as you know the whole impact of all this, for example  
17 the OCS development, the coastal zone management, D-2 land  
18 proposals and the whole question of land management in the  
19 State has received a tremendous amount of attention and I  
20 really prefer that for specific answers you refer this to  
21 Mr. Parker to go into a lot of detail.

22 But the very thing - the question that you asked brings up  
23 the general point I'm trying to make and that the other  
24 people can answer in detail, is that it does require a lot  
25 of study and it does require a lot of management and the

1 fact that you say let's cooperate with somebody else -  
2 well, WHO cooperates? Government is not an 'IT' it is a  
3 group of people. It's the overall administrative manage-  
4 ment factor that is beginning to be a burden and very  
5 difficult to carry. This is something that is overlooked  
6 when we start measuring in there.

7 \*

8 Again I would refer you to Commissioner Parker to give  
9 you specifics. Yes, we have looked at it time and time  
10 and again, it's fundamental that when you build something  
11 you have something to build it on whether it's a road or  
12 anything else. Land management is a severe thing!  
13 And lawsuits I might add - every time the Sierra Club wants  
14 to do something that costs money - or anybody else. We  
15 don't know what kind of lawsuits come out at any time in  
16 these things and that's an additional contingency fund -  
17 you know the Trespass Case - and it can go on and on and  
18 on, these lawsuits. That's another one by the way you  
19 might want to look at.

20 CHAIRMAN ROBERTSON:

21 Any other members of the panel have any questions?

22 (NO RESPONSE).

23 I now call on the next speaker, Mr. Keith Arnold, Public  
24 Relations Representative, Alaska Oil and Gas Association  
25 Anchorage - - do I have that right Mr. Arnold?

1 MR. ARNOLD:

2 That is correct, yes. Chairman Robertson, members of the  
3 hearing panel, my name is Keith Arnold, I am Secretary to  
4 the Alaska Oil and Gas Association, which is an organization  
5 of 29 oil companies active or with interest in oil and gas  
6 operations in Alaska. We appreciate this opportunity to  
7 appear before your hearing today. The comments I will  
8 offer represent a general consensus of our member companies  
9 regarding the potential exploration of Naval Petroleum  
10 Reserve No. 4.

11 While this 37,000 square mile area is recognized as a known  
12 petroleum province, private industry has not been allowed  
13 to conduct exploratory operations there since President  
14 Harding set aside the area in 1923. I will briefly  
15 summarize the extent of the Federal government's effort  
16 since that time:

17 Oil seeps in what is now NPR 4 was still public domain, two  
18 groups of oil claims were staked in the area of the seeps,  
19 but these claims lapsed when NPR 4 was established in  
20 February of 1923. At that time the Navy invited the  
21 Geological Survey to examine the Reserve and provided funds  
22 for this work. Consequently, from 1923 to 1926 the  
23 Geological Survey did a limited amount of exploratory  
24 geological and topographic work in NRP 4.

25 \*

1 After 1926 the Navy's interest in NPR 4 waned and no  
2 geological or other exploratory work was conducted in the  
3 Reserve on the Navy's behalf until 1943 when the known oil  
4 seeps were re-examined by the Bureau of Mines. In early  
5 1944 the Navy was persuaded to send a reconnaissance party  
6 into the Reserve and the observations and conclusions of  
7 this group were responsible for the Navy's initiation of the  
8 PET 4 project in the middle of 1944.

9 \*

10 The PET 4 program under the direction of the Navy, continued  
11 until the fall of 1953. Civilian consultants and contrac-  
12 tors were used. Originally a detachment of officers and  
13 men of a Naval Construction Battalion provided administra-  
14 tive and technical assistance and a work force, but the  
15 Naval personnel were soon phased out and the PET 4 project  
16 became a civilian contract operation under control of the  
17 Navy. Geologists of the Geological Survey, funded by the  
18 Navy, provided geological services.

19 \*

20 During the ten year life of the PET 4 project, 36 test wells  
21 and 44 core holes were drilled, for a total footage drilled  
22 of 169,250. Additionally, 67,000 square miles were  
23 covered by the seismograph, 75,000 square miles were covered  
24 with the airborne magnetometer, and 26,000 square miles were  
25 covered with the gravity meter. The entire Reserve was

1 covered by aerial photography, and 21,000 square miles  
2 were mapped geologically to some degree of detail. The  
3 total cost was \$47,615,255.

4 \*

5 For this effort and expenditure the Navy found gas at  
6 South Barrow, Gubik, Wolf Creek, Oumailik, Meade and Square  
7 Lake. Only at South Barrow has the gas been put to bene-  
8 ficial use and to the end of 1974, cumulative production  
9 totalled about a billion cubic feet. Areal extent of the  
10 field is small and major reserves are not believed to be  
11 present. Gubik is estimated to have reserves of 22-  
12 billion cubic feet. There is not sufficient data to  
13 estimate reserves in the other areas.

14 \*

15 Oil was found at Umiat, Simpson and Fish Creek. Estimates  
16 of reserves at Umiat vary widely, but 70 million barrels is  
17 generally accepted. At Simpson, a highly speculative  
18 estimate of reserve is 12 million barrels. No reserve  
19 estimates can be made for the Fish Creek accumulation be-  
20 cause of insufficient data.

21 \*

22 After the PET 4 operation was terminated on 1953, the Navy  
23 essentially did no exploration in the Reserve until 1974.  
24 A few development wells in the South Barrow gas field were  
25 drilled to supply the local market at Barrow, but no

1 geological work and no geophysical work was done, and no  
2 exploratory wells were drilled until 1974. Meanwhile, the  
3 Reserve was 'off limits' to private industry and exploratory  
4 work was conducted by private companies was not permitted.

5 \*

6 In 1974 the Navy began a seismic program and also commenced  
7 a limited drilling program. Two wildcats were completed  
8 in the 1974-75 drilling season. In 1975 a contractual  
9 arrangement was set up for the continuation of seismic work  
10 and exploratory drilling by a private contractor under the  
11 control of the Navy. Unfortunately, the Navy refuses to  
12 make public their recently acquired seismic data and the logs  
13 and other information from their recent drilled exploratory  
14 wells so that a reasonable estimate of the oil and gas re-  
15 serves of NPR 4, using all available information, is not  
16 possible.

17 \*

18 However, it is apparent that the Navy's record through the  
19 years in exploration and development of the potential pet-  
20 roleum resources of NPR 4 has not been significantly  
21 successful

22 \*

23 It is the contention of our Association that the most effec-  
24 tive, cost-efficient program for oil and gas exploration in  
25 this huge area can best be done by competitive private

1 year-round. If operations in any part of the Arctic  
2 are conducted without some environmental care as those at  
3 Prudhoe Bay, the overall ecological picture should not  
4 change. We recognize and support the fact that there  
5 can be no relaxation of present oil company environmental  
6 policies. These policies in concert with the State and  
7 Federal regulatory agencies that monitor all oil company  
8 activities should assure safe environmental operations.

9 \*

10 Until recent oil discoveries, Arctic Alaska was one of the  
11 more economically depressed areas of the State. It was  
12 basically a subsistence economy. Since operations in  
13 Prudhoe Bay started, many local residents have made the  
14 choice to work in the oil field either to supplement their  
15 subsistence existence or to develop a total cash economy.  
16 Continued development in the Arctic could aid in relieving  
17 the slump anticipated following Prudhoe Bay development  
18 and construction of the Trans-Alaska pipeline. Further,  
19 the local residents that have been trained for oil field  
20 work would have the alternative to subsistence living if  
21 there is additional exploration and production in new areas  
22 of the Arctic slope, without having to relocate to other  
23 areas of Alaska or the Lower 48.

24 \*

25 \*

1 In conclusion, the Alaska Oil and Gas Association is of  
2 the belief that the free enterprise system, through  
3 private competing petroleum companies, would provide the  
4 most efficient comprehensive exploration program in NPR 4.

5 Thank you!

6 CHAIRMAN ROBERTSON:

7 Thank you Mr. Arnold for that statement. Any questions  
8 from members of the panel? (NO RESPONSE). Thank you  
9 Mr. Arnold.

10 Is Mr. John Cook in the room - please come forward. Our  
11 next speaker is Mr. John Cook, Research Archeologist,  
12 University of Alaska, Institute of Arctic Biology at  
13 Fairbanks, do I have that right Mr. Cook?

14 MR. COOK:

15 Yes sir. However, I am really speaking as a professional  
16 archeologist rather than as a representative of the University

17 \*

18 I have worked up in the northwestern part of Alaska along  
19 the Kobuk quite a bit and I have been responsible for the  
20 archeology along the present Trans-Alaska pipeline for the  
21 last seven years. The archeology may be a sort of a  
22 minor constituent of the environment to a lot of people,  
23 however, it is a nonrenewable resource, it's part of the  
24 cultural heritage of not only the State but also the nation.  
25 This is recognized by a number of Federal-State regulations

1 and the establishment of the National Register - historic  
2 places, sites and so on, which have a bearing upon (like  
3 I say) the cultural heritage of the nation.

4 \*

5 Mr. Arnold just now gave a fairly succinct summary of ex-  
6 ploration of NPR 4 - since 1923 there have been less than  
7 fifty archeological sites located in the area. Now this  
8 is a fairly large area and if you'll look at the regions  
9 immediately contiguous to NPR 4 you will find that there  
10 are over five hundred archeological sites on the State  
11 inventory. Before Alyeska began their operation there  
12 were essentially no known sites along the present pipeline  
13 route, there are now over three hundred sites either  
14 directly on or impacted by the pipeline.

15 \*

16 I see no reason why this situation won't also be in NPR 4,  
17 particularly along the foothills and around the coast.  
18 There must be (I would estimate) well over a thousand sites.  
19 Now some of these sites undoubtedly are not going to be of  
20 great cultural value however, many of them may very well be  
21 eligible for the National Register. It is incumbent  
22 upon any Federal agency to prepare inventories (Executive  
23 Order 11593) which is five years old, and to date nothing  
24 has been done toward compiling such an inventory for NPR 4.  
25

1 A fair amount of money has been spent toward exploration  
2 although as Mr. Arnold mentioned, not a tremendous amount.  
3 To my knowledge \$5,000 has been spent for any sort of  
4 inventory of archeological resources, and that only was  
5 in the last year.

6 \*

7 The archeological requirements for any sort of environ-  
8 mental impact statement are fairly specific. There are  
9 many rules and regulations - - I believe Mr. Cahill will  
10 adress himself to this-this afternoon. Primarily there  
11 are three major topics that I would like to mention - first  
12 of all, the existing setting. As I have mentioned,  
13 almost nothing is known of NPR 4 vis-a-vis cultural re-  
14 sources. With less than fifty known sites within the area  
15 probably a thousand and quite likely more than a couple of  
16 thousand are part of this existing setting.

17 \*

18 To give a more accurate picture for any environmental impact  
19 statement at least three things should be done: first, a  
20 thorough examination of these known sites, both within NPR 4  
21 and the immediately surrounding areas. This must be  
22 accomplished to identify characteristics that will further  
23 identify sites within NPR 4.

24 \*

25 \*

1 Based upon this a predictive model should be built. This  
2 would involve an area by area probability statement of the  
3 existence of archeological sites. A major portion of  
4 NPR 4 might be eliminated from consideration in this EIS  
5 if definite construction areas, seismic lines and transport-  
6 ation corridors are specifically delineated.

7 When I went up there this last fall to look at the proposed  
8 drilling sites near Teshekpuk we located the drilling sites  
9 (there are two of them) fairly accurately they had been  
10 staked, however, there were no plans for transportation of  
11 materials or personnel into the drilling sites. I under-  
12 stand, strictly through the grapevine, that the drilling  
13 rigs have been pulled into Teshekpuk to the drilling sites.  
14 No consideration was given to any sort of impact on archeo-  
15 logical sites during this transportation - so that planning  
16 of any kind of construction after this must go hand in hand  
17 with some sort of environmental cultural resource planning,  
18 otherwise we are going to lose a fairly large amount of  
19 sites. We would have lost all of the ones along the pipe-  
20 line if we had not gotten in well prior to construction of  
21 the pipeline and the holdover.

22 \*

23 The second major aspect of the planning would be the impact  
24 of any proposed action. Although this deals primarily with  
25 the direct impact of exploration and evaluation the secondary

1 impact and sometimes long-term impact must be considered.  
2 There are several sources of direct impact but all of them  
3 involve alteration of the terrain; location of the base(s)  
4 of operation, survey operations and exploratory drilling  
5 operations.

6 Now as to the bases of operations, many of these bases of  
7 operations will be along the coast, or I imagine most of  
8 them will be. This is where the larger Eskimo habitations  
9 have been. Some of them go back - there is one site at  
10 Walakpa Bay right outside of Barrow which probably goes  
11 back some ten thousand years. Any base of operations  
12 will undoubtedly have a major impact upon cultural resources  
13 of this nature.

14 \*

15 The survey operations: take-off points and specific routing,  
16 the vehicle type, the amount of snow cover - many of these  
17 plans involve winter operations. However, up there the  
18 snow cover is very, very slight and even such vehicles as  
19 Rolligon or air-cushion vehicles will disturb a site. The  
20 sites are basically surface sites, five to ten centimeters  
21 deep - a Rolligon is used on these sites.

22 \*

23 As to the drilling operations: the pad for the actual drill-  
24 ing site requires a fair amount of gravel - or at least this  
25 is in one of the earlier plans. Where is this gravel

1 It usually comes from tame terraces and small knolls,  
2 tic terraces. These are the ideal hunting locations  
3 for all of the aboriginal people, both Eskimo and  
4 Athabascan in the area. The gravel operations will un-  
5 doubtedly have impact upon these kinds of sites and this  
6 must be taken into account.

7 \*

8 The third major aspect of the operation from a cultural  
9 resource management standpoint is mitigation of the impact.  
10 The Historical Preservation Act, NEPA, all have procedures  
11 for setting up mitigation of impact. These should be  
12 implemented or at least planned for as soon as possible  
13 because some sites will require a fair amount of excavation  
14 if construction or drilling operations have to go in at  
15 that particular place. The pipeline has been a very good  
16 case in point. Many times the pipeline has to be re-  
17 routed or the haul road rerouted slightly to avoid a major  
18 archeological site - and several of these are being nomin-  
19 ated to the National Register. There are (as far as I  
20 know) no known sites in NPR 4 that are on the National  
21 Register but I am sure we have several that are eligible  
22 or may be eligible for the Register.  
23 It is to this point that I urge very strongly the inclusion  
24 of cultural resource management of this nature in the  
25 initial planning for NPR 4.

Thank you!

1 CHAIRMAN ROBERTSON:

2 Thank you Mr. Cook. Any question from members of the  
3 panel?

4 MR. McVEE:

5 Yes, I have a question of Dr. Cook. The Executive  
6 Order as I understand it, really gives the Federal Agency  
7 no option because it is a requirement that they do the  
8 inventory evaluation to determine whether they have poten-  
9 tial for admission to the Register or not. Just from the  
10 number that you've given here, approximately ten thousand  
11 sites and size of the area, I would anticipate that-that  
12 type work would be a pretty substantial project. Do you  
13 have any ideas in terms of budgetary requirements of what  
14 it would require to do that?

15 MR. COOK:

16 Well I mentioned (you say ten thousand) I'd say one thousand  
17 to two thousand perhaps - I would estimate, and I have pre-  
18 pared some figures at one time or another, that it would  
19 cost on the order of about three-quarters of a million  
20 dollars. (I can have those figures for you if you like).

21 MR. McVEE:

22 Very good - thank you.

23 CHAIRMAN ROBERTSON:

24 Any other questions from the panel?

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DR. DAVIES:

You mentioned along the construction of the pipeline that before there were no known sites and now there are about three hundred, would you describe for us the procedure that was followed to find these sites and preserve them?

MR. COOK:

Basically a foot-survey of the entire proposed line - we started in 1969, went through '71 and then there was a hiatus for a while and then again in '74 and '75. The procedure was not following the pipeline stipulations, we actually did far more than the stipulations required - and this is something that should be kept in mind. The present pipeline stipulations are very, very poor as a precedent for any cultural resource management. We surveyed ahead of any construction wherever Alyeska believed they would be using materials, setting up camps, or where they thought the pipeline or haul road was going. On finding a site we would report to them that we had a site, that it would require such and such a time to excavate if they wanted to continue using that particular site, say a gravel bed, and they would make a determination on whether or not they would go ahead. Invariably they went ahead and used the material after we had finished excavating the site.

\*

1 DR. DAVIES:

2 Who specifically did the exploration and at what cost?

3 MR. COOK:

4 The University of Alaska was under contract to Alyeska  
5 for the northern portion of the pipeline; Alaska Methodist  
6 under Dr. Workman was under contract for the southern part,  
7 roughly from Glennellen south. The costs, you probably  
8 should ask Alyeska for the exact costs, I don't really know,  
9 but it was in excess of a million dollars.

10 CHAIRMAN ROBERTSON:

11 Any further questions from members of the panel?

12 MR. McCONKEY:

13 In case of the University contract, who actually specifically  
14 performed that work?

15 MR. COOK:

16 I was the principal investigator for the northern part.

17 MR. McCONKEY:

18 And your share of the million dollars was approximately how  
19 much?

20 MR. COOK:

21 No, that was ours.

22 MR. McCONKEY:

23 Your share was approximately one million dollars and AMU  
24 was?

25 \*

1 MR. COOK:

2 Well actually it was more than that.

3 MR. McCONKEY:

4 More than a million dollars!

5 MR. COOK:

6 Alyeska probably doesn't want me to give out those figures.

7 MR. McCONKEY:

8 Yes, okay, fine. Did you use students and so on - can  
9 you give me any idea what size staff would be required to  
10 do that work?

11 A. In 1974 we had seventy-six (76) people; in 1975 we had  
12 fifty (50) people fulltime during the summer operation;  
13 during this last winter we had eleven (11) people fulltime  
14 doing analysis work.

15 MR. McCONKEY:

16 How many of those people were students?

17 MR. COOK:

18 Most of them were graduate students.

19 MR. McCONKEY:

20 And they were paid?

21 MR. COOK:

22 Yes.

23 MR. McCONKEY:

24 Could you tell me approximately how much?

25 \*

1 MR. COOK:

2 It switched around because we ran afoul of the State Labor  
3 Laws in '74 - they were paid approximately \$40.00 a day  
4 we had arranged it that way, and then they worked overtime-  
5 and then the State changed their Labor Laws somewhere in  
6 there and we had to pay them overtime so it went up from  
7 there. They were paid not obviously Union scale but far  
8 better than any other archeological crew anywhere in the  
9 country, besides getting room and board.

10 MR. McCONKEY:

11 Plus room and board - provided by Alyeska?

12 MR. COOK:

13 Yes it was.

14 MR. McCONKEY:

15 So that was in addition to the x-number of dollars they paid  
16 them they also provided room and board!

17 MR. COOK:

18 And transportation.

19 MR. McCONKEY:

20 AND transportation?

21 MR. COOK:

22 But not from the Lower '48.

23 MR. McCONKEY:

24 But from the University in Fairbanks!

25 \*

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MR. COOK:

Helicopters transported them.

MR. McCONKEY:

Helicopters! That was quite a costly thing for Alyeska and quite a rewarding thing for the University.

MR. COOK:

Yes.

MR. McCONKEY:

The Institute of Arctic Biology works on a similar thing - the one I'm familiar with is the Geophysical and Geological Institute as far as funding - most of your money comes from contracts and grants, what percent of it would you say?

MR. COOK:

Well I see Vice President Ray is in the audience here and I think he probably would be more appropriate to answer that question than I am.

MR. McCONKEY:

What percent of funding for this particular Institute comes from State taxes for maintenance?

MR. COOK:

I honestly don't know.

\*

CHAIRMAN ROBERTSON:

Are there any other questions from the panel? (NO RESPONSE).  
Thank you Mr. Cook.

1 CHAIRMAN ROBERTSON:

2 Is Mr. Keith Calderwood in the room? Mr. Calderwood,  
3 please state your name and your affiliation.

4 MR. CALDERWOOD:

5 I am Keith Calderwood of Calderwood and Mangus, Consulting  
6 Geologists here in Anchorage.

7 We would like to offer our comments regarding the future  
8 use of Naval Petroleum Reserve No. 4 on the Arctic Slope  
9 of Alaska.

10 As we understand it, the original intent in creating the  
11 reserve was to assure that a supply of petroleum was avail-  
12 able on the west coast for Naval operations. Since the  
13 Reserve was formed in 1923 pipelines have been built to the  
14 west coast thus assuring that petroleum could be supplied  
15 for Naval and other Military operations, particularly  
16 during periods of war or national emergency.

17 We recommend that the Reserve be explored and developed by  
18 those who specialize and have expertise in petroleum ex-  
19 ploration and development. We believe that the Federal  
20 Government should not compete in such developments, but  
21 should assume a role to foster competition within the  
22 petroleum industry. Traditionally the small or indepen-  
23 dent oil companies have been very successful in producing  
24 oil economically and therefore they should not be elimin-  
25 ated from participation by monetary competitive bidding.

1 Possibly a minimum bonus bid with exploratory work commit-  
2 ments would be appropriate.

3 \*

4 Environmental regulations are necessary to avoid destruc-  
5 tive development, however, unnecessary regulations should  
6 be avoided as these increase costs excessively and delay  
7 completion of projects.

8 \*

9 In conclusion, it is our recommendation that NPR 4 be  
10 opened to exploration and development by the petroleum  
11 industry and that oil produced therefrom be utilized to  
12 increase the U.S. supply and thus help to avoid shortages  
13 and dependence on oil importation from foreign countries.

14 Mr. Chairman, that concludes my comments!

15 CHAIRMAN ROBERTSON:

16 Thank you Mr. Calderwood. Are there any questions from  
17 members of the panel? (NO RESPONSE). Thank you for  
18 your statement Mr. Calderwood.

19 \*

20 We are running somewhat ahead of schedule - I want to  
21 announce that we now have additional copies of the opening  
22 statement on the table at the back of the room if you would  
23 like to have copies; also copies of the agenda for those  
24 who have signed up - if you wish to make statements, that  
25 is also on the table at the back of the room.

1 Is there anyone who has signed up to be heard at this time  
2 that would like to be heard now? (NO RESPONSE).  
3 If not, we will recess until 11:00 o'clock.

4 ABOUT

5 THIRTY MINUTE

6 RECESS

7 HERE.

8 \*

9 \*

10 CHAIRMAN ROBERTSON:

11 We are now back in session. Our next speaker will be Mr.  
12 Benjamin Nutall - will you please identify yourself and  
13 your affiliation.

14 MR. NUTALL:

15 My name is Benjamin Nutall and my affiliation is in the  
16 interest of minority time-factors (sic) who might be going  
17 on this pipeline. I am here to speak and ask questions  
18 on this: will minority business be shuffled in the background  
19 by the giant oil companies?

20 CHAIRMAN ROBERTSON:

21 We are not here to handle questions of that sort - what  
22 we'd like to have you do is express your concerns so that  
23 we can make sure that we take care of the points that you  
24 bring up in our report to Congress. So if you will just  
25 bring up your concerns we will be pleased to have them and  
to work on them.

1 MR. NUTALL:

2 Will the Federal agencies act on business as far as  
3 getting their fair share of contracts in the PEF 4 area?

4 CHAIRMAN ROBERTSON:

5 Please continue!

6 MR. NUTALL:

7 Because in the other pipelines that I've seen and heard  
8 about the minority business where - - you know - - say  
9 this firm will be allotted the business but never receive  
10 the contracts.

11 CHAIRMAN ROBERTSON:

12 I understand. Are there some other points that you'd  
13 like to bring up?

14 MR. NUTALL:

15 Yes. Is the Navy going to handle the allotment of the  
16 contracts or will a private company handle them?

17 CHAIRMAN ROBERTSON:

18 Please continue!

19 MR. NUTALL:

20 I also feel that in this area when you give the contracts  
21 out to say like the small businesses and say 'okay, if  
22 you're on my 8-A Program will there be assistance by  
23 Federal agencies as far as like if a company or small  
24 business or minority business do not have funds to go up  
25 there for the contract?



1 Assistant Director and then Director of the Naval Arctic  
2 Research Laboratory. In these capacities I was an em-  
3 ployee of the University of Alaska - and in this position  
4 I was privileged to meet and work with many of the citizens  
5 of the City of Barrow. My family was with me at Barrow  
6 for eleven of those thirteen years, leaving only when our  
7 oldest daughter graduated from the ninth grade and we had  
8 to seek other schooling for her. She still considers  
9 Barrow her hometown.

10 \*

11 The question of the impact upon Barrow and the North Slope  
12 Borough of the exploration and development of Petroleum  
13 Reserve 4 is, in fact, impossible to answer at this time.  
14 The possible impact can range from very minimal to very  
15 extreme.

16 I believe that with caution and good field practices the  
17 Reserve can be explored with a minimum of impact on the  
18 tundra, its wildlife and its human residents. Such  
19 activity as exploration can be monitored and controlled to  
20 prevent a serious mishap. Unfortunately, I also believe  
21 that human nature being what it is, any government organ-  
22 ization responsible for the exploration of the Reserve will  
23 have to consider itself first a police agency and then a  
24 resource management agency. These statements are not  
25 meant to malign any people in industry, but simply to

1 recognize that human beings working in a remote site, far  
2 from the daily scrutiny of outsiders, tend to think that  
3 a little slip or just a little damage doesn't matter. This  
4 is sort of analgous to being just a little bit pregnant.  
5 In dealing with the ecology of the tundra we must insist  
6 on no such practices. Exploration is possible with a  
7 very minimum of adverse impact if done correctly.

8 \*

9 The second part of this question - the impact of development  
10 is far more difficult to ascertain. If oil is discovered  
11 during the exploration phase near Barrow, or Wainwright,  
12 or Nooiksut, or another settlement, there could be a very  
13 heavy impact on those communities. If an oil field is  
14 discovered farther afield, farther away, so that development  
15 personnel and supplies are flown in from the south, the  
16 impact will be minimal as was the case in Prudhoe Bay. It  
17 was actually too expensive for most of the freight, person-  
18 nel and supplies to come through Barrow in the development  
19 of Prudhoe Bay so that the impact was barely noticed.  
20 In fact, the impact in 1970 of the Prudhoe development was  
21 so minor that the city fathers of Barrow complained because  
22 of the lack of employment for Barrow citizens. The major  
23 impact that is happening in Barrow or course is due to the  
24 monies from the Alaska Native Land Claims - and it is pos-  
25 sible that this kind of impact can happen again if oil is

1 discovered farther afield - and notice, IF it is discovered.

2 \*

3 The impact of exploration and development on the ecology  
4 of the animals of the tundra cannot truly be measured,  
5 we can only guess. Generally it appears that the caribou  
6 will not be adversely impacted, their problem appears to  
7 be more concerned with winter range than the summer range  
8 on the tundra. Such animals as the barren land grizzly  
9 and the wolverine appear to be much more vulnerable.

10 \*

11 It is difficult when you talk about the preservation of  
12 the subsistence way of life, and you try to balance that  
13 against the advantages and conveniences of the 20th  
14 Century. I think it is basically known to everyone,  
15 Native and white, manager and worker, private citizen and  
16 political office-holder, that the subsistence way will go  
17 as the people more and more want the conveniences and ad-  
18 vantages to be gained in the 20th Century economy. I do  
19 not know the answer to this and I don't think anyone else  
20 does.

21 \*

22 I don't want anyone to believe that I'm saying you can't  
23 stand in the way of progress because I don't think that is  
24 true. Unwanted growth can be stopped, but when you assess  
25 the living conditions presently in the villages, the lack

1 of hospitals, the lack of schools and the lack of other  
2 amenities that can only come with a cash economy - I think  
3 it is only realistic to assess this situation as I have.  
4 The subsistence way of life will gradually recede as the  
5 dependence on a cash economy grows.

6 \*

7 The Congress in its preceedings, has presently turned the  
8 control and management of Petroleum Reserve 4 from a Navy  
9 responsibility to that of the Department of Interior, and  
10 the President has recently signed this Bill. I have been  
11 asked whether I felt this to be a good or bad move and per-  
12 sonally, I believe the question is moot. Let us not for-  
13 get that control of NPR 4 has always been and still is,  
14 retained by the Congress. Anything done on PET 4 in the  
15 past has been done at the behest of Congress. The only  
16 reason the Reserves were not explored prior to this time  
17 was because Congress did not see fit to authorize and fund  
18 such exploration. We have taken the administration of  
19 Congressional directives from the Navy and passed it to the  
20 Department of Interior. We have taken it from one  
21 bureaucracy to another (excuse me gentlemen). We have  
22 probably lost the experience of these Navy personnel who  
23 have been involved in Petroleum Reserve activities, but  
24 we have gained the knowledge and experience of the U.S.  
25 Geological Survey and the Bureau of Land Management.

1 I think whether or not the change is good or had really  
2 depends on what Congress decides to do with the Reserves.

3 \*

4 In brief, I personally do not believe that exploration  
5 must be detrimental to the environment and the ecology.  
6 It can be conducted with caution and with little impact on  
7 the environment. The research work of the past five to  
8 six years in the International Biological Program, the  
9 research work of the Fish and Game, has pretty well proven  
10 that exploration can be a disruption, but not a difficult  
11 one from which the environment cannot recover. The aspect  
12 of development is much more difficult to ascertain because  
13 it depends on where the development occurs and in what  
14 intensity it occurs; and of course, all of these things are  
15 dependent upon what is discovered in the way of oil re-  
16 serves. On the change from Navy to Interior, I view this  
17 of no real significance except that it can be considered  
18 a reflection of Congress' new approach to NPR 4, and  
19 Congress' new willingness to see some things change.

20 \*

21 I am not sure my remarks have been pertinent to the  
22 questions before the Federal Energy Administration, but I  
23 hope they provide some input, and the viewpoint of an ex-  
24 Barrow resident who is still very much concerned with the  
25 native residents of the North Slope and all the activities  
there. Thank you!

1           CHAIRMAN ROBERTSON:

2           Thank you for your very clear statements.     Are there  
3           questions by the panel?           Mr. McVee!

4           MR. McVEE:

5           John, I have a couple of questions - just based upon your  
6           experience up there are there some areas within the Reserves  
7           that you would say are so delicate from an environmental  
8           standpoint or maybe wildlife production standpoint that  
9           should not be touched by either exploration or development?

10          MR. SCHINDLER:

11          By EITHER exploration or development?

12          MR. McVEE:

13          Yes.

14          MR. SCHINDLER:

15          Well no, because there are areas that are difficult but you  
16          can then catch them at times of the year when you won't  
17          hurt them - and I'm thinking specifically of calving areas  
18          for the caribou and certain tundra areas and things like  
19          that.     Exploration can be done with a little reasoning;  
20          development can be another problem, that depends of course  
21          upon what you find in your exploration.

22          MR. McVEE:

23          The second question had to do with subsistence and the de-  
24          pendency upon - or the use of the marine versus terrestrial  
25          animals, to what extent is the dependency upon the marine

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versus the terrestrial animals in the area?

MR. SCHINDLER:

Well that's a little difficult to answer because various villages stress different types of hunting and different types of dependence upon the wildlife - generally Barrow is considered a sea-oriented community, however, it is unusual for any family to take 25-to-30 caribou. That would depend - - -let me back up and say: the Eskimo man who takes his meat where he finds it and if the caribou is there - they are easier to come by than a whale or other animal so he will then take the caribou. It's hard work to hunt when you're hunting for a living and you take the animals that are available.

Generally though the whale and the seal, and of course walrus are the Barrow type of subsistence animals - but they do depend a great deal upon the caribou. People in the Aniktuvik Pass area are almost totally dependent upon the caribou. Nuigusut is very dependent upon fish from the river there on the Colville as well as the caribou - so it depends really upon the location.

CHAIRMAN ROBERTSON:

Are there other questions from the panel? (NO RESPONSE)  
Thank you Mr. Schindler.

\*  
\*

1 CHAIRMAN ROBERTSON:

2 I now call Mr. John Monroe - - would you state your name  
3 and affiliation please Mr. Monroe.

4 MR. MONROE:

5 My name is John Monroe, my affiliation is as an Alaskan  
6 resident for approximately ten years, I've been working for  
7 exploration outfits on land and sea. (I'm a little nervous  
8 in trying to explain my point).

9 CHAIRMAN ROBERTSON:

10 That's alright - just take your time.

11 MR. MONROE:

12 Some of the reasons I will give are for and against.

13 The first thing I will dwell on is the work, the biggest  
14 problem I feel and that a lot of people felt - - before the  
15 pipeline they just said 'well, we need Unions' then when  
16 the Unions got to it they said that the people from Alaska  
17 will have jobs. What happened was, at least from my  
18 experience, the people came up from the Lower 48 and got  
19 the jobs while the people from Alaska did not get the jobs  
20 on the pipeline, some did and some didn't.

21 Socially the impact of the pipeline is really - to the  
22 Native people - in certain areas it's really bad because  
23 the jobs they were promised they would get they never got  
24 and henceforth a lot of them had to go on the Welfare rolls  
25 in our State. It's been kind of a problem with such an

1 enormous amount of people, unemployment, social problems.  
2 I would say for one example PET 4 in Kotzebue may probably  
3 be a stepping stone off from a couple of the areas up  
4 there - Kotzebue already has a drinking problem that is so  
5 fantastic that it's unreal especially in the summer time  
6 with the native people. Everything possible that can be  
7 done is being done but as everybody knows the drinking  
8 problem with the natives you just can't stop it - you just  
9 don't say to counsel them and so forth, do something about  
10 it - if they want to drink they'll drink. There's always  
11 some that do and some that don't.

12 I think that by working and educating these people in a  
13 Government area up there they can eliminate some of their  
14 drinking problems - you might maybe have a little bit of  
15 these people stop but it requires a lot of work and so  
16 forth.

17 I think the land - - I worked with a few exploration  
18 companies and I think they really do respect the land.  
19 I worked for one company that was very conscious of it -  
20 and I want to emphasize that. I think they are very con-  
21 scious of the land but they are not conscious of hiring  
22 people from Alaska. One time I worked on a boat in the  
23 Bering Sea and they knew outright that there was something  
24 wrong, they were having electrolysis (sic) problems - and  
25 henceforth when I got off the boat they had to call a

1 May Day and if wasn't for two Japanese fishing boats I  
2 think they all would be down - because they didn't really  
3 have any experienced people except for the skipper on  
4 that boat and it was about a 40-man crew.

5 \*

6 I think it maybe would be a good idea to emphasize train-  
7 ing some more Alaskan people and quit talking about other  
8 problems - the problems we have. The Eskimo, I live  
9 with the Eskimo, my wife is Eskimo - the Eskimo families  
10 they are kind of accepting the new way of life so we're  
11 going to have to regulate some of these stipulations on  
12 this and that and they are going to have to accept it.  
13 They don't want it but they are kind of accepting these  
14 things. In our village there's no communications, no  
15 electricity or anything - we kind of live the way they  
16 lived before - but there will slowly come the day where  
17 the native Alaskan will have to accept the ways of  
18 progress.

19 The biggest thing is trying to get these people to work,  
20 trying to educate them in the future of Alaska whether  
21 it's going to be oil industry or mining industry emphasize  
22 the training so when they grow up the younger folks will  
23 have something to fall back on. The Land Claims is not  
24 all of it - I think if you train a lot of these people then  
25 I think a lot of these problems will be eliminated for the  
younger folks - by education.

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That's about all I can think of right now.

CHAIRMAN ROBERTSON:

Any questions from members of the panel? Yes, Dr. Davies!

DR. DAVIES:

I understand there's been quite a few people trained in the construction of the pipeline now and at the end of this program there will undoubtedly be more, a future program in the production of the Naval Petroleum Reserves, what's going to happen to the people that have been trained already in this pipeline construction - when this is finished?

MR. MONROE:

Well you see there's a lot of people have been trained but we're talking of a period of 1968 'til 1964 (sic) and a lot of these people thought they would go to work on the pipeline but it didn't go through - they trained all these people and hence then they had to find something else. Now there's a younger generation coming out of school and the unemployment problem is terrible - - it's the pipeline and other lines that they would much rather hire people from the Lower 48 and maybe they are more experienced in the ways here but they come up here and they're boomers, they exploit our women, they exploit everything we have. I don't think it's really the exploration companies because

1 the ones that I worked for they wouldn't tolerate any-  
2 thing - what you did in town was your own business - but  
3 they did have a policy where they hired people from out-  
4 side, they hired some Alaskans. Some companies have to  
5 hire the natives, there are some exploration outfits that  
6 have to hire the natives in the area but then there are  
7 some that don't. There's a lot of animosity among  
8 these people.

9 Then if PET 4 is going to open up if it's going to be a  
10 drawn-out affair don't hire a whole bunch - - don' t  
11 train a whole bunch of people now and say 'well, four  
12 years from now we might need you' then they forget about  
13 it and go work somewhere else. Go to the Village  
14 Councils, Bureau of Indian Affairs, Native Corporations  
15 and so forth and hire a few at a time of the younger men  
16 and women, people of the villages, people all over the  
17 State. You do this a little bit at a time and gradually  
18 they are trained and you can kind of educate them in  
19 school because this is what's going to happen in your  
20 area, let them know what's going to happen in their area,  
21 not that they have to wonder what's going on over there.  
22 Let them know that in two or three years from now they  
23 might be doing some drilling, let them have formal dis-  
24 cussions in the schools, talk to the people in the area.  
25 It does no good talking to the people in Anchorage -

1 they're a lot of professional people and they know what's  
2 going on but they don't have direct communication with  
3 people at the bottom. And this is where it is needed,  
4 direct communication with people in the villages. There  
5 are some places where the people don't even speak English,  
6 they don't know what's going on - they just speak their  
7 native dialect - and they would REALLY like to know what  
8 is going on - they probably don't even know what's happen-  
9 ing or what's going to happen. It doesn't really do any  
10 good talking to the people in Anchorage when we're talking  
11 about the people fifteen hundred miles north - that's like  
12 half-way across the country like in San Francisco talking  
13 about something that happened in Chicago - it just doesn't  
14 really make much sense.

15 CHAIRMAN ROBERTSON:

16 Dr. Davies, you have other questions?

17 DR. DAVIES:

18 You said you've been a resident of Alaska for what, ten  
19 years?

20 MR. MONROE:

21 Yes sir.

22 DR. DAVIES:

23 Have you had trouble getting employment?

24 MR. MONROE:

25 No I haven't.

1 DR. DAVIES:

2 So you've really had no problems - -

3 MR. MONROE:

4 - - no, no, I'm just talking about the Natives point of  
5 view.

6 CHAIRMAN ROBERTSON:

7 Are there other questions from the panel? (NO RESPONSE).

8 I don't believe we have in the record the name of the  
9 village where you reside Mr. Monroe.

10 MR. MONROE:

11 White Mountain.

12 CHAIRMAN ROBERTSON:

13 If there are no other questions - - we thank you for your  
14 statement and for your very real concern.

15 \*

16 \*

17 CHAIRMAN ROBERTSON:

18 Our next speaker will be Mr. Parker. Please state  
19 your name and your affiliation for the record.

20 MR. PARKER:

21 Mr. Chairman, I am Walter Parker, State Co-chairman, Joint  
22 Federal-State Land Use Planning Commission.

23 The Commission welcomes the opportunity to make some pre-  
24 liminary comments on land use and development strategies  
25 in Naval Petroleum Reserve No. 4. We wish to emphasize

1 at this time that the Commission has taken no definitive  
2 position on this area and that this testimony is largely  
3 informational and represents a general compendium of data  
4 regarding land use, resource development, and transporta-  
5 tion problems for the western part of the North Slope.  
6 In its review of national interest lands, the Commission  
7 did identify some areas in NPR 4 which contain valuable  
8 resources such as caribou and migratory waterfowl. One  
9 of the recommendations which the Commission made at that  
10 time was that since these resources are not confined to  
11 NPR 4 the Commission recommended that an agency with  
12 expertise in management of these common resources should be  
13 a part of the surface management program of the reserve.

14 \*

15 I would like again to emphasize at this time that the  
16 question of the new status of NPR 4 will be brought before  
17 the Commission at its next meeting from April 20-22 and  
18 further guidance will be obtained at that time as to the  
19 Commission's views on the development and management of  
20 this area. The rest of our testimony is largely inform-  
21 ational and represents the best efforts of the staff to  
22 synthesize the problems for land use management and re-  
23 source development as they appear now.

24 \*

25 \*

1 A major exploration program in NPR 4 can be staged in  
2 four different ways. In order of increasing expense,  
3 these appear to be:

- 4 1) Staging from Gailbraith Lake or Prudhoe Bay to  
5 the drilling sites with transportation via truck  
6 to the staging area and thence via all terrain  
7 vehicle or aircraft.
- 8 2) Mobilizing all possible equipment and material  
9 by aircraft directly from Fairbanks or Anchorage.
- 10 3) Stockpiling all equipment and material at Barrow  
11 and mobilizing by all terrain vehicle or aircraft  
12 from that point to the drilling sites.
- 13 4) Mobilizing material and equipment by barge at  
14 several sites along the coast and then transporting  
15 either by all terrain vehicle or cargo aircraft to  
16 the drilling sites. And I want to emphasize that  
17 we are speaking about the exploratory phase only  
18 here.

19 The advantages of the first and second alternatives are  
20 that equipment could be mobilized at the staging area on  
21 a year-around basis and thus be available for airlifting  
22 to the drilling sites as weather permitted.

23 \*

24 If icestrips on lakes can be used for stockpiling of  
25 materials during the exploration phase in NPR 4 and the

1 use of the scarce gravel resources of this region for  
2 airstrips to support exploration activities can be  
3 avoided, it should be possible to conduct an exploratory  
4 drilling program with minimal environmental impact. This  
5 would of course require support by helicopter or in some  
6 cases STOL aircraft for the rotation of crews and minimal  
7 freight requirements during the periods when icestrips  
8 were not available for major freight hauls.

9 \*

10 In the areas south of the coastal-plain around Knifeblade  
11 Ridge and in the foothills of the Brooks Range it may be  
12 necessary to build airstrips for exploration support.  
13 There are several old airstrip sites in this area which  
14 are the decayed remnants of the early exploration effort  
15 in NPR 4 that should be considered before other airport  
16 sites are used in the area.

17 \*

18 If a discovery of a size that would warrant development  
19 is made in the southern portion of NPR 4 it would be  
20 possible to construct a spur road from the present haul  
21 road into the area. The scarce gravel resources of this  
22 particular area along the foothills would make such a  
23 road construction expensive due to the long hauls that  
24 would be necessary from the gravel sources in streambeds.  
25 Techniques should be utilized that would minimize use of

1 gravel for such road construction. However, experience  
2 thusfar does not indicate that a snow-road could be  
3 successfully constructed over which the equipment needed  
4 for development of a major oil field could be mobilized.

5 \*

6 If a discovery is made in the coastal-plain that is some  
7 distance removed from the coast or from the Colville  
8 River it is going to be extremely difficult to provide  
9 surface access to such a location. Whatever means is  
10 developed for surface access will certainly be extremely  
11 expensive. However, on the assumption that eventually  
12 a pipeline will have to be built it is undoubtedly  
13 better to make the necessary investment to provide en-  
14 vironmentally safe surface access at the time full de-  
15 velopment begins.

16 \*

17 There are many alternatives in transportation of any oil  
18 or gas reserves from NPR 4 to southern markets. The major  
19 alternatives but certainly not all of them, would be to:

20 1) Construct a spur pipeline to join the existing pipe-  
21 line corridor. This option of course could either  
22 utilize the existing pipeline on the basis that  
23 NPR 4 reserves would not be utilized until Prudhoe  
24 reserves were exhausted or could envision another  
25 pipeline in the same general corridor that now

1 exist. This option would maximize the use of  
2 existing infrastructure.

- 3 2) A pipeline from NPR 4 through the western part of  
4 Alaska to a port on the south side of the Alaska  
5 Peninsula could be constructed. This might very  
6 likely be the most expensive option and would be  
7 effect create the need for an entirely new trans-  
8 portation system in western Alaska which would have  
9 no particular relationship to the existing transport-  
10 ation system serving central Alaska.
- 11 3) A system utilizing tankers loading off the Chukchi  
12 seacoast could be utilized. There are no harbors  
13 suitable for oil tankers on this coast and it would  
14 be necessary to load them offshore meaning that  
15 structures which would protect tankers from ice  
16 during loading operations would have to be constructed.  
17 This alternative would probably be the second most ex-  
18 pensive. It would require construction of a fleet of  
19 icebreaking tankers which had a maximum level of en-  
20 vironmental protection incorporated in their design.
- 21 4) A variation of the above system would be to construct  
22 a pipeline from NPR 4 to the south side of the Seward  
23 Peninsula to a suitable deep-water port location there.  
24 This would eliminate much of the problem caused by  
25 melting or ice in loading areas and would also sub-  
stantially reduce the cost of ice-breaking.

1 This alternative has been well substantiated by  
2 Coast Guard studies that were published in 1968.  
3 Insofar as I know however, no one has done any  
4 particular study on what the difference would be  
5 in tanker construction between those two last  
6 options.

7 \*

8 Any transportation of oil and gas from NPR 4 should take  
9 into account the offshore development patterns in the  
10 Bering and Chukchi Seas. If such development proceeded  
11 concurrently it is very likely that they will be able to  
12 utilize common transportation facilities to some degree.

13 \*

14 The environmental problems accompanying NPR 4 exploration  
15 and development will be in large part governed by the scope  
16 of that development and the length of time over which ex-  
17 ploration and development is accomplished. An analysis  
18 is needed which will reasonably demonstrate whether in-  
19 tensive exploration over a short period of time is less  
20 damaging than a slower-paced exploration spread over a  
21 longer period. The same analysis should be made for the  
22 development phase of NPR 4 when the appropriate time  
23 arrives.

24 \*

25 \*

1 One of the lessons learned by agencies who had statutory  
2 requirements to monitor North Slope exploration during  
3 the intensive exploration period of 1968-through-1971  
4 was that their budgets simply could not accomodate the  
5 pace of exploration. Since development in NPR 4 will  
6 be controlled by the government there should be no problem  
7 in insuring that all agencies, Federal and State, will  
8 secure budgets at a level that will insure their ability  
9 to carry out their regulatory responsibilities.

10 \*

11 Another area of concern in the pace of development should  
12 be its effect upon the overall Alaskan economy. Control-  
13 led exploration programs can certainly be used to fill-in  
14 any valleys in that economy which may occur in the next  
15 several years. This would be especially vital in in-  
16 suring the maintenance of a healthy transportation sector  
17 in the economy.

18 \*

19 Another area of concern would be the coordination of de-  
20 velopment in NPR 4 within the Native corporation lands to  
21 the east of the Colville River and to the west of the  
22 area around Point Lay. Some transportation developments  
23 may require securing easements across these lands. The  
24 implication of the Secretary of Interior's Order No.2087  
25 on floating easements is especially critical in areas

1 such as this. The Commission has not had an opportunity  
2 yet to wrestle with the implications of floating ease-  
3 ments as specified in 2987. This subject will be on  
4 the agenda of the next Commission meeting.

5 \*

6 Besides having apparent valuable subsurface resources,  
7 NPR 4 has a variety of valuable surface resources which  
8 have been identified by the Commission. A by no means in-  
9 clusive list of these values includes:

- 10 1) The Arctic coastal-plain serving generally as  
11 prime migratory waterfowl habitat, summer habitat  
12 for caribou, and as a home for several species of  
13 fur-bearing animals.
- 14 2) The Arctic foothills zone which contains calving  
15 areas for the western Arctic herd of caribou.  
16 The problems of this herd have recently received  
17 a great deal of attention and because of the ap-  
18 parant reported decline must receive special  
19 attention in any NPR 4 development plans.
- 20 3) The Teshekpuk Lake area is extremaly important for  
21 waterfowl nesting and molting.
- 22
- 23 4) The Arctic Ocean coastal zone is important for  
24 fisheries, marine mammals and migratory bird mi-  
25 gration routes.

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- 5) NPR 4 contains all or parts of nine ecological areas and a number of geological areas recommended as potential national landmarks in the Arctic lowland natural region of Alaska. These potential landmark areas are among the best examples of various natural phenomena in this unique zone in the United States.
- 6) The area contains numerous historic sites and archeological sites that must be protected. There is a great potential for new discoveries since the area was largely ice-free during both interglacial and glaciation periods.
- 7) The area serves as a prime source of subsistence hunting and other food gathering activities for the residents of Barrow, Nuigusut, Atkasook, Wainwright, and to a lesser degree, Point Lay.
- 8) The area has recreational opportunities for all Alaskan and U.S. residents which includes float boating, wilderness travel, sport hunting, and nature study.
- 9) Two rivers, the Ikpikpuk and Utukok have been identified for further study and consideration for wild river status.
- 10) The area has long served as a prime area for scientific and educational research largely based on the Naval Arctic Research Laboratories at Barrow.

1 Here again the pace of exploration and of development will  
2 determine to a large extent our ability to maintain all  
3 of these values. One of the major requirements is hav-  
4 ing a work-force which has a consistent awareness of en-  
5 vironmental characteristics and ecological processes.

6 \*

7 We have under consideration here an area far greater  
8 than that which has been explored between the Colville  
9 and Canning Rivers in the last few years. If it is to  
10 be fully explored it will be a development of some mag-  
11 nitude and if not accomplished with the greatest care,  
12 can be expected to have the same results as the poorer  
13 examples of the earlier phases of North Slope development.  
14 However, as better examples of exploration and development  
15 on the North Slope has shown, we can do it right. There  
16 are many differences in NPR 4 from the areas between the  
17 Canning and the Colville and it would be unwise to attempt  
18 to extrapolate totally from one to the other. However,  
19 a careful regime of exploration which maximizes the  
20 techniques of winter exploration that have been developed  
21 should make possible an exploration effort which will re-  
22 sult in minimum environmental damage. We would like to  
23 emphasize again that major environmental problems were  
24 normally caused by haste and trying to meet deadlines  
25 which Arctic conditions did not accommodate.

1 Adapting the pace of exploration and development to the  
2 needs for surface protection and for protection to the  
3 living resources of the region is one of the most critical  
4 aspects of this development. Combining this with some  
5 sense of accomodation to the overall Alaskan economy would  
6 certainly result in a maximum value to the region encompassed  
7 by NPR 4, the State, and fulfill national goals while  
8 providing maximum respect to other values that have also  
9 been identified as of national interest.

10 Thank you!

11 \*

12 CHAIRMAN ROBERTSON:

13 Thank you Mr. Parker. Are there questions from the  
14 panel? Mr. McVee!

15 MR. McVEE:

16 I have a question Walt - I was interested in your comment  
17 on coordinated development on the North Slope, State lands,  
18 Federal lands and private lands and NPR 4 might all be in-  
19 volved, we don't know at this point in time what might be  
20 involved in further development in that the impacts of the  
21 development might come from results of that activity occur-  
22 ring on private lands or State or Federal or NPR 4. Have  
23 you given any thought as to what type of mechanism might  
24 be used to come up with a coordinated type of developmental  
25 plan or scheme that could ameliorate these impacts ir-  
regardless of what type lands they are occurring on.

1 MR. PARKER:

2 We've all given some thought to the schemes by which this  
3 might be accomplished. I think that staged development  
4 wherein one does relate to the other is the secret of  
5 doing it right for all concerned. We did ask for a  
6 meeting on April 16th immediately prior to the next  
7 Commission meeting to discuss this with representatives  
8 from the Interior, Transportation and FEA to start arriv-  
9 ing possibly at some mechanism for doing this - but that's  
10 going to be on the agenda of that meeting - and these are  
11 certainly going to be some of the areas that I hope we  
12 will have time to explore.

13 CHAIRMAN ROBERTSON:

14 Do you have any additional questions, Mr. McVee?

15 MR. MCVEE:

16 Thank you, none.

17 DR. DAVIES:

18 Mr. Parker, you have identified possibly two alternatives  
19 for corridors, pipeline corridors to the west, and tying  
20 that together with your concept of other developments too,  
21 the cost of any particular route might be significantly  
22 altered if there were other resources being developed  
23 simultaneously. I would be quite interested in know-  
24 ing what the Commission's position and attitude is to  
25 permanently maintain a haul road perhaps in conjunction

1 with the construction of a pipeline in order to market  
2 other resources such as copper.

3 MR. PARKER:

4 The Commission will have presented to it at the next  
5 meeting the results of the Governor's Growth Council's  
6 public hearings on the haul road and also what information  
7 has been compiled by the State and Federal agencies on the  
8 haul road at this time - but I don't expect that we will  
9 be able to come forward with any policy at this meeting  
10 but certainly we will be starting to lay the basis for a  
11 policy because every major pipeline is of course going to  
12 need some kind of haul road associated with it. If you  
13 are going to build a pipeline you are going to have to  
14 deal with the problem of a road eventually so you might as  
15 well deal with it at that time.

16 DR. DAVIES:

17 I think it is particularly significant for a concern in  
18 a corridor where no known resources exist that by itself  
19 might not warrant the construction for oil but in con-  
20 junction with these other resources it may well warrant  
21 the construction of one route as opposed to another.

22 MR. PARKER:

23 Yes, it would certainly have a judgment factor on what  
24 kind of road you were going to build to support the pipe-  
25 line and how high a caliber road you want to go forward  
with then, yes indeed.

1 CHAIRMAN ROBERTSON:

2 Are there any other questions from the panel?

3 MR. GRYC:

4 Basic to all of this of course is what are the resources  
5 and where are they - and as far as oil and gas in concerned  
6 it could be all the way from what we know now, which is  
7 very minimal to something quite a bit larger. This is  
8 also true of other resources, coal, phosphate. Do  
9 you have any thoughts on how we ought to go about this -  
10 until we know what resources are there and where they are  
11 all this other planning is pretty nebulous?

12 MR. PARKER:

13 I think that beginning with the second phase of development  
14 on the North Slope when the companies first moved in back  
15 in the early 1960s we begun to develop a very flexible  
16 pattern for exploration. I think they can do explora-  
17 tion as I've tried to define here, with minimal environ-  
18 mental damage if we don't get in too much haste at any one  
19 period. I think the exploration program can be carried  
20 out and until those are carried out the next phase of it  
21 is always going to be speculative as to developing perman-  
22 ent transportation systems. I think that anybody that  
23 is going to make an investment in the Arctic is certainly  
24 going to try to minimize his costs and fixed infrastructure  
25 during the exploration phase - and then when he finds his

1 resource then is the time to run through the list of the  
2 many scenarios which are going to be available for getting  
3 that resource to market. Maximizing what you have al-  
4 ready done - -maximizing the value of what you've already  
5 done which is behind a good deal of the dialogue of the  
6 gasline of course is an important part of this too. I  
7 think those are where the real gains are going to be made,  
8 both economically and environmentally is in making the  
9 maximum value of what we already have in place for our  
10 transportation systems, and not making any major gambles  
11 on major transportation systems to serve any other re-  
12 sources until such time as we know what they are.

13 CHAIRMAN ROBERTSON:

14 Any other questions? (NO RESPONSE). Thank you Mr.  
15 Parker.

16 \*

17 CHAIRMAN ROBERTSON:

18 We will recess this hearing for lunch - we will reconvene  
19 at 1:15. At that time I have asked Lt. Commander  
20 Woods to give us a ten minute presentation on what the  
21 Navy has been accomplishing on NPR 4 and some of the  
22 problems they have run into.

23 We'll see you at 1:15.

24 RECESS  
25 FOR  
LUNCH!!

1 CHAIRMAN ROBERTSON:

2 We will resume our hearing. As I announced before  
3 lunch I have asked Lt. Commander Terrance Woods to give  
4 us a short presentation on what the Navy is doing on  
5 PET 4. He asked at lunch to have some time to get  
6 his props ready but I understand he is now ready to tell  
7 us what is going on.

8 LT. COMMANDER WOODS:

9 Thank you Mr. Chairman - I do appreciate this opportunity.  
10 Actually as far as the operations are concerned our oper-  
11 ations are divided basically three ways. We have geo-  
12 physical operations, we have construction operations and  
13 we have drilling operations. This winter our geo-  
14 physical program has been located mainly in the western  
15 portion of the reserve and to the north in the coastal-  
16 plain. We've been working to the west of Barrow and  
17 over to and off the Reserve in a couple of places.

18 \*

19 This will give you a better idea of precisely what we have  
20 done (using map to point out) - this little spot here is  
21 some detail work that we shot down to the south of  
22 Simpson; this entire area in here has been primarily re-  
23 connaissance work. Basically the geophysical work involves  
24 surveying in a line; drilling a shot-hole about every  
25 quarter of a mile down to 75-feet and sometimes deeper,

1 depending upon the particular nature of the substrata  
2 that we're looking at and then putting in a charge of  
3 about 50-pounds of dynamite and detonating the charge and  
4 reporting our reverberations in an effort to get a cross-  
5 section of what it looks like underneath the earth along  
6 that particular line. Then in addition by crossing the  
7 lines we can get a picture of what it looks like under-  
8 neath the surface.

9 \*

10 This is one of the basic tools used for geophysical pro-  
11 specting - and in addition to that we are taking magnetics  
12 and gravity readings. The gravity work has been going  
13 along pretty well. These are really the three textbook  
14 ways of going about prospecting for oil.

15 We would hope that by doing this geophysical work we would  
16 have a chance of finding some structures or stratigraphic  
17 perhaps that might possibly harbor accumulations of hydro-  
18 carbons - and then by drilling the largest and best look-  
19 ing structures that we have to find whether or not they  
20 in fact contain oil or gas, and if they do, whether that  
21 oil and gas is of a commercial nature.

22 \*

23 Our construction operation is detailed on this map -  
24 Alaska General did our construction work this winter and  
25 I am advised that just recently Alaska General has entered

1 into a joint venture with Arctic Slope Regional Corpor-  
2 ation and given us a minority interest that we've been  
3 looking for.

4 Alaska General mobilized out of Service City, because of  
5 State interests we did not cross their lands but went up  
6 and crossed on the sea-ice along about the beginning part  
7 of January. We brought dropped two Cats through the ice  
8 but it was relatively shallow and we didn't have any  
9 trouble in retrieving them. So we went on up the  
10 Colville River - over a couple of small lakes here and came  
11 out at the east end of the Lake Teshekpuk where we are cur-  
12 rently drilling a well.

13 The fuel that we needed to drill that well, the mud, the  
14 chemicals, the piling was all located at Lonely and was  
15 transported down over snow and ice trails across frozen  
16 lakes wherever possible, to the east end of Lake Teshekpuk.  
17 We scraped off an ice runway so that the well could be  
18 serviced both by Hercules and by Otters and smaller type  
19 planes. Our gravel pile area was this low point of land  
20 here about seven miles to the south and west of Lake  
21 Teshekpuk; the gravel was taken from here and transported  
22 to that isthmus and then spread out in an area so as to  
23 form a base on which we put our well.

24 The rig itself was located up off of Cape Halcutt and we  
25 similarly scraped an ice runway there, transported the rig

1 from the Cape Halcutt location up to the sea-ice, down,  
2 across and back, up the Colville River and again to the  
3 rig location.

4 Following the operation of getting the rig into the lo-  
5 cation it was rigged up and we spudded on about the 13th  
6 of March.

7 \*

8 We had two other construction projects besides the con-  
9 struction of the pad that we worked on at the east end of  
10 Lake Teshekpuk, one was an expansion of the pad at Lonely  
11 and the putting in of a semi-permanent base camp for  
12 operational purposes. This operation has been completed,  
13 we've got a 50-man camp put in complete to OSHA specifica-  
14 tions, State Environmental specifications, and to our  
15 knowledge complete and satisfactory to any laws or regu-  
16 lations that anybody has. We have a modern type sewage  
17 system, we have a water-treatment plant, it's electrically  
18 heated, it has ample room for the people involved and it is  
19 by and large a good, livable facility - which is something  
20 that formerly wasn't had.

21 \*

22 Alaska General after finishing this project came down to  
23 the south edge of Harrison Bay and put in an additional  
24 pad so that we can get an early start next fall in drilling  
25 a well on the south edge of Harrison Bay. They then  
demobilized and went back to Service City.

1 As far as the drilling goes we are doing one well at  
2 this location and it will probably bottom-out at about  
3 11-thousand feet, we are now down to about 7,500 feet  
4 having encountered literally no difficulty and we are  
5 drilling away. Basically that's what our operation  
6 for this winter has been!  
7 If anybody has any questions I'll be happy to try to  
8 answer them.

9 CHAIRMAN ROBERTSON:

10 Any members of the panel have any questions? (NO RESPONSE)  
11 Thank you Commander Woods.

12 \*

13 CHAIRMAN ROBERTSON:

14 Next speaker is Mrs. Virginia dal Piaz. Please state  
15 your name and affiliation for the record.

16 VIRGINIA dal PIAZ:

17 My name is Virginia dal Piaz (and it's spelled wrong on  
18 the little thing), also the organization I work for is  
19 spelled wrong - it's the Alaska Conservation Society.

20 CHAIRMAN ROBERTSON:

21 Will you state the correct spelling of your name please!

22 VIRGINIA dal PIAZ:

23 My last name is 'dal Piaz' and 'Conservation' - -

24 CHAIRMAN ROBERTSON:

25 - - we can spell that one.



1 It makes good sense, both ecologically and economically,  
2 to delay the production of oil and gas from NPR 4 until  
3 after the period of peak production from other North Slope  
4 fields.

5 \*

6 Exploratory drilling and related development should be  
7 carried out only after the requirements of the National  
8 Environmental Policy Act have been met and then under  
9 strict standards of environmental protection such as those  
10 developed in other areas with high wildlife and renewable  
11 resource values. Because, with present knowledge, the  
12 extent of oil and gas reserves are highly speculative,  
13 particular care should be taken to avoid damage to re-  
14 newable resources as a result of 'crash programs' for oil  
15 and gas exploration and extraction.

16 \*

17 We urge the Congress to appropriate funds specifically to  
18 carry out an inventory and assessment of the renewable  
19 resources of NPR 4 to be accomplished simultaneously with  
20 the renewed oil exploration. It behooves the Federal  
21 Government to spend at least as high a proportion of de-  
22 velopment funds on biological inventory and research as  
23 has private industry in northern Alaska. The U.S. Fish  
24 and Wildlife Service, in particular its newly established  
25 Division of Biological Services, would seem to be the

1 appropriate lead agency for this task.

2 \*

3 We urge Congress to recognize that wildlife habitat is the  
4 dominant surface value within NLR 4 and therefore, to  
5 enact legislation which would give the U.S. Fish and Wild-  
6 life Service full authority and responsibility for surface  
7 management that is theirs.

8 \*

9 We urge the immediate formation of a permanent Northwest  
10 Alaska Caribou Task Force. This group should include  
11 representatives of Federal agencies with present and pro-  
12 posed land management responsibilities in northwest Alaska,  
13 (that is the U.S. Navy, U.S. Bureau of Land Management,  
14 U.S. Fish and Wildlife Service, and U.S. National Park  
15 Service), the State (Alaska Department of Fish and Game)  
16 and the regional and village Native corporations. The  
17 goal of this Task Force will be to promote adequate and  
18 coordinated resource use planning, land use practices and  
19 research programs so as to ensure the long-term well-being  
20 and rational utilization of the nation's largest caribou  
21 population.

22 \*

23 We urge a halt to all premature 'transportation planning'  
24 for the NPR 4 areas until such time as a completed re-  
25 source inventory and mapping is available.

1 We urge the Governor of Alaska to firmly assert the  
2 State's interest in protecting the renewable resources of  
3 NPR 4, these resources being of such vital importance to  
4 the residents of northern Alaska. We hope that the State  
5 will avail itself of all means legally open to it to pro-  
6 tect the resident wildlife and anadromous fish resources  
7 within PNR 4.

8 \*

9 I also received a call this morning from Fairbanks, where  
10 our State Headquarters are located, asking me to add their  
11 endorsement - that this statement I have just read has  
12 been endorsed by the Fairbanks Environmental Center and  
13 the Alaska Chapter of Friends of the Earth.

14 Thank you gentlemen!

15 \*

16 CHAIRMAN ROBERTSON:

17 Any questions from members of the panel?

18 DR. DAVIES:

19 As I recall what you've just said, you mentioned two in-  
20 ventories, the biologic inventory and the resource in-  
21 ventory - do you mean this to be the same thing, are you  
22 referring to the resource inventory also to be other  
23 minerals?

24 VIRGINIA dal PIAZ:

25 Yes. Along that line resources generally seem to be

1 considered differently than biological flora and fauna.

2 DR. DAVIES:

3 How long would you envision that these inventories would  
4 take and have you made an estimate of that the expense  
5 would be?

6 VIRGINIA dal PIAZ:

7 No sir, that would be up to the agencies involved to make  
8 a time and expense estimate - we're just making the  
9 suggestion.

10 CHAIRMAN ROBERTSON:

11 Are there other questions from the panel? (NO RESPONSE).  
12 Thank you for your statement.

13 \*

14 CHAIRMAN ROBERTSON:

15 Next speaker will be Mr. Sterrett. Please state your  
16 name and affiliation.

17 MR. STERRETT:

18 My name is Thomas S. Sterrett, I am District Exploration  
19 Manager for Tesoro Petroleum Corporation - and that re-  
20 presents a change in the agenda sheet also, it shows me  
21 working for Tesoro Alaska which is our corporate sub-  
22 sidiary that handles the refining and marketing of our  
23 products in Alaska, the exploration program comes from  
24 Tesoro, wholly out of San Antonio.

25 \*

1 CHAIRMAN ROBERTSON:

2 Thank you, the record will show that correction.

3 MR. STERRETT:

4 Thank you. Mr. Chairman and Committee members,  
5 Tesoro Petroleum Corporation is pleased to have the oppor-  
6 tunity to provide the following comments for your consider-  
7 ation regarding our views on the exploration for hydro-  
8 carbon reserves on U.S. Petroleum Reserve Number 4.

9 \*

10 PET 4 is one of the few remaining high potential, onshore  
11 areas in the domestic United States remaining to be evalu-  
12 ated for hydrocarbon reserves. Its proximity to the only  
13 partially evaluated eastern North Slope, where major re-  
14 serves have been defined, and the similarity of sedimentary  
15 and tectonic conditions throughout geologic time in the two  
16 areas suggest that significant reserves could occur in  
17 PET 4. The definition of such and their ultimate utili-  
18 zation could not help but have a major, positive impact on  
19 this contry's domestic energy deficiency, import oil require-  
20 ments and balance of payments. However, just as Prudhoe  
21 Bay will not be a complete solution to these issues, PET 4  
22 should not be viewed as a total panacea to the United  
23 State's energy problems - even if the most optimistic  
24 hydrocarbon reserve projections for this are ultimately  
25 realized.

1 To date industry has been able to obtain only limited  
2 geological and geophysical data in the PET 4 area. Much  
3 of these data were collected in the late '40's and early  
4 '50's and have been provided to the public via a series  
5 of excellent U.S.G.S. publications. Generally these  
6 data define the possibility of the now recognized explor-  
7 ation potential, but at best, are inconclusive as to the  
8 magnitude of PET 4's real hydrocarbon reserves or definite  
9 confirmation of any major quantities. The geological  
10 data are effectively restricted to the Foothills province,  
11 where surface exposures of the stratigraphic units occur.  
12 The released geophysical data do not reflect the current  
13 state-of-the-art and as such do not provide a good under-  
14 standing of the subsurface conditions in the coastal-plain  
15 province, which is analogous to the location of the  
16 Prudhoe Bay field. Therefore, a significant quantity  
17 of modern data must be acquired before the degree of ex-  
18 ploration potention of PET 4 can be further assessed. It  
19 is our understanding that through the Navy's contract with  
20 Husky Oil Company that this is being accomplished.  
21 Additionally, even after a major quantity of high quality  
22 data is acquired and interpreted, drilling in the more  
23 favorably determined areas will be necessary to positively  
24 establish the definite existence and magnitude of PET 4  
25 hydrocarbon reserves.

1 Obviously the acquisition of additional data and the  
2 further evaluation of the hydrocarbon potential of PET 4  
3 will be a very costly and time-consuming process. Since  
4 the inception of an oil and gas industry, this group has  
5 proven time and time again they are willing and able to  
6 cope with similar challenges. Although the complete  
7 evaluation of PET 4 is probably greater in magnitude of  
8 effort and cost than the industry has had to face in any  
9 onshore area of the United States to date, it is my firm  
10 belief they offer the least expensive and most expeditious  
11 means of accomplishing this goal. Not only does industry  
12 have the degree and magnitude of technical expertise to  
13 perform this task, but given the possibility of reasonable  
14 return on their investment, they also have the financial  
15 capability to conduct such a program, without cost to the  
16 general public. An inherent competitive attitude within  
17 industry also helps to assure the most prudent performance  
18 in all facets of such an operation.

19 \*

20 In the event PET 4 is eventually opened to leasing by in-  
21 dustry, Tesoro believes a system similar to Federal O.C.S.  
22 lease sales would be the most reasonable means to effect  
23 an equitable distribution of the offered acreage, that is,  
24 bonus bid, lease, rental, and royalty payments to the  
25 Federal Government by the companies awarded tracts and

1 awards made on the basis of most financial benefit to  
2 the Government.

3 \*

4 Unquestionably the quantity and magnitude of problems  
5 associated with the exploration of PET 4 will be gigantic.  
6 However, cooperative effort by industry and government has  
7 successfully resolved major issues in the past, to the  
8 benefit of both. On a large scale, many instances can  
9 be cited of blowouts, fires, storms and spills in the  
10 Gulf of Mexico, as well as the overall leasing program in  
11 this area and other areas that have been resolved by a  
12 combined industry-government cooperation. More recently  
13 a successful resolution of the problems encountered in  
14 the Santa Barbara Channel were also resolved by mutual  
15 effort. On a smaller scale I can cite Tesoro's operation  
16 of U.S. Petroleum Reserve Number three at Teapot Dome,  
17 Wyoming, as a mutually beneficial cooperative effort be-  
18 tween industry and government. I am confident there are  
19 many, many other examples of successful industry-government  
20 cooperation.

21 \*

22 In summary, PET 4 is an area of extremely high exploration  
23 potential. The magnitude of this potential is in its  
24 preliminary evaluation stage, and it is Tesoro's and my  
25 personal opinion that the least costly, most expeditious

1 means of fully evaluating this potential is by utilizing  
2 the experience and expertise of the oil and gas industry.  
3 A bonus bid, lease rental, royalty system of leasing  
4 PET 4 to industry, similar to the system used to lease  
5 Federal OCS waters, is recommended to effect this  
6 evaluation. However, industry should be afforded the  
7 opportunity of realizing a reasonable return on its  
8 financial investment.

9 \*

10 Thank you for the opportunity to express these opinions  
11 and recommendations, and if there are any questions re-  
12 lating to my presentation or the exploration of PET 4 in  
13 general, I would be pleased to attempt to provide answers  
14 for them.

15 \*

16 CHAIRMAN ROBERTSON:

17 Very good! Are there questions from the panel?

18 MR. McVEE:

19 Mr. Sterrett, I'd like to have your opinion on something.  
20 The legislation which was signed into law day before  
21 yesterday contemplates some three years worth of studies  
22 and recommendations which would go to Congress - and the  
23 period of time for Congress to act relative to legislation  
24 which would allow production, and then also of course  
25 the EPCA requirements which would follow - so there

1 is a period of time, maybe five or six years from that  
2 point - what would your thoughts be on how long it would  
3 take, assuming it would go along the line of your sug-  
4 gestions, private development, leasing it and so on, how  
5 long would it take to get into production?

6 MR. STERRETT:

7 Well I think this is going to be based mostly Mr. McVee  
8 on the factor of how much you want to put into it. The  
9 old adage of 'money cures all ills' - I think if you can  
10 put extra dollars to it you can shorten it. I believe  
11 the national average from discovery to development of a  
12 major oil occurrence runs in the magnitude of from three to  
13 eight years - I think with an average being about five to  
14 go from discovery to development. My personal guess is  
15 that PET 4 being as remotely located as it is, the adverse  
16 weather conditions and so forth, maybe you couldn't over-  
17 come the time-lag factor totally with money - it might take  
18 something longer than the national average even with excess-  
19 ive funds.

20 MR. McVEE:

21 So we might be looking at anything say from ten to fifteen  
22 years possibly from the present time?

23 MR. STERRETT:

24 Well once again my personal guess would be that it wouldn't  
25 go as high as fifteen, I'd say maybe eight to ten.

1 MR. McVEE:

2 The other question, and I know there have been some trials  
3 with bidding procedures on some of the O.C.S. sales where  
4 recent sales were under royalty bidding versus the bonus  
5 bidding, do you have any comment relative to one procedure  
6 versus the other?

7 MR. STERRETT:

8 Well once again this would be personal - I believe that  
9 the bonus bidding is the most equitable. I think with  
10 the royalty bidding we tend to see some companies that will  
11 propose an excessive royalty not realizing that they are  
12 going to fully realize and get anything out of it for them-  
13 selves, they are just so intent upon getting the award that  
14 they are willing to give up virtually anything and ultimately  
15 they are not going to make anything off of the venture.  
16 I think we saw that on several of the bids that were sub-  
17 mitted in the Gulf sale where this technique was tried.  
18 I personally would lean to the bonus bid because I think  
19 there is enough competitive spirit or attitude in the in-  
20 dustry and thus small companies can join together without  
21 violating the present regulations where they can make a  
22 competitive effort.

23 MR. McVEE:

24 Thank you very much!

25 \*

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DR. DAVIES:

Following up that subject, if it's all bonus bid then essentially all the risk is on industry - while if it's royalty it's a portion of it as the government at least is sharing part of the risks. So following from that there are a couple of questions I'd like to ask about that.

With respect to the seismic work, would the industry do their own seismic work or would they rely upon the Navy's work which we have already done, in order to intelligently construct their bid?

MR. STERRETT:

The grid that Commander Woods showed here just recently would be too wide-spaced to be really definitive for good exploratory work - there would be additional fill-in seismic work if we were starting with that grid pattern.

DR. DAVIES:

So then essentially you would say that we would have to have an additional private exploration before they could really have a good lease-sale?

MR. STERRETT:

Oh most assuredly.

DR. DAVIES:

Thank you. I guess my second question is how much oil do you think we'd have to find in order to make it economically feasible.

1 MR. STERRETT:

2 This sounds like a hedge but really, that is out of my  
3 line - my job is just to find it, somebody else has to  
4 make the decision if it's economically feasible and so  
5 on.

6 DR. DAVIES:

7 In sharing these risks which determines how we would go  
8 about making this available for private participation,  
9 whether it's royalty or bonus or some combination, if  
10 the cost of the infrastructure might be a dominant cost  
11 in its production, how do you say we should take this into  
12 consideration?

13 MR. STERRETT:

14 Gee, I'd be hard-pressed also to give an opinion. I do  
15 personally favor the bonus system as a purer system as  
16 opposed to the royalty system. However, I don't see why  
17 regulations couldn't be provided that they could function  
18 together, some kind of combination of the two systems -  
19 if that were maybe a token gesture type bonus and a  
20 royalty consideration also - with some kind of mechanism  
21 to preclude these bids of companies offering 60-70-80%  
22 royalty where if they found something they wouldn't have  
23 a chance to make anything off of it anyway.

24 \*

25 \*

1 DR. DAVIES:

2 You're opposed to this type because you don't think the  
3 companies can make a profit on it?

4 MR. STERRETT:

5 No, no-no - what I'm saying is that in the trial sale  
6 that was held in the Gulf of Alaska there were some bids  
7 submitted that were totally unrealistic - the companies  
8 were relatively small companies, in fact to be quite  
9 truthful I was not even aware that some of these companies  
10 existed before they submitted bids. They apparently  
11 lacked some experience or something to make the bids that  
12 they did I believe.

13 DR. DAVIES:

14 Right now we don't have any major funds but what if this  
15 drilling the Navy is doing this year finds oil, how should  
16 we then go about making that available for private  
17 development, if in fact we do find a major find of oil?

18 MR. STERRETT:

19 I would guess that the most equitable means would be to  
20 define the limits of that occurrence and exclude that from  
21 any industry consideration on the future sale. Once you  
22 know it's there then there's no problem as far as the ex-  
23 ploration goes.

24 DR. DAVIES:

25 I'm not sure I understand your answer - - do you mean if we  
find oil we should have government production - -

1 MR. STERRETT:

2 - - no, not necessarily, but some sort of an operating  
3 program such as Elk Hills or Teapot Dome or something like  
4 that.

5 CHAIRMAN ROBERTSON:

6 Any other questions by members of the panel?

7 MR. GRYC:

8 Would you care to share your opinion as to the magnitude  
9 of the potential in NPR 4?

10 MR. STERRETT:

11 No sir. It could be - - you're aware probably as well  
12 as anyone that it could be feast or famine. All we know  
13 for sure right now is that the potential is there - if we  
14 use the word 'potential' in its classic definition.

15 MR. GRYC:

16 Do you think the numbers that have been kicked around are  
17 reasonable - you've seen those.

18 MR. STERRETT:

19 Yes, I've seen some numbers - but at this point in time  
20 I would think most any number is as good as any other.  
21 The numbers I think are probably in the ballpark. I sure  
22 couldn't fault the numbers that have been presented any  
23 more that if they would be a hundred percent more or  
24 divide them in two, I can't find fault with them.

25 \*

1 CHAIRMAN ROBERTSON:

2 Any other questions? Mr. Woods!

3 LT. COMMANDER WOODS:

4 How, Mr. Sterrett, would you approach an exploration pro-  
5 gram, seeing as you are an exploration manager? I under-  
6 stand from your statement that you are somewhat critical  
7 of our approach - our approach has been one of doing re-  
8 connaissance work and then going back in and doing the  
9 detail on the basis of the reconnaissance and on the basis  
10 of our gravity findings or what have you, then if there  
11 are structural or stratigraphic traps located going in-in  
12 an endeavor to determine whether they have oil or gas.

13 How would you approach our exploration problem?

14 MR. STERRETT:

15 Well first-off I didn't mean to imply (if it came out that  
16 way I didn't mean it to) - I have no complaint or criticism  
17 of the program that is currently under way. I think in  
18 all reality you're doing it the only way you can. You  
19 started with a large scale program, with a large grid on  
20 your seismic, when you find something of interest based on  
21 this large grid then you come back in with additional  
22 seismic to zero in on what you have for fill-in seismic bits.  
23 The same procedure the companies use in the OCS or onshore  
24 or anywhere else.

25 The only comment I wanted to make it that in answer to Mr.

1 McVee's question was that if we were presented the grid -  
2 - - the lines represented by the grid that you displayed  
3 we would need fill-in seismic before we could make an  
4 evaluation to draw an X on the map and say we should drill  
5 here.

6 LT. COMMANDER WOODS:

7 I see. On another front there seems to be a fair amount  
8 of interest in both the geological or stratigraphic work  
9 that our wells have come up with and also the geophysical  
10 work that we've come up with - - how would you handle the  
11 disposition of that, would you just make it public,  
12 would you sell it to the companies or what?

13 MR. STERRETT:

14 I think there would have to be some sort of mechanism  
15 or clear-cut decision made to either totally remove the  
16 data from public consideration, and to do this it would  
17 of course I think effectively exclude Husky from partici-  
18 pating in any bidding - so that's not quite right I don't  
19 believe. Or, make the data available to the public for  
20 x-period of time prior to a sale so that every company at  
21 least might have the raw data to start with. Some sort  
22 of mechanism on that order I think would be the most  
23 justified.

24 LT. COMMANDER WOODS:

25 Thank you!

1 CHAIRMAN ROBERTSON:

2 Dr. Davies I believe has a question.

3 DR. DAVIES:

4 Following up on your comments - if the grid we currently  
5 have is not sufficient to intelligently put up for lease  
6 and we need additional, could this additional seismic  
7 work be done by the government and then be made available  
8 to the public in general, how should we proceed on that?

9 MR. STERRETT:

10 My guess would be - - I don't think - - if it were going  
11 to ultimately be open to the public or leased to the  
12 public I would think that the oil companies would want  
13 to shoot some of their own seismic for fill-in. This  
14 would be my personal evaluation. I don't see that the  
15 fill-in would be necessary on the part of the Navy (or  
16 Interior I should say) as operator. My understanding  
17 of the current program is to just delineate what might be  
18 there on a large scale basis and I think that's what is  
19 being accomplished.

20 DR. DAVIES:

21 Thank you.

22 CHAIRMAN ROBERTSON:

23 Any questions from the panel? (NO RESPONSE). Thank you  
24 Mr. Sterrett.

25

\*

1 CHAIRMAN ROBERTSON:

2 Next speaker on the agenda is Irene Ryan. Will you  
3 give your name and affiliation please.

4 IRENE RYAN:

5 Mr. Chairman, members of the panel, I am Irene E. Ryan,  
6 a Registered Geological Engineer, State of Alaska.

7 Mr. Chairman, ladies and gentlemen: I wish to thank Mr.  
8 Fred Chiei, the Alaska Deputy Administrator of the Federal  
9 Energy Administration, for this opportunity to testify at  
10 this important meeting. I know that Mr. Chiei is aware  
11 of how critically important to the nation is the early ex-  
12 ploration of the Naval Petroleum Reserve. I also know  
13 that he will listen with sympathy and report fully on the  
14 parochial interests of Alaskans in this development. I  
15 am sure there will be many who will appear here to urge  
16 that consideration be given to the economic and to the  
17 natural environments as this far northern area is opened  
18 for petroleum production. I join them in urging that it  
19 be done with forethought, with care and with caution, but  
20 that it be done without any further delay.

21 \*

22 It has been more than two years since the OPEC embargo -  
23 the brief flurry of public concern has subsided as giant  
24 tankers bring an increasing flood of crude oil from  
25 abroad--crude oil that is needed to fill the widening gap

1 between United States' demand and United States' pro-  
2 duction. So far we have been able to pay for the imported  
3 oil with increasing exports of grain, manufactured goods,  
4 and especially with armaments to countries that we hope  
5 will remain our allies. I notice here recently that  
6 the imports are now running over fifty percent of our  
7 total needs.

8 \*

9 Because there are no imminent shortages facing us at the  
10 gas station or the fuel oil dealer we have been lulled into  
11 a sense of false security. I note that many public figures  
12 have dismissed the energy crisis as a political ploy or at  
13 the most, a deliberate maneuver by the petroleum industry  
14 to secure higher prices for their products.

15 \*

16 Many people have been deceived by these specious arguments.  
17 There remains a general lack of understanding of the in-  
18 tricacies of the science, engineering and economics that  
19 concern the successful discovery, extraction and distribu-  
20 tion of our energy resources. We are further robbed by  
21 a great deal of miss-information, error and prejudice.

22 \*

23 Congress, our State and National leadership continue to  
24 flounder. More and more of the thoughtful and knowledgeable  
25 people are reporting at symposia, hearings such as this, and

1 in the engineering and scientific publications that we  
2 are a nation adrift on a raft of patchwork solutions; that  
3 we are slowly but inexorably drifting toward a dangerous  
4 day of reckoning.

5 \*

6 There exists a glood of publications and reports on the  
7 reality of our energy needs and the impending shortages.  
8 I would refer those interested to the National Petroleum  
9 Council, The Conference Board, Inc., the hearings of the  
10 Subcommittee on Energy of the Committee on Finance of the  
11 United States Senate of the Ninety-Third Congress, the  
12 American Association for the Advancement of Science, the  
13 National Society of Professional Engineers - but I could  
14 go on and on.

15 \*

16 Despite these and other comprehensive studies, there have  
17 been few new starts in energy production in the United  
18 States since the critical days of the embargo. In fact the  
19 number of new facilities or new drilling programs has  
20 actually declined in response to an onslaught by the govern-  
21 ment and by hostile environments, no-growth forces.  
22 America still lacks a firm commitment to nuclear power,  
23 despite the fact that it offers the best hope for energy  
24 sufficiency as our petroleum production dwindles through  
25 the eighties. Solar power remains a partial and localized

1 source as technology struggles to solve the problems and  
2 the materials are developed that will make this source  
3 important in the distant future.

4 \*

5 I have noted how frequently impact studies use the scenario  
6 as a vehicle to describe the possible results, the imagined  
7 reactions and changes in the natural environment in re-  
8 sponse to a particular course of action.

9  
10 So I am going to use the scenario as a method to demon-  
11 strate, if I can, the possible results of our inability to  
12 respond positively and timely to the reality of our energy  
13 shortfalls. First let me review for you a few of the facts  
14 that are the foundation, or the stage (if you will) upon  
15 which this scenario is enacted.

16 \*

17 The daily production from existing fields in the United  
18 States is steadily declining and there have been no major  
19 new oil fields discovered since Prudhoe Bay.

20 \*

21 Even when crude is flowing to the United States from this  
22 field it will not have a substantial impact on the amount  
23 of petroleum we will have to import.

24

25

1 Possible areas for exploration on our coastal shelves,  
2 in Alaska and elsewhere, have not been made available  
3 for exploration and new discoveries.

4 \*

5 The development of coal as an alternate source for pet-  
6 roleum products has been slowed by environmental concerns  
7 and escalating costs.

8 \*

9 Conservation measures such as increasing insulation in  
10 homes or increasing efficiency of electric energy use re-  
11 quire at first, additional amounts of energy to effectuate.  
12 At best all conservation measures will not close the gap  
13 between our energy needs and the supply.

14 \*

15 It is recognized that the time needed between the initial  
16 go ahead decision for an oil exploration program, the con-  
17 struction of a powerplant, the development of a mine, or  
18 a distribution system is measured in years and is increas-  
19 ing because of the demand for hearings, or public interest  
20 suits, and of government intervention. Hence the go  
21 ahead must be given years in advance of need - - we are  
22 already years behind.

23 \*

24 \*

25 \*

1 The facts I have outlined above are better known and  
2 understood by the heads of the governments of our allies  
3 and our foes than by the average person in the United  
4 States.

5 \*

6 There is no real peace among the nations in these troubled  
7 days. What seems like small localized revolutions can  
8 quite suddenly involve one or more of the major powers.  
9 I have lived through two World Wars in which our nation  
10 was involved, besides the conflicts in Korea and Viet Nam.  
11 I have seen the allies of one day become the enemies of  
12 the next. Many of the nations look with envy and covet  
13 the riches of American. They would love to bring us to  
14 our knees.

15 \*

16 It is here now that my scenario begins: The United States  
17 finds itself suddenly cut off by blockade or by treaty from  
18 the flow of imported oil to its shores and is in imminent  
19 danger of attack by hostile air forces. A threat of  
20 nuclear war is not needed.

21 \*

22 We have a few weeks reserve of petroleum but a few weeks  
23 is not time to develop new sources. I checked my last  
24 edition of the Oil and Gas Journal and notice that the re-  
25 serve is now twenty-days.

1 Within a short while our planes, our tanks, our ground  
2 support, our ability to manufacture war materials will  
3 grind to a halt.

4 \*

5 A frantic program for exploration drilling would be in-  
6 iated in our coastal areas and in Alaska. But there are  
7 not enough drilling rigs to go everywhere simultaneously.  
8 The areas first selected for exploration proved dis-  
9 appointing. This is not unusual in the oil industry -  
10 but we are fighting against time. We know that even  
11 after a discovery is made many development wells must be  
12 drilled, pipelines constructed and terminal facilities  
13 built before the crude can flow to refineries.

14 \*

15 The enemy who has control of ample petroleum supplies can  
16 send his planes over us, his ships to our shores during  
17 the critical period of our frantic effort to catch up on  
18 lost time. It is possible we would have to capitulate be-  
19 cause of the breakdown in our interior economy under the  
20 stress of energy starvation.

21 \*

22 You may smile and say 'what an improbable scenario'.  
23 Perhaps, but it IS possible. Great nations have been  
24 overcome in the past and will be in the future. We are  
25 celebrating two hundred years of a democratic government,

1 one of the OLDER governments on earth today. It would  
2 be irony indeed if we were celebrating for the last time.

3 \*

4 As long as the United States can be placed in jeopardy  
5 because of our dependence on imported oil we are being  
6 foolish as a people. I believe we ought to start now,  
7 drilling WHEREVER the possibility of petroleum exists.  
8 We need to know - is there actually oil there or not?  
9 And how Much? These are facts we cannot know until we  
10 drill.

11 \*

12 We need to realize that even after we have completed such  
13 a drilling program we will not have discovered sufficient  
14 reserves to meet our nation's requirements for the next  
15 few decades. We need to realize that we must proceed  
16 without further delay in opening up our coal mines, in  
17 building processing plants, in constructing additional  
18 nuclear plants, and in pushing at the frontiers in energy  
19 development from ALL sources. We are actually years late  
20 and falling behind - falling behind - falling - falling!

21 Thank you!

22 CHAIRMAN ROBERTSON:

23 Any questions from members of the panel = = Mr. McVee!

24 \*

25 \*

1 MR. McVEE:

2 This question doesn't tie too well into your paper but  
3 I'm thinking we might be able to get some insights be-  
4 cause of your being involved in economic development in  
5 the State for many years. It seems to me like there  
6 would be a point in time - - we've had a lot of discussion  
7 about the need for impact money, front-end money for local  
8 governments, for State governments when we look at large  
9 projects - and I think that's a very real thing, at least  
10 based on past experience. It seems like there is a  
11 point in time where the capital investments, capital im-  
12 provements that result from these projects may create a  
13 new tax base where they start to compensate and pay their  
14 own way or pay back some of that impact cost so to speak.  
15 Is this something that can be analyzed or has there been  
16 any work done by economists on this type of thing?

17 IRENE RYAN:

18 The nearest studies that I have seen made along this line  
19 at all were those in connection with the new cities under  
20 the HUD Program in which the actual plan for a new city  
21 revolved around the development of industry to support it -  
22 and on that basis private industry was able to get front-  
23 end money from HUD to build a community in a completely  
24 new area. I think there are two or three of them in the  
25 east but I don't know of any in the west that were built

1 with this concept. The industrial facilities in these  
2 cases were considered to be warehousing and manufacturing  
3 plants of the assembly-line type that could be dispersed  
4 throughout the area and which would become the focus for  
5 people living within the community.

6 However, the case of mineral development, the present  
7 concept of having to go in-in advance and build a commu-  
8 nity with all the social amenities is one that is rela-  
9 tively new and it is a pity. The mineral industry I  
10 know particularly that the capital requirements that they  
11 have found impossible to meet - and a great many mines  
12 that could have operated today might be doing so if it  
13 were possible for the mining companies to go in and say  
14 -as they used to in the past, merely offer the people a  
15 job in the mines and it would be the responsibility of the  
16 people who ever came to take care of all their own  
17 problems otherwise.

18 MR. McVEE:

19 It seems to me it would be possible maybe of setting up  
20 a series of assumptions, economic assumptions to do some  
21 type of analysis - looking at PET 4 and saying that THIS  
22 would be the level of investment, maybe the level of de-  
23 velopment, and then in turn making an appraisal of how  
24 much tax revenue would be gained from this capital in-  
25 vestment and when this would occur. Do you think that's

1 realistic to do something like that or is it just too  
2 remote, too many assumptions needed to be realistic?

3 IRENE RYAN:

4 No, I don't think so. There was an article in the  
5 American Association for Advancement of Science - either  
6 last week or the week before by an author who attack this  
7 problem - I don't know how deeply he went into it but  
8 he was pointing out the problem of the availability of  
9 funds within the circle of requirements for investment,  
10 for everything all at once - and the impact upon the exist-  
11 ing services in the community. He was talking about it in  
12 connection with coal mines in the western States. I'd be  
13 glad to make this available to you if you wish.

14 MR. McVEE:

15 I'd be very interested in that, thank you!

16 CHAIRMAN ROBERTSON:

17 Other questions - - Dr. Davies'

18 DR. DAVIES:

19 Your paper advocates the earliest production from every-  
20 where and specifically NPR 4, what sort of program do you  
21 feel would best meet these goals, government program or  
22 private industry program?

23 IRENE RYAN:

24 I would certainly lean toward the private program because  
25 I don't think the government and the people in government

1 are geared to the type risks taken that is necessary in  
2 the exploration field. An Administrator who would take  
3 the type of risks and make the discoveries would be stick-  
4 ing his neck way out because when you have the high ratio  
5 of losses to final discover and the amount of money that  
6 has to be spent in nondiscoveries, he is immediately the  
7 subject of public criticism. You see the general  
8 public doesn't know - it hasn't sunk into - - no one knows  
9 if the oil and gas is there in any quantities until you  
10 drill the well - and the investment that is made to the  
11 point of getting to drilling the well and then drilling the  
12 well itself is so large that I don't see how a public  
13 Administrator would ever be willing to take the gamble.  
14 Would you be willing to bet fifty million dollars of the  
15 taxpayers money on a dry hole?

16 DR. DAVIES:

17 Uu-uu - wouldn't want to spend my own money either.  
18 Following this up a little bit - what you say is true, I  
19 agree that there is considerable risk involved, a gamble,  
20 but if it is to be done by the private sector they also  
21 need to find a considerable amount of oil and can produce  
22 it - and perhaps the amount of oil that needs to be found  
23 and the expense that needs to be invested perhaps is beyond  
24 the capabilities of even a handful of companies.

25 \*

1 IRENE RYAN:

2 That should also reduce the reward for the discovery -  
3 they call it 'excess profits' that should reduce that even  
4 more. The number of people willing to take the extra-  
5 ordinary risks will decrease. This has been the reason  
6 why there has been investments in this type of speculative  
7 risks is that if you are successful the reward is so big -  
8 it's an inducement, the carrot.

9 DR. DAVIES:

10 Separating the exploration from the production phase, do  
11 you think the exploration - - -will currently as of right  
12 now there is no production authorized in PET 4 and there  
13 is no pending Bill that would authorize production. The  
14 study referred to in the Bill that the President just  
15 signed will require that we propose legislation that would  
16 ultimately lead to production. So right now we're faced  
17 with essentially - well we have the authority to explore -  
18 how could private industry do the exploration without -  
19 without the authority right now to let them go ahead and  
20 produce, we don't have the legislative authority to do  
21 that?

22 IRENE RYAN:

23 I'm sure that the authority to produce would have to be  
24 given, or America would have to face it - as they're facing  
25 it right now as I understand in California - (it's up hill

1 project) - as the shortages mount. We would come to  
2 a point where we would have to authorize production.  
3 However private industry (and I see the point you're  
4 getting at) - if private industry does the exploration  
5 then they have an investment on which they cannot cash  
6 in until production is allowed - which means that trem-  
7 endous amounts of interest would be piling up and addition-  
8 al expense against the oil interests until it was pro-  
9 duced. Yes, that IS a problem.

10 CHAIRMAN ROBERTSON:

11 Any other questions? (NO RESPONSE). Thank you Mrs.  
12 Ryan.

13 \*

14 CHAIRMAN ROBERTSON:

15 Mr. Stefano!

16 RALPH STEFANO:

17 Chairman Robertson, members of the panel - good after-  
18 noon.

19 CHAIRMAN ROBERTSON:

20 Please state your name and affiliation.

21 RALPH STEFANO:

22 I am Ralph Stefano of Stefano-Mesplay & Associates,  
23 Consulting Engineers. We are an Alaskan engineering  
24 firm that has provided consulting engineering services  
25 in the State for the past twenty years.

1 Recently we have completed a fossil fuel resource study  
2 for the Legislature in conjunction with electric energy  
3 alternatives for the various towns, villages and cities  
4 throughout the State.

5 This study along with our past experience provides a back-  
6 ground of knowledge on the oil and coal potential of  
7 NPR 4. Our energy study together with the recently pub-  
8 lished State of Alaska Regional Profiles, indicates the oil  
9 reserve of NPR 4 is estimated to be as large as Prudhoe  
10 Bay and has prospect of being as much as ten times that  
11 amount.

12 \*

13 The Navy has operated in NPR 4 since the second World War  
14 and has drilled a reported 44-wells throughout the NOR 4  
15 area. A direct result of this drilling exploration has  
16 produced a gas field in Barrow, and a shallow oil field of  
17 high quality at Umiat. Most recently the drilling in the  
18 Barrow area has confirmed that we have reserves for at  
19 least fifty years for the City of Barrow, which less than  
20 120-days ago we expected would run out by 1980.

21 \*

22 The Navy has had an extensive program of seismic explor-  
23 ation going on in this area for many years, and due to the  
24 multi-million acre size of PET 4, it still may be a few  
25 years before the seismic work is completed.

1 Presently Husky is drilling (through the Navy) and in  
2 association (as you know) with the Department of the  
3 Interior.

4 \*

5 Now there is an invisible line that actually exists - the  
6 only thing that separates Prudhoe Bay from PET 4, the  
7 geologic formation of the entire North Slope of Alaska  
8 may be considered similar and consequently, given the time  
9 for the necessary exploration we are of the opinion that  
10 a multi-billion barrel oil strike will occur in NPR 4 with  
11 associated quantities of gas in the near future.  
12 This supposition is by and large supported by the oil and  
13 gas exploration community.

14 \*

15 Large, in fact huge, deposits of coal are located within  
16 NPR 4. We have read certain reports that indicate the  
17 amount on the North Slope area is equal to all of the  
18 known reserves in the Lower 48. (And now that's a state-  
19 ment to really consider - even if it's only half true).  
20 The greatest portion of this coal however is a sub-  
21 bituminous quality although the coal in the Wainwright  
22 area has been assessed with BTU content as high as  
23 eleven thousand five hundred BTU - - -due to the higher  
24 value of oil and gas and the easier transport thereof, we  
25 feel that the development of oil and gas reserves in

1 NPR 4 will be fully explored and developed before the  
2 coal is.

3 However, if the energy crisis continues its present trend  
4 we may be forced to develop coal mining and gassification  
5 techniques in order to retrieve the coal reserves right  
6 along with the oil and gas. But due to the high cost  
7 of coal development it may be some time before this be-  
8 comes economical. However, at this time we are  
9 presently investigating coal by the use of a conveyor  
10 belt across the State to open water ports.

11 \*

12 Energy independence for the United States demands that  
13 we continue to explore and develop NPR 4 as rapidly as  
14 possible, and other areas of known hydrocarbon resources,  
15 and that we do this as quickly and as orderly as we are  
16 able. That ends my remarks, gentlemen. I'll be  
17 happy to try to answer any questions for you.

18 CHAIRMAN ROBERTSON:

19 Any questions from members of the panel - - Dr. Davies!

20 DR. DAVIES:

21 Do you have an opinion about the minimum size find we would  
22 have to have to make it - - for commercial production?

23 MR. STEFANO:

24 As far as oil or gas - a discussion I had recently indicates  
25 by those who are currently are aware of the magnitude of

1 NPR 4 and of the total energy supply of the North Slope  
2 area, that we may expect within ten years at least two  
3 oil lines out of NPR 4 as well as gas lines. I am sure  
4 that the magnitude must be of sufficient size for dis-  
5 cussions by people involved in the industry otherwise it  
6 would not occur - it might be considered as you and I both  
7 recognize as being premature.

8 DR. DAVIES:

9 You stated an estimate of NPR 4 being possibly ten times  
10 larger than Prudhoe Bay, the total reserve, what is the  
11 basis for this assumption?

12 MR. STEFANO:

13 The anticlines that we are aware of and have been logged  
14 by the Navy to date, for the area that we're talking  
15 about, is at least five times larger in area than Prudhoe  
16 Bay. It is interesting to note (and I do not have a map  
17 with me to show you) that north of the Alaskan Range, on  
18 the Brooks Range itself, just north of the foothills of  
19 the Brooks Range all the way to the Beaufort and Chugchi  
20 Sea, starting in western Alaska and carrying all the way  
21 through to the Alaskan border and into Canada, are logged  
22 'coal reserves'. That the oil as we know it now that's  
23 being drilled and the area is being drilled, the Prudhoe  
24 Bay area, are drilling through as much as a thousand feet  
25 of coal in that particular area. Consequently the

1 statement which states that the reserve may be at least  
2 ten times as large is based primarily on the fact that  
3 everything is about the same geologically up there, there  
4 are no definite areas of demarcation, and that the area  
5 itself is about five times larger than Prudhoe Bay.

6 DR. DAVIES:

7 I take it then it's sort of a generality in your statement  
8 that Prudhoe Bay extends into NPR 4 because there have  
9 been some holes drilled to the west of Prudhoe which have  
10 been dry holes.

11 MR. STEFANO:

12 That's true.

13 DR. DAVIES:

14 So you're just making sort of a generalization as to the  
15 extent, it's not a fact!

16 MR. STEFANO:

17 Well it's not exactly general inasmuch as the Umiat area  
18 it indicates that we have similar conditions existing in  
19 that area which is considerably west of Prudhoe.

20 CHAIRMAN ROBERTSON:

21 Mr. Stefano, I think it would help the panel if we could  
22 get you to step over here to the map of NPR 4 and point  
23 out some of the areas that you think are of interest to  
24 them.

25 \*

1 MR. STEFANO (stepping up to map):

2 I'm sorry that I don't have numbers with me as I expected -  
3 I have just returned to town and expected to have it with  
4 me at this time - - expected to have a map with me that  
5 shows all of the areas of energy that exist in the State.  
6 In this particular area here - the Prudhoe area - NPR 4  
7 extends - Prudhoe extends from over here clear through  
8 here. The City of Wainwright (which is located here)  
9 is in the center of an area where there's eleven thousand  
10 five hundred BTUs of coal which extends clear across the  
11 State here, extending from here down on this ridge, right  
12 straight through all the way into Canada. Now where  
13 there is coal there is going to be oil.  
14 We already know what we've got over here and the Navy tells  
15 us that we've got plenty over here or they wouldn't have  
16 held it out and hung onto it so tightly for so long. That's  
17 the general consideration.  
18 Down here in this area I might point out, this is down  
19 below the Brooks Range - as far as coal shale is concerned  
20 we in our report have made the statement that there is  
21 enough oil in the coal shale area below the Brooks Range  
22 to run the United States for about fifty years - - but of  
23 course at this moment it would cost more to take it out,  
24 but nevertheless, the energy is there.

25 \*

1 CHAIRMAN ROBERTSON:-

2 Are there any questions from the panel? (NO RESPONSE).

3 Thank you Mr. Stefano for your very informative statement.

4 MR. STEFANO:

5 Thank YOU sir.

6 \*

7 CHAIRMAN ROBERTSON:

8 Mr. Johnson - please state your name and affiliation for  
9 the record.

10 MR. JOHNSON:

11 Thank you Mr. Chairman. I am Robert W. Johnson, repre-  
12 sentative of Teamsters Local 959, Anchorage, Alaska.  
13 Our Local Union has jurisdiction over the entire State of  
14 Alaska. We are the authorized collective bargaining agent  
15 for more than 23,000 Alaskans. Among these are the  
16 'Roughnecks and Drillers', the Technical Engineers, and  
17 the construction Teamsters currently engaged in both the  
18 pipeline and the building of the gathering stations on the  
19 North Slope.

20 \*

21 The prospect of development of Naval Petroleum Reserve  
22 4 involves all our members. Its potential impact on  
23 Alaska and Alaskans will effect all living within this  
24 State and many beyond its borders. Therefore, in addition  
25 to representing those of our members with a special interest,

1 I appear before you today as the representative of all  
2 Alaska Teamsters.

3 \*

4 May I say first that we are grateful for this second step  
5 toward the utilization of PET 4. It is indeed unique  
6 to have two separate steps of this chain happening within  
7 the same week, and the opportunity to offer comments under  
8 such a fresh light is totally unique. More than that,  
9 it tends to restore and polish somewhat tarnished faith in  
10 the ability of our government to move toward the solution  
11 of any crisis.

12 \*

13 Now about the matter of whether the government or private  
14 industry should explore, develop and produce the oil re-  
15 sources of PET 4, we are forced to make a qualified answer:  
16 If the government intends to follow the same obsolete and  
17 profligate practice of competitive cash bids to determine  
18 which elements of private industry shall have the privilege  
19 and profits from the venture, then we heartily urge the  
20 government to develop the resource itself, for the follow-  
21 ing reasons:

- 22 1) PET 4 is part of the 80% of the known oil  
23 reserves located on public lands.
- 24 2) These oil reserves and the lands on which they  
25 are situate are the property of the people.



1 the oil to Valdez and from there to the refinery. For  
2 the sake of rounded figures let us estimate their additional  
3 costs prior to production at an additional two billion  
4 dollars, bringing their entire investment to an assumed  
5 total of ten billion dollars for the development and pro-  
6 duction of the North Slope oil.

7 The lowest estimate ever heard for the extent of this oil  
8 is ten billion barrels. On today's market under the pricing  
9 established by President Ford, this oil is worth \$7.50 per  
10 barrel on the domestic market, or a total of seventy five  
11 billion dollars. Of this total the State will receive  
12 nine and three quarters billion for its one-eighth share.

13 \*

14 However, the State must deduct from its share the cost of  
15 transporting the oil to the nearest port, or some \$4.00 per  
16 barrel. Based on ten billion barrels this would total  
17 some five billion dollars and would be deducted from the  
18 State's total of nine and three-quarters billion, leaving  
19 the State with an estimated net of four and three-quarters  
20 billion dollars.

21 \*

22 Now, compared to the four and three-quarters billion  
23 dollars to be received by the State for the development of  
24 the oil which belonged to the people of this State, the  
25 oil companies would receive sixty five and a quarter

1 billion dollars PLUS the five billion paid by the State  
2 for the transport of the oil. This leaves the final  
3 return on the North Slope at seventy and a quarter billion  
4 for the private oil companies and and five and three  
5 quarter billion for the State.

6 \*

7 This disparity of return carried out in the face of today's  
8 world conditions can only have one ultimate result, the  
9 nationalization of the oil resources and ultimately (and  
10 I trust no one will be insulted) the fumbling, bumbling  
11 aspect of government take-over of the oil industry, because  
12 the people won't stand for it - they ultimately will not  
13 stand for it.

14 \*

15 Now as true believers and devoted practitioners of the  
16 private enterprise system, we believe our Federal Govern-  
17 ment must cease and desist the utterly stupid practice of  
18 competitive cash bidding for the rights to develop oil  
19 and mineral reserves. In their place the Government must  
20 substitute competitive equity bidding for those same re-  
21 serves. Further, the leases so bid for should be scaled  
22 according to years in force and effect. To explain this:

23 Leases and the share of the oil to be given to  
24 the Government could be scaled according to ten year in-  
25 crements. During the first ten years, in recognition of

1 the costs of exploration and development, such a bid might  
2 call for the Government to receive 40% of the oil and the  
3 private company 60%. During the second ten years the  
4 Government might receive 60% and the private company 40%;  
5 during the third ten years the Government 75% and the  
6 company 25%.

7 \*

8 Impossible - some might say. These fractions are now  
9 in use in other nations and were bid by the same companies  
10 who bid on the oil reserves in this nation.

11 \*

12 How would this alter the return? Again using the North  
13 Slope leases of the State let us assume that 500-million  
14 barrels per year were taken out - the total possible is  
15 seven hundred thirty million but let's round it to 500-  
16 million, it's easier to figure that way. In the first  
17 ten years the State would receive two billion barrels  
18 valued at fifteen billion dollars - they would pay eight  
19 billion for transport and keep seven billion. During the  
20 second ten years the State would receive six billion  
21 barrels valued at forty five billion dollars - they would  
22 pay twenty four billion for transportation and would keep  
23 twenty one billion. We submit to you that this is a  
24 much more fair and equitable return, to all parties  
25 involved.



1 us listen to the same drummer, march to the same beat  
2 and head off the impending disaster which must come from  
3 the obsolete, totally inequitable practice of competitive  
4 cash bidding for leases.

5 \*

6 If this can be done then Teamsters Local 959 would urge  
7 that PET 4 be leased for exploration, development and  
8 production by private enterprise.

9 \*

10 It is understood that all phases of such a proposed  
11 operation would be carried out with as little alteration  
12 of the environment as possible. This neither means  
13 nor implies that every snowflake will be left in its  
14 normal position. Each and every phase would undoubtedly  
15 result in an alteration which would endure for consider-  
16 able time.

17 Rather, it does mean all operations would include a  
18 positive effort toward preventing permanent damage of a  
19 harmful nature to any portion of the environment. This  
20 would necessitate restoration activities wherever and  
21 whenever such damage might occur - and I might add that  
22 the pipeline is setting an admirable and excellent ex-  
23 ample of what can be done toward such protection.

24 \*

25 \*

1 On the socio-economic elements Teamsters Local 959 is  
2 especially anxious that all persons living within the PET 4  
3 area and adjacent thereto would have every opportunity to  
4 work on the project, both during the exploration and de-  
5 velopment and after production.

6 We would prefer that the discharge of this responsibility  
7 be in the hands of a private contractor, that he be re-  
8 quired to train and utilize local residents wherever  
9 possible. It is understood that such residents would have  
10 to be qualified to perform the work. However, from the  
11 experience of our Local Union (and this goes back 25-years  
12 to the building of the DEW line) we have no reason to be-  
13 lieve they would not be able to adapt to this employment  
14 and fit well in any position.

15 \*

16 In addition, such employment would go far toward easing  
17 the impact of this activity upon the local community. It  
18 would over a period of years weave the local people into  
19 the new fabric formed by the development. And finally,  
20 would provide the developer with a ready, available supply  
21 of trained and oriented workmen for his needs.

22 \*

23 Regarding the infrastructure facilities, costs and related  
24 services, the normal inclination of our Local Union would  
25 be to urge that this be the responsibility of the State and

1 Federal governments. However, under the conditions  
2 established by our State Administration, where we have  
3 millions for study and not one cent for action, we hesitate  
4 to recommend such an alignment. Frankly, we do not be-  
5 lieve perfection to be within the grasp of man. There-  
6 fore, as our State apparently will settle for nothing less  
7 where development is concerned, we would urge that all  
8 infrastructure facilities be either the responsibility of  
9 the contracting company, or the Federal government.  
10 We would also recommend adequate study, plus an equal  
11 amount of care and precaution.

12 \*

13 There can be little or no doubt regarding the benefits  
14 which can accrue to both the State and those within the  
15 local area. The development of such a resource as offered  
16 by PET 4 is an immediate opportunity for economic gain,  
17 a steady opportunity for the improvement of local con-  
18 ditions, and a once in a lifetime opportunity to trigger  
19 the exploration and development of all the vast resources  
20 across northern Alaska.

21 \*

22 It offers low-cost heat, low-cost power, new roads, new  
23 airports and increased knowledge of the Arctic as immediate  
24 gains. Using these as a lever it could well pry loose the  
25 snowball which will cause an avalanche of mineral

1 exploration and development. The end result could be  
2 the opening of a new era for Alaska and a new look to the  
3 northern part of our United States.

4 \*

5 However, before departing from the change which could be  
6 I'd like to seize this opportunity to throw a curve at an  
7 ironical situation which presently threatens us - - the  
8 trans-Canada gas pipeline.

9 Should this Canadian gas pipeline come to be and PET 4  
10 gas be hauled from one side of Alaska to another to pass  
11 through it, our nation shall undoubtedly qualify for the  
12 'Great Hazelnut' an award given for the 'Squirrel of the  
13 Year'.

14 \*

15 From the standpoint of defense we earn the award for  
16 stringing across our farthest north boundary the very life-  
17 line of energy for the midwestern United States. From  
18 the standpoint of economy we have earned the award for  
19 ignoring costs to the tune od 'Damm the Dollars, full  
20 speed ahead'.

21 From the standpoint of hindering Alaska, we shall have  
22 earned the award for ignoring the potential development  
23 of resources which could be developed - and thus managing  
24 to ignore that many of these are in short supply and drain-  
25 ing dollars as they are imported - and have routed the gas

1 pipeline so as to leave them in the ground.

2 \*

3 Finally, we shall have earned the award by ignoring the  
4 obvious fact that whichever nation the line is in has full  
5 control of what gas the line carries, and what shall be  
6 charged for the passage.

7 \*

8 Teamsters Local 959 urges the immediate, expedited de-  
9 velopment and production of PET 4 and we likewise urge that  
10 BOTH the gas and the oil therefrom will pass through an  
11 all-Alaska pipeline.

12 THANK YOU!

13 CHAIRMAN ROBERTSON:

14 Thank you Mr. Johnson. Any questions from the panel?

15 DR. DAVIES:

16 As part of this study we're considering many methods of  
17 exploration and production and various methods of profit  
18 sharing, including those that you suggested, following up  
19 on your equity bidding procedure, can you identify which  
20 countries this procedure has worked particularly well in?

21 MR. JOHNSON:

22 Arabia. Progresssive leases normally start with - - well  
23 over there they have concessions (let's identify the  
24 difference), a concession is not a bid it's a negotiated  
25 deal. In competitive bidding however the practice has



1 DR. DAVIES:

2 I could probably refer to my numbers here from the  
3 Interior Department but it's my impression that the  
4 Government has actually received payments from the OCS  
5 area of just about the entire value of the oil that's been  
6 produced - the Government really has received their share  
7 so there really has not been excess profits at least in  
8 the Gulf of Mexico. Are you aware of any significant  
9 averages that show that the companies HAVE been receiving  
10 excess profits?

11 MR. JOHNSON:

12 Well I'll tell you one thing - I could show you with just  
13 a simple conversion of those figures to the world market  
14 where this whole thing would alter with one stroke of the  
15 pen to the tune of a 46% increase. This nation is com-  
16 mitted, whether its people know it or not, to supplying  
17 five hundred million barrels to our foreign allies in trade  
18 agreements. Now that has to come from somewhere and I  
19 assume it's going to come from some of our production and  
20 I assume they are going to pay the world market level like  
21 we pay when we import it in here from Arabia.

22 I think that given a choice you can keep your cash, I'll  
23 take the oil because it will increase and cash will go down  
24 in value - which is a second factor. I don't think  
25 this world market is going to remain stable and I don't

1 think our President will be able to hold that \$7.50  
2 figure - and that's just my opinion. I've never seen  
3 anybody in my life that can sit there and hold the ice  
4 cream in his hand without it melting, and that's what he  
5 is trying to do - and for our benefit I might add.

6 DR. DAVIES:

7 Is there a difference here between the situation we have  
8 in NPR 4 and say in Indonesia-- the cost of the delivery  
9 of the oil is a significant portion of the cost - the new  
10 pipeline would be a significant cost here - so would we  
11 have a different situation?

12 MR. JOHNSON:

13 Until we find the oil we won't know how much of a cost it  
14 is, we won't know for a fact if we'll need anything besides  
15 what we have - just run it right over and run it in with  
16 the line we have. I'm optimistic, I believe we're going  
17 to need another line. I really do believe that because  
18 when I worked in the oil industry thirty years ago I heard  
19 the story about the inland seas - the story about at one  
20 time the seas all formed along a line and the mountains  
21 rose out of them and finally the oil was formed and all  
22 that, I was taught that as part of my training. I think  
23 you've got it there, I think you've found it. I think  
24 you've hit it again over in the Kuskokwim, I think once  
25 upon a time they went together. I think we've got a great

1 oil prospect here but the one thing we cannot stand, I  
2 assure you, I may not know much but I do know a little bit  
3 about politics, there is nobody going to run down the  
4 street with this ice cream cone in his hand and tell every-  
5 body else they can't have any - the public will not stand  
6 for it.

7 Now I want private industry to stay in charge, I don't want  
8 the government to take over unless a fair and equitable  
9 distribution of these reserves which belong to the people -  
10 this isn't something that private industry just went out  
11 and negotiated with a private individual, they negotiated  
12 with our government. People simply will not stand for it.  
13 It's absolute fuel for any fire that some future demagogue  
14 wants to burn.

15 DR. DAVIES:

16 I think we've got to be careful in how we go about doing  
17 this. If the government takes too great a share we won't  
18 get that production.

19 MR. JOHNSON:

20 Well if there isn't any there they won't get any.

21 DR. DAVIES:

22 Well even if they find oil - going back to the formula you  
23 presented, if in this third 30-year period the operating  
24 cost, the fixed cost to get the oil out - since we have  
25 such a tortuous route to get it out, if the cost of that

1 operation to get it out is too excessive then we'll stop  
2 production and the government may get seventy percent of  
3 nothing instead of the other way. So I do think we  
4 have to be careful there. Have you considered how the  
5 cost of the infrastructure perhaps might alter this  
6 method of bidding?

7 MR. JOHNSON:

8 Well the first element of the infrastructure of course  
9 will be roads and airports, the second will be the neces-  
10 sary facilities to operate, gathering stations, possibly  
11 even refineries. We may find in future times that it is  
12 easier to build a refinery there, process it and ship it  
13 out as refined products. Cycling the gas there on the  
14 slope, taking off the butane and propane, useable gasses,  
15 shipping them in another fashion. But the infra-  
16 structures in that particular area can all be tied into  
17 (at least a large portion of them) can be tied into the  
18 North Slope, can be tied into Barrow.

19 I think the State and Federal governments will have to  
20 put in a road, I think they will have to develop the air-  
21 ports because they want the control, they don't want to  
22 leave that under private enterprise. I believe that  
23 the development of whatever facilities they may have,  
24 tracking plants, towers, whatever they build, will be the  
25 companies' share to bear. But I would like to remind

1 you of one thing, this pipeline is the biggest project  
2 ever built - if that ten billion is correct they'll  
3 almost have the State pay that off for them from its share,  
4 maybe not the interest but they will be paid almost the  
5 full cost - - and you can't hardly get deals like that  
6 anymore.

7 DR. DAVIES:

8 If as you envision there is the need for another pipeline  
9 how would you recommend that we go about this pipeline?

10 MR. JOHNSON:

11 Well I hope it will follow as closely as it can this one -  
12 I've lived up here for almost a quarter of a century and  
13 I don't want to see this disturbed any more than we can  
14 help. I'd like to see development corridors where we  
15 channel things - -

16 DR. DAVIES:

17 - - oh, I guess I've been referring mostly to the economics  
18 and financing of it.

19 MR. JOHNSON:

20 Well I wanted the State to build the first one, I didn't  
21 want private industry - I'd rather have the pipeline than  
22 the oil, I really would, I've got the only cinch in the  
23 game.

24 \*

25 \*

1 DR. DAVIES:

2 I'd like to change the subject but still sticking with  
3 your testimony - you had talked about utilizing local  
4 residents for the manpower for construction of the pipe-  
5 line and all the infrastructure of the whole system -  
6 earlier this morning here a gentleman by the name of John  
7 Monroe advocated that we use Alaskan Natives more ex-  
8 tensively.

9 MR. JOHNSON:

10 Well I believe it's about 95% Alaskan Natives up in that  
11 country, it's a very, very small mixture of Caucasian.  
12 But I don't believe they could do the job as they are NOT  
13 of great enough number, and furthermore, not of the par-  
14 ticular skills that are necessary.

15 DR. DAVIES:

16 His comment was centered around the fact that many of these  
17 individuals had been trained and then could not get em-  
18 ployment. Based on the experience we have right now on  
19 the pipeline construction, do you have any figures on what  
20 portion of the Teamster members are Alaska Natives and what  
21 portion are other residents of Alaska, as opposed to being  
22 from the Lower 48?

23 MR. JOHNSON:

24 I cannot answer that - - when you say 'Teamster members'  
25 you're talking about all 23,000?

1 DR. DAVIES:

2 Yes sir.

3 MR. JOHNSON:

4 I cannot answer that - but I can tell you about the pipe-  
5 line, those working on the pipeline and on similar  
6 facilities. Our average last year throughout the con-  
7 struction season was approximately 16% - we shot for a  
8 quota and attempted to achieve a 21% Alaska Native quota  
9 on the line and for certain periods we had it, for a very  
10 limited period we were above it, but overall throughout  
11 the twelve months we averaged about 16%.

12 Now as for those Natives up in that area, I have run  
13 projects in the Village of Wainwright, I have worked with -  
14 - (we have contracts on the Arctic Station there at  
15 Barrow), we employ these people, we work with them, and I  
16 am in charge of training them. I will tell you definitely  
17 that they are exceedingly, EXCEEDINGLY skillful in any  
18 manual skill. They learn very quickly, they are not slow  
19 neither are they lazy. They have a life-style that does  
20 not adapt to all the necessities of living by the clock,  
21 they have lived for centuries by the seasons and survived  
22 by doing this, they did not go by the minute or by the  
23 hour. This is a little nerve-wracking for a foreman  
24 that doesn't quite understand this but if he'll take the  
25 time to work with them it is well worth it because they

1 can teach him an awful lot. They are oriented to that  
2 country - they never get lost - they're very handy to  
3 have when YOU get lost - and they definitely can make  
4 their way or hold their own in any mechanical or similar  
5 skill.

6 I think where it breaks down is that the Native is not  
7 enthused about money, he doesn't get carried away by it,  
8 he is not proud of accumulating it, he is not desirous  
9 of being rich and doesn't generally covet anything that  
10 anybody has. He simply wants to enjoy life, he doesn't  
11 necessarily want to conquer it - and as a result it is  
12 hard for some people to get used to that.

13 DR. DAVIES:

14 How about the labor practices - - or, how should they be  
15 altered to greater utilize the Alaska Natives?

16 MR. JOHNSON:

17 We've never had to alter them at all. We simply tell them  
18 the rules and tell them what we expect from them. I think  
19 the one thing about it - if I were to pick one out of the  
20 real 'Toolies' back there, I would be very careful not to  
21 raise my voice and very careful not to shout - because  
22 they are sensitive people, they've lived very closely,  
23 they've lived in a society where there was no escape from  
24 other people - the only escape was to get clear away from  
25 all people - and as a result they are very considerate,

1 very kind, very soft-spoken. When you shout at them  
2 they tend to cringe, you can almost see them curl up in-  
3 side and recoil, you've lost them, they don't hear you.  
4 They cease to listen if you want to be very blunt about  
5 it, they just aren't interested any more.

6 But other than that there is very little - if you take the  
7 time to treat them as a person and acknowledge that they  
8 don't know it all the first day they come on then you'll  
9 get along just fine.

10 DR. DAVIES:

11 Do you have any similar figures on the employment of  
12 Alaska residents as opposed to nonresidents- to the - -

13 MR. JOHNSON:

14 - - they averaged 87% Alaska residents in the pipeline  
15 positions within our portion of the pipeline contract.  
16 Those are the State figures, not ours, and I don't know  
17 how that is.

18 I would like to say though that I've been here a long time  
19 (and it seems shorter than it really is) - I do believe we  
20 should hire Alaska residents and particularly local  
21 residents in all instances - but I cannot get excited if  
22 there are skills which we cannot meet at all times which  
23 we go outside to find. We have no developed economy,  
24 we're just starting to develop one. This economy was as  
25 fragile as a snowflake and we're trying to build something-

1 it's absolutely normal that there are going to be  
2 specialists that we are going to have to import and it  
3 is a feature of our contract that the contractor has the  
4 right to ask for either special skills or for his super-  
5 visory personnel, that's his prerogative.  
6 So I believe we will never reach the day when we will hire  
7 100% Alaskans, at least not in the near future.

8 \*

9 CHAIRMAN ROBERTSON:

10 Are there questions by other members of the panel?

11 Mr. Gryc!

12 MR. GRYC:

13 I thought I heard you say that PET 4 had 80% of the  
14 nation's known petroleum reserves - that doesn't jive with  
15 the other figures.

16 MR. JOHNSON:

17 80% of all the known oil reserves in the United States are  
18 on public lands, the other 20% are on private lands - -  
19 it's part of that 80%.

20 CHAIRMAN ROBERTSON:

21 Any other questions by members of the panel? (NO RESPONSE)

22 Thank you Mr. Johnson for your very complete statement.

23 \*

24 \*

25 \*

1 CHAIRMAN ROBERTSON:

2 Mr. Evans - will you state your name and affiliation  
3 please.

4 MR. EVANS:

5 I am Chuck Evans, I'm speaking as an individual. I am  
6 associated with the Alaska-Pacific Bank, (a new kid in  
7 town).

8 Actually all you have to do to be an expert in listening  
9 to these various people is to know that Kuwait is a country,  
10 Abba-dabba is a town and there are forty two gallons of  
11 oil in a barrel. But I have a background in oil (I hope)  
12 and it's a good one.

13 I am not the Chuck Evans by the way, that's the former  
14 President of the Sierra Club. I have also been described  
15 as having the diplomacy of Attila-the-Hun so I will try to  
16 temper my remarks.

17 The basic question is should government or private industry  
18 explore and develop NPR 4. I thought 'what a silly  
19 question to ask a banker' - OF COURSE private industry.  
20 They do it cheaper, they do it faster and the do it better.  
21 In ten years the Navy (with all due respects to the  
22 Commander) discovered probably reserves of three hundred  
23 billion cubic feet of gas, one hundred million barrels of  
24 oil, and spent fifty million dollars doing it. In a  
25 shorter period of time and approximately at the same cost,

1 private industry discovered ten billion barrels of oil  
2 and twenty-six trillion cubic feet of gas - case in point!

3 \*

4 Now I'd like to make a few other points: I don't want the  
5 government in the oil industry or for that matter any  
6 other private enterprise. I hate to pick on the Postal  
7 Service but I saw a bumper sticker which describes it  
8 adequately 'If you like nationalized oil you'll love the  
9 Postal Service'. I believe that government development  
10 of NPR 4 is an unhealthy step in the wrong direction - an  
11 unhealthy one.

12 \*

13 One other point I'd like to make: I don't want my tax  
14 dollars in a high risk business. Let the experts do it -  
15 let private industry do it. They understand risk  
16 capital, government does not.

17 \*

18 I'd also like to talk about leasing and the methods of  
19 leasing. The only way to go on leasing (for government)  
20 is the dollar-bid method with a fixed royalty. It's  
21 nice to sit here and say 'boy, we would have made a lot of  
22 money if we would have had royalty bids at Prudhoe Bay' -  
23 but that's hindsight. It's the kind of a guy that rolls the  
24 dice and when a seven comes up he says 'now I want to bet',  
25 it just doesn't work that way - it's a high risk  
business.

1 So straight royalty bidding is not a good way! I've  
2 been involved in straight royalty bidding when I was with  
3 an oil company. The combination system - royalty  
4 bidding and dollar-bidding - it sounds good but it takes  
5 a lot of experts to determine what a good bid is. Is one-  
6 eighty royalty and a million dollars better than a quarter  
7 royalty and five hundred thousand dollars? You don't  
8 really know! I say let the government stay out of the  
9 risk business - the only way to go is the dollar-bids and  
10 a fixed royalty. And you can vary your fixed royalties  
11 of course, and let the oil companies or any other companies  
12 that want to bid-bid on known factors.

13 \*

14 That's really the basic points I want to make today - let  
15 industry develop NPR 4.

16 Thank you!

17 \*

18 CHAIRMAN ROBERTSON:

19 Thank you Mr. Evans. Any questions from the panel?

20 MR. McVEE:

21 If it's the data that was gathered through the drilling  
22 program, through the Government exploration program - if  
23 it's made available to all of industry and we get to the  
24 point of going to lease on a bidding basis - if that's  
25 available to all industry won't in reality that reduce

1 some of the costs to industry and thus the taxpayers  
2 recover their investment on the tax dollars that were  
3 spent on the - -

4 MR. EVANS:

5 -- well I would think so. It depends upon whether you  
6 are releasing wrong data or not, raw seismic data. I  
7 would also think that you would want to let the oil  
8 companies go in and also do some shooting themselves to  
9 really make it a competitive system. But in direct  
10 answer to your question, yes it would.

11 CHAIRMAN ROBERTSON:

12 Any other questions by the panel? (NO RESPONSE). Thank  
13 you again Mr. Evans.

14 We'll have a fifteen minute recess.

15 (SHORT RECESS HERE)

16 \*

17 CHAIRMAN ROBERTSON:

18 We're back in session. Our next speaker is Mr.  
19 McCutcheon - please state your name and affiliation for  
20 the record.

21 MR. McCUTCHEON:

22 For the record, my name is Jerry McCutcheon, my mailing  
23 address is Post Office Box 2340, Anchorage, Alaska, 99510,  
24 I represent myself.

25 \*

1 You had an earlier witness here, Irene Ryan - maybe I  
2 should give you and these gentlemen some of the back-  
3 ground on Irene. Irene is the one who played a role  
4 in the original discovery of oil in Alaska and the Kenai  
5 Peninsula, she also did the original work on the Trans-  
6 Alaska Pipeline (some people may have forgotten about)  
7 in 1962 and 63.

8 \*

9 One other thing - about royalty bidding versus bonus  
10 bidding and fixed royalty, there was in October of 1974  
11 a lease held in the Gulf of Mexico by the Department of  
12 Interior and the bids on a straight royalty basis ranged  
13 from 52-to-82% and the 52% one was in water from 8-hundred  
14 to 13-hundred feet deep.

15 \*

16 I believe PET 4 should be explored but not produced except  
17 to keep the current oil line full. PET 4 should be used  
18 as a stabilizer to other Alaska productions, making up  
19 any than a less-full capacity of the current line.

20 There has been a great deal of talk about how many lines  
21 will be built but that has not been backed up with the  
22 discoveries. The most likely case that we have are  
23 one, Prudhoe Bay.

24 The State of Alaska does not have any more lands which  
25 will produce another Prudhoe Bay, nor do the Native

1 corporations. The only possibility that exists is the  
2 Arctic wildlife range and PET 4. This is not to say  
3 that more oil will not be found, but it's unlikely that  
4 we will find anything as large as Prudhoe Bay again.  
5 Prudhoe Bay will reach its capacity of one and a half  
6 million barrels a day by 1980 - and will decline by 1985.  
7 Assuming that we have a capacity of the oil line of two  
8 million barrels a day, we have a five hundred thousand  
9 barrel excess capacity which will increase after 1985 with  
10 respect to Prudhoe Bay.

11 \*

12 It is this unused capacity which must be addressed, NOT  
13 PET 4, but the use of the pipeline with respect to further  
14 oil development in the Arctic - - looping or partial looping  
15 of the TAPS line is suggested in the FEA National Energy  
16 Outlook and simply is not reasonable unless one can find  
17 two more Prudhoe Bays.

18 \*

19 The FEA has underestimated the cost at six billion dollars,  
20 the cost is now admitted to be over seven billion dollars  
21 and the contractors have stated that the cost is around  
22 ten billion dollars. The Securities Analyzing firm in  
23 London analyzing BPs securities produced a figure of  
24 9.2 billion. Even at 7-billion or \$5.00 per barrel  
25 charged, most of the cost of the North Slope oil is

1 transportation and therefore the maximum utilization  
2 over a longer period of time, the existing line is in  
3 order rather than the maximum oil production.

4 There is a clamor that the nation needs oil, won't the  
5 nation need oil twenty or thirty years from now?

6 \*

7 Prudence does not seem to prevail very well unless it  
8 is published in the newspapers as a series of articles.  
9 It is strange how the FEA responded to a newspaper  
10 article/articles that we'll have a surplus of oil on the  
11 west coast about a month ago. Some of us knew that  
12 surplus of oil would exist back in 1969. I guess if  
13 it's not in print it won't be understood. I suppose  
14 we will be saying in 1985 'see, there's going to be a  
15 lot of spare pipeline capacity in 1990' and Prudhoe Bay  
16 is only contributing to one-fifth of that capacity.

17 \*

18 All kidding aside, even with the discovery of another  
19 Prudhoe Bay this just does not justify another line.  
20 Native corporations, since they wish to produce their  
21 oil lands, should be given access to the oil-oil without  
22 competition from Prudhoe Bay or without competition from  
23 PET 4 for the available space.

24 PET 4 production should vary with the available pipeline  
25 space and should be stabilized to flow so we're always

1 a capacity of around two million barrels a day. This  
2 would call for a far different leasing program than the  
3 Federal Government has used in Alaska - the leases should  
4 be on a royalty basis only with a front-end recapture  
5 clause to the oil companies. When you load the front-  
6 end of a royalty bid, either with money or taxes or what-  
7 ever the case may be, all those have to be taken into  
8 consideration and when you start applying the discount  
9 factor of 15%, 20%, it builds up quite alarmingly and that  
10 cost all gets added to the oil. If you have simply -  
11 you've got a lease, maybe it's \$25.00 an acre or something  
12 like that, and a bond to insure that the person will  
13 carry out what they are doing - like what was done in  
14 October of '74, you have a low entrance cost and almost  
15 anybody can get in. As a matter of fact in that par-  
16 ticular lease sale none of the majors won in the leases,  
17 all the little fellows won.

18 \*

19 So sometime the FEA should also become aware that there  
20 is no overriding need to produce oil, either now or in the  
21 next five years - because there is no need today or in  
22 five years from today that won't be even far more desperate  
23 twenty or thirty years from now. We only have a  
24 limited supply of oil and it would seem from reading this  
25 that one would think the FEA thought there was an indefinite

1 supply of oil and that everything was geared to 1985  
2 and not beyond that particular part - that maybe every-  
3 body in the world disappeared by the year 2000.

4 CHAIRMAN ROBERTSON:

5 Mr. McCutcheon, will you read the name of the publication  
6 into the record!

7 MR. McCUTCHEON:

8 National Energy Outlook 1976 - Federal Energy  
9 Administration.

10 In closing I again wish to take issue with the national  
11 policy of spreading the shortage of petroleum rather than  
12 attacking the problem of petroleum replacement. We've  
13 got beautiful coal fields on the east coast and in north  
14 Central America and they should be used - and oil should  
15 be left by and large where it's at because we're for all  
16 practical purposes out. It's just a small period of time  
17 within our total history and we're going to be finished  
18 with oil and we've got to go to coal and it's time to  
19 start. We've got an awful lot of coal up at the North  
20 Slope - and what facilities up there that are built should  
21 be looked forward to some day also utilized for coal. I  
22 think we ought to look forward on the North Slope to petro-  
23 chemical production - it does not make sense to take the  
24 gas all the way to the south 48 States, increase its cost  
25 by five times and then try to make petrochemicals from it.

1 It's better to make the petrochemicals up there and then  
2 ship them out as a finished product - gas does not  
3 transport too well.

4 \*

5 Three quarters of the equipment that it takes for ex-  
6 ample to make methynol out of gas can also be used for  
7 coal - and we've got more energy in coal on the North  
8 Slope than the middle east has got altogether in oil.

9 Gentlemen, I want to thank you!

10 \*

11 CHAIRMAN ROBERTSON:

12 Any questions from the panel?

13 DR. DAVIES:

14 I'd like to understand your proposal a little bit better.  
15 How -would you say companies would be interested in leas-  
16 ing in NPR 4 if they had Alaska priority in using the  
17 Trans Alaska pipeline?

18 MR. McCUTCHEON:

19 If you are bidding on a royalty basis - and they're not  
20 loading up front, their costs would be small with relation  
21 to a large bid on a piece of ground; the exploration work  
22 apparently already is going to be done, or I'm assuming  
23 much of it will be done, deeper exploration, so far we  
24 have not had any deeper exploration, I believe all the  
25 wells that were drilled up there were shallow. So you

1 will have some problems and maybe you should just sit  
2 there and hang onto it, or maybe you should go ahead and  
3 hire an operator - (it's done all the time). AMOCO and  
4 Union cut a deal with TEXOCO for the Kubik Field and I  
5 think their charge was 60% - -

6 DR. DAVIES:

7 - - you have a question of a spur line to construct and  
8 the wells are rather expensive so there is going to be  
9 considerable front-end cost - -

10 MR. McCUTCHEON:

11 - - mm-hmm, but not the kind of cost you get when you bid  
12 a billion dollars and find you have nothing but a dry  
13 hole.

14 CHAIRMAN ROBERTSON:

15 Any further questions from the panel? (NO RESPONSE).

16 Thank you Mr. McCutcheon.

17 Next speaker is Mr. Cahill. Please state your name  
18 and affiliation.

19 MR. CAHILL:

20 Mr. Chairman, members of the panel, my name is Russell  
21 Cahill, I am the State Historic Preservation Officer for  
22 Alaska.

23 The comments I would like to make a part of the record  
24 deal with known and potential historic and prehistoric  
25 resources within Naval Petroleum Reserve 4.

1 During the periods of major glaciation, the Arctic coastal  
2 plains were free of large ice masses. Because of that  
3 the area could contain remains of the earliest human  
4 inhabitants of North America. Sites dated in excess of  
5 10,000 years old have been located on the North Slope  
6 and the cultural record must exist from that time to the  
7 present.

8 Our files indicate the number of known sites in PET 4 is  
9 less than fifty. A small number have recently been re-  
10 ported but the total is still very small. The knowledge  
11 of prehistory in the PET 4 area is very poor due to a  
12 paucity of systematic professional surveys. Those sur-  
13 veys which have been done have been conducted primarily  
14 in the Colville River and along the coast west of Point  
15 Barrow. Experience gained from the surveys of the pipe-  
16 line route suggest that virtually hundreds or archeolo-  
17 gical sites should exist in PET 4. I cannot emphasize  
18 more the value of these probable sites. They are not  
19 only the key which unlocks the mystery of prehistoric man  
20 in the western hemisphere, but more important still, they  
21 are the roots of the Native American culture and civil-  
22 ization which is alive and well in the Arctic.

23 \*

24 \*

25 \*

1 In order for the Federal Energy Administration to formu-  
2 late a rational plan for development of PET 4, an ade-  
3 quate resource inventory is a logical necessity.  
4 Cultural resources constitute a non-renewable resource  
5 which must be considered on a par with other non-renewable  
6 resources. Professional people within the disciplines  
7 of archaeology and history and in Alaska Native Cultural  
8 groups, should be contacted and supported for their input  
9 in the earliest stages of planning. Federal agencies  
10 have been directed in this by guidelines issued under  
11 36 CFR 800, 'Procedures for the Protection of Historic  
12 and Cultural Properties'. The Office of the State  
13 Historic Preservation Officer must play a role in defining  
14 the effect on cultural resources in the State and my staff  
15 is available for consultation.

16 \*

17 Whether a Federal agency maintains an active role in the  
18 development of PET 4 or not- or this is left up to a con-  
19 tractor or licensee, the need for expert advice and in-  
20 ventory activities will be critical from the cultural  
21 resources viewpoint.

22 \*

23 Procedures must be formulated to insure protection of  
24 cultural resources and a mechanism for assuring that  
25 protection be developed and implemented before any

1 activities begin. I emphasize that this should be  
2 done in the earliest planning stages.

3 \*

4 The expertise necessary for formulating protective pro-  
5 cedures is available in the State, particularly within  
6 the academic body of professionals. I urge the Federal  
7 Energy Administration to make use of these people who  
8 have years of experience to draw on. I also urge that  
9 strong measures be taken to include the native peoples  
10 of Alaska in any decisions regarding the preservation of  
11 the prehistoric remnants of their cultural fabric.

12 Thank you!

13 \*

14 CHAIRMAN ROBERTSON:

15 Any questions from the panel? Mr. McVee!

16 MR. McVEE:

17 Russ, as I understand it really a Federal agency doesn't  
18 have any option under the Executive Order, they have to  
19 identify inventory, identify if the site has potential  
20 for addition to the Register.

21 MR. CAHILL:

22 That is correct.

23 MR. McVEE:

24 There's really no option then to proceed with the  
25 identification.

1 MR. CAHILL:

2 One thing I want to emphasize today is that the expertise  
3 is available in the State - - there are quite a few people  
4 who have come up here and gained experience on the pipe-  
5 line archeological project which is really the largest-  
6 toughest archeological data in the history of the world  
7 (as far as I know) - and they are available. It just  
8 just happens they are coming off that project.

9 \*

10 I would also like to point out that there is a great deal  
11 of interest on the part of Community Colleges who are  
12 training people to do this kind of work, people who are  
13 native to the area - and I have been receiving some of the  
14 first input of those groups at this time - and I would  
15 like to see those people get involved with this thing -  
16 because they are going to be making these same kinds of  
17 decisions on their own lands that they have received under  
18 the Native Claims Settlement Act.

19 MR. McVEE:

20 Are they being trained to evaluate the materials they  
21 find?

22 MR. CAHILL:

23 At a low-level at this time but it is promising. The work  
24 is at the Community College level and they are training  
25 some field people - and I hope they will have enough

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interest to go on with the process of education.

\*

CHAIRMAN ROBERTSON:

Any other questions from the panel? (NO RESPONSE).

Thank you Mr. Cahill.

I have been informed that Mr. Koslosky who has signed up to be heard now desires to present a formal statement in writing.

I will ask Mr. Jean if there are others signed up now who wish to be heard this afternoon?

MR. DON JEAN:

Mr. Chairman, no others have signed up to be heard this afternoon.

CHAIRMAN ROBERTSON:

Is there anyone in the audience who would like to be heard this afternoon? (NO RESPONSE).

In that case we will be in recess until 9:00 o'clock tomorrow morning. Thank you!

END

OF

ANCHORAGE

HEARING!!

\*

\*

\* \* WRITTEN TESTIMONY PRESENTED \* \*

TO

ANCHORAGE HEARING

\*

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- 1) QUIRK, III William A.
- 2) WARD, Robert W.
- 3) EDMONDSON, A.Cameron

\*

WRITTEN TESTIMONY SUBMITTED  
BY  
WILLIAM A. QUIRK, III

Box 4-2477  
Anchorage, Alaska  
99509

April 6, 1976

Federal Energy Administration  
Attn: Donald Jean  
605 W. 4th Ave.  
Federal Building (G 11)  
Anchorage, Alaska 99501

This letter is written for testimony before the Federal Energy Administration in Anchorage on April 7, 1976 concerning how Alaska's Naval Petroleum Reserve No. 4 should be explored, developed and produced.

Before we 'open the door' to petroleum development in PET 4, I should think it entirely appropriate and wise to call for environmental baseline studies or an environmental statement to determine what the environment contains, its interrelationships, sensitivities, land uses, and what effects petroleum development may have on them.

With sufficient knowledge it is very likely that not all of the 23 million acre reserve should be open to petroleum development. Studies may indicate that sensitive caribou calving grounds and waterfowl nesting areas should not be developed but remain as critical habitat to protect wildlife resources of national interest.

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To accomplish the above, impetus to which the National Environmental Policy Act applies, it will be necessary that Federal agencies take the initiative to ask Congress for appropriations so that the proper environmental studies can be made.

Petroleum development in PET 4 should not take place without a full understanding of all resources in the reserve.

Thank you for the opportunity to present my views on this subject.

WILLIAM A. QUIRK, III /s/

(RT)

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WRITTEN TESTIMONY SUBMITTED  
BY  
ROBERT W. WARD

\*

\*

STATEMENT MADE TO THE  
FEDERAL ENERGY ADMINISTRATION

ON

APRIL 8, 1976

BY

ROBERT W. WARD  
PRESIDENT  
ALASKAN ARCTIC GAS PIPELINE COMPANY

on the subject of transporting natural gas which results  
from the exploration, development and production of Naval  
Petroleum Reserve Number 4.

\*

My name is Robert W. Ward, and I am President of Alaskan Arctic Gas Pipeline Co. I and my associates representing Canadian Arctic Gas Pipeline Ltd., Northern Border Pipeline Co., and Pacific Gas Transmission Co. are participants in a system which has been designed to most efficiently and expeditiously transport natural gas reserves from the Prudhoe Bay area to American consumers and Mackenzie Delta gas to Canadian consumers.

\*

3

(R)

1 To date our companies have spent far in excess of \$100-  
2 million in developing the Arctic Gas System, including  
3 substantial and original environmental field research,  
4 detailed engineering plans and efforts in support of  
5 prosecuting applications before governmental agencies.

6 \*

7 Arctic Gas sponsoring companies serve areas which en-  
8 compass the majority of American natural gas consumers  
9 from the Pacific Northwest and other west coast service  
10 areas to Intermountain, Midwest, Middle Atlantic,  
11 Southern, and New England consuming areas. In the  
12 interest of providing these consumers with the most  
13 economical transportation system possible, using the  
14 most environmentally sound means and on the fastest  
15 timetable, the Arctic Gas sponsors have developed and  
16 are now involved in supporting Arctic Gas Project appli-  
17 cations now pending approval.

18 \*

19 Bringing Naval Petroleum Reserve Number 4 natural gas  
20 reserves into America's energy supply system is vital.  
21 Companies charged with serving American natural gas  
22 consumers and who have developed the Arctic Gas Proposal  
23 submit it for consideration as the best method for  
24 transporting Naval Petroleum Reserve Number 4 natural  
25 gas reserves to market.

4

1 The major segment of the Arctic Gas line will have an  
2 initial capacity of 4.5 bcf/day. Leading into that  
3 48-inch main stem will be the 48-inch Prudhoe Bay leg -  
4 also having a 4.5 bcf/day capacity, although throughput  
5 based upon initial discoveries is projected at only 2.25  
6 bcf/day from Prudhoe Bay. Therefore, half of the cap-  
7 acity of the Alaska leg will be immediately available for  
8 new volumes, as will portions of the main stem, with  
9 additional compression added - and potential for infinite  
10 incremental looping to accomodate all additional volumes  
11 will be both economical and otherwise feasible.

12 \*

13 In short, Arctic Gas stands ready, willing and able to  
14 participate in the planning and implementation of the  
15 most efficient transportation route and mode possible for  
16 Naval Petroleum Reserve Number 4 natural gas.

17 \*

18 For your further information, I am attaching a copy of  
19 testimony recently provided to the United States Senate  
20 Commerce and Interior Committees which outlines in some  
21 depth the current status of the Arctic Gas Proposal.

22 \*  
23 \*  
24 \*  
25 \*

S

(R)

1 WRITTEN TESTIMONY SUBMITTED  
2 BY  
3 A. CAMERON EDMONDSON

4 A view based on 17-years association with the Alaska pet-  
5 roleum industry as a journalist, executive with the Alaska  
6 Department of Economic Development, and, currently as a  
7 professional consultant.

8 \* \* \* \* \*

9 The following comments are submitted as a summary response  
10 to the issues raised in the FEA invitation to submit views  
11 on the future development of Petroleum Reserve No. 4, and  
12 are offered as generalized views rather than a detailed  
13 assessment.

14 In order of subjects listed in the invitation, future work  
15 in the reserve (B) should be a function of private industry.  
16 Prior similar government ventures into the traditionally  
17 private sector - including past and present activities in  
18 PET 4 by Arctic Contractors after World War II and Husky  
19 Oil at present, are subject to cost-effectiveness  
20 criticism.

21 \*

22 That history does not denigrate the government agencies  
23 and contractors involved, rather, it is an indictment of  
24 the system. The 'cost-plus' method of contracting the  
25 work may well be the only feasible way of exploring an oil

6

1 province which is not to be developed for profit. But  
2 its very nature makes for wasteful and costly operations.  
3 Also, the method on contracting creates a situation in  
4 which the operator functions under a 535-member Board of  
5 Directors, few of whom have any real comprehension of the  
6 business and the project, and all of whom are subject to  
7 periodic re-election by people even less concerned with  
8 the endeavor except as it consumes funds they would rather  
9 have spent on public works and services in their own  
10 districts.

11 \*

12 The most apparent solution, other than subjecting the  
13 province to conventional leasing, would be some kind of  
14 concession arrangement. All, or parts of the reserve  
15 could be put to bid on the basis of a fixed sharing of any  
16 commercial discoveries with the amount of exploration com-  
17 mitment serving as the bidding variable. That variable  
18 would permit the Federal Government the option of buying  
19 the concessionaire's share of any commercial deposits  
20 found, or permit production under the terms of the con-  
21 cession agreement, depending on the will of Congress.

22 \*

23 \*

24  
25  
7

1 Environmental Impact (C) would probably be less under a  
2 conventional lease of concession operation than under a  
3 governmental proprietary one. The environmental pro-  
4 tection record of the Navy's office of oil shale and pet-  
5 roleum reserves in the South Barrow gas field and current  
6 exploration work has not been outstanding, nor have the  
7 records of the Alaska Railroad and the U.S. Army been par-  
8 ticularly praiseworthy in Alaska.

9 \*

10 If the work is done by private enterprise, the North  
11 Slope Borough and/or the State of Alaska may exercise  
12 some authority, if needed, whereas a federally controlled  
13 operation is virtually exempt from such authority.

14 \*

15 In actuality, environmental impact should be no greater  
16 than that caused by private industry in the area between  
17 the Colville and Canning rivers where it has been largely  
18 limited to the inescapable degradation of its 'wilderness  
19 character'. As a matter of fact, environmental impact  
20 should be less as operators should be able to benefit from  
21 past errors such as those related to permafrost degrada-  
22 tion. In the same manner, the Interior Department can  
23 use the experience with the trans-Alaska oil pipeline to  
24 include agreement stipulations to cover any special  
25 problems indicated by environmental studies.

8

1 Socio-economic impacts (D) should be largely limited to  
2 the City of Barrow and possibly to the re-emerging village  
3 of Nookikut in the Colville River delta. The impacts  
4 will be both direct and indirect; jobs and artifax markets  
5 on the one hand, and expansion of transportation and com-  
6 munications systems on the other, for example.

7 \*

8 During the exploration phase there will be little pressure  
9 on local government for added services and this would be  
10 more than offset by Borough taxation of equipment and  
11 materials used by private contractors.

12 If discovery should lead to major development of oil fields,  
13 the impact on local communities would certainly be much  
14 greater, more pervasive upon and within the Eskimo society.  
15 Again, revenues from taxes on private development or in  
16 lieu of grants from Federal operations could be used to  
17 offset the impact to a large extent.

18 \*

19 The cultural impact on a few of the indigenous people may  
20 be large but Barrow is a sophisticated community and the  
21 Arctic Slope people have been in close contact with  
22 Caucasian whalers and traders for the past 150 years at  
23 least. The result is an extensive acquaintance with both  
24 the assets and liabilities among the mores and artifax of  
25 Anglo Saxon culture.

9

1 IF adequate controls are written into exploration and  
2 development agreements, then properly enforced, there is  
3 no reason to think that PET 4 development would further  
4 diminish the remnants of a subsistence way of life which  
5 appears to be both culturally and economically important  
6 to resident Eskimos.

7 \*

8 Native profit making corporations can participate in the  
9 oil activity by offering various services, including  
10 labor supplies in the form of roustabout gangs, for  
11 example. At the development stage, services such as  
12 utilities may be supplied either through the Borough  
13 government or the commercial corporations.

14 \*

15 In the exploration phase there should be no significant  
16 added costs to local governments. In the event of major  
17 developments the necessary additional infrastructure im-  
18 provements can be funded with tax exempt bonds and the  
19 cost recovered through taxation. There would presum-  
20 ably be minor costs to the State and distant municipal-  
21 ities such as Fairbanks and Anchorage where there would  
22 be secondary impacts such as expanded headquarters  
23 facilities and shipping terminals.

24 \*

25 \*

1 Again, however, these costs should be more than offset by  
2 the revenue benefits realized from the increased cash flow  
3 and the taxes recovered from the rollover, or multiplier  
4 effect of new money infused into the economy. This multi-  
5 plier under such circumstances could be calculated as high  
6 as three-to-one.

7 Benefits to State and local governments would be economic  
8 to the extent of commerce and population growth effects  
9 on the tax base. These monetary benefits would be offset  
10 in the minds of many Alaskans by the resultant diminution  
11 of their life-style'. Also, at least theoretically,  
12 money allocated to PET 4 by private oil operators would  
13 be drained away from State and native areas of oil poten-  
14 tial. On the other hand if the public lands resource  
15 revenue rebating policy is applied to PET 4 the State could  
16 eventually realize enormous monetary benefit for lease  
17 and royalty revenues.

18 \*

19 Discovery and consequent development of hydrocarbons in  
20 PET 4 could be either beneficial or detrimental to native  
21 lands and development, depending on the size. If the dis-  
22 coveries in the Reserve were large enough to compete for  
23 transportation facilities or markets, the result might be  
24 temporarily detrimental until added amenities could be  
25 supplied. If discovery and development were small enough

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in both instances to be complementary, and thereby become economically feasible for production, then the result would be immediately beneficial.

\*

Stipulations on employment should probably be structured around the minority and local contracting preference requirements rather than local hire, in order to avoid possible legal conflicts between State and Federal policies.

/s/ A. CAMERON EDMONDSON.

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WRITTEN TESTIMONY SUBMITTED  
BY  
GEORGE E. SMITH (ACAGC)

Federal Energy Administration  
Federal Post Office Bldg. Rm. G-11  
605 West Fourth Avenue  
Anchorage, Alaska 99501

Attn: Fred Chiei

Dear Sir:

My name is George E. Smith and I am Manager of the Alaska Chapter of the Associated General Contractors. I would appreciate the inclusion of the following testimony in the record of the public hearings on Naval Petroleum Reserve (NPR) Number 4.

We, the Alaska Chapter of AGC, fully support the President's program for fuel independence by the eighties. In keeping with this policy we support development of NPR 4 at the earliest possible date.

There can no longer be a question that industry is technologically capable of procuring and delivering both oil and gas from an arctic environment in a safe manner. It is also true that industry has proven itself capable of minimizing the environmental impact caused by projects of this type. Additionally, there are adequate Federal and State agencies standing by to insure compliance.

1           Leasing and development by private industry has historic-  
2 ally proven itself to be the most efficient method of de-  
3 velopment.     This method not only holds down the expenses  
4 for the taxpayer, but will provide needed funds for govern-  
5 ment.     Being Alaskans, we would like to be assured that  
6 Alaska will receive a share of the revenue.

7           Private industry in Alaska has acquired a great amount  
8 of know-how during the construction of the Alyeska Pipeline.  
9 Development of NPR 4 in the immediate future would reap the  
10 benefits of this knowledge.     I must state however, that ex-  
11 tended delay will mean the dissipation of the labor force  
12 with the resulting loss of knowledge.

13  
14           As one of the founding organizations of the Alaska Plan,  
15 we believe there currently exists a vehicle by which the  
16 arctic native Alaskans can and would participate in this  
17 development.     Through the Alaska Plan arctic native  
18 Alaskans would be trained for the many types of construc-  
19 tion skills that would be required during this development

20  
21           One area that cannot be overlooked is that development of  
22 NPR 4 would open up vast areas of Alaska and thus assuring  
23 future development of our State's many essential natural  
24 resources.     We, as a nation, are no longer able to depend  
25 on our current sources of raw materials being available to

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use in the future. We must strive for independence, not just in the area of fossil fuels, but also in essential minerals as well.

As authorities in the construction industry, we would ask that development start in a timely fashion. We all know what inflation has done to the costs of the Trans-Alaska oil line due to its delay. Any contractor can tell you hair-raising tales of cost escalation on his construction projects during the past two or three years. Every year development and production are delayed, the higher the costs will climb making any oil produced more economically marginal in value. That situation would not be in the best interest of Alaska or the nation.

Sincerely,

ALASKA CHAPTER  
ASSOCIATED GENERAL CONTRACTORS

/s/ GEORGE E. SMITH  
Manager

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1 WRITTEN TESTIMONY SUBMITTED  
2 BY  
3 MAX C. BREWER

4 Mr. Fred Chiei  
5 Deputy Regional Administrator for Alaska  
6 Federal Energy Administration Rm. G-11  
7 Federal Office Building  
8 605 West Fourth Avenue  
9 Anchorage, Alaska 99501

10 Dear Mr. Chiei:

11 I appreciated being able to attend the Federal Energy  
12 Administration meetings held in Anchorage, Fairbanks, and  
13 Barrow concerning the development of recommendations for  
14 exploration, development and production of oil and natural  
15 gas on Naval Petroleum Reserve No. 4.

16 The testimony given seemed to cover most of the various  
17 interest groups. I thought that provided at Barrow was  
18 particularly pertinent. However, for the hearing record  
19 and to round-out the picture a bit further, I would like to  
20 comment on the testimonies provided by Dr. John Cook (in  
21 Anchorage and Fairbanks) and Mr. Jens Brósted (in Barrow).

22 As I recall, Dr. John Cook commented that only \$5,000  
23 had been spent on archeological studies on NER 4 and that  
24 this had occurred only within the past year. As a former  
25 director of the Naval Arctic Research Laboratory for

1 fifteen years and as the individual who chose the famous  
2 site at WALAKPA, eleven miles west of Barrow, for an  
3 archeological dig by University of New Mexico archeologists,  
4 I can assure you that Dr. Cook was grossly in error in his  
5 statement.

6 There was very considerable archeological research ac-  
7 complished along the northern Alaskan coast by John  
8 Murdoch during the first International Geophysical Year  
9 in 1881-1883. In his monumental monograph, published in  
10 1892, Murdoch identified 28 historical sites in the  
11 'Hunting Grounds of the Point Barrow Eskimo', in the first  
12 100-miles to the west of Point Barrow. He identified only  
13 two sites in the first 100-miles to the east of Point Barrow.  
14 The great difference in numbers resulted largely because of  
15 two reasons: the coast west of Barrow has been very stable  
16 for about 30,000 years, whereas the coastal area east of  
17 Barrow has been eroding very rapidly.

18 \*

19 Secondly, the subsistence living west of Point Barrow is  
20 far easier than it is east of Point Barrow and between there  
21 and the Colville River Delta. Some pertinent references  
22 are:

23 Murdoch, John, 1892: 'Ethnological Results of the Point  
24 Barrow Expedition'. Bureau of Ethnology to  
25 the Secretary of the Smithsonian Institution,  
GPO; 441 pp; 2 maps, 438 figures.

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Murdoch, John, 1885: 'The Retrieving Harpoon; An undescribed Type of Eskimo Weapon'. American Naturalist, Vol. 19, pp. 423-425.

Murdoch, John, 1888: 'On the Siberian Origin of Some Customs of the Western Eskimos'. American Anthropologist, Vo. 1, pp. 325-336.

Dr. James A. Ford was another of the outstanding early workers in the field of archeology in northern Alaska, digging at Birnirk, 6-miles northeast of the present town of Barrow for the first time in 1936. Birnirk is the second oldest, 1000 to 1800 years, and the largest old historical sites on the Alaskan Arctic coast. WALAKPA, the oldest, has been dated at 5,500 to 6,000 years old. Dr. W.K. Carter (Peabody Museum) and Dr. Ford (Smithsonian) also dug at Birnirk in 1952 and 1953, recovering over 10,000 artifacts the second year. Ford's important publication for northern Alaska is:

Ford, J.A. 1959: 'Eskimo Prehistory in the Vicinity of Point Barrow, Alaska'. Anthropological Papers of the American Museum of Natural History. Vol. 47, Part 1, 272 pp.

The Naval Arctic Research Laboratory supported in whole or in part many archeological projects on or adjacent to NAR 4 during the years of 1947 to the present. The attached list of 95 publications had resulted from these projects through 1972. Some of these publications are predominantly archeological in content, others may tend towards the

1 ethnological or anthropological aspects. However, all these  
2 disciplines are usually discussed to some degree in any  
3 study of historical sites.

4 The main point that I would like to suggest is that  
5 NPR-4, particularly the Barrow region, is probably the most  
6 heavily studied for archeological sites of any place in  
7 Alaska, including the Fairbanks and Anchorage areas both of  
8 which boast universities with archeologists on their staffs.

9 \*

10 In Fairbanks Dr. Cook mentioned the need for studies of  
11 the geomorphic history on NPR-4. While it is true that  
12 additional studies can usually be very worthwhile, it should  
13 be noted that the geomorphic history of NPR 4 has been  
14 studied during the past 30 years by many very competent  
15 scientists. Their publications run into the several  
16 hundreds of items. Again, more is known about the geomor-  
17 phic history of the Barrow region than about any other area  
18 of similar size in the State of Alaska.

19 \*

20 At Barrow Mr. Jens Brósted discussed the build-up of  
21 reindeer herding on NPR-4 and its die-out in the middle  
22 1930s. He also said that the Navy should have helped the  
23 declining industry and that 'in fact, the Navy killed off  
24 the industry'. The latter is a pretty far-fetched state-  
25 ment and certainly doesn't conform to the facts of history.



1 I am enclosing copies of several articles that you  
2 may wish to enter into the hearing record for NPR-4. The  
3 report, 'Comments Concerning the Socio-Economic Impact of  
4 the Beaufort Sea Proposed Nearshore Petroleum Leasing',  
5 was prepared for presentation at hearings concerning the  
6 State's possible leasing of the nearshore area between  
7 the Colville River and the Canning River. However, the  
8 history recounted and the interpretations made are equally  
9 applicable as regards the exploration program on NPR-4.  
10 It was presented at a public hearing at Barrow with a  
11 number of Native leaders in the audience. It was well  
12 received without either an adverse or a contradictory  
13 comment. The other enclosures also would seem to be very  
14 appropriate for your request for data pertaining to Naval  
15 Petroleum Reserve No. 4.

16 Sincerely yours,

17 /s/ MAX C. BREWER  
18 Chief Scientist and  
Environmental Consultant

19 Enclosure:

- 20 1) Archeological, Ethnological, and Anthro-  
21 pological References for North Slope,  
Alaska, (as of 1972).
- 22 2) Newspaper Articles by Max Brewer published  
23 in the Anchorage Sunday Times.  
24 Boom and Bust in Barrow - 8-31-75,  
25 Resources on PET 4 -11-23-75  
Snow Roads not the Answer 8-17-75  
Winds Determine Arctic Traffic 8-24-75  
Environmental Credibility 1-4-76  
Gravel, the Key to Construction 10-5-75  
Preservation of Lifestyles 8-3-75  
The Western Arctic Caribou Mystery 4-11-76

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- 3) PERMAFROST, ITS IMPACT ON DEVELOPMENT: Max C. Brewer, Commissioner, Department of Environmental Conservation, Juneau, Alaska (Pub. June 1974 Arctic Inst. of North Am.).
- 4) COMMENTS CONCERNING THE SOCIO-ECONOMIC IMPACT OF THE Beaufort Sea Proposed Nearshore Petroleum Leasing - Barrow, Alaska, 27 May 1975 (by Max C. Brewer).
- 5) The Swans and Geese of Alaska's Arctic Slope - James G. King (Pub. in Wildfowl 31 (1970), pp. 11-17).

\* \* \* \* \*

\* \* \* \* The aforementioned references are on file at  
and may be reviewed at: the Alaska Sub-Region  
Office.

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