Alaska Outer Continental Shelf

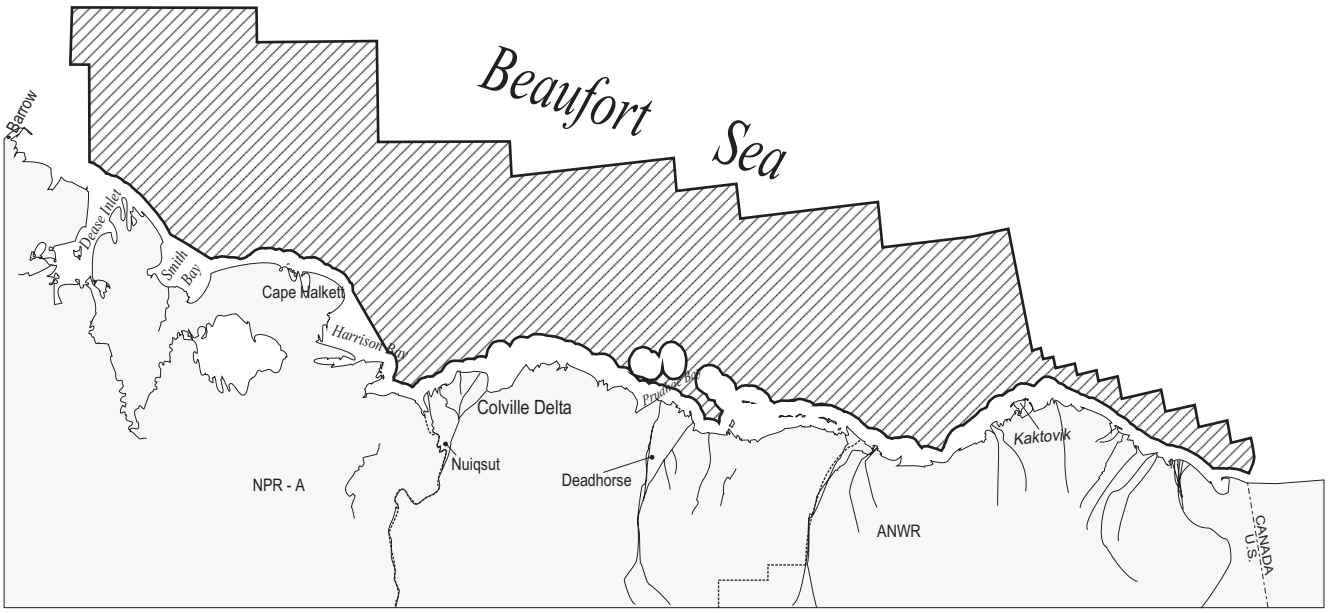
OCS EIS/EA
MMS 2003-001

Beaufort Sea Planning Area

Oil and Gas Lease Sales
186, 195, and 202

Final Environmental
Impact Statement

Volume II
(Section VII, Bibliography, Index)



U.S. Department of the Interior
Minerals Management Service
Alaska OCS Region

BEAUFORT SEA PLANNING AREA OIL AND GAS LEASE SALES 186, 195, AND 202
Final Environmental Impact Statement
OCS EIS/EA, MMS 2003-001, in 4 volumes:
Volume I, Executive Summary, Sections I through VI
Volume II, Section VII, Bibliography, Index
Volume III, Tables, Figures, and Maps for Volumes I and II
Volume IV, Appendices

The summary is also available as a separate document:
Executive Summary, **MMS 2003-002.**

The complete EIS is available on CD-ROM (**MMS 2003-001 CD**) and on the Internet (**http://www.mms.gov/alaska/cproject/Beafort Sea/**).

This Environmental Impact Statement (EIS) is not intended, nor should it be used, as a local planning document by potentially affected communities. The exploration, development and production, and transportation scenarios described in this EIS represent best-estimate assumptions that serve as a basis for identifying characteristic activities and any resulting environmental effects. Several years will elapse before enough is known about potential local details of development to permit estimates suitable for local planning. These assumptions do not represent a Minerals Management Service recommendation, preference, or endorsement of any facility, site, or development plan. Local control of events may be exercised through planning, zoning, land ownership, and applicable State and local laws and regulations.

With reference to the extent of the Federal Government's jurisdiction of the offshore regions, the United States has not yet resolved some of its offshore boundaries with neighboring jurisdictions. For the purposes of the EIS, certain assumptions were made about the extent of areas believed subject to United States' jurisdiction. The offshore-boundary lines shown in the figures and graphics of this EIS are for purposes of illustration only; they do not necessarily reflect the position or views of the United States with respect to the location of international boundaries, convention lines, or the offshore boundaries between the United States and coastal states concerned. The United States expressly reserves its rights, and those of its nationals, in all areas in which the offshore-boundary dispute has not been resolved; and these illustrative lines are used without prejudice to such rights.

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U.S. Department of the Interior
Minerals Management Service
Alaska OCS Region

February 2003

SECTION VII

REVIEW AND ANALYSIS OF COMMENTS RECEIVED

Contents for Section VII

VII. Review and Analysis of Comments Received

VII.A. Summary of Comments Received on the Draft Beaufort Sea Multiple-Sale EIS

We received 4,911 written comments on the draft EIS during the public comment period from June 19, 2002, to September 20, 2002. A notice requesting comments appeared in the *Federal Register* (see Appendix H for a copy of that notice) on Wednesday, June 19, 2002. We received letters or e-mails from every State; some e-mails came from outside of the United States and from a wide spectrum of the population. Approximately 4,871 comments arrived via e-mail, and 40 individual letters were written. We held four public hearings in July/August 2002 in Nuiqsut, Kaktovik, Anchorage, and Barrow, at which 28 persons testified. We also held four government-to-government meetings with Native communities.

Most respondents voiced a preference for Alternative II – No Lease Sale. These commenters also suggested that the national energy policy should shift away from fossil fuels and instead emphasize conservation and alternative energy sources. Many respondents felt that further leasing in the Beaufort Sea would endanger the unique Arctic ecosystem, the Native subsistence culture and lifestyle, and would lead to the opening of the Arctic National Wildlife Refuge. Many commenters expressed the fear of an oil spill, and their perception that the oil industry could not clean up oil, especially in broken-ice conditions. They also wanted a separate EIS for each lease sale and not use one EIS as an umbrella NEPA document for three lease sales.

Many of the 4,911 written comments were identical statements prompted by e-mail campaigns on environmental organization web sites. The Ocean Conservancy wrote a lengthy letter representing twelve environmental organizations. We assigned tracking numbers to the comment letters in roughly the order in which they were received. All comment letters and hearing transcripts were reviewed by a team of MMS specialists, who identified comments that required a response. Comments require a response if they "are substantive and relate to inadequacies or inaccuracies in the analysis or methodologies used; identify new impacts or recommend reasonable alternatives or mitigation measures; or involve substantive disagreements on interpretations of significance." We have responded in Section VII.C and have revised the final EIS to address many of the concerns and incorporate additional information provided in the public's comments.

We received numerous comments that did not suggest changes to the EIS but offered an opinion, a point of view, and/or a recommendation that decisionmaker(s) adopt specific alternative(s), specific mitigating measures, or take specific actions. These comments are included as part of the public record and they available to the decisionmakers during the deliberation process for the three proposed sales evaluated in this EIS.

VII.B. Introduction and Process

VII.B.1. Distribution of the EIS

After the draft EIS was completed and published, the MMS made copies available for the public, organizations, and governmental agencies to review. A Notice was published in the *Federal Register* (see Appendix H) notifying the public of the availability of the draft EIS and giving them a contact to notify if they wanted a review copy. Copies were distributed to public libraries around the State; these locations were indicated in the *Federal Register* notice. Lists of parties interested in the Beaufort Sea lease areas are maintained by the MMS, and copies of the draft EIS were mailed to this listing. The MMS made available a CD-ROM of the draft EIS and, in some cases, mailed this out instead of a paper copy, saving postage costs. This initial distribution was approximately 350 copies. A copy of the draft EIS was placed on the MMS's web page.

The MMS also had the Executive Summary translated into Inupiaq, and reproduced 350 copies for distribution across the North Slope. Before the Public Hearings were held, copies were mailed to the Alaska Eskimo Whaling Commission; the Inupiat Community of the Arctic Slope (ICAS); and the Native Villages of Barrow, Kaktovik, and Nuiqsut. Copies were available and distributed at the Public Hearings and the government-to-government meetings; on request, copies were mailed to all ICAS Board Members. Copies were provided to the University of Alaska Fairbanks, Elmer E. Rasmuson Library; Ilisagvik College; Alaska State Library Juneau; and to the Alaska Resources Library and Information Service (ARLIS). A copy of the Inupiaq language Executive Summary also was posted on MMS's web page.

The final EIS has been distributed to the same interested partied that received copies of the draft EIS and to those who requested copies of the final EIS. The MMS will make available a CD-ROM copy of the final EIS which, in some cases, will be mailed out with a paper copy of the executive summary. A copy of the final EIS will be placed on the MMS web page.

VII.B.2. Response Approach to Comments

During the comment period, various governmental agencies, organizations, and individuals provided letters, e-mail messages, or oral testimonies. Tracking numbers were assigned to all comments received. Specific comments are identified in numerical order, and responses to comments are placed at the end of each letter, e-mail message, or oral-testimony transcript. We have not reproduced all the e-mail messages received; however, a representative summary of substantive comments are included.

All of the comment letters, e-mail messages, government-to-government notes, and hearing transcripts were reviewed by a team of MMS specialists and considered in preparing responses. Comments required a response if they were substantive and suggested modifications to alternatives, including the proposed action; recommended new alternatives or mitigating measures; disagreed with analysis or methodologies; or related to the accuracy and/or completeness of the data or information. As noted previously, we received numerous comments that did not suggest changes to the EIS but offered an opinion, a point of view, and/or a recommendation that decisionmaker(s) adopt specific alternative(s), specific mitigating measures, or take specific actions. These comments are included as part of the public record, and they available to the decisionmakers during the deliberation process for the three proposed sales evaluated in this EIS.

VII.B.3. Public Hearings Held

Public Hearings for this EIS were announced in the *Federal Register* notice. Newspaper advertisements about the Public Hearings were placed in the *Arctic Sounder* on July 11 and 18. Public service announcements were faxed to

KBRW and Barrow Cable. A notice was placed on the Barrow Cable bulletin board. Posters were sent to the villages about the various Public Hearings. When the Barrow Public Hearing had to be rescheduled because of weather problems, an advertisement announcing this was placed in the *Arctic Sounder* and public service announcements regarding the change were on KBRW and the Barrow Cable's Community Bulletin Board. Current data about Public Hearings also was posted on MMS's web page. Transcripts of the Public Hearings follow the letters in Section VII.E.

Public Hearings on the draft EIS were held as follows:

Nuiqsut, Alaska	Kisik Community Center, 7-9 p.m.	Wednesday, July 24, 2002
Kaktovik, Alaska	Qargi Community Center, 7-9 p.m.	Friday, July 26, 2002
Anchorage, Alaska	MMS 3rd floor Conf. Rm., 5-7 p.m.	Tuesday July 30, 2002
Barrow, Alaska	Inupiat Heritage Center, 7-9 p.m.	Thursday, August 1, 2002

VII.B.4. Government-to-Government Meetings

In accordance with Executive Order 13175, Government-to-Government Relationships with Native American Tribal Governments, the MMS held government-to-government meetings with the Native villages of Barrow, Nuiqsut, and Kaktovik, and the Inupiat Community of the Arctic Slope. These exchanges covered items of mutual concern, although they were concerned primarily with taking comments on the draft EIS.

Meetings were held as follows:

Native Village of Nuiqsut	Wednesday, July 24, 2002
Native Village of Kaktovik	Friday, July 26, 2002
Native Village of Barrow	Thursday, August 1, 2002
Inupiat Community of the Arctic Slope	Thursday, August 1, 2002

Government-to-government meeting attendees and meeting summaries prepared by MMS attendees are found in Sections I.D.1 through I.D.3.

VII.B.5. E-mail Comments Received in Response to DEIS

The MMS received approximately 4,871 e-mail messages. Several e-mails were in favor of proceeding with the proposed lease sales, but 99.9% were supportive of Alternative II No Lease Sale. Most of the e-mail messages were identical to or based on one of two different form messages posted on an environmental group's internet web site. All of the e-mail messages sent in response to the environmental group's internet web site were reviewed. E-mail messages were selected to be representative of each of the two message groups and, if appropriate, we prepared responses to the individual comments of these messages. About two-thirds of the e-mail messages were identical or similar to e-mail message (a) and about one-third of the e-mail messages were identical or similar to e-mail message (b). Approximately 50 respondents sent in both format letters. Some of the e-mail messages contained additional information that differed from the standard text in messages (a) and (b). Those with additional information were reviewed further to determine if any of the additional comments required written responses, beyond what we had responded to in other comments received. None were identified.

E-mail messages were logged in and assigned an identifying number. These e-mail messages are listed in Appendix H. Representative e-mails are found in Section VII.F.

Table VII.B.1 summarizes e-mails received and lists them according to where the respondent resides. Surprisingly, out of the approximately 4,871 e-mails received, only 81 (about 2%) originated in Alaska, where the proposed action is located. Of that number, only 4 originated from the North Slope.

VII.C. Comments and Responses

Tracking numbers were assigned to the 40 comment letters in the order in which they were received. A summary listing of letters by date received can be found in Appendix H. These letters are reproduced in Section VII.D, and the responses follow the letter.

Following is a list of letters to the MMS that included comments for which we prepared responses based on certain criteria noted previously. Many of the comments were similar. We responded to similar comments in full and then referred the commenter to the earlier response to avoid much repetition in our responses. In some cases, we provided additional information. Following this, we provide the public hearing transcripts and response comments. Following the Pubic Hearings, we list e-mail messages. All of the e-mail messages are not listed, however, but the list covers all of the comments we received by e-mail. If warranted, responses are provided. Meeting notes taken by MMS staff from the various government-to-government meetings we attended are found in Section I. D.

VII.C.1. Letters

The comment letters have been assigned a number and are presented in numerical order (see the table that follows), which respond to bracketed portions of the cited letters. The MMS responses follow each letter. Comment letters were received from:

Letter	Ltr. No.	Letter	Ltr. No.
Federal Agencies			
Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service	L-0023	Department of the Interior Fish and Wildlife Service	L-0037
Environmental Protection Agency, Region 10	L-0038		
State of Alaska			
Office of the Governor, Division of Governmental Coordination	L-0024	Alaska State Legislative, Representative Reggie Joule	L-0009
North Slope Borough			
Office of the Mayor	L-0001 L-0035		
Alaska Native Organizations and Tribes			
Alaska Eskimo Whaling Commission (AEWC)	L-0002 L-0034	Inupiat Community of the Arctic Slope (ICAS)	L-0006
Conservation Groups and Environmental Organizations			
Northern Alaska Environmental Center	L-0003	The Ocean Conservancy (representing 12 environmental organizations)	L-0004 L-0021 L-0029
Greenpeace	L-0022	Environmental Defense	L-0026
Sierra Club	L-0032		
Industry			
Alaska Oil and Gas Association	L-0020 L-0033		

Letter	Ltr. No.	Letter	Ltr. No.
Individual Commenters			
Carol Ampel	L-0039	Elizabeth MacGowan	L-0028
K.A. Beckwith	L-0015	Pam A. Miller	L-0025
Terry Cummings	L-0013	George L. Pettit	L-0031
Robert Franz	L-0040	William L. Risser	L-0008
Kimberly Donovan / Bruce Hazen	L-0011	Kathleen Roberts	L-0010
Amy and Chris Gulick	L-0019	Manika Schultz, et. al.	L-0017
Jim Havlena	L-0016	Nancy and Sebastian Sommer	L-0027
K.A. Havlena	L-0014	John Strasenburgh	L-0012
Alexandra Howells	L-0030	John Van Syoc, Sr	L-0036
Jenny Jacobs	L-0018	Pam and Wallace Taylor	L-0007
Ben Kostival	L-0005		

Note: Ltr. No. = Letter Number

VII.C.2. Public Hearings

The transcripts of the four Public Hearings as announced in the *Federal Register* notice are included and follow the letters. Each public hearing document has been assigned an abbreviation (for example PH-Kaktovik) with comments bracketed and assigned a number (for example .018) for response. Public Hearing attendees are listed in Appendix H. The MMS responses to each comment follow each public hearing transcript in Section VII.E.

VII.C.3. Government-to-Government Meetings

Government-to-government meetings were held at three locations on the North Slope. Meeting attendees and meeting summaries can be found listed in Section I.D.

VII.C.4. E-mails

More than 99% of the e-mails received were a result of responding to a form letter copied from an environmental group web page. Comments basically were the same and only expressed opposition to the lease sale; however, senders occasionally put in an opinion of their own either as an introduction or in closing, none of which challenged the text of the draft EIS. E-mails are numbered (for example E-1004) from when they first appeared on the MMS website. Representative examples of such e-mails are included in Section VII.F so that readers and decisionmakers can get the essence of those e-mails. For a listing of logged e-mail messages see Appendix H.

VII.D. Comment Letters and MMS Responses to Comments

In this section we have reproduced each of the comment letters we received. As explained earlier, we have numbered each comment that we identified for a response. The responses for each comment letter are provided immediately following the letter.

L-0001

RECEIVED
JUL 24 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Testimony
George N. Ahmaogak, Sr.
Mayor, North Slope Borough

Public Hearing on the
Draft Environmental Impact Statement
Beaufort Sea OCS Planning Area
Oil and Gas Lease Sales 186, 195, and 202
U.S. DOI, Minerals Management Service
July 22, 2002
Barrow, Alaska

I'd like to welcome the federal Minerals Management Service officials who have traveled to Barrow this evening. They have come to hear testimony from our North Slope residents on their agency's Draft Environmental Impact Statement for three proposed Beaufort Sea Outer Continental Shelf oil and gas lease sales. They will be traveling to Nuiqsut for a hearing on Wednesday evening, and to Kaktovik for a hearing on Friday evening. MMS wants to hold one lease sale in 2003, one in 2005, and one in 2007. Each of the sales would offer all unleased blocks in the same planning area. Seven federal lease sales have been held in the Beaufort Sea since 1979. This is the first time MMS has published a single EIS covering more than one Beaufort Sea sale. We appreciate the chance to once again tell you what's on our minds, though if you've been paying attention for the last 25 years, you should have a pretty good idea of what you're going to hear tonight. You have heard from us many times before, and from our people in the affected villages. My comments tonight will be somewhat general, and preliminary to more detailed written comments we will submit by the close of the comment period on September 20th. Our review of the Draft EIS is continuing, and we will consult with our villages, the AEWC, tribes, and others before finalizing our comments.

I'll be honest and say that I'm not optimistic about our chances of convincing you to do the right thing from or perspective concerning oil and gas leasing in our Beaufort Sea. I've been Mayor too long, and testified at too many of these hearings over the years to expect that. You should not be leasing here, or in the neighboring Chukchi Sea. While in many ways this Draft EIS seems better organized and more clearly written than similar documents we have reviewed in the past, it also seems in other alarming ways a step backward. MMS appears ready to roll back some of the hard-fought incremental positive steps we've taken during the planning of the seven previous sales. I'll touch on those points later. My comments tonight will be in two general areas: First, I'll again highlight some general process and policy concerns we have commented on before. Second, I will address the failure of the Draft EIS to adequately respond to several points we raised during the scoping phase of this review. I'll hold off pointing out most specific concerns with the language and conclusions of the document until we finish our analysis and provide you with written comments.

PROCESS AND POLICY CONCERNS

Leasing of Arctic Waters

Our concerns have been the same ever since the federal and state governments first considered offshore oil and gas leasing in the Beaufort and Chukchi Seas. We don't like it. We think it's a bad idea for all kinds of reasons. Offshore leasing leads to offshore exploration. Offshore exploration with minimal environmental impacts is perhaps possible in many cases with seasonal and other restrictions, but it leads to offshore development and production. Even if there are no oil spills, production causes year-round impacts. Industrial noise in the marine environment has altered the distribution of bowhead whales and other subsistence resources in the past. The subsistence harvest of bowheads has defined our Inupiat culture forever. Our communities have known hardship in the recent past when industrial operations have put the whales out of the safe reach of our hunters. Protection of the opportunity for the Inupiat people to safely engage in the subsistence hunt of bowhead whales and other marine species should have the highest priority when governments are deciding on the best use of the Beaufort and Chukchi Seas. .001

We are frustrated that most OCS planning areas offshore of the lower-48 states remain withdrawn from consideration for leasing by Executive Order or under a congressional moratorium. We do not think that these areas should be leased, but question why they are off-limits while the Beaufort Sea is not. MMS has explained that several factors contribute to decisions about offering areas for leasing. The Final EIS for the 2002-2007 OCS Oil and Gas Leasing Program was published in April. It says that these factors include not only environmental concerns, but also oil and gas potential, industry interest, and the views of the Governors of coastal states. (Page 5-12) Other factors that we consider critical were not mentioned. Shouldn't it matter that the prevailing conditions of an area limit the ability to mitigate the potential risks of oil and gas operations? And shouldn't a primary factor be the views of the local residents who live adjacent to the planning area and who will feel 100% of the impacts of leasing? MMS continues to aggressively lease in remote, highly sensitive, challenging, and vulnerable arctic waters over the loud and continuous objections of the local Native Inupiat population. We are the population which bears all of the risks, and receives very little of the benefit. At the same time all other OCS planning areas except certain areas within the Gulf of Mexico are withdrawn or deferred from leasing. This raises significant questions of fundamental fairness and environmental justice. .002

These questions have not been adequately addressed in the Draft EIS or the 5-Year Program Final EIS. All OCS planning areas should be considered in an analysis of the equitable sharing of the benefits and environmental risks of leasing, development, and production. It is unfair that states adjacent to waters under a moratorium from leasing still receive federal 8(g) payments from OCS revenues, while the Borough and other local governments receive no direct payments but suffer the greatest impact from ongoing leasing and industrial activity. Not weighing the potential environmental and cultural .003

risks against the potential benefits of nationwide leasing choices is clear environmental **in**justice. .003

And the unfairness keeps getting worse. Adding insult to our ongoing injury was the President's announcement at the end of May that the federal government would spend $235-million to buy back oil and gas rights in the Everglades and in federal waters in the eastern Gulf of Mexico off the Florida coast. Of the total, $120-million would be paid to a family company for the Everglades rights and $115-million would go to three oil companies to buy out offshore leases. Though not fully explored, the offshore unit is believed to contain at least 700 billion cubic feet of economically producible natural gas. The President announced the deal with his brother, the Florida Governor, at his side. It's no surprise that the popular moves to prevent oil and gas drilling are sure to help Governor Bush's standing with environmentalists as he seeks reelection this year. They also just happen to boost support for the President in the state, which decided his 2000 election. Speaking at the announcement, Interior Secretary Norton said: "When it comes to energy development on federal lands, each case must be evaluated individually **in cooperation with the people who live in the area**. In this case, the amount of oil was relatively small compared to the nation's overall energy needs, the impact of development could be significant, and the government and people of Florida supported this action." .004

All I can say is, where's the justice in spending federal money to buy back Gulf of Mexico leases containing 700 billion cubic feet of producible gas, and continuing to offer oil leases in the Beaufort Sea? We're the people who live in this area, and for more than 25 years we have told you that you shouldn't be leasing here.

EIS Process For Beaufort Sea Sales

We are frustrated with MMS over the way you deal with public input in your reviews. We are always told that our concerns will be fully addressed during some later review. We review the 5-Year Leasing Program, and are told that addressing our concerns is premature at the program level. We review individual lease sales under the 5-Year Program, and are told things will get worked out during a specific project review because a lease stipulation requires consultation. The Borough commented several times before publication of the Final EIS for the 2002-2007 OCS Oil and Gas Leasing Program in April. At each step in the process it seemed that MMS ignored the comments we submitted at the preceding stage. These Beaufort Sea sales will fall under the 2002-2007 Leasing Program, but their review was started long before the Leasing Program was finalized. In our comments on both the Leasing Program and on this Beaufort Sea leasing proposal, the North Slope Borough has strongly objected to the new multiple-sale review process. We believe that there should be a full public process associated with each of the three proposed sales. The public process and consultation with the Borough, the AEWC, and the affected communities, interested organizations, and general public has improved with each of the past Beaufort Sea sales. Improvement in the process has been slow over the years, but has led to stronger mitigation measures and appropriate area deferrals, and has stimulated necessary scientific study. .005

We continue to believe that any marginal benefits in efficiency and reduction in burnout among MMS authors realized by consolidating three sales in a single EIS is outweighed by the reduction in public engagement and MMS interaction with the directly affected North Slope community. An EIS should be developed and a Coastal Management Program Consistency Analysis should be conducted for each sale. Both processes are valuable. MMS officials should not find it burdensome to visit the three most directly impacted communities of Barrow, Nuiqsut, and Kaktovik for scoping meetings and for public hearings for three lease sales in five years. And it should be the highest MMS officials in Alaska who should make those visits along with their staff to hear the concerns of the community. .006

The Draft EIS does not adequately answer our concerns over this new process. It only says that multiple-sale EIS's have been used for other areas. It mentions the Gulf of Mexico and the NPRA. There are differences between those areas and the Beaufort Sea. The Gulf of Mexico was highly industrialized long before MMS used a multiple-sale EIS process for the region under the last two 5-year oil and gas leasing programs. The 2002-2007 Final EIS notes that "the Western and Central Gulf of Mexico Planning Areas...are two of the most active offshore oil and gas areas in the world." (Page 3-42) Production has occurred there for many years, and the issues raised during the public planning process are fairly well understood. The Beaufort Sea is a frontier area for the oil industry. The first production island was just constructed, and oil only began flowing at the end of October last year. Many issues remain unresolved, and new pipeline, spill response, and other technologies must be developed to cope with arctic conditions. Many information gaps exist, and traditional knowledge and western science do not always agree. The relationship of Inupiat subsistence users to our marine environment and our cultural, nutritional, and spiritual dependence on its resources is very different from the commercial and recreational relationship which the many Gulf of Mexico users share with that environment, no matter how deep their ties. .007

In the same way, onshore activities in the NPRA are following long-established patterns developed and refined over three decades at Prudhoe Bay. Still, because it was essentially a newly leased area that had not been offered for many years, 79 mitigating measures were attached to the Northeast NPRA sale in 1999. You now want to cover three Beaufort Sea sales in a single EIS, with only 5 assumed standard stipulations and 16 purely advisory clauses when there continue to be many unknowns about the Beaufort Sea and broad disagreements over potential impacts to many resources and uses. The reasons and justifications given for using a multiple-sale EIS for the Beaufort Sea just aren't good enough. .008

INADEQUATE RESPONSE TO PREVIOUS COMMENTS

Area Deferrals

The North Slope Borough believes that areas around Barrow, Kaktovik, and Cross Island sufficient to protect vulnerable resources and the subsistence harvests of bowhead whales .009

and other species should be deferred from leasing. The deferral Alternatives developed for the Draft EIS don't get the job done. They are inadequate, and you have to some extent misused data we provided to define them. At a meeting with MMS Alaska Region Director John Goll in my Barrow office in November, I agreed to work with the Borough's Department of Wildlife Management and the AEWC to release to MMS bowhead whale subsistence harvest locations for the three Beaufort Sea whaling communities. It was made very clear to MMS in subsequent written and e-mail correspondence with members of my staff, and acknowledged by Director Goll, that it would be absolutely inappropriate to use the harvest locations alone to define either subsistence whaling zones or appropriate deferral areas intended to protect subsistence whaling opportunities. That, however, is exactly what MMS has done in this Draft EIS. .009

The data were primarily provided as one tool to assist MMS in determining the appropriate extent of an offshore area around the Nuiqsut subsistence whaling base of Cross Island which should be considered for exclusion or heightened protection in future Beaufort Sea OCS oil and gas lease sales. Data were also provided to help in refining previously identified deferral areas offshore of Barrow and Kaktovik. I thought we had made it clear to MMS prior to release of the information that harvest data alone do not provide a true picture of the entire zone utilized by and essential to subsistence hunters in the successful harvest of bowhead whales during the animals' fall westward migration. Harvest locations are simply points on a map. Additional areas critical to the successful subsistence harvest of bowhead whales include staging areas for crews, supplies, and harvested product, areas of pursuit, routes used for the transportation of crews, supplies, and harvested whales and whale product, and areas used for the processing of harvested whales. Harvest data alone also do not define the area east, or "upstream" of the full area utilized by subsistence crews from Barrow, Nuiqsut, and Kaktovik within which industrial disturbance would adversely impact subsistence efforts. This distinction is important. To provide a reasonable chance of a successful bowhead whale subsistence harvest, protection must be provided to a combination of two areas. First, there is clearly the area utilized directly by subsistence whalers for all related purposes. Let's call this the subsistence use area. Next, there's the area east of the subsistence use area we can call the area of influence. That's the area within which migrating whales could be affected significantly enough by industrial activities so that they are deflected beyond the subsistence use area or are made more difficult to harvest within the subsistence use area. These qualifications must accompany any publication and use of the harvest location data, and any conclusions drawn from the data. .010

Let's start with the Barrow area. Everyone should accept by now that the spring lead system concentrates wildlife resources and is too valuable and vulnerable to offer for lease and potential development. The area is also a critical year-round subsistence use area, which extends farther offshore and to the east than the spring lead system alone. It reaches at least to Cape Halkett. Your own Stipulation 5 describes the timing and area utilized by Barrow hunters for subsistence whaling in the fall. It recognizes that occasional use may extend to Cape Halkett. As we have repeatedly stated, this area should never be leased, and the Borough will oppose the siting of any permanent industrial facilities in the vicinity of the spring lead system, and within the Barrow .011

subsistence use area and area of influence east of that. The permitting of any permanent facility or non-winter exploratory operations in this area would be inconsistent with the Borough's Land Management Regulations (LMRs) and North Slope Borough Coastal Management Program (NSBCMP). .011

The eastern Beaufort Sea is a similar case. It is a feeding area for bowhead whales migrating westward in the fall, and a use area for subsistence hunters from the community of Kaktovik. Kaktovik hunters take whales as they move westward through the waters offshore of their community. In the past, fall exploratory drilling operations occurring to the east of that harvest zone have deflected whales beyond the reach of subsistence hunters. The community suffered great hardship, stress, anxiety, and depression when no whales were taken for two consecutive seasons. That experience would be evidence to support our opposition to any drilling operation within Kaktovik's subsistence use area or upstream area of influence proposed during the fall whaling season. Such a proposal would be inconsistent with those provisions of our LMRs and the NSBCMP that explicitly prohibit development, which prevents subsistence user access to a subsistence resource. You have included two Eastern Beaufort Sea deferrals as Alternatives V and VI in the Draft EIS. You did not include as an alternative a deferral of all waters offshore of ANWR. We believe you should have, and that such an alternative would be preferable to Alternative IV, Alternative V, or any combination of the two. Sale 170 did not offer the waters offshore of ANWR. In doing that, MMS noted the lack of information on cumulative impacts on the Refuge, insufficient information on emergency response plans, and the inability to make direct landfall with a subsea production pipeline. Those problems still exist, and the deferral of all waters offshore of ANWR is appropriate. .012

Nuiqsut's subsistence whaling base of Cross Island presents a somewhat different case. A deferral area should be established for the protection of subsistence uses alone. The lease stipulation included in Beaufort Sea Sale 170 prohibits the placement of permanent facilities within a 10-mile zone around Cross Island unless the lessee can demonstrate that such facilities placed within the zone will not have a significant impact on the subsistence harvest of bowhead whales. The 10-mile distance was chosen somewhat arbitrarily after the community of Nuiqsut had requested a zone 50 miles in radius. You've played with that stipulation by breaking it into two parts in the Draft EIS. You've also included a Nuiqsut Subsistence Deferral Area as Alternative IV. We acknowledge that a zone of 50 miles in all directions from Cross Island is perhaps too large. We also believe, however, that there should be acceptance by all parties that 10 miles north and east of Cross Island does not accurately define the full extent of the area within which impacts on fall migrating bowhead whales can disrupt the Nuiqsut subsistence hunt. Again, your Stipulation 5 recognizes that Nuiqsut whalers use an area extending east to Flaxman Island. .013

The Borough was pleased by the adoption of the current lease stipulation. We believe MMS should now be willing to consider the available harvest data as a starting point in defining the actual extent of a zone around Cross Island requiring heightened protection. A new zone which includes the full subsistence use area plus the upstream area of .014

influence should be defined in consultation with the AEWC, Nuiqsut, and the National Marine Fisheries Service, and refined as noise monitoring studies, including those associated with British Petroleum's Northstar Development Project, produce more accurate information on noise impacts to migrating whales. .014

Potential Effects

The analysis of the potential effects of leasing, exploration, and development in the EIS is driven largely by the development scenarios used. What makes no sense is the way MMS deals with the effects of the various deferral Alternatives within those scenarios. MMS reaches a conclusion concerning the Barrow and two Eastern Beaufort deferrals that really defies logic. The Draft EIS first finds that because these are far from existing infrastructure, they are less likely to be leased and developed. We agree. MMS then goes on to say that because these areas are less likely to be leased and developed, the consequences to resources and subsistence harvest patterns with or without the deferrals would be essentially the same. That's where we part company. The implication of that analysis is that if there would likely be no reduction in effects but would be a reduction in resource potential, why defer the areas? That reasoning avoids the most critical question of what effects there could be if the deferrals are not adopted and leasing and development occurs in those areas. At the heart of our desire to see these areas deferred is the belief that if activities occur in these areas, impacts will be greatest compared with other blocks within the Beaufort Sea planning area. A reduced likelihood of activities occurring in the far eastern or western portions of the planning area does not mean that the effects would be insignificant if exploration and development do take place there. .015

A general flaw in the development scenarios applied in the Draft EIS is that they do not consider the specific potential effects if one of the projects predicted is located in a particularly sensitive area. The very reason deferral areas are being discussed is that all areas within the Beaufort Sea planning area are not the same. Some contain resources, which are more concentrated or sensitive. In many cases, these areas are also critical for subsistence. MMS should do impact analyses of alternatives using scenarios, which place one, or more developments squarely within proposed deferral areas. Then you will get at the issues most important to the affected North Slope Inupiat community. .016

Cumulative Impacts

The Draft EIS significantly understates the current and potential levels of cumulative impacts of oil and gas activities on North Slope resources and community residents. These proposed Beaufort Sea sales and the offshore and onshore operations that would follow will not occur in isolation. More onshore exploration took place on the North Slope this past winter than at any time in decades. Development in the near term is likely from Pt. Thomson at the border of ANWR in the east, to the National Petroleum Reserve-Alaska (NPRA) in the west. Companies are looking south to the foothills of the Brooks Range. The Bureau of Land Management has held a second northeast NPRA lease sale, and expects to offer a northwest area twice that size next year. MMS and other state and federal leasing agencies are moving ahead with their plans without a good handle on the .017

cumulative impacts of all of this on the environment, wildlife resources, and residents of the North Slope. Serious cumulative impacts have already occurred, and are certain to increase. MMS should acknowledge and describe that. .017

The issue of cumulative impacts of oil and gas activities on the North Slope is being studied by a Committee of the National Research Council. Its report due out this year. MMS should acknowledge the importance of the Committee's work, and agree to put forth appropriate effort and funds to see that any recommendations offered in its report are acted upon. This EIS should be modified as appropriate to reflect the Committee's findings. .018

The Borough and the people of the North Slope are the only ones now dealing with and paying for these impacts. We believe that through past Beaufort Sea lease sales, and continuing today, MMS has failed to meaningfully follow the intent of the OCS Lands Act with respect to the study of all effects of OCS leasing, exploration, and development on the social, economic, and cultural systems of the North Slope. We provide substance abuse treatment, counseling, public assistance, crisis lines and shelters, and other social service programs. We provide the search and rescue services, which must respond when hunters put themselves at risk in the pursuit of scarce or less accessible game deflected from normal migration paths. We provide the police force, which must respond to all of the kinds of unfortunate situations, which arise when people and entire communities are subjected to long-term and persistent stress. We provide the biologists, planners, and other specialists who review and offer recommendations on the staggering volume of lease sale, exploration plan, and development project documents which are produced and distributed each year. We must absorb the ever-increasing expense of travel to Fairbanks, Anchorage, Juneau, Seattle, and Washington, D.C., where the agencies conduct most of their work and make most of their decisions. Travel to our own remote villages has greatly increased as areas under oil and gas leasing continue to expand. We again ask that the EIS provide a detailed description of ongoing costs borne by the Borough and other local entities as a direct or indirect result of OCS leasing, exploration, and development. That analysis should include the budgetary effects on the Borough, community, and tribal governments of attempting to fully participate in OCS review and planning processes. That information should be a necessary component of your impact assessment, and would serve as a means of identifying an appropriate level of impact assistance, which should accompany any continued OCS leasing. .019

CONCLUSION

In conclusion, I'll add that even at this early point in our review of the DEIS, we have noticed many of the same problems we have seen in previous MMS documents. Analysis seems biased in favor of leasing. Impacts, and especially cumulative impacts, are understated. The potential impacts of vessel and aircraft traffic are all but dismissed. Figures given for "trips" should really be doubled to reflect that they are actually round trips and involve two passes between shore and drilling structures. The issue of increased skittishness of bowhead whales following exposure to industrial noise is not adequately addressed. The difficulties and delays due to weather, distance, and other factors in .020

responding to oil spills in the more remote reaches of the planning area are not adequately discussed. The significance, value, and vulnerability of the traditional subsistence culture is not given appropriate weight in balancing its protection against the risks of leasing. After all these years of listening to us, MMS just doesn't seem to fully understand how hard it is to be successful at subsistence in this environment; how many things you have to do right, how many things out of your control have to go right, and how little it takes to cost you your harvest or your safety. Once again, it seems that traditional knowledge is included in the document, but does not contribute to your analysis or conclusions.

.020

I thank you for coming tonight, and encourage you to listen closely to what you hear in Barrow and when you travel to the villages. We will provide more detailed written comments at a later date. You are going to have your lease sale I think. But I also think you should defer the areas most important to the people who will be most impacted, honestly talk about the impacts which have occurred and will occur, and use strong mitigating measures to protect resources in the areas you do lease.

MMS Response to Comment Letter L-0001

L-0001.001

The MMS has listened to and reacted to the North Slope Borough's scoping concerns in drafting the Beaufort Sea Multiple Sale draft EIS. The MMS has incorporated mitigating measures as part of every alternative, except the No Lease Sale Alternative. These standard mitigating measures have been developed during previous OCS lease sales, and they are effective in reducing effects to subsistence whaling. The MMS will continue to work with the Inupiat people in a cooperative approach to address concerns related to offshore oil and gas activities that potentially could affect the bowhead whale subsistence harvest. Two of the stipulations included as part of the current and past proposals address these concerns (1) The stipulation on Industry Site-Specific Bowhead Whale-Monitoring Program provides site-specific information about the migration of bowhead whales. (2) The stipulation on Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities helps reduce potential conflicts between subsistence hunters and whalers from oil and gas activities. It helps reduce noise and disturbance conflicts during specific periods of time important to the subsistence whale hunt, such as the annual spring and fall whale hunts. The consultations required by this stipulation ensure that lessees, including contractors, consult and coordinate events including both the siting and the timing with subsistence activities. This stipulation applies to exploration and development and production activities.

L-0001.002

The U.S. energy plan is a national program that takes into consideration competing energy sources, domestic and foreign and renewable and nonrenewable, together with economic and political interests. The Department has participated in discussions about areas considered for moratoria or exclusion by Executive Order, but the decisions are made by the Congress or the President. The Department continues to support leasing in areas where environmental and other citizen concerns can be addressed through mitigation.

L-0001.003

The Congress and former Presidents chose to remove some of the areas of the OCS from leasing consideration through imposition of moratoria. If an area is within moratoria and does not have existing leases, no 8(g) funds would exist for the adjoining State.

See also Responses L-0001.001 and L-0001.002.

L-0001.004

See Responses L-0001.001, L-0001.002, and L-0001.003.

L-0001.005

The MMS has attempted to assure appropriate public processes at each level of the OCS program: 5-year program, leasing and exploration, and development. Public input to lease sales offered under a 5-year leasing program are addressed and documented in draft and final EIS's, either at the overall 5-year program stage, the individual lease-sale phase, the exploration drilling stage, and /or at the development and production phase. All stages are subject to NEPA documentation and review, including public involvement. Although the final results may not be to the liking of individual commenters, all viewpoints are considered within the decision process. The evaluation of similar projects in a single NEPA document is not only allowable under current regulations, but it is encouraged by NEPA. Our experience from preparing seven lease-sale EIS's in the Beaufort Sea demonstrates that the issues and concerns identified and analyzed in these EIS's remain similar. The approach has been used in other OCS areas and has proven to be successful. Full public involvement will be invited and encouraged for each of the sales. This involvement includes continuing to request information and concerns from the public and interested groups concurrent with the Call for Information and Nominations. The MMS also has committed to distributing an Environmental Assessment and, if needed, a Supplemental EIS for public review. Separate consistency determinations will be made for Sales 195 and 202. In regard to responses to comments on the 2002-2007 OCS Oil and Gas Leasing Program, please see section 5.4.3 of the final EIS for the 2002-2007 program.

This process, which has been used over the years to develop mitigating measures that are effective in reducing impacts, has proven to be viable. Those mitigating measures are now considered standard, and they are evaluated as part of the proposal and all deferral alternatives. The continuing dialogue between the North Slope Borough, the Inupiat community, and the MMS on study needs and results also has improved the quality of scientific research on the North Slope and, we believe, the quality of our NEPA analysis.

L-0001.006

The MMS is not backing away from meeting with local communities and individuals about the OCS leasing program; we are willing to continue meeting with local and tribal governments on issues of mutual concern. We continue to believe that producing one EIS instead of three saves everyone concerned much time and effort writing or reading predominately the same information three times. The process we described in response to the previous comment indicated that any new information that is developed or comes to light after the final EIS is published will be considered in the environmental assessment processes or supplemental EIS's for the second and third sales. A coastal-management Federal-consistency analysis also will be conducted for each sale.

See also Response L-0001.005.

L-0001.007

Although various OCS lease-sale areas have differences in local perception, environmental concerns, and maturity of OCS fields, each will be viewed on its own merits when making decisions regarding leasing options. Overriding considerations are the OCS national energy leasing program guidelines and the OCS regulations under which MMS operates. The oil and gas industry has been operating in the North Slope OCS environment since the mid-1970's, and the MMS has been taking local testimony during this same time. As issues surface, we will continue to address them through the NEPA and public comment process.

We understand that the Arctic is substantively different from the Gulf of Mexico. However, since the late 1970's the Beaufort Sea has been the site of numerous environmental studies and environmental analyses related to oil and gas development. There is sufficient scientific evaluation of oil and gas development to justify a multiple-sale EIS approach. The Secretary of the Interior will have sufficient information on which to make a decision for each Beaufort Sea lease sale.

L-0001.008

Leasing areas onshore Alaska have different regulatory agencies, operating regulations, and leasing histories than OCS areas, and one cannot equate the two. The OCS areas are under the OCS Lands Act Amendments and administered by the MMS; onshore areas are either under Federal land use managers (Fish and Wildlife Service for the Arctic National Wildlife Refuge and the Bureau of Land Management for the National Petroleum Reserve in Alaska) or the State (for the remaining North Slope lands). Each jurisdiction has their own rules based on tradition, use, and regulatory authority. The multiple-sale approach is allowable under Federal regulations.

In addition to the sale-specific stipulations, lessees also would have to follow MMS's extensive regulations found in CFR Part 30.

L-0001.009

See Response L-0035.001.

The MMS acknowledges that the North Slope Borough, in cooperation with the Alaska Eskimo Whaling Commission, provided MMS with additional recommendations for deferring areas that were much larger than areas in deferral Alternatives III, IV, and V. However, as noted in Section I.C.2.b, the three larger deferral alternatives suggested by the North Slope Borough would remove about half the opportunity for discovering and developing an economic oil field. A large portion of the area being deferred is offshore Prudhoe Bay, where most of the existing oil and gas infrastructure exists. The deferrals as suggested by the North Slope Borough would remove much of the area in the Nearshore and Midrange zones (see Map 4), where MMS projects most of the leasing and activities for Sales 186 and 195 would occur, and would eliminate a large portion of the economically recoverable resources. These deferrals essentially would become the same as the No Action Alternative, which is evaluated as Alternative II (Section IV.B). As noted in Section I.C.2.b, the suggested scoping comments for the deferral alternatives and, for the most part, the comments on the draft EIS from the North Slope Borough and the Alaska Eskimo Whaling Commission, do not acknowledge the positive effects and protection offered by the standard stipulations and mitigating measures that are assumed to be part of the Proposal. These stipulations, especially Stipulations 4

(Industry Site-Specific Bowhead Monitoring Program) and 5 (Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities), have proven to be effective in reducing and eliminating adverse effects on subsistence whaling. Proposed exploration and seismic activities have been modified or limited in scope to reduce conflicts with whaling and potential deflection of the bowhead whale migration.

The MMS acknowledges that the North Slope Borough and the Alaska Eskimo Whaling Commission have consistently recommended the "no sale" alternatives and they have consistently stated their preference for no offshore oil and gas activity. As stated in Section I.C.2.b, the MMS analysis indicates that the levels of effects offered by the standard stipulations and ITL clauses, in combination with Alternatives III, IV, and V, provide essentially the same level of protection offered by the much larger deferrals suggested by the North Slope Borough.

The current alternatives, with the standard stipulations and ITL clauses, offer an effective range of alternatives that also meet the goals and objectives of the OCS Lands Act and the recent national energy plan to offer Federal offshore oil and gas resources for lease and possible exploration and development in an environmentally safe manner.

L-0001.010

See Responses L-0001.009 and L-0035.001.

L-0001.011

See Responses L-0001.009 and L-0035.001.

The MMS does not anticipate any exploration activities, including seismic surveys, in the spring lead system area during the bowhead whale spring migration near Barrow as a result of OCS Lease Sale 186. This area is far removed from existing infrastructure, and industry interest in the area is likely to be limited. Available technology and cost of operations likely would preclude operating in the spring lead system during the ice-covered period, which would include the spring migration period. Furthermore, if the area is leased as a result of any of the proposed sales, the MMS will conduct environmental analysis of all proposed exploration plans and, if successful, any proposed development plans. These analyses will evaluate specific site information, proposed equipment specification, and facility designs pertaining to the proposed activities, including timing and duration of the activities. If necessary, additional requirements can be developed and required to mitigate any adverse effects. Finally, should industry acquire leases in the area and technology is developed that allows operations to take place during the spring migration, the National Marine Fisheries Service's May 25, 2001, Biological Opinion for the Beaufort Sea requires the MMS to reinitiate Section 7 consultation under the Endangered Species Act before such operations could be approved and proceeded with.

See response L-0001.009 for additional information on the protection to subsistence whaling offered by the standard stipulations.

L-0001.012

See Responses L-0001.009 and L-0035.001.

A recent study, *Bowhead Whale Feeding in the Eastern Beaufort Sea: Update of Scientific and Traditional Knowledge* (Richardson and Thomson, 2002) indicates that more than 10% of the bowhead whales that pass through the eastern Alaskan Beaufort Sea during late summer and autumn feed there. However, based on comparisons of carbon isotope ratios in bowhead muscle and baleen, bowhead whales consume a relatively small portion of their food in the eastern and central Beaufort Sea. The study concluded in an average year the population of bowhead whales derives an estimated 2.4% of annual energetics in the eastern Alaskan Beaufort Sea. This study is discussed in Section III.B.4.a(1). We would be interested in more information on the observed deflection and its timing related to prior exploration of the area. However, we believe that the mitigation envisioned for Sale 186 and subsequent sales would help ensure that subsistence users would have access to the bowhead whales passing through the area, and that any deflection could be prevented or kept to a minimum. While at the time of Sale 170 we did indicate that additional analysis of cumulative effects was to be done, that analysis has been completed and appears in this EIS in Section V. Also, response plans have subsequently been enhanced.

Although there is no single deferral that includes all waters east of Kaktovik, the Secretary can choose both Alternatives V and VI as protection for feeding and migrating bowhead whales "upstream" of the Kaktovik subsistence-use area in addition to comparable protection offered by the stipulations and ITL clauses.

As to a total deferral of all offshore areas off the Arctic National Wildlife Refuge, deferring these blocks would reduce the opportunity of discovering and developing an economic oil field by 23%. Alternatives V and VI defer about 60% of the Refuge's coastline and reduce the opportunity of discovering and developing and economic oil field by only 6%. The whale-strike information provided by the Alaska Eskimo Whaling Commission and the North Slope Borough indicates that most whaling activities in the Kaktovik area occur to the north and east of Kaktovik.

L-0001.013

See Responses L-0001.009 and L-0035-001.

The EIS still evaluates the effects of stipulations (Stipulations 6a and 6b) prohibiting permanent facilities within 10 miles of Cross Island. As noted by the North Slope Borough, Stipulation 6a applies seaward of Cross Island, and Stipulation 6b applies landward of Cross Island. The Secretary can select both stipulations. However, data provided by the North Slope Borough and the Alaska Eskimo Whaling Commission indicate little or no whaling occurs inside or landward of the barrier islands. Furthermore, noise studies indicate that sounds that would divert the whale migration travel less than 10 kilometers (about 6 miles). Any OCS facilities inside the barrier islands would be more than 10 kilometers from the whale migration route, which occurs seaward of the barrier islands.

The current Cross Island deferral includes tracts that are beyond the 10-mile radius of Stipulation 6a. The environmental analysis in Section IV.C provides an assessment of the effects and benefits of deferring additional tracts east and north of the 10-mile radius used in the stipulation. The EIS also evaluates the effects of the standard stipulations that are part of all of the deferral alternatives. These stipulations have proven to be effective in reducing potential effects.

Regarding production noise from permanent industrial facilities around Cross Island, companies will be required to demonstrate to the National Marine Fisheries Service that any such proposed facilities will be in compliance with the Marine Mammal Protection Act and Endangered Species Act as they seek to obtain incidental harassment authorizations and avoid conflicts with subsistence activities. This analysis will occur with the submission of any exploration or development plans, and additional mitigation can be designed and required, if necessary.

The 94 whole or partial blocks depicted as a candidate for deferral on the map developed by the Nuiqsut Whaling Captains would reduce, by an estimated 19%, the opportunity of discovering and developing an economic oil field. This compares to an estimated reduction of about 2% for the Nuiqsut Subsistence Whaling Deferral.

L-0001.014

The MMS is always open to discussing oil- and gas-related issues with the Alaska Eskimo Whaling Commission, Nuiqsut subsistence users, NOAA fisheries, and industry to better define, refine, and develop the effects of noise on bowhead whales using data from ongoing noise-monitoring studies at Northstar. The development of appropriate noise mitigation and protection of the bowhead whale migration is important to the MMS and the Inupiat communities.

See response L-0001.013.

L-0001.015

In developing a hypothetical resource-development scenario and sale-alternative configurations for a proposed offshore Federal lease sale, the MMS attempts to take a reasoned approach to the formulation of a framework for potential oil and gas activity. In general, at the lease-sale stage, we estimate that the level of effects that likely would occur are, to a large degree, a function of development that we estimate, in turn, as a function of the resource estimates for a particular area. The environmental analysis is conducted around this framework. Hypothetical assessments for each specific area within the program area substantially would increase the size of the already large EIS without producing significant additional information given the uncertainty inherent in estimating the amount and location of future exploration and development. The current process is appropriate and satisfies NEPA requirements in that the Secretary of the Interior is provided sufficient information with which to make a decision on whether or not to proceed with the lease sale. During this process, we also relay to the Secretary the views of the North Slope Borough, the Alaska Eskimo Whaling Commission, the North Slope villages, and those of others commenters. Nevertheless, actual development of leased tracts, if any occurs, may differ from what is forecast. If exploration and development occurs after leasing, we perform additional NEPA analysis using site-specific information, including the concerns and issues from nearby communities and villages. Extensive developmental EIS's were prepared for the Northstar and the now-deferred Liberty projects. Specific local issues will be discussed

within such NEPA analysis for the Secretary's consideration, if development is proposed for any tracts leased as the result of the three sales analyzed in this EIS.

L-0001.016

See Responses L-0001.015, L-0001.001, l-0001.005 and L-0035.001.

Response L-0001.015 provides a partial answer to this comment. In addition, in a lease-sale EIS, the MMS generally avoids placing a hypothetical development in a very specific location, because the document needs to assess the whole program area. Subsequent NEPA analysis would be done for specific development proposals in specific geographic areas. Furthermore, a development project could affect a broader area than the area immediately surrounding the proposed site. Because we do not know which leases will be bought or if, when, or where development will occur, a broader assessment at the sale stage is warranted. The standard stipulations, if adopted, would provide substantial protection to potentially affected resources wherever they are located.

L-0001.017

The MMS disagrees with this comment. We believe the EIS does a thorough job in assessing cumulative effects. We have included the mentioned oil and gas activities in addition to others that may occur in our cumulative analysis. We agree that last winter and the previous two winter seasons have seen an increase in exploration activity on the North Slope with the present interest in the National Petroleum Reserve in Alaska. However, that level of activity may or may not be significantly different in subsequent years, depending on whether or not major companies opt to develop their present North Slope discoveries and explore areas other than the North Slope (Smitts, pers. commun.). We estimate past, present, and reasonably foreseeable cumulative effects in the cumulative section of this EIS. Through our analysis, we have not found other continuing or additive effects relevant to the framework for this cumulative analysis. We expect that any estimated effects on species would recover usually in two to three generations. If the commenter knows of serious cumulative effects that we have not accounted for in our analysis, we would appreciate receiving the appropriate references or statements of traditional knowledge.

L-0001.018

The MMS understands the importance of the National Research Council study and will include it in future analysis of cumulative effects.

We have cooperated with the Environmental Protection Agency and the National Research Council on this important study and are looking forward to its completion. Any results will be included in our assessment, as appropriate, if they are available in time to meet our prepublication schedule. If not, they will be addressed in subsequent NEPA analysis. The Congressional appropriations language for this study indicated that no projects should be delayed waiting for its results.

L-0001.019

See Responses L-0034.027, PH-Kaktovik.043, and Section I.C.1.e(1) for additional information.

We understand that the North Slope Borough and the Inupiat communities of the North Slope provide substantial services to the residents of their communities. We also acknowledge the staff hours and travel are involved in responding to proposals for oil and gas leasing, exploration, and development. Agencies are not required by CEQ NEPA Regulations to evaluate the costs and impacts of voluntary participation in the NEPA process. MMS does not and can not require the North Slope Borough or individuals to participate in the NEPA process, nor can we control the level of participation, which can range from a few hours to review summary documents to many hours to review each and every page of the EIS. We clearly understand the Borough's strong desire to receive impact assistance or a portion of OCS receipts.

L-0001.020

We appreciate the North Slope Borough's comments. We agree on some points, but disagree on others. We do not believe the EIS favors leasing; rather, it indicates the potential effects of possible exploration and development that may result should tracts be offered and companies successfully bid on those leases. To date, after years of leasing and many EIS's, little exploration has been conducted and the only production is from a few OCS wells that were drilled from the Northstar Island in State waters. In sum, few effects of OCS oil and gas have been felt. We have written the EIS to portray a realistic assessment, not an overstatement or understatement, of what effects may occur in the future should these sales be conducted. We believe this applies not only to the analysis of impacts in Section

IV but also to Section V on cumulative impacts, which has been totally restructured and substantially expanded from previous lease sale EIS's.

While we discuss the effects of vessel and aircraft on whales, we do not believe this to be a significant effect, especially in light of the tight controls over when and how they may operate in the Arctic, especially in periods of broken ice and open water. The MMS is aware that the number of trips indicated is inherently round trips. We will ensure that the text is clear on that.

We continue to fund several assessments of bowhead whales to expand our database regarding the species and effects thereon. While we have seen some effects on whales from seismic noises, we have not measured any long-term skittishness as a result of exposure to seismic noise.

The MMS is well aware that delays due to weather, distance, and other factors affect companies' ability to respond in the unlikely event of a large oil spill. The Oil Spill Contingency Plan for any development project would need to address those issues.

We believe that potential effects of the traditional subsistence culture are substantially treated in the EIS. We do, however, request that the North Slope Borough provide any other specific information or references we may have missed, so we can address this issues as effectively as possible in future NEPA documents.

We agree that the MMS does not have as full an understanding of the difficulties faced by subsistence hunters and gatherers as the Inupiat themselves, but we have attempted to address this issue in the EIS in some detail and appreciate the Inupiat community's efforts to further educate us on these matters.

We have tried to expand the traditional knowledge content of recent EIS's, including this one. We also have done our best to communicate traditional knowledge information to decisionmakers in the top management of the Department of the Interior, including the Secretary.

L-0002

RECEIVED
JUL 24 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

July 22, 2002

Mr. John Goll, Regional Director
U.S. Department of the Interior
MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 300
Anchorage, Alaska 99508-4363

Dear Mr. Goll:

Submitted herewith are the comments of the Alaska Eskimo Whaling Commission on the Minerals Management Service's Draft Environmental Impact Statement for its OCS Oil and Gas Lease Sale 186, 195, and 202 in the Beaufort Sea Planning Area.

Thank you for the opportunity to comment.

Yours truly,

Maggie Ahmaogak
Executive Director

Cc: Arnold Brower, Jr., President of ICAS
Lloyd Leavitt, Executive Director, NVB
Mayor George N. Ahmaogak, Sr., North Slope Borough
Eugene Brower, President of Barrow Whaling Captains' Association
AEWC Commissioners

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ALASKA ESKIMO WHALING COMMISSION

PRELIMINARY COMMENTS
On
U.S. MINERALS MANAGEMENT SERVICE
DRAFT ENVIRONMENTAL IMPACT STATEMENT
For
BEAUFORT SEA PLANNING AREA
SALES 186, 195 and 202
OIL AND GAS LEASE SALE

July 22, 2002

INTRODUCTION

The Alaska Eskimo Whaling Commission (AEWC) appreciates the opportunity to submit these preliminary comments, and reserves the right to submit additional comments on the DEIS for Oil and Gas Lease Sales 186, 195 and 202 by the U.S. Minerals Management Service by the deadline date in September of 2002. (20)

The AEWC hereby endorses and incorporates by reference the comments submitted on this matter by the North Slope Borough

SUMMARY

The Draft Environmental Impact Statement (DEIS) prepared by the U.S. Minerals Management Service (MMS) for its proposed Oil and Gas Lease Sales 186, 195, and 202 in the Beaufort Sea Planning Area still fall short of the standards of review and analysis set under the National Environmental Policy Act (NEPA). Important research results and other information from ongoing programs that could be used are still disregarded throughout the document. The AEWC applauds the MMS in its statements that it provided information from the consultation of the North Slope residents and the AEWC into this DEIS document. Unfortunately, one of the most important components of the DEIS, the cumulative effects/impacts analysis, contains only conclusive statements and entirely neglects any discussion of the past, present and reasonably foreseeable future activities whose impacts might interact with those of the proposed sale/action, in federal activities. .001 .002 .003

Furthermore, this DEIS continues MMS' tradition of ignoring the dictates of federal law and Executive Order by continuing to refuse impact mitigation funding to our community. The DEIS responds to our request for impact assistance by refusing to acknowledge the possibility of pushing the Administration to include mitigation impact assistance in the President's Budget, or asking the Administration to put a request for impact assistance for North Slope communities in an energy bill. This is a fundamental flaw. We have heard agency officials claim that they would like to help us, but complain that MMS has no authority to fund impact assistance. We do not agree with the agency's legal opinion and we wonder whether MMS really wants to help us since we see no sign that you have ever asked for clearer legal authority to do what you say you want to do. .004

AEWC believes that MMS most certainly has the authority to budget for impact assistance. The one year allocation of funds to coastal states is evidence that Congress recognizes that coastal impacts from offshore oil development are a real problem. If MMS believes it does not have authority or funding, MMS needs to ask for it. This is part of MMS' responsibility to balance the orderly development of the OCS with protection of the human and marine environment. .004

Finally, AEWC believes that MMS has not performed or provided accurate and substantial analysis of the mitigation stipulations for this particular DEIS. A list of mitigation measures without analysis does not qualify as a "reasoned discussion" or a "hard look" as NEPA requires. .005

REQUESTS FROM PREVIOUS EIS TO THE 5-YEAR LEASING PROGRAM

On January 24, 2002, the AEWC submitted its comments on the DEIS for the OCS Oil and Gas Leasing Program: 2002-2007. In those comments, the AEWC noted a number of items that need to be addressed by the MMS before Lease Sales 186, 195 and 202 can be held. In particular, the AEWC requested that MMS acknowledge recent research results on the adverse industrial impacts of OCS development. MMS' failure to fully address these findings, especially given the participation of MMS representatives in hearings and meetings addressing these matters, is extremely disappointing. .006

Again, the AEWC insists that MMS fully revise the sections of the DEIS in which it purports to address the **"effects of accidental oil spills"** and the **"cumulative effects of past, present, and future activities on the people and environment of Alaska's North Slope"**, as well as its conclusions within the Executive Summary on pages EXSUM 2, 3, 4, and 5. MMS has not performed or provided an accurate and substantial analysis of the mitigation stipulations for this particular DEIS. A list of mitigation measures without analysis does not qualify as a "reasoned discussion" or a "hard look" as NEPA requires. .007

For instance, the DEIS contains a stipulation prohibiting permanent facilities within a 10-mile zone around Cross Island unless the lessee can demonstrate that their placement in the zone will not have a significant impact on the subsistence harvest of whales. The DEIS claims that AEWC agreed to this, but we never did and do not now. The ten-mile figure is someone else's arbitrary and inaccurate invention. The document is dishonest in claiming our support. Our judgment now is the same as it has been. The exclusion zone should be expanded to include an area based on the real Nuiqsut traditional bowhead harvest area (which lies more to the north and east) and production noise effects on bowhead whales. The new zone should be defined in consultation with the AEWC and Nuiqsut and refined as noise monitoring studies produce more accurate information on impacts on whales. .008

In addition, we object to MMS' absurd characterization of an 8-10% chance of a major oil spill as "highly unlikely." Compared to what? What odds would you consider acceptable if your culture and your community were at stake? A risk of **8%-10% is particularly unacceptable to AEWC, and especially without an offer of impact assistance.** We believe that the approach taken to risk evaluation and assignment in the DEIS violates the principles of Environmental Justice embodied in current executive order and other law. .009

Furthermore, given the vital importance of the analysis of oil spill and cumulative impacts to our community as a basis for understanding the impacts to our community from OCS industrial activity in the Arctic OCS, including the proposed lease sales, **the AEWC insists that MMS revise the sections indicated above and make the revised DEIS available for review by the AEWC, the NSB and ICAS, and the consulting agencies including the National Marine Fisheries Service, the EPA and the Marine Mammal Commission.** .010

In addition to the above, in its comments on the DEIS for the OCS Oil and Gas Leasing Program: 2002-2007, the AEWC also requested that the MMS prepare a revised discussion on Sociocultural Impacts and Enviromental Justice, including a balanced account of the "Socioeconomic Environment" for the North Slope, with a reasoned discussion of mitigation measures. The MMS has yet to provide this revised discussion. .011

In 1994, the National Research Council published a review of MMS' Environmental Studies Program in Alaska. The AEWC has pointed MMS to the conclusions and recommendations of this review on numerous occasions in recent years. These conclusions and recommendations remain relevant as MMS has yet to incorporate or otherwise address them. Notably, the NRC Committee conducting the 1994 review pointed out that, just as it does in the current DEIS, MMS in the past has devoted considerable attention to the "amount and kind of subsistence activities, the importance of these subsistence activities for the maintenance of traditional cultures, and at least the potential for these activities to be disrupted in the case of catastrophic dame to the physical environment" without providing measures to protect against this potential disruptions. .012

In the first paragraph of Section 4.3.3.15. "Environmental Justice" within the 5-Year Leasing Program, it is noted that Executive Order 12898 calls for the development of mitigation measures to address "all identified effects." Agencies also are directed, in the Executive Order, to integrate those mitigation measures into the level of NEPA review required, in this case, into the Environmental Impact Statement (EIS). .013

The AEWC hereby makes the statement that the MMS has failed to provide a clear analysis and reasoned discussion of all of the effects likely to result from the Lease Sales 186, 195 and 202. .014

Therefore MMS has placed itself in a position where it cannot adequately identify mitigation measures necessary to address the "Environmental Justice" concerns raised by the proposed lease sales.

For these and other reasons, the present DEIS is in violation of the Outer Continental Shelf Lands Act and the regulations promulgated under the National Environmental Policy Act, which requires that the Secretary of the Interior provide "information needed for assessment and management of environmental impacts on human, marine, and coastal environments of the Outer Continental Shelf and the coastal areas which may be affected by oil and gas development." Furthermore, as noted before, the Council on Environmental Quality requires that MMS ensure the "professional integrity, including scientific integrity" of the analyses in the Draft EIS. .015

THE AEWC BELIEVES THAT PREPARATION OF A SINGLE EIS FOR THREE INCREMENTAL LEASE SALES IS INAPPROPRIATE

The AEWC recognizes MMS' desire to expedite permitting of energy projects, but the agency's proposed "tiering" is not appropriate in Alaska's OCS for several reasons:

MMS approach inevitably will short-circuit the chance for thorough environmental review of the three lease sales. Indeed, we believe that your proposed approach is not "tiering" but is in fact impermissible "segmentation" because the projects will be carried out in changing circumstances and may have different impacts. .016

In a stable, low risk environment, MMS' approach might have merit, but not here. Weather, ice, and other environmental conditions in the Beaufort Sea are shifting, both year-to-year and over the long term with climate change. Three days ago the Washington Post ran a story about glacial melting and the rapidity of change in the ice of the Arctic. Now more than ever is the time to fulfill NEPA's mandate to take a hard look at the impacts of these projects. A hard look means one EIS per lease sale. We cannot afford to do less. Every year we learn more about and change our understanding of the Beaufort Sea environment, the habitat needs of the whales, and the scale and pace of change in those things resulting from shifts in the global climate. Moreover, on almost a daily basis the Nation's policies and attitude toward energy production and consumption are themselves changing. NEPA requires an informed evaluation and weighing of facts, legal requirements, and social concerns to strike a "productive harmony between man and the environment." The projects must be evaluated pursuant to the most up-to-date information and perspectives.

MMS CANNOT CONTINUE TO IGNORE THE FISCAL CRISIS ITS ONGOING ACTIONS ARE CREATING FOR THE NORTH SLOPE COMMUNITIES.

When Congress passed the OCS Lands Act, it recognized, in its declaration of policy, "the national interest in the effective management of the marine, coastal, and human environments." (43 USC 1332 (4)). In order to accomplish this goal, Congress recognized that affected states and local governments are likely to "require assistance" in dealing with adverse impacts from OCS development. .017

Congress then went on to give the Secretary of the Interior a very broad grant of authority to administer the leasing of the OCS for the development of non-renewable resources, directing the Secretary to "prescribe such rules and regulations as may be necessary to carry out" the provisions of the OCSLA. (43 USC 1334 (a). Congress further authorized the Secretary to:

> At any time prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for the protection of correlative rights.

The AEWC was formed in 1977 for the purpose of representing the 10 bowhead whale subsistence hunting villages on issues related to the quota system imposed on our communities by the International Whaling Commission and for managing the bowhead whale subsistence hunt in compliance with that Quota system. The Federal Government provides the AEWC, a small

grant through the U.S Department of Commerce for these purposes. However, because of the aggressive leasing program administered by the MMS in the Beaufort Sea, and soon the Chukchi Sea, the AEWC has been forced to take on representation of our bowhead subsistence community in dealing with OCS Oil and Gas operators to try to protect our bowhead subsistence hunt from adverse impacts of OCS oil and gas activities. .017

Furthermore, the amount of work on OCS-related matters in recent years has grown to the point that it dominates the AEWC's staff time, again with no funding through the agency responsible for these impacts. Despite repeated requests, both formal and informal from the AEWC and residents of the NSB, MMS has yet to act to fulfill this statutory obligation.

As is the tradition of our community, we have taken whatever steps we can to protect ourselves. One of the most important mitigation measures in place at this time to protect our bowhead hunting is the annual "Open Water Season Conflict Avoidance Agreement". This agreement is the result of the extensive negotiations between the AEWC and oil and gas operators over more than 15 years, with no support from the U.S. Department of the Interior or the MMS. In recent years, the AEWC, along with the NSB and the Inupiat Community of the Arctic Slope (ICAS) has undertaken negotiations with oil and gas operators to try to address adverse impacts of North Slope oil and gas development, especially the OCS activities, on our traditional subsistence culture and on the physical and psychological well-being of our people. This is work that falls squarely within the Secretary's responsibility to protect "correlative rights" in the natural resources of the Outer Continental Shelf. Not withstanding this statutory responsibility and despite repeated requests, MMS continues to refuse to provide meaningful assistance to the AEWC, either through its regulatory or its funding authority.

In fact, in AEWC's September 21, 2001 comments on MMS's Draft Proposed Oil and Gas Leasing Program for 2002-2007, the AEWC specifically requested that MMS **include mitigation funding in its agency budget to cover local mitigation costs under the new five-year OCS leasing plan.** MMS has informed AEWC that the agency cannot do this. Furthermore, MMS representatives have indicated that the agency considers itself to be "unable" to provide this kind of support.

However, the Secretary has statutory responsibility for protecting our people's interests in our Beaufort Sea subsistence resources and for mitigating impacts to our community as a result of the OCS Leasing Program. Furthermore, the Secretary has been instructed by Congress to provide whatever measures "may be necessary" to protect our interests and mitigate impacts to our community. Therefore, MMS is placing the Secretary of the Interior in direct violation of the OCS Lands Act by refusing to provide support for our community and to work with us to address and mitigate the adverse impacts of Beaufort Sea OCS oil and gas leasing and permitting.

CONCLUSION

The Alaska Eskimo Whaling Commission, representing the bowhead whale subsistence whaling captains from ten villages of Kaktovik, Nuiqsut, Barrow, Wainwright, Pt. Hope, Kivalina, Wales, Little Diomede, Savoonga and Gambell, opposes OCS Lease Sales 186, 195 and 202 within the .018

Beaufort Sea Planning Area due to the current and potential adverse impacts to our bowhead resource and our subsistence hunting. The AEWC continues to advise the MMS to heed the advise of the National OCS Policy Committee with respect to the need to address the fiscal issues raised and faced by our community. .018

Furthermore, the AEWC insists that the MMS to prepare a revised DEIS or a Supplemental EIS to address the issues raised in these comments and in the comments submitted by the North Slope Borough. .019

Finally, let me share a general observation. MMS has an extensive environmental, social, and economic studies program. MMS interviews our people. We see our traditional knowledge repeated in this and other MMS environmental studies. .020

But even with all that dialogue and all that purported understanding, MMS decisions invariably run counter to our interests. We are gratified to see a cumulative effects analysis that pays attention to the long term harmful effects of OCS development on our sociocultural systems, but we ask for meaningful mitigation—not more words and studies—to address it.

We have shown that we need coastal impact assistance. But MMS has not requested OCS mitigation funding in its agency budget, though the agency assures us that it has studied our way of life and needs. .021

MMS combines three lease sales in one EIS, allowing an expedited and inevitably less accurate review of the impacts of these OCS lease sales on our hunt. It does not comfort us to know that there are thousands of pages of data on our culture when MMS sets up a process calculated to expedite damage to our interests. .022

The message you have delivered is that MMS, while claiming to know us by heart, chooses to refrain from making decisions that protect our way of life.

Thank you for this opportunity to express the views of the AEWC. I'd be happy to answer any questions you may have.

MMS Response to Comment Letter L-0002

L-0002.001

We disagree with this comment. The EIS was prepared in accordance with all applicable NEPA and Council on Environmental Quality requirements.

L-0002.002

The commenter uses the general statement that "Important research results and other information from ongoing programs that could be used are still disregarded throughout the document." Without more specific information, it is hard for MMS to understand what the commenter is referring to. If we knew what was missing from the commenter's perspective, we would be glad to supplement our analysis with additional information. The MMS staff tries its best to update text and analysis with current information, if it is known and available.

When available, MMS uses information gathered from conversations with local residents. The MMS's outreach program tries to be attuned to what the local community is saying and, in turn, tries to reflect this information in our EIS's.

L-0002.003

The conclusion reached in the cumulative analysis for each resource usually is only one paragraph long. We include a summary and an analysis of the contribution of the proposed lease sales to past, present, and reasonably foreseeable future actions. The summary and conclusions are preceded by an extensive analysis of that resource. For example, the bowhead whale analysis is more than 6 pages long, and the marine and coastal birds analysis is 5 pages long. We include summaries and incorporation by reference of previous analysis where appropriate.

We do not neglect any discussion of past, present, and reasonably foreseeable future activities. The rather long introductory statements to the cumulative section of the EIS (Sections V.A and V.B spell out in detail exactly which activities are included in the analysis which is presented in the subsequent section [V.C]).

L-0002.004

See Responses L-0034.026, L-0034.027, and PH-Kaktovik.043.

L-0002.005

The MMS analysts, when considering the effects of proposed lease sales, do take into account the effect of mitigating measures. In Sections IV.C.1 through IV.C.16, each analyst provides an evaluation of the effectiveness of mitigation for their respective resources. A summary of that analysis is provided in Section II. H.1.a, and follows the text of the stipulation.

For example, our EIS evaluation found that Stipulation No. 1 lowers the potential adverse effects to lower trophic-level organisms, primarily unknown kelp communities or other unique biological communities, that may be identified during oil and gas exploration or development activities and provided additional protection. It also would provide protection to fish (including the migration of fish) from potential disturbance associated with oil and gas exploration, development, and production.

Stipulation No. 2 provides protection to fish (including the migration of fish), pinnipeds, polar bears, bowhead whales, gray whales, and beluga whales from potential disturbances associated with oil and gas exploration, development, and production by increasing the awareness of workers to their surrounding environment. It increases the sensitivity to and understanding by workers of the values, customs, and lifestyles of Native communities and reduces the potential conflicts with subsistence resources and hunting activities.

Similar types of summaries are provided for Stipulations No. 3 through 8 (see Sections II.H.1.c through II.H.2.d), and the full analysis is provided in Sections IV.C.1 through IV.C.16 by resource category.

Section II.H.3 notes that the effectiveness of the ITL clauses evaluated in the EIS vary. The primary purpose or focus of all of these ITL clauses is to provide the lessee with information about the requirements or mitigation required by other Federal and State agencies. The ITL clauses themselves provide no mitigation. However, the

regulations and mitigation required by the other agencies are effective and do lower potential adverse impacts from proposed oil and gas activities. To the extent that the ITL clauses enlighten lessees and their contractors to these mitigating measures, the ITL clauses also may be considered effective.

L-0002.006

See Response L-0001.005.

Reader requests MMS acknowledge of recent studies showing adverse industrial impacts of OCS development, but fails to cite or reference any studies. MMS is unaware of any recent or new studies that attribute significant adverse effects to OCS development. In fact, the only OCS related development that is occurring on the OCS in the Alaska Region are a few Federal wells drilled into the federal leases at Northstar. MMS is unaware of any studies showing significant effects related to those wells or the Northstar project. We do discuss industrial effects in the EIS, for example, we discuss the effects from unmitigated seismic surveys on bowhead whales conducted before the current stipulations were used.

L-0002.007

The effects of accidental spills are thoroughly addressed for each individual resource in Section IV, which has been updated with the most current information MMS has available. The cumulative effects section was totally restructured and updated for the Liberty EIS that was issued in final in early 2002.

Effectiveness of mitigating measures has been addressed for each resource in Section IV. These mitigating measures also have been presented in Section II along with a summary of their effectiveness. See also our answer to L-0002.005.

Stipulations have been updated and one stipulation has been broken into two parts, which are now Stipulations 6 and 6b - Permanent Facility Siting in the Vicinity Seaward of Cross Island. Also, two new stipulations have been added: Stipulation 7 - Pre-Booming Requirements for Fuel Transfers and Stipulation No. 8 - Lighting of Lease Structures to Minimize Effects to Spectacled and Steller's Eider. These also are discussed in the Executive Summary because they are new.

Effectiveness of mitigating measures as they have been analyzed for the proposed action in Section IV also apply to the cumulative effects analysis.

L-0002.008

The EIS evaluates two stipulations for prohibiting permanent facilities within a 10-mile zone around Cross Island unless the lessee can demonstrate that their placement will not have a significant impact on the subsistence harvest of whales. The stipulation language is essentially the same as the stipulation adopted for Sale 170, but it has been divided into two options, one inside the barrier islands and one outside the barrier islands. The language of this stipulation was developed during the Sale 170 decision process with the State, and that process included information and coordination with the North Slope Borough and Alaska Eskimo Whaling Commission, through the State. The Alaska Eskimo Whaling Commission has consistently recommended the "no sale alternatives" and the enlargement of deferral options to provide potential development.

The stipulation requires the lessee to coordinate with the North Slope Borough and the Alaska Eskimo Whaling Commission if they are proposing permanent facilities within the 10-mile zone.

The effects of a larger area to the north and east is evaluated in this EIS as a deferral alternative; the benefits to the bowhead whale of not allowing oil and gas development in that area are evaluated as Alternative IV (see Section IV.C.11.c). Alternative IV was developed by the MMS using whale-strike information provided by Alaska Eskimo Whaling Commission. The MMS found that the effects of deferring this area from oil and gas leasing and development would be essentially the same as Alternative I. Based on our analysis, enlarging the area either by deferral or stipulation could lessen the potential for discovery of oil and, in turn, the potential impacts, but would not eliminate the potential adverse effects that could occur in the unlikely event of an oil spill. The available studies and information about bowhead whales diverting their course has been considered and incorporated into this EIS and into the development of the 10-mile zone in Stipulations 6a and 6b.

As new information is developed, such as the whale monitoring and noise information being collected at the Northstar facility, the MMS will review and incorporate that information into our environmental assessment and future decision processes.

L-0002.009

We understand the Alaska Eskimo Whaling Commission's views regarding the probabilities of spill occurrence. In Section IV.A.4 we state: "The MMS uses the term 'low' to characterize the relative chance of a large spill occurring, and it is based on our familiarity with oil-spill rates and sizes. We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, a10% chance of a large spill over the life of the field may be 'high'." Regardless of the probability, we do assess the effects of oil spills on various environmental resources. Environmental justice analysis requires the MMS to evaluate events that will occur and that might result in high adverse effects. Oil spills are unlikely events, and the most likely event is "no oil spill will happen"; therefore, they are not included in our conclusions for effects that will occur.

The environmental justice analysis provided in this EIS meets the Council on Environmental Quality and Department of the Interior guidance for Environmental Justice evaluation.

The MMS acknowledges the need for impact assistance to mitigate some of the real and perceived impacts of oil development on the North Slope. The North Slope Borough also may receive funds from the State under the Coastal Impact Assistance Program. The funds that may accrue to the Borough under this Program also are relatively small. Environmental Justice is analyzed in the Section IV.C.16. Additional information pertaining to impact assistance as been added to Section I.C.1.e(1).

L-0002.010

Except for revisions we made to the text of the EIS after receiving the Alaska Eskimo Whaling Commission's and other comments on the draft EIS, we believe this EIS is more than adequate, given the limited information we have about where and what leasing, exploration, and development is likely to occur, let alone about what effects may result from such activity. The EIS meets the requirements of NEPA, and a revised draft EIS is not warranted.

L-0002.011

The draft EIS for the 2002-2007 OCS Oil and Gas Leasing Program is a national, programmatic document that does not approach analysis at the level of detail that a discussion of mitigation would require. The document is meant to be an overview of the entire national program. A "reasoned discussion" of mitigation would come at the lease-sale EIS stage. We believe that the draft and this final multiple-sale EIS for the Beaufort Sea has provided such a discussion. As mentioned in responses to earlier comments in this letter, the mitigating measures are built into the analysis, and effects are assessed as though they were in place.

New stipulations also are being considered. For instance, concerns about potential effects to Inupiat bowhead subsistence activities are addressed to some degree by proposed Stipulation No.7 - Pre-Booming Requirements for Fuel Transfers. This stipulation would moderate possible effects on this activity. Even though the stipulation would not prevent a fuel spill, pre-booming would help with spill recovery and would serve to moderate potential effects.

L-0002.012

Measures to protect against potential disruption of subsistence in the case of catastrophic events and damage are included in that the MMS has regulations that lessees must follow to minimize the likelihood of any such catastrophic events. The potential effects on subsistence and subsistence resources from catastrophic events are analyzed in the EIS (See Section IV.I), and the suite of standard mitigating measures are identified and evaluated in the document. Other mitigating measures have been developed and are considered for inclusion as lease-sale conditions. Note that steps in the postsale processes include additional opportunities to develop and fine tune mitigating measures that can be adopted as conditions of exploration and development through operating orders, if site specific conditions and circumstances so warrant. These all are aimed at allowing exploration and development to proceed in an environmentally sound manner to meet the goals of the OCS Lands Act.

L-0002.013

See Response L-0002.011.

L-0002.014

The MMS believes that we have given a clear, full, and reasonable analysis of effects as they relate to Environmental Justice. We estimate that no disproportionate high adverse effects would occur to the Inupiat population from routine leasing, exploration, and development. We estimate such effects could occur in the event of

a large oil spill, but we calculate that such a spill is unlikely. However, in the unlikely event of a large spill, we believe that proposed mitigation and spill-cleanup response would mitigate some but not all potential effects. No activity can proceed on the North Slope with zero risk. We have done our best to reduce that risk consistent with the OCS Lands Act; Executive Order 12898; and other laws, regulations, executive orders and policies.

L-0002.015

Since the late 1970's, the MMS has engaged in oil and gas leasing activities in the Beaufort Sea. The MMS and the Department of the Interior have funded a long series of multimillion-dollar efforts aimed a studying the oceanography, biology, and people of the Beaufort Sea and its coast. This peer-reviewed scientific research and other pertinent research efforts have formed the backbone of the analysis performed in our EIS's. Over the last 20 years, we have provided each Secretary of the Interior with the information requisite to make a reasonable decision regarding leasing Federal tracts in the Beaufort Sea, and we believe we have done so with professional and scientific integrity.

L-0002.016

The Alaska Eskimo Whaling Commission believes that covering/tiering three lease sales under one umbrella EIS is inappropriate and shortchanges the NEPA process by not taking into consideration long-range changes that may occur over the time covered under this EIS. As pointed out in the process section/introduction of this Beaufort Sea multiple-sale EIS, further NEPA analysis will be performed after both the first and second lease sales are held. This will highlight any new information and analyze any new facts not covered in the initial multiple-sale draft EIS. For each of the two sales, Sales 195 and 202, an Environmental Assessment will be written that will include a public review process. If the Environmental Assessment finds that further NEPA documentation is warranted, a supplemental EIS will be written to cover the missing analysis. The MMS believes that with the several lease-sale EIS documents written for the Beaufort Sea area, we have addressed issues raised over the years by North Slope residents. We do not repeat the same litany each time but reference previous MMS documents. We believe our plan for the combination of the multiple-sale EIS and subsequent Environmental Assessments is an effective, sound way to provide the most up-to-date information and perspectives and is consistent with NEPA.

L-0002.017

See Responses L-0034.026, L-0034.027, PH-Kaktovik.043, and Section I.C.1.e(1).

Within the limits of the relationship between the Legislative and Executive branches of Government, the MMS has done its best over the last 20 years to support the concept of revenue sharing or impact assistance, which could directly fund the North Slope Borough. However, the authorization of funds must come from Congress.

L-0002.018

See Section I.C.1.e(1) for additional information.

In 1994, the National Research Council suggested that MMS set up a trust fund for subsistence and sociocultural effects mitigation. The OCS Lands Act legislation does not authorize this, and Congress would have to authorize such funds. In 2001, Congress provided coastal states with a one-time award of impact-assistance funds. Alaska received an appropriation of $12.2 million, of which $1,939,680 went to the North Slope Borough.

The OCS is considered a national resource, and revenue received from leasing and development activities currently is deposited in the Federal Treasury. In its reports, the OCS Policy Committee has expressed the view that "while the benefits of the OCS program are national, a disproportionate share of the infrastructure, environmental and social costs are local." In its Coastal Impact Assistance report, the Committee recommended a program to share 27% of revenue from the OCS with coastal States. Inclusion of all coastal States as eligible recipients recognizes that they form a unified coalition of entities with similar interests relating to their coastline. Both the House and the Senate have introduced impact assistance legislation, but no ongoing funding for impact assistance has been legislated to date.

L-0002.019

Thank you for the observations. We are particularly pleased that the Alaska Eskimo Whaling Commission appreciates the efforts that MMS has made to restructure the cumulative analysis we use in our EIS's for the Beaufort Sea to, among other things, pay greater attention to the long-term effects of OCS development on the Inupiat community's sociocultural systems. The MMS will continue to work with the Commission, the North Slope

Borough, the Inupiat Community of the Arctic Slope, and the villages to consider any additional, meaningful mitigation that we find would be appropriate to add to the substantial mitigation that is part of our standard package.

See Responses L-0002.011 and L-0002.018.

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L-0003

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Testimony of Deb Moore, Arctic Coordinator
Northern Alaska Environmental Center July 30, 2002

Good evening and thank you for this opportunity to comment on the draft Environmental Impact Statement for the three Beaufort Sea lease sales. My name is Deb Moore and I am the Arctic Coordinator for the Northern Alaska Environmental Center. The Northern Center is the nation's most northerly, broad-spectrum environmental advocacy organization, based in Fairbanks. Our mission is to conserve Alaska's stunning natural resources, by advocating management and stewardship policies that promote sustainable, responsible practices.

The Northern Center opposes leasing in the Beaufort Sea – particularly off the shore of the Arctic National Wildlife Refuge or Teshekpuk Lake in the National Petroleum Reserve of Alaska (NPR-A). Our reasons for this opposition are many: the potential impacts from oil spill risks are too great to risk in these sensitive wilderness and wildlife areas; previous Beaufort Sea Sales have deferred or deleted the areas off the Arctic Refuge and Teshekpuk Lake from leasing due to this high risk - thereby setting a precedent that we believe should be continued; and the US should be focusing on ways to *decrease* our dependence on oil, not encouraging that dependence by developing in frontier areas. .001

The Beaufort Sea is home to polar bear, walrus, seals, migratory birds – including the Pacific black brant, threatened spectacled and Steller's eiders and the endangered bowhead whale. Oil spills in this harsh ice-dominated environment, would have a severe impact on many of these species – particularly on the bowhead whales during migration east of Barrow and offshore the Arctic National Wildlife Refuge and on black brant during molting along the coast in the Teshekpuk Lake area of the NPRA. .002

Considering the industry's proven lack of ability to clean up oil spills in the Beaufort Sea during most of the year as well as the maximum of 10 – 15% of spilled oil that is ever "cleaned up" even in much less severe climates, the risks to these species and sensitive areas are too great to allow new lease sales to go forward. .003

The Minerals Management Service (MMS) has developed a recent history of not leasing and/or deferring the sale of lease tracks off the coast of the Arctic National Wildlife Refuge and the Teshekpuk Lake area of the NPR-A. It is our understanding that these deferrals have occurred due to the sensitive nature of the areas, the high environmental risks associated with development of these areas, and overwhelming public opposition to these leases. For these same reasons, we request that these areas not only be deferred but ***permanently deleted*** from the current and futures sales. .004

While the Northern Center agrees that the United States should decrease its reliance on oil imports, we believe that domestic offshore drilling not the correct way to accomplish this. The US has only 3% of global oil reserves while accounting for 25% of the world's oil consumption. Therefore, the US will never drill its way to energy security and independence, even if every last .005

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drop of oil is drilled from federal waters off the coast of Alaska. In fact, the expansion of development into frontier areas such as the Beaufort Sea *encourages* this dependence. Instead, to decrease our reliance on *all* oil, not just imported oil, the United States should halt offshore leasing and focus its efforts on improving energy conservation and energy efficiency and shifting toward the use of more alternative, renewable energies. .005

Finally, we would like to make two comments about public process. The Northern Center is disappointed that the Minerals Management Service chose not to hold a hearing in the Fairbanks area. As the second largest community in Alaska, it is very likely that numerous individuals would have been interested in attending and commenting at such a hearing. However, by excluding Fairbanks, you have excluded these people – many of whom cannot take the time to travel to Anchorage or find another person to speak for them as I have. We encourage you to not overlook Fairbanks in the future. .006

In addition, we are concerned with MMS' efforts to lump three lease sales into one Environmental Impact Statement Process covering approximately 10 million acres. As these three sales are expected to be held sequentially, not simultaneously, so should there be *three full public EIS processes held sequentially*. In this way, each EIS will reflect the most current knowledge, experience and technology at the time - not reflect outdated information, as may be the case when using this current EIS process for a lease sale not set to begin for 5 years. In addition, by holding separate EIS's sequentially, the public will be a more active and informed part of the process – focusing their attention of each sale individually and basing their comments on the immediate situation for each sale. .007

Once again, thank you for the opportunity to comment.

MMS Response to Comment Letter L-0003

L-0003.001

The MMS recognizes the sensitivity of the Arctic National Wildlife Refuge and addresses this issue in the EIS under Alternative VI - Eastern Deferral and under Alternative V - Kaktovik Subsistence Whaling Deferral. The Teshekpuk Lake area is inland from the Beaufort Sea coast and is not at risk from potential oil spills that might occur offshore. This EIS evaluates the environmental risks of leasing offshore the North Slope of Alaska, including offshore of the Arctic National Wildlife Refuge and offshore of the National Petroleum Reserve-Alaska. The Secretary of the Interior determined that these areas should be considered for potential leasing as part of the OCS Oil and Gas Leasing Program: 2002 to 2007. This decision process follows the EIS process and will consider the information provided in the EIS and from the public and other Federal, State, tribal, and local governments in the decision to include or exclude the areas for each sale (186, 195, and 202) covered in this EIS.

The MMS has determined that it is inappropriate to make lease-sale and project-level environmental assessments to consider programmatic issues such as alternative fuels, conservation, etc., as suggested by the commenter. These issues are properly evaluated in the National Energy Policy and the 5-year OCS program.

L-0003.002

The MMS recognizes the potential threats that oil spills pose to endangered bowhead whales, polar bears, walruses, seals, and many species of migratory birds, including brant and threatened spectacled and Steller's eiders and their habitats. See Section IV.C - Analysis of Effects by Resource and Alternative: IV C.5 - Endangered and Threatened Species, including bowhead whale and threatened eiders; IV.C.6 - Marine and Coastal birds, including brant; and IV.C.7 - Marine Mammals, including polar bears, walruses, and seals for a detailed analysis of potential effects of oil and gas development on these species. Routine activities associated with such developments are not likely to result in significant adverse effects on birds or marine mammals.

Overall, the chance of one or more spills occurring and entering the offshore waters is low (8-10%); and the chance of one or more spills occurring and contacting resource areas important to these species is lower, on the order of 2% or less.

L-0003.003

The field tests conducted during 2000, did not demonstrate a failure of industry to contain and clean up oil. The tests were key in establishing reasonable maximum operational limits for one set of tactics. The efficiency of the tactics demonstrated was more limited than initially proposed, but they would have been effective in removing oil in a broken-ice environment. In a response situation, these tactics would be only one of the methods used to remove oil from the environment. In a real-world response situation, responders would be able to use any of the various tactics and response equipment they maintain in their response toolbox to include in situ burning. Additional field tests were conducted during July 2002 to demonstrate response tactics developed to improve response capabilities in broken ice following the 2000 demonstrations. The new tactics were highly effective and expand industry's window of operation and provide better access in broken-ice conditions, should an oil spill occur. Also, the broken-ice season is a short period of time, not the majority of the year. Solid-ice conditions are present nearly 9 months out of the year, and industry has an extensive inventory of equipment and tactics that can be used effectively on the ice surface to remove oil.

L-0003.004

At the discretion of the Secretary of the Interior, any number of, or all, of the blocks composing this sale may be deleted. The Secretary has the option to evaluate the proposed sale blocks based on new information or any circumstances that may have changed over time. The commenter's concerns are a matter of record.

L-0003.005

While the commenter has a point in that the United States may never be completely free from the need for oil produced from foreign sources; the United States can reduce its dependence on foreign imports with domestic production, which would strengthen the economy. These same actions would improve our balance of payments and

strengthen the U.S dollar. They also reduce our reliance on foreign governments for meeting our energy needs. This is consistent the with the energy policy that was recently issued. As new technologies are developed, the need for hydrocarbons for generating energy may decrease. Changing technology, recycling, and conservation, when combined with a good national energy-development program, can lead to a greater level of energy security.

L-0003.006

The MMS did consider holding public hearings for this draft EIS in the Fairbanks area; however, based on the last public turnout in that city, we did not feel that local participation was warranted. Most of the agencies that commented did so under their agency letterhead, which did not show a Fairbanks address. We will evaluate holding future public hearings in Fairbanks for next cycle of lease-sale NEPA reviews.

L-0003.007

As explained in the process/introduction sections of this EIS, the MMS has followed NEPA guidelines and MMS regulations and precedence in combining similarly focused EIS's into one document. The EIS also explains that after each succeeding lease sale, further NEPA documentation will be evaluated, and the public will have a chance to review and comment on the resulting analysis. The MMS feels that this gives the public adequate information and access to make comments on these documents.

Advocates for Wild, Healthy Oceans

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Formerly the Center for Marine Conservation

L-0004

RECEIVED
JUL 31 2002
LEASING & ENVIRONMENT
MINERALS MANAGEMENT SERVICE

The Ocean Conservancy

July 26, 2002

RE: Outer Continental Shelf Oil & Gas Leasing Program: Beaufort Sea Planning Area Draft Environmental Impact Statement

Dear MMS,

Thank you for the opportunity to comment on the Outer Continental Shelf (OCS) Oil and Gas Leasing Program for the Beaufort Sea Planning Area Draft Environmental Impact Statement (DEIS).

Alaska's Beaufort Sea OCS waters host endangered species, productive marine life and vibrant coastal communities. The proposed lease sales threaten these sensitive marine, coastal, and social environments including the Arctic National Wildlife Refuge and areas near Teshekpuk Lake. .001

This proposed leasing program is a "major federal action" requiring the preparation of an EIS, as mandated by the National Environmental Policy Act (NEPA), 42 U.S.C. Sec. 4321-4370d. NEPA's purpose is to promote efforts "which will prevent or eliminate damage to the environment," 42 U.S.C. Sec. 4321, to inform the public of environmental consequences, 40 C.F.R. Sec. 1500.1(b), and to "help public officials...take actions that protect, restore, and enhance the environment." 40 C.F.R. Sec. 1500.1(c). To be sufficient under the law, an EIS must assess the direct, indirect and cumulative impacts of the project and its alternatives. 40 C.F.R. Sec. 1508.7, 1508.8, 1508.9(b), 1508.25(c)(1)-(3). .002

The Beaufort Sea DEIS fails to satisfy the above-listed requirements of NEPA. The proposed oil and gas lease sales endanger the fragile marine environment off the coast of northern Alaska. Productive marine ecosystems, marine mammals, sea birds, and coastal communities are all at risk from potential blowouts and pipeline oil spills. Additionally, .003

The Ocean Conservancy strives to be the world's foremost advocate for the oceans. Through science-based advocacy, research, and public education, we aim to inspire and empower people to speak and act for the ocean.

marine life is threatened by toxic sediments and cuttings disposed at sea during exploratory drilling, noise pollution generated by vessel traffic, drilling, platform work and seismic testing, and the laying of miles of pipelines in or on the seafloor. Even small amounts of oil can negatively affect marine life. Oil pollution increases susceptibility to diseases in fishes, inhibits phytoplankton productivity, and interferes with reproduction, development, growth, and behavior of many species. .003

The inclusion of all of the Beaufort Lease Sale area *prominently* ignores the inability to respond to an oil spill in ice conditions. Fierce climatic conditions, high winds and seas, sea ice, and cold temperatures challenge offshore technologies and spill cleanup far beyond present capabilities. Recent oil-spill drills by both oil companies and contractors have confirmed their inability to effectively respond to a spill in broken ice and open water conditions that prevail for most of the year in the Beaufort Sea. The Exxon Valdez oil spill of 1989 taught Alaskans and the world harsh lessons about the ability to clean up a significant oil spill. Scientific studies of the Exxon Valdez oil spill show long-lasting and significant damage to fish, wildlife, and subsistence. .004

Apart from large spills, smaller persistent spills can have a dramatic impact to the marine environment. For example, based on current sub-sea buried pipeline technology, persistent leaks of up to100 barrels a day could go unnoticed, particularly if under ice where sheening wouldn't be noticed (U.S. Army Corps of Engineers, 1999. Final EIS, Beaufort Sea Oil and Gas Development/ Northstar Project, page 8-37). .005

The DEIS asserts that this offshore drilling is necessary to satisfy US energy demands and to reduce reliance on oil imports. However, MMS fails to mention that the US has only three percent of global oil reserves. Therefore, the US will never drill its way to energy security and independence, even if every last drop of oil is drilled from federal waters off the coast of Alaska. .006

Oil development off the coast of the Arctic National Wildlife Refuge poses risks to the Porcupine caribou herd, bowhead whales, fish, polar bears, and migratory birds using the refuge coastline, lagoons, and barrier islands. Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and oil spills degrading the Refuge, even if there were no construction of infrastructure within its boundaries. In the future, there would be intense pressure to construct sprawling onshore airports, pipelines, roads, docks, and other support facilities in the Refuge. In light of these threats to our national treasure, MMS should do more than what is indicated by the Eastern Deferral which only provides a thin margin of protection and assumes oil could be cleaned up before it travels a mere 20 miles to the Arctic Refuge from the Beaufort Planning Area. .007

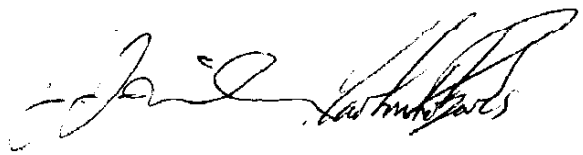
Internationally significant brant molting areas are located along the Beaufort Sea coast in the Teshekpuk Lake area of the National Petroleum Reserve-Alaska. This area is sensitive to aircraft and other disturbances caused by industrial activities and infrastructure, as well as oil spills. We strongly support the exclusion of tracts in the spring bowhead lead zone around Barrow, but because of the above-listed concerns, we .008 .009

also urge the MMS to pursue a "no sale" alternative for the entire Beaufort Sea planning area. .009

In conclusion, Alaska's Beaufort Sea is too productive and sensitive to threaten with OCS oil and gas development. Alaska is the only state in the nation where large portions of coastal residents depend on marine resources for subsistence. The fierce climatic conditions, high winds and seas, sea ice, and cold temperatures challenge offshore technologies far beyond their capabilities at present. These conditions make ecosystems more vulnerable and less resilient to disturbance and perturbations. Because of the inhospitable climate, challenging spill response and extreme productivity/sensitivity of the marine ecosystems off Alaska, this is the *last* place in the world that OCS exploration and development should be allowed. If moratoria are in place along the remainder of the U.S. coastline (except the Gulf of Mexico) then logic would dictate that at very least Alaska should be similarly exempted from leasing. Alaska shoulders more risk than any other state in the U.S., and the Beaufort sale areas constitute some of the riskiest acreage proposed for leasing. This is both unacceptable and dangerous to Alaska's unique environment. Please don't place our environment at such a risk and add this lease sale area to the moratoria as is appropriate. .010

Thank you for this opportunity to comment. These comments supplement prior letters and testimony we submitted on the 5-Year Program (Natural Resources Defense Council et al. February 1, 2001 and September 20, 2001; and The Ocean Conservancy et al. ,January 25, 2002), on three Beaufort Sea Sales (Sierra Club et al. November 5, 2001), and during the 5-Year Program DEIS public hearing (Anchorage, Alaska (12/3/01).

Sincerely,



Jeremiah Millen and Martin Robards
The Ocean Conservancy
coho@acsalaska.net

MMS Response to Comment Letter L-0004

L-0004.001

See Response L-0003.001.

L-0004.002

The MMS followed NEPA and MMS regulatory requirements in preparing this "major federal action" EIS. All appropriate subject matter has been addressed within this EIS. See the Table of Contents for specific topic listings.

L-0004.003

Topics listed in this comment letter have been addressed in this EIS, and satisfy the requirement of NEPA disclosure, discussion, and analysis. Effects of the proposed action have been discussed either in the physical, biological, and/or social-cultural sections of this EIS. See the Table of Contents for specific topic listings.

L-0004.004

See response L-0003.003.

L-0004.005

The EIS acknowledges and evaluates the effects of small oil spills (less than 1,000 barrels) in the analysis of routine activities for each of the sources (See Section IV.B).

The Department of the Army permit authorizing work associated with the Northstar Project required the permittee to design, construct, install during pipeline-trenching activities, and operate and maintain a prototype oil-spill leak-detection system external to the carrier pipeline to detect an oil spill below the 100-barrel-per day threshold-detection limit in the EIS. Since the Northstar EIS was distributed, BPXA installed the LEOS leak-detection and -location system, which is manufactured by Siemens. During construction, a semipermeable tube, which allows hydrocarbons at the molecular level to enter the tube, was buried next to pipeline. This system is operational and, every 24 hours, it samples vapors collected from outside the entire length of the buried subsea oil pipeline. These vapors are then analyzed for the presence of hydrogen. This system is sensitive to quantities of oil less than a barrel and detects them in less than 24 hours. This technology has been available for more than 20 years and has been used successfully in Europe.

L-0004.006

See response L-0003.005.

L-0004.007

The EIS evaluates the effects of offshore oil and gas leasing to all of the biological resources (caribou, bowhead whales, fish, polar bears, and migratory birds) noted by the Ocean Conservancy letter. The potential effects of OCS leasing to these and marine and terrestrial resources were fully evaluated, and those risks are identified in Section IV.C. That analysis did not determine that any effects to the resources they listed would exceed the NEPA level of significance (see Section IV.A and Table II.A-4).

See Response L-0001.012 for a reply to your comment regarding an Arctic National Wildlife Refuge deferral.

L-0004.008

The MMS believes that most brant-molting areas, particularly those that host significant numbers of individuals in the Teshekpuk Lake area, are sufficiently removed from marine waters that substantial contact by an offshore oil spill is unlikely. Also, marine waters adjacent to most nesting colonies and molting areas lie in the Midrange or Far zones where relatively little development is likely to occur and, thus, the probability of a spill is low. For the same reason, transportation activity and associated potential for disturbance in these areas is likely to be very low. In addition, ITL No. 4 on Bird and Marine Mammal Protection (see Section II.H.3) advises lessees that aircraft flying in the vicinity of wildlife concentration areas (maps and figures are available showing locations) should maintain at least a 1-mile horizontal distance and at least a 1,500-foot altitude from known or observed wildlife concentration

areas. The ITL No. 5 on River Deltas advises lessees that shore-base facilities may be prohibited on certain river deltas, including the Colville River Delta, where some brant nest and molt.

L-0004.009

Leasing and exploration activities are not expected to occur in the spring lead system near Barrow as a result of this lease sale, particularly during the bowhead whale spring migration. In their May 25, 2001, Beaufort Sea Biological Opinion, the National Marine Fisheries Service stated that an additional and separate consultation under Section 7(a)(2) of the Endangered Species Act would be necessary if leases are issued in that area and technology is developed that allows for exploration activities during this period. This will ensure that bowhead whales are protected without excluding the area from leasing.

L-0004.010

The MMS recognizes that the Beaufort Sea is a productive and sensitive area and has a very unique environment. However, oil and gas exploration and production have been successfully and safely conducted in other areas of the world where the environments are equally productive and sensitive and unique in their own right. The Gulf of Mexico Region is an extremely productive ecosystem and also is very sensitive to changes introduced by the oil and gas industry. The area is home to endangered and threatened species and supports a huge fishing industry. However, these situations have been addressed through a comprehensive regulatory process and through site- and situation-specific mitigation. The United States has the most rigorous regulatory regime for protection of the environment from potential impacts related to offshore oil and gas activities than any other country. One of the most serious threats to the offshore is the potential for oil spills from tankers importing oil from foreign countries. Domestic exploration and production is needed to lessen this very real threat.

The MMS is confident that this area can be explored and developed safely while protecting the marine resources and the subsistence lifestyle of the local inhabitants.

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L-0005

RECEIVED
AUG 7 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 E 36th Ave., Rm. 308
Anchorage, AK 99508-4363

August 2, 2002

Dear Director Goll,

I am writing to oppose the 5-year plan for offshore leases on the Outer Continental Shelf Region approved last year by the Minerals Management Service. I am extremely concerned the plan will not adequately protect the Beaufort Sea and North Slope environments.

Offshore lease sales jeopardize the integrity of the wilderness, wildlife and coastal habitats of the Arctic Refuge and Teshekpuk Lake as well as the marine ecosystem itself. .001

Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and potential spills. Failure of four field tests showed industry's inability to contain and clean up an oil spill in Arctic waters during most of the year. .002

Oil spills pose great threats to endangered bowhead whale migration and feeding areas, polar bear habitat, migratory bird, fish and other sensitive environments. .003

In the future, there would be intense pressure to construct sprawling onshore airports, pipelines, roads, docks, and other support facilities within the Arctic Refuge. The last Beaufort Sea lease sale 170 set a precedent of not leasing off the coast of the Arctic National Wildlife Refuge. At that time, the Interior Department cited among many reasons, the lack of information on cumulative impacts on the refuge, emergency response plans, and sub-sea pipelines. That lack of information still exists. .004

The Beaufort Sea is home to polar bear, walrus, seals, migratory birds – including the Pacific black brant, threatened spectacled and Steller's eiders and the endangered bowhead whale. Oil spills in this harsh ice-dominated environment, would have a severe impact on many of these species – particularly on the bowhead whales during migration east of Barrow and offshore the Arctic National Wildlife Refuge and on black brant during molting along the coast in the Teshekpuk Lake area of the NPRA. .005

Industry has not yet developed failsafe means of cleaning up oil spills in the Beaufort Sea during most of the year (especially during break up). Moreover, a maximum of 10 – 15% of spilled oil is ever "cleaned up", even in much less severe climates. Combined, these facts suggest that the risks to the above species and sensitive areas are too great to allow new lease sales to go forward. .006

The Minerals Management Service (MMS) has developed a recent history of not leasing and/or deferring the sale of lease tracks off the coast of the Arctic National Wildlife .007

Refuge and the Teshekpuk Lake area of the NPR-A. These deferrals have occurred due to the sensitive nature of the areas, the high environmental risks associated with development of these areas, and overwhelming public opposition to these leases. Amazingly, only a single environmental impact statement was drawn up for the three proposed lease sales in the Beaufort Sea – one report for an area covering nearly 10 million acres! These areas should not only be deferred but PERMANENTLY deleted from the current and futures sales.

.007

.008

Domestic offshore drilling is not the correct way to decrease our reliance on oil imports. The US has only 3% of global oil reserves while accounting for 25% of the world's oil consumption. The US will never drill its way to energy security and independence, even if every last drop of oil is drilled from federal waters off the coast of Alaska. In fact, the expansion of development into frontier areas such as the Beaufort Sea encourages this dependence.

.009

Instead, to decrease our reliance on all oil, not just imported oil, the United States should halt offshore leasing and focus its efforts on improving energy conservation and energy efficiency and shifting toward the use of more alternative, renewable energies.

The three lease sales are expected to be held sequentially, not simultaneously, so should there be three full public EIS processes held sequentially. In this way, each EIS will reflect the most current knowledge, experience and technology at the time - not reflect outdated information, as may be the case when using this current EIS process for a lease sale not set to begin for 5 years.

.010

In addition, by holding separate EIS's sequentially, the public will be a more active and informed part of the process - focusing their attention of each sale individually and basing their comments on the immediate situation for each sale.

Sincerely,

Ben Kostival

MMS Response to Comment Letter L-0005

L-0005.001

See Response L-0003.001.

L-0005.002

See Response L-0003.003.

L-0005.003

The EIS recognizes the potential threats that oil spills pose to bowhead whale migration and feeding areas; polar bear habitat; and migratory bird, fish, and other sensitive environments. See Section IV.C - Analysis of Effects by Alternatives on the following resources: IV.C.3 - Fishes; IV.C.4 - Essential Fish Habitat; IV.C.5 - Endangered and Threatened Species, including bowhead whales; IV.C.6 - Marine and Coastal Birds; IV.C.7 - Marine Mammals, including polar bears; and IV.C.9 - Vegetation and Wetlands.

L-0005.004

See Response L-0003.004.

The EIS assesses the effects of large oil spills (Section IV.C) and very large oil spills (Section IV.I); however, it does not assess the effects of a massive tanker spill such as the *Exxon Valdez*. Additional information on the effects of the *Exxon Valdez* oil spill has been added to Section IV.C.2 on Lower Trophic-level Organisms. The additional information notes the decade-long persistence of *Exxon Valdez* oil in Prince William Sound shoreline sediments.

L-0005.005

The EIS recognizes the potential threats that oil spills pose to endangered bowhead whales, polar bears, walruses, seals, and many species of migratory birds, including brant and the threatened spectacled and Steller's eiders and their habitats. See Section IV.C - Analysis of Effects by Resource and Alternative: IV.C.5 - Endangered and Threatened Species, including bowhead whale and threatened eiders; IV.C.6 - Marine and Coastal birds, including brant; and IV.C.7 - Marine Mammals, including polar bear, walrus. and seals for a detailed analysis of potential effects of oil and gas development on these species. Routine activities associated with such developments are not likely to result in significant adverse effects on birds or marine mammals.

Overall, the chance of one or more spills occurring and entering the offshore waters is 8-10%, and the chance of one or more spills occurring and contacting resource areas important to these species is lower, on the order of 2% or less.

L-0005.006

See Response L-0003.003.

Overall, the chance of one or more spills occurring and entering the offshore waters is 8-10%, and the chance of one or more spills occurring and contacting resource areas important to these species is lower, on the order of 2% or less. We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, such as the commenter, a 10% chance of a large spill over the life of the field may be considered high.

L-0005.007

The area offshore of the Arctic National Wildlife Refuge has been deferred from some of the past OCS oil and gas lease sales in response to concerns related to the bowhead whale and the potential for this area to be an important feeding area during their fall migration. The area offshore the Refuge has been offered and leased in four of the seven previous Beaufort Sea OCS lease sales, and exploratory activity has taken place with no significant impacts to the area of the bowhead whale's fall migration. LGL Ltd. environmental research associates recently completed a study entitled *Bowhead Whale Feeding in the Eastern Alaskan Beaufort Sea: Update of Scientific and Traditional Information*. The study indicates that the population of bowhead whales derives an estimated 2.4% of its annual energetic requirements in the eastern Alaskan Beaufort Sea in an average year. In 1 of 5 years of study, the

population may have derived 7.5% or more of its annual energetic requirements from the area. Use of the study area varies widely in time and space, depending on the availability of zooplankton and other factors. Information from this study has been included in the EIS in Section III.B.4.a. In addition, further information will be gleaned from continuing monitoring programs.

The MMS is offering this area in the current proposal to include mitigating measures that effectively address remaining concerns. The stipulation on Industry Site-Specific Bowhead Whale-Monitoring Program provides site-specific information about the migration of bowhead whales. The stipulation on Subsistence Whaling and Other Subsistence-Harvesting Activities helps reduce potential conflicts between subsistence hunters and whalers from oil and gas activities. It helps reduce noise and disturbance conflicts during specific periods of time important to the subsistence-whale hunt, such as the annual spring and fall whale hunts. The consultations required by this stipulation ensure that lessees, including contractors, consult and coordinate events including both the siting and the timing with subsistence activities. This stipulation applies to exploration and development and production activities.

The area offshore of the Teshekpuk Lake area has been offered and leased in five previous OCS lease sales, and exploratory activity has taken place with no significant impacts to the area. The most recent sale, Sale 170 in 1998, did not include this area, because the sale was configured as a small sale focused only on the central portion of the Beaufort Sea.

L-0005.008

As explained in both the process and introduction sections of this EIS, the MMS followed NEPA guidelines and agency regulations in covering these three lease sales in one EIS. With each successive lease sale, full NEPA review and public comment periods will be held. If an Environmental Assessment (NEPA documentation) finds that further analysis is needed beyond the initial EIS, a supplemental EIS will be written to cover the missing analysis.

L-0005.009

See Response L-0001.002.

L-0006

INUPIAT COMMUNITY of the ARCTIC SLOPE

an IRA Regional Tribal Government

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U.S. Department of the Interior
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RECEIVED
AUG 21 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

James Q. Patkotak
Natural Resources Department
Inupiat Community of the Arctic Slope
P.O. Box 934
Barrow, Alaska 99723

To whom it may concern,

First of all, my names is James Patkotak, I work for the Regional Tribal Government, Inupiat Community of the Arctic Slope and our job is to advocate and assist all membership with their concerns especially the health & welfare for this generation, and more generations of the Inupiat to come.

With that in mind, I will comment on the Beaufort Sea Multiple Sale Environmental Impact Statement reinforcing the concerns brought out by individuals at public hearings in which the Inupiaq Nation is starting to realize that MMS and other organizations are ignoring our plea's to not invade our subsistence hunting grounds, especially the sea.

In talking with leaders around Barrow & our surrounding North Slope Villages, that MMS has certainly heard many times of these concerns and comments since these lease sales began and here are some of the main concerns that I will speak on behalf of our membership in which I am proud to be a member of and work for.

Mitigative measures; this concern is, we feel that the oil industry can live with slowing down or take mitigative measures on exploration and developmental activities on the sea and that the coastal communities are in much more favor of on-shore development with responsible activities by the oil industry. If there is a need for additional energy sources to be extracted from off-shore, perhaps directional drilling can be put to practice. .001

Bonafide plan/contingency plan; the E.I.S. for sales 186, 195 & 202 is very well put together with possible mishaps in mind and that I commend MMS with the plan. What I hear when I am out and about with conversations pertaining to off-shore explorations off of our coast, the people that I talk with says the same thing over and over about the industry lacking a bonafide plan for cleaning up mishaps on the ice infested seas. We believe that clean up would be time consuming, if not impossible and the procedure of a thorough clean-up would be slowed down due to cold weather, etc.We have heard in these public hearings that there are "preventative" plans in place, but are we guaranteed that they will work properly and quickly before our waters and air are contaminated. .002

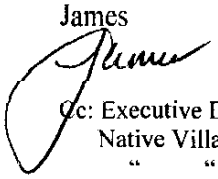
Endangered species; More than once, we have heard and came to facts that the Spectacled eider and Stellar's eider are currently under the threatened status according to the Fish & Wildlife Service studies, and shall we also contribute to the endangered species of the bowhead whale by permitting the oil industry to develop off-shore oil rigs regardless of preventative measures taken? I think not! Because we as Inupiaq depend on the bowhead whale as a supplement to our diet as it has been for thousands of years, and our lives have centered around this Great Whale traditionally and culturally, and we will continue to defend our "garden" which is the sea in order to keep a strong hold to our identity and reputation as the Bowhead Whale Hunters of the North. .003 Also, the fish species, Arctic Cisco is not as abundant as it has been in the past and that is of a concern to us also, being that the proposed sales of 186, 195 & 202 will no doubt have a negative impact in our subsistence harvesting of this fish we love to consume and that, shall we as Inupiaq contribute to the endangerment of this species? We think not! .004

Traditional knowledge; *In the Executive Summary of the E.I.S., as part of the scoping process, MMS has held* government-to-government formally including public forum meetings seeking traditional knowledge of ice movement, animal behavior and the like, but the memberships comments and concerns of off-shore exploration activities has not been heeded after this knowledge has been sought. The following statement I will make, will not indicate that the people being impacted by the oil & gas industry are giving up the fight to keep our traditional ways, but if MMS does not even have consideration for the health & welfare in cases of oil spills on the Slope, why do you even bother to hold these public forums and such, to permit & develop oil production in our garden.

.005

I will close for now, and thanks for this opportunity to comment.

James



Cc: Executive Director, Maggie Ahmaogak of the Alaska Eskimo Whaling Commission
Native Village of Pt. Hope President Rex Tuzroyluk
" " " Pt. Lay President Thomas Nukapigak
" " " Wainwright President June Childress
" " " Barrow President Patsy Aamodt
" " " Nuiqsut President Leonard Lampe
" " " Kaktovik President Isaac Akootchook
" " " Anaktuvuk Pass President Thomas Rulland
" " " Atqasuk President Elizabeth Hollingsworth

MMS Response to Comment Letter L-0006

L-0006.001

Directional-drilling technology is becoming more sophisticated, and some Federal tracts have been drilled from State leases. This EIS deals with a prediscovery situation. Should recoverable quantities of hydrocarbons be located, a developmental EIS will be prepared, which will have detailed mitigating measure that will be place and technology specific.

L-0006.002

The MMS closely scrutinizes all the oil-spill-contingency plans submitted for offshore activities to ensure that the operators meet the requirements of the Oil Pollution Act of 1990 and have provisions to address spill response in the challenging Beaufort Sea environment. The MMS regulations and requirements also demand that industry maintain an effective pollution-prevention program that mandates multiple backup systems to prevent the release of oil to the environment. The MMS regulations governing exploration and development operations on the OCS are designed to ensure that industry is using the best available and safest technology for their operations. The MMS ensures that blowout-prevention equipment is installed and maintained for the operation to be conducted, and that operational personnel are trained on the most current well-control procedures to prevent blowouts. The MMS conducts frequent inspections of OCS facilities to ensure that offshore operations are conducted as approved.

L-0006.003

There is no indication that disturbance from oil and gas exploration and development activities since the mid-1970's has had any significant effect on bowhead whales, either to individual whales or to the population. During the late 1970's, the 1980's, and early 1990's, numerous seismic surveys and exploratory drilling operations were conducted in the Beaufort Sea, some during the bowhead whale migration. The bowhead whale population has been steadily increasing at the same time that oil and gas activities have been occurring in the Beaufort Sea and throughout the bowhead whale's range. Major changes in the bowhead's migration route through the Beaufort Sea are unlikely to result from this noise, although some individuals may be temporarily diverted farther offshore. Overall, exposure to noise from oil and gas operations is not likely to cause any mortality to bowhead whales, but some could experience temporary, nonlethal effects. Whales exposed to spilled oil likely would experience temporary, nonlethal effects, although prolonged exposure to freshly spilled oil could kill some whales. More information on the effects of oil and gas activities on bowhead whales can be found in Sections IV.C.5.a and V.C.5.a.

There also is no indication that disturbance from oil and gas exploration and development activities since the mid-1970's has had any significant effect on spectacled or Steller's eiders, either to individual eiders or to the population, or any role in the decline of these two species. Although several possible reasons for decline have been suggested (for example, increased predation by gulls and foxes, presence of lead shot in feeding areas, and variable food supply in the wintering areas), there currently is no definite indication which, if any, are most important in causing the declines. Any oil spill during the postbreeding period in late summer and fall could cause mortality. However, most individuals do not stay to molt in the Beaufort Sea; many individuals may migrate from the area overland, and most of those migrating west along the Beaufort coast move through the area quickly. Thus, exposure of these eiders to a spill is likely to be relatively short term or not occur at all.

L-0006.004

In the course of naturally occurring events, fish populations are known to vary considerably from year to year. As is the case for any activity in or near fish-bearing waters, it is possible for oil and gas activities to affect some of the fishes in those waters. However, to the best of our knowledge, oil and gas activities to date have had no measurable effect on arctic fish populations.

L-0006.005

The MMS acknowledges the importance of traditional knowledge and the value of its government-to-government relationships with North Slope tribes. We believe that the best deterrent to any disaster is to build facilities and pipelines that will withstand the rigors of arctic ice and weather forces, and we believe that traditional knowledge and the concerns heard through government-to-government consultation have helped in our understanding of such

designs, in the development of mitigation, and in supporting conflict avoidance agreements that minimize impacts. However, nothing is foolproof, and there must be contingencies for oil spills. There are subsistence impact funds administered by the Coast Guard under the Oil Pollution Act of 1990 legislation that would be available to provide for subsistence-food losses, but no escrow accounts or trust funds have been established.

Since 1995, the MMS has tried to take a more collaborative approach in its public involvement. The MMS has hired a community liaison person who spends a large part of his time maintaining contacts with local North Slope Native communities and ensuring that scoping and public meetings are scheduled to not conflict with local activities. We also are now writing executive summaries to our documents that we believe make projects easier to assess. We believe this cooperative approach has lessened the stress of our public involvement mandate and welcome suggestions on how to make it even better.

As an agency fully committed to consultation under the executive orders for environmental justice and government-to-government relations, the MMS believes that the Department of the Interior needs to seriously consider an appropriation to its annual budget that provides funding to assist tribal governments with training and travel funds to assist their participation in Department of the Interior planning and decisionmaking processes under these orders. Without funding, these executive orders are perceived as new "unfunded mandates." This would be one way of lessening the stress caused by agency public meetings.

L-0007

RECEIVED
AUG 2 6 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

2200 S. 31st
Marion, Iowa 52302
August 18, 2002

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 E 36th Ave, Room 308
Anchorage, Alaska 99508

RE: Comments on the Off-shore leasing for the Outer Continental Shelf Draft EIS

Dear Mr. Goll:

We are concerned about off-shore leasing in the Beaufort Sea area off the coast of Alaska, and particularly the effect on the Arctic National Wildlife Refuge. .001

These off-shore leases will affect the wildlife that live off the coast of the Refuge. In fact, the entire marine eco-system in that area will be affected. Among the marine animals that depend on the Beaufort Sea near the Refuge are polar bear, bowhead whales, fish, and migratory birds.

Once exploration and development begin, the area will be subjected to pollution, noise from aircraft and ships, and potential oil spills or natural gas spills.

We do not believe that the potential for oil spills near the Refuge is acceptable. One only has to look to the Prudhoe Bay area to get an idea of the frequency of spills. In Prudhoe Bay there is an average of one spill of oil a day. Although Prudhoe is a land-based development while this project is for off-shore development, the off-shore environment is equally, if not more, challenging. .002

We are concerned that the oil industry will not be able to clean up any spills within the area of the Refuge. .003

We believe that there should be no leases of the shore of the Arctic National Wildlife Refuge. .004

Sincerely,

Pam Mackey-Taylor and Wallace L. Taylor

MMS Response to Comment Letter L-0007

L-0007.001

The MMS is considering two deferral alternatives (Alternative VI - Eastern Deferral and Alternative V - Kaktovik Subsistence Whaling Deferral (see Map 2 - Deferral Options) that would defer oil and gas leasing off the eastern half of the Arctic National Wildlife Refuge. If oil and gas exploration and development occurs off the Refuge, it would occur beyond 3 miles of the coast. Animals on the Refuge are not likely to be exposed to noise from air and vessel traffic associated with oil and gas activities that could occur beyond 3 miles of the Refuge's coastline.

The MMS recognizes the importance of the Refuge to polar bears and migratory birds and the importance of the marine waters off the Refuge for bowhead whales and fishes. See Sections III.B.2 - Fishes; III.B.3 - Essential Fish Habitat; III.B.4 - Endangered and Threatened Species (including the bowhead whale); III.B.5 - Marine and Coastal Birds' III.B.6 - Marine Mammals (including polar bears); Figure III.B-3e, polar bear den locations; and Map 8, the distribution of bowhead whale sightings off the Arctic National Wildlife Refuge. The MMS feels that the EIS adequately addresses potential impacts for fish, bowhead whales, migratory birds, and polar bears. A discussion of effects of the proposed action on these animals can be found in Sections IV.C.3, IV.C.5, IV.C.6, and IV.C.7.

Although potential oil spills could contact part of the coast of the Refuge, the probability of a spill greater than or equal to 1,000 barrels is low, at 8-10% (mean number of spills is 0.11; see Section IV.A.4a - Large Oil Spills). Numerous onshore spills have occurred on the Prudhoe Bay area oil fields and along the Trans-Alaska Pipeline System, but most of these spills have been small (average size of 3 barrels; see Section IV.A.4.b - Small Spills). The amount of activity expected to occur under Sales 186, 195, and 202 would be a small fraction of the amount of development ongoing in the Prudhoe Bay area. The MMS expects about a total of 8 production platforms in the entire Beaufort Sea Planning Area, while the onshore Prudhoe Bay fields include 89 production pads, more than 360 miles of roads, more than 500 miles of pipelines, and cover more than 7,120 acres (Table V-3). Most of the small spills that could occur offshore would be contained on the exploration and development pads and would not reach the marine environment.

The MMS will not be proposing to lease the shoreline area of the Arctic National Wildlife Refuge and will require oil companies operating on the OCS to comply with current environmental regulations to reduce the risks of spills and other pollutants from reaching the coast of the Refuge.

L-0007.002

For bowhead whales, the MMS receives comments on the draft EIS from the National Marine Fisheries Service to ensure adequacy on this endangered species. The MMS also consults with the National Marine Fisheries Service on possible effects to bowhead whales in the Beaufort Sea Planning Area. The MMS complies with the regulations on Section 7 consultations very closely. The Section 7 consultation process was ongoing during the review period for the draft EIS. A discussion of the consultation history for the proposed lease sale at the time the draft EIS was made available for public review can be found in Section IV.C.5 in the draft EIS. This section has been updated in the final EIS, and the complete Biological Opinion from the National Marine Fisheries Service is included in Appendix C.

See Response L-0007.001 for an additional discussion.

L-0007.003

While it is true that some fishes would be affected by activities associated with this lease sale, none of those activities is likely to have a measurable effect on fish populations.

L-0007.004

Routine activities associated with oil and gas development are not likely to result in significant adverse effects on birds or marine mammals. This is due in part to the relatively low densities of many bird species in offshore waters of the eastern Beaufort Sea, although some species are still quite abundant, particularly in nearshore waters. With regard to potential disturbance of birds from aircraft or vessels, the MMS has in place a mitigating measure advising lessees that vessels and aircraft should maintain at least a 1-mile horizontal distance separation from and aircraft an

altitude of 1,500 feet above known or observed bird concentrations. What may be the principal source of adverse effect on birds is the presence of drilling and production structures or islands with which birds may collide. In an attempt to decrease the probability that this will become an important source of bird mortality, the MMS will cooperate with the Fish and Wildlife Service to develop lighting systems that could warn birds of the presence of such structures under conditions of low visibility. A research proposal to that effect is under review.

The occurrence of small accidental oil spills is not considered likely to be a major source of bird mortality because of the ability of industry to contain and/or clean them up, and the fact that the low volume of oil is not likely to contact substantial numbers of birds even if it reaches aquatic environments. A large spill is more difficult to contain and clean up quickly, so the developer is mandated to have readily deployable a number of bird-scaring devices known as Breco buoys. Tests have shown these noise-making devices to be quite effective at dispersing birds away from the area where they are deployed, in this case a spill area.

L-0007.005

Small spills do occur on a regular basis at Prudhoe Bay. However, most of these spills occur on either on the pad or into containment. Small spills offshore generally would occur on the gravel island and be cleaned up or spill into containment. We acknowledge your judgment regarding the value of the Arctic National Wildlife Refuge and your interest in protecting it from oil spills.

L-0007.006

The MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open-water, spring broken-ice, and fall freezeup conditions. The equipment, tactics, and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal; they would not be limited to a single skimming configuration but would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and MMS to add new tools and increase effectiveness of existing methods and equipment.

L-0008

August 26, 2002

RECEIVED
SEP 10 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 E 36th Ave., Rm. 308
Anchorage, AK 99508-4363

Dear Mr. Goll:

I am writing to make comments on the draft EIS for lease sales in the Beaufort Sea.

Drilling in the Arctic Ocean and Beaufort Seas north of Alaska threatens the integrity of the wilderness and the wildlife in the marine and coastal ecosystems of this area. Drilling should not be permitted in this area.

If leasing is to proceed, it seems reasonable that individual EIS be produced for each of the three proposed lease sales, so that each area is considered carefully and appropriately and with current information. In the past, leasing was postponed in the ocean north of the Arctic National Wildlife Refuge because, among other reasons, of concern about lack of information on the environmental impact of drilling, pipelines, and possible oil spills. .001 .002

Sincerely,

Will Risser

William L. Risser, MD
3739 Drake
Houston, Tx 77005

MMS Response to Comment Letter L-0008

L-0008.001

See Responses L-0001.005 and L-0002.016.

L-0008.002

See Response L-0021.009.

During Session:
Alaska State Capitol
Juneau, Alaska 99801-1182
(907) 465-4833
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1-800-782-4833
epresentative_Reggie_Joule@legis.state.ak.us

L-0009

During Interim:
P.O. Box 673
Kotzebue, Alaska 99752
(907) 442-3880
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Alaska State Legislature
REPRESENTATIVE REGGIE JOULE

RECEIVED
SEP 11 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 4, 2002

Mineral Management Services
Alaska OCS Region
Attn: Mr. Paul Lowry
949 East 36th Ave.,
Anchorage, AK. 99508

To Whom it May Concern,

I am writing in regard to oil and gas lease sales 186, 195 and 202 in the Beaufort Sea. These proposed sales would occur in 2003, 2005 and 2007. I am joining the North Slope Borough in opposing these sales. However, first I would like to clarify a point. I am the elected official of District 37, an area that runs from the Canadian to the Russian border and contains most of the state's natural resources. I am writing this letter principally as the elected representative of the Inupiat people in my district that will suffer the most sever consequences from these proposed sales.

In spite of its extremely harsh climactic conditions, the Beaufort Sea is a delicate environment unlike anywhere else on earth. Here, where each season the polar ice cap locks against the northernmost shore of the continent, the Inupiat people have lived a subsistence lifestyle for thousands of years. Although the Inupiat generally favor oil and gas development and have been firm allies in the effort to open ANWR, we are keenly aware of the threat these offshore sales pose to the very existence of our ancient culture.

Subsistence activities, including the bowhead whale harvest, are an integral part of the Inuit culture. For us, hunting is not merely a way to get food. The hunt, and its related ceremonies, is what we do, and it defines who we are. It is central to our customs, and it is largely what sets us apart from other peoples. First and foremost, our way of life must be preserved, and this should be the first priority of the government when considering offshore leasing. In the past, industrial noise from oil and gas development has altered the distribution and migration patterns of the bowhead whale and other subsistence resources in our area. In the community of Kaktovik, industrial noise prevented the traditional harvest of bowhead whales for two seasons. The interrupted patterns of life caused the people of that village stress, anxiety, and depression. The people of our area vigorously oppose offshore leasing, wishing instead to preserve our way of life and our environment. Our views should be given serious weight in the consideration of this matter.

.001

Offshore development in an area that is covered most of the year with polar ice is a bold adventure that has never been attempted before. It is difficult to understand the awesome destructive power, the speed, and the unpredictably of ocean ice when a person has not witnessed it directly. We are repeatedly told that the chance of an oil spill is "highly unlikely" or that there is a mere 8 to 10% chance of a major oil spill. However small the chance, this is not a risk we are willing to assume. The Arctic waters are home to a unique ecosystem and some rare species of animals. The total impact of an oil spill to the oceans food chain and the wide variety of animals it sustains is unknown and could have a detrimental impact to many species. We are unwilling to risk their existence and our way of life, when other sources of oil are readily available. The prevailing conditions of the area, including its remote location and its extreme, volatile climate limit the ability to mitigate spill damage. Even the industry admits that it is uncertain of its ability to clean up an oil spill. Nobody knows how one would even attempt to contain, much less clean up an oil spill among floating mountains of ice moving at great speeds in unpredictable directions.

.002

.003

It is interesting to note that in the Lower 48 most offshore areas have been withdrawn from leasing by Executive Order or under a congressional moratorium. I do not question that these areas should be withdrawn from leasing, but I must wonder why our area is not deemed worthy of the same protection that the rest of the nation enjoys. Most recently, the federal government announced it would buy back oil and gas rights in the Everglades and in federal waters of the eastern Gulf of Mexico. Yet, at the same time, the federal government continues to pursue offshore leasing in one of the harshest climates on this planet, an area containing a unique and pristine environment. I believe this Arctic environment is at least as worthy of preservation as the Everglades.

.004

In the event these unwise sales proceed over our objections, the deferral alternatives must be modified so that the subsistence harvest areas in Barrow, Kaktovik, and Cross Island are adequately protected. As currently proposed, the deferral alternatives are inadequate because it appears that they are erroneously based on harvest data alone. In order to sufficiently protect the bowhead whale harvest two areas must be protected. First, the area directly used by the subsistence whalers must be protected. Second, the area of influence must be protected. The area of influence is the area within which migrating whales could be affected by industrial activity, causing a change to their migration patterns. The proposed deferral alternatives need to be modified to accommodate the area of influence adequately for Barrow, Katovik, and Cross Island.

.005

Additionally, MMS proposes to cover the three leases in a single EIS with only 5 assumed standard stipulations and 16 advisory clauses, even though there are many unknown conditions regarding offshore leasing in Arctic waters. The Northeast NPR-A sale in 1999 had 79 mitigating measures, and that was not an offshore lease in Arctic waters! An EIS should be developed and a Coastal Management Program Consistency Analysis should be conducted for each sale. Each of the three impacted communities
should be visited, appropriate meetings held, and public testimony heard. These leases represent a bold adventure with untested methods and high risks. They have the potential impact of changing a way of life that has existed for thousands of years. If the sales must proceed, every measure should be taken to insure that development is done right and that all possible mitigating measures are taken.

.006

Moreover, the EIS should detail the cumulative impacts of all oil and gas activities on the North Slope. The proposed offshore oil and gas lease sales don't occur in isolation. In fact, more onshore exploration took place this last winter than at any time in decades. Development in the near term is likely from Pt. Thompson to the Brooks Range. The cumulative impacts from this

.007

development on the environment, wildlife resources, and the residents of the North Slope needs to be determined. The North Slope Borough now pays for most of the cost of these impacts. The Borough covers an area approximately one-third the size of California. The Borough pays for search and rescue services, a police force, public assistance, crisis lines, shelters, substance abuse treatment, counseling, and much more. Many of these services are required because of the stress and anxiety brought on by past oil development, and the subsequent changes it brought too quickly to our small communities. To protect the public interests, the North Slope Borough hires lawyers, biologists, planners and other specialists to review and monitor the proposed lease sales and development, and it pays for the required travel to fully participate in the OCS process. The EIS should provide a detailed description of the ongoing costs to the Borough and local entities. This information should be a necessary component of the impact assessment and should serve as a means for identifying the appropriate level of impact assistance needed for the communities.

.008

In the past, we have been reliable supporters of oil and gas development. Recently, we helped lobby for the development of ANWR, because we feel the benefits of responsible development there outweigh the risks. However, the Beaufort Sea and offshore development in Arctic waters remains an uncharted frontier for the oil industry, and it is a high risk and a high stakes enterprise. Many issues remain unresolved, and even the newest technology is not ready to perform in these Arctic Ocean conditions. The federal government and the industry needs to recognize that their actions in this matter have the potential, indeed the likelihood, of changing a way of life that has existed for thousands of years. The environmental risks represent not merely some impact on a species, but possibly the extinction of species. The stakes in this game are too high for us. Arctic offshore oil development should wait for another day, when technology is more advanced and able to cope with the extreme Arctic environment. If development is rushed into now, at the very least every appropriate mitigating measure must be taken to preserve the Inupiat culture and the Arctic environment. The Inupiat subsistence lifestyle and culture is a prize gem in our nation's collective heritage. When disturbing such a fragile rarity, at least some degree of caution and respect is called for.

.009

.010

Thank you in advance for your thoughtful review of my comments.

Best Regards,

Reggie Joule

Representative Reggie Joule
District 37

Cc: Mayor George Ahmaogak, Sr.
Alaska Eskimo Whaling Commission

MMS Response to Comment Letter L-0009

L-0009.001

The MMS believes that its overall discussion of the importance of bowhead whaling to the Inupiat way of life does acknowledge its core cultural importance. We believe we have provided a clear and reasonable analysis of effects as they relate to Subsistence-Harvest Patterns, Sociocultural Systems, and Environmental Justice. We believe that no disproportionate high adverse effects would occur from routine leasing, exploration, and development on the Inupiat population. We believe such effects would occur in the event of a large oil spill, but we believe that such a spill is unlikely. In the event of a large spill, we believe that proposed mitigation and spill-cleanup response would mitigate some but not all potential effects.

Noise effects on Kaktovik's subsistence whaling in the past was done in an era before industry and the Alaska Eskimo Whaling Commission negotiated conflict resolution agreements to prevent such noise conflicts during critical hunting seasons. With such agreements in place since that time, similar disturbance to migrating whales has, thus far, been avoided. We believe that proposed mitigation and the ongoing dialogue between industry and the Commission can prevent such conflicts.

L-0009.002

Endicott was the first offshore development in the Arctic. Endicott started production in 1986 and has been operating for 16 years without a large oil spill occurring. The MMS understands that stakeholders have different values regarding spill probabilities. In Section IV.A.4, we state: "We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, a 10% chance of a large spill over the life of the field may be high. For purposes of analysis, we use the term "low" to mean on the order of 8-10% over the life of the Alternative I for Sales 186, 195, and 202 or their alternatives." We appreciate your clarifying your values regarding the chance of an oil spill occurring.

L-0009.003

See Response L-007.006.

L-0009.004

See Responses PH-Anchorage.005 and L-004.010.

L-0009.005

See Responses PH-Kaktovik.009 and L-005.007.

Excluding areas of the Beaufort Sea that have significant resource potential and industry interest at this stage of the process is premature. That is precisely the purpose of this EIS process. As new information from current studies, developing technology, and continuing monitoring programs becomes available, it will be incorporated into the decision process for all three proposed Beaufort Sea sales. Likewise, this EIS incorporates into its analysis mitigating measures that have been developed and refined over time and with the cooperation of the North Slope Borough, the Alaska Eskimo Whaling Commission, directly affected local communities, whaling captains, and the State. These mitigating measures include the stipulation on the Industry Site-Specific Bowhead Whale-Monitoring Program, which provides site-specific information about the migration of bowhead whales, and the stipulation on Subsistence Whaling and Other Subsistence-Harvesting Activities, which helps reduce potential conflicts between subsistence hunters and whalers from oil and gas activities through consultation efforts. These mitigating measures have been proven to lower effects. Additional opportunities for public review and comment continue throughout the sale-specific leasing process. If further analysis throughout the lease-sale process reveals the need to provide additional protection to areas offshore the Arctic National Wildlife Refuge, or areas adjacent to Alternatives III, IV, and V, they can be withdrawn or new mitigation measures identified.

L-0009.006

See Responses L-0001.006, L-0002.016, and L-0005.008.

In addition, EIS's for different sale areas, in this case for the National Petroleum Reserve-Alaska, which is an onshore area, would have different stipulations and advisory clauses than those for an OCS area. Each depends on the specific area being proposed for leasing, based on the unique physical, biological, and social-cultural attributes of the area under discussion. Under each 5-year OCS oil and gas leasing program, the Director takes a broad view of programs under consideration. Because political strategies and technologies change over time, a particular regulation in effect at one point in time may not necessarily be applicable to a future lease sale in the same general area. The MMS looks at all potential impacts that may arise out of a proposed lease sale and attaches stipulations and advisory clauses applicable to that sale; documentation of these actions are within the text of the final EIS.

L-0009.007

In the EIS, the MMS has attempted to identify and analyze the effects of the known projects of concern as detailed in Section V.B - Activities We Consider and Tables V-1 through V-15. While last year was a busy year for the North Slope, the net production and exploration success continues to decline. Pipeline capacity of 1.7 million barrels per day has dropped to 1.38 barrels per day and is expected to continue to drop, even with the increased level of activities. The major large fields on the North Slope have been discovered, and it will take a moderate-sized field such as Alpine or Northstar each year just to maintain the present volume of production.

We have attempted to systematically identify potential ongoing past, present, and reasonably foreseeable future cumulative effects. No attempt has been made to systematically downplay any effects.

L-0009.008

We address stress and anxiety in Section IV.C.12 - Sociocultural Systems. The commenter indicates that the North Slope Borough hires specialists to review and monitor proposed lease sales and developments and it pays for travel to fully participate in the OCS process. The MMS holds meetings in potentially affected villages at important steps throughout the prelease process so that individuals and representatives of entities do not have to travel. The commenter further indicates that the EIS should provide a detailed description of the ongoing costs to the Borough and local entities to review and monitor proposed lease sales. This comment is similar to that of the Mayor of the North Slope Borough (L-0035.043). Please see our response to that comment.

L-0009.009

The MMS appreciates and concurs with the commenter that the Inupiat subsistence lifestyle and culture is important. The MMS does believe that offshore oil and gas activities can be conducted in the Beaufort Sea in a safe manner that both protects the environment, including the subsistence lifestyle, and allows for development of domestic oil and gas resources. The existing offshore Northstar and Endicott development projects are good examples how offshore oil and gas development can be accomplished in a safe and pollution-free manner.

L-0009.010

See Response L-0009.001.

RECEIVED
SEP 16 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

L-0010

215 Fox Lane
POB 374
Chestertown, N.Y. 12817
Sept. 9, 2002

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 E 36th Ave, Room 308
Anchorage, AK 999508-4363

RECEIVED
SEP 16 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Dear Mr. Goll,

I am writing to comment on the three proposed federal lease sales in the Beaufort Sea. I am very much opposed to any new oil and gas leasing across America's Arctic Coast. I feel offshore lease sales jeopardize the integrity of the wilderness, the wildlife and coastal habitats of the Arctic Refuge and Teshekpuk Lake. Oil spills pose great threats to this sensitive area. Industry has not yet developed a failsafe means of cleaning up the Beaufort. Therefore, PLEASE SUPPORT ALTERNATIVE # 2 NO ACTION. Please protect this wilderness.

.001

Thank you for your time and consideration.

Sincerely,

Kathleen Roberts

Kathleen Roberts

MMS Response to Comment Letter L-0010

L-0010.001

See Response L-007.006.

L-0011

RR1, Box 326C
Ellwood City, PA 16117

September 12, 2002

RECEIVED
SEP 16 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. Tom Gill
Regional Director
Alaska OCS Region,
Minerals Management Service
949 East 36th Avenue, Room 308
Anchorage, AK 99508-4363

Dear Mr. Gill:

.001 We are concerned about plans for three oil and gas lease sales in the Beaufort Sea stretching from the Canadian border nearly to Barrow. We oppose this plan. Offshore lease sales jeopardize the integrity of the wilderness, wildlife and coastal habitats of the Arctic Refuge and Teshekpuk Lake as well as the marine ecosystem too. Offshore exploration and development would cause pollution, aircraft and vessel noise and related activity and potential spills.

.002 Due to proven lack of ability to clean up oil spills in the Beaufort Sea most of the year, the risks to bowhead

whales, polar bears, migratory birds, and subsistence resources are too great to allow new leasing in this sensitive area.

.003 Areas that were deferred or deleted from past Beaufort Sea Sales, including the area north of the coast of the Arctic National Wildlife Refuge and the National Petroleum Reserve-Alaska, and the spring lead system should be permanently removed from the lease sales. None of the environmental impact statement (EIS) alternatives address concerns about potential harm to these areas.

Alternative 2, No Action, is the only alternative that addresses concerns about oil spill risks and impacts to the Arctic National Wildlife Refuge and Teshekpuk Lake (NPR-A) coastline.

.004 A full public EIS process, complete with hearings, should be conducted for each lease sale that is held.

Sincerely,

Kimberly Donovan

Bruce Hazen

MMS Response to Comment Letter L-0011

L-0011.001

The letter explains that offshore exploration and development would cause pollution, noise, and potential spills. The effects of all of these factors–pollution (routine discharges), noise (routine disturbance), and potential spills–are assessed in Section IV and restated in the Executive Summary.

L-0011.002

See Response L-0007.006.

L-0011.003

See Responses L-0021.009, L-0012.001, L-0035.003, and L-0035.005.

The Proposal and the alternatives analyzed in the EIS address concerns and potential risks to the environment and lifestyles of the local communities, and that the mitigating measures developed and analyzed in the EIS minimize or reduce potential risks.

L-0011.004

See Responses L-0001.005 and L-0002.016.

L-0012

P.O. Box 766
Talkeetna, AK 99676
September 12, 2002

RECEIVED
SEP 18 2002
LEASING & ENVIRONMENT
MINERALS MANAGEMENT SERVICE

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 Ease 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. Goll:

These are my comments on Beaufort Sea Planning Area Sales 186, 195, and 202, Draft Environmental Impact Statement.

I urge you to select Alternative 2 (No Action). First, offshore oil leasing in the icy Beaufort Sea is fraught with enormous environmental risk and should not go forward. Second, the DEIS, because of its clear bias in favor of oil development, does not represent an adequate basis to support any of the leasing alternatives.

The environmental risk of oil exploration and development in ice bound waters is enormous. Risk to the marine ecosystems is why, years ago, the Bristol Bay leases were bought back, and it is bewildering to me that you can turn around and recommend offering leases in an even more risky area. Even though a large spill may be unlikely [you seem to want to ensure the reader gets that point, feeling it necessary to use the words "unlikely" or "low probability" five times in the same paragraph, (ExSum 3)], the fact is, one will eventually occur and industry has no means to clean it up. Field tests of spill clean up failed. Even in the best of circumstances, a very low percentage of spilled oil is recovered. I would guess zero recovery in the icy Beaufort Sea. .001 .002 .003

As with oil spills, the DEIS downplays every other environmental risk. You mention water quality, trophic-level organisms, essential fish habitat, bowhead whales, spectacled and Steller's eiders, marine mammals, and so on, but your impacts are always "potential", "temporary", "short duration", "localized", "could be affected", "recovery expected in about one year", etc. Your failure to adequately assess the environmental risk is actually quite stunning. .004

Along with risk, one, of course, also looks at reward. But, it appears that, as you have understated the risk, you have also overstated the reward. On page II-2, you state "for purposes of this analysis, we assume that 460 million barrels could be produced form each of these sales". On page II-3, you state "these models assume that leasing, exploration, and development are unrestricted by regulations or industry funding." In reality, there are regulations and the industry does incur development costs, and there is a significant difference between what .005

oil may be physically present in the lease area and what may be economically recoverable.

I read the article in the Anchorage Daily News (9-14-02, page D-1) which quoted you (John Goll) as considering the Beaufort Sea (among other places) a "geologist's dream". The article also described MMS Director Johnnie Burton's enthusiasm about Alaska's off shore oil potential. In its zeal to develop off shore, MMS has lost sight of the environmental risk. .006

I, again, urge the no action alternative. Instead, I think you should take a look at the massive heavy oil deposits on state lands, known as West Sack. And, finally, if national security is truly the concern, as Ms. Burton indicates in the ADN article, then the policy response should start with serious investment in energy efficiency that will permanently reduce our dependence on vulnerable fuel supplies, whether they are foreign or domestic.

Thank you for this opportunity to comment.

Sincerely,

John Strasenburgh

MMS Response to Comment Letter L-0012

L-0012.001

The Department of the Interior is responsible for making OCS resources available to meet the Nation's energy needs and balance orderly energy resource development with protection of the human, marine, and coastal environment. The Secretary of the Interior makes OCS leasing decisions based on agency recommendations after weighing all the pertinent facts documented in EIS's, such as this EIS being prepared for the Beaufort Sea Planning Area. As part of the decisionmaking process, all comments and testimony received on the EIS are considered and analyzed, including local concerns and regional environmental conditions and constraints. New information from current studies, developing technology, and continuing monitoring programs that become available are incorporated into the decision process. The EIS also incorporates into its analysis mitigating measures as part of the proposal and the alternatives. Additional opportunities for public review and comment continue throughout the sale-specific leasing process. Further analysis of Sale 186 may reveal that additional areas will be withdrawn from the proposal prior to leasing or new or additional mitigating measures will be developed to provide needed protections to the natural resources and their habitats.

Also see Responses PH-Anchorage.005, PH-Anchorage.045, and PH-Kaktovik.042.

L-0012.002

Section IV.A.4 states "The MMS uses the term "low" to characterize the relative chance of a large spill occurring, and it is based on our familiarity with oil-spill rates and sizes. We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, a 10% chance of a large spill over the life of the field may be high. For purposes of analysis, we use the term 'low' to mean on the order of 8-10% over the life of the Alternative I for Sales 186, 195 and 202 or their alternatives."

Under the current estimates of past present and reasonably foreseeable production in the Beaufort Sea, MMS estimates a mean spill number of 0.65 (Section V, Cumulative Effects, Table V-12). Although a spill is possible it is not an absolute certainty that a large oil spill will occur over the 15-20 year life of the project and the surrounding cumulative development.

L-0012.003

The MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open water, spring broken ice and fall freezeup. The equipment, tactics and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal and would not be limited to a single skimming configuration but would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and the MMS to add new tools and increase effectiveness of existing methods and equipment.

L-0012.004

Mr. Strasenburgh comments that the failure of the EIS to adequately assess the environmental risk is quite stunning. However, the low level of environmental risk is consistent with the levels in the previous EIS's for Beaufort Sea lease sales, including Sales BF, 71, 87, 97, 124, and 170. The level is consistent with the levels in the EIS's on the proposals for the Northstar and Liberty developments. The level also is consistent with the environmental reviews for numerous State of Alaska nearshore lease sales.

L-0012.005

The oil-resource estimates assumed for purposes of environmental impact analysis are economically recoverable volumes. These estimates are derived from engineering and economic analysis models that include exploration, development, production, and transportation costs for oil delivered to West Coast markets. The economically recoverable estimates are far less than the total oil volume that could include subeconomic size pools. We apologize for any misconception regarding the statement "unrestricted by regulations or industry funding." The models assume that the entire area is open for leasing, and subsequent exploration/development is not precluded by the inability to obtain necessary permits in a timely manner. This does not mean that current regulations will not be enforced. "Industry funding" refers to future investments. We cannot predict corporate strategies of unknown industry groups. This means that if companies chose not to commit funds to leasing and exploration in the Beaufort OCS, the full resource potential may never be realized. Industry costs for exploration and development are accounted for, should they choose to commit the funds.

L-0012.006

The MMS is well aware of potential environmental risks in the Beaufort Sea. The purpose of the EIS is to identify, analyze, offer mitigation to minimize risks, and quantify these risks to the coastal, marine, and human environments. These detailed analyses are made on the Proposal and the alternatives identified in the EIS. All comments received on the EIS are considered, analyzed, and either incorporated into the EIS or responses are provided in the final EIS. This information and recommendations are submitted to the Secretary for a final decision on which areas should be offered or deferred from leasing and which mitigating measures are adopted for the lease sale to minimize potential risks. The State of Alaska, Federal Agencies, and potentially affected communities are consulted prior to any final decisions; a consistency determination is prepared and sent to the State of Alaska and any overriding concerns or consideration of unresolved issues are addressed. We strongly believe that the MMS has not lost sight of environmental risks and works closely with constituents throughout the process. Through coordination, consultation, application of good science, and development of new studies and monitoring plans during operations, we trust the process works.

L-00013

RECEIVED
SEP 18 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 16, 2002

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, Alaska 99508-4363

RE: Comment on Beaufort Sea Proposed Lease Sales

Good Day:

The Beaufort Sea is the home of many birds and marine mammals and should be protected at all costs. Offshore development and exploration would cause pollution, noise and potential spills. These spills could decimate the entire ecosystem as was evidenced in Prince William Sound. The oil industry does still, not have in place, a viable method of cleaning up oil spills. The severity of the climate in the Beaufort Sea would make any clean up attempt even less successful than the small percentage that is now actually cleaned up in a spill. .001 .002

These risks to our environment should not be undertaken. The Arctic National Wildlife Refuge would be impacted with on land support facilities. This would be very bad. Sub Sea pipelines would impose even more risk. Polar bears, whales, migratory birds and our native people's way of life would be seriously threatened. .003

Please support **Alternative #2, No Action**. This is the only alternative that addresses concerns about oil spill risks and impacts to ANWR and Teshekpuk Lake coastline. The three leases should not be all combined into one EIS process which covers 10 million acres, as these leases and their consequences are far too important to not be carefully evaluated. .004

Thank you for the opportunity to comment.

Sincerely,

Ms. Terry Cummings
6740 East 10th Avenue
Anchorage, Alaska 99504

MMS Response to Comment Letter L-0013

L-0013.001

Ms. Cummings comments that offshore development could cause oil spills that would decimate the entire ecosystem as was evidenced in Prince William Sound. The EIS describes the probable effects in the unlikely event of a large oil spill (Section IV.C) or a very large oil spill (Section IV.I). The assumed spill sizes are much smaller than the massive *Exxon Valdez* tanker oil spill in Prince William Sound. The use of tankers in the Beaufort Sea is not considered feasible.

L-0013.002

See Response L-0007.001.

L-0013.003

See Response L-0007.001.

L-0013.004

See Responses L-0002.016 and L-0005.008. In addition, The Oil-Spill-Risk Analysis has shown that impacts from an OCS oil spill are negligible to NPR-A onshore lands.

L-0016

RECEIVED
SEP 18 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 14, 2002

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 East 36th Avenue, Room 308
Anchorage, AK 99508-4363

Dear Mr. Goll:

I oppose the plans for new oil and gas leasing across Alaska's coasts. The activity from the operation of such leases will certainly jeopardize the integrity of the coastal and wildlife habitats. In addition, there is no proven ability to clean up oil spills in the Beaufort Sea during most of the year. .001

I also ask that for each separate lease sale, there be a full public EIS process, including hearings. .002

Thank you for you consideration in this matter.

Sincerely,

Jim Havlena

Jim Havlena
1040-C Los Osos Valley Road
Los Osos, CA 93402-3237

MMS Response to Comment Letter L-0014

L-0014.001

See Response L-0007.001 for concerns about the Arctic National Wildlife Refuge and Response L-0021.011 for concerns about the Teshekpuk Lake Area.

L-0014.002

See Response L-0013.002.

L-0015

RECEIVED
SEP 18 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Sept. 14, 2002

John Goll
Regional Director
Alaska OCS Region
Minerals Management Service
949 E. 36th Ave., Room 308
Anchorage, Alaska 99508-4363

Mr. Goll:

I ask that you oppose the plans for the new oil and gas leasing across Alaska's coasts. There is no proven ability to clean up oil spills in the Beaufort Sea during most of the year. Also, there will undoubtedly be damage to the sensitive and valuable coastal and wildlife habitats, and methods of a clean up have not been proven in these cold climes. .001

I also ask that for each separate lease sale, there be a full public EIS process, including hearings. .002

Please oppose these oil and gas leases along Alaska's coasts. Thank you.

Sincerely,

K. A. Beckwith

K. A. Beckwith
12001 Chaucer Rd.
Los Alamitos, Calif. 90720-4531

MMS Response to Comment Letter L-0015

L-0015.001

See Response L-0013.002.

L-0015.002

See Responses L-0001.005 and L-0002.016.

Public hearings were scheduled for the Beaufort Sea multiple-sale daft EIS in Kaktovik, Nuiqsut, Barrow, and Anchorage. Public hearing are not scheduled for subsequent Sales 195 and 202, because issues for all three sales were addressed under the original umbrella EIS.

L-0014

Sept. 14, 2002

Mr. John Goll, Regional Director
Minerals Management Service
949 E. 36th Ave., Room 308
Anchorage, AK 99508-4363

RECEIVED
SEP 18 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. Goll,

I ask that you oppose any new oil and gas leases across Alaska's coasts. The wildlife and coastal habitats of the Arctic Refuge and Teshekpuk Lake would be in danger of damage from noise, pollution, spills, etc. And, there are no proven methods for a clean up of a spill in these areas during the very cold times of the year. .001 .002

Thank you for your support in this matter.

K.A. Havlena

K. A. HAVLENA
1188 5TH ST.
BAYWOOD PARK, CA 92402-1208

MMS Response to Comment Letter L-0016

L-0016.001

See Response L-0013.002.

L-0016.002

See Response L-0015.002.

Fax Cover Sheet

L-0017

kinko's
1050 Broadripple Avenue
Indianapolis, IN 46220
Tel: (317) 251-2406
Fax: (317) 251-2503

Date: 9/19/02

To: Mr John Goll

Company: Minerals Management Service

Fax: 907-271-6805

From:

Company:

Tel:

Number of pages including this one:

Comments:

~ON THE PROPOSED OIL AND GAS LEASE SALES IN THE BEAUFORT SEA

Dear Mr. Goll,

RECEIVED
SEP 19 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

We are writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, we strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year. .001

We are also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge. .002

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and we encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,
The Undersigned

Name (SIGNED NAME)	Home Address
Monika Schultz	2426 Borgman Court Indpls., IN 46229
Sara Bales	1513 Park Vista Court Indpls., IN 46229
Becky Morrow	1388 W 400 N Greenfield, IN 46140
Melanie Sharwinski [signature]	2241 Cowan Ct. Schererville, IN 46375
Katie Yoeke	2991 Homestead Dr. Edgewood, KY 41017
[signature] Emily Peuter	116 HeHinwille Rd Bedford, IN 47421

Print name ~~Name~~	Sign name	Home Address
Helen Straight	[illegible]	1195 Cimarron St Louis MO 63132
Jessie Sutton	Jessie Sutton	6101C Georgetown Rd 46254
Ryan Lancaster	Ryan Lancaster	131 N. Hager Ave Barrington IL 60010
Darcy Engh	Darcy Engh	9852 E. Troy Ave Indpls IN 46239
Kristen Moreno	Kristen Moreno	1166 Detroit Blvd. S Lake Orion, MI 48362
Cathy Barron	Cathy Barron	1521 Pleasant Ridge Dr.
Maralee Muscato	Maralee Muscato	1922 Sussex Dr. Bloomington, IN 47401
Chris Fink	[illegible]	6906 Longman Ct. Louisville, KY 40207
Katy King	Katie King	1964 CR 66 Auburn IN 46706
Amanda Sharp	Amanda Sharp	PO Box 960 Middlebury, IN 46540
GRACE MIAZGA	Grace Miazga	2251 Monroe Ave. Cinti OH 45212
Andrew Wistanski	[illegible]	1201 (N) 3rd St. Wausau WI 54403
Sonnet Gabbard	[illegible]	599 W. Westfield Blvd. Indpls, IN 46208
Stephen Weathers	Stephen Weathers	275 N. Smith pk Rd Bloom IN 47404
Rachel Islar	Rachel Islar	9985 Hickory Ridge Dr. Zionsville IN
Rachel Richardson	[illegible]	750 West Hampton Indianapolis IN
Claire Catania	Claire Catania	3140 Wild Dunes Path Stevensville
Jane Breck	Jane Breck	2579 Ravine Way Stevensville MI 49127
Marshay Allen		750 West Hampton Drive
JARED PERSINGER	[illegible]	510 W. HAMPTON DR
Angela R. Cruse	Angela R. Cruse	3934 Limbsey [illegible] Indpls IN 46222
Nicholas R. Berkeley		629 W. Hampton
Scott Swanson	Scott H. Swanson	6512 Caroline Street; Indianapolis 46220
Melissa Rinehart	Melissa Rinehart	6265 Adams Blvd. W. Dr. Apt. F Indpls IN 4620
Christine Faulkes	Christine Faulkes	750 W. Hampton Dr, Indianapolis IN
Nic Winters	[illegible]	4200 Haughey Ave, Indianapolis, IN
Annie Shultz	[illegible]	5110 W. 15th St Indpls, IN 46224
Kristy Guthrie	Kristy Guthrie	599 W. Westfield Blvd, Indpls IN 4620
Donna Marsh	Donna Marsh	630 W. Hampton Dr, Indianapolis
Abby Pickens	Abby Pickens	831 W. Hampton Indianapolis
Ginny Wehdi	Ginny Wehdi	144 W. 49th St., Indy, IN 46208
Liz Sidley	Liz Sidley	6719 Waverly Apt 2A, Indy, IN 46
AMANDA SEWELL	Amanda Sewell	7075 W 605 S, Topeka IN 46571
Ryan Scanlan	Ryan Scanlan	2245 Allegany Drive Naperville, IL 60565
Tony Smith	[illegible]	2425 E Division 46022 [illegible] IN
Ray Biederman	Ray Biederman	11730 [illegible] Ct Orland Park IL 60467
Tara Benz	Tara Benz	4300 N. Boehning St. Indpls, IN 46219

MMS Response to Comment Letter L-0017

L-0017.001

See Response L-0013.002.

L-0017.002

See Response L-0007.001.

L-0018

RECEIVED
SEP 19 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

P. O. Box 264
Dundee, Florida 33838
September 15, 2002

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 East 36th Ave. Room 308
Anchorage, AK 99508-4363

Dear Mr. Goll,

I am concerned about the proposed lease sales 186, 195 and 202 in the Beaufort Sea and would urge you to support Alternative 2, No Action, as it is the only alternative that addresses concerns about oil spill risks and impacts to the Artic National Wildlife Refuge and Teshekpuk Lake coastline.

This is a very sensitive area to bowhead whales, polar bear and migratory birds and would be a detriment to their survival. This is too great a resource to allow new offshore leasing which would put the survival of these species in jeopardy.

.001

Thank you for your consideration of this matter.

Respectfully,

Jenny Jacobs

Jenny Jacobs

MMS Response to Comment Letter L-0018

L-0018.001

The EIS describes in detail the Beaufort Sea's importance to bowhead whales in Section.III.B.4.a(1), to polar bears in Section III.B.6.e, and to migratory birds in Sections III.B.4.a(2) and III.B.5.

L-0019

Amy & Chris Gulick
44521 SE 166th Street
North Bend, WA 98045
(425) 888-3835 Voice
(425) 888-5278 Fax
amyg@nwlink.com
www.amygulick.com

RECEIVED
SEP 19 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 15, 2002

Mr. John Goll
Regional Director
Alaska OCS Region
Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Re: Beaufort Sea Lease Sales

Dear Mr. Goll:

We are writing to ask you to please not allow offshore lease sales in the Beaufort Sea for the following reasons.

· Due to proven lack of ability to clean up oil spills in the Beaufort Sea most of the year, the risks to bowhead whales, polar bears, migratory birds, and subsistence resources are too great to allow new offshore leasing in this sensitive area. .001

· Areas that were deferred or deleted from past Beaufort Sea Sales, including the area north of the coast of the Arctic National Wildlife Refuge, and the National Petroleum Reserve-Alaska, the fall bowhead whale feeding grounds and migratory route, and the entire spring lead system should be permanently removed from the lease sales. None of the EIS alternatives address concerns about potential harm to these areas. .002

· Please support Alternative 2, No Action, because it is the only alternative that addresses concerns about oil spill risks and impacts to the Arctic National Wildlife Refuge and Teshekpuk Lake (NPR-A) coastline.

· MMS is inappropriately lumping three lease sales into ONE Environmental Impact Statement (EIS) Process covering approximately 10 million acres. As these three sales are expected to be held sequentially, not simultaneously, so should there be three full public EIS processes held sequentially. In this way, each EIS will reflect the most current knowledge, experience and technology at the time - not reflect outdated information, as may be the case when using this current EIS process for a lease sale not set to begin for 5 years. .003

Thank you.

Sincerely,

Amy & Chris Gulick

Amy and Chris Gulick

MMS Response to Comment Letter L-0019

L-0019.001

See Response L-0013.002.

L-0019.002

The rationale for the alternatives is explained in Sections II.D, II.E, II.F, and II.G. These sections include summaries of the effects for each alternative. Also, the introduction to Section III explains that the effects of leasing in part or all of these areas were assessed previously in the EIS's for Sales BF, 71, 87, 97, 124 and 170.

L-0019.003

See Response L-0001.005.

This process is discussed in the section titled Overview and General Information and in Section I.A - Purpose, Need, and Description of the EIS.

ALASKA OIL & GAS ASSOCIATION
121 W. Fireweed Lane, #207
Anchorage, AK 99503
(907)272-1481
Fax: (907)279-8114
Judith Brady, Executive Director

AOGA

Fax

L-0020

RECEIVED
SEP 2 · 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

To: Mr. John Goll
Minerals Management Service
(907)271-6805

From: Judith Brady

Pages: 3 (including cover)

Date: 9/20/2002

If there are any problems with this transmission, please contact Tamara Sheffield @ (907)277-6494. Thank you.

AOGA Comments on Beaufort Sea Multiple Sale EIS for Sales 186, 195 and 202

Alaska Oil and Gas Association

AOGA

121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907)272-1481 Fax: (907)279-8114
Email: brady@aoga.org
Judith Brady, Executive Director

September 20, 2002

RECEIVED
SEP 2 0 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 E. 36th Avenue #308
Anchorage, AK 99508-4363

AOGA Comments on Beaufort Sea Multiple Sale Environmental Impact Statement for Sales 186,195 and 202

Dear Mr. Goll:

The Alaska Oil & Gas Association (AOGA) is non-profit trade association whose 19 member companies account for the majority of oil and gas exploration, production, transportation, refining and marketing activities in Alaska. AOGA appreciates the opportunity to comment on the Beaufort Sea Multiple Sale Environmental Impact Statement for Sales 186, 195 and 202.

AOGA would like to compliment the Minerals Management Service for adopting the multiple sale environmental impact model for the Beaufort Sea sales. The multiple sale model is appropriate for those areas, like the Beaufort Sea, that have a lease sale history and have had extensive environmental analysis.

We would also compliment the Minerals Management Service on the thoroughness of this environmental analysis. It meets the letter as well as the spirit of the law and reflects MMS's commitment to environmentally responsible lease sales.

AOGA continues to be concerned about the consideration of new stipulations that add cost and/or risk of delay without adding additional environmental benefits. For that reason we do not endorse Stipulation 6 Permanent Facility Siting in the Vicinity Seaward or Shoreward of Cross Island; or Stipulation 7 Pre-booming Requirements for Fuel Transfers. We believe subsistence hunting of bowhead whale and water quality is securely protected through the five standard lease stipulations and, in fact, is and has been central to the environmental regulation of federal and state lease sales in the Beaufort Sea.

.001

AOGA endorses Alternative 1 for all three sales with no deferral areas. We have been consistent in our comments to MMS that the lease sale goal in this area should be all available acreage. The standard mitigation measures related to oil and gas operations are intended to and do provide secure protection for subsistence hunting of the bowhead whale. .002

We also continue to urge MMS to consider incentives that will make the Beaufort Sea an attractive, competitive alternative to offshore areas throughout the world. We understand MMS is reviewing options toward this goal and we endorse that effort. .003

Finally, we continue to urge that MMS continue its initiative to have regularly scheduled and predictable OCS lease sales. With Alaska and the Gulf of Mexico as the only areas where federal offshore acreage is available for oil and gas leasing, it is particularly important that the lease sales scheduled in MMS's 5 Year OSC Leasing Program be held as scheduled. .004

Thank you again for the opportunity to comment.

Sincerely

Judith Brady

JUDITH BRADY
Executive Director

MMS Response to Comment Letter L-0020

L-0020.001

The MMS can appreciate industry concerns that new stipulations may add cost or delay to proposed OCS activities. Stipulations 6a, 6b, and 7 are additional mitigating measures developed for Sale 186 in response to concerns expressed during scoping.

Stipulations 6a and 6b are somewhat duplicative of standard Stipulation 5, in that they are both directed toward reducing potential subsistence conflicts between subsistence-hunting activities and oil and gas activities. They both require consultation and agreement between lessees and subsistence hunters before activities could proceed. However, Stipulations 6a and 6b would apply only to the permanent facility siting of an OCS production facility within key areas inside and outside the vicinity of Cross Island where subsistence whaling for Nuiqsut whalers occur.

Stipulation 7 was developed to reduce potential risks of an oil spill during fuel transfers by requiring oil-spill-containment booms around fuel barges during the bowhead whale migration. A similar procedure is part of the Northstar fuel-transfer plan. Stipulations 6a, 6b, and 7 are optional mitigating measures that the Secretary will consider in her balancing decisions regarding proposed sale configuration and environmental protection requirements. These stipulations were formulated to provide additional protection to specific blocks and within certain time periods during subsistence-hunting activities.

L-0020.002

The Secretary of the Interior decides whether to offer areas for leasing or to continue to exclude areas on a sale-by-sale basis.

L-0020.003

In early 2002, the MMS initiated an incentives task force designed to identify incentives that will make OCS areas a competitive alternative to other offshore areas around the world. It is anticipated that recommendations from this group will be considered for Beaufort Sea Sale 186 proposed lease-sale decisions.

L-0020.004

The Department of the Interior and the MMS recognize the need to have a predictable, reliable OCS leasing program. The OCS Lands Act requires that a proposed 5-year program be developed to provide a consistent timeframe for evaluation and public input into a proposed leasing program. It is important for the Government and all its constituents to be able to plan for and rely on leasing milestones of the proposed lease-sale process. The Administration and the Department are committed to adhering to a predictable and reliable OCS leasing program.

RECEIVED
SEP 2002
3:45
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

THE OCEAN CONSERVANCY
ALASKA CENTER FOR THE ENVIRONMENT
ALASKA COALITION * ALASKA CONSERVATION ALLIANCE
ALASKA WILDERNESS LEAGUE * ARCTIC CONNECTIONS
DEFENDERS OF WILDLIFE * EARTHJUSTICE
NORTHERN ALASKA ENVIRONMENTAL CENTER
SIERRA CLUB * THE WILDERNESS SOCIETY

L-0021

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363
Fax: 907-271-6805

RE: Comments on the Draft Environmental Impact Statement for the Beaufort Sea Planning Area, Oil and Gas Lease Sales 186, 195, and 202. OCS EIS/EA MMS 2002-029

Dear Mr. Goll:

Thank you for this opportunity to comment on the Draft Environmental Impact Statement for three Beaufort Sea Lease Sales (67 FR 41730-41731). These comments are submitted on behalf of our organizations, as listed above, and our members in Alaska and nation-wide.

.001

The Interior Department proposes a series of 3 lease sales over the next five years in the Beaufort Sea stretching from the Canadian border nearly to Barrow. At 9.6 million acres each, these sales are 10 times the size of the most recent Beaufort Sea sale. This sharply contrasts with the past five-year program when Interior held only one lease sale in the Beaufort Sea located north of existing State oil fields and leases. This is also the first time the Interior Department plans to use one Environmental Impact Statement to cover three separate lease sales for the Beaufort Sea, despite the greatly increased geographic scope and pace of leasing. This streamlining severely curtails the opportunities for environmental review of the leasing program.

Our organizations and members are concerned about the sensitive marine and coastal environments at risk from the proposed oil and gas activities in the Beaufort Sea. This productive area supports endangered species like bowhead whales and spectacled and Steller's eiders; marine mammals including beluga whale, ringed seal and polar bear; fish such as Dolly Varden (Arctic char), and Arctic cod; millions of migratory birds; rare kelp communities; wilderness coasts of national treasures like the Arctic National Wildlife Refuge; productive wildlife habitats of Teshekpuk Lake area; and coastal residents whose cultures and subsistence depend on these marine resources.

The Beaufort Sea planning process must take into account these important values and ensure that the resources are managed in a sustainable way. It also must recognize the demonstrated lack of oil spill cleanup capability amidst broken sea ice and major risks to resources posed by large spills. As well, the Arctic is the frontline of climate change where severe impacts are already underway. The EIS must address the cumulative impacts associated

with these changes, particularly the correlation between fossil fuel use and global climate change. The Minerals Management Service (MMS) must also comply with all applicable federal and state laws. As we outline below and in technical comments, the Draft EIS and planning process do not meet these requirements. Our organizations therefore support Alternative II (No Action).

We have commented previously on these issues. The Minerals Management Service has ignored the environmental impact issues we have raised, as well as those of local governments, tribal governments, local residents, and over 4,000 citizens opposing new offshore lease sales off Alaska's sensitive coasts due to demonstrated lack of oil spill cleanup capability and the critical values put at risk.[1] While Secretary Norton claims to base decisions on science and local community concerns, this proposed action demonstrates the opposite by reinstating massive sales like those launched by Secretary James Watt in the 1980's with severely curtailed public review. .002

Even after detailed written and oral testimony, we find that MMS continues to promote arctic offshore development plans that side-step or pay little regard to the fundamental associated dangers that we have detailed in prior comments. In addition, MMS does not provide a comprehensive alternative regarding energy efficiency and technologies such as solar, wind, and other alternative sources. .003

The Draft EIS understates the potential harm from offshore spills to polar bears, bowhead whales, threatened spectacled and Steller's eiders, and other wildlife populations and their habitats. Furthermore, MMS continues to rely on the mitigation in the form of financial reimbursement for losses in the case of an offshore oil spill. This pays little respect to the national values of these coastal and marine resources and the effects on indigenous cultures that rely on an intimate association with the land and sea for more than economic values. .004 .005

Thirteen years after the Exxon Valdez spill, the Prince William Sound's level of recovery is at best equivocal and oil is still present at toxic levels in many beaches. The Prince William Sound coastal and marine ecosystems as well as most species studied still have not fully recovered, according to the Exxon Valdez Trustee Council's scientific analysis[2]. In the harsh northern environment of the Beaufort Sea, far away from population centers, we can only expect that recovery would be correspondingly slower – maybe even longer than the proposed development scenarios and impact analysis portrayed by the DEIS, missing concerns that the mitigation to address these impacts is inadequate. .006

The DEIS systematically downplays negative environmental and human impacts from oil and gas exploration and development activities and infrastructure, and the cumulative impacts of

[1] Please incorporate by reference the thousands of public comments opposing new leasing in sensitive Alaska waters for the Outer Continental Shelf Oil & Gas Leasing Program: 2002-2007 Draft EIS, including the letters submitted by The Ocean Conservancy et al. to the MMS, January 24, 2002 and Natural Resources Defense Council et al., February 1, 2001 and September 20, 2001; comments on the three Beaufort Sea Sales (Sierra Club et al. November 5, 2001); all public comments on Lease Sale 170 and cancelled Lease Sale 176 submitted in writing, at hearings, and at public advisory meetings by our organizations, local governments, tribal governments, the Alaska Eskimo Whaling Commission, local citizens, the U.S. Fish and Wildlife Service, and the Environmental Protection Agency; public comments submitted by our organizations, Greenpeace, the U.S. Fish and Wildlife Service and the EPA on the proposed Northstar and Liberty development projects, and the Warthog and McCovey offshore exploratory wells; and The Wilderness Society et al., October 2, 1997, Petition to the Secretary of the Interior for suspension and prohibition of operations and Activities on Federal Oil and Gas Leases Offshore of the Arctic National Wildlife Refuge.

[2] Exxon Valdez Oil Spill Trustee Council. 2002 Status Report. Available at www.oilspill.state.ak.us and provided with this testimony.

offshore and onshore development to the endangered bowhead whale, polar bears, other marine mammals, migratory birds, fish, wilderness, recreation, subsistence resources, cultural values, fresh water resources including the aquatic ecosystem, and the marine ecosystem. MMS's analysis techniques fail to address the central issues of concern to the public, and rely on a fundamentally flawed set of vague development scenarios. MMS does not place any of the six potential development projects in particularly sensitive areas critical to wildlife resources or subsistence users, or even at specific locations at all. .007

The environmental impact analysis carries out the opposite of a precautionary approach – in the myriad cases where there is scientific "uncertainty," regarding impact, the agency finds there is no proof of harm and therefore disregards its significance. The MMS must place the utmost priority on quantifying and addressing the scientific uncertainty so that the long-term sustainability of this ecosystem, including the surrounding communities is maintained without impairment. .008

Unlike the last Beaufort sale, Interior plans new leasing off the coast of the Arctic National Wildlife Refuge, the Teshekpuk Lake Special Area in the Western Arctic (in the National Petroleum Reserve-Alaska), throughout the important bowhead whale feeding grounds, and throughout the spring lead zone which is a productive open-water path through the sea ice used by migrating whales, birds, and other wildlife. This rolls back incremental steps MMS had taken during past planning processes resulting in leasing deferrals or deletions. MMS ignored our specific requests for deletions made in comments on the Five-Year Plan and scoping. New information on demonstrated failure of oil spill cleanup capability since that time shows increased risks to the environment for the entire sale area. None of the alternatives addressed these critical requests.

Arctic National Wildlife Refuge: The last Beaufort Sea Lease Sale 170 set a precedent of not leasing off the coast of the Arctic National Wildlife Refuge. The Interior Department cited among many reasons, the lack of information on cumulative impacts on the refuge, emergency response plans, and risks posed by sub-sea pipelines. That lack of information still exists. The MMS still fails to fully address the major issues that were the Secretary's basis for deferral of this entire area in Sale 170. .009

Oil development off the coast of the Arctic National Wildlife Refuge poses risks to the wilderness values, Porcupine caribou herd caribou insect relief habitats, bowhead whale feeding habitat, fish, polar bear denning, feeding, and migratory habitats, and migratory birds using the refuge coastline, lagoons, and barrier islands. Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and oil spills degrading the wildlife habitats and wilderness qualities of the Refuge, even if there were no construction of infrastructure within its boundaries. In the future, there would be intense pressure to construct onshore airports, pipelines, roads, docks, and other support facilities in the Refuge. In light of these threats to this national treasure, and continued deficiencies of information as outlined by the Interior Department for Lease Sale 170, MMS should delete the entire OCS area offshore of the Arctic Refuge from all three Beaufort Sea Lease Sales. .010

***Teshekpuk Lake Special Area*:** We specifically request that you remove the area off the coast of the Teshekpuk Lake Special Area in the National Petroleum Reserve-Alaska from these lease sales. This deferral is requested in order to protect this internationally significant goose molting, staging, and nesting area, and caribou calving and post-calving habitats from potential oil .011

transportation pipelines, aircraft disturbance, or support activities occurring on land in connection with the offshore development. .011

In light of the Secretary of the Interior's decision not to allow leasing, pipelines, roads, other surface activities along most of the coastline within the Teshekpuk Lake Special Area, we believe that it is common sense to delete the adjacent OCS area. The Final Integrated Activity Plan/ EIS for the Northeast NPRA (BLM 1998) did not analyze the potential impacts from offshore pipelines making landfall in the Teshekpuk Lake area, offshore support facilities on private lands in this area, or helicopter and other aircraft overflights for offshore construction or supply. Even though MMS shows two hypothetical offshore pipeline landfalls in the Teshekpuk Lake Special Area (Atigaru Point and Ikpikpuk River delta), potential negative impacts from construction and operation of pipelines crossings, as well as aircraft traffic to goose molting, waterfowl nesting, and caribou calving habitats were not adequately evaluated in the DEIS. .012

Legal Deficiencies:

The Beaufort Sea DEIS, fails to satisfy six distinct requirements. First, the Department of the Interior (DOI) fails to adequately address the full range of available alternatives to the proposed action as required under the National Environmental Policy Act (NEPA). Second, the DEIS fails to include a sufficient discussion of potential mitigating measures. Third, the DEIS provides an inadequate analysis of affects on endangered species. Fourth, the DEIS insufficiently addresses concerns under the Marine Mammal Protection Act (MMPA). Fifth, the DEIS fails to include adequate and inclusive discussion of current and potential cumulative impacts. Finally, the DEIS inadequately addresses measures necessary under the Oil Pollution Act of 1990 (OPA) and the Outer Continental Shelf Lands Act and Amendments (OCSLAA), Clean Water Act and Clean Air Act.

Alternatives: The Interior Department fails to analyze the full range of reasonable alternatives to the proposed action that could substantially reduce significant adverse impacts, as required under Council on Environmental Quality policy on implementing the National Environmental Policy Act (40 CFR 1502.14). This Draft EIS fails to consider a reasonable range of alternatives regarding the geographic extent, number, and pace of lease sales. Furthermore, alternatives listed in the DEIS are superficially discussed and do not address their environmental impacts in a sufficiently detailed or meaningful fashion. These alternatives, <u>including</u> the "No Action" alternative must be explored and discussed thoroughly in order to comply with the intent and requirements of Section 4332 (2)(C) of NEPA. The Council on Environmental Quality has published guidelines for federal agencies undertaking NEPA reviews which state, "an alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable," (CEQ, 1981, 48 Fed. Reg. 10827.) Therefore, DOI must consider <u>all</u> reasonable alternatives. .013

DOI provides an inadequate discussion of the merits and benefits of Alternative II, the "no action" alternative. For example, in the Executive Summary (pg. 5) description of the effects of Alternative II, the only benefits described are "protection to the environmental resources in the Federal offshore area of the Beaufort Sea." Instead, the summary describes a litany of negative impacts to the global environment, to economic interests, and to jobs, with absolutely no discussion of environmental, economic, and social (e.g., jobs) benefits from developing an industry focused on alternative energy forms. Furthermore, MMS relies on use of the paper *Energy Alternatives and the Environment* (USDOI, MMS, Herndon, 1996) to guide its discussion on alternative power. Not only is this document seven years out of date in a rapidly developing .014

technology sector, it provides at best, a one-sided interpretation of this subject. In requiring consideration of a no-action alternative under NEPA, the Council on Environmental Quality intended that agencies compare the potential impacts of the proposed major federal action to the known impacts of maintaining the current level of activity as a benchmark. *See Association of Pub. Agency Customers, Inc. v. Bonneville Power Admin.*, 126 F.3d 1158, 1188 (9th Cir. 1997); 46 Fed. Reg. at 18027; 46 Fed. Reg. at 18027. Alternative II focuses primarily on the negative aspects of reduction of oil development and the associated reliance on foreign oil supplies, but virtually excludes potential benefits to wildlife, economic, and social systems present in and outside the region. By excluding the positive aspects of a "no action" alternative (while systematically downplaying negative impacts of oil development and use in other alternatives), DOI neglects its duty under NEPA to conduct a meaningful consideration of all potential impacts. .014

The Interior Department simply plans to lease the entire Beaufort Sea Program area. Apart from the proposed alternative and the "no action" alternative, MMS provides piecemeal deferral areas that provide no real meaningful benefit. More critically, the "deferral areas" within the alternatives represent tiny areas that do not correspond to meaningful reductions of environmental impact to the human and natural environment. When MMS compares the effects of leasing 100% of the Beaufort Sea planning area versus leasing 97-99% of it, the ability to make meaningful comparisons is minimized. Each of the additional alternatives focuses on the loss of production capability of oil with only minimal discussion of the potential environmental benefits. Subsequently, the Alternatives presented in the DEIS need to require significantly more analysis. Finally, besides failing to provide a reasonable way of evaluating environmental effects, the proposals are confusing, not scientifically based, and fail to address local community and national conservation interests. .015

Mitigation Measures: The DEIS fails to fully comply with NEPA's mitigation requirements because it fails to discuss the environmental impacts of all resources for each of the alternatives for the proposed action. Under CEQ regulations, agencies must provide a discussion of actions that can be taken to mitigate adverse environmental impacts to guarantee that agencies have seriously contemplated the environmental consequences of proposed federal projects. There must be significant analytic data to support the conclusion that the mitigation measures would be adequate in light of the potential environmental harms. Typically, these measures should include computer modeling to predict the quality and quantity of environmental effects, a discussion of the monitoring measures to be put in place, ranking the probable efficacy of the different measures, detailed steps to achieve compliance should the measures fail, and identification of the environmental standards by which mitigation success could be measured. Moreover, proposed mitigation measures must be "developed to a reasonable degree" and "scientific uncertainties in the mitigation measures" must be discussed during the EIS preparation period. 40 C.F.R. § 1502.22. .016

The suggested mitigation measures in the Beaufort Sea DEIS simply represent token efforts to accommodate the mitigation requirement. The mitigation efforts proposed are broad and vague providing little in terms of reasonable development and discussion of scientific uncertainty. Moreover, the success of the mitigation measures addressed in the DEIS is questionable. Consequently, the mitigation measures suggested in the Beaufort Sea DEIS requires additional as well as more sufficient analysis.

Endangered Species Act: The DEIS inadequately considers possible impacts and reasonable alternatives for species listed by the Endangered Species Act (ESA). Section 7(a)(2) .017

of the Endangered Species Act requires all federal agencies to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction of critical habitats. 16 U.S.C.S. § 1536(a)(2). If an agency determines that its proposed action "may affect" an endangered or threatened species, the agency must formally consult with the relevant service, the Fish and Wildlife Service and/or the National Marine Fisheries Service, depending on the species that are protected in the area of the proposed action. After the formal consultation is completed, the relevant service will issue a biological opinion evaluating the nature and extent of effect on the threatened or endangered species. If the biological opinion concludes that the proposed action is likely to jeopardize a protected species, the agency must modify its proposal. Section 7(d) of the Endangered Species Act prohibits the irreversible or irretrievable commitment of resources during the consultation process. 16 U.S.C.S. § 1536(d). More importantly, NEPA itself directs that public laws of United States must be interpreted and administered in accordance with NEPA to fullest extent possible. 42 U.S.C. § 4332. Therefore, to comply with NEPA, the DEIS must adequately address and consider all the impacts that potentially could occur to any species covered under the ESA. The Beaufort Sea DEIS inadequately considers the ESA because it insufficiently fails to include the Biological Opinion and fails to examine the scope of impacts of the lease sale and fails to address a sufficient range of alternatives.

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Large portions of the lease area are used by Steller's eider, spectacled eiders, and bowhead whales and should be considered for designation as critical habitat. The agency cannot determine if its obligations under the ESA to protect critical habitat of listed species are being met until a thorough review of potential critical habitat is completed, including on-site surveys of the region. Nonetheless, the DEIS myopically focuses on the effects of an oil spill on the species, (still failing to do an adequate assessment of this impact) and provides short shrift to other cumulative and "non-lethal" effects that could prove significant in the long term.

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Given the incomplete information available on potential impacts to these protected species from proposed activities, it would be unlawful to proceed at this time without insuring adequate protection by designating critical habitat and determining the impact of proposed activities on that habitat and the species. To go forward without making adequate consideration of endangered species including the bowhead whale, Steller's eider, and spectacled eider constitutes an irreversible and irretrievable commitment of resources with respect to agency action that forecloses the formulation or implementation or any reasonable and prudent alternative measures thus violating the ESA and NEPA.

Marine Mammal Protection Act: The DEIS fails to satisfactorily address significant impacts for marine mammals protected by the Marine Mammal Protection Act (MMPA). The MMPA creates a general prohibition on the taking of any marine mammal subject to certain exceptions. 16 U.S.C. §§ 1361 et seq. The MMPA defines "take" as "to harass, hunt, capture, or kill..." *Id.* § 1362(13). Additionally, "harass" is synonymous with "to disturb." *Strong v. United States*, 5 F.3d 905, 906 (5th Cir. 1993). An exception in the statute authorizes the Secretary to permit upon request the unintentional taking of "small numbers of marine mammals" incidental to activities such as OCS oil development. *Id.* § 1371(a)(5). However, the Secretary of the Interior and the Secretary of Commerce must make specific findings that the taking will have a "negligible impact" on all the species of marine mammals or their habitat present in the lease sale area. The MMPA authorizes the Secretary to judge activities taking place under the leases on an ongoing basis and to suspend any such activity which jeopardizes the environment and further authorizes the Secretary to order a cessation to such activities if environmental safety cannot be ensured. *North Slope Borough v. Andrus*, 642 F.2d 589, 594 (D.C.Cir. 1980). Once again, NEPA

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itself directs that public laws of United States must be interpreted and administered in accordance with NEPA to fullest extent possible. 42 U.S.C. § 4332. Therefore, to comply with NEPA, the DEIS must adequately address and consider all the impacts that potentially could occur to any species covered under the MMPA. .019

The DEIS only cursorily addresses the disturbance associated with oil exploration and development subsequent to leasing. It also fails to look at past sources and levels of disturbance. Furthermore, the DOI underestimates the direct, indirect, and cumulative effects of this disturbance, including from the combination of activities such as seismic and production platform, shipping, and aircraft. Moreover, the disturbance clearly constitutes "harassment" of the marine mammals in the lease area to which DOI has failed to adequately demonstrate a "negligible impact." Due to the large number and variety of marine mammals in the proposed area including polar bears, walrus, seals, and whales, a more satisfactory analysis of impacts to marine mammals covered by the MMPA must be conducted. .020

Cumulative Impacts: The Beaufort Sea DEIS fails to comply with NEPA because it considers an irrationally narrow scope of impacts. Since the proposed action could ultimately allow long-term exploration and development, it constitutes a critical stage of the decision-making process at which DOI must consider the direct, indirect, and cumulative impacts of the proposed action and alternatives. Additionally a nearly complete absence of any consideration of likely and predictable impacts outside the region exists. DOI failed to assess all the impacts of allowing the lease sale to occur. .021

NEPA requires federal agencies to analyze three types of actions, and three types of impacts. Agencies must consider actions that are connected, cumulative, and similar. Connected actions are those which are "closely related," including those that "[c]annot or will not proceed unless other actions are taken," or those that are "interdependent parts of a larger action and depend on the larger action for their justification." Cumulative actions are those that "have cumulatively significant impacts and should therefore be discussed in the same impact statement." Similar actions include those that have "common timing or geography." The three types of impacts that agencies must consider are those that are direct, indirect, and cumulative. Direct effects are those that are caused by the action and occur at the same time and place. Indirect effects are those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." A project's "cumulative impact," is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The DEIS failed to adequately consider these three types of actions and three types of impacts. A notable example is the failure to address cumulative impacts presented by the concurrent development of the NPRA that provides necessary infrastructure for offshore development in the western Beaufort Sea.

Oil Pollution Act: The DEIS insufficiently addresses the concerns under the Oil Pollution Act (OPA) and Outer Continental Shelf Lands Act (OCSLA). The OPA requires the establishment of a spill plan. 33 U.S.C. § 1321(j)(5). Additionally, as part of the spill plan the OPA requires that a vessel or facility that has a worst-case oil spill discharge potential of more than 1,000 barrels of oil (or a lesser amount if the President determines that the risks posed by such facility justify it), shall establish and maintain evidence of financial responsibility. 33 USCS .022a

§ 2716(c)(1)(iii). Furthermore, OCSLA regulations reinforce OPA by requiring that a development and production plan must be accompanied by "an updated oil-spill response plan as described in part 254 of this chapter or reference to an approved plan" which includes a worst-case analysis. *See* 30 C.F.R. § 250.204(b)(3). "Worst-case discharge" means in the case of a vessel, a discharge in adverse weather conditions of its entire cargo or in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions. 33 U.S.C. § 1321(a)(24). Once more, NEPA itself directs that public laws of United States must be interpreted and administered in accordance with NEPA to fullest extent possible. 42 U.S.C. § 4332. The DEIS completely fails to address a worst-case scenario nor the cumulative impacts consequential to a worst-case spill. Because a worst-case spill represents a real and present concern even at the lease stage, its analysis should be incorporated into the DEIS. To not include this analysis represents a failure under NEPA to include the explicit considerations of the impacts that other statutes and policies consider. .022a

Recommendations:

In conclusion, we endorse Alternative 2 (No Action) because it is the only alternative that adequately addresses the concerns about oil spills to marine and coastal fish and wildlife habitats and subsistence resources of national importance, including the entire bowhead whale fall feeding grounds and the entire spring lead zone used by migrating bowhead whales and millions of migratory birds. It is also the only alternative in the DEIS that adequately addresses our concerns that would not jeopardize the integrity of the Arctic National Wildlife Refuge and Teshekpuk Lake (NPR-A) coastal environments.

Furthermore, we support Alternative 2, because this is the only alternative that fosters development of alternative energy. Alternative energy is the only option that will truly reduce our reliance on Middle Eastern oil and hence provide energy security, improve the health of our environment and hence our own, and reduce long-term potential impacts to an ecosystem that supports a wealth of life and culture. We urge the MMS to more fully develop a comprehensive alternative energy proposal as one of its Draft EIS alternatives.

DOI must prepare a new DEIS for each lease sale because the draft statement is so inadequate as to preclude meaningful analysis as required by NEPA *See* 40 CFR. §1502.9(a). The new DEIS should be one in which the agency sufficiently performs the required analyses. For the Beaufort Sea lease sale, DOI must allow for public comment on the completed analyses in a revised DEIS because performing the analyses and incorporating them into a FEIS without obtaining additional public review would violate the requirement in NEPA and the Administrative Procedure Act (APA) that an agency solicit and obtain public comment on a revised analyses. The only alternative for remedying the NEPA violations in the DEIS is for DOI to prepare a new DEIS for the lease sale and allow for public comment on each individual sale. .022b

We look forward to a full written response to each of these issues, and the technical comments further described in the attachment, pursuant to federal law.

Sincerely,

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DETAILED TECHNICAL COMMENTS ON THE DRAFT EIS BEAUFORT SEA OIL AND GAS LEASE SALES 186, 195, and 202

GENERAL

The maps, tables, and figures referred to in the Executive Summary need to be included within that section, not in a separate Vol. II. This is the case for the main volume (OCS EIS/EA MMS 2002-029) and also the free-standing Executive Summary (OCS IES/EA, MS 2002-030). The separate Executive Summary (OCS EIS/EA MMS 2002-030) does not even contain a map showing the alternatives. .023

EFFECT ANALYSIS ASSUMPTIONS

Assumptions about impacts to wildlife

ExSum-3. MMS needs to provide clarification about its assumption of recovery for marine mammals from Routine Permitted Activities as about 1-year. This number appears speculative based on the data provided. If so, MMS should acknowledge this fact. .024

ExSum-4. In the event of a large oil spill, MMS asserts that the seasonal nature of resources makes it unlikely that a large oil spill would contact sea ducks in the Beaufort Sea. This presents a wantonly inaccurate appraisal of the residency of oil. MMS's conclusion negates the fact that oil from a large spill will undoubtedly remain in the Beaufort environment significantly longer than the time that the oil spill is spreading across the water. This is particularly the case in light of the limited clean-up potential demonstrated by spill response exercises. This scenario is further born out in discussion of "water quality." MMS repeatedly asserts that wildlife species will recover (e.g., marine mammals within about 1-year) without providing significant and proven reassurance that oil can and will be cleaned up in a timely manner, or analyzing other factors that may result in longer recovery times. .025

Frequently, and correctly MMS use the example of the *Exxon Valdez* oil spill to illustrate their discussion of effects to wildlife and the environment. However, MMS consistently uses uncertainty in results to draw the interpretation of "no cause-and-effect" or "no impact". For example (IV-34) MMS asserts, "If any such effects did occur [on fish populations], they apparently have remained too small to observe or measure." MMS has made a clear decision to support evidence that suggests minimal to no effects and detract from conflicting information, rather than consider otherwise. The situation for fish was not unique in the use of the *Exxon Valdez* example, it was paralleled for marine mammals (IV-68) "There is a spatial and temporal correlation between the loss of whales and the spill, but there is no clear cause-and-effect relationship." In the environment of uncertainty, the case for a more cautionary approach is both warranted and necessary. Our concerns are furthered by the obvious-in-its-omission discussion of marine and coastal birds in relation to the Exxon Valdez disaster. Whereas impacts to fish and marine mammals may have been scientifically equivocal, MMS still failed to present the full range of evidence on those topics; further, impacts to marine and coastal birds were definitive. MMS should include this discussion in its analysis. .026

Traditional knowledge of effects of an oil-spill is given only cursory attention in this document (IV-105). The first-hand account of the Elson Lagoon oil-spill in 1944 clearly indicates impacts to birds, seals, and whales. This information should be incorporated and discussed in the relevant sections, not separated out and diminished through lack of attention. .027

Infrastructure/ water depth zones

ExSum-2. Infrastructure/ water depth zones. The infrastructure/ water depth zones as mapped and discussed throughout the DEIS are arbitrarily drawn without references to scientific or economic rationale. These zones bear no relationship to the alternatives discussed; yet they are described throughout the impact analysis. If "distance from existing infrastructure is a major economic factor," that would influence development then factual data supporting this assumption to be provided. The so-called mid-range/ medium zone corresponds neither with water depth nor distance from existing development, especially since the zone extends a greater distance to the east where onshore infrastructure is currently prohibited within the Arctic National Wildlife Refuge, as well as offshore the no surface occupancy Teshekpuk Lake deleted area in the National Petroleum Reserve-Alaska. Since sub-sea pipelines as long as 100 miles from existing infrastructure could be needed for leases off the Arctic Refuge coast, the additional risks posed by this technology need to be assessed. The zonal criteria are not an effective tool for analyzing reasonably foreseeable development scenarios that would result in the greatest potential threats to fish, wildlife, and their habitats, the marine and coastal ecosystem, and subsistence uses by local residents. .028

Development scenarios

ExSum-2. Development scenarios for each sale. There is no factual evidence supporting the likelihood of the scenarios, e.g. six oil fields to be developed in which no geographic location is provided. .029

The development scenarios are vague, ill-defined, and not scientifically supported. How hard is it to map the hypothetical development infrastructure needed to conduct an impact analysis? No locations are provided for proposed infrastructure, other than the Hypothetical locations of sub-sea pipelines shown in the oil spill analysis (Map A-4a, A-4b).

The descriptions are tied to the depth-zone descriptions, which have no bearing on the alternatives that are outlined. The geographic location of development facilities can make a difference in the nature of the environmental impacts, yet this is completely ignored. Instead, it is assumed that the potential impacts of any site would be the same. If the entire area in the lease sale is offered in the first lease sale, this EIS must analyze the potential impacts should a development occur anywhere in the sale area, including in the "far zone," which it assumed would not take place until leases offered in the third sale of the series.

Does MMS assume that none of the known oil field discoveries in the OCS will be developed? These are listed as reasonably foreseeable developments on Table V-1a, and therefore they could be mapped as potential production sites, with sub-sea pipelines or tanker transportation shown, as well as pipeline land falls and needed connecting onshore support bases and pipelines that would be needed. If these are not thought to be commercial (seeing that leases were relinquished for many of these), then they may not be reasonably foreseeable and that information should be removed from the table and from prospective energy resources would result from new lease sales. Descriptions of the status of the known offshore prospects and pools, as well as information about how they might be developed should be provided. The dry holes that have been drilled into the OCS, such as Mukluk and others, and what information this provides about the likelihood of finding oil in those regions should also be addressed.

Oil Field Production

ExSum-7. The new concept of the "opportunity index to describe the risk weighted probability of developing an economic field in particular areas" is a concept that is not statistically, geologically, or environmentally justified. Furthermore, this relies on infrastructure and depth zones information that is .030

extremely vague and covers huge geographic areas where a complex variety of wildlife concentrations, subsistence use zones, and fish and wildlife habitats occur. If the "opportunity index" is to be used to derive potential development scenarios, it must take into account industry funding levels, and other economic issues as well as regulations because industry must act within the existing state and federal legal framework. This index is confusing and is not a useful tool for assessing impacts in the event that oil development does occur. .030

PROPOSED ACTION AND ALTERNATIVES

ExSum-5. Alternatives. This explanation of the alternatives is extremely vague. Alternative I, the Proposed action, is not described at all here. Without a map, it is impossible to understand the alternatives. There are no maps in this EIS where you can see the size and extent of the most recent Beaufort Sea lease sales for comparison, nor to view existing leases in the context of the proposed alternatives. .031

EsSum-5. The leasing alternatives in this EIS are meaningless and confusing. Whether inadvertent or intentionally deceptive, the tiny deferral options would not achieve the named goal, such as Kaktovik Subsistence whale deferral and the Barrow Subsistence whale deferral. Apparently, this is a simple line drawn around some whale harvest areas, but it has nothing to do with having permanent oil and gas activities and infrastructure avoid subsistence resources areas – the bowhead feeding grounds located throughout the Beaufort Sea and particularly north of the Arctic Refuge, the whale fall migration corridor, the whale spring migration route, nor the area where oil spills or noise from exploration or production would occur, spread, and could harm the whales' habitat and migration route. In the Sale 170 Final EIS the "Kaktovik Deferral" (Alternative III) was far more extensive than in the current EIS. In fact, that deferral went 35 miles west of Kaktovik and then all the way to Canada. The new so-called Kaktovik Subsistence whale deferral only goes from about Kaktovik and to the east for 30 miles, but then the rest of the zone to the Canadian border is not even included. Yet MMS has the audacity to state: "this area is being considered for deferral in response to a request by the Native Village of Kakovik." (p. E-14). The Kaktovik deferral is arbitrary and needlesslessly confusing especially since it bares no resemblance to any past Kaktovik deferrals that MMS has proposed, nor what the local community has requested repeatedly. .032

Furthermore, the City of Kaktovik and the North Slope Borough requested that the entire area off the coast of the Arctic Refuge be deleted in comments on the Five-Year Plan, as did the Alaska and National environmental organizations, yet this deletion or deferral area was not one of the alternatives. .033

ExSum-5. Alternative II (No Action). MMS assumes in its description that there would be no environmental consequences, even though oil exploration and development could continue to proceed on existing leased OCS areas in the Beaufort Sea and cause noise disturbance, pollution, habitat loss, etc. .034

ExSum-6. The alternatives analysis is fatally flawed because "the same level of activity likely would occur regardless of the alternatives selected... observed differences do not equate to significant differences of effects among alternatives or among sales." MMS needs to consider all reasonable alternatives, and a range of alternatives including those that would have significantly less environmental impact. .035

ExSum-6. Mitigating measures. The MMS has included far fewer mitigating measures as lease sale stipulations, where they are most meaningful in reducing environmental impact, than in past lease sales. .036

I-10, I-11. Alternatives rejected. MMS has rejected all recommendations for deferrals from local communities, traditional subsistence user communities, tribal governments, and others. Furthermore, it rejected their ideas for deferrals, and failed to inform the public of the content of these informed requests. It is impossible to see how the proposed Barrow subsistence whale deferral corresponds with what local communities requested. Furthermore, any information MMS received in the course of meetings related to this lease sale process needs to be included in the record of the lease sale. .037

I-11. MMS failed to provide an alternative that would delete or defer the entire area north of the Arctic National Wildlife Refuge, as we requested for the Five-year plan and in scoping comments (see General comments for further rationale). We are concerned about impacts from offshore spills to the complete range of fish and wildlife that occurs along the Arctic Refuge coastline, not just the endangered bowhead whale and its feeding grounds. We are also concerned about negative impacts to the wilderness quality of this shoreline and coastal habitat that may be harmed by spills, infrastructure, and industrial activities adjacent to the refuge, or within its boundaries (30-miles of the coast is within the Wilderness Preservation System). By rejecting the requested alternative of deleting the entire area north of the Arctic Refuge from the sale, the MMS was not responsive to this issue of significant impacts to wilderness. .038

I-12. It would be less "confusing" if MMS replaced its four deferrals with the proposals specifically requested by the public, including the entire area north of the Arctic National Wildlife Refuge. MMS is clearly resisting larger deferral areas. .039

II-4. Because summer "open-water" season drilling in the deeper waters for all three sales would require ice-breaker support, this should be listed explicitly in the summary in Table IV.A-4. .040

II-5. If you assume that "as each lease sale proceeds, blocks would be leased in increasingly distant zones," and that "the most accessible and easiest tracts should be developed first," it is illogical to plan to offer all areas initially. .041

II-6. Since MMS expects that "scenarios for Sale 186 and 195 expect most of the activities to occur in the central Beaufort Sea," then there is no justification provided for leasing the other areas. Furthermore, since MMS has assumed that few activities in Sale 186 will occur outside the "near and mid-range" zones, it has failed to conduct a worst case environmental impact analysis for the lease sale because it has ignored the possibility that harmful drilling, pipelines, and other industrial activities will occur in many different places across the lease sale area. .042

II-9. Stipulations. These stipulations are inadequate to fully minimize effects of activities in leased areas. We recommend inclusion of new stipulations on 1) Seasonal drilling and production stipulations to reduce the risk from major spills during open water and broken ice seasons, the time period when cleanup is proven impossible should be included (these were in past OCS lease sales); 2) zero discharge of drill muds, cuttings, produced waters and other discharges into the marine waters and onshore wetlands; 3) double-walled sub-sea pipelines. .043

II-20. ITL No. 11, Information on Sensitive areas to be included in oil spill plans. Please add the entire shoreline of the Arctic National Wildlife Refuge, January – December, wilderness values of national importance, polar bear denning, migratory bird feeding and staging, Porcupine caribou herd post-calving and insect relief habitat, nearshore fish habitat, subsistence values. .044

IV-125. MMS needs to provide a suite of alternatives that have enough differentiation between them to allow meaningful comparison. Under IV.C.10. Economy, MMS asserts that the levels of activity between all alternatives (except Alternative II) and sales "are very similar." This does not provide the opportunity to provide meaningful comparison. It also alludes to the underlying failing that all oil development alternatives are essentially the same. .045

IV.B. This section is not adequate for a full analysis of Aternative II. Section IV.C is an analysis of effects by resource by alternative; however, the only mention of Alternative II is an indication of the loss of revenue, jobs, and income, as well as a shorter lifespan for the Trans-Alaska Pipeline (IV-127). This section should provide a full analysis of effects by resource (water quality, lower trophic-level organisms, fishes, EFH, endangered and threatened species, marine and coastal birds, marine mammals, terrestrial mammals, vegetation and wetlands, economy, subsistence, sociocultural systems, archaeological resources, land use plans and coastal zone management, air quality, and environmental justice) for the development of alternative energy in northern Alaska. This development would provide jobs, revenue, and employment. Without this analysis, the DEIS cannot be used to provide a full comparison of the economic effects presented by the alternatives. .046

AFFECTED ENVIRONMENT

Wilderness values, and recreational values also need to be included in this section, and environmental consequences analyzed in the DEIS.

III-35. The importance of the subsistence fishery in the Colville River for whitefish should be included. There has also been a commercial fishery for many decades for whitefish. .047

III-48. A map of polar bear dens should be included, as well as information about feeding concentration areas and migratory movements. .048

ENVIRONMENTAL CONSEQUENCES

Analysis assumptions

IV-1. Basic assumptions. (See also comments above on ExSum-2). This section fails to address the results of past drilling (the discoveries- albeit not commercial—and the dry holes), and implies that no locations of OCS oil deposits are known. .049

IV-3 and 4. Significance thresholds. These definitions are not supported by scientific evidence that they are suitable for each species or environmental component. Significant impacts to fish and wildlife habitats, benthic environment, wilderness are not addressed. The entire focus should not be on populations, as often these are far more difficult to measure than habitat changes in marine environments, e.g. nearshore fish. For species listed under the Endangered Species Act, significant impacts to their critical habitats are of concern, and negative effects that prevent recovery (even if not contributing to further decline) can be significant. The threshold for Environmental Justice does not address many negative impacts that may disproportionately harm minority, low-income, or Inupiat and other Native America people. All of the proposed thresholds understate environmental impacts, causing significant effects to be ignored throughout the DEIS. .050

Effects of so-called "routine permitted activities."

ExSum-2. Effects from routine permitted activities. The term "routine permitted activities," is not defined and is meaningless. The EIS needs to describe all past, present and future activities of offshore oil and gas leasing, exploration, development, and production, as well as other activities that contribute to the cumulative impact on the environment. .051

ExSum-3. The negative environmental effects of a wide range of oil and gas activities and infrastructure are underestimated throughout this DEIS. .052

For example, "caribou could be displaced within 1-2 kilometers along the pipeline and roads, but this should not affected caribou migration and overall distribution," is not supported by the scientific literature which describes displacement of caribou within 4-kilometers of roads and pipelines and that major alterations of caribou calving distributions have taken place from Kuparuk and other North Slope oil fields (U.S. Geological Survey, 2002. Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries, Biological Science Report, USGS/BRD/BSR-2002-0001). .053

Effects of large oil spills.

ExSum-3. Effects in the unlikely event of a large oil spill. The MMS downplays the chance of major spills taking place. It fails to provide peer-reviewed documentation of its calculations for the probabilities of a large spill taking place, and the agency appears to have chosen the data sets and calculations that show the lowest chance of spills occurring. .054

The probabilities in the DEIS are inconsistent with MMS's own analyses for the Five-Year Plan, and drastically downplay the chances of spills. MMS's Final EIS for the 5-year plan (April 2002) assumed there would be one large platform spill and one large pipeline spill due to OCS activity. The oil spill studies calculated there would be 81-94% chance of a spill greater than or equal to 500 bbls (21,000 gallons). In the 5-year plan, MMS found there would be 90-150 spills greater than 50 bbl (2,100 gallons) over 35 years of activity resulting from the sales, and 7-12 spills in the size 50-999 bbl (2100 –21,158 gallons) [Table 4.1e, p. 78]. .055

So what has changed since April? In the DEIS for the Beaufort Sea sales, MMS states that the chance of one or more pipeline spills is 4-5% and one or more platform spills is 5-6%, with the total chance of a spill is 8-10%. (p. ExSum-3; p.A1-11; p. IV-13) What is this based on? Is it based on a peer-reviewed published study? .056

At appears that these estimates do not include all cumulative impacts, including existing development such as the Northstar field where the U.S. Army Corps of Engineers projected up to 24% chance of a major spill for that project alone. Furthermore, the Final EIS for the last Beaufort Sea Sale 170 estimated a 46-70 percent chance of one or more spills [p.IV-B-4] for an area roughly 1/10 that of the proposed lease sale area. At any rate, we know that accidents happen and that the risk if a spill does occur it would be devastating to the coastal and marine environment. .057

ExSum-3. The environmental effects of spills on coastal and marine resources are underestimated throughout the entire document. .058

For example, the DEIS downplays the number of polar bears that could be oiled and die in a spill, and fails to fully report on the recent spill modeling analyses conducted by U.S. Fish and Wildlife Service and U.S. Geological Survey biologists (S.C. Amstrup, 1999, Estimating potential effects of hypothetical oil .059

spills on polar bears [Northstar], U.S. Geological Survey; Amstrup, S.C., G.M. Durner, and T.L. McDonald. 2000. Estimating potential effects of hypothetical oil spills from the Liberty oil production island on polar bears: Report to the MS for including in the EIS for Liberty Oil Production Island). The DEIS executive summary states that "from routine permitted activities... small numbers of marine mammals... polar bears... could be affected, with recovery expected in about 1 year" (p.ExSum-3), and "a large oil spill could result in the loss (lower reproductive rates or death of individual animals) of small numbers of ... 6-10 polar bears," (p. ExSum-4). The actual detailed text contains contradictory statements, an "estimated 5-30 bears could be harmed...annual recruitment would probably replace lost bears within 1 year up to more than one generation (7-10 years)" [DEIS, p. IV-107]. .059

More detailed modeling of just two separate offshore oil production facility proposals show greater potential for mortality. The U.S.Geological Survey modeling done for the Northstar development project estimated .4 to 78 bears for open water season and 0.1 to 108 during October broken ice, with an average of 21 bears oiled, and therefore killed. (Amstrup 1999) The analysis done for the Liberty project estimated 0-61 bears could be oiled and die (Amstrup et al. 2000). The U.S. Fish and Wildlife Service and U.S. Geological Survey's modeling studies contained trajectory maps, as well as polar bear concentrations, and these were very useful for understanding the potential impacts from oil drilling at two different locations. However, those analyses had limitations, including the fact that they tracked the trajectories for only 4 or 10 day periods, only looked at one project at a time, did not evaluate a worse case spill size, and did not consider the cumulative effect of additional developments.

ExSum-4. We question the scientific basis for the statement, "we expect less than a 0.5% chance of a large oil spill occurring and contacting nearshore Beaufort Sea fish habitat." First, this depends on The "environmental resource area" nearshore fish habitat, was not evaluated. We note that if a spill occurs, for spills from all locations looked at, the chance of a summer spill contacting land within 360 days ranges from 61% to 83% (Table a.2-24). Presumably, the spill would oil the nearshore waters before it struck land, and therefore there is a high chance of an oil spill harming this critical fish habitat. .060

V-15. Constraints on spill response, containment, and collection equipment. This section fails to present a clear picture of the proven failure of spill cleanup response in most open-water and broken ice conditions. Traditional knowledge exists on this topic that was ignored. Industry failed a series of required oil spill drills. The information in these documents raises key points regarding the limitations that were not fully explained in the DEIS: .061

Robertson, T.L. and E.DeCola. December 18, 2000. Joint agency evaluation of the Spring and fall 2000 North Slope broken ice exercises. (Alaska Department of Environmental Conservation, Minerals Management Service, North Slope Borough, Alaska Department of Natural Resources, U.S. Coast Guard).

Alaska Department of Environmental Conservation and Minerals Management Service Joint Evaluation. January 18, 2000. Fall 1999, North Slope Drills and Exercises Response Tactics for BP's Northstar, Prudhoe Bay Western Operating Area and Endicott Operations, and ARCO's Prudhoe Bay Unit and Greater Pt. McIntyre Area.

Alaska Department of Environmental Conservation. January 18, 2000. Letter to ARCO and BP regarding the Fall 1999 joint evaluation.

Alaska Department of Environmental Conservation. May 11, 2000. Letter to BP containing signed Compliance Order by Consent dated May 3, 2000-- Failure to Comply, Oil Discharge Prevention and Contingency Plans and on Conditions of Approval, Oil Discharge Prevention and Contingency Plans. .061

IV-15. In-situ burning limitation. This section fails to describe the limitations of containment of oil in booms during broken ice conditions, a necessary requirement for burning; air pollution impacts; movement of spilled oil with the pack ice; constraints posed by bad weather like .062

Environmental effects

IV-18. Alternative II-No Action. This section fails to consider the impacts of offshore oil and gas activities that will occur on existing leases, as well as the cumulative effects from adjacent oil and gas development on State offshore and onshore leased lands, and in the National Petroleum Reserve-Alaska. .063

IV-32. This section needs to analyze impacts to fish from docks and other sold-fill gravel causeways, and also to nearshore habitat alterations that may result from the Pt. Thomson and Smith Bay landfall locations. The negative effects to critical overwintering fish habitat, which is very limited in extent during winter in lakes, rivers, and streams, from ice-road and other water withdrawals, and from gravel mining in floodplains need to be assessed. .064

IV-44. New Biological opinions for all species listed under the Endangered Species Act need to be done because circumstances have changed since the last one was done that apparently covered Beaufort Sea leasing in 2001—the Northstar offshore oil field is now in production and this changes the baseline level of activities that may affect the spectacled and Steller's eiders and the bowhead whale. The assumptions of the level of activity differ for the three proposed lease sales than for prior sales, and there is also the assumption that harmful ice-breakers will be required for drilling in the deeper waters – an activity which may occur as a result of the first lease sale. There is also new information available about the importance of the Beaufort Sea for bowhead whale feeding. .065

IV-63. This section on the effects of noise on bowhead whale behavior does not include traditional knowledge; this should be added. The summary of noise effects on bowhead whales understates the scientific evidence of displacement during the fall migration from seismic noise and the generally accepted displacement zone based on the recent studies. Instead, it gives more credence to the old, discredited studies. There is much evidence from traditional knowledge observations and monitoring studies of seismic and drill ship activity that the combination of drill ships and icebreakers resulted in significant displacement of bowhead whales during the fall migration. The potential impacts of drilling using drill ships during the bowhead whale fall migration were not evaluated. .066

IV-70. The effects of an oil spill on bowhead whales considering 360 days after the spill should be considered for spills that start in both the summer and winter. The descriptions of spill impacts using the terminology of LAS1-LA18, ERA's 19-28, etc. are impossible to understand without looking at a series of many maps. Please translate this technical jargon into plain language that explains the impacts. .067

No oil spill trajectory analysis was done that considered the entire bowhead whale spring migration path (it was only looked at in many pieces), nor at the entire fall migration route as one unit. What does it mean that there is a 37% chance of a spill from a spill at a site called "LA10" from a launch site 32. This does not mean a thing to a local resident who knows this coastline and marine waters, or to the general public. Please describe or map the geographic locations with the highest oil spill changes relative to the .068

fall bowhead migration pathways and feeding areas. The pipeline route offshore apparently overlaps with the bowhead whale's fall migration route (this is not entirely clear from the verbiage in the DEIS). .068

IV-71. This section on impacts to bowhead whales does not analyze the impacts to bowhead whale habitats, including critical habitats. .069

IV-87. The potential effects of exploration and development activities on migratory birds during the migration period, including collisions with drill rigs, temporary and permanent towers, and with offshore and coastal production buildings are downplayed and poorly evaluated. Many species, currently suffering population declines are susceptible to collisions, including threatened spectacled and Steller's eiders, king and common eiders, and long-tailed ducks. The DEIS fails to contain all available information on migrating bird use, including in the marine environment, as well as a comprehensive effects analysis. In particular, close attention of migratory bird concentration areas just west of the existing oil fields, such as Harrison Bay and Cape Halkett deserves close scrutiny since the oil company development expansion seems to be most rapid in the western direction. Recent monitoring studies of migrating birds at Endicott and Northstar production facilities have revealed bird mortality of king and common eiders and long-tailed ducks caused by collisions, so this is a real issue. .070

IV-94, 95. MMS needs to consider the effects on all birds migrating across the Beaufort Sea, in addition to nesting species. This is especially important for species like King Eiders which nest primarily in Canada but migrate across the Beaufort Sea in large numbers. .071

IV-100. The potential negative effects of winter seismic oil exploration on polar bear maternity dens needs to be evaluated. Furthermore, the disturbance of feeding bears, including those with cubs, from openwater seismic activities needs to be described. These 3-D seismic operations can be in a region used by individual bears for more than 1 day. .072

IV-207. Low probability, very large oil spill. The analysis of a worst-case oil spill should not be segregated into a separate section of the DEIS, but should be integrated into the main discussion of environmental consequences and cumulative impacts. It appears that this section greatly under-estimates the potential effects from a blowout, by limiting the analysis to spill "launch sites" in only two locations, whereas drilling may occur in far different geographic sites. .073

IV-215, 216. MMS shows that a major spill could result in significant population-level harm to a waterfowl species. This provides strong support for the deleting these areas from the lease sales. .074

CUMULATIVE EFFECTS

V-2 to V-3. Cumulative effects. The entire analysis is fundamentally flawed because it focuses on describing the small contribution sale 186 will have on the entire cumulative effect, and therefore needs to be expanded for effects including fish and wildlife, habitat, wilderness, endangered species, water use, subsistence. Under the requirements of NEPA, the agency is required to evaluate the incremental step of the proposed project (in this case 3 lease sales), plus all the rest, and this total effect must be characterized. MMS needs to look at the contribution of these three sales, plus its existing offshore developments e.g. Northstar, and proposed, e.g. Liberty, and any other reasonably foreseeable on the existing OCS leases; plus past, present, and future state offshore and on shore, and onshore in the National Petroleum Reserve-Alaska. Other activities, such as military operations, cleanup activities of abandoned, contaminated sites, research operations (especially icebreaker supported), and other activities taking place on the North Slope and Beaufort Sea need to be evaluated. MMS also fails to conduct a .075

cumulative effects analysis for a reasonable range of alternatives. We urge MMS to wait to complete this analysis until the National Research Council's report on the Cumulative Environmental Effects of the Oil and Gas Industry on Alaska's North Slope is available. .075

VOL. II - TABLES, MAPS, FIGURES

Table IV.A-4, This summary of basic exploration, development, and transportation assumptions for Alternatives I,III-VI, does not give a complete picture of the expected activities and infrastructure during any particular year or geographic area, nor does it show the cumulative effects of all sales. It also fails to provide the level of activities and infrastructure that is expected to take place under existing federal OCS leases (Alternative 2, No Action), nor for the cumulative effects of offshore activity in State waters and for onshore coastal areas. Furthermore, the intensity of industrial activity in each year cannot be discerned because each lease sale is described separately, whereas activities overlap during particular years. .076

Tables IV.A-1, A-2, and A-3, similarly give the Representative development schedule for each sale separately (and none is given for existing OCS leases), but these are not consolidated into one table where the total industrial activity is shown. On all of these tables, some key activities are ignored, even though they are essential for drilling, and contribute to the cumulative impact: seismic exploration surveys, water withdrawals for ice roads, gravel mine excavation, contaminated waste site cleanups, construction of docks / causeways, and new onshore support sites. Tables F-3, F-4, and F-5 seem to be identical to Tables IV.A-1, A-2, and A-3, and suffer from the same inadequacies. .077

Table V-8. This table greatly under-estimates aircraft support needed for Alpine oil field. Flights are made daily, and multiple flights are made in a single day, not a total of 4 round-trips monthly. There is no evidence that actual numbers of vehicle and vessel trips was obtained. .078

Table V-11. Summary of cumulative effects. This only gives a superficial summary of effects for proposed sale 186, and apparently does not include the cumulative effects of all three sales, in addition to past and present effects. There is also no comparison of cumulative effects levels for the other alternatives, including No Action (Alt. 2). .079

Table V-11, marine mammals. No scientifically accurate "potential losses of perhaps up to 10 polar bears... In likely cumulative effects, ... polar bear... populations are expected to recover within 1 year, assuming only one large spill (greater than or equal to 1,000 barrels) occurs." See earlier comments on polar bear effects. .080

Table V-11, Archeological Resources. No discussion of shoreline or barrier island archeological resources is made, even though pipeline crossings and landfalls, roads, and seismic surveys could affect sodhouses, graves and other sites. .081

Table V-11, Environmental Justice. We believe that leasing, seismic exploration, exploration drilling, and development activities have a disproportionate impact on Native American communities. What is the justification for the claim that "effects are not expected from routine activities and operations"? .082

Fig. Iii.A-2. While this map showing all historical leases is useful, it would also be very helpful to provide another map that just shows the active leases relative to the proposed action and alternatives. .083

Fig.III.A-11. Boulder Patch in Camden Bay, near the Warthog Prospect. We find it interesting that this EIS describes this boulder patch. The Environmental Assessment conducted for the Warthog well did not acknowledge the geographic extent of boulder patch, located off the coast of the Arctic National Wildlife Refuge, and did not assess potential impacts to this sensitive community. It appears that the drilling structure (Concrete Island Drilling System) was placed right in this sensitive habitat, without baseline or scientific follow-up on the unique biological community. .084

Map. 7. Please correct this map. Kaktovik is show in the wrong location. The area labeled "arctic Coastal Plain" should be shaded with the same shaded layer as the rest of the Arctic National Wildlife Refuge, as it is done on Map 8. Correct "1002 KIC area" to "1002 area," or simply label as "arctic coastal plain." .085

Map. 7. This map, fall bowhead whale sightings on transect, does not portray all bowhead whale use. Please provide another map showing spring bowhead whale migratory use. .086

Map 8. Location of Kaktovik needs to be added. Please correct "1002 KIC area," to "1002 area." .087

Map. 12. While this map shows historical subsistence land use for Nuiqsut, no comparable maps are provided for Kaktovik and Barrow. Furthermore, the lands that support the subsistence resources used by each of the villages should also be portrayed, not just the harvest locations. .088

Map. 13. Essential fish habitat. This map is clearly incomplete, for example, the Nechelik Channel of the Colville River is a key migratory and overwintering area. There are also many additional streams and rivers in the National Petroleum Reserve-Alaska. .089

Map 14a. Known permitted gravel and water sources. This map is incomplete, and inaccurate. What is the source of this information? MMS should not rely solely on BP data for this information. It fails to show all the gravel and water sources used for the Trans-Alaska Pipeline within the region shown. The category "rehabilitated gravel sites," is not scientifically justified, as this habitat is altered from its original condition. Many additional gravel mines are not shown. Old gravel removal areas in river floodplains should also be shown. Are the "water sources" all existing permitted sources; does it include all sites used in the past? .090

Map 14b. This map is outdated and incomplete. It only shows a small region of the North Slope, not the entire area where ice roads were built and water was withdrawn. All of the ice roads should be mapped, including those built for Northstar, Badami, Pt. Thomson cleanups, and all exploratory wells. .091

Vol. III - APPENDICES

Appendix A1: The information, models, and assumptions we use to analyze the effects of oil spills in this EIS. .092

In general, the EIS does not use the worst case spill information for its modeling to calculate the chance of spills taking place, or to analyze the trajectory of spills from various exploration and development activities. It fails to evaluated the cumulative effects of spills from existing OCS leases, as well as the new leasing program. It also fails to address the effects of spills from dozens of toxic substances that may be spilled, including drilling muds, acids, biocides, etc. (only oil and refined oil products are looked at).

p.A1-2. There is no justification for why the median spill size is used, instead of the average.

p.A1-2. All data for well blowouts in the OCS should be included.

p. A1-2. Behavior and fate of crude oils. This description ignores the fate of oil spills during open water and the broken ice period, and the influence of the pack ice on carrying the ice, plus the oil, hundreds if not thousands of miles in a single season. Please note the journey of the shipwreck Karluk between August 12, 1913 and January 10, 1914, from Flaxman Island off Alaska to Wrangel Island off Russia (McKinlay, W.L. 1976, Karluk: The great untold story of Arctic exploration). .092

p. A1-4. Estimates of where an offshore oil spill may go. C.1. Inputs into the oil-spill-trajectory model. A major flaw with the model and analysis is that it minimizes the biological resource areas and ignores many key biological and subsistence resources altogether. The various "segments" or "resources" are merely listed, with no scientific justification for their boundaries or extent. Some of them are not even named or mapped, e.g. #85,ERA 6.

Some resources were not analyzed at all. For example, the entire fall bowhead whale migration route, the entire spring bowhead whale migration path, the entire spring and fall beluga whale migration route needs to be analyzed. Although #45, a "whale concentration area," is shown in Canadian waters, no explanation of its importance is given. Polar bear denning, feeding, and migratory sites were not analyzed at all. Coastal lagoons used by molting and staging migratory birds were not analyzed. .093

By dividing up the ocean and the shoreline into many "boundary segments," "biological resource areas,"and "land segments," the overall risk to a certain resource – regardless of its exact location – may be minimized. For example, the barrier islands within the Arctic National Wildlife Refuge are divided up into 6 different resource areas, yet the chances of oil striking any barrier island may be more meaningful for this regional scale of analysis. The entire coastline of the Arctic National Wildlife Refuge, a prized wilderness resource and ANILCA conservation unit, should be analyzed as one unit (other site specific resources like river deltas could also be evaluated). Similarly, Ivvavik National Park (a wilderness park) and Hershel Island Territorial Park coasts need to be analyzed as units. If one is concerned that <u>any</u> of the coastline of the Teshekpuk Lake Special Area, important for goose molting, is oiled, then the trajectory analysis should look at that shoreline in its entirety, not broken into many small pieces (it was not analyzed at all as a resource).

Some resources are substantially underestimated. The Nuiqsut subsistence resource area is shown as a tiny triangle around Cross island, not as the coastal and marine areas portrayed in Map 12, Historical Subsistence Land Use for Nuiqsut. As well, the "Kaktovik subsistence area, and Kaktovik ERA" is shown as a semicircle around the village, but does not encompass all of the region historically or currently used by the village for its harvests. Furthermore, the Nuiqsut and Kaktovik subsistence resource areas should be even bigger than the zone where actual harvests take place, because subsistence is not just about access to it, but the long-term maintenance of the resources upon which the subsistence way of life depends. There is no map in the EIS depicting the Kaktovik subsistence land use areas in the body of the EIS. Similarly, the Barrow subsistence resource areas are not meaningful for analyzing oil spill impacts. This is crucial, since the analysis is summarized in a number of tables that are also meaningless, and seriously downplay the potential effects (see Table A.2-61 to A.2-72). These all need to be reanalyzed, taking into account the actual subsistence use areas for each village, for all living resources not just bowhead whale strikes. .094 .095

MMS Response to Comment Letter L-0021

L-0021.001

See Response L-0002.016.

L-0021.002

The MMS believes this EIS complies fully with NEPA and Council on Environmental Quality guidelines. We disagree with your statement that the MMS has ignored public comments received on previous environmental impact issues raised by the Ocean Conservancy and all other commenters. In addition to soliciting and considering all scoping comments received from all commenters, the MMS has worked extensively with the Alaska Eskimo Whaling Commission, the North Slope Borough, local subsistence communities, and whaling captains to obtain detailed information on subsistence-whaling activities in formulating alternatives to the proposal in the EIS. The proposal and alternatives analyzed in the EIS address concerns and potential risks to the environment and lifestyles of the local communities. The standard mitigating measures include stipulations to minimize or reduce potential risks.

The Secretary of the Interior is committed to implementing her responsibilities under the OCS Lands Act. This includes making available for leasing OCS offshore areas while protecting the marine, coastal, and human environments. The MMS OCS safety and pollution-prevention regulations in place reduce the risk of oil spills. The MMS oil-spill-contingency plan regulations ensure that appropriate oil-spill-response capabilities, providing a variety of cleanup methods, are in place. The EIS is but one part of the OCS leasing process, and no decisions have been made concerning any specific areas the MMS may offer in Sale 186. Subsequent to the EIS process, the MMS will prepare a coastal zone management consistency determination and proposed Notice of Sale and submit it to the Governor of Alaska for State review. After consultation with the State, and the North Slope Borough through the State, the Secretary considers recommendations as to what, if any, areas to offer for lease. Her final decision whether or not to offer areas for lease would result in the publishing of a Notice of Sale and would identify the sale configuration and required mitigation. As you are well aware, the number of blocks analyzed in an EIS is considerably larger than the number of blocks that will receive bids. The number of block drilled is even much smaller.

See Responses L-0012.001, L-0021.009, and L-0035.003.

L-0021.003

The MMS discusses the effects of the No Lease Sale Alternative in Section IV.B. As a part of this analysis, the MMS analyzes the effects of energy substitution for production that would be lost should resources of the proposed action not be developed. Please review Section IV.B. and documents referenced in this section for a further discussion of energy-substitution issues.

L-0021.004

Additional information on the effects of oil spills on coastal habitats has been added to Section IV.C.2 - Lower Trophic-Level Organisms and to Table IV.A-4 on the comparison of alternatives. The additional information, which notes the decade-long persistence of *Exxon Valdez* oil in shoreline sediments, also is included in the recent EIS's on proposed leasing in the Northwest National Petroleum Reserve-Alaska and lower Cook Inlet.

L-0021.005

The Department of the Interior, through the MMS, is responsible for making OCS resources available to meet the Nation's energy needs and balance orderly energy resource development with protection of the human, marine, and coastal environment. This EIS was prepared in compliance with the OCS Lands Act, as amended, and NEPA. The MMS has analyzed the Proposal, various alternatives, and potential direct, indirect, and cumulative impacts that may result from exploration and/or development activities on the OCS. Furthermore, the protections analyzed in this EIS help mitigate effects to the human, marine, and coastal environments, as mandated by the OCS Lands Act. The MMS does not rely solely on financial reimbursements in the event of an oil spill as mitigation.

Impact assistance to directly affected communities adjacent to OCS activities is important to the MMS. This concern has been documented in the numerous letters, scoping comments, scoping reports, and public hearing testimony received over the years for previous OCS lease sales. We have acknowledged and addressed impact assistance repeatedly in our EIS's and decision documents. The MMS continues to support development of additional impact-assistance compensation for reimbursement of losses in case of an offshore oil spill. Congress has provided for impact assistance through various laws and programs, including the OCS Lands Act, as amended, and the Oil Pollution Act of 1990. Please refer to Responses PH-Nuiqsut.001a and L-0034.027 and Section I.C.1.e(1) for detailed information concerning impact assistance.

Regarding protection of coastal and marine resources and the effects on indigenous cultures that rely on the OCS for subsistence, the MMS places special emphasis on mitigation of potential harm from offshore spills to biological resources, their habitats, and protection of subsistence lifestyles. Such protections include stipulations on Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities, Protection of Biological Resources, and an Industry Site-Specific Bowhead Whale-Monitoring Program. These stipulations require the lessee to work with directly affected subsistence communities, the North Slope Borough, and the Alaska Eskimo Whaling Commission to discuss and reduce potential conflicts with the siting, timing, and methods of proposed operations and safeguards or other mitigating measures that could be implemented by the operator to prevent unreasonable conflicts. The Orientation Program stipulation, which requires lessees to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in the area also provides additional mitigation. The MMS has worked closely with the State, the North Slope Borough, directly affected subsistence communities, and the Alaska Eskimo Whaling Commission to discuss, develop, and improve mitigating measures from previous EIS's, including Stipulation 5 (Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities), which evolved from the Oil/Whaler Cooperative Program required for Sale 97, and which has been adopted from and in conjunction with the State, North Slope Borough, and the Alaska Eskimo Whaling Commission. The MMS believes these, and other mitigation developed for OCS leasing activities, protects the local and national values of coastal and marine resources on the effects on indigenous cultures and their subsistence lifestyles and uses of the OCS.

L-0021.006

Additional information on the persistence of oil-spill effects on shoreline habitats has been added to Section IV.C.2 – Lower Trophic-Level Organisms. The new information references the ongoing research for the *Exxon Valdez* Oil Spill Trustee Council, explaining that small amounts of oil might persist in shoreline sediments for more than a decade. However, part of the reason for the long persistence of oil in Prince William Sound coastlines might be due to the massive size of the spill, which was many times larger than the size of the unlikely spills that we appropriately hypothesized for the EIS.

L-0021.007

Hypothetical development scenarios are designed to be plausible predictions of future events, even if those events are unlikely. Numerous factors could lead to a variety of other possible scenarios, and a true set of circumstances will not be known for decades. Meanwhile, the scenarios provide a uniform set of assumptions for each analyst to use in their respective environmental impact analysis. No one can accurately predict the timing, location, and configuration of future commercial oil fields in a frontier area such as the Beaufort Sea. We would mislead the reader if we placed the locations of new fields in specific areas, but analysts generally attempt to evaluate the effects of development activities in all parts of the OCS program area. Additional NEPA-specific impact analysis will be prepared using site-specific information if and when an Exploration Plan or Development and Production Plan are submitted.

L-0021.008

The uncertainty of future activities and potential effects has been addressed quantitatively with the projection of development scenarios that in the past have been overestimates of potential effects. In addition, extensive quantification has been applied to the oil spills and disturbance to determine the incremental contribution of the proposed action as required by NEPA. Oil-spill transport has been quantified by transport modeling, weathering models, and toxicity laboratory and field studies, when available. A recovery factor for affected resources also is factored into the analysis, based on previous incidents and long-term population monitoring studies.

Actions the MMS took in the past regarding the OCS are not particularly relevant to leasing in the National Petroleum Reserve-Alaska. That program is run by BLM under different programmatic laws than those that guide

the MMS. The MMS has not ignored specific requests but rather selected reasonable alternatives prudently to produce an informative EIS. A variety of spill-cleanup methods exist and are appropriate for use in the Beaufort Sea. Experience may show that one method has more limitations than initially expected, but that does not mean than other available methods cannot be effective.

L-0021.009

As stated in the Secretary's 5-year oil and gas leasing program for 1997-2002, Beaufort Sea Sale 170 specifically was intended as a focused, single sale in the Beaufort Sea Planning Area, and the EIS was written to reflect that. The current 2002-2007 program called for a single EIS to be prepared for multiple sales (Sales 186, 195, and 202) in the Beaufort Sea Planning Area, and this EIS was written to reflect that. The Secretary decides whether to offer areas for leasing or to continue to exclude areas on a sale-by-sale basis. The area offshore the Arctic National Wildlife Refuge has been deferred from some of the past OCS oil and gas lease sales in response to concerns related to the bowhead whale and the potential for this area to be an important feeding area during their fall migration. The area offshore the Refuge has been offered and leased in four of the seven previous Beaufort Sea OCS lease sales, and exploratory activity has taken place with no significant impacts to the area of the fall bowhead whale migration. Further, the State of Alaska has offered, leased, explored, and maintains producible areas (both on and offshore) adjacent to the western boundary of the Refuge (the Point Thomson Unit).

Excluding areas of the Beaufort Sea that have significant resource potential and industry interest at the 5-year stage of the process is premature. Deferral alternatives are evaluated in this EIS and may be chosen by the decisionmaker. That is precisely the purpose of this EIS process. As new information from current studies, developing technology, and continuing monitoring programs becomes available, it will be incorporated into the decision process for all three Beaufort Sea proposed sales. Likewise, this EIS incorporates into its analysis mitigating measures that have been developed and refined over time and with the cooperation of the North Slope Borough, the Alaska Eskimo Whaling Commission, directly affected local communities, whaling captains, and the State. These mitigating measures include the stipulation on Industry Site-Specific Bowhead Whale-Monitoring Program, which provides site-specific information about the migration of bowhead whales; and the stipulation on Subsistence Whaling and Other Subsistence-Harvesting Activities, which helps reduce potential conflicts between subsistence hunters and whalers from oil and gas activities through consultation efforts. Additional opportunities for public review and comment continue throughout the sale-specific leasing process. Further analysis throughout the Sale 186 process may reveal that additional areas offshore the Arctic National Wildlife Refuge be withdrawn or new mitigation measures identified.

Regarding information on cumulative effects, emergency-response plans, and subsea pipelines, the commenter could not be more wrong. Since Sale 170, the MMS totally overhauled the approach we use to assess cumulative effects in our EIS's. Also, the MMS has been working diligently with the companies who are responsible for preparation of oil-spill-contingency plans to ensure they are comprehensive and adequate. In addition, the MMS has hired a spill-cleanup expert as part of our permanent staff in Anchorage. Finally, the MMS has conducted three very substantial in-depth studies of subsea pipelines and BP did an independent assessment to help address the issues. The studies were all peer reviewed; for the MMS studies, the statement of work, selection of the contractors, and the review of the draft reports were all done by an interagency team that included among others the Environmental Protection Agency, the U.S. Army Corps of Engineers, the North Slope Borough, and the Fish and Wildlife Service. Collectively these studies provide adequate information about pipelines to meet the informational requirements of an EIS.

L-0021.010

See Response L-0007.001.

L-0021.011

The Teshekpuk Lake Special Area is inland from the Beaufort Sea coast and is not at risk from potential offshore oil spills. The MMS does not assume or expect that potential offshore pipelines or other facilities would be placed within the Teshekpuk Lake Special Area; we also do not anticipate or project that aircraft associated with OCS activities would traverse the area. Thus, geese and other wildlife species and habitats within this area are not likely to be affected by offshore development.

L-0021.012

To evaluate the effects of potential oil spills, the MMS assume hypothetical pipelines and landfalls near the Teshekpuk Lake special use area. The land fall locations shown in Maps A-4a and A-4b are near but within the areas of "no surface activity" and "not available for oil and gas leasing" identified by the Bureau of Land Management (see USDOI, BLM and MMS, 1998:Figure II.C.1). Therefore, such activities are not prohibited in these areas. These hypothetical pipeline locations are for analysis purposes, and it should not be construed that MMS or industry plans to build a pipeline to those location. Additional NEPA analysis would be required before any construction of any pipeline going from offshore facilities to existing onshore pipelines.

See Response L-0021.011.

L-0021.013

While the EIS does not look a every possible alternative that could reduce environmental effects, it does evaluate a reasonable range of alternatives. The Council on Environmental Quality NEPA regulation noted by the commenter at 40 CFR 1502.14 (a) states " Rigorously explore and objectively evaluate all reasonable alternatives and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." This EIS (see Section IV) evaluates four deferral alternatives and a no-action alternative. Section I.C.2.b provides analysis and information about alternatives suggested during scoping that were not considered further in this EIS.

Also, see Response L-0001.015.

The MMS has evaluated alternatives that would affect the size or location of the sale. In the 5-year program and EIS, the Secretary evaluated the geographic extent and pace of OCS leasing and the number of lease sales to be held. This EIS also looks at the timing of the sale(s) by evaluating the environmental impacts of holding three OCS sales (Sales 186, 195, and 202) in the Beaufort Sea as identified by the Secretary in the 5-year program for 2002-2007. For each sale, the Secretary has the option of holding or not holding the sale. If the Secretary decides to hold the sale, she can accept one or all of the deferral alternatives or various combinations thereof. In addition, the Secretary can consider and adopt any, all, or a combination of stipulations and ITL clauses that provide mitigation and lessen the potential adverse environmental effects.

L-0021.014

The MMS believes that the discussion and analysis of the No Lease Sale Alternative (Alternative II) provides the Secretary of the Interior with sufficient information to generally determine the effects on America's energy needs, should the resources estimated for the proposed action not be found or produced. Inherent in a no-action alternative is the reality that those effects associated with the Proposal will not occur, and that the current situation or baseline will continue. To repeat the extensive analysis with the addition of the phrase "the following effects would not occur" would be a redundant and wasteful exercise.

The EIS clearly identifies in Section IV.B.2.a (the analysis of Alternative II) that "By not producing our own domestic oil and gas resources and relying instead on imported oil, we are, from a global perspective, contributing to at least a sizeable portion of the environmental impacts to those countries from which the united States imports and through or by which our imported oil is transported. Most advocates of the "no-action alternative" for energy projects either omit or downplay this important point. It is misleading to try to lead anyone to believe that simply by not developing our domestic resources the global environmental effects of the United States' dependence on oil will somehow disappear. The MMS has not neglected its duty under NEPA but rather has done its best to give a clear picture of all the important effects, whether domestic or global.

L-0021.015

The Department of the Interior does not plan to lease the entire Beaufort Sea Planning Area. That phraseology is inaccurate and misleading. The MMS offers tracts for lease and companies may buy a few. A primary purpose of the OCS Lands Act is to make lands available for oil and gas leasing in an environmentally acceptable manner, taking into consideration protection of the marine, coastal, and human environments.

Deferral areas are considered on a sale-by-sale basis. For each OCS sale, deferral areas are designed to address specific concerns existing at the time of the Proposal. Any area considered for deferral or actually deferred in a previous sale does not automatically get carried over into the next proposed sale for that area. Decisions on deferral alternatives are based on information current at the time the deferral areas are designed. This includes concerns expressed during the Call for Information and the scoping process and in conjunction with consideration of previous

mitigating measures, completed studies, or monitoring programs. At each specific step in the prelease planning process, data and information obtained from public comments are analyzed and the Proposal and alternatives are identified. The multiple-sale EIS addresses environmental analyses and potential impacts to all the resources in the planning area. After such analysis, the MMS consults with other Federal Agencies, the State of Alaska, local governments, and affected communities, and the sale area is further refined. There is nothing preventing the decisionmaker from choosing more than one alternative for deferral. For both the second and third sales covered under this EIS, a detailed environmental assessment will be conducted and public comments sought.

The MMS believes that our process satisfies NEPA requirements in that the Secretary of the Interior is provided sufficient scientifically based information with which to make a reasoned decision on whether or not to proceed with the lease sale, and that local community concerns are balanced with the national interest.

To say that the alternatives need significantly more analysis is to deny the more than 200 pages of analysis in Section IV exist or to imply that the MMS should repeat text over and over for each alternative. The EIS indeed does provide readers a very reasonable way to evaluate environmental effects of the lease sales, is scientifically based, and addresses the Inupiat communities' concerns in addition to issues raised by national conservation organizations such as the Ocean Conservancy.

See also Response L-0001.002.

L-0021.016

This multiple-sale EIS was prepared in accordance with NEPA and Council on Environmental Quality requirements and as required by the OCS Lands Act, as amended. This included a detailed analysis of the Proposal, deferral alternatives, and mitigating measures to minimize potential risks to the environment and resources. The EIS analysis includes all the relevant environmental impacts of the key resources affected by the alternatives while still focusing the EIS on the important issues.

The standard mitigating measures analyzed in this EIS do not, as the commenter suggests, simply represent token efforts to accommodate the mitigation required under NEPA. The five standard stipulations proposed for Sale 186 (Stipulations 1 through 5) are the result of considerable consultation, coordination, and effort over several years, and they are refined for each subsequent proposed lease sale as new technology is developed, studies are completed and incorporated into EIS analysis, and differing environmental and other constraints are identified. Coordination and consultation on proposed mitigating measures has taken place among the MMS, the Alaska Eskimo Whaling Commission, the State of Alaska, the North Slope Borough, local affected communities, other Federal Agencies, individual whaling captains, and industry. Beaufort Sea Sale 186 additional stipulations (Stipulations 6a, 6b, and 7) were identified as a result of scoping comments and new procedures implemented on Northstar. Proposed mitigating measures were scrutinized, and potential direct and indirect effects were analyzed in the EIS by staff analysts, using comments provided during testimony at public hearings and through written comments on the EIS.

See also Responses L-0021.035 and L-0035.003.

L-0021.017

The MMS believes that the EIS adequately addresses possible impacts and alternatives for threatened and endangered species. The MMS receives comments on the draft EIS from the National Marine Fisheries Service and the Fish and Wildlife Service to ensure adequacy on threatened and endangered species and consults with both agencies on threatened and endangered species in the Beaufort Sea Planning Area. The MMS complies with the regulations on Section 7 consultations very closely. The Section 7 consultation process was completed since the draft EIS was issued. A discussion of the consultation history for the proposed lease sale at the time the draft EIS was made available for public review can be found in Section IV.C.5 in the draft EIS. This section has been updated in the final EIS, and the complete Biological Opinions of both agencies are included in the final EIS in Appendix C.

L-0021.018

Designation of critical habitat for this species falls under the jurisdiction of the Fish and Wildlife Service and the National Marine Fisheries Service. The Fish and Wildlife Service did consider designation of critical habitat for Steller's eiders and spectacled eiders in the Beaufort Sea, and the National Marine Fisheries Service considered designation of critical habitat for bowhead whales in the Beaufort Sea. Both agencies determined that designation of critical habitat for these species in the Beaufort Sea was unnecessary. Critical habitat was designated for spectacled eiders for areas other than the Beaufort Sea on February 6, 2001 (46 *FR* 9146), and for Steller's eiders on February

2, 2001 (66 *FR* 8849). The National Marine Fisheries Service determined there was no need to propose designation of critical habitat for bowheads on August 30, 2002 (67 *FR* 55767). However, the MMS has consulted with both agencies on potential effects of the proposed lease sale on these species. The Biological Opinions are included in the final EIS in Appendix C.

L-0021.019

The MMS receives comments on the draft EIS from the National Marine Fisheries Service and the Fish and Wildlife Service to ensure adequate discussion on marine mammals in the Beaufort Sea Planning Area. The MMS also advises lessees about disturbance to marine mammals from their activities and that lessees need to apply for specific regulations under the Endangered Species Act and the Marine Mammal Protection Act and obtain a Letter of Authorization or an Incidental Harassment Authorization allowing an incidental take of marine mammals during the conduct of their activities. This information can be found in Section II.H.3 of the EIS. The MMS believes the EIS adequately addresses and considers all impacts that could occur to marine mammals that are protected under the Marine Mammal Protection Act.

L-0021.020

See Response L-0021.019.

L-0021.021

The three types of actions and three types of impacts the commenter refers to are covered in this analysis. Connected action is the overall leasing process from exploration to development and production. Oil-spill modeling is an example of both connected and interdependent actions, dependent on spatial and temporal aspects of each resource. Cumulative effects are addressed in considerable detail for each resource, based on these and other factors (see Section V). Concerning the three types of impacts the commenter refers to, each resource has been assessed with a generic analysis and an analysis of the likelihood of contact from a spill and disturbance event. Indirect effects are addressed in the population dynamics of a resource and recovery factors, which also carry over into the cumulative analysis. Cumulative effects are considered for onshore and offshore activities. Most resources do not occupy both biomes but where they do, as is the case with the polar bear population, this has been incorporated into the analysis. Complementary infrastructure for both onshore and offshore activities is not necessarily a negative thing in a cumulative-effects context.

The commenter quotes NEPA regarding cumulative effects and then says MMS does an inadequate job in assessing cumulative effects. The MMS disagrees. The first 16 pages of Section V identify the basis for cumulative analysis, which is consistent with Council on Environmental Quality NEPA guidance and requirements; the balance of the section analyzes the cumulative effects on each of the 16 key resources.

L-0021.022

The EIS includes an extensive analysis of the effects of a very large oil spill. The commenters reference to a "worst-case discharge" pursuant to 30 CFR 254 relates to the oil-spill-response planning standard for a facility's specific contingency plan and is different than the oil-spill-risk analysis provided in the EIS for NEPA. The Council on Environmental Quality NEPA regulations do not require a worst-case analysis indicated by the commenter; nevertheless, the EIS does consider and evaluate a very large but very unlikely oil spill in Section IV.I.

L-0021.023

The maps, tables, and figures were published in a separate volume. The Executive Summary contains a synopsis of the EIS. A separate stand-alone Executive Summary will be available for the final EIS--Map 2 will be included. The final EIS comprises an Executive Summary, with accompanying referenced maps, figures, and/or tables, and four volumes: Volume I, the text of Sections I, II, III, IV, and V; Volume II, the text of Sections VI and VII, the Bibliography, and the Index; Volume III, all of the tables, figures, and maps for the text of the EIS; and Volume IV, the appendices with the accompanying referenced maps, figures, and tables.

L-0021.024

Clarification on the recovery of marine mammals from routine permitted activities is given in Section IV.C.7. These activities are likely to have short-term and local effects on marine mammals, with recovery from such effects expected to occur within 1 year or less.

L-0021.025

The statement referenced specifically refers to an oil spill that enters an area where and when spectacled eiders are present, and the risk certainly might extend over more than just the season of occurrence. The MMS does not believe a detailed analysis is necessary or appropriate for this Executive Summary. For a detailed analysis, the reader must go to Sections IV.C.5.b and IV.C.6.a of the EIS. A clarifying statement on this point has been added to the Executive Summary.

L-0021.026

See Responses L-0021.004 and L-0021.006 for information on the *Exxon Valdez* oil spill.

The MMS has in some cases found effects "too small to observe or measure" or "no clear cause-and-effect relationship." To advocate that in such circumstances the MMS should take a more cautionary approach and, by implication, adopt the no-action alternative would, if made a Nationwide policy, subvert the OCS Lands Act, which indicates that MMS should promote environmentally sound exploration and development. Most governmental decisionmaking requires decisions in the face of incomplete information. The safeguards built into the OCS exploration and development program are sufficient to allow leasing to proceed under the terms of the OCS Lands Act. The purpose of the EIS is to help lay out the environmental effects of leasing. This EIS adequately meets the requirements of both NEPA and the OCS Lands Act.

L-0021.027

This is the type of information taken into consideration by the analysts for birds, seals, and whales in their consideration of oil-spill effects on these species. The information literally has been incorporated and discussed in the subsistence and endangered species (bowhead whales) analyses. The MMS does not feel the placement of this information is inappropriate, as it is a statement made by the late Thomas Brower, Sr., Elder and hunter, and is considered legitimately traditional knowledge. The full text of this quote is found in Section IV.C.11 - Effects of Oil Spills on Subsistence-Harvest Patterns in the subsection entitled Native Views on Oil Spills.

L-0021.028

The infrastructure/water-depth zones are generalized, because the definitions are approximate and the contacts are gradational. Distance from infrastructure is an obvious economic consideration affecting the logistics of transportation to the site in addition to the new infrastructure costs (long pipelines cost more than short pipelines). Factual cost data is project specific and cannot be provided for undefined projects in unknown locations. Water-depth zones were used to represent the likely exploration and development activities (Near Zone shallow-water platforms would be artificial gravel islands). The extension of the Midrange Zone to the east acknowledges the likelihood of a new facility constructed for the Point Thomson project. It is premature to assess the technical feasibility of subsea pipelines off the coast of the Arctic National Wildlife Refuge, because no commercial discoveries have been made there and technology advancement over the next decade is speculative. However, thousands of miles of subsea pipeline have operated safely for decades throughout the world in a wide variety of water depths and environmentally sensitive areas. We believe that a general model of zones is a valid tool to analyze the effects of three consecutive lease sales in a frontier area such as the Beaufort Sea. The potential threats to biological and cultural resources will be more accurately assessed, when the location of future commercial fields is known. Each exploration and development plan requires separate NEPA analysis.

L-0021.029

See Responses L-0021.007 and L-0021.028.

No attempt has been made to relate distance-depth zone definitions to the leasing alternatives, because they represent entirely different concepts. Distance-depth zones are used as a general model where activities expand away from existing infrastructure during a series of lease sales. The alternatives define the areas offered in each lease sale. Although it is logical to assume that activities would occur near existing infrastructure first and later expand into more remote areas over time, it is quite possible that industry groups will adopt different strategies. It is important to offer large areas for leasing in each sale to maximize the possibility that commercial discoveries will be made. Environmental analyses presented in this EIS cover the activities for all three sales. If the distinction between activities assumed for individual sales becomes somewhat blurred in the future, all of the consequences of the three-sale program are still evaluated. Should any significant new information come to light between the individual sales, additional environmental documentation will be prepared as an update.

It would be unrealistic to assume that all of the discoveries listed under reasonably foreseeable would be developed along with new discoveries in the timeframe covered by this EIS. However, the scenarios could include a mix of new and previous discoveries in the hypothetical schedules provided. The decision to proceed to commercial development is an industry decision, and it would be misleading to single out specific discoveries prior to commitments by industry. Many of the previous discoveries listed as reasonably foreseeable presently are not leased, having been leased, studied, and then relinquished by different industry groups as noncommercial. New development plans and technologies could lead to future commercial projects, but it is very speculative to offer site-specific plans for unidentified industry groups. Public data concerning previous exploration activities, such as Mukluk, are discussed in the EIS under the Regional Geology and Resource Assessment sections.

L-0021.030

Probability weighting (which we call the Opportunity Index) is a valid way of partitioning a whole into the sum of its parts. In this case, the undiscovered petroleum potential represents the whole. Individual subareas represent the parts. No one can predict with any accuracy where commercial oil fields eventually will be discovered and developed. However, we can determine which areas are more likely to hold commercial-sized fields based on geologic play analysis and exploration trends. The Opportunity Index is a simple way to distinguish high-potential areas from low-potential areas. It is reasonable to assume that future development, and its associated impacts, is more likely to occur in higher-potential areas.

The Opportunity Index is a completely different concept than distance-depth zones. The former is used to estimate the potential loss in petroleum potential, if areas are removed under various leasing alternatives. The latter is a generalized model where offshore industrial activity progressively expands into more remote areas as a result of a series of areawide lease sales. Nowhere in the EIS is the Opportunity Index linked to the distance-depth zones, as these concepts are used for different purposes.

L-0021.031

See Response L-0021.023.

The Executive Summary provides only a summary of the overall three-volume draft EIS (now a four-volume final EIS). Alternative I (the proposal of offering all lease sales) is described near the bottom of page 2 of the draft Executive Summary. For details within each EIS volume, the reader must go to the appropriate EIS Table of Contents for that volume. In the final EIS, we include a map (Map 15) with all past lease sales offered in relation to the proposal (Alternative I), plus a map (Map 16) showing existing leases in relation to the Proposal (Alternative I).

L-0021.032

See Responses L-0021.015 and L-0001.002.

L-0021.033

See Responses L-0035.001 and L-0021.009.

Please also note that nothing prevents the Secretary of the Interior from selecting more than one alternative, if she believes that this area(s) requires protection in addition to the stipulations identified and analyzed in this EIS.

As to a total deferral of all offshore areas off of the Arctic National Wildlife Refuge, deferring these blocks would reduce the opportunity of discovering and developing an economic oil field by 23%. Alternatives V and VI defer about 60% of the Refuge's coastline and reduce the opportunity of discovering and developing and economic oil field by 6%.

L-0021.034

As previously indicated, the Executive Summary is just that–a summary. The detailed analyses are found in the Sections III, IV, V, and VI. Inherent in the No Lease Sale Alternative is the fact that baseline (current situation) conditions, including oil and gas activity, would continue. Furthermore, we do point out other environmental consequences in the second paragraph of Section ES.1.f: "…from a global perspective, selection of Alternative II (No Lease Sale), would be a decision for the U.S. to export these environmental effects. This same transfer of environmental consequences holds true for any oil not produced if any of the other deferral alternatives are chosen." We also indicate that in a little more detail in the last paragraph of Section II.C of the EIS: "From a global

perspective, by importing oil [as a consequence of selection of the no action alternative] we are exporting at least a sizeable portion of the environmental impacts associated with oil we consume to other countries where oil is produced and to those countries along the tanker routes."

L-0021.035

The MMS does not agree with the commenter. The alternatives were developed based on the comments received during scoping, and they reflect the issues and concerns raised at that time. In addition to the alternatives evaluated in the EIS, the MMS also considers and evaluated the effectiveness of mitigating measures, including 5 standard stipulations, 4 optional stipulations, 16 standard ITL clauses, and 1 additional ITL.

The standard mitigating measures are assumed to be part of the Proposal and all of the deferral alternatives. They have been developed and refined over the past 20-plus years and have proven to be effective in reducing potential impacts. Because the Proposal with the standard mitigating measures included does not find significant adverse impacts from routine activities, it is not surprising to the MMS that the deferral alternatives that eliminate a portion of the area also would not generate significant differences.

Section I.C.2.b of the EIS provides the analysis and the rationale we considered when we determined that a suggestion did not warrant additional analysis and consideration. The NEPA requires agencies to use a standard of reasonableness, and the MMS does not need to include alternatives, other than the No Lease Sale Alternative, that eliminate such large portions of the available hydrocarbon resources. While the No Lease Sale Alternative lowers the probability of an offshore oil spill, it does not eliminate all risk of an offshore spill, and a large offshore spill is an unlikely event. Please note that we found that even the No Lease Sale Alternative would not have "significantly less environmental impact" than the Proposal. The environmental consequences would, in essence, be transferred to somewhere else.

See Response L0021.034 and also see Section IV.B.

L-0021.036

Since the late 1970's, the MMS has engaged in oil and gas leasing activities in the Beaufort Sea. An EIS has been prepared prior to each lease sale, in conformance with NEPA and Council on Environmental Quality guidelines and as required by the OCS Lands Act. Identification and analysis of potential effects to the resources, environment, culture and lifestyles of local communities were part of each EIS alternative. To minimize potential risks, mitigating measures were developed and analyzed. The MMS has worked closely over the years with the State of Alaska, the North Slope Borough, the Alaska Eskimo Whaling Commission, directly affected subsistence communities, whaling captains, and industry to discuss, develop, and improve mitigating measures from previous EIS's and to identify habitat and feeding areas of the bowhead whale to minimize effects to subsistence whaling activities and oil and gas activities.

Proposed mitigating measures have received close scrutiny from commenters on each draft EIS. The MMS takes pride in working with all parties to establish continuing dialogue to further refine and improve mitigation protections, incorporating new technology, sound science, study results, and continued monitoring to minimize potential conflicts, and we will continue to do so at each step of the prelease planning process for each subsequent sale. Those mitigating measures are now considered standard, and they are evaluated as part of the proposal and all deferral alternatives. The continuing dialogue between the MMS and the North Slope Borough and Alaska Eskimo Whaling Commission on study needs and results also has improved the quality of our scientific research on the North Slope. We strongly believe that, by working together with all affected constituents, oil and gas leasing exploration, production, and development can occur safely on the OCS.

See also Response L-0021.005, paragraph 2.

L-0021.037

The MMS disagrees with this comment. The MMS has included among the deferral alternatives some recommended by traditional subsistence users, communities, and tribal governments. The NEPA Council on Environmental Quality regulations require scoping as part of the EIS process. However, this process is not the same as the hearing process, and information gathered is evaluated by the MMS and summarized into a scoping report. The information provided during scoping is used by the MMS in its evaluation process. Under NEPA, agencies are not required to respond either publicly or privately to each and every scoping comment or suggestion, nor are agencies obliged to make each and every scoping comment available for public review and comment. The scoping

information provided is used by the agency to develop the issues and concerns to be evaluated in the EIS in addition to the suite of alternatives considered by the agency to be reasonable. See Sections I.C. of the EIS for a summary of the scoping process.

The information the MMS receives becomes part of the administrative record.

See also L-0021.036.

L-0021.038

We disagree with this comment. The MMS looked at the bowhead whale-strike data provided by the Alaska Eskimo Whaling Commission, the Oil-Spill-Risk Analysis for oil spills in the OCS areas north of the Arctic National Wildlife Refuge, and the analysis of impacts to individual wildlife that inhabits this wilderness area. We determined that the standard stipulations and ITL clauses provide protection for the Refuge's shoreline and onshore lands. If the MMS Director and/or the Secretary of the Interior feels that this area needed further protection, one or both of Alternatives V and IV could be chosen to provide additional protection for a portion of this area. Current law prohibits onshore support facilities on Arctic National Wildlife Refuge lands; therefore, OCS activities cannot rely on landfalls in the Refuge.

L-0021.039

See Response L-0021.038.

Under this proposed leasing program, the MMS has determined that an equitable balance has been drawn between protecting environmental resources and offering OCS acreage for lease.

L-0021.040

While the proposal would allow for leasing in all three zones for all three leases sales, the scenario we evaluate in the EIS does not hypothesize leasing in the Far Zone until Sale 202. Development in the Far Zone includes nearshore and medium-depth water in addition to deep water. We would be misleading the public and the decisionmakers to assume icebreaker support would be needed and used for all three of the sales.

If icebreaker support is needed, it will be identified in the exploration plans, which will undergo NEPA analysis. The effects of supporting the proposed exploration activities with icebreakers would be fully evaluated and considered at that time.

L-0021.041

We disagree with this comment. Tracts have been leased throughout the Beaufort Sea Planning Area in previous areawide lease sales. This implies that exploration targets have been identified by numerous industry groups. Mapping and resource-assessment work by the MMS also has identified attractive plays throughout the area. Exploration strategies are likely to differ among companies. Some companies are attracted to areas close to infrastructure where the geology is better known and development costs are probably lower. However, these areas have been more heavily explored and offer the opportunity for generally smaller fields. Remote areas are less explored and offer the opportunity for larger fields. Although for purposes of analysis in this EIS we assume that the timing and character of new development will expand from small fields near existing infrastructure to large fields in more remote areas, we have no accurate way of predicting when or where commercial discoveries will be made. To maximize the opportunity for successful exploration it is important to offer large areas for leasing so that industry groups can pursue different strategies.

L-0021.042

The nature of leasing is such that the MMS cannot determine where subsequent exploration and development will occur. The MMS creates and uses scenarios for this EIS to aid the decisionmaker and the reader in understanding what may occur if the decision is made to proceed with leasing, and the EIS provides an analysis of potential effects. As we noted in the in the Development Scenarios in the Executive Summary and in Section IV.A, this EIS evaluates the effects of leasing in all zones, and the effect attributed to any zone could occur as a result of any lease sale, if they occur at all. If readers or decisionmakers would like to see our evaluation of the effects of leasing in the Midrange or Far zone, they are directed and encouraged to read the effects identified in Section IV.B for Sales 195 and 202. We also note in Table II.A-1 that some leasing could occur in all of the zones for all or any of the sales. We believe this EIS adequately covers the effects of leasing in all areas. Furthermore, under NEPA, we are not

obliged "to conduct a worst-case environmental impact analysis." We do, however, include estimated environmental effects of some unlikely and very unlikely events.

L-0021.043

The MMS does not agree that additional stipulations (seasonal drilling and production, zero discharge, and double-walled pipelines), as suggested by the commenter, are necessary. Seasonal stipulations were considered and included in early OCS sales in the Beaufort Sea, but over time they were replaced by existing regulatory requirements and the standard mitigating measures that address the types of mitigation sought by the commenter. The Environmental Protection Agency's National Pollution Discharge Elimination System permits provide for regulation of discharges, and this EIS found no significant effects from discharges that require mitigation. The MMS safety and pollution-prevention regulations already reduce the risk of oil spills. The MMS oil-spill-contingency plan regulations ensure that appropriate oil-spill-response capabilities are in place. Pipeline design and operation are subject to multiple existing regulatory jurisdictions, and standards and must be designed to meet the specific conditions for each potential pipeline route. While double-walled pipelines may be appropriate technology for use in the arctic offshore, they are not necessarily the best technology for all pipelines. Pipeline design is an integral part of project development, and it would be inappropriate to evaluate or designate specific pipeline designs in a lease-sale EIS without the benefit of site-specific data and project requirements.

L-0021.044

The MMS did not add the entire shoreline of the Arctic National Wildlife Refuge to the Notice to Lessees on Sensitive Areas. The MMS does not dispute that the Refuge's coastline includes many important wildlife resources and habitats. These resources and habitats have been mapped and identified in the existing Alaska Clean Seas technical manuals for oil-spill cleanup and incorporated into the Alaska Federal/State Unified Plan.

L-0021.045

As explained in Section IV.C.10, the exploration and development scenario in Section IV.A.1 and Appendix A are the basis for analysis of potential economic effects in this section. Using the scenario, we do not find economic differences among sales or alternatives. The economy is just one of 16 resources and aspects we analyze in the EIS. If we do not find differences among alternatives for just one resource, it does not mean that differences are not found for other resources and aspects. Consequently, this does not allude to an underlying failing that all alternatives are essentially the same. To help clarify this point, in the first sentence of Section IV.C.10 Economy, we have added the word "economy" so the sentence reads in part: "…for the purposes of economic analysis…."

L-0021.046

Inherent in the No Lease Sale Alternative is the fact that baseline (current situation) conditions, including oil and gas activity would continue. Our discussion of the existing environment in Section III is a baseline for the no-action discussion and for the cumulative analysis; to repeat it in the No Lease Sale Alternative would not provide any additional useful information.

L-0021.047

Arctic cisco and whitefish are discussed in Section III.B.2.

L-0021.048

A figure showing recent polar bear maternity den locations was included and referenced in the draft EIS in Section III B 6.e - Polar Bears (see Figure III.B-3e). Polar bears do not normally "migrate." Satellite data show that the bears move throughout the Beaufort Sea, and these movements are highly variable depending on ice coverage from one season and one year to the next. In other words, they move all over the map (see the sightings on Figure III.B-3e). Feeding concentrations of bears along the coast are shown as sighting clusters in Figure III.B-3e.

L-0021.049

Section IV evaluates the effects of the Proposal and alternatives. Section V - Cumulative Analysis deals with effects of past activities on the North Slope. However, the effects of past drilling, including dry holes and discoveries, have, relative to past production, little or no bearing on the effects analysis. In turn, the effects of past development are considered in the description of the existing environment. Contrary to the comment offered, the MMS does consider the Beaufort Sea to be prospective with substantial undiscovered oil and gas resources available. In fact, our scenarios are optimistic and assume that 460 million barrels of oil could be discovered as a result of each of the

proposed lease sales. A dry hole or a noncommercial discovery does not mean that anyone, including the MMS, knows where commercial oil deposits are or are not located. Before the first commercial discovery was made in the North Sea, more than 60 wells had been drilled before the first successful well was drilled.

Section V of the EIS analyzes the effects of past, present, and future activities.

L-0021.050

The thresholds used to identify significant impacts are compatible with NEPA regulations and reflect the information and definitions of impacts used in our previous EIS's in Alaska, which have undergone extensive public review and comment. A focus on populations is an appropriate way to assess effects on a species. For fish, terrestrial and marine mammals, and lower trophic-level organisms evaluated in the EIS, we use a significance standard for biological resources that depends on an assessment of potential effects on the population. We use a different standard for Endangered and Threatened Species. No designated critical habitats were identified by either the Fish and Wildlife Service or the National Marine Fisheries Service for either of the endangered species in the Beaufort Sea.

No areas in the Beaufort Sea are designated as wilderness. No wilderness areas were identified during the scoping process, and no areas were identified by MMS as an issue of concern that warranted further analysis.

Executive Order 12898 (Environmental Justice) requires agencies to consider and analyze the disproportionately adverse effects that will occur to minority and low income populations as a result the proposed projects. The analyses in Sections IV.C.16 and V.C.16 do identify the environmental impacts that could occur from routine activities to the minority and low income populations near the Beaufort Sea Planning Area. That analysis properly concludes that no disproportionate adverse effects are estimated to result from these activities. On the other hand, it also concludes that disproportionate effects could occur in the unlikely event that a large oil spill occurred and contaminated essential whaling areas.

The significant thresholds are defined and used by the analysts to provide the decisionmaker and reader with the standards that the MMS has applied to our analyses. That definition of significance is a standard we have identified for a particular resource or group of resources and, if an estimated impact exceeds that standard, we label it significant. If it does not, we find that the estimated impact is not significant. Our analysts have the necessary scientific education, training, and skills to make well-reasoned estimates of the effects using the best scientific information available. The significance thresholds are used as a way to categorize these effects. We have not ignored effects in the EIS, nor do we use the standards in any way to understate the environmental impacts. If the author of these comments could be specific about charges of ignored effects or understated environmental impacts, we would address the specifics.

The MMS has reviewed the analysis and the conclusions reached for each of the resources, and we believe we have appropriately identified the significant effects.

L-0021.051

The term "routine permitted activities" is not meaningless. It indicates those activities that are estimated to occur as part of day-to-day activities associated with exploration, delineation, development, production, and abandonment of oil and gas facilities used to produce hydrocarbon resources from a field or reservoir, should the lessee proceed with such activities on the lease. These activities include transportation, construction, and operations. Following the issuance of a lease, exploration and development activities would occur, including seismic surveys, facility construction, well drilling, transportation of workers and equipment from staging areas to facilities, and processing and transportation to market of oil and gas. Such activities, whether onshore or offshore, are similar and happen on a daily basis in any oil and gas development.

The analysis summarized on page 2 of the Executive Summary is for those activities associated with scenarios we developed for the Proposal. The effects of past, present, and future activities, as requested by the commenter, are evaluated in a separate analysis in Section V – Cumulative Effects. The cumulative effects also are summarized in a separate section of the Executive Summary.

L-0021.052

We disagree with this comment. The MMS staff and managers have reviewed the analyses and findings in Sections IV and V of this EIS, and we find them to be accurate and complete. They reflect our professional evaluation and

understanding of the activities that likely would be associated with the development of resources projected (460 million barrels of oil for each of the three sales).

L-0021.053

The U.S. Geological Survey (2002) misinterpreted the displacement of some caribou cows during June along the Milne Point road. Dau and Cameron (1986) in their final report state that fewer cow caribou were found within 1 kilometer (either side of the road equaling 2 kilometers) of the road during the June calving season. An earlier draft report suggested that there was displacement beyond 2 kilometers, but that this difference in caribou numbers was not statistically significant.

Changes in the distribution of calving caribou in the Kuparuk River area are circumstantial to the development of the oil field. There is no evidence that the change in calving location is related to disturbance from oil development in the Kuparuk oil field. The Central Arctic Caribou Herd has and continues to increase in spite of the extensive oil development on its calving and summer range.

L-0021.054

See Response PH-Anchorage.029.

The MMS released a request for *Alternative Oil Spill Occurrence Estimators for the Beaufort and Chukchi Seas* proposals in July 2000. This effort was aimed at alternative methods to estimate oil-spill occurrence for areas where historical spill data are lacking. The final report became available in August 2002 (OCS Study, MMS 2002-47). Prior to its publication, this report was peer reviewed. The MMS did not pick the data sets. Fault trees are a method for modeling the occurrence of failure when adequate history is not available to provide failure statistics.

L-0021.055

See Response PH-Anchorage.029.

The statistics on small spills (less than 1,000 barrels) have changed based on best available information. The 5-year estimates were conservative and use the Gulf of Mexico small-spill rate. The small-spill rate on the Alaska North Slope is approximately 660 spills per billion barrels produced. This compares to the Gulf of Mexico and Pacific OCS rate of approximately 3,460 spills per billion barrels. The MMS feels it is most relevant to use the Alaska North Slope small-spill rate as the analog for small spills offshore rather than the Gulf of Mexico and the Pacific OCS rate. The current operators on the North Slope of Alaska are most likely to be the operators who work offshore. With respect to aspects of the environment that would affect oil-spill statistics, offshore Alaska is more similar to the Alaska North Slope than to the Gulf of Mexico or the Pacific OCS.

L-0021.056

See Response PH-Anchorage.029.

L-0021.057

Cumulative impacts are evaluated and analyzed in Section V. Oil-spill-probability estimates are based on the spill rate and the volume of resources. The size of the area being offered has no effect on the oil-spill-probability estimate; it depends on the location of the reserve and resource estimates. Regardless of the probabilities, for analytical purposes, the MMS assumes a spill occurs and analyzes the impacts to environmental, social, and cultural resources.

L-0021.058

See Responses L-0021.059 and L-0021.060.

L-0021.059

See Response PH-Anchorage.028.

L-0021.060

The commenter is mixing conditional and combined probabilities. The combined probability (expressed as percent chance) for offshore is a less than 0.5% chance of one or more large spills occurring and contacting nearshore Beaufort Sea fish habitat. The equivalent combined probability for land after 360 days is 6%. The conditional probabilities assume a spill occurs. The combined probabilities factor in the chance of a spill ever occurring in the

first place and then contacting. The analysis of Beaufort Sea nearshore fish habitat is evaluated in Section IV.C.4.a(3)(b).

L-0021.061

The broken-ice barge-based trials conducted during the spring and fall of 2000 were not failures. The trials were conducted to establish realistic maximum operating limits for the equipment and tactics. The trials demonstrated that the tactic R-19A was more limited in application than initially put forth in the Alaska Clean Seas Technical Manual, but had oil been present, oil would have been recovered. It should be recognized that the operators were limited to one single tactic and required to maintain the configuration in the manual. In a real-world situation, responders would be able to mix and match spill-recovery tactics and equipment to best fit conditions.

The outcome of the Joint Agency Report called for Alaska Clean Seas and industry to develop new tactics to use in greater ice concentrations. The Compliance Order by Consent was signed by industry primarily because one of the two spill-response barges had not been adequately outfitted and in a state of readiness described in their oil-spill-contingency plans. Industry outfitted the vessel *Beaufort 20* with the requisite equipment.

L-0021.062

In situ burning in broken-ice conditions relies more on ice than boom to collect and concentrate oil for burning. Tracking oil in icefloes is done using tracking buoys.

Regarding air pollution impacts, Sections IV.A.6.b and IV.C.15.b(2)(b) include a reasonable discussions of how an oil spill might affect air quality and the effects of oil-spill-cleanup activities on air quality. Specific pollutants are identified, along with an explanation that in situ burning would temporarily adversely affect air quality but, although ambient levels of volatile organic compounds could be high within about 100 meters of the fire, it would be significantly lower than those associated with a nonburning spill. We also explain that, "In situ burning would be less effective in areas of broken ice than in open water, but it still would reduce the effects of volatile organic compounds on the ambient air quality." The conclusion for the effects of an oil spill on air quality is that "Concentrations of criteria pollutants would remain well within Federal air quality standards. The overall effects on air quality would be minimal." Please see those sections for greater detail and the references for additional information.

L-0021.063

Inherent in the in the No Lease Sale Alternative is the fact that baseline (current situation) conditions, including oil and gas activity, would continue. Our discussion of the existing environment in Section III is a baseline, or no-action discussion. Appropriate issues related to cumulative effects are discussed in Section V.

L-0021.064

To the best of our knowledge, no causeways or docks are proposed for these lease sales. In addition, no nearshore habitat alterations are expected that would have a measurable effect on fish populations. Discussion of possible impacts related to elements of other projects not central to the Proposal and alternatives in Section IV of this EIS would confuse and mislead the reader. This is why they were not discussed here.

L-0021.065

The MMS did reinitiate formal consultation with the Fish and Wildlife Service and the National Marine Fisheries Service for these proposed lease sales. The Biological Opinions issued by these agencies can be found in Appendix C.

L-0021.066

The section that discusses bowhead whales does include statements by whaling captains about how the whales and subsistence-whaling activities are affected by industry activities. There are several pages of discussion on drilling operations from drillships and how these activities may affect bowhead whales. This discussion is found in Section IV.C.5.a(1)(a)2)c). The summary of noise effects presents general results from the whole range of seismic noise studies and did include a discussion of the most recent studies on seismic noise. None of the studies have been "discredited," although some studies may have some limitations. Many variables should be considered in assessing these studies, including the type and size of airgun arrays; the activity of the whale (resting, feeding, migrating, socializing, etc.); tolerance of individual whales to noise; depth of water; distance from shore; and other activities in

the area. The MMS presents in this EIS the most complete and best scientific and traditional knowledge information available for the decisionmaker to consider.

L-0021.067

The first part of Section IV.C.5.a(1)(e) of the EIS discusses possible kinds of effects to bowhead whales if an oil spill occurred. The last part of this section discusses the probability of the spill occurring and contacting important bowhead whale habitat. The discussion does include analysis of both summer and winter spills. Based on the oil-spill-risk model, the probabilities of a summer oil spill contacting the resource areas discussed in the EIS within 360 days are the same as for contact within 180 days. The probabilities of a winter oil spill contacting the resource areas discussed in the EIS within 360 days are slightly higher than for contact within 180 days. For 180 days, there is a 27% chance of contact to ERA's 25 and 28 from a winter spill occurring at LA2 and LA7, respectively. For 360 days, the percent chance of contact from these launch areas increases to 29% at ERA's 25 and 28.

While the "technical jargon" may not be easy to understand, it is necessary in determining the probability of impacts to a particular species. In simpler language, the MMS, with input from the National Marine Fisheries Service, determines, to the best of our abilities, what areas are important to bowheads and where bowheads are likely to be present. The oil-spill-risk model then determines the probabilities that an oil spill originating at various locations, including from a rig or pipeline, would contact the important bowhead habitat. For more information, see Response L-0021.068.

L-0021.068

The environmental resource areas for bowhead whales were selected based on areas where bowheads are likely to be present. Although bowheads are present across the Beaufort Sea during the spring migration, they are well offshore in leads through the ice. The referenced sentence in the EIS does not say there is a 37% chance of a spill occurring at a site called LA10 from a launch site 32. The reference states the greatest percent chance of contact from a launch area occurs at ERA 32, which has a 37% chance of contact from a spill occurring at LA10.

Breaking this down into pieces, ERA 32 is one of the resource areas selected for analysis in the oil-spill model for bowhead whales, because it falls within the normal bowhead whale fall migration corridor. We know that bowheads likely will be in this area during the fall migration. The launch area is referred to as LA10. Launch areas, including LA10, are hypothetical spill sites. Keep in mind that although we use these hypothetical spill sites in the oil-spill model, it is very unlikely that a spill will occur at this particular site. We also use conditional probabilities in the EIS. A conditional probability assumes a spill has occurred and the model estimates the chance that the spill will contact a specific environmental resource area over a period of time. This approach does not take into account the low probability of a spill actually occurring. Combined probabilities are lower than conditional probabilities, because they combine both the probability that an oil spill will occur (which is low) and the probability that the spill will contact a particular resource area.

For the case in question, the oil-spill-risk model assumes that a spill has occurred, models this hypothetical spill from launch area LA10, and estimates the probability that a spill from that location would contact ERA 32. Based on the oil-spill model, if a spill occurred at LA10, there is a 37% chance that the spill would contact ERA 32. That also means there is a 63% chance that the spill would not contact ERA 32. ERA 32 has the highest chance of contact, because LA10 and ERA 32 are in close proximity to or overlap each other. Similarly, the highest chance of contact in other environmental resource areas occurs when the spill-launch area and the environmental resource area are in close proximity to or overlap each other.

Tables A.2-23 and A.2-41 in Appendix A2 show the percent chance of contact by resource area and launch site. The analysis in the EIS referenced the highest chance of contact. For additional information, see Responses L-0021.067 and L-0021.093.

L-0021.069

The MMS believes this section adequately addresses potential impacts to bowhead whales and their habitat. No critical habitat has been designated for bowhead whales. The National Marine Fisheries Service found no need to propose designation of critical habitat for bowheads on August 30, 2002 (67 *FR* 55767). The MMS has consulted with the National Marine Fisheries Service on potential effects of the proposed lease sale on this species. Their Biological Opinion is included in the final EIS in Appendix C.

L-0021.070

The discussion of potential collision hazards has been clarified and details added in Sections IV.C.6.a(1)(a)3) and IV.C.5.b(1)(a)1)c), the bird and spectacled eider sections. Contrary to the suggestion in the comment, the effects analysis makes use of all available information including, for example, recent satellite telemetry data that highlights apparent eider use of Harrison Bay. The comment notes collision mortality of sea ducks at Northstar Island and Endicott. This is discussed under the collision sections for marine birds and threatened spectacled eider.

An EIS need not contain "all available information," on the best and most relevant. The Fish and Wildlife Service found the information in the EIS sufficient to assess the effects and write their Biological Opinion.

L-0021.071

The MMS has considered the risk of major adverse factors for all birds that seasonally occupy the Beaufort Sea, whether migrating, staging, or nonbreeding, regardless of where they spend most of their period of summer residence. King eiders in particular have been noted (for example, Section IV.C.6.a(2)(b)2)b)) as present in substantial numbers in offshore waters and, thus, would be vulnerable to any oil spill.

L-0021.072

Seismic activities associated with OCS offshore exploration would occur during the open-water season and are not likely to have any effect on polar denning, which occurs during the winter season on the ice or on land.

L-0021.073

The Council on Environmental Quality NEPA regulations do not require a worst-case analysis. We include the analysis of a very unlikely very large oil spill to provide additional information to the readers and decisionmakers (note that there has never been a blowout on the North Slope of Alaska). The likelihood of such an event occurring is so remote, that it should not be included and discussed with the other effects that are expected to occur from routine activities or even events that may occur from unlikely large oil spills. See Response L-0035.030 for additional information.

L-0021.074

The fact that there potentially is some risk of significant harm from the proposed action does not mean that the risk cannot be reduced to an acceptable level by incorporating appropriate constraints and mitigating measures into the operating plan. The determination of potentially significant effects on some sea duck species from a large oil spill assumes, for purposes of analysis, that such a spill will occur. If the probability of such a spill occurring (8-10%) is included in the equation, the long-term effect decreases to a rather low level and does not provide nearly as strong an argument for deleting specific areas from the lease sale.

L-0021.075

The contribution of Sale 186 to cumulative effects is determined only after estimating the overall cumulative effects that are part of the total past, present, and reasonably foreseeable future activities for each resource. In meeting this NEPA requirement, we have used oil and gas production as an indicator of these activities. This analysis has included all resources and includes fish and wildlife and their habitats, endangered species, water resources, and subsistence, among others. A more detailed analysis of water usage will be provided in the proposed development EIS when more specifics are known. Each sale would have a similar contribution based on the similar resource estimates for each of the three sales. Other activities such as military operations, cleanup activities of abandoned sites, and research with icebreaker support have not translated to measurable effects. The more extensive spatial and temporal parameters of the cumulative case obscure any minor changes in effect the alternatives have on the proposed action. We would like to have the National Research Council's report for this analysis and will study it carefully when it is available to ascertain if any new information or differences in magnitude of impacts are projected from what is covered in this EIS.

L-0021.076

The analysis of effects of the Proposal and the various alternatives is provided in Section IV of this EIS. The cumulative analysis is provided in Section V of the EIS and evaluates the effects of past, present, and future activities, including an assessment of the contribution of the activities associated with the Proposal to those cumulative effects. The analysis of Alternative II (No Lease Sale) is presented as comparison to the effects analysis of Alternative I (the Proposal).

The separate cumulative analysis in Section V provides the decisionmaker and readers with the "big-picture" analysis the commenter is requesting. Such an analysis would be inappropriate in Section IV.

Each of the proposed lease sales is a separate and unique decision, and the options chosen for each lease sale may be different. It would be inappropriate for the MMS to assume that each will occur and combine all three timelines into a single analysis, and provide a single analysis. Tables IV.A-1, IV.A-2, and IV.A-3, provide the activities by year such that the information requested by the commenter is readily available.

The cumulative analysis does evaluate and consider the effects of past activities; activities on existing onshore and offshore leases; other activities and effects, including the effects of estimated activities for proposed Sale 186; and the effects that could follow from future leasing on OCS, including Sales 195 and 202.

L-0021.077

As noted in comment L-0021-076, the analysis in Section IV and the information in Tables IV.A-1, IV.A-2, and IV.A-3 are specific to the Proposal. The cumulative effects for all past, present, and future activities are presented in Section V. The analysis in Section IV is specific to evaluating the effects and impacts of proceeding with the Proposal or alternatives. The analysis includes the effects of all of the listed activities to, and in some cases beyond, the level of specificity appropriate for an environmental assessment of leasing. That is, in many cases our analysis goes well beyond that envisioned by NEPA. The EIS evaluates the issues and concerns that were identified during scoping, including seismic activities, exploration activities, development and production activities, and even the effects of unlikely events such as large oil spills. Those activities and effects of those activities are identified in Sections IV and V of this EIS.

Offshore ice roads, if needed, primarily use seawater. If the exploration activities occur during the open-water season, no ice roads would be needed. If certain technologies are used, such as the SSDC at the McCovey site, no ice roads or gravel sources would be needed. The EIS estimates that most of the activities that could occur following the proposed lease sales would occur in the Near Zone in the central Beaufort Sea near existing infrastructure, which could eliminate the need for new gravel mines, docks, causeways, etc. Under our scenario, offshore facilities would use existing gravel and/or ice roads that support onshore activities to the maximum extent possible. Transportation of oil and gas from the OCS would use existing common carrier pipelines and infrastructure when possible. No contaminated waste sites are anticipated from the proposed activities.

We know that uncertainty surrounds oil and gas leasing, exploration, and development offshore Alaska. Based on experience, most of the offshore leases issued on the Alaska OCS are never explored. Most potential oil and gas fields have not been drilled. The majority of past exploration efforts did not find commercial quantities of oil and gas. However, the scenarios developed by the MMS in Section IV provide an adequate and appropriate estimate of the levels, locations, and timing of activities that may occur, so that we can evaluate the projected environmental effects to enable the decisionmaker to make a reasoned decision.

Additional NEPA analysis is required and will happen if, after acquiring a lease in the Beaufort Sea, a company proposes to explore their lease. This step, or tiered approach, builds on the premise that as both the agencies and companies involved move from general planning, to leasing, to exploration, and to possible development, the specificity of the information improves. The accompanying environmental analysis that flows from each stage also is more specific with respect to location, timing, and magnitude. By the time a project, such as the Northstar field is proposed, specific information is available that allows Federal, State, tribal, and local agencies to evaluate the effects from specific activities to the physical, biological, and human environment at those locations. If significant effects are identified in any of these environmental reviews, new mitigation may be developed and required to reduce or eliminate adverse effects, or the projects may be denied. The staged review and assessment is a reasoned and proven process for energy development that allows companies to explore and hopefully develop additional energy to meet our country's needs in an environmentally sound manner.

L-0021.078

The Alpine facility is still under development and multiple flights are made on a daily basis, especially during the summer season when overland traffic is not permitted between the Kuparuk road system and the Alpine pad. However, frequent vehicular movement occurs between the airstrip and the work camp. Table V-8 has been updated to more accurately reflect projected Alpine aircraft use.

L-0021.079

The focus of this EIS is the first of the three sales, and the two sales to follow are expected to yield similar results and pose similar effects. Following the first sale, there will be an assessment or update on this assumption. The alternatives have not been treated in this table or in the text of the cumulative analysis, because the changes in effects of alternatives do not translate to measured differences on the expanded scale of time and space for the cumulative analysis (Section V.C). The No Lease Sale Alternative would be the same for the cumulative analysis as for the proposed action.

L-0021.080

See Response PH-Anchorage.028.

L-0021.081

The text in Section V.C.13.b has been revised to reflect that mitigating measures will avoid damage or destruction to potential archaeological resources.

L-0021.082

We direct the reader to the full analyses that can be found in Section IV.C.16 - Effects on Environmental Justice and Section V.C.16 - Cumulative Effects on Environmental Justice. We believe that leasing, seismic exploration, exploration drilling, and routine development activities would not produce disproportionate, high adverse effects on the minority Inupiat population, based on the effects analyses for bowhead whales, birds, seals, and fishes (see Section IV.C.16). However, in the event of an unlikely large oil spill, we do believe a disproportionate impact could occur.

L-0021.083

As suggested, Map 16 has been added to the EIS to show the past and current leases issued relative to the proposed action (Alternative I) and other alternatives.

L-0021.084

The description of the kelp community in Camden Bay is similar to the description provide in the Proceedings of the Arctic Kelp Workshop (USDOI, MMS, Alaska OCS Region, 1988a) held in Anchorage, Alaska and accurately depicts the kelp community in the area. The workshop proceedings explain that the presence of rock and kelp in Western Camden Bay was confirmed during surveys for the Warthog drilling platform, and that the surveys identified areas both with and without rocks (i.e., kelp holdfasts). The workshop proceedings also explain that the drilling platform was debalasted outside of the area where rocks were detected. A follow-up study entitled *Distribution and Abundance of Kelp and Associated Species in Western Camden Bay* has been proposed for FY 2004, as listed in the Alaska Annual Studies Plan, Final FY-2003.

MMS prepared an EA on the Warthog Exploration Plan (EP), as the comment implies. We prepared Categorical Exclusion Reviews (CERs) later on minor modifications to the EP, such as delayed removal of the platform. The EA discussed kelp at only an inshore location because no one expected kelp at the proposed drill site in 30' of water. After the EA was prepared, kelp was found during bottom-hazards surveys. The Arctic Biological Task Force (BTF) reviewed the benthic video and concluded the coverage was less than 10%--i.e., that it was not officially a "Boulder Patch." Regardless, the proposed drill site was moved to an area which appeared to have less rock (primarily so that the Concrete Island Drilling Structure (CIDS) skirt could penetrate the bottom) but the new location had not been surveyed. After the CIDS was moved, a site-clearance survey showed that there was probably sparse kelp there also. No other surveys or studies were conducted. It is our understanding from our Studies Section that the Coastal Marine Institute has proposed more kelp research; it might be conducted on the distribution and abundance of kelp in Western Camden Bay, but would not include a drill-site assessment.

L-0021.085

The suggested corrections have been made to Map 7.

L-0021.086

A map showing the spring migration route for bowheads was not included for several reasons. The MMS does not anticipate any exploration activities in the spring lead system area during the bowhead whale spring migration as a result of OCS Lease Sale 186. This area is far removed from existing infrastructure, and industry interest in the area

is likely to be limited. Available technology and cost of operations most likely would preclude operating in the spring lead system during the ice-covered period, which would include the spring migration period. Finally, should industry acquire leases in the area and technology is developed allowing operations to occur during the spring migration, the National Marine Fisheries Service's May 25, 2001, Biological Opinion for the Beaufort Sea requires the MMS to reinitiate Section 7 consultation under the Endangered Species Act before such operations could be approved and proceed.

L-0021.087

The suggested changes have been made to Map 7.

L-0021.088

It should be noted that comparable maps for Barrow are provided. They are Figures III.C-2, and III.C-3, and they do, in fact, show historical land use. Figure III.C.-1 shows historical land use for Kaktovik, and Figure III.C-16 shows subsistence use for the 1994-1995 harvest season. Harvest location numbers that related to a place name table were omitted on the draft EIS version of Figure III.C-16 but are included in the final EIS figure.

L-0021.089

We appreciate the comments and apologize for any lack of clarity. Map 13 has been revised to read Essential Fish habitat for Salmon to clarify that this map applies only to salmon. However, essential fish habitat for salmon fisheries in Alaska include all streams, lakes, ponds, wetlands, and other waterbodies currently or historically accessible to salmon in the State. While small runs of pink and chum salmon sometimes occur in the Colville River and in some of the drainages west of the Colville River, neither species has established populations anywhere on the North Slope (Bendock and Burr, 1984). Based on available information, we have concluded that there are no self-sustaining salmon populations using the Colville and Sagavanirktok rivers, and we have added text to that section to make that clear.

We also added the following sentence to the effects on freshwater essential fish habitat in Section IV: "The freshwater habitat shown on Map 13 includes stream sections likely to be downstream of potential ice roads."

L-0021.090

The data portrayed on Map 14a is primarily from BP and was originally provided for the Liberty draft EIS. Although this is data approximately 4 years old, it is the best data we have available, which is adequate for leasing decisions being evaluated. The Council on Environmental Quality NEPA regulations require we use the best available data. We believe that the portrayed data will provide the Secretary with a reasonable picture of the gravel activities that have occurred on the North Slope in those areas that may be affected by the proposed multiple-sale leasing program. Any proposed exploration or development plans the may result for any of the three OCS sale evaluated in this EIS, would require additional NEPA environmental analysis using site specific information.

L-0021.091

This information was compiled for the draft EIS for the Northwest National Petroleum Reserve-Alaska (January 2003). It is a composite of data provided to the Bureau of Land Management and the State of Alaska by both Phillips and BP. This map was included because it shows the active direction of the oil industry regarding potential drilling in the Reserve. The map reflects the best available information, which is the standard required by NEPA regulations. We believe that the portrayed data will provide the Secretary with a reasonable picture of the industrial activities that have occurred on the North Slope in those areas that may be affected by the proposed multiple-sale leasing program. As drilling in the Reserve continues farther west, the likelihood of a major find that ties into a significant offshore find in the Beaufort Sea becomes possible. Accordingly, this map was included in Section V. Any exploration or development projects resulting for these proposed OCS activities, should the Secretary decide to hold the sales, would need further NEPA environmental evaluation using site-specific data, which is not available or needed in the current lease sale EIS.

L-0021.092

The NEPA does not require a worst-case analysis. The regulations retain the duty to describe the consequences of a remote but potentially severe impact, but they ground the evaluation in scientific opinion. We analyze a very large oil spill in Section IV.I. Cumulative impacts of oil spills are analyzed in Section V.

The following is a list of hazardous-substance spills by number of spills and volume in pounds or barrels reported by the Alaska North Slope industry to the Alaska Department of Environmental Conservation from July 1, 1995, to March 30, 2001. These types of spills generally are into containment and are cleaned up, and they have not been identified as the source of environmental effects that warrant additional analysis in the EIS. The exceptions to that rule are seawater and produced water, which are transported in a pipeline and can leak to the tundra. Such spills would be handled essentially the same as an oil spill, but the seawater or produced water is not toxic and would cause very small if any environmental effect.

Hazardous Substance	No of Spills	Pounds	Barrels
2,4,5-T	1		0.05
acid (type unknown)	9		3.14
ammonia (anhydrous) *	0		0.00
Biocide	1		0.95
biozan gel	3		135.88
Calcium chloride (solid)	3		0.38
Cement	5		21.21
corrosion inhibitor	34		539.43
drag reducing agent	15		57.33
emulsion breaker	5		6.10
ethyl alcohol (ethanol)	1		0.02
ethylene glycol (antifreeze)	131		24317.83
freon (dichlorodifluoromethane all types)	1	6	
hexylene glycol	3		3.69
hydrofluoric acid *	1		0.02
methyl alcohol (methanol)	89		590.05
Other	215		3131.43
produced water	49		163.86
propylene glycol	16		170.19
seawater	65		341.24
Sodium hydroxide	1		0.02
source water	6		35.98
Sulfuric acid *	2		0.38
therminal	5		4.02
unknown	4		9.00

We have provided a discussion of why we use the median spill size instead of the average. Appendix A, Section A 1.b now includes a table of data for well blowouts on the OCS and a discussion in the text. The section on behavior and fate of oil spills has been expanded to include more information discussed in previous EIS's. The oil-spill-trajectory analysis follows hypothetical spills for up to a year in ice tracking their movement over hundreds of miles. The boundaries used by the resource areas are developed by the MMS analysts and are based on resource information and professional judgment. The key biological resources that are evaluated in the EIS were those identified by MMS through the scoping process. While the commenter suggests that the EIS "ignores many key biological resources and subsistence resources altogether, no species or resources were listed by the commenter. The MMS is unaware of any key species that are not evaluated, and NEPA does not require that the EIS evaluate all possible species; it requires analysis of the key resources.

See Response PH-Kaktovik.032.

L-0021.093

The objective of the Oil-Spill-Risk Analysis is to estimate relative oil-spill risks associated with the production and transportation of oil and gas from the proposed lease sale. The MMS Alaska OCS Region uses this analysis in the EIS prepared for the lease sale. Analysts who prepare the EIS identify environmental resource areas at risk from oil spills based on their experience and knowledge.

The resource areas that define the bowhead whale migration corridor range from 500-1,000 square kilometers. The MMS estimates a spill would cover a discontinuous area of 440 square kilometers after 30 days. It is unlikely that an oil spill would cover the entire whale migration corridor from the McKenzie Delta to the Chukchi Sea. In addition, the migration proceeds in a staggered way geographically, with the majority of whales in one area at one time. This is why different villages go whaling at different times. The MMS is interested in impacts to the resource and, therefore, looking at segments is the most meaningful way to look at impacts to the resource.

The conditional probabilities for land segments are additive. The land segments are divided up equally to allow the analyst the maximum flexibility when looking at resources. They can either combine land segments or look at them individually. We have added tables to Appendix A summarizing the conditional probabilities of the areas you are interested in. The analysis of the impact of spills to birds in coastal lagoons is located in Section IV.C.6.a(2). The analysis of the impact of spills to polar bears is located in Section IV.C.7.a(2)(b).

L-0021.094

We are unclear what the commenter means by the Nuiqsut subsistence-resources area being "shown as a tiny triangle around Cross Island." On Map A-2c, the Nuiqsut ERA is an arc with a radius that ranges from 10-15 miles, which was designed to include traditional areas where whales have been harvested in the past. For onshore harvest areas, land segments have been used; the pertinent land segments can be seen on Map A-3b and are analyzed in the Section IV.C.11.b(2)(c) - How Oil-Spill Contact May Affect Subsistence-Harvest Patterns. Contrary to the commenter's statement, the semicircular environmental resource area for Kaktovik is a fair representation of Kaktovik's historical whale-harvest area. If there is more up-to-date information on whale harvests than that provided by the North Slope Borough, we ask the commenter to provide it to the MMS.

The Oil-Spill-Risk Analysis model used in the Beaufort Sea multiple-sale EIS to evaluate the probability of spilled oil contacting specific bowhead whale subsistence-harvest areas uses a number of specific environmental resource areas (and land segments) that represent primary whaling areas. If a large area is used as an environmental resource area, the probability of contact would always be 100% and, therefore, no realistic measure of oil-spill risk could be achieved. By using discrete resource areas, a realistic measure of contact can be predicted. Figures III.C-1 and III.C-16 depict Kaktovik subsistence-use areas (see Response L-0021.088). The MMS believes that Barrow environmental resource areas and land segments are of realistic geographic scope for which to measure spill contact.

See Response L-0021.095.

L-0021.095

The analysis of subsistence resources is analyzed in IV.C.11.b(2)(b). This section discusses impacts to subsistence-resource areas using land segments and various environmental resource areas, including mapped resource areas for whaling. The analysis of the impact of oil spills on subsistence resources is not solely based on mapped resource areas for whaling. The MMS used the best available information on the locations where subsistence whalers go, which was based on whale strikes. No other geographic information was provided to the MMS. The MMS currently has a study for Nuiqsut that is looking at where subsistence-whale hunters hunt and not just where they succeed in hunting.

GREENPEACE

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L-0022

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SEP 2 ? 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 20, 2002

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363
Fax: 907-271-6805

RE: Comments on the Draft Environmental Impact Statement for the Beaufort Sea Planning Area, Oil and Gas Lease Sales 186, 195, and 202. OCS EIS/EA MMS 2002-029

Dear Mr. Goll:

Greenpeace, inc. hereby endorses the comments submitted by Martin Robards, The Ocean Conservancy, on this lease sale. Our organization was inadvertently left off the listing of signatories on that letter.

Sincerely,

Melanie Duchin
Climate Campaigner
Alaska Office

MMS Response to Comment Letter L-0022

No comments were identified in comment letter L-0022 that required responses.

UNITED STATES DEPARTMENT OF COMMERCE
Office of the Assistant Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

September 6, 2002

RECEIVED
SEP 2 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Regional Director
Minerals Management Service (MMS)
Alaska OCS Region
949 East 36th Avenue
Anchorage, Alaska 99508

L-0023

Dear Sir:

Enclosed are comments from the National Oceanic and Atmospheric Administration (NOAA) on the Outer Continental Shelf Oil and Gas Lease Sales 186, 195, and 2002 in the Beaufort Sea, Alaska. We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

for James P. Burgess, III
NEPA Coordinator

Enclosure

cc: Director, Minerals Management Service
Department of the Interior
Mail Stop 4230
1849 C Street, NW
Washington, DC 20240

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 3, 2002

RECEIVED
SEP [illegible] 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

MEMORANDUM FOR: Steven Kokkinakis
Office of Strategic Planning

FROM: James W. Balsiger
Administrator, Alaska Region

SUBJECT: DEIS for Beaufort Sea Planning Area: Comments

The Alaska Region has reviewed the June 2002 Draft Environmental Impact Statement (DEIS) prepared by the Minerals Management Service (MMS) Alaska Outer Continental Shelf Region for Lease Sales 186, 195, and 202 in the Beaufort Sea. Please refer any questions to Brad Smith or Jeanne Hanson in our Anchorage office at (907) 271-5006.

General Comments

Seven (7) previous oil and gas lease sales have occurred in this area. Past sales have resulted in the drilling of 30 exploration wells. One development and production facility has been approved and is now operational (Northstar). The Minerals Management Service's proposed action (also described here as Alternative I) consists of offering 1,877 whole or partial blocks for lease, covering 9,770,000 acres of the Beaufort Sea planning area off Alaska. These blocks would be offered through three (3) individual sales which would occur sequentially between 2003 and 2007. Water depths in the sale area range up to 120 feet. Resource estimates indicate the range of potential oil here to be between 340 and 570 million barrels per sale. The DEIS projects 23 exploration and delineation wells would be drilled for these lease sales. The DEIS assumes a total of six new fields would be developed under these sales.

The DEIS offers five (5) additional alternatives; the no action alternative and four (4) alternative deferral areas. While it is not clear whether the DEIS intends for these alternatives to be mutually exclusive, we are recommending the adoption of Alternatives III, IV, V, and VI. These alternatives present small, but potentially valuable, improvements from the proposed action. Alternative III would reduce potential conflicts between bowhead whale subsistence hunters and offshore oil and gas operations by removing an area of 138,000 acres in waters

east of the Point Barrow (one percent of the sale area). The deferral area is used by bowhead whales for migration and possibly feeding, and is within the traditional hunting areas of the village of Barrow. The MMS projects this alternative(and the others)would reduce potential effects to subsistence harvest patterns when compared to the proposed plan. While exploratory activities adjacent to the deferral area would continue and may present many of the same impacts expected in the proposed plan, Alternative III offers meaningful benefit to the protection of fish and wildlife and to locally important socio-cultural values (subsistence). We believe support for this alternative is justified. The actual area proposed for this (and all) deferrals may not fully represent the area in which bowhead whales are traditionally hunted, or in which disturbance to these whales may impact subsistence hunting. The recommendations of the AEWC and the North Slope Borough should be considered in refining the boundaries for these deferrals.

Alternative IV would reduce potential conflicts between bowhead whale subsistence hunters and offshore oil and gas operations by removing an area of 200,000 acres in waters near Cross Island (two percent of the sale area). The deferral area is used by bowhead whales for migration and possibly feeding, and is within the traditional hunting areas of the village of Nuiqsut.

Alternatives V and VI would reduce potential conflicts between bowhead whale subsistence hunters and offshore oil and gas operations by removing an area of 400,000 acres in waters north and east of the Kaktovik (four percent of the sale area). The deferral area is used by bowhead whales for migration and feeding, and is within the traditional hunting areas of the village of Kaktovik.

We remain concerned over the individual and cumulative effects of oil and gas activity on the Western Arctic population of bowhead whales. The MMS has responded to these concerns in its environmental studies program; researching many issues and providing decision makers with important data. NMFS, through the Marine Mammal Protection Act, has required comprehensive monitoring of oil and gas activities which result in the incidental take by harassment of bowhead whales and other marine mammals. The issue of industrial noise and its impact on marine mammals, especially bowhead whales, remains a subject of debate and concern. Traditional Native experience has found bowhead whales react strongly to such noise, avoiding seismic sources at distances up to 35 miles. However, research into this matter has provided data which do not suggest avoidance reactions are strong enough to yield population-level impacts to bowheads. Despite

.001

problematical limitations in these studies and their relatively brief duration, we feel they support a decision to allow OCS lease sales in the Beaufort Sea, supported by a comprehensive monitoring effort. Both MMS and NMFS (through the small take authorization program) have interests here and we are hopeful future monitoring will extend the information gathered through past research. .001

This is the first time MMS has written a multi-sale EIS for the Alaskan Outer Continental Shelf. NMFS believes meeting NEPA requirements through this approach is reasonable, although the Environmental Assessments for future sales in the Beaufort Sea must be written carefully and fully document individual and cumulative impacts. One of the most contentious, and potentially harmful, activities associated with leasing of the Beaufort Sea OCS has been marine geophysical (seismic) exploration. These high-energy, low-resolution surveys employ multiple vessels operating an energy source which introduces very high noise levels into the water. NMFS has worked extensively with industry, MMS, the North Slope Borough of Alaska, the Alaska Eskimo Whaling Commission, and the communities of the North Slope of Alaska in the processing of incidental take permits under the Marine Mammal Protection Act for these seismic actions. The potential for seismic activity to disturb (harass) bowhead whales has now been demonstrated through research and monitoring. Displacement of migrating bowhead whales or heightened sensitivity to noise may, in turn, adversely impact traditional subsistence use of these whales by Alaska Natives. While these effects are discussed to a degree in the DEIS (e.g., under the effects of noise on bowhead whales section), geophysical exploration through low-resolution seismic is not specifically documented as one of the actions associated with these lease sales. We believe it is necessary to provide additional detail on this activity, particularly as it concerns the cumulative effects of OCS leases in the Beaufort Sea and any impacts to marine mammals. Just as the DEIS provides projections of the number of exploration wells, production fields, and production platforms for each sale, it should also provide similar information as to geophysical seismic research. .002

In accordance with the procedures outlined in the May 12, 2002, letter from Rolland A. Schmitten, Director of the Office of Habitat Conservation for NMFS to Thomas A. Readinger, Associate Director for Offshore Minerals Management, MMS has provided information on Essential Fish Habitat (EFH). The DEIS never clearly states whether or not the actions proposed would adversely affect EFH. The trigger for EFH consultation is a Federal action agency's determination that an action may .003

adversely affect EFH. If a Federal action agency determines that an action will not adversely affect EFH, no consultation is required, and the Federal action agency is not required to contact NMFS about their determination. NMFS believes that while the exploration, development and production scenarios generated by MMS are plausible, possible adverse effects to EFH should be identified on a project specific basis. Therefore, no further EFH consultation is necessary at this time. The need for additional EFH consultation should be determined as specific projects are designed. .003

Specific Comments

Pg I-10, I.C.2.b(1). The second paragraph here indicates the Secretary has previously removed from leasing sections of the Beaufort Sea OCS west of the Barrow deferral area (Alt. III). This represents a positive action by the MMS which responds to concerns over bowhead whales and traditional hunting practices. We believe, then, the area mentioned should be identified in Map 3 and included in the discussion of deferrals. .004

Pg. I-10, I.C.2.b(2). This defends the need to lease blocks near Cross Island based, apparently, on preventing adjacent State of Alaska tracts from draining oil reserves from Federal OCS areas. This matter should be adjudicated through the courts, and does not seem to be justification for leasing. .005

Pg.II-11. II.H.1.c. The DEIS does not adequately assess the potential impacts of additional causeways. Therefore, we would consider the DEIS deficient if the proposed activities include additional causeways. .006

The individual and cumulative effects of causeways on coastal fisheries has long been the focus of controversy. The debate centers on fish passage around the structures and possible adverse changes to habitat which may impact population productivity. Changes to habitat (i.e. changes in temperature and salinity regimes) have been documented to occur as a result of causeway induced deflections of currents and entrained waters away from the coast.[1]

[1]. Thorsteinson, L.K., L.E. Jarvela, and D.A. Hale. November 1990. Arctic Fish Habitat Use Investigations: Nearshore Studies in the Alaskan Beaufort Sea, Summer 1988. U.S. Dept. of Commerce and U.S. Dept. of Interior, OCSEAP Final Report, 71: 349-485.

Regardless of whether or not these changes have biological significance, there is implicit agreement that preserving the integrity of the warmer, brackish coastal boundary layer during summer months is crucial in sustaining the biota of the region. We consider the brackish nearshore corridor critical to the success of marine and anadromous fish stocks. In addition, freshwater flows from coastal rivers and streams are important to the creation of the brackish warm zone, and it is essential to sustain natural flows to avoid impacts. .007

Therefore, we believe that Stipulation No. 3, Transportation of Hydocarbons, should be modified to reflect the MMS's position regarding causeways. This would clarify that no new causeways would be constructed. Extensive causeways have many undesirable impacts on nearshore processes and resources and should be prohibited outright. .008

Pg.II-12. II.H.1.d. We recommend the third sentence in the second paragraph here, beginning with "Scientific studies" be replaced with the following statement: Monitoring studies of 3-D seismic exploration (6-18 airguns totaling 560-1500 c.i.) in the nearshore Beaufort Sea during 1996-1998 have demonstrated that nearly all bowhead whales will avoid an area within 20 km of an active seismic source, while deflection may begin at distances up to 35 km. .009

Pg. II-15. II.H.2.a. Stipulations 6a and 6b provide that permanent facilities within 10 miles of Cross Island should not preclude "reasonable subsistence access" to whales. Earlier in the DEIS we learn that noise from such facilities must comport with the small take authorization program under the MMPA. The regulations for that program require these takes "will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses." We recommend that Stipulations 6a and 6b adopt this language in order to bring consistency among these efforts and to clarify intent. .010

Pg. III-37. III.B.4a(1). The first paragraph on this page mentions the possibility that bowhead whales may occupy the northeastern portion of the Chukchi Sea more often than previously thought, and that these whales may occur regularly along the northwestern coast during summer. Monitoring during the towing of the Steel Drilling Caisson drill rig during summer of 2002 recorded five bowhead whales off Point Barrow on July 21, further supporting these findings. .011

Pg. III-40. III.B.4.a(1) It is more than unfortunate the final report of the bowhead whale feeding study is not included within .012

this discussion, or available for planning purposes. This multi-year effort represents a comprehensive research effort intended to identify and characterize the use of the eastern Beaufort Sea as feeding habitat for bowhead whales, and to place some perspective on the importance of that habitat. NMFS personnel participated in the Scientific Review Board for this work, and a draft final report on the study was released in December of 2001. We strongly encourage MMS to complete this important work and incorporate its conclusions and data into the final NEPA document. .012

Pg. IV-4. IV.A.1. The significance threshold described here for threatened or endangered species should be considered further. We believe it is unreasonable to limit this to effects lasting a generation or more; particularly for long-lived animals such as the bowhead whale with a life span possibly exceeding 100 years. Would an activity that displaces bowheads from a traditional feeding area for 50 years then be considered insignificant? .013

Pg. IV-5. IV.A.2.B. The projections are that a maximum of two drilling rigs would operate at any time under Sale 195 (and one for Sale 202). Are these estimates specific to those sales, or is this an absolute maximum? In other words, could we see two rigs drilling on Sale 195 tracts, and another drilling a Sale 202 tract? .014

Pg. IV-6. IV.A.2.b(1)(a). As previously stated, we recommend the final EIS present additional discussion on geophysical seismic research, in addition to the site survey seismic work described here. .015

Pg. IV-13. IV.A.4.a. The spill modeling assumes the oil will be similar to Alaska North Slope crude oil. How typical is this? We understand that Northstar crude is markedly different than that from the Prudhoe Bay field. Is it logical to assume offshore oil from newly developed reservoirs would be more similar to North Slope crude? .016

Page IV-10. IV.A.2.b(3). Information on the impacts of dredging needs to be included or referenced in this section. While suspended sediments per se have very low direct toxicity values, the composition of sediments should be tested prior to assessing the potential impacts from dredging. In Norton Sound, for example, nearshore sediments contain high background levels of mercury and other metals. Dredging activities may resuspend such materials and make them available to aquatic organisms, with resultant adverse effects. .017

Page IV-13. IV.A.4.a. On page IV-3, the DEIS states the analyses presented consider whether the mitigation that is proposed as part of the project can reduce or eliminate all or part of the potential adverse effects. Here, however, the analysis of large oil spills assumes there is no clean up or containment. This seems illogical, as oil spill response and preparedness are very much part of the mitigative measures directed at OCS activities. .018

Page IV-15. IV.A.6. This section should also include a description of dispersants and any considerations or restrictions on their use in the Beaufort Sea. .019

Page IV-16. IV.A.6.a. Please provide further description of the experience(s) of using the described small-vessel skimming system "successfully" in Cook Inlet amid broken ice. .020

Page. IV-16. IV.A.6.c. The stated response technology for a spill occurring during late fall freeze-up is to allow the spill to freeze in place, then mining the oil from the pack ice. Is there any reasonable prediction of the efficiency of this technology, or examples of its testing or actual use? .021

Page IV-21. IV.C.1.a(1). The DEIS states that trace metals would be added to the water by drilling muds and cuttings. It further states that the Environmental Protection Agency (EPA) prohibits the discharge of drilling muds and cuttings in less than 5 meters. Additional discussion regarding the dispersion of these pollutants and the ability to meet water quality criteria at the edge of mixing zones seemingly dismiss the possible impacts from these pollutants. What would be the impact if these pollutants from exploratory activity were re-suspended during activities such as dredging for subsea pipelines? MMS should consider putting this information in their "Information to Lessees" and encourage lessees to discharge of such materials downhole whenever possible. .022

Page IV-22-23. IV.C.1.a(3). This section discusses the effects of permitted discharges of produced waters. While it is noted that to date for exploration, the EPA has prohibited the discharge of formation waters into waters of less than 10 meters, the section does provide information on the maximum amount of oil and grease in produced waters over the next 21 years. The document goes on to state that if produced waters were discharged for a project, "the effect on water quality would be local, but would last over the life of the field." What would be the cumulative impacts for all the proposed exploration and development projects for all three leases? Also, what kind of impacts could be expected inside the "mixing zone"? By contrast .023

an entire section is spent describing the probable effects of an accidental oil spill on various resources. Should an oil spill occur, presumably it would be a one time event. A discharge of production waters would occur on a consistent basis. What would this mean to resources and habitat? .023

Page IV-144. IV.C.11.b(3). NMFS is supportive of Stipulation 4, and believe such monitoring is necessary to fully assess the effects of OCS actions on bowhead whales. However, we feel the first sentence on this page (This stipulation helps to reduce effects to subsistence-harvest patterns and to the overall socio-cultural systems which place special value on the bowhead whale harvest and the sharing of this harvest with other members of the community) overstates the benefits of this monitoring. The statement that this stipulation is considered to be a positive action by he Native community under environmental justice should be referenced. .024

It is not clear why Stipulation 6 is presented in two parts, a and b. Would both apply? .025

Page IV-146. IV.C.11.c(1)(a). The DEIS states in the second paragraph that potential disturbances to bowhead whales from seismic operations would be limited to areas west of Cross Island, because of the provisions of (past and existing) conflict avoidance agreements. The DEIS should consider that these agreements are primarily for the protection of the subsistence hunt. These agreements often allow for seismic work to proceed once a village has reached its quota, after which the potential for seismic to disturb these whales may be very high. .026

Page IV-219. IV.I.2.k(1). In describing the potential effects of an oil spill on subsistence uses, this analysis very correctly states that there would be long term effects, often based in part on the perception that a marine mammal could be tainted. This analysis may be somewhat flawed in basing discussions on the results of the oil spill model, which estimates the chance of an oil spill contacting a particular environmental resource, such as Point Barrow. This approach may not fully account for seals and whales which move among these resource areas. If a seal became oiled near Cross Island, and was harvested near Barrow some time later, subsistence use of the area would certainly be affected even though no oil had contacted that resource area. .027

Page V-1. V. Cumulative Effects. This section seems to confine its analysis to other oil and gas projects, rather than the cumulative impacts of the lease sales when added to <u>all</u> other past, present, and foreseeable future actions. .028

Page V-5. V.A.7. We believe that repeated exposure of migrating bowhead whales to noise sources may be an example of synergistic impact. While whales may avoid a source by moving further offshore before resuming their normal course, and may make such avoidance movements around several sources (additive impact), there may be a point at which the whales remain offshore after exposure to multiple sources, even once the source is no longer present. Given the many potential noise sources associated with exploration, development, and production on the Beaufort Sea OCS, Natives and scientists have considered this a real possibility. .029

Page V-28. V.C.5.a(1)(b). The FEIS should present an expanded discussion of development and exploration within the Canadian Beaufort, particularly off the McKenzie delta, as well as vessel movement into and out of Canadian waters necessary to support activities within the Alaskan Beaufort Sea OCS. Expansion of the Canadian fleet to support U.S. development would present several concerns with respect to bowhead whales and subsistence hunting, as late season traffic in the eastern Beaufort Sea would be most likely to encounter, and harass, these whales. .030

MMS Response to Comment Letter L-0023

L-0023.001

The MMS shares the concern of the National Marine Fisheries Service about potential effects on bowhead whales. The MMS has conducted many studies on bowhead whales over the past 25 years. In addition, monitoring studies have been conducted during seismic surveys and drilling operations during the past 15 years. As a result of all these studies, the overall level of knowledge on bowhead whales likely exceeds the level of knowledge on many other species. Studies to date show that some whales may avoid industrial activities, but there is no indication of harm to either the population or to individual whales. During 1978-1993, the bowhead whale population was estimated to have increased at an average rate of about 3.2% per year in spite of the annual subsistence-whale harvest by Alaska Natives. The most recent bowhead whale census indicated the population is still increasing, although possibly at a slower rate of increase. During the last 10 years, the overall level of OCS activities in the Beaufort Sea has decreased substantially compared to the 1980's. The MMS has worked closely with the National Marine Fisheries Service in the past and will continue to work closely with them in the future.

L-0023.002

Multiple seismic vessels are not used to explore for oil and gas. Seismic surveys can only be done with one vessel, and that cannot be closer than 15-20 miles of another seismic vessel because of interference. For more than 10 years, there has been only one operator in the Beaufort Sea, and that operator did not conduct a survey every year. That operator left the Alaska Beaufort 2 years ago. If seismic operations were resumed over the period of this EIS, we would anticipate only one operator and one source vessel.

The EIS addresses oil and gas exploration activities related to leased acreage. Seismic activities are almost always conducted prior to leasing. Prelease seismic activities go through a separate NEPA review process. In nearly all cases, the only postlease seismic activities are site-clearance surveys employing low-energy seismic tools to evaluate geohazards and archeological concerns. Nevertheless, the discussion on the effects of seismic operations on bowhead whales presented in Section IV.C.5.a(1)(a)1) includes studies on the effects of prelease seismic surveys.

Deflection may be a more appropriate term than displacement when discussing the effects of seismic activity on bowhead whales, because the deflection is relatively temporary. Deflection is the term used in the monitoring studies and the peer-review workshop where the monitoring studies are discussed.

There is a discussion in Section IV.C.5.a(2)(c)1)c) regarding seismic operations anticipated in conjunction with Lease Sale 186. Seismic surveys already have been conducted over much of the proposed sale area. The MMS expects that any seismic surveys associated with Lease Sale 186 would be shallow-hazards surveys conducted over a relatively small area. Although it is possible that a prospective lessee could conduct a prelease 3-dimensional seismic program to better define a prospect, the MMS does not anticipate any prelease seismic surveys associated with Lease Sale 186. Considering that multiple seismic vessels are not expected and that a Conflict Avoidance Agreement will ensure that any seismic operations conducted will not interfere with subsistence-hunting activities, the potential effects from seismic operations to either bowhead whales or to subsistence whaling is likely to be negligible. The MMS believes the overall discussion on the effects of seismic operations on bowhead whales presented in Section IV.C.5.a(1)(a)1) and the discussion of seismic activities anticipated for Lease Sale 186 are adequate.

L-0023.003

The MMS completed a request for Essential Fish Habitat consultation on leasing and exploration activities in the Beaufort Sea and submitted to the National Marine Fisheries Service. The National Marine Fisheries Service responded that they had no conservation recommendations and that no further Essential Fish Habitat consultation is necessary at this time. When a project-specific development and production plan is presented to the MMS, we will review the plan at that time to determine whether there is a need to reinitiate Essential Fish Habitat consultation.

L-0023.004

The MMS believes it is unnecessary to include any additional discussion (Section I.C.2.b(1)) about the area west of the Barrow deferral that the Secretary removed from additional consideration during the area identification process. Because this area is not part of the proposal or a deferral alternative in this EIS, it need not be discussed further.

L-0023.005

A primary purpose of the OCS Lands Act is to make lands available for oil and gas leasing in an environmentally acceptable manner, taking into consideration protection of the marine, coastal, and human environments. The Act and implementing regulations require that OCS leasing should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner that is consistent with the maintenance of competition and other national needs, including preventing the drainage of OCS resources. The Secretary of the Interior selects areas for leasing; the issue of potential drainage of Federal OCS reserves is only criteria. The MMS believes the statute clearly sets out responsibility for expeditious and orderly development of OCS resources through offering areas for industry to bid on, lease, explore, and develop. Drainage issues are not a matter for adjudication in the courts; it is the responsibility of the Secretary of the Interior to prevent such possible drainage situations from occurring. This is accomplished through the OCS leasing process.

L-0023.006

Long causeways are not part of the anticipated facilities for development and production resulting from this sale, but buried pipelines at landfalls might be elevated on short gravel causeways (Section IV.A.2.b(3)(a)); also, a short dock is part of the Point Thompson development plan, and similar docks might be needed for future developments (Section IV.A.2.b(2)(c)). Information on short docks has been added to the sections on water quality (Section IV.C.1.a(2)) and lower trophic-level organisms (Section IV.C.2.a(2)). The information points out that the 1-mile (1.5-kilometer) long East Dock was constructed about 30 years ago. During that time, there have been many studies of nearshore water quality, but none have documented adverse water-quality effects (for example, circulation changes or temperature and salinity discontinuities) due to East Dock. If a causeway were to be proposed at some time in the future, it would be subject to NEPA evaluation at the time, as allowed by the OCS Lands Act.

L-0023.007

See Response L-0023.006.

L-0023.008

The use of causeways is not prohibited by law. The MMS has not determined that it should adopt a policy that absolutely prohibits constructing of any new causeways. Should a request for a causeway be submitted in an exploration or development application, additional NEPA analysis will be required. The MMS and the other Federal and State Agencies will take a close look at that request, based on specific data provided by the applicant, and its potential effects to the physical and biological environments. The MMS also would be required to meet the consistency standards of the Alaska Coastal Management Plan in addition to consulting with other Federal and State Agencies and, given the specifics of the project under consideration at that time, they can make their own permitting-related decisions.

L-0023.009

The original intent of the stipulation is to require lessees to conduct site-specific monitoring programs for exploratory drilling operations in addition to seismic surveys. The suggested wording changes would orient the stipulation more toward monitoring programs for seismic surveys. We prefer to stay with the original intent of the stipulation and the broader coverage provided by the current wording.

L-0023.010

We understand the concern over consistency and clarity between MMS stipulations and requirements under the Marine Mammal Protection Act. Regardless of whether the Cross Island stipulation is adopted, modified, or not adopted, operators must comply with the Marine Mammal Protection Act and its regulations. It is better to not include “regulation specific” language in a stipulation, in case the regulation changes in the future.

L-0023.011

The comment is noted regarding the monitoring program for the SDC. A sentence has been added to the text in Section III.B.4 that five bowhead whales were observed off Point Barrow on July 21 from the SDC as a platform of opportunity.

L-0023.012

Findings from the revised final report, *Bowhead Whale Feeding in the Eastern Alaskan Beaufort Sea: Update of Scientific and Traditional Information* (OCS Study, MMS 2002-012), are included in Section III.B.4.a of this EIS.

0023-013

The significance threshold for threatened and endangered species is applicable to all species and was developed from the thresholds that the MMS has used in past EIS's. The thresholds we use in this analysis are based on generations and reproductive cycles, because we are evaluating population-level impacts and assessing impacts over a time continuum. The length of that time period needs to relate to the species being affected; hence, the MMS has chosen a "generational" verses a fixed-time period, which would not make sense when applied to different species that have very different live spans and reproductive cycles.

The appropriateness of significance threshold definitions used in the EIS received comments during the public review process; however, none of the commenters provided or suggested alternatives definitions with a rationale for that definition. The MMS acknowledges that a definition of NEPA "significance" may be questioned; however, we feel that the approach we have taken, which incorporated standards developed and used in past EIS's in the Alaska Region and uses the information and comments we have received in the past, is still our best approach. The definitions can be applied to all relevant species and populations in addition to individual species and populations. The current definition for significance is still the best standard. If we receive suggestions for a better definition with supporting information that provides us with a better standard, is demonstrated to be more appropriate, and can be applied to all threatened and endangered species, we will adopt the new standard.

The commenter specifically asked if an activity that displaces bowheads from a traditional feeding area for 50 years would be considered insignificant. We find nothing in our analysis of effects indicating that bowhead whales would be displaced from traditional feeding areas for up to 50 years. Bowhead whales, which have been increasing in numbers, could be temporarily displaced from a traditional feeding area without a significant impact to the population. The National Marine Fisheries Service has not designated any of the area in the Beaufort Sea as critical habitat or essential feeding areas. The EIS has evaluated the effects of proposed leasing to subsistence, and whether the effects to subsistence activities would be affected. The analysis found that no significant effects would result from normal routine activities.

L-0023.014

Projections are for one to two exploration drilling rigs to be operating each year in the Beaufort Sea. We do not assign drilling rigs to tracts leased in a specific sale. In addition to exploration drilling rigs, we assume that one development drilling rig will operate on each production platform. Depending on the timing of discovery and development drilling, more than two drilling rigs may be operating in a single year. According to the hypothetical scenarios offered for analysis, in 2013 as many as four rigs could be operating, two for exploration drilling and two on production platforms. However, in most years during the next 2 decades, the typical number of rigs operating will be one to two.

L-0023.015

See Response L-0023.002.

L-0023.016

The MMS cannot know what the oil chemistry will be prior to discovery. We use Alaska North Slope crude because it has a" typical" range of properties for the known oil fields on the North Slope of Alaska. Northstar is a light crude that would evaporate faster and disperse more rapidly than Alaska North Slope crude. The MMS prefers to use a more conservative oil as an analog to what might be found. We use an oil that will not evaporate as rapidly or disperse as quickly as Northstar.

L-0023.017

A reference to a recent example of a site-specific assessment of the effects of dredging has been added to the text of the EIS. The reference is to the EIS on the proposed Liberty Development in Foggy Island Bay (USDOI, MMS, 2002).

L-0023.018

The MMS agrees with the commenter that oil-spill-cleanup activities can reduce or eliminate all or part of the potential effects of an oil spill. The potential benefits of oil-spill-response activities to reduce effects are recognized and addressed in the summary of effects section for each resource.

L-0023.019

Dispersants currently are not considered a viable nonmechanical spill response tactic for the Beaufort Sea. To date, exploration and development activities have taken place in shallow waters where dispersants are not used due to toxicity concerns. Dispersants also generally are considered to be ineffective in cold water. The MMS, however, is funding research to determine the effectiveness of dispersants in cold water and, should they prove to be a feasible response tactic, future EIS documents will incorporate a discussion on dispersants.

L-0023.020

A more in-depth description of the Cook Inlet broken-ice oil-spill-response tactics has been added to the EIS in Section IV.A.6.a.

L-0023.021

The ice-mining tactic has not actually been used in a spill situation but is expected to be highly effective in removing oil from the ice. The ice-mining tactic would be used if oil were imbedded deep in the ice sheet, where an ice trimmer would be unable to access it. For oil located nearer to the ice surface, the ice trimmer would be used to chip the oil layer into small pieces. The oiled ice chips would then be removed by scooping up the chips and loading them into dump trucks. This tactic is used routinely to clean up spills that occur onshore on gravel pads, or on snow- and ice-covered roads and tundra. It is extremely effective and efficient in removing oiled ice.

L-0023.022

If drilling muds and cuttings were discharged, they would be a "permitted" discharge—permitted by the Environmental Protection Agency. The possible impacts of discharge have been assessed only in a general way in the EIS. If discharges were proposed later by an offshore operator, site-specific authority for the discharges would have to be obtained from the Environmental Protection Agency. That agency would assess the site-specific effects of the discharges, including possible resuspension of the discharged material by subsequent operations.

L-0023.023

The EIS does not include an estimate of the maximum amount of oil and grease in produced waters over the next 21 years, partly because it would disregard the Environmental Protection Agency's practice of approving discharges only in waters more than 10 meters deep. In addition, the comment fails to note an explanation in the EIS that reinjection projects to maintain field pressure have become almost standard operating procedure in the Beaufort Sea. For example, formation waters from the Endicott and Northstar fields, the first offshore fields in the Beaufort Sea, are reinjected into the oil formation to help maintain field pressure.

L-0023.024

The text in Section IV.C.11.b(3) - How Stipulations and Mitigating Measures Help Reduce Noise, Disturbance, and Oil-Spill Effects, has been changed to reflect the suggestions of this comment.

L-0023.025

Stipulation 6a for Cross Island (see Map 3) includes those waters outside the barrier islands where bowhead whales are more likely to be, and Stipulation 6b includes those waters inside the barrier islands where bowhead whales, because of shallower water depths, are less likely to be.

L-0023.026

The text has been changed to more specifically represent seismic effects on the subsistence hunt. See Section IV.C.5 - Endangered and Threatened Species for an analysis of seismic effects on bowhead whales. This section also has been referenced in Section IV.C.11.c(1).

L-0023.027

The text in Section IV.I.2.k(1) - Subsistence-Harvest Patterns, Effects of a Blowout Spill, has been changed to reflect this comment.

L-0023.028

Sections V.A and V.B focus primarily on the assumptions and projects considered in the cumulative analysis with respect to past, present, and reasonably foreseeable future activities. The primary analysis for the cumulative effects and contribution the proposed action is found in Section V.C. This extensive section is treated resource by resource and focuses primarily on the more immediate proposed action.

L-0023.029

To achieve a synergistic effect from repeated exposure of migrating bowhead whales to noise, such as permanent displacement of the migration farther offshore, we believe several things would have to happen: (1) the noise-producing activity or activities would have to be operating during the whale migration for at least several years; 2) the activity would have to be in a location or locations where the noise would reach a substantial portion of the migration route; and 3) a large portion of the population and the same individual bowhead whales in the population would have to be exposed to the noise annually for at least several years. We do not believe this has happened.

Based on noise-producing activities conducted to date and monitoring programs for those activities, there appears to be some avoidance of an activity by bowheads. However, this avoidance/displacement appears to be localized and temporary (on the order of 24 hours). Subsistence whalers continue to harvest whales during the fall subsistence whale hunt.

L-0023.030

The MMS believes that expansion of the Canadian fleet or vessel movement into and out of Canada to support U.S. development is unlikely. Generally, it is cheaper to transport materials and supplies via the haul road or by sealift for operations in the Alaskan Beaufort Sea than to get supplies from Canada. In the past, Canadian icebreakers were used to support the Kulluk drilling in U.S. waters. Our understanding is that the Kulluk and the icebreakers are no longer in the Canadian Beaufort Sea.

Our understanding is that the seismic vessel that conducted the surveys in 2001 also has left the Canadian Beaufort Sea.

L-0024

STATE OF ALASKA

OFFICE OF THE GOVERNOR

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September 20, 2002

Mr. John Goll
Regional Director
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RECEIVED
SEP 2[illegible] 2002
4:45 p.m.
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
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Dear Mr. Goll:

Thank you for the opportunity to comment on the draft environmental impact statement (EIS) for the three proposed Beaufort Sea Outer Continental Shelf (OCS) oil and gas lease sales included in the current five-year program. The Minerals Management Service (MMS) prepared the draft EIS for Lease Sale 186 scheduled for 2003, Lease Sale 195 scheduled for 2005, and Lease Sale 202 scheduled for 2007. These comments represent a consolidated state response from the State of Alaska on the draft EIS.

The state supports the concept of completing a single EIS for the three lease sales. Unless evidence is presented that would justify the need for a supplemental EIS, an environmental assessment would likely be sufficient for the individual sales.

We look forward to reviewing separate consistency determinations prepared by MMS for each of the three lease sales after issuance of the final EIS. During a meeting last month, your staff discussed the possibility of issuing a "negative determination" under the provisions of 15 CFR 930.35, instead of a consistency determination for each lease sales. A negative determination would not be appropriate for these lease sales because federal agency activities are subject to the consistency provisions of the federal Coastal Zone Management Act. A federal agency activity is any function "performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities" and includes a wide range of activities "which initiate[s] an event or series of events where coastal effects are reasonably foreseeable" (15 CFR 930.31(a)). Even though a lease sale is essentially a paper transaction, preparation of a consistency determination is necessary because the sale initiates events that would have reasonably foreseeable coastal effects. During the

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five-year period for these lease sales, new information about coastal effects may become available. In addition, the North Slope Borough has initiated a revision of their coastal program that is expected to be completed in this timeframe. .001

The state supports the proposed stipulations and Information to Lessees (ITLs) for the lease sales as described on pages II-9 through II-22 of the draft EIS. In an attempt to have more coordinated measures between the federal and state governments, the state has adopted Beaufort Sea mitigation measure language similar to that used by MMS in its stipulations and ITLs. For example, the Cross Island stipulation is similar to one we have adopted for state lease sales in the Beaufort Sea. The state requires a consultation process among the lessees, local communities and whaling groups, but it does not specifically require whale-monitoring programs that is required by MMS Stipulation 4, (p. II-12).

The state continues to defer from its lease sales acreage between Pt. Barrow and Tangent Point and between Barter Island and the Canadian Border. We will review these deferrals on an annual basis. The Barrow, Kaktovik and Eastern subsistence whale deferrals in the draft EIS are approximate to these state deferrals. The Alaska Department of Natural Resources (ADNR) notified me that they think it would be appropriate to keep the MMS deferral alternatives as options in the final EIS for these sales so they may be considered in future environmental assessments or supplemental EISs. Also, the ADNR questions the need for the Nuiqsut deferral area seaward of Cross Island in light of the proposed 10-mile buffer around the Island. .002

The state remains concerned about industry's demonstrated inability to clean up oil spills in broken ice conditions, the timelines associated with relief well drilling, and the potential need for seasonal drilling restrictions in response to these limitations. .003

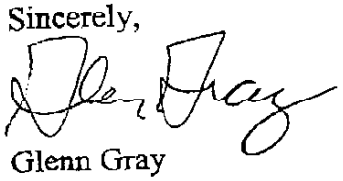
From the perspective of oil spill response planning, there is a difference between exploration and production phases. While the alternatives presented in the EIS do not differ significantly for exploration activities, once the projects move into the production phase, the increase in the number of producing wells can also lead to an increase in the risk of spills. For this reason, the state supports the use of drilling restrictions or other spill prevention measures during open water periods and until the ice thickness is sufficient to support heavy equipment as described in the Alaska Clean Seas Tactics Manual. After initial entry into a formation, production well shutdown and start-up present the next highest spill risk. Current drilling restrictions such as those employed at the Northstar Project can reduce the spill risk. In addition, most oil spill response resources for the North Slope are located in the Deadhorse area. The geographically expanded exploration and production activities in the lease sale area may require the establishment of other oil spill response depots east and west of Deadhorse to ensure timely oil spill responses. .004

With regard to the discussion on emissions from evaporation or *in situ* burning, the assumptions may hold true for a static release or single "burp" of oil, but a continuing release might pose additional risk. Volatile emissions may impede response, depending on the type of release, wind speed and direction, and other incident-specific factors. .005

In closing, we note an error in ITL No. 12 on page II-21, Information on Coastal Zone Management. This ITL references the Cook Inlet rather than North Slope Borough coastal management program. .006

Again, thank you for the opportunity to submit comments on the draft EIS. Please contact me at (907) 789-7822 if you or your staff have any questions about these comments.

Sincerely,



Glenn Gray
Project Analyst

cc: Kurt Fredriksson, Deputy Commissioner, DEC
Marty Rutherford, Deputy Commissioner, DNR
Chip Dennerlein, Director Habitat and Restoration, DFG
John Katz, Office of the Governor, Washington, D.C.
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Thomas Napageak, Chairman, Alaska Eskimo Whaling Commission
Honorable George Ahmaogak, Mayor, North Slope Borough
Honorable Lon Sonsolla, Mayor Kaktovik
Honorable Edith Vorderstrasse, Mayor, Barrow
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MMS Response to Comment Letter L-0024

L-0024.001

The MMS will prepare a separate Consistency Determination for each of the sales proposed in this EIS.

The regulations at 15 CFR 930.35 address the process and content of negative determinations. A negative determination is a consistency determination that reaches the conclusion that there will be no coastal effects under the criteria of the Coastal Zone Management Act. A negative determination must contain all of the components of any other consistency determination: a description of the activity, the activity's location, and the basis for the agency's determination that the activity will not affect any coastal use or resource. In determining effects we must evaluate the enforceable policies of the Alaska Coastal Management Plan and include it in the negative determination. The level of detail must be sufficient for the State to evaluate whether coastal effects are reasonably foreseeable. The review and comment timeframes are the same as with any other consistency determination.

The analysis required by the Coastal Zone Management Act regulations will determine whether or not to issue a negative determination for Sale 186. The lease sale itself is a paper transaction that conveys only the rights for lessees to **pursue** exploration and production of the leased areas. These activities cannot occur without additional MMS and State review, evaluation, and approval or concurrence. This process provides for a more detailed site-specific coastal consistency review at the project-proposal stage. The sale itself may not initiate events that have a reasonably foreseeable effect on any coastal use or resource. Only at the time that specific proposals are submitted is it feasible to more precisely identify reasonably foreseeable events.

In designing a lease sale, great consideration is given to the Alaska Coastal Management Plan and its standards and applicable enforceable policies. Mitigating measures are developed to address these concerns and deferral alternatives are analyzed in the environmental document based in part on concerns related to the standards and enforceable policies. The results are that by adoption of specific mitigating measures and by implementation of the MMS' rigorous regulatory regime, a sale can be designed with terms and conditions that result in no reasonably foreseeable effects at the time of sale.

L-0024.002

This is a multiple-sale EIS. The deferral alternatives are evaluated and available for consideration for all three of the proposed lease sales. In addition to the Nuiqsut Subsistence Whaling Deferral, the MMS evaluates other additional potential mitigation relevant to Nuiqsut in Stipulations 6a and 6b, and the decisionmaker could chose both, one, or none. All of the action alternatives include 5 standard stipulations and 16 ITL clauses. The evaluation of deferral alternatives and optional mitigating measures in the EIS does not mean they have been adopted for the upcoming sales. If the Secretary decides to proceed with the proposed sale or sales and determines that additional protection is needed, the Secretary can chose one or more of the alternatives and/or the optional mitigating measures individually for each sale.

L-0024.003

The MMS believes that industry has the ability to respond effectively in the broken-ice environment. The MMS regulations recognize and require that industry include provisions for nonmechanical response such as in situ burning of oil. In situ burning is well suited to the broken-ice environment and has proven to remove significant quantities of oil from the ocean surface. Use of in situ burning in turn reduces reliance on mechanical-only means of spill response. Trials in broken ice to date have tested only individual tactics in a very rigid framework and have not allowed spill responders to adapt equipment and tactics to the prevailing conditions. Industry, if given the latitude to mix and match tactics and equipment to current ice and weather conditions, would present a more effective spill response using all the tools available. There is no compelling reason to impose additional constraints on OCS lessees, such as seasonal drilling restrictions, to create a window for drilling a relief wells. There has never been a major blowout and oil release on the North Slope from drilling operations. There are response methods available to respond to an oil spill on the OCS in addition to the mechanical methods required by the State, which can be effective in removing oil from the environment in the very unlikely event of a blowout.

L-0024.004

The MMS conducts a rigorous review of industry proposed exploration and development activities to ensure that proper safeguards are in place to prevent the release of oil into the environment. These include employee training in well control, requiring that well-control safety equipment include blowout preventors be used and requiring that the sufficient primary well-control measures are available during the drilling of the well (drilling-fluid components). The MMS also has established a standard set of requirements that must be followed to establish platform suitability and that the drilling equipment is sufficient for the proposed operation. The MMS also believes that industry has sufficient oil-spill-response capabilities to address control and removal activities year-round, either through mechanical or nonmechanical means. We do not feel that drilling restrictions beyond what already is required are necessary.

L-0024.005

The text in the first paragraph of Section IV.C.15.b(2)(a) has been revised to include the concern expressed in the comment received.

L-0024.006

The reference has been corrected to cite the North Slope Borough Coastal Management Program.

L-0025

RECEIVED
SEP 2 2002
5:30 p.m.
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Fax: 907-271-6805

RE: OCS Beaufort Sea Oil and Gas Lease Sales 186, 195, and 202
Draft Environmental Impact Statement

Dear Mr. Goll:

This letter supplements my comments from the public hearing in August. As a member of the former public advisory committees on Beaufort Sea Lease sales, I am extremely disappointed that MMS has reverted to old proposals to simply lease the entire area. Is it really a blank slate, as if the public had never spoken before on these issues? .001

When you talk about the Arctic Ocean, people often think it is flat like water that freezes in your ice cube tray. They think the ocean bottom is empty sand. But, near the coast, the Beaufort Sea is an estuary zone, like Cheasapeake Bay or Puget Sound. .002

The exact area where new oil leasing is proposed in the Beaufort Sea is part of the *Arctic Ring of Life*, that bountiful zone where the sea ice meets the land, named by a Russian polar bear biologist.[1]

The endangered bowhead whales and beluga whales migrate and feed there, millions of migratory birds fly from many continents. And it supports the local Inupiat residents as it has for millienia, with the bowhead whale, fish, and other subsistence resources. The remote coastline of the Arctic National Wildlife Refuge is spectacularly beautiful. I traveled there most recently in August and saw polar bear tracks on the sand, the eroding coastal bluffs where permafrost is melting, long-tailed ducks and king eiders flying over icebergs at midnight "sunset."

Interior Department's proposed leasing plans sharply contrasts with leasing moratoria imposed elsewhere in the nation off sensitive coastlines due to citizen pressure. For over 25 years, local citizens of Alaska have opposed offshore oil drilling, yet our reasonable concerns are not heard as they rightly were in the lower 48. Whereas the past Administration offered one Beaufort Sea lease sale offshore the state lands between the Colville and Canning Rivers, Interior Secretary Norton's aggressive .003

[1] See Miller et al. 1993. *Oil in Arctic Waters.*

program includes 8 new offshore lease sales covering millions of acres in the Beaufort, Chukchi, and Bering Seas, and Cook Inlet. This is a return to the massive sales off Alaska first launched by Interior Secretary James Watt in the 1980's. .003

These three lease sales in the Beaufort Sea – 9.6 million acres each, or larger than the entire expanse of states like New Jersey or Maryland or Massachusetts -- go from just east of Barrow all the way to the Canadian border. The 3 proposed Beaufort Sea sale are 10 times as big as the last one, yet the public only gets to review this bad idea once, with a single environmental impact statement covering all three sales. There are no maps in this EIS where you can see the size and extent of the most recent lease sales to get the perspective on what a change this is. .004 .005

I have three major issues to address in this letter including 1) opposition to leasing off the sensitive coasts of the arctic refuge, Teshekpuk Lake, bIwhead whale feeding grounds, and spring lead zone, 2) that oil spill risks are downplayed, and 3) meaningless alternatives are considered in terms of reducing environmental impact including the cumulative impacts of infrastructure such as causeways.

I am disappointed that despite the broad base of support – even including the City of Kaktovik and the North Slope Borough -- Interior plans new leasing off the coast of the Arctic National Wildlife Refuge as well as off the Teshekpuk Lake area of the National Petroleum Reserve-Alaska. This is a step backwards from the incremental steps MMS had taken where there were leasing deferrals or deletions, such as the area off the coast of the Arctic Refuge, and the spring lead zone and coastal waters from Barrow to Cape Halkett off NPRA in Sale 170. .006

Offshore lease sales jeopardize the integrity of the wilderness, wildlife and coastal habitats of the Arctic Refuge and Teshekpuk Lake as well as the marine ecosystem itself. Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and potential spills. Sub-sea pipelines in the ice-infested waters of the Beaufort Sea are very risky, even if 6-miles long like Northstar, much less ones that could be 30-100 miles long. .007

In the future, there would be intense pressure to construct sprawling onshore airports, pipelines, roads, docks, and other support facilities within the unique national treasure -- Arctic Refuge. The last Beaufort Sea lease sale 170 set a precedent of not leasing off the coast of the Arctic National Wildlife Refuge. At that time, the Interior Department cited among many reasons, the lack of information on cumulative impacts on the refuge, emergency response plans, and sub-sea pipelines, a deficiency that still exists. .008

The failure of four field tests showed industry's inability to contain and clean up an oil spill in Arctic waters during most of the year. I watched those drills and saw how daunting the task is. Oil spills pose great threats to endangered bowhead whale migration and feeding areas, polar bear habitat, migratory bird, fish and other sensitive environments. .009 .010

The Karluk shipwreck shows us how extensive an area could get oiled from a pipeline break or blowout. August 12, 1913, the research ship Karluk was abandoned by Stephannson in Camden Bay near Flaxman Island. Over the next five months it drifted 100's of miles west in the pack ice until it sank north of Wrangel Island, Russia on Jan. 10, 1914. While the EIS presumes that spilled oil would stay stuck in one place, this example questions that premise. .011

The EIS downplays the number of polar bears that could be oiled and die in a spill. In contrast to the "few" that would die, according to the executive summary of the EIS, modeling studies have shown that up to 108 polar bears could be oiled and die from a single spill at one of the offshore development projects. A comprehensive analysis of the effects of many offshore production projects, as well as the cumulative effects of all onshore and offshore developments needs to be done. .012

The MMS is inconsistent in its various calculations of the chance of a spill. I see that in MMS's Final EIS for the 5-year plan published in April of this year, they assumed that there would be one platform spill and one pipeline spill, with a total 81-94% chance of a spill greater than or equal to 21,000 gallons (Table 4.1e). .013

So has something really significant changed since MMS's April calculations, or were the numbers capriciously changed to downplay the risks? In the EIS for the Beaufort Sea sales, MMS states that the chance of one or more pipeline spills is 4-5% and one or more platform spills is 5-6%, with the total chance of a spill is 8-10% (p.A1-11). What is this based on? A new study was apparently done by the Bercha Group which is "in press," according to the DEIS, but has it had peer review? The new probabilities also sharply contrast with the Beaufort Sea Sale 170 Final EIS (p.IV-B-4) which predicted 46-70 % chance of one or more spills when it analyzedan area roughly 1/10 of the proposed lease sale area. The DEIS also ignores other predictions, such as for the Northstar field where the U.S. Army Corps of Engineers projected up to 24% chance of a major spill for that project alone.

We all know that accidents happen and that if a spill does occur it would be devastating to the coastal and marine environment. Yet, the worst-case scenarios are downplayed or ignored throughout your analysis.

The oil spill modeling was not done for a reasonable range of alternatives, nor were key resources like the bowhead whale feeding grounds or fish nearshore habitat analyzed. The trajectory analysis breaks down resources, such as the bowhead whale migration route into small pieces, or the shoreline of the Arctic Refuge into 9 segments. So, the chances of hitting any one piece may be small, but the chance of hitting a larger area might be much greater. Would you want to be the official in charge if a blowout washed onto the Arctic Refuge coast?

Due to proven lack of ability to clean up oil spills in the Beaufort Sea most of the year, the risks to bowhead whales, polar bears, migratory birds, and subsistence resources are too great to allow new leasing in this sensitive area. .014

The leasing alternatives in this EIS are meaningless, confusing, and do not meet the presumed goals of protecting subsistence resources, the bowhead whale feeding grounds, or reducing impacts to other sensitive areas. Whether inadvertent or intentionally deceptive, the tiny deferral options would not achieve the named goal, such as Kaktovik Subsistence whale deferral. Apparently, this is a simple line drawn around some whale harvest areas, but it has nothing to do with avoiding the subsistence resources areas – the bowhead feeding grounds located off the shore of the Arctic Refuge, the whale fall migration corridor, the whale spring migration route, nor the area where oil spills or noise from exploration or production would occur and could harm the whales' habitat and migration route. The Kaktovik deferral is arbitrary and needlesslessly confusing especially since it bears no resemblance to any past Kaktovik deferrals that MMS has proposed. .015

Furthermore, the City of Kaktovik and the North Slope Borough requested that the entire area off the coast of the Arctic Refuge be deleted, as did the Alaska and National environmental organizations, yet this reasonable deletion or deferral area was not one of the alternatives. .016

I am concerned that the environmental impacts, especially the cumulative effects of activities and infrastructure that occur both onshore and offshore are systematically downplayed. .017

In conclusion, the MMS needs to conduct a new Draft EIS for the first Beaufort Sea lease sale due to the inadequacies of the environmental impact review. A full public EIS process, complete with hearings, and coastal zone consistency analysis should be conducted for each lease sale that is held. .018

At this time, I recommend Alternative 2, No Action, because it is the only one that would address my concerns about major oil spills and unacceptable long-term risks to the wilderness values of the Arctic National Wildlife Refuge and the important migratory bird habitats of the Teshekpuk Lake Special Area.

I recommend that areas that were deferred or deleted from past Beaufort Sea Sales, including the area north of the coast of the Arctic National Wildlife Refuge and the National Petroleum Reserve-Alaska, bowhead whale feeding grounds, and the spring lead system should be permanently removed from the lease sales. This simply takes into account past public input.

Sincerely,

Pamela A. Miller

MMS Response to Comment Letter L-0025

L-0025.001

The MMS has not "reverted to old proposals to simply lease the entire area" as your letter states. The MMS has worked closely with locally affected communities to define and refine the Proposal and deferral alternatives, and developed two new stipulations (Stipulations 6a and b and Stipulation 7) in addition to the five "standard" stipulations in place and analyzed in the EIS.

The MMS has incorporated comments and concerns expressed since the mid-1970's regarding leasing offshore OCS areas in the Beaufort Sea, and will continue to do so for each proposed sale. The MMS has identified the lack of baseline and scientific data on which to base leasing decisions and contracted for and conducted biological, environmental, and sociocultural studies for more than 30 years to enable the Secretary of the Interior to make a reasoned and balanced decision whether to offer or defer areas from leasing in the Beaufort Sea. Studies results have been incorporated into each EIS as data became available. The MMS continues to conduct additional studies as the need for a study arises through comments and discussions with the North Slope Borough, the Alaska Eskimo Whaling Commission, whaling captains, the scientific and environmental communities, and Federal and State agencies. The MMS requires companies conducting exploration activities on the OCS to conduct monitoring studies and requires consultation with potentially affected subsistence communities. Over the years, mitigating measures have been developed and refined through dialogue and consultation with the Borough, the Commission, local communities, industry, and the State to reduce or minimize any effects from oil and gas activities.

The program has proceeded in accordance with the requirements of the OCS Lands Act, and all other relevant laws and regulations. The MMS recognizes the value of public comments and concerns raised at each step of our prelease process.

See Responses L-0001.005, L-0021.009 and L-0021.036.

L-0025.002

Information on Beaufort Sea storms is included in Section III.A.2.d, and information on the coastal zone has been added to the section on Lower Trophic-level Organisms (Section III.B.1.a). The information refers in part to Figures III.B-1a and III.B-1b, satellite photos of the Beaufort Sea that illustrates the extent of sediment-laden, estuarine water.

L-0025.003

The MMS acknowledges current leasing moratoria in OCS offshore areas of the lower 48 and recognizes that the Beaufort Sea is a productive and sensitive area with a unique environment. Since 1979, the MMS has safely engaged in oil and gas leasing activities in the Beaufort Sea, in accordance with the OCS Lands Act, NEPA, and Council on Environmental Quality guidelines. Through the years, the MMS has developed mitigation designed to reduce or minimize potential risks to the environment, resources, and lifestyles of local subsistence communities. We have worked closely with all parties to ensure activities are conducted as safely as possible to reduce potential effects of oil spills. However, the Secretary of the Interior decides whether to offer areas for leasing or to continue to exclude areas on a sale-by-sale basis. The various steps of the EIS and prelease processes ensure that the Secretary is provided with sufficient, detailed scientific information and environmental constraints to enable her to make a balanced and reasoned decision on an OCS area.

This process further refines and reduces an area analyzed in an EIS at each phase of the leasing process. In actuality, from past leasing experience we know that very few blocks are actually offered and leased, and considerably fewer of those leased blocks ever has any exploration activity. Since 1979, seven Beaufort Sea OCS lease sales were held; of these, 30 wells have been drilled, and only one, the Northstar Unit, has any OCS producing wells. Although three Beaufort Sea lease sales are on the OCS approved 5-year leasing program for 2002-2007, the MMS does not expect "massive sales" to occur, given past leasing history.

See responses L-0001.005, L-0001.007, L-0004.010 and L-0021.009.

L-0025.004

See Response L-0002.016.

L-0025.005

See Response L-0021.023.

L-0025.006

See Responses PH-Anchorage.020, PH-Anchorage.021, PH-Anchorage.045, PH-Anchorage.047, PH-Kaktovik.009, L-0005.007, and L-0021.009.

L-0025.007

See Response L-0007.001.

L-0025.008

Each proposed lease sale is treated separately by the Secretary of the Interior. With each lease sale, the passage of time and the increase of information are circumstances that may affect the Secretary's decision. This EIS and the Liberty Development and Production Plan EIS contain a much-improved cumulative analyses from the one prepared for the Sale 170 EIS. Additional environmental analyses pertaining to pipelines and other issues were prepared for the Northstar and Liberty projects offshore in the Beaufort Sea. There is adequate information available to the Secretary to make an informed decision about whether to lease offshore the Arctic National Wildlife Refuge or whether to choose one or both deferral alternatives (V and VI). The Secretary will review all available and pertinent data before making an informed decision.

L-0025.009

See Responses L-0007.001 and L-0003.001.

The MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open water, spring broken ice and fall freezeup. The equipment, tactics, and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal and would not be limited to a single skimming configuration; they would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and MMS to add new tools and increase effectiveness of existing methods and equipment.

L-0025.010

The EIS assesses the probable effects on wildlife from large oil spills in Section IV.C and very large oil spills in Section IV.I.

L-0025.011

We acknowledge the historical context of the Karluk shipwreck and the commenter's knowledge of the cyclonic and anticyclonic gyres whose currents move water and ice in predictive ways. The Oil-Spill-Risk Analysis does, in fact, take these factors into account and does not presume to imply that oil stays in one place. If that were the case, the time, expense, and analytical rigor of an oil-spill model would be irrelevant.

L-0025.012

See Response PH-Anchorage.028.

L-0025.013

For the first portion of the comment, please see Response PH-Anchorage.029.

The MMS does not agree that we downplay or ignore worst-case scenarios. For purposes of analysis, the MMS assumes a spill occurs and analyzes impacts from an oil spill, even though statistically we do not expect a spill to occur. We also evaluate events such as a blowout in Section IV.I, even though the probability of occurrence is remote.

The oil-spill modeling was done for the range of alternatives analyzed in the EIS. Section IV.C.4.a(3)(b) - Effects of a Large Oil Spill discusses the effects of a large spill on freshwater, estuarine, and marine fish habitat.

The MMS examined the impacts of oil spills to whales specifically and habitat in general. For a whale to be impacted by a spill, it must occupy the same space as the spill. If a spill is in whale habitat, but there is no whale, then the whale will not be impacted. The National Marine Fisheries Service received a petition on February 22, 2000, requesting that portions of the U.S. Beaufort and Chukchi seas be designated as critical habitat for the Western Arctic stock of bowhead whales. On August 30, 2002, the National Marine Fisheries Service made a determination not to designate critical habitat for this population of bowheads (67 *FR* 55767), because (1) the population decline was due to overexploitation by commercial whaling and habitat issues were not a factor in the decline; (2) the population is abundant and increasing; (3) there is no indication that habitat degradation is having any negative impact on the increasing population; and (4) existing laws and practices adequately protect the species and its habitat.

The conditional probabilities for shoreline can be added. We have added Tables A.2-73 through A.2-90 showing the conditional and combined probabilities for refuges, parks and special uses areas.

L-0025.014

See Response L-0025.009.

L-0025.015

See Responses L-0001.009, L-0001.011, L-0001.012, L-0001.013, and L-0001.014.

L-0025.016

See Responses L-0021.009 and L-0035.001.

L-0025.017

The complexity and uncertainty associated with cumulative impacts have made it necessary to analyze this important ongoing issue with a systemized approach for some consistency to past and future assessments that meet NEPA requirements.

L-0025.018

See Responses L-0001.005 and L-0002.016.

L-0026

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REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 18, 2002

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Via e-mail to: akeis@mms.gov.

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RE: Comments on the draft Environmental Impact Statement for the proposed Beaufort Sea Planning Area Oil and Gas Sales 186, 195, and 202, OCS EIS/EA MMS 2002-029.

Dear Mr. Goll:

We are hereby submitting the comments of Environmental Defense on the draft Environmental Impact Statement for the proposed Beaufort Sea Planning Area Oil and Gas Sales 186, 195, and 202, pursuant to OCS EIS/EA MMS 2002-029.

Environmental Defense stresses that the underlying imperative for the Beaufort Sea planning process must be one in which the living resources, human communities, wetlands, watersheds, and other important values of Alaska and its waters will be protected and managed in a sustainable manner. This process must also be one in which the Minerals Management Service complies with all applicable federal and state laws. The present DEIS does not indicate that the current planning process and the proposed activities are able to meet these criteria. We therefore support Alternative II as outlined in the DEIS.

Our range of technical comments at this time fall into these general areas of concern:

1) Under the requirements of the National Environmental Policy Act (NEPA), the Department of Interior is not within the law if it relies only on an Environmental Assessment (EA) in preparing for any subsequent Beaufort Sea lease sale in the current 5-Year Outer Continental Shelf OCS Leasing Program. A full sale-specific EIS for each Beaufort Sea sale must be conducted to ensure that sound science and all necessary lease stipulations are applied to leasing decisions in this region. .001

2) When the federal government and the oil industry first proposed development of the Prudhoe Bay fields and the construction of the TAPS system, they made a contract with the American people and with all Alaskans that produced crude oil would be delivered safely to the Lower-48 markets. Promised safety equipment was never built and environmental shortcuts became a matter of daily practice, leading to the tragic Exxon-Valdez oil spill, which continues to poison the ecosystems of Prince William Sound today. Recently, lax industry safety practices led to a fatal explosion on the North Slope. .002

The record of the petroleum industry in Alaska is not reassuring, and includes countless spills, equipment failures, and broken promises. Cook Inlet watershed oil and gas spills from pipeline failures and maintenance problems have exceeded 50,000 gallons per year in total and spills occurred on average once per month, according to an analysis of data reported to the Alaska Department of Environmental Conservation (ADEC). The lush marine life of the Beaufort Sea is too valuable to put at risk to an industry with this kind of documented track record. .003

3) Very low levels of hydrocarbon compounds have now been found to be producing mutagenic effects on eggs of Pink salmon in Prince William Sound (PWS) as a result of the lingering petroleum pollution from the 1989 Exxon Valdez tankship oil spill. The three Final Environmental Impact Statements for the proposed Beaufort Sea OCS lease sales must address the implications of the compelling scientific evidence that very low levels of PAH compounds, at concentrations of parts per billion, trigger long term life-cycle mutagenic impacts on biological resources. The FEIS's should delineate what these discoveries in PWS mean for the biological systems of the Arctic should OCS development proceed there. .004

4) The DEIS fails to address the need for adequate OCS lease stipulations that will be necessary to accommodate the new engineering and environmental challenges encountered in the severe meteorological conditions of the Beaufort Sea, and fails to respond to the lack of oil spill cleanup capability in broken sea-ice conditions in the Arctic. The current technological inability of industry to respond to spills -even in the relatively less treacherous waters of Prince William Sound - creates a compelling case that cleanup capability must be a precursor to new OCS leasing in the Arctic. The DEIS fails to consider the present inadequacy of oil spill cleanup and containment technology, particularly as this inadequacy relates to the sensitive biological resources of the Arctic. The FEIS's must quantify the minimum and maximum percentages of anticipated oil recovery for spills in various sea states, meteorological conditions, and sea ice conditions. .005

5) The DEIS fails to consider newly emerging information about the concentration of hazardous levels of mercury around existing drilling operations in the Gulf of Mexico. The FEIS's must evaluate the substantial cumulative polluting effects of concentrating the impacts of a number of successive sales within the Beaufort Sea OCS Planning Area. The FEIS's must also evaluate the cumulative effects of elevated mercury discharges from the expected number of new drilling activities likely to result from anticipated OCS activities on fisheries as well as on ecosystem and human health. .006

6) The DEIS fails to specify the fate of produced natural gas from OCS production activities that may result from the proposed lease sales in the Beaufort Sea, given that no gas pipeline to markets is presently in place. The FEIS's should specify the total volume of produced natural gas that has been reinjected to date in Alaska's North Slope terrestrial oil and gas fields, and how much of that reinjected natural gas has already been wasted and is beyond recovery. .007

7) The DEIS fails to identify whether or not geophysical data indicating the potential for methane hydrate resources may be playing any role in industry interest expressed in the earlier Call for Information for the Beaufort Sea OCS Planning Area. .008

8) There are severe deficiencies in the current DEIS, including the lack of an impartial evaluation of the need to establish and maintain an adequate dismantling, removal, and restoration escrow account to ensure that all future decommissioning and habitat restoration costs will be met. In the Lower-48, OCS lessees who promised to carry out full dismantling, removal, and restoration processes as a precondition of their OCS lease contracts are now engaged in lobbying efforts to cut corners on their decommissioning costs by reneging on their agreed-to abandonment programs. In most cases, lessees are promoting their controversial and unproven "Rigs to Reefs" program of at-sea disposal of spent jackets as an alternative to full compliance with their present contractual obligations regarding decommissioning. Coastal states and fishing interests should not be left with seafloor obstructions such as "mud mounds" and discarded spent jacket structures as hazards to commercial fisheries and to navigation. .009

9) The DEIS fails to adequately consider the cumulative impacts of the proposed leasing actions in combination with previous OCS leasing actions and with other uses of the sea and seabed. The DEIS fails to adequately disclose the combined adverse impacts of all such activities on marine mammals, fish stocks, water quality, coastal ecosystems, and human communities. The DEIS fails to evaluate the direct and indirect implications of the proposed OCS-related activities on local and regional economic, social, subsistence, and environmental resources. Failure to evaluate cumulative impacts of the project in conjunction with other impacts on the regional marine environment has resulted in an inadequate EIS process, which fails to comply with the National Environmental Policy Act (NEPA). .010

10) The DEIS fails to explain how activities conducted as a result of each of the Beaufort Sea lease sales will fully comply with relevant sections of the Clean Water Act (CWA). Fates and effects of mercury, lead, and cadmium, which are associated with discharges of mud and cuttings from OCS operations, must be evaluated. "Produced water" impacts resulting from the discharge of toxic pollutants including benzene, arsenic, lead, naphthalene, zinc, and toluene downcurrent from the discharge must be quantified and mitigations identified. Fates and effects of NOx, carbon monoxide, sulfur dioxide, and all volatile organic hydrocarbons must be evaluated pursuant to the likelihood of compliance of OCS activities with the federal Clean Air Act. .011

11) The DEIS fails to explain how activities conducted as a result of the three anticipated Beaufort Sea OCS lease sales will comply with the Magnuson-Stevens Fishery Conservation and Management Act. The sale-specific FEIS's must quantify and identify the locations of biological resources comprising Essential Fish Habitat (EFH) within all project impact areas. EFH in the project areas must be delineated as to specific locations. Effective mitigation measures for project-induced EFH impacts must be incorporated in the NEPA process. .012

12) The DEIS fails to comply with the federal Endangered Species Act (ESA), including the provision of Section 7 consultations relative to all potentially impacted species subject to ESA listing. .013

13) The DEIS fails to adequately identify and evaluate the probable efficacy of specific mitigation measures, including oil spill cleanup technologies, air quality controls, and marine discharges from drilling operations. .014

14) The DEIS fails to evaluate the implications of additional hydrocarbon development expected to occur as a result of the three proposed OCS lease sales on global climate change, on the need to dispose of or sequester carbon dioxide in the ocean environment, and on public health. .015

15) The DEIS fails to adequately disclose the implications of OCS activities on coastal jurisdictions, including adverse impacts on air and water quality, shoreline industrialization and subsistence use issues within the coastal zone, and on public safety and wildlife damage risks associated with the current state of OCS technologies and the limitations of current oil spill cleanup capabilities. .016

16) The DEIS fails to consider the lack of availability of adequate scientific information needed to support reasoned leasing decisions, and the FEIS's must disclose the anticipated impacts derived from the proposed actions on existing uses of the sea and seabed. .017

17) The DEIS fails to provide detailed information about the probable implications of OCS oil and gas development on the fragile and productive Arctic environment in Alaskan waters and along Alaska's coastline. In particular, the cumulative impacts of new and existing federal OCS activities and state tidelands oil activities in Alaska must be evaluated and effective mitigations identified. The FEIS's should each disclose the full range of development pressures likely to result within the Arctic National Wildlife Refuge if the three Beaufort Sea lease sales proceed offshore. As a result of the activities proposed in the 5-Year OCS Program, the Alaskan OCS is likely to be subjected to drilling impacts from hundreds of exploration, delineation, development, and production wells, construction impacts from many miles of pipelines, impacts from the construction of causeways, docks, and pipeline landfalls, wildlife disturbance resulting from hundreds of aerial overflights, and fisheries impacts derived from the conduct of thousands of miles of seismic surveys. Statewide, the fishing industry in Alaska provides more private sector jobs than does any other source. Subsistence use of fish and other marine animals is both an established economy of Native coastal communities and is central to the survival of Alaska's indigenous cultures. .018

18) The FEIS's must each provide a full cost-benefit analysis which compares the actual costs (including transportation to markets, losses incurred in reinjection of unmarketable natural gas, and one-time social and environmental costs, such as the Exxon Valdez oil spill, plus ongoing day-to-day costs incurred by the environment) and benefits of OCS oil and gas leasing to an equivalent level of energy benefits generated by secure diversified renewable energy sources located closer to markets, including commercial wind electric generation, biofuels, alcohol fuels, photovoltaics and energy conservation. .019

19) The DEIS fails to adequately justify the decision by the Secretary of Interior to propose three sales in the Beaufort Sea planning area in the OCS Oil and Gas Leasing Program for 2002-2007 (The Program). The preliminary Program called for the first Beaufort Sea OCS lease sale to be held in 2003, with subsequent sales in 2005 and 2007. The September 19, 2001 publication of the Call for Information and Comments erroneously alleged that a single EIS could be utilized to justify all three of these sales. In light of the .020

fact that the final decision on the 2002-2007 5-year Program had not yet been made, and final delineation of the program areas and number of sales had not been completed at the time, this Call for Information and Comments on the Beaufort Sea planning area was clearly premature. In addition, the cumulative impacts of three lease sales within this area, the severe meteorological and sea-state conditions encountered, and the lack of oil spill cleanup technology are among the evidence that separate NEPA processes are necessary for each and every subsequent lease sale in the 2002-2007 Program. .020

20) The DEIS fails to provide the reviewer with an analysis of all direct, indirect, and cumulative impacts of all three of the proposed lease sales and on the composite impact of their cumulative effects. The identified deficiencies in the DEIS cannot be remedied by the publication of sequential Environmental Assessments (EA's) nor by the preparation of a draft supplemental document, but rather must be addressed by the scoping, preparation, and collection of public comments on a new lease-sale-specific DEIS document for each sale that discloses a full range of reasonable alternatives to each individual proposed action. .021

21) The DEIS fails to offer any reassurance whatever that the industry can safely monitor, detect, and respond to leaks from, pipelines under the sea ice. .022

22) Lease stipulations which prohibit the export of produced crude to markets outside of the U.S. should be a pre-requisite for any lease sale in federal waters in Alaska. .023

Thank you for this opportunity to provide comments on the draft Environmental Impact Statement for the proposed Beaufort Sea Planning Area Oil and Gas Sales 186, 195, and 202, OCS EIS/EA MMS 2002-029. We look forward to a full written response to each of these issues, pursuant to federal law.

Sincerely,

Richard A. Charter

Richard Charter
Marine Conservation Advocate
Environmental Defense
5655 College Avenue
Oakland, CA 94618

MMS Response to Comment Letter L-0026

L-0026.001

See Response L-0005.008.

L-0026.002

The MMS appreciates the commenter's concerns regarding industry's record for spills and accidents. The MMS has stringent safety and pollution-prevention regulations in place. Industry has a good operating and safety record on the OCS under the MMS regulatory program. The EIS includes discussions on OCS operating experience, spill risks, and operating requirements that reduce the potential for spills and accidents.

L-0026.003

See Response L-0026.002.

L-0026.004

The fact that very low hydrocarbon levels can adversely affect individual fish is not new and was mentioned in the draft EIS in Section IV.C.3.a(2). The issue is not so much about how individual fishes can be affected by hydrocarbons, but rather about how fish populations are likely to be affected, which is addressed at length in the EIS. While recent studies in Prince William Sound by Rice et al. suggest some long-term oil-spill-related effects for a large tanker spill, no tanker is proposed in the Beaufort Sea as a result of these lease sales. A spill of similar magnitude to the *Exxon Valdez* spill is very unlikely. Furthermore, the life histories of fish species in Prince William Sound are quite different than those in the Beaufort Sea, and the magnitude of the impacts on fish populations are diminished.

L-0026.005

The MMS disagrees with the commenter that additional stipulations are required to address environmental and engineering challenges in the Beaufort Sea and lack of oil-spill-cleanup and -containment technology. Existing regulatory requirements are considered mitigation in place and would address the type of concerns expressed by the commenter. The MMS safety and pollution-prevention regulations already reduce the risk of oil spills. The MMS has stringent regulatory requirements for safety and pollution prevention for drilling and production facilities. Several Federal and State Agencies will have jurisdiction over the design and operation of pipelines. The MMS oil-spill-contingency plan regulations ensure that appropriate oil-spill response-capabilities are in place. The EIS includes discussions of these safety requirements and oil-spill-response capabilities.

See Responses L-0024.003 and L-0024.004

L-0026.006

The EIS uses site-specific mercury information from the area of oil-industry development within the Beaufort Sea. Standard practice in Beaufort Sea exploration and development drilling is to inject muds and cuttings downhole rather than to discharge them. Based on mercury measurements in water, sediment, and biota in the vicinity of offshore oil development, both methylmercury and total mercury concentrations are at background and not increasing (Naidu et al., 2001; Boehm, 2001b). We are continuing to monitor mercury levels in sediment, biota (bivalves, amphipods, and fish), and water (total, dissolved, and particulate). We are identifying sources of mercury to the Beaufort Sea industrial area and are looking at historical rates of mercury accumulation in dated sediment cores. We are studying the partitioning of mercury between dissolved and particulate phases in the water. We have developed a very sensitive ratio technique that will detect any increase in mercury concentrations in Beaufort Sea sediments long before levels of biological concern are reached.

L-0026.007

Associated gas produced with oil from future OCS fields will be used as fuel for onsite facilities or reinjected for reservoir pressure maintenance. No gas is wasted. Gas consumed for fuel on leases does not pay royalties; however, royalties will be collected from gas transported off lease. Reinjected gas will be available for future production, when a transportation system is built from the North Slope. The disposition of gas produced on State

lands on the North Slope is available from the Alaska Department of Natural Resources. In 1999, associated gas production on the North Slope totaled 3,162 billion cubic feet, of which 219 billion cubic feet (or about 7%) was consumed and the remainder was reinjected. Ultimate recoveries from gas reservoirs typically are in the range of 70-90%, and advanced technologies spurred by higher prices generally support higher recoveries of oil and gas reserves.

L-0026.008

At the present time, methane hydrates are a scientific curiosity, not a proven hydrocarbon resource. Although numerous studies are being conducted to test the feasibility of recovering commercial quantities of gas from methane hydrates, no cost-effective method has been identified. Methane hydrate deposits are associated with permafrost in onshore areas of the North Slope and are the most economically attractive, because they could be produced through existing infrastructure. Widespread methane hydrate deposits on the continental shelf are much less attractive, because infrastructure is not present and recovery methods could be different. For these reasons, it is highly unlikely that the methane hydrate potential on the Beaufort OCS played any role in the industry interest related to the current leasing program.

L-0026.009

The MMS is not familiar with the lobbying efforts by industry to cut corners on decommissioning costs referred to by the commenter. Lessees must remove all facilities at the time of abandonment unless otherwise approved by the MMS, and that approval would be given only after a determination has been made that leaving a facility in place would not result in impacts to other users of the area. The OCS lessees are fully responsible for total decommissioning costs. Lessees are not required to maintain an escrow account. The MMS does require lessees to post a bond or other financial surety sufficient to cover the cost of abandonment of facilities.

L-0026.010

Past, present, and reasonably foreseeable future activities and effects have been identified (See Section V.B.1, V.B.2, and V.B.3) and analyzed in this EIS in Section V.C. For specific cumulative analyses, please read the following sections: Marine Mammals – V.C.7 and V.C.5.a;, Marine and Coastal Birds – V.C.6 and V.C.5.b; Vegetation and Wetlands V.C.9; Fish – V.C.3 and V.C.4; Water Quality – V.C.1; Economy – V.C.10; Sociocultural Systems– V.C.12; and, Subsistence – V.C.11. Most of these effects are transitory, the affected resources recover within a few generations, and do not translate to long-term measurable effects. Use of the sea and seabed is limited in the arctic environment to migratory species in conjunction with subsistence-hunting activities. Tankering, cruise ships, and commercial fishing do not occur in this challenging environment. With the exception of potential pipelines to shore or offshore drilling and production platforms, which are analyzed in this EIS, the use of the seabed is very limited. Migratory epibenthic invertebrates such as a crab fishery, typical of the Bering Sea offshore benthic environment, were not identified as a concern in the Beaufort Sea during the scoping process for this EIS.

L-0026.011

Potential effects to water quality are evaluated in this EIS in Sections IV.C.1, IV.H, IV.I, and V.C.1. Discharges and emissions are regulated primarily by the Environmental Protection Agency through the Clean Water Act and National Pollutant Discharge Elimination System and Prevention of Significant Deterioration permit processes. All lessees are required to obtain permits for any proposed discharges from the Environmental Protection Agency for all exploration, development, and production activities, before the activities take place. The EIS describes the existing water and air quality, the nature and scope of discharges and emission from oil and gas activities, and the Environmental Protection Agency permitting authorities and contribution to reducing potential effects to water and air quality.

L-0026.012

The analysis requirements for essential fish habitat are summarized in Section III.B.3.

The draft EIS was submitted to the National Marine Fisheries Service to fulfill the consultation requirements. See Appendix G- Essential Fish Habitat for our submittal letter and a summary of the response. The National Marine Fisheries Service incorporated their response to our essential fish habitat consultation with their response on the consultation for the Marine Mammal Protection Act. Their letter is reproduced in full in Appendix G. The biological resources comprising essential fish habitat are identified and quantified in Sections III.B.3 and IV.A.1 of this EIS.

The MMS evaluated the potential effects of the proposed lease sales on the essential fish habitat and determined there were no significant impacts. We provided the National Marine Fisheries Service with our analysis and consulted with them, and they concurred with our findings. The regulations do not require all potential effects be mitigated. The essential fish habitat analysis in this EIS is adequate and complies with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act.

L-0026.013

The MMS believes that the EIS adequately addresses impacts for threatened and endangered species under the Endangered Species Act. The MMS receives comments on the draft EIS from the National Marine Fisheries Service and the Fish and Wildlife Service to ensure adequacy on threatened and endangered species. The MMS also consults with both agencies on threatened and endangered species in the Beaufort Sea Planning Area. The MMS complies very closely with the regulations on Section 7 consultations. The Section 7 consultation process was ongoing during the review period for the draft EIS. The discussion of the consultation history for the proposed lease sale at the time the draft EIS was made available for public review has been updated, and the complete Biological Opinions of both agencies are included in this EIS in Appendix C.

L-0026.014

The MMS does not agree that the EIS needs to identify and evaluate additional stipulations as suggested by the commenter. The MMS has included a suite of standard stipulations and ITL clauses that have been proven effective in reducing potential adverse effects. A summary of the effectiveness of these mitigating measures and other potential stipulations can be found in Section II.H.1. Existing regulatory requirements are considered mitigation in place and would address the types of mitigation sought by the commenter. The MMS safety and pollution-prevention regulations already reduce the risk of oil spills. The MMS oil-spill-contingency plan regulations ensure that appropriate oil-spill-response capabilities are in place. The Environmental Protection Agency's National Pollution Discharge Elimination System permits and air quality permit authority provide for regulation of discharges and emissions, respectively.

L-0026.015

Climate change in the Arctic is not uniform either in time or location. The ocean's carbon retention and release cycle ("carbon budget") also is a factor that may not be uniform in time, location, or expression of release. These factors, coupled with other terrestrial and maritime events, may influence climate over the coming decades.

The MMS has determined that analysis of programmatic issues is inappropriate in a project-specific EIS. The MMS has determined that climate change should be evaluated in the context of the overall 5-year offshore leasing program or programmatic level and not within lease-sale or development project environmental analyses. As we note in Section IV.C under the No Lease Sale alternative, if oil and gas resources are not produced domestically, nearly all the resources would be imported. Therefore, the amount of carbon dioxide produced by the Nation and the global effects will not be altered substantially by these proposed lease sales and the domestic production of oil and gas. If over the long term some of the emissions and any consequent global change could be eliminated by increased energy efficiency, energy conservation, and the use of alternative energy sources, greenhouse effects could be lowered; however these efforts are independent of the proposed lease sales. They are connected to the national and global policy decisions and their implementation, which are considerably beyond the scope of this EIS.

A World Bank study incorporated by the Corps of Engineers into the Northstar EIS (Section 10.4.2.3, pages 10-27 and 10-28) estimated the contribution of North Slope production to global warming to be about 1%. We believe this to be the best relevant information currently available. The potential consequences of climate change from global greenhouse gas emissions are presented in detail in reports by the Intergovernmental Panel on Climate Change (2001a,b). An assessment of climate change impacts on the United States is given in a report by the National Assessment Synthesis Team (2000). These reports indicate a wide range in the possible effects and many uncertainties, especially on a regional basis. However, with regional oil production accounting for about 1% of global emissions, the contribution to global climate change would be virtually imperceptible.

Exploration and development projects are engineered with margins of safety to handle other normal fluctuations, such as tides and spring runoff from melting snow, in addition to unusual events, such as storm surges. The changes that have and are occurring in the sea level would be considered and incorporated in the engineering design and approval process, and facilities will be monitored over the life of the project to ensure they are safe. A more

complete discussion of global climate change, particularly as it applies to Alaska, can be found in Section 4.1.2. of the EIS for the MMS's 2002-2007 Outer Continental Shelf Oil and Gas Leasing Program.

L-0026.016

The MMS does not agree with the commenter that the EIS fails to disclose the impacts on air and water quality and other coastal impacts and limitations of oil-spill-cleanup capabilities. The EIS includes a full discussion on the potential effects on the human and marine environment in Sections IV.C and V.C, including effects to air and water quality. The EIS includes an extensive discussion of the various oil-spill-response technologies and strategies that would be used in different environmental conditions. The analysis of potential effects to Land Use Plans and North Slope Coastal Management Plan can be found in Sections IV.C.14 and for cumulative effects in Section V.C.14.

L-0026.017

This EIS provides adequate information to make a reasoned assessment of potential environmental effects for each of the proposed lease sales. Nevertheless, the MMS considers acquisition of additional information through its Environmental Studies Program, which seeks to obtain information useful for the prediction, assessment, and management of potential effects on the human, marine, and coastal environments. If new information becomes available, it will be considered and evaluated in an environmental assessment or supplemental EIS as determined appropriate for Sales 195 and 202.

L-0026.018

The EIS is limited in detailing potential effects, because it is not known exactly where exploration will be successful. Additional site-specific details and effects are provided in the next phase of the assessment process, which would be a development and production EIS for a particular discovery. This EIS has detailed the effects to be expected from these activities, as far as we know at this time, with one or more discoveries in each of the three sales, in addition to the cumulative impacts. At this stage in the process, there are seven stipulations and 16 ITL clauses that address scoping concerns. Support and logistical activities are described in this EIS from the assumed scenario. Details of effects are given for each of the resources in this EIS. This EIS represents the total activities expected in the Beaufort Sea for the present 5-year program (2002-2007).

Any discovery in the eastern portion of the lease sale would not come onshore to Arctic National Wildlife Refuge but would be moved offshore and onshore at some point west of the Refuge. The discovery and production of 460 million barrels of oil from each of the three sales is optimistic but would only offset the present rate of declining production on the North Slope. The number of wells and support activities can seem excessive but, when factored in a 20- to 30-year period over an area that covers hundred of square miles, it does not readily translate to great effects from these activities.

While commercial fishing is a major contributor to Statewide employment and ranks closely with the oil and tourism industries, it is not a major contributor to the economy or employment in the Beaufort Sea area, or on the North Slope. Subsistence fishing is adequately evaluated in the EIS in Section IV.C.11.b(1)(b)4). While commercial fishing is important to the single entity engaged in the activity, it was not a major issue identified during scoping (See Appendix E) or during the subsequent hearings (See Section VII.E) on the North Slope.

There is no question that fish and marine mammals along with terrestrial mammals need to be protected for the indigenous people of Alaska.

L-0026.019

To the extent required by NEPA, we consider and analyze these issues in the final EIS for the OCS Oil and Gas Leasing Program: 2002-2007. This analysis is in Section 4.7 - Environmental Impacts of Alternative and Section 5 - No Action of that document. In Section V, the Cumulative Case of this EIS, we analyze potential effects of the unlikely event of a spill of 250,000 barrels of oil in the Gulf of Alaska. In that section we analyze both social and environmental effects, which would be similar to the effects of the *Exxon Valdez* spill. In Section IV - Environmental Consequences of this EIS, we analyze effects of routine, day-to-day activities, on all resources. For a lease-sale EIS, the NEPA requires an analysis of environmental effects; however, NEPA does not require translating these effects into dollar costs.

L-0026.020

The September 19, 2001, Call for Information and Comments for a proposed Beaufort Sea oil and gas lease sale clearly was the initial step in the Secretary's OCS program planning process long established in determining whether to offer areas for lease and, if so, what areas to include or exclude from a proposed sale area. This process generally takes 32-36 months to complete. To comply with the OCS Lands Act and implementing regulations to conduct lease sales in an approved 2002-2007 5-year oil and gas leasing program, the MMS initiated its preliminary planning process. The Call clearly stated that it was being issued at that time recognizing that the final decision on the 2002-2007 5-year program had not been made. The OCS Lands Act requires that no lease sale may be held and no leases issued unless and until it complies with the Secretary's approved final 5-year program and the requisite steps in the prelease process are completed. Beaufort Sea Sale 186 is not scheduled to be held until September 2003. Although the prelease planning process was initiated before the Secretary' final approved program was released (June 2002), all prelease planning documents state that no **final** decisions will be made until the entire process is completed. An important part of the prelease process is the receipt of comments on the draft EIS.

As pointed out in the process section/introduction of this Beaufort Sea EIS, further NEPA analysis will be performed after both the first and second lease sales are held. This will highlight any new information and analyze any new facts not covered in the initial multiple-sale EIS. For both Sales 195 and 202, an Environmental Assessment will be written that will include a public review process. If the Environmental Assessment finds that further NEPA documentation is warranted, a Supplemental EIS will be written to cover the missing analysis. The MMS believes that with the many previous lease-sale EIS documents written for the Beaufort Sea area, we have addressed issues raised over the years by North Slope residents. We do not repeat the same statements each time but reference previous MMS documents.

L-0026.021

The EIS addresses an analysis of the direct (Sections IV A, IV.B, IV.C, and IV.D); indirect (Sections IV E, IV.F, IV.G, and IV.H); and cumulative (Section V) impacts of all three of the proposed sales and on the composite impact of their cumulative effects. Following successful leasing under Sale 186, an Environmental Assessment will be made for the two remaining sales (Sales 195 and 202) and, if deficiencies are found from that information in the parent Beaufort Sea multiple-sale EIS, further NEPA documentation will be forthcoming. A public review process will be incorporated into the Environmental Assessment process.

L-0026.022

The MMS disagrees with the commenter that the EIS fails to offer any reassurance that industry can safety monitor, detect, and respond to under-ice pipeline leaks. The EIS includes a discussion on pipeline oil-spills risk, leak-detection technologies, and potential spill sizes resulting from different leaks rates at different times of year.

L-0026.023

Any oil produced from the Federal OCS in the Beaufort Sea would be transported to shore via undersea pipeline and through the Trans-Alaska Pipeline System. In 1995, Congress passed legislation for Alaska North Slope crude exports outside the U.S. The issue of prohibiting the export of produced crude oil to markets outside of the U.S. from Federal waters has been a matter of debate for the past few years. Recent controversy over the effects of Alaska North Slope crude exports has resulted in the introduction of several bills to reinstate the Alaska North Slope export ban. It is Congress, and not the Department of the Interior, that determines whether to reinstate a ban on exporting of Alaska North Slope crude.

L-0027

.001

Sept. 18, '02

Dear Ms. Dale,

Concerning plans to drill off the coast of A.N.W.R., Alternative #2 is the only one that addresses our concerns about oil spills risks, & the impact on ANWR's coast. And there will be spills — & impacts! Please vote for Alternative #2. Thank you!

Sincerely,

Nancy & Sebastian Sommer

2653 Monticello Dr.

Winston-Salem, N.C. 27106

RECEIVED
SEP 2[illegible] 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

MMS Response to Comment Letter L-0027

L-0027.001

We have noted the comments and have taken these points into consideration during preparation of the final EIS.

L-0028

RECEIVED
SEP 2 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Elizabeth MacGowan
1580 Jackson St. # 15
San Francisco CA
94109

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Mgmt Svc.
949 East 36th Avenue, Rm 308
Anchorage, AK 99508

Mr. Goll:

I am writing to comment on the proposed Federal lease sales of oil + gas in the Beaufort Sea (Lease sales 186, 195, 202) Alaska is a unique area, and should not be jeopardized by the numerous effects of any oil + gas exploration + development, not to mention the inevitable spills and attendant harm to polar bear habitat, migratory bird + fish environments, + the bowhead whale migration + feeding areas. .001

Thank you for your consideration.

Sincerely.

Elizabeth MacGowan

Sept. 18, 2002

MMS Response to Comment Letter L-0028

L-0028.001

We have noted the comments and have taken these points into consideration during preparation of the final EIS.

Advocates for Wild, Healthy Oceans

Alaska Regional Office
425 G Street
Suite 400
Anchorage, AK 99501
907.258.9922 Telephone
907.258.9933 Facsimile
www.oceanconservancy.org

Formerly the Center for Marine Conservation

RECEIVED
SEP 2 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

L-0029

The Ocean Conservancy

FAX COVER SHEET

DATE: 9/23/02

TO: Mr. John Ball, MMS FAX #: (907) 271-6805

FROM: Martin Robards PAGES (including cover): 3

SUBJECT: Comments on Beaufort DEIS

MESSAGE:

Thank you for attaching this cover-letter to our detailed comments provided Friday. Please call me (258-9941) if there is any problem or you have questions.

Sincerely,

Martin Robards

The Ocean Conservancy strives to be the world's foremost advocate for the oceans. Through science-based advocacy, research, and public education, we inform, inspire and empower people to speak and act for the oceans.

Sep-23-02 11:44A Kris Balliet 9072589922 p.01

THE OCEAN CONSERVANCY
ALASKA CENTER FOR THE ENVIRONMENT
ALASKA COALITION * ALASKA CONSERVATION ALLIANCE
ALASKA WILDERNESS LEAGUE * ARCTIC CONNECTIONS *
DEFENDERS OF WILDLIFE * EARTHJUSTICE * GREENPEACE
NATURAL RESOURCES DEFENSE COUNCIL
NORTHERN ALASKA ENVIRONMENTAL CENTER
SIERRA CLUB * THE WILDERNESS SOCIETY

September 23, 2002

RECEIVED
SEP 2 [illegible] 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

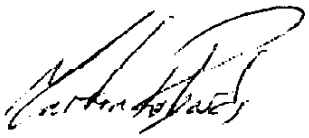
Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363
Fax: 907-271-6805

RE: Comments on the Draft Environmental Impact Statement for the Beaufort Sea Planning Area, Oil and Gas Lease Sales 186, 195, and 202. OCS EIS/EA MMS 2002-029

Dear Mr. Goll:

On our comment letter of September 20, 2002, we listed our e-mail addresses, but neglected to provide our full contact information and do so with this letter. Because we are stakeholders who have provided comment before, we believe you should already have this information, but we wanted to ensure that it is current. Furthermore, Greenpeace and Natural Resources Defense Council were inadvertently left off the letter as signatories, so please add them onto the list.

Sincerely,



Martin Robards
Alaska Protected Area Program Manager
The Ocean Conservancy
425 G Street
Anchorage
AK99501
coho@acsalaska.net

Sep-23-02 11:44A Kris Balliet 9072589922 P.02

On Behalf of:

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Eleanor_Huffines@tws.org

Sep-23-02 11:45A Kris ballet 9072589922 P.03

MMS Response to Comment Letter L-0029

No comments were identified in comment letter L-0029 that required responses.

Mr. John Goll
Regional Director
Alaska OCS Region,
Minerals Management service
949 East 36th Ave
Anchorage, AK 99508

L-0030

RECEIVED
SEP 2 3 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

9/17/02

Mr. Goll,

,001

Due to proven inability to clean up oil spills in the Beaufort sea most of the year, the risks to bowhead whales, polar bears, migratory birds, and subsistence resources are too great to allow new offshore leasing in this sensitive area.

Areas that were deferred or deleted from past Beaufort sea Sales, including the area north of the coast of the Artic National Wildlife Refuge, and the National Petroleum Reserve-Alaska, the fall bowhead whale feeding grounds and migratory route, and the entire spring lead system should be permantly removed from the lease sales. None of the EIS alternatives address concerns about potential harm to these areas.

PLEASE support Alternative 2, NO ACTION - because it is the only alternative that adequately controls oil spill risks and impacts to the Artic National Wild Refuge and Teshekpuk Lake (NPR-A) coastline.

Sincerely,

Sierra Club Member, CA

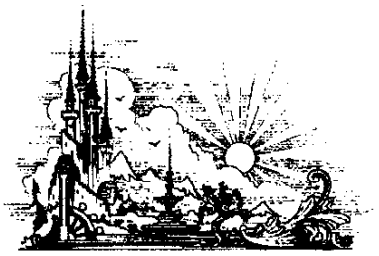
MMS Response to Comment Letter L-0030

L-0030.001

The EIS assesses the probable effects on wildlife in the unlikely event of a large oil spill (Section IV.C) and a very large oil spill (Section IV.I). The EIS explains that the chance of one or more spills occurring and entering the offshore waters is 8-10%, and the chance of one or more spills occurring and contacting resource areas important to these species is lower, on the order of 2% or less. We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, such as this commenter, a 10% chance of a large spill over the life of the field may be considered high.

The rationale for the alternatives is explained in EIS Sections II.D, II.E, II.F, and II.G. These sections include summaries of the effects for each alternative. Also, the introduction to Section III explains that the effects of leasing in part or all of these areas were assessed previously in the EIS's for Sales BF, 71, 87, 97, 124, and 170.

See Responses L-0003.003 and L-0019.002.



George L. Pettit
1454 Willowmont Avenue
San Jose, Ca. 95118 - 1153
408 264 8310
georpett@pacbell.net

L-0031

RECEIVED
SEP 2 1 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

To: Mr. John Goll
Regional Director, Alaska OCS Region, Minerals Management Service
Anchorage, Alaska

Dear Mr. Goll, The following comments concern the pending lease sales off the Arctic coast, numbers 186, 195, and 202.

I am opposed to any leasing.

I support the "No Action" alternative. As a former resident in Alaska, I am concerned about any impact this resource development would have on the Wildlife and lands of this area. In the past, it has been determined to be unacceptable to incur risks to the environment, especially in the areas of the ANWAR, the National Petroleum Reserve, and the Migration routes of Bowhead Whales and Migratory birds. Also impacted would be the Teshekpuk Lake area. .001

It is, in addition, unacceptable to complete only one EIS for all three leases. This is patently not in compliance with the intent of the law. .002

It is generally recognized that we must begin to change from a fossil fuel energy policy to one of sustainable sources, and conservation. That time has come. Already , our impact upon the Earth is indefensible.

The Bush administration's push to develope oil and gas sources is wrong, and if followed, will only result in massive impact on this countries few remaining wild and natural areas.

THERE IS A BETTER WAY. And you can help by choosing NOT to develope leases 186, 195, and 202.

Thanks for your consideration. Please enter this into the official record.

George L. Pettit
1454 Willowmont Avc.
San Jose, CA 95118
408 264 8310
georpett@pacbell.net

MMS Response to Comment Letter L-0031

L-0031.001

Mr. Pettit describes the spill risk as unacceptable, especially to the coastlines of the Arctic National Wildlife Refuge and the National Petroleum Reserve in Alaska and the bowhead whale-migration corridor. The spill risk is calculated in Section IV.A.4. For example, the chance of one or more large spills occurring and entering the offshore waters where bowheads migrate is 8-10%, and the chance of one or more spills occurring and contacting resource areas important to this species is lower, on the order of 2% or less. We recognize that multiple stakeholders have different interests and different analytical perspectives that shape the way they think about spill occurrence and identify a preferred policy response. For some stakeholders, such as the commenter, a 10% chance of a large spill over the life of the field may be considered high.

L-0031.002

See Responses L-0001.005 and L-0026.021.

This process is discussed in the Overview and General Information section of the EIS and in Section I.A - Purpose, Need, and Description.

SIERRA CLUB
FOUNDED 1892

ALASKA TASK FORCE

L-0032

September 17, 2002

Mr. John Goll, Regional Director
Minerals Management Service
Alaska OCS Region,
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

RECEIVED
SEP 2[illegible] 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Dear Director Goll:

The Sierra Club is extremely disturbed to learn that the federal government is considering three new lease sales in the Beaufort Sea stretching in an area that stretches over more than 500 miles from the Canadian border nearly to Point Barrow. The area covered is 10 times the size of the last sale held in this region. Moreover, we are concerned that a single environmental impact statement is planned to cover all three of these prospective sales (Lease sales 186,195, and 202.) The size of the individual sales, plus the extent of environmental impacts to be anticipated in so sensitive a far-north area, should mandate the more comprehensive review of separate, individual EISes for each sale. .001

We ask that you support Alternative 2, No Action, which is the only alternative that adequately prevents oil spill risks and impacts to the sensitive Arctic National Wildlife Refuge and the coastline of the Special Area of Teshekpuk Lakewithin the National Petroleum Reserve-Alaska (NPR-A) Offshore exploration and development would cause unacceptable pollution, aircraft and vessel noise, other industrial activity, and potential spills. In the Beaufort Sea, during most of the year the risks of spills to bowhead whales, polar bears, migratory birds, subsistence resources, and to the vauable marine ecosystem itself, are too great to allow new offshore leasing. At least four tests for ability to clean up oil spills in this fragile area failed completely. .002

We request that a full EIS process be conducted for each separate lease sale that is offered, complete with individual public hearings both in Alaska and in key Lower 48 cities. .003

Areas that were deferred or deleted from past Beaufort Sea Sales, including the area north of the coast of the Arctic National Wildlife Refuge, and the National Petroleum Reserve-Alaska, the fall bowhead whale feeding grounds and migratory route, and the entire spring lead system should be permanently removed from the lease sales. None of the EIS alternatives address concerns about potential harm to these areas. .004

Thank you for your attention to these comments.

Sincerely,

Edgar Wayburn

Edgar Wayburn, M.D.
Chairman
Alaska Task Force

85 Second Street, Second Floor San Francisco, CA 94105-3441 TEL: [415] 977-5500 www.sierraclub.org

MMS Response to Comment Letter L-0032

L-0032.001

See Responses L-0001.005 and L-0026.021

L-0032.002

The MMS does not agree with the commenter's statement that the test for ability to clean up oil spills in broken ice failed completely, and that this should be the basis for adopting the No Lease Sale Alternative. The EIS includes an extensive discussion of oil-spill-response capabilities in broken-ice conditions, including the results of recent field trials. The EIS reflects that there are multiple response options for responding to different ice conditions.

L-0032.003

See Responses L-0001.005 and L-0026.021.

The proposed 5-year OCS oil and gas leasing program is discussed nationally at various locations around the United States. More specific OCS lease sales are discussed in the locally affected communities adjacent to proposed lease-sale areas; thus, public hearings for the Beaufort Sea multiple sales will be held only in appropriate Alaska communities and not in lower 48 cities.

L-0032.004

See Responses L-0001.005 and L-0026.021.

The MMS believes the EIS complies with NEPA and Council on Environmental Quality guidelines regarding consideration of alternatives, and that concerns have been addressed. Mitigating measures have been analyzed as part of the Proposal, and the alternatives and conclusions considered these measures in place.

Alaska Oil and Gas Association

AOGA

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Anchorage, Alaska 99503-2035
Phone: (907)272-1481 Fax: (907)279-8114
Email: brady@aoga.org
Judith Brady, Executive Director

L-0033

September 20, 2002

RECEIVED
SEP 2 : 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. John Goll, Regional Director
Alaska OCS Region
Minerals Management Service
949 E. 36th Avenue #308
Anchorage, AK 99508-4363

AOGA Comments on Beaufort Sea Multiple Sale
Environmental Impact Statement for
Sales 186,195 and 202

Dear Mr. Goll:

The Alaska Oil & Gas Association (AOGA) is non-profit trade association whose 19 member companies account for the majority of oil and gas exploration, production, transportation, refining and marketing activities in Alaska. AOGA appreciates the opportunity to comment on the Beaufort Sea Multiple Sale Environmental Impact Statement for Sales 186, 195 and 202.

AOGA would like to compliment the Minerals Management Service for adopting the multiple sale environmental impact model for the Beaufort Sea sales. The multiple sale model is appropriate for those areas, like the Beaufort Sea, that have a lease sale history and have had extensive environmental analysis.

We would also compliment the Minerals Management Service on the thoroughness of this environmental analysis. It meets the letter as well as the spirit of the law and reflects MMS's commitment to environmentally responsible lease sales.

AOGA continues to be concerned about the consideration of new stipulations that add cost and/or risk of delay without adding additional environmental benefits. For that reason we do not endorse Stipulation 6 Permanent Facility Siting in the Vicinity Seaward or Shoreward of Cross Island; or Stipulation 7 Pre-booming Requirements for Fuel Transfers. We believe subsistence hunting of bowhead whale and water quality is securely protected through the five standard lease stipulations and, in fact, is and has been central to the environmental regulation of federal and state lease sales in the Beaufort Sea.

AOGA endorses Alternative 1 for all three sales with no deferral areas. We have been consistent in our comments to MMS that the lease sale goal in this area should be all available acreage. The standard mitigation measures related to oil and gas operations are intended to and do provide secure protection for subsistence hunting of the bowhead whale.

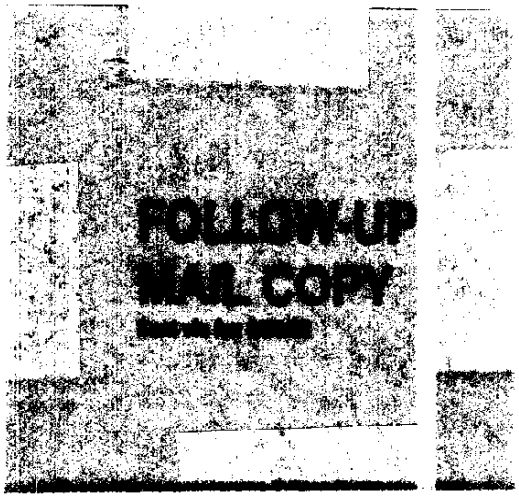
We also continue to urge MMS to consider incentives that will make the Beaufort Sea an attractive, competitive alternative to offshore areas throughout the world. We understand MMS is reviewing options toward this goal and we endorse that effort.

Finally, we continue to urge that MMS continue its initiative to have regularly scheduled and predictable OCS lease sales. With Alaska and the Gulf of Mexico as the only areas where federal offshore acreage is available for oil and gas leasing, it is particularly important that the lease sales scheduled in MMS's 5 Year OSC Leasing Program be held as scheduled.

Thank you again for the opportunity to comment.

Sincerely

JUDITH BRADY
Executive Director



MMS Response to Comment Letter L-0033

No response required, please see Letter L-0020.

L-0034

Alaska Eskimo Whaling Commission

P.O. Box 570 • Barrow, Alaska 99723 • Phone: (907) 852-2392

September 20, 2002

RECEIVED
SEP 23 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Via U.S. Mail
John Goll
Regional Director
Alaska OCS Region
Minerals Management Service
949 East 36th Avenue
Room 308
Anchorage, AK 99508-4363

Re: CALL FOR COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED BEAUFORT SEA OIL AND GAS LEASE SALES 186, 195, AND 202 FOR YEARS 2003, 2005, AND 2007

Dear Mr. Goll:

The Alaska Eskimo Whaling Commission appreciates this opportunity to comment on MMS's Call for Comments on the Draft Environmental Impact Statement for Proposed Beaufort Sea Oil and Gas Lease Sales as noticed in the Federal Register on June 19, 2002.

Thank you for your time and attention in considering our comments. Please call me if you have any questions.

Sincerely,

Maggie Ahmaogak
Executive Director

cc: Thomas Napageak, Chairman
Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young

Fax: (907) 852-2303 • Toll Free: 1-800 478-2392

September 20, 2002

Via Email (akeis@mms.gov) ***and U.S. Mail***
Mr. Paul Lowry
Alaska OCS Region
Minerals Management Service
949 East 36th Avenue
Room 308
Anchorage, AK 99508-4363

Re: CALL FOR COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED BEAUFORT SEA OIL AND GAS LEASE SALES 186, 195, AND 202 FOR YEARS 2003, 2005, AND 2007
OCS EIS/EA MMS 2002-029

Dear Mr. Lowry:

The Alaska Eskimo Whaling Commission appreciates this opportunity to comment on MMS's Call for Comments on the Draft Environmental Impact Statement for Proposed Beaufort Sea Oil and Gas Lease Sales as noticed in the Federal Register on June 19, 2002.

Thank you for your time and attention in considering our comments. Please call me if you have any questions.

Sincerely,

Maggie Ahmaogak
Executive Director

cc: Thomas Napageak, Chairman
Mayor George Ahmaogak
Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young

COMMENTS OF THE ALASKA ESKIMO WHALING COMMISSION ON THE MINERALS MANAGEMENT SERVICE'S DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED OIL AND GAS LEASE SALES 186, 195, AND 202

Endorsement and Incorporation of North Slope Borough Comments

The Alaska Eskimo Whaling Commission hereby endorses and incorporates by reference all comments and analyses submitted by the North Slope Borough on the three proposed lease sales.

Introduction to Alaska Eskimo Whaling Commission Comments

MMS is in the process of conducting an environmental review for proposed oil and gas Lease Sales 186, 195, and 202. The National Environmental Policy Act (NEPA) and the OCS Lands Act require that MMS use this process to do more than help fulfill the agency's responsibility to oversee offshore oil and gas development. Through these Acts, Congress also has required that the Secretary of the Interior, acting through MMS, undertake concrete, proactive measures to protect the marine and human environments affected by OCS development. These responsibilities can be met through a review of appropriate alternatives and the conduct of the most thorough environmental review appropriate to the affected region. In addition, MMS must institute appropriate mitigation stipulations.

Given the unique situation the agency faces in overseeing proposed development in the Arctic Ocean, the AEWC finds MMS' proposed environmental review process inadequate. The AEWC further believes that MMS has not presented adequate alternatives. As a means of enhancing its environmental review and expediting the current process, the AEWC strongly encourages MMS to support our community's efforts to participate more fully in the process, including participation in the development of mitigation measures.

In recent years, representatives of the AEWC, North Slope Borough, and Inupiat Community of the Arctic Slope (ICAS) have met with representatives of MMS, the National Marine Fisheries Service (NMFS), British Petroleum, Phillips Alaska, regarding OCS development in the Arctic Ocean. Our goal has been to develop monitoring and mitigation measures to protect the Arctic Ocean and our subsistence community from adverse impacts of offshore oil and gas development.

The issues our community faces as a result of OCS oil and gas activities fall into two broad categories: environmental and socio-cultural. Under federal law, MMS is responsible for working with local communities to address impacts in both of these categories. We are aware of MMS' presence among our people as it gathers information and traditional knowledge to include in the EIS. We read promises in the Draft EIS that our input will be considered in the final decisions regarding these three lease sales. Yet in northern Alaska, MMS, historically, has shown little willingness to take on the issues that it must face in order to address these impacts.

As we review the list of mitigation stipulations that fall short of our expectations and our recommendations, we are afraid that MMS once again is prepared to make decisions that do not address our needs and fears. Furthermore, we see the public participation process cut short by combining the environmental review of the three proposed lease sales into one EIS. In this way, we believe MMS is foreclosing the possibility for a thorough and accurate review of activities it wishes to conduct in an extremely sensitive and ever changing environment.

We disagree with MMS's characterization of the environmental justice issues as arising only in the "unlikely event" of a large oil spill. Environmental justice issues arise during exploration, construction, operations, and decommissioning of oil and gas development facilities.

Finally, AEWC reminds MMS of our repeated requests for impact assistance as part of MMS' responsibility to balance the orderly development of the OCS with protection of the human and marine environments.

Given the harsh and unpredictable environmental conditions of the Arctic and the lack of data on which to base a risk analyses, MMS is compelled to undertake the most thorougth approach possible to environmental review and protection.

.001

In combining its environmental review for the three proposed lease sales into one EIS, MMS apparently relies on 40 C.F.R. §1502.4 (a):

> proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.

This constitutes tiering, per 40 C.F.R. § 1508.28, which may be used when appropriate to provide for a broad EIS at the outset, with a narrower environmental analysis (EA) undertaken at subsequent steps in the program under review.

However, this tiering process is not appropriate for application to the proposed lease sales. Tiering is appropriate for proposed development when the scope of development is known at the outset. In this case, impacts of the development can be identified and evaluated at the outset. Such is not the case with the three proposed Arctic Ocean lease sales. .001

MMS has insufficient information to conduct a cumulative effects analysis for all three proposed lease sales. .002

MMS is required to provide an analysis of "cumulative impacts" as part of its environmental analysis. MMS states in the Draft Environmental Impact Statement (DEIS) that for the current review, the agency has based this cumulative impacts analysis on present, reasonably foreseeable future, and speculative development/production. However, a review of MMS's discussion at pages V-8 and V-9 of the DEIS reveals a very high degree of uncertainty regarding the scope and timing of future development/production, as well the potential level of recovery from existing sources.

The addition of leases sold under proposed Lease Sale 186 could well affect the level of foreseeable and future development. In this case, a revised cumulative effects analysis would be required for proposed Lease Sale 195, and similarly for proposed Lease Sale 202. Thus, given the speculative nature of MMS's current knowledge regarding foreseeable and future development/production, and the probability that this knowledge will change as the proposed lease sales are undertaken, attempting to limit the environmental review process and public input to that process is inappropriate. .003

MMS has insufficient information to conduct a risk analysis for all three lease sales.

MMS is required to conduct an analysis of the risk that adverse events could occur as a result of development/production under the three proposed lease sales, as well as an analysis of the potential impacts that could result. The fact that only one offshore oil production platform is operational in the arctic OCS (and this for less than a year) creates a situation where MMS has no reliable data set upon which to base its analysis of production risk under the three proposed lease sales. Similarly, its data set for exploration risks is limited. .004

While MMS has attempted to create a data base for risk and impact analysis using data from the Gulf of Mexico and onshore development in the Arctic, the agency has failed to produce a viable justification for its proposed reliance on these data sets. Nor has the agency provided a reasoned argument, including confidence intervals, to support its presentation of probabilities regarding the risks associated with OCS oil and gas development/production in the Arctic. .005

The only way for MMS to develop the data necessary for the analysis of risks and impacts in this situation is through experience, which will provide the appropriate data over time. This argues strongly against the use of a tiering process that will reduce environmental scrutiny and foreclose public input on the second and third of the three proposed lease sales. .006

The current state of rapid and unpredictable change in arctic environmental conditions argues strongly in favor of a very conservative approach to environmental review of proposed development/production in the Arctic Ocean.

The environment of the arctic OCS is not only harsh and unpredictable, in recent years it appears to have entered a period of rapid change. Thus, MMS cannot provide assurance that the environmental conditions built into the agency's assumptions during this current environmental review will continue to prevail as the time for Lease Sales 195 and 202 approach. Furthermore, without a complete EIS process, including public comment during environmental review of Lease Sales 195 and 202, the agency cuts itself off from information that might highlight subtle changes not accounted for in MMS's subsequent Environmental Assessments. .007 .008

MMS's attempt to combine the environmental review for the proposed lease sales drastically reduces the opportunity for potentially critical public input.

It is extremely disturbing to the AEWC that MMS would curtail substantially the public participation process when it combines the environmental review for three lease sales into one EIS. The AEWC believes that public comment on each individual sale is vital to incorporating information on locally observed impacts, environmental change, and traditional knowledge into the decision-making process. As it is, there will be EAs for lease sales 195 and 202—this means no scoping and no commenting on a Draft EIS. AEWC, theoretically, could only comment on the agency's Finding of No Significant Impact. This is unacceptable. .009

Scoping is crucial if MMS is to gather enough information, isolating the "real" issues, and enabling itself to make a reasoned decision. Scoping is a chance for the AEWC to tell MMS the issues that have arisen since the last lease sale, e.g., the effect that oil development has had in the previous two years on bowheads and the hunt, ice and weather conditions, and anything else that may have become a factor in the preceding two years. MMS eliminates the scoping process, and therefore the opportunity to receive valuable information, when it conducts an EA rather than an EIS for lease sales 195 and 202. The AEWC strenuously cautions MMS against cutting short the public process that each lease sale deserves.

The AEWC believes that in issuing Executive Order 13212, the President of the United States did not intend to sacrifice the "hard look" required by NEPA. The lives and culture of our people are not an acceptable trade for saving a few weeks or months in the crucial information gathering procedure that NEPA requires.

.090

If MMS cannot conduct an EIS for each lease sale, it should designate the North Slope Borough as a "cooperating agency" per 40 C.F.R. §§1501.6 & 1508.5.

In a memorandum to the heads of Federal Agencies dated January 30, 2002, CEQ Chairman James Connaughton advised agencies that "It is incumbent on Federal agency officials to identify as early as practicable in the environmental planning process those Federal, State, Tribal and local government agencies that have jurisdiction by law and special expertise with respect to all reasonable alternatives or significant environmental, social, or economic impacts associated with a proposed action that requires NEPA analysis. The Federal agency responsible for the NEPA analysis should determine whether such agencies are interested and appear capable of assuming the responsibilities of a cooperating agency under 40 C.F.R § 1501.6." The memorandum specifically refers to "States, Tribes, and units of governments that have received authority by Federal law to assume the responsibilities for preparing NEPA analyses." The North Slope Borough is a local government that has jurisdiction and special expertise with respect to alternatives and the range of impacts Eskimos face in the wake of offshore oil project development in their subsistence hunting waters. MMS should extend cooperating agency status to the North Slope Borough per the Connaughton memorandum and 40 C.F.R. § 1501.6. In this way, MMS and Eskimo leaders and scientists can build a relationship of collaboration and trust.

.010

MMS should include a scoping process in the two EAs to follow the EIS for Sale 186.

Minerals Management has adopted agency procedures pursuant to 40 C.F.R. 1501.7(1)(b)(3) which provide for adding a scoping process into the EA level of environmental review. The Department of Interior's Departmental Manual specifies that "the scoping process may be applied to an EA. DM 3.3, Public Involvement.

.011

As discussed above, the AEWC very strongly encourages MMS to conduct a full environmental review for each of the three proposed lease sales. If, however, MMS elects not to follow this recommended course, the AEWC would encourage MMS to add the scoping process to its EAs for lease sales 195 and 202. This action could help to address our community's concerns, raised above, that we be relegated to commenting on a Finding of No Significant Impact, rather than contributing meaningful comments at the beginning of the review.

MMS has chosen to combine the three lease sales into one under the auspices of curbing "review burnout"when its focus should be proper information gathering and searching analysis of environmental effects of the proposal and alternatives.

MMS can curb review burnout in several ways that do not involve cutting short the public participation process or slicing the comprehensiveness of its environmental review. CEQ has provided for "paperwork reduction" in its regulations: 40 C.F.R. 1500.4(g) provides that agencies use the scoping process to "de-emphasize insignificant issues, narrowing the scope of the environmental impact statement process accordingly." CEQ further provides that agencies shall reduce delay by using the scoping process for early identification of the real issues and by preparing the EIS early in the process. 40 C.F.R. 1502.5, 40 C.F.R. 1501.7. As part of scoping, the agency can set page limits, time limits, and combine the EA process and scoping process under 40 C.F.R. 1507.3 (as recommended above). 40 C.F.R. 1501.7(1)(b). .012

MMS should include the McCovey Prospect in the Oil Spill Cumulative Effects Analysis.

In mid November, a drilling barge is scheduled to begin exploratory drilling at the McCovey Prospect, which is situated 15 miles north of the Prudhoe Bay oilfield and consists of seven leases totaling 28,504 acres. It is difficult to understand why MMS would ignore this as a "reasonably foreseeable development/production site in its cumulative impacts analysis. Not including this site as part of its cumulative impacts analysis, without a reasoned explanation, opens MMS to the charge that it is failing to engage in the required "hard look" and severely hinders MMS's ability to make a "reasoned" decision regarding environmental impacts under NEPA. .013

MMS should analyze cumulative effects in the context of global climate change.

MMS should include analysis of the impacts of global climate change. The DEIS contains several sections entitled "Changes in the Arctic" with regard to climate, oceanography, and sea ice, but none of these analyzes global climate change. Because the lives of the projects that follow these lease sales is estimated at some thirty years, global climate change could become quite problematic in terms of weather conditions and sea ice conditions. What are the implications? Where is the analysis? .014

MMS needs to analyze the effect of lower water quality from chronic spills and waste on bowhead whales.

In section IV.C.1 (p. IV-21), MMS discusses water quality in general and discusses trace metals from drilling muds and cuttings. The DEIS reports that small oil spills could exceed the federal water quality parts per million (ppm) criterion. MMS also mentions the possibility of chronic local contamination. However, MMS offers no analysis of the potential impacts of these sources of chronic pollution on marine mammals or arctic human communities. Where is this analysis? (p. IV-23)

.015

MMS has included a section in its cumulative effects analysis on the effects of oil spill on bowhead whales, but it limits its analysis to "prolonged exposure to freshly spilled oil" (p. V-31) News concerning high levels of mercury bioaccumulation in Norwegian whale catches has sparked concerns about the trace metals from drilling muds and cuttings. How much mercury and dioxin is building up in whales who yearly migrate through chronic regional contamination areas?

.016

The Cumulative Sociocultural Effects analysis is flawed.

In section V.C.10.e, "Cumulative Effects of Subsistence Disruptions on the North Slope Borough's Economy" (p. V-57), MMS discusses subsistence disruptions in terms of additive revenue and increases in personal income. It does not discuss the loss of subsistence lifestyle and the subsistence economy of the traditional Inupiat. It does refer to Section V.C.9.b to instruct the reader to find more information, but Section V.C.9.b is actually entitled "Risks of Offshore Oil Spills from Production Contacting Vegetation and Wetlands." It should refer to the immediately previous section, V.C.10.c on "Cumulative Effects on Employment and Personal Income," which includes 60-190 jobs for six months for cleanup of "unlikely" oil spills. Furthermore, MMS has failed to note that the vast majority of the cash jobs that oil and gas work bring to the Arctic go to non-Native workers who are brought in by the oil companies and their contractors.

.017

MMS' analysis of Cumulative Effects on Subsistence Harvest Patterns (p. V-58) continues to disregard important facts.

In section V.C.11.a. of the DEIS, MMS acknowledges that subsistence hunting is a central cultural value to the Inupiat way of life, and that cumulative effects to bowheads is a "serious concern." The AEWC could not agree more.

.018

MMS continues to assert difficulty in assessing the cumulative effects of social change, due to the apparent difficulty it has in separating the effects of offshore development from those of general social change. However, the fact that oil development speeds social change in primarily destructive ways is indisputable, requiring that these adverse impacts be incorporated into MMS's analysis of cumulative effects.

MMS's cumulative effects analysis in section V.C.a(2), "Cultural Values," is another example of MMS' rudimentary and often self-serving approach to analysis in this extremely important area.

MMS acknowledges that cumulative effects on social organization could include decreasing importance of the family, cooperation, sharing, and subsistence as a livelihood, and increasing individualism, wage labor, and entrepreneurship. The AEWC appreciates MMS' recognition of these dangers, but wonders why these impacts are not raised in the environmental justice sections of the DEIS in a way that warrants an EJ mitigation strategy. MMS again reports what has been known for decades: "historically, more income in these communities has been connected somewhat to the abuse of alcohol and increased violence."

.019

The AEWC believes that it is time for MMS to attempt to understand this connection and to address it.

Mitigating Initiatives for Environmental Justice are all process and no substance: MMS continues to commit to studies, but not to action.

The AEWC understands that MMS is committed to learning all it can about the Inupiat way of life and cultural. However, MMS appears to study these matters *ad infinitum*, without reaching conclusions that result in real mitigation for the impacts to our community. Section V.C.16 on Environmental Justice (p. V-76-77) is filled with endless studies that MMS or others have done and plans to do. MMS spends millions of dollars on this—money MMS could put toward impact assistance or other substantive mitigation such as an oil spill trust fund, funds for a counseling center, or funds to the AEWC and North Slope Borough to help "protect cultural values" to borrow MMS's words. As noted by the National Research Council in its 1992 publication on MMS's environmental studies program for Alaska. Further studies will not solve the issues raised by OCS development in the Arctic. At this point action is required of the agency.

.020

The AEWC applauds MMS's one substantive mitigation initiative: its proposal for a "standing interagency-intergovernmental working group that would include local and regional North Slope governments and industry to consult, coordinate, design, and monitor solutions to subsistence and sociocultural cumulative impacts on and offshore." (p. V-76) This is an excellent idea if it includes the AEWC and the North Slope Borough as consulting agencies. In this case, the AEWC would fully endorse the proposal.

,021

MMS erroneously asserts that Environmental Justice issues arise only if a major oil spill were to occur.

The Environmental Justice analysis is incomplete and the information and analysis provided do not support MMS's conclusions, rendering them arbitrary and capricious.

Environmental Justice (EJ) issues abound outside the context of a major oil spill. Central to the EJ concept is the presence of a disproportionately high effect on a recognized minority. Innumerable impacts will occur that have a disproportionately high impact on Inupiat people. .022

- Increased numbers of oil workers in Inupiat villages will demand infrastructure for oil workers: hospitals, lodging, services, etc. This cost will be borne by the North Slope municipal budget, which is strained by increasingly reduced royalties as the Prudhoe Bay oil field reaches its production limits.
- Cultural differences between white oil workers who have western values and the people of our traditional Inupiat community will speed the pace of social change in our villages, which are already stressed by similar effects flowing from existing oil infrastructure. Our traditions and values already are at risk. Instances of alcoholism, violence, and other stress-induced negative individual behaviors will multiply.
- The presence of even more oil development offshore will compound our people's fears of the loss of their culture and food source.

MMS carefully documents these concerns in the DEIS, but it concludes that Environmental Justice problems would arise only in the event of a major oil spill. MMS outlines negative social changes and cites to rampant alcoholism, suicide, and violent crime as indirect results of offshore oil development. However, the agency then concludes that the only environmental justice effects are related to the physical incidence of a major oil spill. This is an entirely unsupported, self-serving, and arbitrary and capricious conclusion.

MMS's mitigation response to the cultural change issues is a stipulation regarding "sensitivity orientation" for white oil workers. This is insufficient. The AEWC is dumbfounded by MMS' conclusions in this area and its proposed mitigation solution. Environmental Justice concerns arise at every single stage of oil production, from lease sale to the end of the projects in thirty years. It is time for MMS to acknowledge this fact and to address it appropriately. .023

MMS has not met the requirements of Executive Order 12898.

The AEWC does not see the Department of the Interior's environmental justice strategy in the DEIS. Executive Order 12898 directs that each agency identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations." Executive Order No. 12898, 59 Fed. Reg. at 7630 (section 1-101). The Executive Order requires the development of agency-specific environmental justice strategies. MMS appears to eliminate the need to implement any environmental justice strategy because it says that the only EJ issues are tied into an oil spill—an event MMS repeatedly characterizes as "highly unlikely." Because MMS does not anticipate the occurrence of an oil spill, it appears to relieve itself of all environmental justice responsibility. .024

MMS continues to ignore the AEWC's and North Slope Borough's recommendations for mitigation, despite Executive Order 12898's requirement that agencies' mitigation measures should address significant and adverse environmental effects of proposed federal actions on minority populations, low-income populations, and Indian tribes. Memorandum from the President to the Heads of Departments and Agencies. Comprehensive Presidential Documents No. 279. (Feb. 11, 1994). .025

Furthermore, MMS either has dismissed our mitigation recommendations, or it has attenuated them to the point where they are ineffective. CEQ directs that, .026

> throughout the process of public participation, agencies should elicit the views of the affected populations on measures to mitigate a disproportionately high and adverse human health or environmental effect...and should carefully consider community views in developing and implementing mitigation strategies. Mitigation measures...should reflect the needs and preferences of affected low-income populations, minority populations, or Indian tribes to the extent practicable.

Environmental Justice Guidance under the National Environmental Policy Act (Dec. 10, 1997). MMS has failed to do this in the following ways:

- MMS has spurned the AEWC's requests for impact assistance mitigation because, as MMS continues to assert, it does not have the authority to budget for mitigation of this nature. The AEWC continues to contest this assertion. MMS has authority to provide impact assistance as part of its responsibility to balance the orderly development of mineral resources with the impact to the human and marine environments. 43 U.S.C.

1332(4)(A) and (B).[1]

- MMS pushed a Coastal Impact Assistance idea toward lawmakers in October of 1997, but apparently has not moved to revise it to make it more palatable to Congress, nor has MMS been persistent in talking about impact assistance or repeating the message of its importance to Congress. MMS likewise has failed to ask Congress to attach language to potential energy legislation that appropriates impact assistance monies to affected states; nor has it attempted the relatively simple task of asking for the appropriations in its yearly budget requests. All of these things are in MMS' power, and MMS has pursued none of them, in violation of Executive Order 12898's direction that agencies carefully consider mitigation reflecting minority needs and preferences. MMS has not tried hard enough.
- MMS says that Conflict Avoidance Agreements worked out directly between the AEWC and industry operators are important mitigation, but costs for research, consultants and legal counsel required for contract negotiation are borne exclusively by the Alaskan Natives. In citing to this work as a means of mitigating federally-approved activities, MMS effectively creates an unfunded mandate and requires our community to fulfill it. This is a highly disproportionate effect from the proposed Federal activities. Furthermore, it continues to be a significant fiscal drain on an already thin budget. In drafting the OCS Lands Act and NEPA, Congress did not intend that the Department of the Interior rely upon *Inupiat-funded* mitigation to fulfill its statutory obligations.
- MMS has prepared a two-part mitigation stipulation that would defer permanent facilities siting in the vicinity of Cross Island. Its areas of deferral are too small and misplaced. MMS proposes a ten-mile seaward or shoreward deferral radius. Ten miles is totally insufficient, for the reasons stated by the North Slope Borough in its comments. As proposed by the North Slope Borough, MMS needs to increase this distance as an interim measure, and then work with the community to identify an appropriate boundary for a deferral areas around Cross Island. Therefore, Under Executive Order 12898, the AEWC insists that MMS revise its ten-mile deferral area around Cross Island and expand it to reflect the boundaries of Nuiqsut's true hunting waters in consultation with Nuiqsut's whaling captains. That would make it a useful and appropriate mitigation measure, reflecting the hunters' needs and preferences as minorities experiencing a highly disproportionate effect from a proposed Federal activity.

[1] (B) "the distribution of a portion of the receipts from the leasing of mineral resources of the outer Continental Shelf adjacent to State lands, as provided under section 1337(g) of this title, will provide affected coastal States and localities with funds which may be used for the mitigation of adverse economic and environmental effects related to the development of such resources"

MMS should include funding for mitigation of OCS industrial exploration and development impacts in its discussion of alternatives.

.027

MMS is required to discuss and analyze the effects of all reasonably available alternatives. 42 U.S.C. § 4332(2)(iii). Mitigation in the form of impact assistance funding is reasonably available, and should be included in the "alternatives" section of the DEIS. Even if MMS declines to accept CEQ's advice that proper EJ evaluation includes the suggested mitigation from the affected minority communities, MMS should include mitigation impact assistance in its list of proposed alternatives.

MMS's primary claim in rejecting the AEWC's request for impact funding is that MMS has no authority to offer mitigation impact assistance, nor even request such authority. But according to the law, an alternative need not be in the agency's cognizance in order for the agency to include it in the EIS:

> When the proposed action is an integral part of a coordinated plan to deal with a broad problem, the range of alternatives that must be evaluated is broadened. While the Department does not have the authority to eliminate or reduce oil import quotas, such action is within the purview of both Congress and the President, to whom the impact statement goes. *The impact statement is not only for the exposition of the thinking of the agency, but also for the guidance of these ultimate decisionmakers*, and must provide them with the environmental effects of both the proposal and the alternatives, for their consideration along with the various other elements of the public interest." *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972). (Emphasis added.)

MMS's inclusion of impact assistance in its discussion of alternatives would alert the President and Congress to the need for impact assistance in northern Alaska. The D.C. District Court recently affirmed that a solution that lies outside of an agency's jurisdiction might be a reasonable alternative; so might an alternative within that agency's jurisdiction that solves only a portion of the problem, given that other agencies might be able to provide the remainder of the solution. *City of Alexandria v. Slater*, 198 F.3d at 868 (Dist. D.C. 1999), citing *NRDC v. Morton*, 458 F.2d at 835. Impact assistance would solve a portion of the problem, and MMS should consider it as part of an alternative so that other agency heads, Congress, and the President may recognize impact assistance as an option in conducting oil and gas development on the OCS. Discussion of alternatives is at the heart of NEPA—even alternatives that the agency believes are out of its jurisdiction.

MMS's Alternatives III-VI involve making an unfair and unacceptable choice among deferral alternatives.

.028

MMS lists four deferral alternatives around the whaling areas of Barrow, Nuiqsut, and Kaktovik, and an "Eastern Deferral" option. All of these deferral areas are important to our subsistence hunters, and all ought to be combined in one alternative. The deferral areas are intended not only as a means of protecting our subsistence resources, but also as a means of protecting our subsistence hunting from the noise and other adverse effects of industrial development.

MMS's opportunity index shows that combining all the alternatives would, at the most, reduce the opportunity to find commercially recoverable oil by only 11% if all the deferral areas were combined. This leaves a not inconsiderable 89% chance of finding all the commercially recoverable oil in the other blocks of leasing space.

The AEWC strongly urges the MMS to consider an alternative that combines all of the deferral areas and implements the deferrals for all three leases.

Conclusion

Congress has required that the Secretary of the Interior, acting through MMS, undertake concrete, proactive measures to protect the marine and human environments affected by OCS development. MMS has yet to meet this statutory mandate with respect to its work in the arctic OCS.

Given the unique situation the agency faces in overseeing proposed development in the Arctic Ocean, the AEWC finds MMS' proposed environmental review process inadequate. The AEWC further believes that MMS has not presented adequate alternatives or mitigation measures.

Furthermore, MMS seeks to cut short the public participation process by combining the environmental review of the three proposed lease sales into one EIS. In this way, we believe MMS is foreclosing the possibility for a thorough and accurate review of activities it wishes to conduct in an extremely sensitive and ever changing environment.

We disagree with MMS' characterization of the environmental justice issues as arising only in the "unlikely event" of a large oil spill. Environmental justice issues arise during exploration, construction, operations, and decommissioning of oil and gas development facilities.

Finally, AEWC reminds MMS of our repeated requests for impact assistance as part of MMS' responsibility to balance the orderly development of the OCS with protection of the human and marine environments.

MMS Response to Comment Letter L-0034

L-0034.001

See Response L-0005.008.

L-0034.002

Reasonably foreseeable future development in the Beaufort Sea or anywhere in Alaska within the next 15-20 years is subject to numerous variables. Development costs in the Arctic are major considerations and, without some big-pool discoveries, many discoveries will go undeveloped, depending on their proximity to existing infrastructure. Speculative development after 20 years represents an exponential increase in variables that places it outside the bounds of an EIS analysis as determined by the Council on Environmental Quality and NEPA.

The NEPA does not require agencies to wait for more definitive information before assessing cumulative effects of future activities. Implicitly, assessing potential effects of future projects entails great uncertainty. The NEPA requires us to do the best job we can given this uncertainty, and we believe we have.

L-0034.003

The cumulative analysis compares the incremental effect of the proposed activity to the effects of past, present, and reasonably foreseeable activities. All three proposed sales (186, 195, and 202) are considered in the cumulative analysis, and there is sufficient information available to provide a reasoned analysis of potential cumulative effects. The proposed activity would make a relatively small contribution to the overall effects, and the MMS would have to underestimate the effects of the proposed activity for it to make a substantial contribution to cumulative effects. We do not expect that to be the case. An Environmental Assessment will be conducted at the end of the first sale to assess and update the NEPA decision process. In the unlikely event substantially more commercial discoveries than estimated occur or unforeseen events present themselves, a supplemental EIS would be a consideration. In that event, additional public review and input would be requested.

L-0034.004

Under NEPA, the MMS must use the best publicly available information we can find for our analysis. Offshore oil is produced from three facilities in the Beaufort Sea. Endicott has been producing since 1986. The Satellite Drilling Island has been producing since 1989, and Northstar started production in October of 2001. We also rely on an assessment of effects from exploration in the Beaufort Sea, whether in State or Federal waters. We also use information from exploration and production elsewhere in the Arctic and on the North Slope and, to some extent, from the Gulf of Mexico, the Pacific, and elsewhere. Both of these sources contain a lot of data and is considered the best information available for our required analysis.

L-0034.005

The MMS Alaska OCS Region uses oil-spill-occurrence estimates as part of their impact analysis. In 1999-2000, a study (OCS Study, MMS 2000-007) was completed to collate readily available information on oil-industry spills in the Alaskan North Slope and Arctic Canada, to verify spill information for spills of at least 500 barrels and to estimate spill rates for use in the near shore Beaufort Sea OCS. Based on this study, MMS has been able to estimate pipeline and oil-field spill rates from Alaskan North Slope and Trans-Alaska Pipeline onshore oil-spill experience to shallow coastal waters and the nearshore Beaufort Sea. This information is relevant, because the same companies operate onshore that operate offshore, gravel islands are similar to gravel pads, and environmental conditions are similar. Ultimately, risk is based on the engineering standards, which are well understood.

The MMS is aware of stakeholder concern about using historical datasets that are not from direct experience in the offshore Arctic. In response to those concerns, in 2001 the MMS implemented a study to develop and apply alternative methodologies for the assessment of oil-spill rates associated with exploration and production facilities and operations in deeper waters in the Beaufort Sea. The prediction of the reliability (or failure) of systems without history can be approached through a variety of mathematical techniques, the most preferable and accepted is fault-tree analysis and its possible combination with numerical distribution methods, such as Monte Carlo simulation. In the current study, fault-tree methodology was applied to the prediction of oil-spill rates for oil and gas

developments, such as those now operational or contemplated for the Beaufort Sea, and used to generate predictions of oil-spill estimators. We have added text on confidence intervals in Appendix A.

L-0034.006

We agree that historical data are best; however, a number of methods are available to assess spill risk in the absence of such data. The MMS intends to prepare an Environmental Assessment for subsequent Sales 195 and 202. Any new or additional information on oil-spill occurrence will be evaluated at that time. The Environmental Assessment process will not foreclose any public input or environmental scrutiny. If warranted, we will prepare a supplemental EIS for either or both of the subsequent sales.

L-0034.007

The EIS analyses do not assume a static environment and, where appropriate, implications of environmental change and uncertainty have been considered. For example, stochastic variation in oil-spill trajectories is presented in a conservative manner. Underlying circulation models rely on updated data and a continual process of improvement in predictive approaches. The Environmental Studies Program's continuity and participatory planning provides the MMS with additional sources of quality scientific information, which we build into our NEPA evaluations.

L-0034.008

See Response L-0005.008.

In addition, Environmental Assessments for the subsequent sales will account for any such new information that is significant. Furthermore, our regulatory responsibilities include issuance of appropriate specific orders, if new environmental information so warrants.

L-0034.009

Although The MMS is preparing a single EIS for all three proposed sales, we are not eliminating or reducing the public participation process. We still will issue a public Call for Information and Nominations at the start of the process for Sales 195 and 202. As stated in Section I.F, the MMS will issue a Request for Information to the public to gather information and concerns, prior to starting our NEPA analysis. As identified by NEPA, the first step is to prepare an Environmental Assessment to determine if there is new information and/or concerns that were not considered or evaluated in the EIS. The analysis will be released to the pubic for comment (see Section I.F). If the analysis, which will include public review and comment, finds no new significant impacts are likely, then the NEPA analysis will be complete. If new significant impacts are found, then a supplemental EIS will be prepared.

This EIS is the eighth EIS prepared for OCS leasing in the Beaufort Sea in the last 25 years. The issues and concerns in all of these documents are similar. The technology and modeling work for these documents are similar. These similarities are reflected in the analysis. While new issues are added when each document is prepared, they frequently are slight modifications of issues previously raised and addressed. The process of following NEPA and preparing an Environmental Assessment to assess any new technology, issues, and concerns rather than generating new documents that basically repackage the same issues over and over again is a better way to proceed. The public and local communities still will have input into the process at the start of the process. They still will have the opportunity to review the NEPA analysis, although it will be much more focused on the new and important issues. The process still will include review under the coastal zone management regulations, and the Governor of Alaska still will have input into the sale process as required under Section 19 of the OCS Lands Act.

This process is consistent with Executive Order 13212 and NEPA. It is in the interest of NEPA and the public to reduce the costs and burden to the Government and the public, both of whom spend time and effort reviewing and commenting on the NEPA analysis provided. The North Slope Borough and the Alaska Eskimo Whaling Commission continually comment on the burden of participating in the public process. This process serves the public interest by focusing efforts on any new issues and reducing both the preparation and review processes.

L-0034.010

The Call for Information and Nominations, which starts the lease-sale process, was issued on September 19, 2001. Scoping meetings were held in October 2001. The Area Identification decision was made on January 10, 2002. To meet the schedule for release of the draft EIS, much of the document preparation and analysis had to be completed before MMS was informed of this memorandum. To meet the scheduled filing dates, the document had to be ready for the printer in late spring. To invite the North Slope Borough to be a "participating agency" in a process that

essentially is complete would add little but delay, because the North Slope Borough and Inupiat leaders already have provided the MMS with extensive comments during the scoping process, which included government-to-government meetings. Furthermore, this document is a lease-sale EIS. The decision that flows from this EIS is made by the Secretary of the Interior. While those decisions must be consistent with the State and local coastal zone management policies, no permits or licenses are required or issued for the sale process. No other Federal, State, tribal, or local agency has jurisdiction for leasing minerals rights in the OCS.

Although the North Slope Borough was a cooperating agency in the preparation of the EIS for the Northstar Project, they chose not to be a cooperating agency in the preparation of the EIS for the Liberty Project. Instead, they opted to participate in a lesser role, as a participating agency. The MMS has met with and will continue to meet with potentially affected tribal governments pertaining to this and other OCS projects. The NEPA regulations encourage other entities that wish to become a cooperating agency to notify the lead agency of those wishes. Prior to this letter, the North Slope Borough had not indicated such a wish, nor did they request to be a cooperating agency in their comment letters (see L-0001 and L-0035).

If projects occur resulting from these sales that might require an EIS and for which the Borough has some permitting authority, the MMS will consult with the Borough on whether or not it would wish to be a cooperating agency.

L-0034.011

See Response L-0034-010.

The MMS intends to issue a Call for Nominations and Information and an Information Request, which will precede the preparation of the Environmental Assessment. The Information Request can serve the same function as the scoping process and give interested parties the opportunity to provide information and concerns prior to the NEPA analysis. In addition, the MMS intends to distribute the Environmental Assessment for public review and comments. We have built two comment periods into the NEPA process for Sales 195 and 202. They should afford North Slope communities the desired opportunity to provide input.

L-0034.012

The process we have identified of using a single EIS for all three sales and preparing an Environmental Assessment for Sales 195 and 202, rather than moving immediately to full EIS's, is consistent with the regulations. We already use the scoping process to focus the EIS on the issues. Also, the issues that have been discussed and evaluated in all of the previous EIS's and this document are quite similar. Previous efforts to streamline the EIS were tried for the Sale 170 process. We tried to incorporate by reference rather than repeat information, and we to reduce the discussion of insignificant issues. This procedure, however, was criticized as being inadequate in comments to the draft Sale 170 EIS. We believe trying to enforce page limits and time limits, however effective in concept, would meet similar responses from the public.

The modifications we have proposed for the NEPA process for Sales 195 and 202, which have been used successfully in the Gulf of Mexico Region, provide the public, including local and tribal governments, with substantial opportunity to participate while focusing the NEPA evaluation on the new and salient issues.

L-0034.013

As we explain in the introduction to Section V - Cumulative Effects, we limit the definition of reasonably foreseeable projects to actual oil and gas discoveries. At this time, McCovey is simply an exploration project. The activities associated with testing a prospect such as McCovey are important from a short-term standpoint, but they certainly entail no measurable long-term effects as yet. Notwithstanding the current enthusiasm regarding the prospects for the success of McCovey, most exploration prospects drilled in the Beaufort Sea have not resulted in petroleum discoveries, and many past discoveries are not economic under current conditions. At this point, the McCovey Prospect falls into the category of undiscovered offshore resources that are listed in Table V-7c. Producing oil fields are considered as past activities (Table V-1a). Oil-field projects in final planning stages are considered as present activities. Discoveries that could have economic potential under future conditions are considered as reasonably foreseeable activities.

L-0034.014

See Response L-0026.015.

L-0034.015

The comment letter points out that the EIS discusses the potential impact of discharges on water quality but does not discuss the possible transfer of these impacts through the food web to marine mammals and subsistence communities. This is partly because the potential impacts would be very temporary, as described in discharge assessments for water quality (Section IV.C.1.a(3)), lower trophic-level organisms (Section IV.C.2.a(1)), and bowhead whales (Section IV.C.5.a(1)(b)). These sections explain in part that during the development and production phases, discharges are unusual because drilling muds, cuttings, and produced water generally are reinjected, such as they are at the Northstar development. These sections also point out that during the exploratory phase, the Environmental Protection Agency, in some cases, probably would permit the discharge of drilling muds and cuttings. The Environmental Protection Agency generally permits discharges where water currents can rapidly disperse the material (i.e., in water greater than 5 meters deep). Information has been added to the sections on lower trophic-level organisms (Sections III.B.1.a and IV.C.2.a(1)) describing an ongoing study by Dehn et al. (2002) of heavy metals in arctic seals. The investigators attribute the differences to the natural transfer of heavy metals through the seals' food webs in the Canadian Beaufort Sea and Alaskan Beaufort Sea.

L-0034.016

The level of trace metals, PCB's, and chlorinated hydrocarbons in the fat, organs, and muscle tissues of bowhead whales is discussed in Section IV.C.5.a. The comment provided insufficient information about the Norwegian study for us to obtain a copy of the study. However, studies referenced in the text are likely to be more pertinent than the Norwegian study, because these studies provide information specific to bowhead whales. Some information on this issue has been added into the cumulative section in Section V.C.5.a. Based on studies in 1995 and 1997, bowhead whales have relatively low levels of mercury compared to some other marine mammals and are considered safe for human consumption.

L-0034.017

We have corrected the cross references in Section V.C.10 – Economy, as noted by the commenter. We discuss the historical proportion of non-Native workers in the North Slope oil industry in Sections IV.C.10 and III.C.1. We have corrected Section V.C.10 to indicate that we assess cumulative effects on the economy in terms of economic effects from Alternative I for Sale 186 described in Section IV.C.10 in addition to current conditions and other activities. In the draft EIS, that part referred incorrectly to Section IV.D.10.

L-0034.018

Ongoing and potential cumulative social effects, both from on- and offshore sources are discussed in Section IV.C.12.a - Cumulative Effects on Sociocultural Systems. It is only after this discussion that the problem of disaggregating root causes of ongoing social pathologies in North Slope communities is discussed. Social science and research has not demonstrated direct linkages from offshore sources any more than it has onshore sources. The MMS believes that it has done more than a credible job in studying offshore impact sources, and that the data gap is onshore where the responsible State and Federal agencies have never collaborated to acquire baseline data, perform long-term monitoring, or conduct scientific studies on social impacts. It is onshore where the most evident and demonstrable effects have taken place, and where the least amount of research has occurred.

L-0034.019

The MMS believes that it has addressed Environmental Justice mitigation in the ways that it can under the structure of the OCS Lands Act. See Section IV.C.16 - Environmental Justice for a discussion of suggested mitigation and its effectiveness. For a discussion of the MMS position on impact assistance, see Response L-0034.020.

L-0034.020

While the MMS does not disagree that impact assistance and other such funding would be beneficial to the North Slope Borough, local communities, tribes, and the Alaska Eskimo Whaling Commission, under the U.S. Constitution, Congress is responsible for approving the Federal budget and allocating financial resources for the Executive Branch, which includes the Department of the Interior and the MMS. The budget designates and commits to specific line items. See Section I.C.1.e(1) for additional information.

L-0034.021

The MMS continues its support of a interagency-intergovernmental working group, and will determine its feasibility with other Federal, State, tribal, and local agencies.

L-0034.022

We agree that the Inupiat community meets the definition of a minority population. This EIS describes and evaluates potential impacts to the Inupiat community in Sections III.C.6, IV.C.16, IV.E.16, IV.F.16, IV.G.16, IV.H.16, IV.I.2.p, and V.C.16. We document and discuss the environmental justice issues that have been noted by the Alaska Eskimo Whaling Commission in this EIS. Ongoing and potential cumulative social effects, both from on- and offshore sources, are discussed in Section IV.C.12.a - Cumulative Effects on Sociocultural Systems, and this discussion is extended in the Environmental Justice analysis in Section IV.C.16. Reviewers are reminded that the Executive Order on Environmental Justice established a "disproportionately high/adverse" threshold that "will" occur. Unlikely and probable events such as oil spills are not included unless they are certain to happen; our analysis states that effects from routine activities are not expected to exceed that threshold.

Social science and research have not demonstrated direct linkages from offshore sources any more than it has onshore sources. The MMS believes that it has done more than a credible job in studying offshore impact sources, and that the true data gap is onshore.

See Responses L-0034.018, L-0034.020, L-0034.021, and L-0034.027.

L-0034.023

The MMS's mitigation response to social and cultural change is not merely the orientation stipulation. All the other mitigation proposed is there largely to protect biological populations that often are important to the subsistence hunt and, more specifically, to monitor bowhead whales and to prevent conflicts with whaling activity. We believe this mitigation goes a long way in responding to cultural concerns.

See Responses L-0034.018 and L-0034.019.

L-0034.024

See Response L-0034.022.

The MMS believes that the mitigation and the ongoing mitigation initiatives addressed in Section IV.C.16 - Environmental Justice encompass a viable "environmental justice strategy."

L-0034.025

See Responses L-0034.019, L-0034.022, L-0034.023, and L-0034.024.

L-0034.026

The Department of the Interior and the MMS, as an institution and its individual employees, have been very actively involved on a continuing basis in providing support for the concept of revenue sharing and impact assistance related to the OCS oil and gas program since at least the late 1970's. In fact, the MMS's current Alaska Regional Supervisor for Leasing and Environment, Paul Stang, while serving as the staff for an Administration Cabinet Council task force on impact assistance in the early 1980's, personally developed a formula and drafted legislative language to provide funds allocated to both the coastal states and local coastal governments based on their proximity to offshore oil and gas activities. Legislation was introduced but, in the end, passed only in the House.

Throughout the 1980's and 1990's, the MMS continued working diligently on impact-assistance efforts requested by Congress. They used this proximity formula as the core of the impact-assistance formula and drafted additional legislative language for several bills that were introduced in the Congress. These, however, also failed to become law. Finally, the original proximity concept was the key part of the Coastal Impact Assistance Program legislation, supported by members of the Alaska Congressional delegation that provided FY 2001 funds directly to the North Slope Borough. This program authorized a one-time appropriation of $150 million to be divided among the seven states with offshore oil activities, which included Alaska. Funds were distributed to coastal communities based on a formula set by law. The North Slope Borough allocation was $1,939,680. Because of these efforts over the last 20 years, the MMS's commitment within its Executive Branch authority to support impact assistance should not be underestimated or demeaned.

As for the Alaska Eskimo Whaling Commission exclusively bearing the expense of mitigation negotiation, it was the MMS's understanding that a large portion of the Commission's operating budget came from annual NOAA Fisheries grants. Hence, the Federal Government is providing substantial support to the Alaska Eskimo Whaling Commission.

The MMS welcomes the Alaska Eskimo Whaling Commission to initiate a dialogue under the conflict resolution language of Stipulation 5 among the MMS, the Commission, and NOAA Fisheries to use the data from ongoing noise-monitoring studies at Northstar to evaluate the observed and potential effects of production noise on bowhead whales. If that research identifies noise impacts that require mitigation, the MMS will continue working with the North Slope Borough, local tribal governments, the Alaska Eskimo Whaling Commission, and NOAA Fisheries to develop adequate mitigation to protect the bowhead whaling and Native subsistence needs.

See also Responses L-001.013, L-0034.019, L-0034.020, L-0034.022, L-0034.023, L-0034.024, L-0034.027 and Section I.C.1.e(1).

L-0034.027

Impact assistance is important to the MMS; please see Section I.C.1.e(1) for additional information. Although the Alaska Eskimo Whaling Commission is correct that "an alternative need not be in the agency's cognizance in order for the agency to include it in the EIS" and that "MMS's inclusion of impact assistance in its discussion of alternatives would alert the President and Congress to the need for impact assistance in northern Alaska," impact assistance does not affect the size, timing, or location of the sale or the terms that would be put on potential lessees. These are the items under NEPA review in this EIS in accordance to the OCS Lands Act.

Impact assistance is a programmatic issue that affects all the States, counties (boroughs), cities, and villages near OCS activities and was discussed in the MMS's new 5 year plan. Comments received on impact assistance were included within the material forwarded to the President and Congress in the *Proposed Final Outer Continental Shelf Oil and Gas Leasing Program 2002-2007, April 2002*. This programmatic document was the more appropriate forum to address this nationwide issue. For additional information about revenue sharing, please see, in particular, Section 1.2.5.1 of the final 5-year program EIS (USDOI, MMS, 2002) for additional information about revenue sharing.

As a Federal Agency, we continue to support the efforts of those who are working towards this goal, including increasing the awareness of those in a position to further advance the issue, within the bounds of the relationship between the Executive and Legislative Branches. As noted in Section I.C.1.e(1), some impact assistance already is available through several existing laws: The Land and Water Conservation Fund, the Historic Preservation Fund, the Reclamation Fund, the Tribal Preservation Fund, Section 8(g) of the OCS Lands Act, and the recent amendments to the OCS Lands Act establishing the Coastal Impact Assistance Program.

Section 8(g) of the OCS Lands Act provides for a sharing of all Federal revenues for areas lying wholly or in part between the State's seaward boundary out to 6 miles. Twenty-seven percent of all Federal revenue goes to the State. Alaska has received more than $520 million as a result of this revenue-sharing provision. The State of Alaska distributes these 8(g) funds (royalty payments, bonus bids, and rental payments) as follows:

- 50% of all 8(g) royalty payments, bonus bids, and rental payments go to the Alaska Permanent Fund Dividend Program
- 0.5% of all 8(g) royalty payments, bonus bids, and rental payments go to the school fund
- 49.5% of royalty payments and bonus bids go to the Alaska Constitutional Budget Reserve
- 49.5% of rental payments go to Alaska's Unrestricted General Fund

The Land and Water Conservation Fund can provide the National Park Service up to $900 million in the fund each year, if authorized by Congress. Since 1971, Federal offshore leasing has provided about 90% of this money. The law provides for a system of funding for Federal, State, and local parks and conservation areas. It gives States and local governments incentives to plan and invest in their own park and recreational use systems. The State has received more than $29 million from this fund. For more information on this program and the grant process, please contact:

Alaska Department of Natural Resources
Division of Parks and Outdoor Recreation
State Historic Preservation Office
Grants Administrator
550 W 7th Street, Suite 1380
Anchorage, AK 99501-5921
Tel: 907-269-8703
Website: www.dnr.state.ak.us/parks/grants

The Historic Preservation Fund also is used to make grants to local communities. Revenues from Federal offshore mineral leases sustain this fund at $150 million. Since 1968, more than $1 billon in grant funds has been awarded to states, territories, tribal organizations, and the National Trust for Historic Preservation. The State of Alaska has received more than $9 million from this fund. Additional information is available at the Land and Water Conservation Fund at the address given above.

The Tribal Preservation Program assists Native Americans in preserving their historic properties and cultural traditions and is administered by the National Park Service. The program is dedicated to working with tribes, Alaska Native groups, Native Hawaiians, and national organizations to preserve and protect resources and traditions that are of importance to Native Americans. For more information on this program, please contact:

Tribal Preservation Program
Heritage Preservation Services
National Park Service
1849 C Street, NW, NC200
Washington, DC 20240
Phone: Bob Ruff (202) 343-9572

Information on grants, applications, and background information is available on the web at www2.cr.nps.gov/tribal/index.htm

For FY 2000, the Village of Barrow received $48,915 from this grant program for Documenting Commercial Whaling History in the Western Arctic from the Inupiat Perspective.

The Coastal Impact Assistance Program provides funds to the State from Federal offshore mineral leasing revenues. This program authorized a one-time appropriation of $150 million to be divided among the seven states with offshore oil activities, which includes Alaska. Funds were distributed to coastal communities based on a formula set by law. The North Slope Borough allocation was $1,939,680.

See also Response L-0034.026.

L-0034.028

The Secretary of the Interior has the option of choosing all, some, or none of the alternatives or the No Lease Sale Alternative. The preference of the Alaska Eskimo Whaling Commission will be noted in the documents that are prepared for the Secretary during her deliberations pertaining to Sale 186.

North Slope Borough

OFFICE OF THE MAYOR

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L-0035

George N. Ahmaogak, Sr., Mayor

RECEIVED
SEP 2 0 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

September 20, 2002

Mr. Paul Lowry
Minerals Management Service
949 East 36th Avenue, Room 308
Anchorage, AK 99508-4363

Re: BEAUFORT SEA MULTIPLE SALES DRAFT ENVIRONMENTAL IMPACT STATEMENT - OCS EIS/EA MMS 2002-029

Dear Mr. Lowry:

Thank you for this opportunity to provide comments to the Minerals Management Service (MMS) on your Beaufort Sea Multiple Lease Sales Draft Environmental Impact Statement (DEIS). The DEIS considers three Beaufort Sea Oil and Gas Lease Sales under MMS' 2002-2007 5-Year Leasing Program. Oil and Gas Lease Sales 186, 195, and 202 would be held in the years 2003, 2005, and 2007, respectively. The Borough, as well as other North Slope organizations and individuals, provided testimony on the DEIS at hearings in Nuiqsut, Kaktovik, and Barrow on July 24, July 26, and August 1, respectively. I expect MMS to carefully consider all submitted testimony and written comments, and that appropriate changes will be seen in the Final EIS. The testimony that we provided for the Barrow hearing was prepared before we had the opportunity to thoroughly review the document. In addition to other points which will be expanded upon here, I also made substantial comments on two topics which I will not revisit now in great detail as they are already a part of the record in this review. It is important, however, that you understand how critical it is that MMS more fully explain in the Final EIS 1) the environmental justice implications of its failure to undertake a comprehensive environmental and cultural risk/benefit analysis of nationwide leasing choices, and 2) the decision to move ahead over Borough and other objections with this multiple lease sale document. Our subsequent review has revealed significant shortcomings in the DEIS with respect to other subjects discussed in our earlier testimony, as well as in other areas not addressed at the hearing. The following comments will detail those shortcomings, as well as identify specific resource and effects information which should be modified. In addition, more technical comments prepared by Borough staff on specific DEIS language and information are attached hereto and made fully a part of these comments.

FUNDAMENTAL FLAWS OF THE DEIS

At the heart of the National Environmental Policy Act (NEPA) process is the identification of alternatives to the proposed action which triggered the review. This DEIS is fundamentally flawed both in the way it has identified alternatives, and in the way it approaches the analysis of the alternatives it identifies. MMS' analysis has three essential components. First, there is the identification of Alternatives. Second, there is the division of the Beaufort Sea into three zones. Finally, there is the evaluation of development scenarios tied to those zones. We find that the analytical method as applied does not address the central questions with which our people, the directly affected community, are most concerned regarding continued leasing and prospective development in the Beaufort Sea. What is most disconcerting is the apparent inability of MMS to put itself in our shoes, to perceive the environmental, social, and cultural threats as we perceive them, and to deal head-on with reasonable scenarios which highlight issues that are of most concern.

MMS' analytical structure is as follows: Alternative I is the proposed action, and would offer for lease an area extending from 3 miles to approximately 60 miles offshore, and from the Canadian border on the east, to Barrow on the west. Alternative II is the No Sale alternative. Four deferral Alternatives (III through VI) would eliminate various subareas from leasing. These are, respectively, a Barrow-area deferral, a Cross Island-area deferral, a Barter Island and eastward-area deferral, and a deferral eastward of that to the Canadian Border. MMS also divides the Beaufort Sea Planning Area into three zones (Near/Shallow, Midrange/Medium, and Far/Deepwater) defined primarily by their proximity to existing industry infrastructure and secondarily by water depth. Finally, MMS presents development scenarios tied to the three zones, with a high 70% percent of leasing for the first Sale 186 occurring in the Near Zone, 20% in the Midrange Zone, and 10% in the Far Zone. Successive Sales 195 and 202 would see increasingly higher percentages of leasing in the Midrange and Far Zones. For purposes of analysis, MMS assumes two potential developments in the Near Zone and one in the Midrange Zone for Sale 186. For Sale 195, one development is assumed in the Near Zone, and one in the Midrange Zone. For Sale 202, a single development is assumed in the Far Zone. In summary for the three sales then, MMS foresees six total developments, with three occurring in the Near Zone, two in the Midrange Zone, and one in the Far Zone. Below, we will discuss each of MMS' three analytical components, Alternatives/deferrals, zones, scenarios.

Alternatives/Area Deferrals

The North Slope Borough believes that areas around Barrow, Kaktovik, and Cross Island sufficient to protect vulnerable resources and the subsistence harvests of bowhead whales and other species should be deferred from leasing. The deferral Alternatives developed by MMS for the Draft EIS do not fully provide this essential protection. They are inadequate, and, as I explained in my testimony, MMS has to some extent misused data we provided to define them. Working with the Alaska Eskimo Whaling Commission (AEWC), we released to MMS bowhead whale subsistence harvest locations for the three

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Beaufort Sea whaling communities. It was made very clear in subsequent written and e-mail correspondence that it would be inappropriate to use the harvest locations alone to define either subsistence whaling zones or deferral areas purporting to protect subsistence whaling opportunities. That, however, is exactly what MMS has done in this Draft EIS. Highlighting the inappropriate direct linkage between bowhead subsistence harvest locations and area deferrals is the naming of Alternatives III, IV, and V, respectively, the Barrow, Nuiqsut, and Kaktovik "Subsistence Whale" Deferrals. The implication that deferral of any of these areas alone will avoid adverse effects on the subsistence harvest of bowhead whales by the named community is reinforced throughout the document by equally misleading text. .001

The harvest data were provided as one tool to assist MMS in determining the appropriate extent of offshore areas around Barrow, Kaktovik, and Nuiqsut's Cross Island subsistence whaling base which should be considered for exclusion or heightened protection in future Beaufort Sea OCS oil and gas lease sales. We made it clear to MMS prior to release of the information that harvest data alone do not provide a true picture of the entire zone utilized by and essential to subsistence hunters in the successful harvest of bowhead whales during the animals' fall westward migration. Harvest locations are simply points on a map. Additional areas critical to the successful subsistence harvest of bowhead whales include staging areas for crews, supplies, and harvested product, areas of pursuit, routes used for the transportation of crews, supplies, and harvested whales and whale product, and areas used for the processing of harvested whales. Harvest data alone also do not define the area east, or "upstream" of the full area utilized by subsistence crews from Barrow, Nuiqsut, and Kaktovik within which industrial disturbance would adversely impact subsistence efforts. As we have explained numerous times before, this distinction is important. To provide a reasonable chance of a successful bowhead whale subsistence harvest, protection must be provided to a combination of two areas. First, there is clearly the area utilized directly by subsistence whalers for all of the activities noted above. This is the subsistence use area. Next, there is the area east of the subsistence use area we can call the area of influence. That is the area within which migrating whales could be affected significantly enough by industrial activities so that they are deflected beyond the subsistence use area or are made more difficult to harvest within the subsistence use area. These qualifications should have accompanied any publication and use of the harvest location data, and any conclusions drawn from the data. Familiarity with subsistence whaling practices and western science and traditional knowledge regarding noise impacts on migrating bowheads, as well as plain common sense, should tell you that appropriate deferral areas must be based on a combination of both subsistence use areas and the "upstream" areas of influence.

Also with respect to the harvest location data provided, Figure III. C-15 includes a table listing subsistence whaling captains which is supposedly keyed to the strike data appearing on the accompanying map. The table incorrectly includes the names of Barrow captains. Figure III.C-14 likewise lists captains associated with Nuiqsut strikes. The tables and names should be removed from both figures. In the recent past, several Barrow whaling captains received threats from sources claiming to represent an animal rights group which obtained their names from a newspaper article. The EIS is a public .002

document with wide distribution. Publication of subsistence hunter names could lead to renewed threats, and serves no purpose in the document. You should also note that on Figure III.C-16, the Kaktovik Subsistence Harvest Place Names are not properly indicated. .002

The Borough's hearing testimony detailed why Alternative III is inadequate to protect the concentrated and vulnerable resources associated with the spring lead system, and safe subsistence harvest opportunities for Barrow hunters. The testimony also detailed why Alternatives V and VI, separately or in combination, 1) are inadequate to protect important bowhead whale feeding habitat, 2) do not address a lack of information on cumulative impacts to the adjacent Arctic National Wildlife Refuge (ANWR), insufficient information on emergency response plans, or the inability to make direct landfall with a subsea production pipeline, and 3) are inadequate to protect safe subsistence harvest opportunities for Kaktovik hunters. Finally with respect to deferral areas, our testimony detailed why Alternative IV is inadequate to protect safe subsistence harvest opportunities for Nuiqsut hunters.

The Barrow Deferral Area should extend considerably farther to the east. We have noted that MMS' own Stipulation 5 describes the timing and area utilized by Barrow hunters for subsistence whaling in the fall. It recognizes that occasional use may extend to Cape Halkett. More consistent use extends at least as far as the western reaches of Smith Bay. Certainly, development and production in the areas offshore as far east as Cape Halkett holds a great potential for disruption of the subsistence harvest of whales and other resources by Barrow hunters. That entire area should be deferred from leasing. .003

With respect to the eastern Alaskan Beaufort Sea, the appropriate deferral would encompass all waters offshore of ANWR. MMS has yet to fully address the issues which were the basis for deferral of that area in Sale 170. In addition, Kaktovik subsistence hunters have consistently utilized areas west of the defined Alternative V Kaktovik Subsistence Whale Deferral Area for the pursuit and harvest of bowheads and other resources. While text implies otherwise, Figure III.C-15 clearly shows these more western strikes. .004

With respect to Cross Island, a deferral area extending at least 20 miles north and 25 miles east of the subsistence whaling base is a reasonable deferral area, encompassing much of the actual area of subsistence use and perhaps some of the upstream area of influence. Again, your Stipulation 5 recognizes that Nuiqsut whalers use an area extending east to Flaxman Island. We note also that Figure III.C-14 shows whale strike locations east to 146° 30'. MMS' proposed deferral area is considerably smaller and does not include such points. Furthermore, the location for whale 73N1, harvested by the Nuiqsut community (70° 6.03' N, 145° 36.76' W), is omitted from the map. This is a serious omission since it shows that the hunting area extends considerably farther east than the map indicates. Our suggested deferral would reduce the threat of disturbance which could significantly disrupt the subsistence harvest of bowhead whales by Nuiqsut hunters. We continue to believe that MMS should now be willing to consider the available harvest data as a starting point in defining the actual extent of a zone around .005

Cross Island requiring heightened protection. A new zone which includes the full subsistence use area plus the upstream area of influence should be defined in consultation with the AEWC, Nuiqsut, and the National Marine Fisheries Service, and refined as noise monitoring studies, including those associated with British Petroleum's Northstar Development Project, produce more accurate information on noise impacts to migrating whales. Recognizing the ongoing stress and anxiety caused by continued leasing within Nuiqsut's critical subsistence use area, our approach seeks deferral of an area larger than the 10-mile radius now subject to heightened protection as an appropriate interim measure until the necessary work is done to identify an area based on use and science acceptable to all parties. .005

Beaufort Sea Zones

We understand MMS' desire to construct a means of dividing the entire Beaufort Sea Planning Area into more manageable parcels for the purposes of analysis. It is no surprise to us that the agency has chosen a system which looks at the planning area from the standpoint of industry, rather than the affected community. The MMS zones are based on water depth and proximity to existing North Slope industry infrastructure. These factors are used to assess the likelihood that tracts will be leased and production facilities will be constructed. The result is "development scenarios" for which MMS then evaluates effects. Neither criteria is useful for addressing reasonably foreseeable development scenarios which pose the greatest potential threat to subsistence resources and uses. Such scenarios are of most concern to the Inupiat people of the North Slope and others who utilize the migratory resources of the Beaufort Sea. .006

Development Scenarios

If MMS wants to design and evaluate development scenarios which have meaning for local residents, it should pay closer attention to the fears and concerns expressed during scoping for these sales, and for sales and other offshore proposals dating back thirty years. It should be no secret or surprise that Barrow's primary concern is the potential for one or more drilling structures to be placed north or up to 40-50 miles east of Point Barrow. Nuiqsut is fearful that one or more structures located north or east of its subsistence whaling base at Cross Island will render migrating whales more difficult and dangerous to harvest. Kaktovik's concerns are similar in focussing primarily on the possibility of development north or eastward of the community. All communities have experienced disruption of subsistence whaling as the result of exploratory operations in the past. All are concerned with the potential for single or multiple operations occurring in these sensitive areas. All are concerned with the cumulative effects of such operations with other industrial operations, including seismic, barge, mobilization and demobilization operations, support vessel and aircraft traffic, and non-industrial operations, including commercial, military, scientific, and tourism vessel traffic.

MMS should develop and evaluate the potential effects of scenarios specifically placing structures in the proximity of subsistence zones, especially "upstream" of those zones in the fall bowhead whale migration. It should evaluate the potential effects of single

structures, the effects of multiple structures in relatively close proximity to each other, the effects of multiple structures not in close proximity, but subjecting migrating resources to multiple exposures in a single season, and the potential effects of all of these structure-based scenarios acting in combination with other foreseeable operations. .006

Faulty Effects Analysis

The analysis of the potential effects of leasing, exploration, and development in the DEIS is driven largely by the development scenarios used. Because those development scenarios do not get at the essential questions posed by Beaufort Sea leasing and potential development, MMS' effects analysis is correspondingly faulty. An essential problem with the MMS approach is illustrated by the conclusion reached concerning the Alternative III Barrow deferral and two Eastern Beaufort deferrals, Alternatives V and VI. As we said in our hearing testimony, the conclusion defies logic. The Draft EIS first finds that because these areas are far from existing infrastructure, they are less likely to be leased and developed. We agree. MMS then goes on to say that because these areas are less likely to be leased and developed, the consequences to resources and subsistence harvest patterns with or without the deferrals would be essentially the same. That reasoning is simply not of any use in addressing the known concerns regarding Beaufort Sea leasing. It equates a projected lack of industry interest with a lack of effects. That reasoning avoids the most critical question of what effects there could be if the deferrals are not adopted and leasing and development occurs in those areas. The basis of our desire to see these areas deferred is the belief that if activities occur there, the likely and potential impacts will be greatest as compared with other blocks within the Beaufort Sea planning area. A reduced likelihood of activities occurring in the far eastern or western portions of the planning area does not mean that the effects would be insignificant if exploration and development do take place there. .007

Again, the fundamental flaw in the development scenarios applied in the DEIS is that they do not consider the specific potential effects if one of the projects predicted is located in a particularly sensitive area. The very reason deferral areas are being discussed at all is in recognition of the fact that the Beaufort Sea is not a homogeneous environment. Some areas contain resources or see subsistence uses which are more concentrated or sensitive. MMS must do impact analyses of alternatives using scenarios which place one or more developments squarely within proposed deferral areas. Only then can the relative risks of leasing or deferring those areas be evaluated. Only then can the issues most important to the affected North Slope Inupiat community be meaningfully addressed.

SPECIFIC COMMENTS ON THE DOCUMENT

Executive Summary

ES-1: MMS identifies "major issues" from the scoping comments, but fails to include the issue of preparing a multiple sale EIS. This was certainly an important issue to the Borough, and should be thoroughly discussed. .008

ES-2: MMS states that the "EIS found that no significant effects are anticipated from routine permitted activities." This again highlights the uselessness of MMS' development scenarios. That statement simply cannot be made without knowing where predicted developments will occur. MMS assumes development somewhere in the Near Zone, which extends just seaward of Cross Island. It assumes development somewhere in the Midrange Zone, which includes waters no more than 5 miles north and east of Cross Island and three miles from Barter Island. It assumes development somewhere in the Far Zone, which encompasses all of the planning area north and east of Barter Island, waters 12-15 miles north and east of Cross Island, and waters east of Point Barrow and seaward of Cooper Island. There most certainly would be significant impacts on subsistence uses if a production island were constructed, for instance, up to 20 miles east of Point Barrow, Cross Island, or Barter Island. The most MMS can truthfully say with respect to potential effects on subsistence whaling is that for routine permitted activities located well outside of subsistence use areas and associated areas of influence no significant effects are anticipated. .009

ES-5: Here too, MMS "does not expect any significant cumulative impacts to result from any of the routine activities associated with Alternative I for Sale 186." Here too, MMS maintains that the cumulative effects of leasing the full sale area (Alternative I) for Sale 186 would not change with the two subsequent sales, or if any of the deferral Alternatives were chosen for any of the three sales. This conclusion, and the explanation given for it, are confounding. MMS' reasoning seems to be the following: 1) if the "estimated contribution" of Sale 186 to the combined estimated effects of all past, present, and reasonably foreseeable activities that are likely to affect the same resources likely to be affected by Sale 186 is not expected to be significant, than 2) neither the two subsequent sales, nor selection of any deferral alternatives for any of the sales, will change that finding of no significant cumulative impacts in a measurable way. That may be true if MMS could actually state with any confidence that routine activities associated with Sale 186 will not result in any significant effects. As discussed above, however, faulty development scenarios resulted in MMS' unjustified conclusion that Alternative I for Sale 186 would produce no significant effects. That flawed conclusion taints the entire analytical structure of the DEIS. Conclusions substantially similar to a statement that "effects would essentially be the same as Alternative I for Sale 186" appear throughout the document, and must all be questioned. MMS assumes that six developments will occur. Without explanation, however, it does not evaluate the potential effects of any of these developments occurring within the proposed deferral areas. More realistically focussed development scenarios constructed to highlight differences in effects between leasing and deferring certain areas would certainly produce a different sale-specific and cumulative effects conclusions. .010

ES-5-6: For each of the proposed Deferral Alternatives, a statement appears that deferring the area from any of the three sales "would provide limited protection to all the resources of the area, but the overall effects likely would be essentially the same as Alternative I." Following that statement in each case there is then some acknowledgement that deferral could reduce effects on subsistence resources or more .011

particularly, the bowhead whale hunts in "the vicinity" of Barrow, Cross Island, and Kaktovik. If you propose simple scenarios under Alternative I envisioning a development directly within each of those "vicinities", it dramatizes the lack of justification for a conclusion that deferral would produce no significant reduction in effects. .011

Section II Alternatives

Page II-19: In ITL Clause No. 4, MMS should explain why it is only "*recommended* that all aircraft operators maintain a minimum 1,500-foot altitude when in transit between support bases and *exploration* sites" for the protection of endangered whales and marine mammals. We believe that the flight restriction should be required, and that it should apply to development and production facilities, as well as exploration sites. .012

Section III Affected Environment

Page III-59: It is not accurate to say that the "bowhead whale is the preferred *meat* and the subsistence resource of primary importance..." The reference to "meat" should be deleted, as other whale products are of equal importance. .013

Section IV Environmental Consequences

Page IV-7: Vehicle, aircraft, and vessel support for exploratory drilling operations is discussed. On Page IV-9: Vehicle, aircraft, and vessel support for development and production is discussed. As we have repeatedly stated in previous comments to MMS and others, any reference to aircraft or vessel "trips" should be considered vague for purposes of assessing potential effects. MMS must recognize that a round-trip between onshore facilities and offshore sites is really two impact-producing transits of offshore waters, typically separated in time by an interval spent loading or off-loading personnel or materials. A doubling of "trip" numbers to identify actual transits of the marine environment does not produce insignificant totals when considering potential effects. It is stated, for example, that estimates for surface transport during the construction phase for Northstar and Liberty were "roughly" 400 round trips per day. That means perhaps 800 daily transits between shore and offshore sites. Marine transport for Northstar during construction was estimated at 125-150 trips, or 250-300 transits, during the open-water season. MMS predicts 150-250 vessel trips, or 300-500 transits, during construction for far/deepwater facilities. For Liberty, 10-20 helicopter trips per day, or 20-40 transits, were projected during construction. These are significant numbers, especially when considered in combination for a single project, and even more so when the potential for multiple projects in a single season is considered. Nowhere in the DEIS is a scenario evaluated which assumes these volumes of traffic occurring in areas critical to wildlife resources or subsistence users. .014

Page IV-15: MMS must acknowledge that potential drilling operations in the far eastern or western reaches of the proposed sale area would likely require either the staging of substantial additional spill response equipment (bulldozers, dump trucks, front-end loaders, snowblowers, trenching equipment, ditch witches, pumps, and skimmers) in .015

locations remote from the existing Prudhoe Bay/ Kuparuk complex, or substantially longer response times for incidents in those areas. .015

Page IV-16: It is stated that burning can remove in excess of 90% of oil from the aquatic environment. It should be added that this can only occur under ideal conditions. .016

Page IV-19: The potential volume of recoverable oil projected for the three lease sales seems, at 1.38 billion barrels, to be overstated. MMS assumes recoverable quantities of 460 million barrels for each of the three sales despite development scenarios predicting three developments for Sale 186, two for Sale 195, and only one for Sale 202. Estimates of recoverable oil volumes from the existing Northstar facility are in the 160-million barrel range. If the resource potential of the three sales is overstated, then the predicted environmental and other effects of replacing the "lost oil" from alternative oil sources or alternative energy sources are correspondingly overstated. .017

Page IV-47: The high peak level and impulsive nature of seismic airgun noise has not caused concern just in the "environmental community". The subsistence and scientific communities, as well as the interested public, are also concerned about potential effects of seismic noise on marine mammals and other resources. .018

Page IV-52: In discussing seismic noise effects on bowhead whales, the statement in the third paragraph that "overall, the 1996-1998 results show that most bowheads avoided the area within about 20 kilometers of the operating airguns", seems to conflict directly with the statement in the fourth paragraph that "based on 1996-1998 data, there was little or no evidence that bowhead headings, general activities, or swimming speeds were affected by seismic exploration." .019

Page IV-53: There is no basis for the conclusion of the third paragraph that "whales avoiding seismic operations during the 1996-1998 whaling seasons did not affect the accessibility of bowheads for subsistence whaling." Harvest success does not necessarily equate with ease of harvest. Subsistence hunters have consistently reported that whales become more "skittish" and difficult to pursue and strike following exposure to industrial noise during their migration. Seaward deflected whales must be pursued over greater distances by subsistence hunters, and successfully harvested animals must be towed over greater distances to processing sites. Hunts occurring farther from subsistence whaling bases expose hunters to greater risks, are more expensive, and present a greater likelihood that whale meat and other products will spoil before they can be processed. .020

Page IV-63: MMS repeats a statement that we have consistently refuted in the past. The fourth paragraph begins, "Several studies indicate that most bowheads exhibit avoidance behavior when exposed to sounds from seismic activity at a distance of a few kilometers but rarely show avoidance behavior at distances of more than 7.5 kilometers (4.7 miles)." Only later is it noted that more recent monitoring programs have shown most bowheads avoiding an area around an operating seismic vessel by a radius of about 20 kilometers (12.4 miles). MMS must clearly acknowledge that the earlier studies were flawed, and are no longer accepted as comparably reliable as the more recent studies. .021

Page IV-67: The third paragraph on the effects of baleen fouling makes only passing reference to the dramatic differences between bowhead baleen and the baleen of the four whale species which were the subject of the cited Braithwaite study. The paragraph ends, however, with the conclusion of Geraci and St Aubin that based on that study, "it appeared that the concern for oiled whales (baleen fouling) is becoming less defensible". This is highly misleading. There is no data to suggest that fouling of bowhead baleen, which is long, flexible, and characterized by many hairlike filaments, should not be a significant concern in the event of an oil spill. .022

Page IV-137: The section presents a good discussion of the potential serious effects of tainting concerns following a large oil spill affecting any part of the migration route of the bowhead whale. The section properly identifies the whale as being "culturally pivotal" to the Inupiat people, and recognizes that tainting concerns would exist in all Inupiat and Yup'ik Eskimo communities adjacent to the migratory corridor of the whales and other migratory subsistence species. It is unclear why this discussion does not lead to a clear conclusion that a large or very large spill anywhere within the migratory route of the bowhead whale would result in a significant impact on affected subsistence communities. That conclusion should be clearly stated here and elsewhere as appropriate in the document. .023

Page IV-147: As noted above, MMS concludes that because the Barrow and Kaktovik deferral areas are far removed from the infrastructure at Deadhorse, they are less likely to be leased and developed. The agency then concludes that the lower probability of leasing and development means that the effects of noise, disturbance, and oil spills on all resources with the deferrals are likely to be the same as they would be without the deferrals. Here, after claiming that the effects with or without the deferrals would be "about the same", the second paragraph ends with the statement that "differences in noise and oil spill effects to bowhead whales from these deferrals as compared to Alternative I for Sale 186 would likely be difficult to measure." That simply could not be true if any number of reasonable development scenarios we can think of were used in the analysis. .024

The same perplexing reasoning is applied at the bottom of the page to reach the conclusion that effects of exploration and production activities on bowhead whales associated with Alternative I for the second sale, Sale 195, are "likely to be similar to those described under effects common to all alternatives and in effects of Alternative I for Sale 186." The paragraph concludes with the statement that "although more activities are expected to occur in deeper water, the differences in effects to bowhead whales between the two sale scenarios probably are not measurable." Her once again, the scenarios drive the evaluation of effects, and MMS has chosen to define the scenarios in a way that does not highlight potential differences in effects between Alternative I (leasing) and Alternatives III-VI (deferrals).

Page IV-149: The same faulty analysis is applied in evaluating the effects of Alternative I for the third sale, Sale 202. MMS continues to claim that effects will not increase measurably despite leasing, exploration, and development progressively moving into .025

deeper waters. This is contrary to assertions made in both the Northstar and Liberty EIS documents which argued that those projects would likely have minimal impacts on bowhead whales precisely because they were in shallower waters, rather than in the deeper waters more consistently encompassing the animals' migratory path. .025

Page IV-151: This section on Sociocultural Systems begins with the statement that communities that potentially could be affected by activity generated by the Beaufort Sea multiple sales "include" Barrow, Nuiqsut, and Kaktovik. No other communities are then discussed. The discussion on page IV-182 concerning the Consumption of Fish and Game likewise focuses only on Barrow, Nuiqsut, and Kaktovik. It is incorrect to assert that only these three communities could be affected by Beaufort Sea industrial operations. Clearly, all subsistence whaling communities, and other communities which trade for and receive whale products and other resources from the whaling communities, could be affected. A large oil spill anywhere within the habitat of bowhead whales or other migratory subsistence resources could have multi-year impacts on the harvest of those species by all communities which utilize them. Harvests could be affected by oiling of subsistence use areas, deflection and heightened noise sensitivity of whales due to spill response efforts, concerns over the safety of subsistence foods, and potential action by the International Whaling Commission to limit harvest quotas in response to a perceived increased threat to the bowhead population. Beyond the effects of a catastrophic oil spill, long-term deflection of whale migratory routes or increased skittishness of whales due to the effects of increased industrialization of the Beaufort Sea would make subsistence harvests more difficult, dangerous, and expensive. The document is correct in recognizing in the last paragraph on page IV-151 that "the sharing of subsistence foods is profoundly important to the maintenance of family ties, kinship networks, and a sense of community well-being." Clearly, any disruption of subsistence harvests through actual or perceived exposure of resources to spilled oil or reduced harvest success would have cascading effects on these social underpinnings of the Inupiat culture. .026

Page IV-152: At the top of the page, the document properly recognizes that because of the psychological importance of subsistence in sharing networks within Alaskan Native communities, perceived threats to subsistence activities from oil development are a major cause for anxiety. On page IV-154, and again on page V-66, the DEIS identifies a variety of particular fears which contribute to stress associated with the general fear of an oil spill. That pervasive stress is properly recognized as a "distinct predevelopment impact-producing agent within the human environment." These recognitions represent a breakthrough of sorts for MMS, and we applaud the inclusion of these and other related discussions in the DEIS. It is disappointing however, that MMS does not appropriately use these findings to conclude that the contribution to this ongoing community-wide stress and anxiety is a significant effect of the proposed lease sales meriting immediate mitigation in the form of cancellation of the sales or, at the very minimum, deferral of all intensive subsistence use zones from leasing. The EIS should acknowledge that this planning process alone, before any one of the lease sales is actually held, significantly exacerbates a level of stress and anxiety in our communities associated with expanding oil and gas development on the North Slope and adjacent waters. .027

Page IV-153-154: Here and elsewhere in the DEIS, MMS states flatly that staging for exploration and development would be from exiting infrastructure in Deadhorse, or that development and production activities would be enclave based. There is no foundation for these claims, which are the basis for conclusions that the communities of Barrow, Nuiqsut, and Kaktovik would experience little direct disturbance or social disruption associated with these activities. The assumptions are baseless, and recent evidence indicates that Barrow, at least, may be used for staging. The 1999 EIS prepared largely by MMS staff evaluating oil and gas leasing in the Northeast National Petroleum Reserve-Alaska (NPRA) also assumed that all post-lease exploration and development activities would be staged from Deadhorse. No one anticipated the recent proposal by Phillips Alaska to possibly stage continued exploratory drilling this coming winter at its Northeast NPRA Puviaq site out of Barrow using an ice road more than 60 miles in length. Leasing of Northwest NPRA lands approaching 10-million acres is expected next year. If the area sees active leasing, it is likely that additional operations will be staged out of Barrow. MMS should evaluate the potential effects of routinely staging future NPRA operations out of Barrow. It should also consider the possibility that successful staging for NPRA operations from Barrow might stimulate greater industry interest in the western reaches of the Beaufort Sea Planning Area, recognizing that Barrow could serve as a base for exploration, development, and production operations. That possibility casts further doubt on the usefulness of the three Beaufort Sea zones identified for analytical purposes by MMS and defined, in part, by proximity to Deadhorse infrastructure. .028

Page IV-186: We are pleased to see that MMS has finally and directly acknowledged with respect to oil spill response that "present mechanical-cleanup technology has not demonstrated cleanup capability in broken-ice conditions."

Page IV-207: It is incorrect to conclude, as MMS does in the sixth paragraph, that the State of Alaska's Northstar drilling restriction "eliminates the environmental effects associated with a well blowout during operations in the Beaufort Sea during broken-ice or open-water conditions." At best it can be said that the restriction reduces the potential for environmental effects. .029

Page IV-209: It is unclear, but seems from Subsection IV.I.1.d. under the heading of Blowout Assumptions, that the estimates of how much oil would reach specific shorelines and resources of concern following a large spill only evaluates spills originating in Launch Areas 10 and 12, both of which are located in the central Alaskan Beaufort Sea. If so, the analysis greatly underestimates the risks to resources and uses concentrated in leased areas remote from those launch areas. .030

Page IV-215-216: MMS properly concludes that a very large spill under certain conditions could cause significant population-level harm to a number of waterfowl species. We believe that this risk alone is grounds for deferring the described concentration areas from leasing. .031

Page IV-217: The DEIS uses several different figures to describe the potential losses of polar bears following a large or very large oil spill. This page seems to indicate that up to .032

128 bears could be "exposed to oil". It is unclear whether or not this means that 128 animals could suffer lethal effects. The conclusion assumes "a very high bear density of 1 bear/25 square kilometers". Pages IV-107 and V-46 simply note this as the reported approximate bear density without identifying it as "very high", and estimate variously that 5-30 or 6-10 bears could be lost following a large spill. EIS discussions of risks to polar bears should be modified to reflect that 60 or more animals have concentrated in the Barrow vicinity since early August this year. The entire number would be vulnerable to oiling if a spill were to occur in the area. .032

Section V Cumulative Effects

Page V-4: The structure of MMS' analysis is biased toward repeated conclusions that the contributions of these sales to cumulative effects would be insignificant because the DEIS analysis of the potential effects of Alternative I for each sale is flawed as we described above. If the conclusion if erroneously reached that the effects of leasing will be minimal, then of course it would follow that the contribution of the sales to cumulative effects will be minimal. The cumulative effects analysis also appears to focus exclusively on the broad question of the contribution of the three proposed sales to overall, long-term, regional effects on resources and uses. While this approach is valid as one component of the cumulative effects equation, it ignores shorter-term effects which can significantly impact resource behavior and subsistence uses. .033

Page V-6-7: MMS does not include activities in its cumulative effects analysis which we feel merit consideration. These include the potential for increased commercial, military, scientific, and tourist vessel traffic through the Beaufort Sea as the area becomes more accessible through Canadian waters with significant recent reductions in ice coverage. With evidence that the polar ice cap in the Canadian Arctic melting, a northern maritime route - the Northwest Passage - is opening for more consistently longer periods. Reports in recent years project that in the relatively near future, commercial and other ships may begin routinely plying the Arctic route instead of utilizing the Panama Canal. For European and other shippers, the Northwest Passage represents a shortcut of more than 4,000 nautical miles. .034

Page V-17: The last full paragraph discounts the likelihood that resources will encounter multiple disturbances or oil spill events near in time and space or prior to recovery. We see multiple exposures as far more likely. Migrating whales could encounter multiple support vessels or aircraft making transits between shore facilities and offshore structures. They could encounter mobile seismic vessels and stationary drilling structures in succession. A variety of resources could encounter multiple oil slicks or accumulations as they surface through or land on oiled surfaces, particularly in broken-ice conditions. .035

Page V-19-20: We reject the strained reasoning which produces the MMS conclusion that the contribution of each deferral alternative to cumulative effects cannot, in any measurable way, be differentiated from the contribution of the proposal, Alternative I. We strongly disagree with MMS' assertion that "an attempt to focus on the small differences in effects among the three lease sales and their deferral alternatives in .036

comparison to the effects of the past, present, and reasonably foreseeable actions would be an exercise in illusion." We are the affected community which will directly deal with the effects of these sales. That statement makes no sense to us. Ask any whaling captain in Barrow, Nuiqsut, or Kaktovik how he feels about the relative risks of these three lease sales, first with the planning area fully leased, and then with critical subsistence whaling areas deferred from leasing. There is a single production facility in Beaufort Sea federal waters today. It is not located within or directly upstream of a core subsistence whaling area. MMS assumes that with leasing there will be six more facilities. One, more, or all of those six facilities could be located within or upstream of critical subsistence whaling areas. How can you argue that full leasing which would allow the siting of those facilities within subsistence areas would contribute equally to cumulative effects as compared to leasing with deferrals which would prevent the siting of facilities within those areas? MMS' entire sale-specific effects analysis and cumulative effects analysis should be scrapped, and reworked to focus on the issues of real concern. .036

Page V-29: As on page IV-63, MMS presents the findings of 1980s studies and 1996-1998 studies on the effects of seismic activities on bowhead whales without sufficient and clear acknowledgement that the older studies had serious limitations, and that the results of the later studies are now accepted as more reliable. It is particularly inappropriate on an issue of such critical concern to refer readers to the Lease Sale 170 Final EIS for a discussion about some of the limitations of the 1985 Ljungblad study. Those limitations should be fully discussed in this document if the study is cited at all. In addition, rather than stating that various limitations of the 1980s studies "also were pointed out by Dr. Tom Albert, North Slope Borough during the Arctic Seismic Synthesis and Mitigating Measures Workshop, MMS should clearly acknowledge and accept those limitations as other agencies have done. .037

Page V-33: Here too, the potential for a heavily traveled northern sea route utilized by commercial, military, scientific, and tourist vessels should be discussed. In addition to disturbance effects on marine resources, MMS should also discuss the potential adverse effects on water quality associated with increased traffic. .038

Page V-47: It is unclear how MMS reaches the conclusion that Alternative I for Sale 186 is expected to contribute only 2-4% of the local short-term noise and disturbance effects on seals and polar bears. That figure seems low if based on 10-20 flights per day (20-40 transits) and 450 helicopter round trips (900 transits) per day during construction periods. .039

Page V-58: It is stated that "ideally, ongoing seismic operations are seasonally timed and monitored to prevent conflicts with the (bowhead) migration and the subsistence hunt." It would be more accurate to say that seasonal limitations "minimize" disturbance of the subsistence hunt, rather than "prevent" them. Past seismic limitations have separated operating seismic vessels from subsistence hunters from the traditional onset of the subsistence whaling season until harvest quotas are met. Whales can still be exposed to seismic disturbance, with the result that they become more skittish and difficult to harvest when approached by hunters from communities farther along the migration route. .040

Page V-63-64: It is noted that a serious concern among North Slope Inupiat is that potential increases in noise from cumulative oil development could disrupt the normal migration of bowhead whales, forcing subsistence hunters farther from shore. A quote is included from Eugene Brower, President of the Barrow Whaling Captains' Association, recounting how an idling exploration platform 9 miles offshore deflected all fall migrating bowhead whales seaward of the structure. It seems that MMS chose not to factor this direct observation into its analysis, as at the bottom of page V-64 it concludes that "cumulative effects on subsistence-harvest patterns include effects from Alternative I for Sale 186 exploration and development and other past, present, and reasonably foreseeable projects on the North Slope with one or more important subsistence resources becoming unavailable or undesirable for use for 1-2 years, a significant adverse effect." It is unclear how the disruptive effect of a production island or drilling structure similarly situated and in place for perhaps 15-20 years would be limited to only 1-2 years. If a 1-2-year disruption of subsistence whaling would be a significant adverse effect, MMS must acknowledge that a disruption on the order of 15-20 years would represent a far more severe effect, and is absolutely unacceptable. .041

Likewise, the section also discusses the potential effects of a large oil spill on subsistence harvest patterns. It is stated that "even if whales were available for the spring and fall seasons, *traditional cultural concerns of tainting* could make bowheads less desirable and alter or stop the subsistence harvest in Barrow, Nuiqsut, and Kaktovik for up to two seasons." We agree with MMS' conclusion that this would be a significant adverse effect. We do not agree that concerns over tainting would be limited to only two seasons. Studies of the effects of the Exxon Valdez oil spill on subsistence communities indicate that concerns over the safety of harvested resources persisted for many years following the incident. Also, the use of the phrase "traditional cultural concerns of tainting" here and elsewhere in the document unfairly implies that concern over the safety of harvested food is somehow peculiar to the Inupiat people. We contend that under comparable circumstances, any people, of any culture, would be hesitant to harvest traditionally consumed resources following a discharge of any toxic substance into the habitat of those resources.

Page V-64-65: It is unclear why MMS specifies that major significant effects that could occur following a large oil spill which contaminates essential whaling areas would be only "additive" rather than "synergistic". In the event of a large spill, all of the effects listed would likely occur. There would be contamination of the shoreline (as well as the marine environment), tainting concerns, cleanup disturbance, and disruption of subsistence practices. Subsistence harvest of marine resources would likely cease for some period of time. Does the distinction made by MMS matter? .042

Page V-65: Not adequately dealt with in the evaluation of cumulative effects on sociocultural systems is the issue of ongoing costs borne by the Borough and other local entities as a direct or indirect result of OCS leasing, exploration, and development. That analysis should include the budgetary effects on the Borough, community, and tribal governments of attempting to fully participate in OCS review and planning processes. That information should be a necessary component of your impact assessment, and would .043

serve as a means of identifying an appropriate level of impact assistance, which should accompany any continued OCS leasing.

Finally, as we observed in our hearing testimony, an assessment of the cumulative impacts of oil and gas activities on the North Slope is being conducted by a Committee of the National Research Council. Its report due out this year. MMS should acknowledge the importance of the Committee's work, and agree to put forth appropriate effort and funds to see that any recommendations offered in its report are acted upon. This EIS should be modified as appropriate to reflect the Committee's findings. .044

CONCLUSION

The primary purpose in preparing an Environmental Impact Statement is to assess the potential effects of a proposal on the physical, biological, and human environments. A key to the process is the development of alternatives to the proposal which differ enough from it to allow for a meaningful comparison of varying effects. It just makes good sense, and is good public policy, to use the document, and particularly the identification of alternatives, to highlight and address the most serious stakeholder concerns with the proposal. MMS has not done that. The proposal is to lease a large portion of the Beaufort Sea OCS Planning Area. Alternatives have been identified. Each would defer a subarea from leasing. They were developed with the apparent goal of providing options for the protection of sensitive resources and subsistence activities. Even without appropriate meaningful analysis, it is clear that the deferral areas offered are not sufficient to achieve the protections needed. A far more fundamental problem with the document and MMS' analysis is the meaningless development scenarios which are used in some poorly defined way to evaluate the effects of the proposal and the alternatives. Because projected developments are simply assumed to occur somewhere, but nowhere specific, within three large offshore zones, it is possible for MMS to avoid the central questions raised by the proposal. As the most directly affected community, it is reasonable for us to ask, what would be the effects if one or more developments and associated pipeline systems and support traffic occurred within a key subsistence area. That reasonable and surely understandable inquiry simply is not answered by this DEIS. The entire analysis should be reworked to address the fundamental questions which the Borough and others raised during scoping for this proposal. Thank you for considering the above comments, as well as the more technical comments that follow.

Sincerely,

George N. Ahmaogak, Sr.
Mayor

cc: John Goll, Director MMS Alaska Region
George Tagarook, Mayor Kaktovik
Eli Nukapigak, Mayor Nuiqsut
Edith Vorderstrasse, Mayor Barrow
Thomas Napageak, Chairman AEWC
Maggie Ahmaogak, Executive Director AEWC
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Senator Ted Stevens, Washington, D.C.
Senator Frank Murkowski, Washington, D.C.
Representative Don Young, Washington, D.C.
Senator Donny Olson
Representative Reggie Joule
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Todd Sherwood, NSB Attorney
Tom Lohman, Wildlife

Technical Comments on the Draft Environmental Impact Statement for the Beaufort Sea Planning Area, Sales 185, 196, 202

Birds

Page III-43, III.B.5.a(2) Nesting Period:
Information should be added that Lesser Snow Geese also nest in the Ikpikpuk River Delta. The Ikpikpuk Colony has grown considerably in the past 5-10 years. As of 1998, the colony had grown to about 100 nesting pairs (Ritchie et al. 2000) and by 2002, the colony numbered more than 800 nesting pairs (R. Suydam, Pers. Comm.). The colony is mostly located in the western portion of the Ikpikpuk River Delta and occurs on low-lying islands and is thus vulnerable to flooding. .045

Page IV-81, IV.C.5.b(1)(a)1)c) Effects of collisions with structures:
First sentence in the first complete paragraph on page IV-81 states that "....most eiders are likely to see and avoid them [artificial island or drill rig] when visibility is good." There are no data to justify this statement and in fact there are data to suggest the opposite. The next sentence points out that birds have collided with the North Star structure during times with good visibility. The last part of the first sentence should be deleted so it does not contradict with the following sentence. .046

Page IV-81, IV.C.5.b(1)(a)1)d) Effects of discharges:
The third sentence states that "...discharges are not likely to cause significant effects either through direct contact with birds or by affecting prey availability..." This statement is made on the assumption that Spectacled Eiders are uniformly distributed across the Beaufort Sea and in low densities. There are few data on Spectacled Eider distribution in the Beaufort Sea. The assumption that Spectacled Eiders are uniformly distributed in low densities in the Beaufort Sea is contradicted by the eider's distribution in the Bering and Chukchi seas. Eiders have a restricted distribution in these areas and could easily be expected to have a restricted distribution in the Beaufort Sea. The paragraph should be changed to reflect the lack of information for the Beaufort Sea and the contradictory information for the Chukchi and Bering seas. .047

Page IV-83,IV.C.5.b(1)(b)5) Population Effects:
The last three sentences in the second paragraph in this section discuss the recovery of Spectacled Eiders. If the Spectacled Eider population is declining, "the rate of recovery from any oil spill or other mortality associated with oil and gas development" is NOT likely to be slowed, but the DECLINE INCREASED. For populations in decline, ANY added mortality will <u>increase the decline</u> not just slow recovery. For recovery to occur, the population must be increasing. If the population is increasing, then mortality from oil and gas activities will slow recovery. The premise that recovery will be slowed by mortality from oil and gas activities is simply not true; the decline will be exacerbated from additional mortality. Analyses about impacts from oil and gas activities on the Spectacled Eider population are therefore flawed and need to be redone. .048

Page IV-87,IV.C.5.c(1)(b)1) Effects of a Large Oil Spill:

This section discusses impacts to Steller's Eiders from an oil spill. The paragraph contains statements that are misleading or false. For example, the paragraph states that Steller's Eiders arrive at nesting areas via overland routes, thus few are likely to be vulnerable to oil in spring leads. There are no telemetry data on the route Steller's Eiders take to breeding areas. It is likely that the birds nesting near Barrow arrive from spring leads. There are no feasible overland routes for Steller's Eiders to take from wintering areas to nesting areas near Barrow. Thus, an oil in a spring lead near Barrow would likely impact and exacerbate the decline of Steller's Eiders. .049

Page IV-91,IV.C.6.a(1)(a)3) Effects of Collisions with Structures:
This section discusses impacts to marine and coastal birds due collisions with structures associated with oil and gas activities. The second to the last sentence in the second paragraph is misleading. The sentence, "The density of most species in the Beaufort area is relatively low, and mortality from collisions with the island also is likely to be low" is only true for birds resting on the Beaufort Sea. Migrating birds, especially King and Common eiders, move through the Beaufort Sea in incredible densities. As an example, Woodby and Divoky (1982) observed 360,000 eiders pass Point Barrow 360,000 in a 10-hour period with a peak passage of 113,000 in only half hour. Thus, migrating birds are at great risk to collision with structures constructed in the Beaufort. Collisions are of a concern because King and Common eider populations have declined markedly in the past 20 years (Suydam et al. 2000). If the declines are continuing, any added mortality to eiders from collisions will increase the decline. An increasing decline could ultimately lead to the listing of King and Common eiders under the Endangered Species Act. .050

Page IV-92,IV.C.6.a(2)(b)1) Effects of Disturbance from Oil-spill Cleanup:
The forth sentence states, "...staging and migrating flocks of most species generally are dispersed and thus wound not necessarily occur in the vicinity of the cleanup activity...and thus...few flocks are likely to be displaced...and expend energy stores for migration." This is a contradiction of statements made in the following section on Vulnerability of Birds to Oil Spills. Flocks of migrating birds can be large and losses due to cleanup activities or oil spills could be substantial. The EIS does not adequately deal with this issue and should be revised. .051

Page IV-93,IV.C.6.a(2)(b)2)b) Mortality from an oil spill:
This section primarily focuses on an oil spill/bird occurrence model that uses bird data from aerial surveys that occurred in July and August in the Beaufort Sea. The use of only these data is misleading as is pointed out in the assumptions of the model in the first paragraph in this section. Particularly of concern is the fact that large numbers of migrating birds were not accounted for in the model. As an example, only 19,842 King Eiders were accounted for in the surveys. Because King Eiders migrate across the Beaufort Sea twice a year, almost the entire population of King Eiders that migrate along the northwest coast of Alaska is vulnerable to an oil spill. A minimal estimate of King Eiders in this population is abut 300,000 birds, considerably more than ~20,000 stated in the DEIS. The third paragraph in this section attempts to point out this issue but does so poorly. An accurate assessment of the potential risks of an oil spill to birds migrating .052

across the Beaufort Sea is needed. The current assessment is a considerable underestimate of the potential risk of an oil spill to birds in the Beaufort Sea. .052

Pages IV-94 & -95, IV.C.6.a(2)(b)2)c) Population effects:
Analysis for this section assumes there is a constant carrying capacity for the Beaufort Sea. If an oil spill occurs and kills eiders or Long-tailed Ducks and these populations are already in decline, the added mortality from an oil spill will not slow recovery, but will exacerbate declines. See comments for Page IV-83, above. .053

The last paragraph in this section is misleading and contradictory to other comments made in the DEIS. Aerial surveys conducted by the USFWS indicate the population status for the bird species nesting on the North Slope of Alaska but not for the species migrating across the Beaufort Sea. For all of the species mentioned, many individuals from the populations nest in Canada and are not surveyed by the USFWS. Thus the analyses are flawed in that they do not account for the actual number of birds that use the Beaufort Sea. One example is King Eiders. Only about 10,000 King Eiders nest on the North Slope of Alaska while the remaining ~300,000 that use the Beaufort Sea migrate to Canada for nesting. .054

Page IV-95 Conclusions:
This section is inadequate for the same reasons described above. The data being used to estimate impacts to waterfowl are do not reflect an accurate assessment of the how many birds are at risk from these lease sales. The major failing is that the DEIS does not address the hundreds of thousands of birds, mostly eiders, that migrate across the Beaufort Sea twice a year between nesting areas in Canada and wintering areas in the Pacific Ocean or Bering Sea. This section should be modified with accurate assessment of the actual number of birds vulnerable to oil spills and other industrial activities, such as collisions with structures. .055

Beluga Whales
Page III-48, III.B.6.f. Beluga Whales:
The last three sentences of the first paragraph of this section are outdated. Twenty-three belugas from the eastern Chukchi Sea stock have been satellite tagged since 1998. Satellite tracking data show that Chukchi Sea belugas inhabit the Beaufort Sea, in addition to the eastern Beaufort Sea stock of belugas (1998 data reported in Suydam et al. 2001, other data, Robert Suydam, Pers. Comm.). Thus, Chukchi Sea belugas must be considered as part of the "Affected Environment" of the three lease sales within the Beaufort Sea. .056

Page IV-99,IV.C.7.a(1)(a) Effects of Noise and Disturbance from Routine Exploration Activities:
This section contains a misstatement: "Some beluga and gray whales might be diverted by helicopter noise up to 100 meters away (Richardson et al 1995)". This sentence implies that belugas more than 100 m away are not affected. This statement is not true based on Richardson et al (1995). They actually state that belugas were often disturbed by helicopter noise when the helicopter was operating at <250 m lateral distance and at .057

an altitude of <150 m. Thus the disturbance was much greater than what stated in DEIS. Furthermore, Richardson et al. (1995) did not even look at gray whales, but only belugas and bowheads. .057

Page IV-109,IV.C.7.a(2)(c)2) Effects of Large Oil Spill:
The third paragraph discusses effects to beluga whales. The paragraph only discusses contact with oil during spring migration off Barrow. This analysis is incomplete and lacking. There is no discussion about effects from an oil spill during the summer or fall when two stocks of belugas occur in the Beaufort Sea. This paragraph must be expanded considerably. .058

Bowhead Whales

Page III-36: The current best estimate of abundance estimate (N4/P4) for 2001 is 9,860 (SE = 1,222) with a 95% confidence interval of 7,700 to 12,600 (George *et al.*, 2002). .059

Page III-37: We are not aware of data indicating that smaller whales migrate first in the fall; however, this is true in spring. In autumn, it is very likely the opposite situation where the smaller size/age classes migrating last. .060

Page III-38: Second paragraph. It is stated that "While some factors may have dominating effects on site specific distributions...." It seems reasonable to mention seismic operations as one of these "factors" since they are know to significantly affect bowhead whale distribution during migration. .061

Page III-39: It should be mentioned in this discussion on feeding that the new USDOI, MMS bowhead whale feeding study has direct evidence of feeding off Cross Island. This information comes from examination of stomach contents of subsistence-harvested whales (Lowry and Sheffield, 2001). .062

Page III-40: Regarding the Richardson and Thomson (2002) quote, the Borough interprets the results of the feeding study as supporting the idea that bowhead whales feed opportunistically temporally and spatially throughout their range. Therefore, one should use caution in stating that a particular feeding area is more important than another, particularly across the large time scales that a bowhead whale lives. .063

Page III-40: The recently published paper by Hoekstra *et al.* 2001 is not included in the discussion of feeding areas. Hoekstra's work suggests that the Beaufort Sea is an important feeding area and that bowhead whales generally actually gain sufficient nutrition to change their carbon-isotope ratios between Kaktovik and Barrow. These data suggest the Beaufort Sea is an important feeding area. .064

Page III-40: Gestation and age at sexual maturity. Several papers were not cited that have relevance to gestation and age at sexual maturity in bowhead whales. Reese *et al.*, (2001) conducted a Bayesian analysis of fetus recoveries to estimate a gestation length of 13.9 months. They also speculate on geographical areas where bowhead whales give .065

birth (calving areas). This area likely extends from the Bering to the Beaufort Sea. The mean birth date was 24 March with a 90% predictive interval from 3 March to 13 April. .065

Page IV-54: As for other cetaceans, high levels of protection are requisite where nursery areas are known (Wells *et al.*, 1999). It seems reasonable to restrict seismic disturbances in the spring lead systems where mothers are calving and nursing their neonates. Effects from spring whale hunting activities are acute (short episodes) rather than chronic (constant stimulus). .066

Page IV-48: Seismic displacement: Seismic operations in the Beaufort Sea are a significant issue for two reasons: 1) interference with and displacement of bowheads from whale hunting areas, and 2) interference with and displacement of bowhead whales from known feeding grounds. Recent work by Weller *et al* (2002) on the Western Pacific stock of gray whales feeding near Sakhalin Island suggests that whales can be displaced from preferred feeding areas by seismic sound production. Weller's work was an "elegant" natural experiment in terms of study design in that it included pre-seismic, seismic, and post-seismic periods. Weller and colleagues gathered data on whale numbers and distribution before seismic exploration began and found most whales preferred feeding grounds about 35 km offshore. When seismic vessels were operating in the feeding grounds, the whales moved a considerable distance shoreward, and whale numbers significantly increased in their shore-based study area. After seismic work ceased, the whales again returned to the offshore feeding area. The International Whaling Commission Scientific Committee considers this a very serious problem for this critically endangered population. This is some of the first "direct" evidence of displacement of a baleen whale from a feeding area by industrial activity. Displacement near Sakhalin Island was on the order of 30 km, which is quite similar to measured displacements of bowhead whales during migration. Obviously, we have similar concerns for bowheads in Beaufort Sea feeding areas. The Borough considers the entire Beaufort Sea a feeding area based on new feeding evidence from Cross Island and existing data from Kaktovik and Barrow. .067

Subsistence Issues

Subsistence Deferral Areas

As the Borough has repeatedly stated, locations of strikes do not reflect the true extent of the search area used by bowhead whale hunters. When we provided whale harvest location data to MMS, there was an 'understanding' that these data would be used properly, whereby both "search areas" and "upstream quiet zones" from the harvest locations would be established. It is unfortunate to see that these strike locations were used to delineate a minimal hunting deferral area. .068

ExSum-2 Effects of Routine Permitted Activities

The DEIS found that no significant effects are anticipated from "routine permitted activities." The term "significant" is used far too loosely and what one organization deems not significant another would consider significant and unacceptable. For instance, it has been proven with a reasonable amount of scientific data, that along the Alaskan Beaufort Sea coast, bowhead whales typically feed in nearshore waters as they migrate .069

along the northern coast of Alaska in the fall (at a minimum during August to October). This has been directly observed, determined by examination of stomach contents (Lowry et al., 1993; MMS DOI Eastern Alaskan Beaufort Sea Feeding Study, *In Prep.*), concluded in chemical feeding ecology studies (i.e., contaminants, stable isotopes) by Hoekstra *et al.* 2002, and Willetto *et al.* 2002, and been expressed as local traditional knowledge (many comments received by the MMS). This known important feeding area of the Beaufort Sea coupled with the well-documented deflection of bowheads during active seismic exploration as conducted in this same feeding area indicates there is a likely significant impact on bowhead whales (reduced feeding, decreased fitness, etc.). This deflection also indicates there is very likely a significant impact on the bowhead whale hunters at Cross Island and Barrow. It is very unfortunate that this is not expressed as a significant impact in the Executive Summary; instead one finds "no significant effects" stated. It is clear that this "no significant effect" perspective was an *a priori* conclusion that this documents seeks to prove and support as opposed to an unbiased assessment of potential impacts. The activities associated with these Lease Sales should be deemed "significant" based on the supposed criteria used in this EIS as outlined in Section IV.A.1 and as considered under the Marine Mammal Protection Act (for marine mammals and hunters). .069

ExSum-3: The DEIS states that "The endangered bowhead whales may exhibit temporary avoidance behavior to seismic surveys, vessel and aircraft activities, drilling, and construction, but overall effects to bowheads from disturbance and noise would be temporary and non-lethal." This is clearly an unfounded statement, as the studies that documented deflection of migrating bowhead whales could not determine if (or at what distance and time) a recovery from the obvious deflection took place. Indicating that this is "temporary" conflicts with the data that indicated no recovery was evident, and was greater than the distance monitored beyond the seismic activity. Also, if activities are occurring over multiple years in the area then bowhead whales will be displaced in sequential years, and this is not "temporary." Ship strikes are certainly considered lethal, and the fact that ship traffic is devastating the North Atlantic Right Whale (NARW) population and that evidence of ship strikes in BCBS bowhead whales has been published the comment in the EIS is very much inaccurate (Kraus, 1990). Ships do kill large baleen whales (hull or bow strikes, lacerations via the propeller, entanglement, etc.). Thus the inclusion of "vessel" and "nonlethal" in the same comment is inaccurate and misleading. .070

ExSum-4: The DEIS states that "Some bowhead whales likely would experience temporary, non-lethal effects, if a large oil spill occurred. Terms like "some", "temporary", and "few" can be misleading. The Borough has long argued that the effects of oil contact on bowhead whales is grossly understated in the EIS. Whales surfacing in oil-contaminated water in ice-restricted (i.e. leads, polynya) situations could be devastation. The animals would likely inhale the highly toxic volatile components from the oil (depending on how old the spill is). In this scenario, many of the whales in the area could be killed immediately and as a result of chronic exposure to volatile oil components. It is understandable that fear of contamination and sensory detection (smell, taste) of hydrocarbons in hunted species would result in significant food avoidance. This is ongoing in Prince William Sound and has had a significant impact the nutritional and .071

cultural health of affected communities. It is unfortunate that this is not discussed in greater detail here, despite the issue having been raised repeatedly at various North Slope meetings. .071

Oil Spill Probabilities

The Borough has concerns about how the oils pill probabilities are estimated. We are interested in how confidence intervals for these probabilities might be calculated. A point estimate tells you very little about the probability of an event. We are interested in the upper 75% and 95% confidence intervals on the estimates and the statistical power of the estimates. .072

Right Whales and Industrial Activity

We can look to the bowhead whales' close cousins the North Atlantic Right Whale (NARW) to learn how these animals co-exist with industrial, shipping, and fishing activities (Kraus, 1990). The research conducted to date suggests that whales in this family do particularly poorly in areas with shipping activities (Kraus, 1990). Right whales are very slow swimmers and are poor at avoiding vessels – particularly calves and breeding groups whom are essentially unresponsive to vessel approaches (for obvious reasons!). Vessel strikes are considered the greatest source of mortality and largely explains their failure to recover despite over 80 years of protection from hunting. The bowhead population has increased during the same period (following the cessation of commercial whaling) despite a continued harvest by Eskimo subsistence hunters. .073

The right whale (Balaenidae) family lacks echolocation abilities are not adept at avoiding fishing nets and often become entangled (likely the 2nd most important source of mortality). Therefore, seismic array cables, buoys, and similar items if left at sea would seriously degrade that habitat. Based on the NARW experience, we can expect that increased offshore industrial activities will likely lead to direct mortality.

Effects of Exposure to Oil

Section IV, dealing with Environmental Consequences, understates the potential effects to marine resources of exposure to oil. All animals evaluated are susceptible to the toxic and irritating effects of petroleum due to contact, ingestion, and inhalation (aspiration) (Osweiller et al., 1995). The types and severity of lesions depend on the route of exposure, dose (the amount of oil) and type of "oil". The irritating effects of oil may injure eyes, lungs, and other organ systems reducing the animal's ability to oxygenate blood and to feed or capture prey (Jessup and Leighton, 1996). .074

Low viscosity hydrocarbons (30 to 35) are of higher toxicity (Rumack and Peterson, 1980) and a high aspiration (inadvertently taken into the lungs) risk. Certain volatile components of oil such as benzene, hexane, and toulene, are known to be highly toxic, and in cold environments may not evaporate or diffuse and may be at dangerous levels (Jessup and Leighton, 1996). If these volatiles enter the lung they can irritate a significant portion of the lung resulting in an acute chemical pneumonitis which is an irritation of the lung lining (Rumack and Peterson , 1980). Thus aspiration can lead to cyanosis (low

oxygen in blood), tachycardia (fast heart rate), and hypopyrexia (low body temperature) (Rumack and Peterson, 1980); and possibly incordination, shivering, head shaking, and mental confusion can occur (Osweiller et al., 1995). Aspiration at the water/oil interface during inhalation would be a serious exposure scenario to consider for all marine mammals. Oil ingestion can result in stomach ulceration due to the irritant effect (Osweiller et al., 1995). Oral ingestion of petroleum hydrocarbons is very often associated with mucus membrane irritation, vomiting and central nervous system depression (Rumack and Peterson, 1980). Osweiller et al. (1995) state, "treatment of animals suffering from crude oil or kerosene poisoning is an exercise in frustration" since exposure often impacts many organ systems. .074

Exposure of skin to oil can cause an irritant dermatitis of the pustular (i.e. skin infection) and acneiform (i.e. acne) types (Weltfriend et al., 1996). Oil is also known to cause eye lesions (AMAP, 1997 p. 153). Eye damage (lymphoplastic conjunctivitis) due to crude oil exposure was observed in harbor seals following the Exxon Valdez spill (Spraker et al., 1994), while in ringed seals a severe conjunctivitis and corneal abrasions were seen after experimental exposure to Norman Wells crude oil (Geraci and Smith, 1976). Polar bears showed signs of skin irritation when experimentally oiled (Oritsland et al. 1981). Clearly, oil exposure can severely affect the eye, skin and mucosal lining of the digestive and respiratory tracts. .075

Spraker et al. (1994) indicates that severe neurological damage was occurring due to oil exposure in harbor seals exposed to the Exxon Valdez oil spill and was a likely a cause of death. Behaviorally the oiled seals were severely affected showing loss of visual acuity, dullness, and other central nervous system signs all of which may have been due to lesions seen in the hypothalamic tracts and other regions of the brain (Jessup and Leighton, 1996). .076

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MMS Response to Comment Letter L-0035

L-0035.001

The MMS acknowledges that the North Slope Borough, in cooperation with the Alaska Eskimo Whaling Commission, provided the MMS with additional recommendations for deferring areas that were much larger than areas in deferral Alternatives III, IV, and V. However, as noted in Section I.C.2.b, the three larger EIS deferral alternatives suggested by the North Slope Borough would remove about half the opportunity for discovering and developing an economic oil field, with a large portion of the area being deferred offshore Prudhoe Bay where most of the existing oil and gas infrastructure exists. The deferrals as suggested by the Borough would remove much of the area in the Near and Midrange zones (see Map 4), where MMS projects most of the leasing and activities for Sales 186 and 195 would occur. As noted in Section I.C.2.b, the suggested scoping comments for the deferral alternatives and, for the most part, the comments to the draft EIS from the North Slope Borough and the Alaska Eskimo Whaling Commission, fail to acknowledge the positive effects and protection offered by the standard stipulations and mitigating measures that are assumed to be part of the Proposal. These stipulations, especially Stipulations 4 (Industry Site-Specific Bowhead Monitoring Program) and 5 (Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities), have proven to be effective in reducing and eliminating adverse effects on subsistence whaling. Proposed exploration and seismic activities have been modified or limited in scope to reduce conflicts with whaling and potential deflection of the bowhead whale migration. A study titled *Subsistence Mapping of Nuiqsut, Kaktovik, and Barrow: Past and Present Comparison* is ongoing and will map geographic patterns of subsistence use near important North Slope communities. The MMS will use this comparative time-series information to assess cumulative sociocultural effects in the Beaufort Sea region. See also Section III.C.2 - Subsistence-Harvest Patterns for further discussion about subsistence harvest areas.

The MMS acknowledges that the North Slope Borough and the Alaska Eskimo Whaling Commission consistently have recommended the "No Lease Sale" alternatives and they have consistently stated their preference for no offshore oil and gas activity. As stated in Section I.C.2.b, the MMS analysis indicates that the levels of effects offered by the standard stipulations and ITL measures in combination with Alternatives III, IV, and V provide essentially the same level of protection offered by the much larger deferrals suggested by the North Slope Borough. However, the three large deferral options suggested by the Borough and the Alaska Eskimo Whaling Commission would eliminate a large portion of the economically recoverable resources and, therefore, they become essentially the same as the No Lease Sale Alternative, which is evaluated as Alternative II (see Section IV.B).

The MMS believes that the current alternatives, with the standard stipulations and ITL clauses, offer an effective range of options that meet NEPA requirements and the goals and objectives of the OCS Lands Act to offer Federal offshore oil and gas resources for lease and possible exploration and development in an environmentally safe manner.

L-0035.002

In the past, whalers' names have been included as an aspect of traditional knowledge, and their inclusion was never a concern. Because including names has now become a concern, they will be deleted from Figures III.C-14 and III.C-15. Figure III.C-16 will be fixed to include the subsistence-harvest place names for Kaktovik, and a new Figure III.C-5, that maps Barrow's bowhead whale strikes (that was inadvertently omitted in the draft EIS) has been added to the text.

L-0035.003

The MMS believes that the standard mitigation package (Stipulations and ITL clauses) that we have developed over the years offers adequate protections to the Inupiat communities on the North Slope. Stipulation 5 generally describes the timing and area used by Barrow hunters for fall subsistence whaling and recognizes that occasional use may extend to Cape Halkett. The MMS believes that Alternative III, the Barrow Subsistence Whaling Deferral as described and analyzed in this EIS, offers some additional protections related to potential oil and gas exploration. The blocks under this deferral alternative were identified during scoping. The MMS had already taken out in the current 2002-2007 5-year program areas to the west of this Barrow alternative, where most of the hunting typically occurs. The MMS believes that the consultation mechanisms in place required in Stipulation 5 help to reduce

potential conflicts between subsistence hunters and whalers and potential oil and gas activities and help to reduce noise and disturbance conflicts from operations during specific periods during the subsistence-whale hunts. This stipulation evolved from the oil/whaler cooperative program from earlier Beaufort Sea sales, and the MMS has worked closely with the North Slope Borough, the Alaska Eskimo Whaling Commission, local affected communities, and whalers over time to further refine requirements. The MMS will continue this work for the Beaufort Sea lease sales under the 2002-2007 program.

From past leasing experience, very few blocks are actually leased in a given sale, and even fewer of these leased blocks ever have an exploration well drilled. Since 1979, seven OCS lease sales have been conducted in the Beaufort Sea; of these, 30 wells have been drilled in the Beaufort Sea. The Northstar Unit is the only project producing Federal oil and from only a few wells from an island in State waters.

See also Response L-0035.001 for additional information on how this alternative was developed.

L-0035.004

The MMS in no way intended to imply in the text (Section III.C.2.d(3)(a)) that whalers do not harvest in areas west of the community of Kaktovik.

See also Responses L-0021.009 and L-0035.001 regarding deferral of all waters offshore of the Arctic National Wildlife Refuge.

L-0035.005

The MMS agrees that Stipulation 5 identifies that Nuiqsut whalers may use an area extending east to Flaxman Island during their fall whaling activities. As indicated in our response to the comment, the MMS believes that the standard mitigation package offers adequate protection to the Village of Nuiqsut and its subsistence hunters and whalers. Alternative IV, the Nuiqsut Subsistence Whaling Deferral and the Stipulations 6a and 6b, Cross Island no permanent facilities, as described and analyzed in this EIS, offer some additional protections related to potential oil and gas exploration. However, our analysis did not find any differences in effects on the environment that we could describe quantitatively or qualitatively. The blocks being considered for deferral under Alternative IV were identified during scoping. The MMS believes that the consultation mechanisms in place required in Stipulation 5 can reduce potential conflicts between subsistence hunters and whalers and potential oil and gas activities and can reduce noise and disturbance conflicts from operations during specific periods during the subsistence-whale hunts. As you know, this stipulation evolved from the oil/whaler cooperative program from earlier Beaufort Sea sales. The MMS has worked closely with the North Slope Borough, the Alaska Eskimo Whaling Commission, locally affected communities, and whalers over time to further refine requirements and will continue to do so for Beaufort Sea lease sales proposed under the 2002-2007 program.

The MMS has corrected Figure III.C-14 to reflect the location of whale 73Nl harvested by the Nuiqsut community, which we inadvertently omitted. The deferral areas selected include the locations where most (although not all) of the whales were taken.

See also Response L-0035.001 for more detailed information on how this alternative was developed.

L-0035.006

We understand the North Slope Borough's concerns about any disruption of subsistence whaling and the Inupiat peoples' preference for focusing scenarios around subsistence resources and uses. Biological concerns (for example, threatened and endangered species) also are of primary concern to other parties. Designing a set of area-specific scenarios to satisfy every resource of concern is difficult, and analyzing multiple sets of scenarios would be extremely complicated. The development scenarios based on distance to infrastructure and water depth provide general models applicable to a wide variety of environmental, biological, and cultural impacts. We believe that the distance-depth model depicting expanding exploration and development activities is a valid reference point to analyze the variety of potential impacts from the three consecutive lease sales in the Beaufort Sea. It represents our best estimate of where activity is likely to occur first.

We also believe that the analytical approach we use for assessing cumulative effects (see Section V) is as rigorous as we can reasonably make it, given the information available about effects of past, present, and future activities on the North Slope and in the Beaufort Sea.

L-0035.007

We disagree with this comment. The MMS effects analysis is not faulty. We rely on established probabilistic methods to reach decisions under conditions of uncertainty. The Beaufort Sea contains numerous geologic features that could contain oil or gas. The chance of commercial success of any given prospect is low. We do not know which tracts will be leased, which will be explored, which will contain any oil or gas, and which would have large enough volumes to justify proceeding with development. With all of these unknowns, the MMS bases its analysis on the most likely events to occur from offering a lease area. For deferrals, we analyze the most likely effect of offering the program area minus the deferral area. Under the deferral conditions, we assume that industry is likely to redirect interest to the remaining, offered areas, if other drilling opportunities remain. The MMS uses knowledge of the geology and remaining opportunities to determine the most likely level of resources to result from the sale. Economic viability is a significant consideration when assessing deferral areas. The advantage of this probabilistic approach is that it allows MMS to quantify unknowns and update estimates as new information becomes available.

At the leasing stage, the EIS focuses on the overall picture. At this stage, the MMS is not in a position to know if or where leases will be bought; where or if exploration will occur; or, if exploration occurs, whether a commercial discovery will be made and developed. We have to create typical scenarios to show what may occur. The OCS Lands Act recognizes these three distinct stages of offshore oil and gas activities: leasing, exploration, and development/production. Leasing does not represent an irreversible or irretrievable commitment of natural resources. Additional, specific analyses will be conducted in the event of exploration or development activities. Since 1979, seven sales have been held in the Beaufort Sea OCS. As a result, 10,280 tracts have been offered, 692 tracts leased, 25 drilled, and only 1 field developed. A full developmental EIS was conducted on this one field prior to authorizing development. The purpose of this process of staged analysis is to permit greater specificity as uncertainty is reduced. Ample opportunity remains to assess impacts associated with a specific, proposed development.

The commenter asked why we indicate that we do not show a change in effects if a relatively small group of tracts were deferred. Our lease-sale analysis is structured to give the reader as accurate a picture as possible of effects that might occur. We know that we cannot necessarily assume effects are confined to the specific area where exploration or development occurs. If we defer a specific tract or set of tracts from leasing, that specific area does not become immune to possible effects. The one partial exception is the placement of a physical structure. Stipulation 5 applies equally for development; therefore, if a lessee made a discovery and planned to develop it, that stipulation would have to be followed.

Regarding sensitive areas, see Response L-0038.011.

L-0035.008

In Appendix E (Scoping Report), development of a single multiple-sale EIS, rather than an EIS for each of the three proposed lease sales, is listed as a major issue for the North Slope Borough. This fact has been brought forward to the Executive Summary.

L-0035.009

The MMS has reviewed the effects analysis of routine operations and found the analysis and conclusions to be accurate. These findings are consistent with the Northstar and Liberty NEPA analyses concerning routine activities and the activities to date at Northstar. Although the area being considered and offered in the three proposed sales is quite large, the number of leases estimated to be issued, the number of estimated exploration activities, and the number of estimated potential development activities is small. Our analysis of effects of routine activities for the proposed action with the standard stipulations and ITL clauses in place, and their impact on subsistence (including subsistence whaling), sociocultural effects, and environmental justice (see Sections IV.C.11, IV.C.12, and IV.C.15) found the potential effects to be well below the significance threshold. Stipulation 5 applies equally for development, so if a lessee made a discovery and planned to develop it, that stipulation would have to be followed.

L-0035.010

The MMS has reviewed the analysis and conclusions provided in the EIS, and they are accurate. They are based on the best available estimates of resources and the scenarios the MMS developed to reflect the information and knowledge we have about how those resources might be explored and developed, if they are leased. The MMS acknowledges that our leasing and NEPA review process moves along a continuum, from general to specific. The 5-year program is the most general, and the 5-year EIS evaluates the effects in general terms to cover large areas.

The next step is the lease-sale EIS that, through the use of scenarios, describes activities in general; therefore, the NEPA analysis is scenario driven and evaluates effects in relationship to the planning area. Specific locations are still unknown, but we provide additional information with the description of the three zones (Near, Midrange, and Far). We also indicate that more than half of the leasing and potential development would occur within the Near Zone. We also describe the technology and types of development that would occur in each zone. We do not know which resources will receive bids and, because the resources have not been drilled, we can only estimate the resources and ensuing activities in a general manner.

From past experience, we do estimate that only a few of the blocks offered in sales are ever leased and, since the downturn in the oil industry in the late 1980's, the number of companies participating in leasing, exploration, and development has declined. From experience, we estimate that only a few of the leased tracts are likely to be drilled (more than 1,600 leases have been issued on the Alaska OCS, which resulted in 84 exploration wells drilled on 73 tracts). Only one development (Northstar), which is a Federal and State unit, has resulted in production. A second potential development, Liberty, was withdrawn by BPXA after the Liberty final EIS was issued.

Exploration and development plans, if they are submitted, provide very specific information; therefore, the impact analysis that results likewise is specific. Facility sizes and types, pipeline routes, time schedules, etc. are provided. The analysis is focused and discusses places and specific times.

Neither the MMS nor the information noted above support the theory that if a lease sale is held, exploration and development activities will be occurring everywhere in the Beaufort Sea. We believe the rationale and analyses for our conclusions about the potential effects from routine activities are correct. Our re-evaluation of the analyses did not identify any flawed assumptions, analysis, or conclusions. The North Slope Borough's restatement of MMS's reasoning about cumulative effects essentially is correct. The cumulative effects of routine activities do not reach the significant threshold definition, and the contribution of each of the proposed leases sales is so small and the estimate of reasonably foreseeable future activities is so uncertain, that we can only reasonably assume that the contribution to cumulative effects of the proposal for one sale versus the next are about the same.

L-0035.011

We believe the two statements quoted are consistent and logical. The first statement is the bottom-line conclusion that the deferral alternatives would provide limited protection but that the effects essentially are the same. The "limited protection" is further elaborated in the next sentence. The North Slope Borough suggested that for purposes of analysis, the EIS should evaluate the effects of the deferral alternative by assuming development occurs from each deferral. The MMS does not know of any geologic reason to assume and predict with any certainty that a development would occur within those areas. In fact, we provide our best geologic assessment that there is a low probability that development would occur within the zones (see Table II.A-3). The MMS also did not "dramatize" the effects by placing all of the geologic resources as far away from the deferral area as possible, so there would be no effects. For the analysis of potential oil spills, the MMS did evaluate the effects of oil spills originating from each of the alternatives. Launch Areas LA2, LA12, and LA18 and Pipeline Segments P1, P2, and P7 were designed to help us evaluate the effects of Alternatives III, IV, and V off of Barrow, Nuiqsut, and Kaktovik, respectively (see Maps A-4a and A-4b). One of the tools used by the analysts in evaluating the effect of oil spills for the alternatives are the differences in the levels of contacts to resources by removing the launch area(s) and pipeline(s) segments and re-evaluating the effects (see Table A.2-2). Tables A.2-55 through A.2-72 provide combined probabilities and comparisons between the alternatives.

Our goal in assessing the effects of the Proposal and alternatives in the EIS is to give the reader and decisionmaker a realistic and reasonable assessment of potential effects based on the best available information. The concept of changing and moving resources to elevate or minimize impacts does not lead to good decisionmaking and only serves to cloud the issues. We believe our approach to analysis of the alternatives is the correct way to provide a realistic evaluation of potential effects to both the decisionmaker and the reader.

Stipulation 5 applies equally for development; therefore if a lessee made a discovery and planned to develop it, that stipulation would have to be followed.

L-0035.012

The MMS has no jurisdiction to require any aircraft flight restrictions. That is under the jurisdiction of the Federal Aviation Administration or it can be the requirement from the Endangered Species Act consultations or Marine Mammal Protection Act process.

L-0035.013

The word “meat” has been deleted from the text in response to this comment.

L-0035.014

The MMS analysts have correctly assumed that the number of trips indicated are round trips. One trip anywhere offshore would require the vehicle/vessel or aircraft to return. The effects to biological resources and subsistence users are evaluated as the effects from vehicles, aircraft, and support vesselsgoing from a base to a remote area and back. Therefore, the analysis of effects in Section IV does not require modification or further analysis.

L-0035.015

The MMS concurs with this assessment. As oil-spill-contingency plans are developed for exploration operations, distance from the spill-response infrastructure will be a concern. When industry submits a spill-contingency plan to the MMS, a key evaluation point will be accessed to sufficient spill-response assets necessary to conduct a timely response. We will ensure that response equipment and personnel are readily available to initiate spill-response activities and that additional equipment may be required to be staged to meet those needs. As activities move from exploration to development, spill-response support will continue to be a primary factor used in determining the sufficiency of the spill-response plans.

L-0035.016

The best recovery or removal rates for any system, mechanical or nonmechanical, occur when conditions are optimal.

L-0035.017

Estimates for future oil recovery are made for analytical purposes only. It is impossible to accurately predict the size and location of new commercial-size discoveries in an area such as the Beaufort Sea. Reviewing past exploration and development trends, it would appear that our oil-recovery estimates are overstated. However, projecting past data ignores the advances in exploration technology (3-dimensional seismic) and the remaining undiscovered oil potential. Only about 7% of the tracts offered were leased at some time in previous Beaufort OCS sales, and only 30 wells were drilled in an area covering nearly 10 million acres. Northstar is the second field located offshore. The first offshore field in the Beaufort was Endicott, which by State estimates originally contained 580 million barrels of oil. Fields in the size range of 150-460 million barrels of oil are possible throughout the Beaufort Sea. For purposes of analysis, we assume that smaller fields will be discovered and developed in the nearshore area, because this area has been more thoroughly explored. Although smaller fields such as Northstar could be discovered in remote areas, it is likely that commercial-size fields have to be considerably larger to be economic. This explains some of our rationale behind assuming different field sizes for the three development zones for purposes of environmental analysis.

L-0035.018

The MMS is aware that there is concern about potential effects of seismic noise on marine mammals. That is why the MMS and the National Marine Fisheries Service require that a site-specific monitoring program for seismic surveys be conducted in the Beaufort Sea and why the design of the monitoring program and the results from the monitoring are peer reviewed.

L-0035.019

The information in both sentences came from the same report and is based on the lack of statistically significant differences. The two sentences referenced on their own do appear to be somewhat conflicting. However, the third sentence in the fourth paragraph acknowledges that the lack of statistically significant differences in headings should be interpreted cautiously, because some changes in headings must have occurred, given the observed avoidance behavior.

L-0035.020

The basis for the statement is the report by Miller et al. (1999), which is discussed in the second paragraph. In that paragraph, Miller notes that seismic operations were moved to locations well west of Cross Island, the area where Nuiqsut-based whalers hunt for bowheads. This was done under the provisions of the Conflict Avoidance Agreements established between industry and the hunters in 1996-1998. No perceived interference between seismic

operations and hunting was reported either in 1998 or in 1996-1997. As a result of mitigating measures implemented under the 1996-1998 Conflict Avoidance Agreements, the 1996-1998 seismic surveys did not adversely affect the accessibility of bowheads to subsistence whalers (Miller et al., 1999).

L-0035.021

The results of the studies are discussed in the chronological order that the studies were conducted. This seems like the most logical order of presentation. A complete discussion of the earlier studies can be found in Section IV.C.5.a(1)(a)1)b). To our knowledge, only the Ljungblad (1985) study has been criticized as being flawed. The limitations of that study also are discussed in Section IV.C.5.a(1)(a)1)b). The MMS disagrees with the statement that these studies are no longer accepted as comparably reliable as compared to more recent studies. It also should be noted that the National Marine Fisheries Service uses these references in their May 25, 2001, Beaufort Sea Biological Opinion. It also should be noted there were differences between the earlier studies and the later studies in terms of the water depths and distances from shore that the seismic surveys were conducted and in the seismic equipment and types of seismic programs conducted. There also may have been differences involving the whales' activity. There is no logical reason to exclude studies just because there are flaws or perceived flaws in the study, particularly if the limitations of the study are noted. If the criteria for citing studies were to cite only those studies with no flaws or limitations, the scientific database likely would be very limited.

L-0035.022

This is not a conclusion drawn by the MMS. The referenced text is citing the conclusion drawn by Geraci and St. Aubin after conducting their study and after critiquing the Braithwaite study.

L-0035.023

Thank you for the compliment. In several other places, the text concludes that if an unlikely large or very large spill occurred, a significant impact on subsistence could occur.

L-0035.024

The scenarios developed by the MMS in this EIS are intended to reflect realistic levels of potential development that may occur for OCS leasing. The analysts use the same exploration and development scenarios for the Proposal and the alternatives and, therefore, to focus on the evaluation of the differences among the alternatives. It would be misleading to assume significantly different levels of development with different technology and timing, because such assumptions would mask the real purpose of the analysis, which is to evaluate the differences between including and excluding a portion of the proposed sale area.

The statements about effects from Sales 186, 195, and 202 on bowhead whales come directly from the bowhead whale effects analyses in Sections IV.C.5.a(2)(c)4) through IV.C.5.a(2)(c)7).

See also Response L-0035.007.

L-0035.025

See Responses L-0035.007 and L-0035.024.

L-0035.026

The text in the conclusion in Section IV.C.12.a(4) - Effects on Sociocultural Systems has been changed to reflect this concern.

L-0035.027

Thank you for the compliment. The MMS does acknowledge that the lease-sale planning and scoping process alone can be a factor in the levels of stress and anxiety found in communities on the North Slope. We disagree that in and of themselves such stresses would represent a significant effect or an effect of the magnitude sufficient to cancel the lease sale. The MMS believes that aggregate onshore oil and gas development effects in addition to a variety of social changes, television, easy access to more urbanized communities, and other related influences have contributed much more to community stresses.

L-0035.028

The MMS fails to see the necessary linkage between onshore staging and offshore staging out of Barrow. If leasing reached the development stage, project-specific EIS's would evaluate such staging options. Although staging for the National Petroleum Reserve-Alaska is out of the scope for the Beaufort Sea multiple-sale EIS, the MMS does acknowledge that if such staging occurs, it could stimulate staging for potential offshore projects. As to the appropriateness of the Beaufort Sea zone approach used in this EIS, it is and continues to be the best analytical tool that MMS has found for multiple sales in the Beaufort Sea.

L-0035.029

The text has been changed to clarify that we are discussing environmental effects of an oil spill from a well blowout during operations in broken-ice or open-water conditions. If no drilling occurs during those periods, there can be no oil spills from blowouts due to drilling.

L-0035.030

The EIS analyzes both the chance of a spill contacting and the chance of a spill occurring and contacting from all launch areas and pipeline segments for large spills (greater than or equal to 1,000 barrels). Large spills are what the MMS believes to be the most likely spill sizes to occur, if a spill occurs at all, based on experience in the Gulf of Mexico and the Pacific Regions. It should be noted that the spill sizes analyzed in this EIS–1,500 and 4,600 barrels–are larger than any historical spills that have occurred on the Alaska North Slope from oil-field pipelines and facilities, with the exception of the Trans-Alaska Pipeline. The Alaska North Slope generally has spill rates lower than other production areas both offshore and onshore in the United States. For the period 1985-2000, the median facility spill greater than or equal to 500 barrels on the Alaskan North Slope is 663 barrels, and the average is 680 barrels. There is one pipeline spill in the data base. The volume of the pipeline spill was 510 barrels. The largest facility spill in the record is 925 barrels.

All five of the blowout events (greater than or equal to 1,000 barrels) in the OCS data base occurred between 1964 and 1970. Following the Santa Barbara blowout in 1969, amendments to the OCS Lands Act and implementing regulations significantly strengthened safety and pollution-prevention requirements for offshore activities. Well-control training, redundant pollution-prevention equipment, and subsurface safety devices are among the provisions that have been adopted in the regulatory program. The absence of an oil spill greater than or equal to 500 barrels from an exploration or development well blowout since 1970 reflects the success of a more stringent and rigorous regulatory program. Likewise, there have been no such blowout spills from all the North Slope drilling operations onshore and in State waters. Drilling procedures are comparable on the Alaska North Slope and in the Gulf of Mexico, and the data support each other.

Very large spills are analyzed in Section IV.I. The text has been modified to make it clear to the reader that the spill considered is from the nearshore areas (launch areas LA10 and LA12). The MMS uses these areas to analyze very large spills, because we are trying to ground the scenario in reality and not just pure conjecture. The technical challenge of working offshore far from facilities and pipelines of Prudhoe Bay adds high costs to all Beaufort development projects. Northstar came on line in November 2001 and took twice as long and costing twice as much as BPXA expected. BPXA's Liberty Project was shelved in May 2002 due to cost. These developments are nearshore in the area of onshore development. It would be purely conjecture for MMS to speculate that in development would occur outside the nearshore area for an extremely low probability event.

L-0035.031

The probability of an event occurring and contacting a resource also is part of the information used to decide a deferral.

L-0035.032

The draft EIS states that "128 bears could be exposed to oil." There is no way to predict whether any of these bears would actually be oiled or killed by the spill. Regarding the 60 or more bears recorded in the vicinity of Barrow in association with bowhead whale carcasses, this is a most unusual event. If an oil spill were to threaten the Barrow area when such a concentration of bears was occurring, the potential exposure of 60 or more bears easily could be avoided by removing the carcasses from the shoreline and either burning the carcasses to remove the attraction for the bears to the spill-vulnerable shoreline or moving the carcasses to another location where the bears would not be

exposed to the spill. Such preventive measures would be very feasible in the vicinity of Barrow, where equipment and manpower are available.

L-0035.033

The contribution of Sale 186 to the cumulative effects is determined only after establishing the overall cumulative effects level that are part of the total past, present, and reasonably foreseeable future activities for each resource. The cumulative analysis consisting of overall effects, regional and local effects, and long-term and short-term effects are the basis for the cumulative analysis and are determined for each resource. The incremental contribution is only a small part of that analysis. The incremental contribution consists of only a paragraph for each resource. Short-term and local effects are determined and weighed more closely and are the most likely stage for potentially measurable additive and synergistic effects. These effects usually are not ongoing, and a resource-recovery factor has been applied where appropriate.

L-0035.034

See Response L-0035.038.

L-0035.035

Multiple exposures are more likely before any recovery. Whales could encounter mobile seismic vessels and stationary drilling structures in succession in addition to multiple oil slicks, particularly in broken-ice conditions.

Three operating production platforms offshore in an area as extensive as the Beaufort Sea or Beaufort Sea coastal waters do not constitute a succession of drilling structures and mobile seismic vessels that would or could produce an additive effect on migratory resources. Projections of activities for the proposed actions and into the reasonably foreseeable future do not suggest this multiple exposure is a realistic consideration at this time. Even when considering where initial development nearshore may be sited over the more than 400 miles of coastline, the proposed additional offshore platforms for the three sales poses too large an area to assume that multiple exposures resulting in measurable effects is likely to occur. Resources are considered lost in the case of a large oil spill; however, recovery of the resource is expected to occur over the 20-year life of the proposed projects. Multiple exposure to the same spill whether at sea, in the ice leads, or in broken ice are all counted as losses from the one spill, and the recovery of the population is considered subsequent to this event.

L-0035.036

Alternatives should make a difference in the cumulative case.

We in no way imply that whaling captains' feelings are anything but genuine. Our statement was meant only to indicate that one should not even attempt to try to draw small analytical distinctions in the cumulative analysis among sales and alternatives, whose effects were found in Section IV to be essentially the same, when the whole cumulative effects analysis, by its very nature, projects well into the uncertain future that we categorize as reasonably foreseeable.

The MMS had a choice to err on the side of taking either a restrictive or expansive view of the term "reasonably foreseeable." By choosing a more expansive view, we were able to add into the analysis more potential future activities; however, that implicitly means that the incremental contribution of the individual sales or alternatives is smaller.

These deferrals are not considered large enough to make a measurable difference in the cumulative effects for all the reasons given in Section V.C. The effectiveness of the deferral option is covered in the analysis of the proposed action and will be an important part of the decision process. Discussing these differences again in the cumulative context does not offer any new information and would be redundant.

L-0035.037

See Response L-0035.021.

Referencing text in a previous EIS is an acceptable and appropriate practice, considering that it is a public document. However, a change has been made in the text to also refer the reader to Section IV.C.5.a(1)(a)1)b of this EIS for additional discussion of the 1985 Ljungblad study and its limitations.

L-0035.038

There currently is not adequate evidence to suggest that a viable or heavily traveled northern route for commercial, military, scientific, and tourist vessels will be a reality in the next 10-15 years or the reasonably foreseeable future. There has been speculation that if a warming trend were to continue, a Northwest Passage or Northern Sea Route would be open for 2-3 months in summer and early fall (Brigham and Lawson, 2002). In the meantime, while this route is attractively shorter, many things need to be addressed; for example, insurance costs, double-hull requirements, unpredictability of polar weather, and sovereignty issues. As these issues are addressed, factors such as water pollution, noise, and disturbance will be addressed with appropriate mitigating measures. To date, the only commercial vessel that has successfully used the Northwest Passage was the specifically strengthened U.S. tanker, the *Manhattan* in 1969 with the aid of American and Canadian icebreakers.

L-0035.039

That is, 10-20 flights for Sale 186 compared to 450 flights in the cumulative analysis. Ten divided by 450 = 2%, and 20 divided by 450 = 4%.

L-0035.040

The word "prevent" has been replaced with the word "minimize" in response to this comment.

L-0035.041

The text has been changed to reflect the concerns about long-term noise effects to migrating whales from a drilling or production structure and the long-term concerns over subsistence-food safety after an oil spill.

We acknowledge the commenter's contention that "under comparable circumstances, any people, of any culture, would be hesitant to harvest traditionally consumed resources following a discharge of any toxic substance into the habitat of those resources." We are not implying such a concern is peculiar to the Inupiat. The statement is phrased the way it is, simply because the analysis focuses on the subsistence-harvest activities of the Inupiat.

L-0035.042

We acknowledge that within the context of the additive effects mentioned, the synergistic distinction does not seem particularly relevant. The text has been changed to reflect this concern.

L-0035.043

The NEPA offers the opportunity for public participation but does not require it. For any given entity that chooses to participate in a NEPA process, their costs are real to them. The cost of participation in a NEPA process is not an effect that NEPA specifies as a dimension that should be measured. Therefore we do not measure this cost in the text of the EIS.

L-0035.044

The MMS agrees that the National Resource Council's assessment of cumulative effects is an important effort. Accordingly, we have included *Cumulative Effects of Offshore and Onshore Oil and Gas Development on the Beaufort Sea Environment* as a proposed study in our profiles of studies proposed for FY 2004 (see FY 2003 *Annual Study Plan*, p. 197). These profiles are under review for potential inclusion in an FY 2004 environmental studies plan.

L-0035.045

Information on recent snow goose survey data has been added to Section III.B.5.a(2).

L-0035.046

While there may be little formal data to support the statement that "…eiders are likely to see and avoid obstructions when visibility is good," they are visually-oriented animals. We typically do not find large numbers of them colliding with islands, natural or artificial, or other obstructions in the Beaufort Sea, even though the flight trajectories of many must, at some time during the fairly lengthy open-water period, be directed at such obstructions until they veer away, gain altitude to pass over it, or come to a halt.

The commenter notes that this statement is contradicted by the following sentence that states eiders have collided with Northstar Island when there was good visibility. Good visibility meant that there was no fog on record but in

the EIS text, this statement was qualified to indicate that the birds could have collided at night when visibility may not be good. Some clarifying revision of the statements has been added in Sections IV.C.5.b(1)(a)1)c) and IV.C.6.a.(1)(a)3).

L-0035.047

The few aerial surveys carried out in the Beaufort Sea generally have found spectacled eiders as scattered flocks. No statement in the analysis implies that the eider distribution is uniform. In fact, spectacled eiders have been observed more often in Harrison Bay, for example, than in other areas, suggesting a nonuniform distribution. Also, it is not entirely clear why the eider's distribution necessarily would be restricted in the Beaufort as it is in the Chukchi and Bering seas, as noted by the commenter, when they are involved in different phases of the annual cycle in these areas (migration in the former, molting and wintering in the latter). We have added clarification to Section IV.C.5.b(1)(a)1)d) concerning there being little data on which to base assumptions about eider distribution.

L-0035.048

Statements concerning spectacled eider mortality and declining population status in Sections IV.C.5.b(1)(b)3), IV.C.5.b(1)(a)1)a), and IV.C.6.a(2)(b)2)c) have been clarified. Any mortality resulting from a spill is likely to be a one-time occurrence as compared to the relatively unknown but presumably constantly-acting factors that are causing this population to decline at a nonsignificant rate. Recovery from losses under these two types of circumstances may be quite dissimilar.

L-0035.049

This statement in Section IV.C.5.c(1)(b)2) was not meant to imply that Steller's eiders migrated long distances over land. It meant that because they had seldom been seen during migration counts they might, for example, move directly from the lead system often present in the northeastern Chukchi Sea to inland areas in the northwestern National Petroleum Reserve-Alaska rather than flying to leads north or east of Barrow before turning south to nesting areas. Little information exists that is specific to routes used by individual Steller's eiders nesting in northwest Alaska. This statement has been revised.

L-0035.050

Regarding collisions, the commenter says that the EIS suggests eider mortality from this factor would be low because of low duck density. In fact, this is not what is suggested. Rather, the EIS notes that collision of a flock of waterfowl with a structure could result in substantial mortality. The North Slope Borough states that density of most species is *relatively* low in the Beaufort Sea. This is true most of the time over most of the area. The one exception is during the migration periods, when migrating flocks are moving through the area. In this instance, substantial mortality could result if a collision occurred. The point made in the EIS is that very few structures (three or fewer as a result of these lease sales, unless the price of oil increases dramatically; Appendix F, Table F-3) will be constructed in the Beaufort Sea and, therefore, they will constitute a very low-density target. Thus, the probability of a flock colliding with one likely would be quite low unless, for example, structures were grouped in a small area or were coincidentally located along typical migration routes. Any such collision would result in substantial mortality but is not expected to occur frequently. To date, the largest number of ducks to strike the Northstar Island in one breeding season is 20 (not counting any that were not retrieved); this does not suggest that "incredibly large numbers" will routinely collide with such structures. However, revisions of this section clarify some of these statements. With regard to potential collisions, the MMS and the Fish and Wildlife Service are jointly coordinating the development of lighting systems for offshore structures under the terms of the Fish and Wildlife Service Biological Opinion for this project, which might reduce the likelihood of bird collisions with structures. The discussion of low density of birds concerns onshore density during the nesting and postnesting periods, when the commenter notes they are at low density, and the low probability of collisions with pipelines. Pertinent statements in Section IV.C.6.a(1)(a)3) have been revised to address this point.

L-0035.051

The North Slope Borough comment that eider populations still are declining, when recent eider aerial surveys indicate that king eiders at least are increasing at a nonsignificant rate. This would allow some recovery from minor mortality losses or maintenance of a stable population. Any statements noted as being contradictory with regard to bird densities or dispersion of flocks exposed to an oil spill, such as in Section IV.C.6.a(2)(b)1), has been revised for clarity. However, the statement regarding ducks at high density specifically refers to flocks of the extremely

numerous long-tailed duck, which generally is present at much lower densities, and not to eiders, as indicated in the comment. Any disturbance from oil-spill-cleanup activity is not likely to result in "substantial losses."

L-0035.052

With regard to king eider population estimates, both the Point Barrow counts (373,000) and the estimates from aerial surveys (about 20,000) are cited. Until other data are obtained, these are the only available estimates with which to estimate potential mortality from an oil spill. In fact, only data that allow determination of waterbird densities is useful for making such mortality estimates, using the MMS oil-spill-model estimates of area covered by a spill. Prior to the migration period, it is reasonable to assume that offshore densities would dictate the number of individuals exposed to a spill, not the larger number passing during the migration period. Also, unless migrant sea ducks alight on the water during migration they are not particularly susceptible to oiling. In addition, a spill in a particular area during summer would not necessarily move far enough to substantially affect those birds moving offshore from nesting areas much farther to the west, but it could oil migrants from the east. For example, a spill in the Prudhoe Bay area probably would not affect a substantial proportion of birds that nest on the western coastal plain, but it would be expected to potentially affect those flying across the Beaufort from Canada and eastern Alaska.

The comment also notes that the discussion of potential factors that could elevate the losses from an oil spill, but for which data do not exist, cannot be incorporated into models attempting to estimate mortality. We do not understand what additional data has been used to support the comment that "the current assessment is a considerable underestimate of the potential risk of an oil spill to birds in the Beaufort Sea." The MMS certainly would be receptive to a clear explanation of the effect of confounding variables in making estimates of potential mortality.

L-0035.053

A constant carrying capacity was not assumed for this analysis of potential effects. In fact, sufficient information most likely does not exist to allow the calculation of carrying capacity for any bird species in the Beaufort Sea region. For further discussion of this topic, see Responses PH-Barrow.018 and L-0035.048.

L-0035.054

Statements concerning recovery of populations from losses in the referenced paragraph, Section IV.C.6.a(2)(b)2)c), have been revised. Estimates of population size for various species are discussed in Section III.B.5.

L-0035.055

The referenced Section IV.C.6.a(2)(b)2)c) on population effects discusses various factors that could result in a mortality from oil and gas development activities. Without additional pertinent data on vulnerability of populations to oil spills, for example, the assumption that an entire North American population is vulnerable is probably more speculative than the assumption that the approximate number of birds actually on the water during aerial surveys is closer to the vulnerable population segment.

L-0035.056

The text in Section III.B.6.f has been revised in response to this comment.

L-0035.057

Richardson et al. (1995) refer to gray and beluga whales being diverted by helicopter noise up to 100 meters away. The reviewer's comment about another Richardson et al. (1995) statement about helicopters operating at **less than** 250 meters lateral distance and at latitudes of **less than** 150 meters away is within about the same estimated range of potential cause and effect as the previous statement by Richardson et al. (1995). These apparent diversions (disturbances) were very brief in their duration (less than a few minutes), and there was no evidence that any serious harm occurred to the whales that had been temporarily diverted.

L-0035.058

In Section IV.C.7.a(2)(c)2), the EIS focuses on the worst type of spill scenario during the spring, when belugas are concentrated in the spring leads and when potentially the largest number of whales could be exposed to a potential spill that could contaminate the lead system. During the summer open-water season and during the fall when the belugas are present in the Beaufort Sea, their distribution is dispersed and far fewer whales are likely to be exposed

to a potential spill. Thus, under the latter scenario, potential effects are likely to be far less than during the spring migration.

L-0035.059

The preliminary 2001 bowhead whale population estimate in Section III.B.4.a of the EIS has been updated.

L-0035.060

The reference for the statement in the text of the draft EIS is Moore and Reeves (1993). The quote from the text of that report is "Braham et al. (1984) reiterated the contention of Eskimo whalers that bowheads are segregated roughly by age class, with smaller whales preceding large adults and cow-calf pairs on the fall migration." This statement has been added into the text in Section III.B.4.a.

L-0035.061

Section III.B.4.a has been revised to include prey concentrations, seismic activities, and localized vessel traffic as examples of factors that may affect bowhead whale distribution during migration.

L-0035.062

Information from the recent bowhead whale feeding study, including the chapter by Lowry and Sheffield (2002), has been included in the text in Section III.B.4.a.

L-0035.063

We agree with the comment and stated earlier in Section III that whales are likely to feed opportunistically where food is available as they migrate across the Alaskan Beaufort Sea. The comment does not appear to be in conflict with the quote from Richardson and Thomson. No change has been made in the text.

L-0035.064

Information from the study by Hoekstra et al. (2002) has been included in the text in Section III.B.4.a. The discrepancy between this study and the similar study by Lee and Schell (2002) has been noted in the text. Lee and Schell reanalyzed their samples and confirmed that the numbers referenced in the draft report were correct. The data in the Hoekstra et al. (2002) study were not reanalyzed.

L-0035.065

A discussion of Reese et al. (2001) has been included in the text in Section III.B.4.a.

L-0035.066

The MMS does not anticipate any exploration activities, including seismic surveys, in the spring lead system area during the bowhead whale spring migration as a result of OCS Lease Sale 186. This area is far removed from existing infrastructure, and industry interest in the area is likely to be limited. Available technology and cost of operations likely would preclude operating in the spring lead system during the ice-covered period, which would include the spring migration period. Finally, should industry acquire leases in the area and technology is developed allowing operations to take place during the spring migration, the National Marine Fisheries Service May 25, 2001, Biological Opinion for the Beaufort Sea requires the MMS to reinitiate Section 7 consultation under the Endangered Species Act before such operations could be approved and proceed.

L-0035.067

A discussion of the study on the effects of seismic noise on gray whales near Sakhalin Island by Weller et al. (2002) has not been included in the text on bowhead whales. A much more relevant and more rigorously designed study conducted by LGL and JASCO Research in 2001 on the effects of seismic noise on bowhead whales in the Canadian Beaufort Sea has been included in the text in Section IV.C.5.a. A marine seismic program was conducted in an area off the MacKenzie Delta, where bowhead whales were feeding. The marine seismic monitoring program was modeled after the rigorous, peer-reviewed marine seismic monitoring programs conducted in the Alaskan Beaufort Sea in recent years and was conducted by the same contractor. These similarities (same species, equivalent monitoring program, same contractor) provide excellent continuity between the Alaskan Beaufort Sea studies and the Canadian Beaufort Sea study.

L-0035.068

See Response L-0035.001.

L-0035.069

Regarding the effects on bowhead whales from routine permitted activities, the MMS maintains that the effects to the whales themselves are not likely to be significant. Some whales may exhibit temporary avoidance behavior to seismic surveys, vessel and aircraft activities, drilling, and construction, but the overall effects to these individual whales and the population in general are likely to be temporary and nonlethal. The MMS is unaware of any studies that document significant effects (reduced feeding, decreased fitness, etc.) to bowhead whales from temporary displacement.

Under more recent collaborative and cooperative protocol, Conflict Resolution Agreements between the Alaska Eskimo Whaling Commission and industry have prevented any conflicts between subsistence whaling and seismic data-gathering efforts.

L-0035.070

Reference to the avoidance behavior as temporary is appropriate, because there is no indication that the behavior is permanent. As stated, the monitoring did not determine how far west the deflection extended due to limited survey effort, limited numbers of sightings in some key areas, and individual variability in the distances at which bowheads react. Richardson and Lawson (1999) stated the offshore deflection in 1998 apparently persisted for at least 40-50 kilometers west of the area of seismic operations but may not have persisted as far to the west in 1996 and 1997.

Richardson and Lawson (1999) also noted that the sighting rate within 20 kilometers of the area of seismic surveys was similar to that at more than 20 kilometers within 12-24 hours after the survey ended. This 40- to 50-kilometer distance west of the seismic area likely represents about 24 hours or less of travel time for a migrating bowhead whale. (Inupiat whalers estimate about 7 days for whales to travel from Kaktovik to Point Barrow, which means whales travel an average of about 45-50 kilometers per day. The average swimming speed of migrating bowheads appears to be about 2.5-3 kilometers per hour, or from 60-72 kilometers per day.) The MMS believes that a 24-hour deflection falls into the category of temporary avoidance rather than permanent avoidance.

Activities occur over multiple years, and bowheads could be displaced in sequential years, but this still would be a temporary event. Also, unless individual bowheads could be tagged and tracked from year to year, it is not possible to know if bowheads displaced in one year are the same as those that were displaced the previous year.

Although ship strikes have been responsible for deaths of right whales, the MMS is not aware of any documented ship strikes on bowheads in the Beaufort Sea. The low number of observations of ship-strike injuries suggests that bowheads either do not often encounter vessels, they avoid interactions with vessels, or that interactions usually result in the animal's death. The bowhead whales' association with sea ice and the lack of any reports of death by ship strikes suggest that bowheads either do not often encounter vessels or they avoid interactions with them.

To accommodate the comment, the wording in the text has been changed from "would be" to "are likely to be."

L-0035.071

The effects of an oil spill on bowhead whales are unknown. However, the MMS has drawn some conclusions from studies that have looked at the effects of oil on other cetaceans. Engelhardt (1987) theorized that bowhead whales would be particularly vulnerable to effects from oil spills during their spring migration into arctic waters because of their use of ice edges and leads, where spilled oil tends to accumulate. Several other researchers (Geraci and St. Aubin, 1982; St. Aubin, Stinson, and Geraci, 1984) concluded that exposure to spilled oil is unlikely to have serious direct effects on baleen whales. Other studies (Loughlin, 1994; Dahlheim and Matkin, 1994; Dahlheim and Loughlin, 1990) either documented no effects to cetaceans from spilled oil, or the results of the studies were inconclusive. Geraci (1990) reviewed a number of studies on the physiologic and toxic effects of oil on whales and concluded there was no evidence that oil contamination had been responsible for the death of a cetacean. Nevertheless, the effects of oil exposure to the bowhead whale population are uncertain, speculative, and controversial.

Based on these studies, some whales likely would experience temporary, nonlethal effects as a result of oiling their skin, inhaling hydrocarbon vapors, ingesting oil-contaminated prey, fouling their baleen, and temporary displacement from some feeding areas. Some whales could die as a result of contact with spilled oil, particularly if

there is prolonged exposure to freshly spilled oil, such as in a lead. The extent of the effects would depend on how many whales contacted oil, the duration of contact, and the age/degree of weathering of the spilled oil. The number of whales contacting spilled oil would depend on the location, size, timing, and duration of the spill and the whales' ability or inclination to avoid contact. If oil got into leads or ice-free areas frequented by migrating bowheads, a large portion of the population could be exposed to spilled oil. Under some circumstances, some whales could die as a result of contact with spilled oil. Prolonged exposure to freshly spilled oil could kill some whales, but the number likely would be small.

The cultural and nutritional effects on communities, based on the *Exxon Valdez* spill, are discussed in depth in Section IV.C.16 - Environmental Justice. In the effects analyses for Subsistence-Harvest Patterns, Sociocultural Systems, and Environmental Justice, effects from an oil spill on the nutrition and culture of local communities are considered to be significant.

L-0035.072

The oil-spill probabilities are estimated from several sets of information, all which have their own uncertainties. The oil-spill estimates primarily are a product of the oil-resource volume times the spill rate to determine a mean spill number. Spill occurrence has been modeled previously as a Poisson process (Smith et al., 1982; Lanfear and Amstutz, 1983; Anderson and LaBelle, 1990, 1994).

The 75% and 95% confidence limits are approximately 7% and 16% above and below the mean, respectively. These confidence limits include only variance in the arctic effects. The confidence limits do not consider the variance in the baseline data (Gulf of Mexico and Pacific OCS spill statistics) or in the production estimates. Inclusion of these variances would, in our opinion, significantly increase the above variance.

L-0035.073

Although shipping activities have been responsible for deaths of right whales on the east coast, the MMS is not aware of any documented ship strikes on bowheads in the Beaufort Sea. The low number of observations of ship-strike injuries suggests that bowheads either do not often encounter vessels, they avoid interactions with vessels, or that interactions usually result in the animal's death. The bowhead whales' association with sea ice, the relatively low number of industrial vessels in the Beaufort Sea, and the lack of any reports of death by ship-strikes suggest that bowheads either do not often encounter vessels or they avoid interactions with them.

The MMS is unaware of any loss of marine cables (streamers) or ocean-bottom cables from seismic operations on the Beaufort Sea OCS. In 1997, some ocean-bottom cables were lost from a seismic survey in State of Alaska waters in the Beaufort Sea. As the name implies, these are cables laid on the seafloor and later recovered after the seismic survey has been completed. These cables were buried during a major storm. The industry conducted recovery operations for about a week trying to recover the cables. Because the cables were buried in the seafloor by several feet of sediment, only some of the cables were recovered. Bowhead whales are not likely to become entangled in these buried cables.

The MMS believes that offshore industrial activities in the Beaufort Sea likely would not result in increased mortality to bowhead whales as a result of ship strikes or entanglement with seismic arrays, cables, etc.

L-0035.074

We believe the references already provided in the text in Section IV.C.5.a adequately describe the potential effects of oil on cetaceans. The references discussed in the comment do not appear to provide any relevant new information not already included in the EIS and, in many cases, do not pertain to cetaceans.

L-0035.075

The EIS recognizes these potential spill effects on marine mammals; see Section IV.C.7.a(2)(b)1)a) - Direct Effects of Oil on Marine Mammals (Pinnipeds, Polar Bears, and Beluga and Gray Whales).

L-0035.076

The findings of neurological damage in harbor seals heavily oiled by the *Exxon Valdez* spill reported by Spraker et al. (1994) are likely to have been the result of oil being inhaled or aspirated into the lungs, as discussed as a potential effect in Section IV.C.7.a(2)(b)1)a) - Direct Effects of Oil on Marine Mammals (Pinnipeds, Polar Bears, and Beluga and Gray Whales). Oil that is inhaled into the lungs is quickly transported to the brain and other vital organs of the seal's body. If a large amount of toxic oil vapors are inhaled by heavily oiled seals, death is likely to occur.

L-0036

9/25/02

MR JOHN GOLL, REGIONAL DIRECTOR
ALASKA OCS REGION
MINERALS MANAGEMENT SERVICE
949 E. 36TH AVE ROOM 308
ANCHORAGE, AK 99508-4363

ANY PLAN TO DRILL FOR OIL WITHIN THE ARCTIC AREA IS TOTALLY NUTS!

HOW GREEDY AND REALLY STUPID !!!

THE NUMEROUS REASONS 'NOT TO' ARE WELL KNOWN AND SHOULD BE TAKEN SERIOUSLY.

DON'T CREATE A PLANET DISASTER

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REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

SINCERELY
JOHN E. VANSOCST JR.

MMS Response to Comment Letter L-0036

No response necessary

United States Department of the Interior

L-0037

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IN REPLY REFER TO:

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REGIONAL DIRECTOR, ALASKA OCS
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ANCHORAGE, ALASKA

Memorandum

To: Regional Director - Minerals Management Service

From: Regional Director - Region 7

Subject: Comments on Draft Environmental Impact Statement Beaufort Sea Lease Sales 186, 195, 202

The U.S. Fish and Wildlife Service has reviewed the referenced Draft Environmental Impact Statement prepared by the Minerals Management Service for three oil and gas lease sales planned for the Beaufort Sea Outer Continental Shelf Planning Area. While we recognize that these comments are late, we are providing them for your consideration as you prepare the Final EIS for these lease sales. Under separate cover, the Service has forwarded you a draft Biological Opinion on Lease Sale 186 regarding the potential impacts on Steller's and spectacled eiders, both listed under the Endangered Species Act.

The Service understands the speculative nature of predicting locations, timing, and levels of exploration and development that may occur as a result of the proposed lease sales and the difficulties this presents when trying to analyze potential direct, indirect and cumulative impacts. We hope that the attached comments help MMS in its decision making regarding the proposed action. In our general comments we offer information on some important fish and wildlife species and areas that MMS should be aware of as it weighs its decision. Similarly, we have provided some more specific comments and additional scientific information that may be useful to the MMS in preparing the Final EIS.

We appreciate the opportunity to comment on the Draft EIS for Beaufort Sea OCS Oil and Gas Lease Sales 186, 195 and 202. If you have questions regarding these comments, please contact Jim Zelenak, Fairbanks Fish and Wildlife Field Office, at (907) 456-0354. Questions specific to polar bears may be addressed to Scott Schliebe, Marine Mammals Management, at (907) 786-3812, and those specific to migratory birds may be addressed to Russ Oates at (907) 786-3560.

Attachment

U.S. Fish and Wildlife Service Comments on the Draft Environmental Impact Statement prepared by the Minerals Management Service for Beaufort Sea Outer Continental Shelf Planning Area Lease Sales 186, 195 and 202

General Comments

Arctic National Wildlife Refuge

The Arctic National Wildlife Refuge (Refuge) encompasses a principally undisturbed Arctic ecosystem unique among Alaska's conservation system units. It provides important habitat for the Porcupine caribou herd, polar bears, snow geese, musk oxen and many other species. The Beaufort Sea Outer Continental Shelf (OCS) Planning Area includes tracts offshore of the Refuge that are proposed for leasing under Lease Sales 186, 195 and 202. Potential impacts to migratory birds, mammals, water, and other resources of the Refuge would be of significant concern to the Service. The offshore and nearshore marine waters adjacent to the Refuge provide habitats that are important to polar bears, caribou (insect relief), migratory birds, and bowhead whales.

Teshekpuk Lake

The Teshekpuk Lake area is known internationally for its outstanding wildlife values. The area contains a complex of wetland habitats that supports some of the largest concentrations of molting geese in North America; a variety of other waterfowl, including threatened spectacled eiders; and tens of thousands of breeding and staging shorebirds.

Molting, non-breeding or failed-breeding black brant that concentrate in the vicinity of Teshekpuk Lake often represent 20 to 30 percent of the continental population. Recent monitoring indicates that Harrison Bay, offshore of Teshekpuk Lake, supports concentrations of spectacled eiders and king eiders as well as high densities of scoters and red-throated and yellow-billed loons (Fischer et al. 2002). Offshore surveys conducted between Harrison Bay and Brownlow Point in 1999-2000 found the highest concentrations of king eiders in offshore waters (>10m depth) near Cape Halkett, to the northeast of Teshekpuk Lake (Fischer et al. 2002). A more expansive survey in 2001 between Barrow and Demarcation Point provided a direct measure of abundance and density of marine birds in waters offshore of Teshekpuk Lake (Fischer 2001). This survey showed high concentrations of king eiders in Harrison Bay and in offshore waters to the west of Harrison Bay, directly offshore of Teshekpuk Lake. More than 81 percent of the king eiders observed in this area occurred >10 km offshore. Moreover, satellite telemetry data indicate that offshore waters in Harrison Bay are an important stopover area in the migration corridors for post-breeding king eiders and other sea ducks (Dickson et al. 2000). Results of these surveys confirm the importance of nearshore and offshore waters adjacent to Teshekpuk Lake to molting and migrating waterfowl.

Migratory Birds

Breeding and molting waterfowl are sensitive to disturbance and may be particularly vulnerable to impacts of oil and gas development including oil spills, human activity (especially extensive boat, barge and low-level aircraft activity) and changes in the abundance and/or distribution of predators (Noel et al. 1999, Johnson 2000, Sovada et al. 2001). Breeding, staging and migrating shorebirds and landbirds are also likely sensitive to these types of disturbance. Migrating waterfowl are also susceptible to collisions with offshore structures; 22 common eiders, 8 long-tailed ducks and 5 king eiders died after colliding with the Northstar and Endicott offshore structures during the fall of 2001 (USFWS unpublished data).

Barrier islands and lagoons of the central Beaufort Sea provide important waterfowl breeding and molting habitats. Long-tailed ducks are the most abundant molting waterfowl in Beaufort Sea barrier island-lagoon systems (Noel et al. 1999); they occur in high densities throughout the lagoon system between Oliktok Point and Brownlow Point, with particularly high concentrations in the eastern portion from the Stockton Islands to Brownlow Point (Fischer et al. 2002, Noel et al. 2001). Aerial surveys indicate possible long-term downward trends in numbers of long-tailed ducks breeding on the Arctic Coastal Plain (Fischer et al. 2002, Mallek 2002) and molting in central Beaufort Sea barrier island-lagoon habitats (Noel et al. 2001).

Most common eiders that breed in Arctic Alaska nest on barrier islands (USFWS 1999, Johnson 2000), with a large proportion occurring from Flaxman Island west to Thetis Island. High densities of breeding common eiders occur in the Return Island group, just west of Prudhoe Bay (Dau and Anderson 2002) and among the Stockton Islands (Fischer et al. 2002). Long-term migration counts at Point Barrow indicate declines in populations of Beaufort Sea common and king eiders (Suydam et al. 2000).

Aerial surveys of lagoons and offshore areas between Harrison Bay and Brownlow Point in 1999-2000 found the highest densities of long-tailed ducks in near-shore habitats near Brownlow Point on the western border of the Refuge (Fischer et al. 2002). This area provides important molting habitat for long-tailed ducks. Numbers of molting long-tailed ducks in this region declined significantly between 1990 and 2000 (Fischer et al. 2002). This area may be particularly sensitive to impacts from human disturbance and development.

Given the importance of barrier islands, lagoons and offshore habitats to breeding, molting and migrating waterfowl, and the declining trends of some species dependent on these areas, the Service wants to highlight the importance of these areas as Lease Sales 186, 195 and 202 are being considered. We emphasize the need to acquire additional information regarding these habitats and the species utilizing them. The Service looks forward to working closely with MMS to delineate further studies that would provide the information needed to effectively conserve these resources.

Polar Bears

The Beaufort Sea OCS Lease Sale Area is within the range of the southern Beaufort Sea polar bear population; polar bears travel, feed, and den within the sale area. Offshore oil and gas exploration, development and production may affect polar bears. The most significant aspect of offshore activities is the potential for discharge of crude oil in the environment and its consequences to polar bears. The following comments summarizing recent research on polar bears are provided as an update to ongoing or new polar bear studies that may be useful for MMS in planning Lease Sales 186, 195 and 202.

The U.S. Fish and Wildlife Service, in cooperation with BP Exploration and LGL Limited, conducted aerial surveys in 2000 and 2001 along the coast and barrier islands of the Beaufort Sea between Harrison Bay (Atigaru Point) and Barter Island (Jago Spit). The purpose of the surveys was to document the distribution and abundance of polar bears during the fall open water period. Documenting the number, sex, and age of polar bears provides information useful for assessing the effects of various on-and off-shore exploration and production activities on polar bears, and it allows for implementing better strategies related to human activities in polar bear habitat. Preliminary results indicate that at least half of the bears observed in nearshore areas are family groups consisting of females with cubs of the year and females with 1-2 year old cubs (yearlings). The numbers of polar bears present along nearshore habitats varied by survey and by year. The majority of bears were observed on barrier islands with high numbers of bears present near Barter and Cross Islands. An interim report (Kalxdorff et al. 2002) is available, and additional surveys are planned for 2002. Final reports summarizing results for 2000-2002 and any future surveys will also be prepared. A ground-based study sponsored by the MMS on the demography and behavior of polar bears at Cross and Barter Islands is also currently underway and will continue through 2004, with interim and final reports to be prepared as data become available.

Simac et al. (2001) tested the use of forward-looking infrared (FLIR) technology to detect maternal polar bear dens in northern Alaska. The FLIR is a thermal imaging system with a sensor that can be mounted on the nose or belly of fixed wing aircraft or helicopters. The sensor is connected to a high-resolution monitor and a digital video recorder inside the aircraft that indicates the presence of a polar bear (or other warm objects) as a white or glowing spot (hot spot) on a relatively dark background. Polar bears suspected to be pregnant were captured and radio-collared in 1999-2001. Once females had entered their dens for the winter, aerial surveys were conducted at various altitudes, temperatures and weather conditions. The study showed that detection of maternal dens by FLIR is highly dependent on environmental conditions, especially ambient moisture levels (e.g., fog, mist or wind blown or falling snow) and sunlight. The greatest success in detecting dens occurred when viewing terrestrial habitat during early morning hours when air moisture was minimal. Under the right conditions, FLIR may be a useful tool in identifying maternal dens that may be affected by oil and gas operations.

Last spring, LGL Limited and U.S. Geological Survey (USGS)/Biological Resources Division conducted a test to determine the ability of trained dogs to locate polar bear dens. The tentative

results of this study show promise in using dogs to confirm the presence or absence of polar bear dens. This technique, combined with the results of FLIR overflights, may be useful in locating dens prior to oil and gas exploration and development activities.

The USGS, Alaska Science Center has been studying the effect of changing sea ice patterns on polar bear foraging habitat. Through the use of National Ice Center data, weekly ice charts available as ARC INFO polygon coverages are overlain with polar bear satellite location data. Ice data include percent concentration, ice form and ice thickness. Preliminary analysis indicates that polar bears do not use habitat in proportion to availability; rather, a preference for the use of thin first-year ice appears to exist. Analysis techniques are being further refined, and results will be available in the next few years. This information may be useful to help minimize potential impacts to polar bears in offshore areas where oil and gas exploration and development are planned.

Amstrup et al. (2001) and Durner et al. (2001) modeled the impacts of a hypothetical oil spill from BP Exploration's Liberty Oil Production Island and sub-sea pipeline into Beaufort Sea waters. Impacts were modeled by overlaying hypothetical oil spill trajectories with grids that represent polar bear distribution during the open water period (September) and mixed ice period (October). The Draft EIS cites Amstrup et al. (2000) as the source for the estimate of the number of bears likely to be contaminated. If the Draft EIS used either Amstrup et al. (2001) or Durner et al. (2001) as the source of the estimates, the Final EIS should note that those analyses were based on spills of specific duration occurring at a specific location at a specific time of year. Impacts from spills occurring elsewhere, at other times of the years, or for greater duration would likely yield different results. A thorough assessment of oil spill modeling, probabilities and potential effects on polar bears is beyond the scope of this review and is not provided at this time. However, the Service will continue to evaluate oil spill information and seek input from others with respect to the development of incidental take regulations for polar bears in the Beaufort Sea. .001

Specific Comments

Page ExSum-4, paragraph 3: Estimates of king eider mortality resulting from an oil spill do not take into account turn-over rates of migration. If a spill occurred during a period when king eiders are migrating, the impact of spilled oil will be cumulative as eiders move through the area until all oil is removed from the spill area. Dickson et al. (2000) showed that post-breeding king eiders migrate through the proposed lease area up to 38 km offshore, frequently staging on the surface to rest. Consequently, the Draft EIS should reflect that mortality should be referred to as a minimum estimate, and acknowledge that actual levels of mortality are unknown. .002

Page ExSum-5, Cumulative Effects: Here, and elsewhere in the Draft EIS (Table A.1-2, Volume III, Appendices), the authors state that migratory birds are in the region only 3-5 months of the year, further reducing the likelihood that they would be impacted by an oil spill. This assessment is dependent upon the assumption that if an oil spill occurred during the spring, fall, or winter months, all spilled oil would be removed from the region prior to the arrival of .003

migratory birds. The Draft EIS correctly points out that some (possibly most) spilled oil will not be recovered due to limitations of available technology (Robertson and DeCola 2000). Due to the limitations of oil containment and recovery in broken ice conditions, the fact that migratory birds are only in the region 3-5 months of the year is less relevant. If oil is not removed from the environment, an oil spill in winter may still contact migratory birds when they return from wintering grounds. The Final EIS should acknowledge that oil spills that occur at any time during a given year could impact migratory birds and other wildlife. .003

Page ExSum-5, Cumulative Effects: Cumulative impact analysis is difficult even when dealing with a clearly defined development. The Service recognizes the difficulties of analyzing cumulative effects when dealing with the limitless possibilities of a lease sale. Because it is so difficult to predict the industry's response to the Lease Sale, MMS could consider as part of its cumulative effects analysis providing a discussion that covers the range of impacts that could be expected based on past, current and future offshore developments from a low to a high response to the sale. .004

The Draft EIS estimates that Lease Sale 186 would contribute 9 percent of offshore cumulative effects. This estimate seems low given that the sale assumes three offshore developments (2 near-zone and 1 mid-zone), and the only other currently operating facilities that could be considered offshore are West Dock, Endicott and Northstar. Therefore, developments anticipated to result from the first sale would represent 50 percent (3 of 6) of offshore developments, and contribution to cumulative effects would likely be at least proportionate. Even if Liberty, McCovey and possibly Point Thomson are included in the analysis, Sale 186 developments would represent 33 percent (3 of 9) of offshore developments, and contribution to cumulative effects would still be considerably higher than the 9 percent presented in the Draft EIS.

Page ExSum-5, paragraph 2: The parenthetical list of key resources at the bottom of this paragraph should include threatened eiders. .005

Page ExSum-7, paragraph 1: The Draft EIS states that Stipulations 1 and 5 have been modified from those adopted in Lease Sale 170, but the nature of the changes or the reasons for them are not presented here or in section II.II. The Final EIS should specify these changes and the reasons for them. .006

Page III-42, paragraph 3: Shallow and deep waters are defined differently throughout the Draft EIS. In the summary of Service surveys, "deeper waters" should be consistently defined as >10m depth. .007

Page III-42, paragraph 3: The citation "Fischer 2002" should be Fischer 2001. Correct this in other locations throughout the document including Biblio-16. .008

Page III-42, paragraph 4: The section does not discuss Steller's eider use of Beaufort Sea. Three Steller's eiders were observed in the nearshore waters of Smith Bay during Service surveys in July 2001 (Fischer 2001). This information can also be incorporated into IV-87. .009

Page III-43, paragraph 3: The Final EIS should indicate that common eiders have been documented nesting along the mainland coast near Point Thomson (in addition to the islands). Also, indicate that a variety of shorebirds nest on tundra portions of the offshore barrier islands including dunlins, semipalmated sandpipers, American golden-plovers; other likely nesters include semipalmated plovers, pectoral sandpipers, red-necked and red phalaropes; nesting landbirds include redpolls, Lapland longspurs, and snow buntings (unpublished data from fieldwork conducted by USGS in 1999-2002). .010

Pages III-43 and 44, Section III.B.5.a(3): The Final EIS should expand the section on shorebird use of shorelines of the Beaufort Sea based on current information. This should include that: 1) in early June and middle June, pre-breeding adults of a few species, such as sanderlings, Baird's sandpipers, and semipalmated plovers, occur in early-opening gravel and mud areas on some beaches and at pools near lagoons; 2) from late June through early July, a movement of non-breeding and post-breeding adults of several species occurs, with flocks and individuals using habitats at edges of small coastal lagoons and nearby brackish pools; 3) late July and early August, adults relieved of parental duties flock in littoral (i.e., shoreline areas) areas prior to migration; and 4) August and September, juvenile semipalmated sandpipers and red phalaropes feed along inner lagoon margins in preparation for migration. Indeed, shoreline use by red phalaropes is extensive, and numbers exceeding 500 per kilometer of gravel beach have been reported on the Barrow Spit. Disruption of postbreeding adults and juveniles may hamper their ability to put on critical energy reserves needed to migrate (Conners 1976). High numbers of red phalaropes have been observed in the Simpson Lagoon area by USGS personnel (unpublished data, 1999-2002). .011

Page III-44 and 45, III.B.5.b: Indicate that sandpipers and phalaropes use littoral areas in addition to wet-tundra habitat during pre- and post-breeding. .012

Page III-47: The document indicates that the southern Beaufort Sea polar bear population has increased over the past 20-30 years at 2 percent per year and is believed to be increasing slightly or stabilizing near its carrying capacity. The most recent Stock Assessment for Southern Beaufort Sea bears concluded that recent analyses confirm that this stock experienced growth during the late 1970s and 1980s, then stabilized and experienced little or no growth during the 1990s (Amstrup et al. 2001). The change in population trend from a state of growth to one of stability is an important distinction that has implications for assessing potential population effects and recovery rates. This change in trend and an analysis of its impact on population dynamics and potential recovery rates should be presented in the Final EIS. .013

Page IV-80, paragraph 3: The authors state that recovery of spectacled eiders from disturbance losses will be slow while the population is in declining status. Because the status of the North .014

Slope-breeding population is unclear, it should be stated that the population could be expected to recover slowly from disturbance-related losses if it is increasing or perhaps stable. However, if the population is in decline, it will not recover from disturbance-related losses. .014

Page IV-81, paragraph 4: In discussing the effects of discharges on spectacled eiders, the authors state, "...there likely is sufficient time between sales for the population to recover from the minor effects that may result from each sale." As stated above, this would be true for an increasing and perhaps for a stable population. However, the Final EIS should acknowledge that if the population is declining, it will not recover between sales even if the losses are "minor." .015

Page IV-82, paragraph 1: The Draft EIS states that birds experiencing moderate to heavy oil contact are unlikely to survive. This implies that lightly oiled birds would be expected to survive. However, in cold water habitats even light oil contact will likely result in mortality. The authors should consult the published literature and clarify in the Final EIS. (Same comment for page IV-87, paragraph 6 and page IV-92, paragraph 3.) .016

Page IV-83, paragraph 2: The Draft EIS states "Regardless of the factors...complete recovery of the Arctic Coastal Plain spectacled eider population from even small losses in the proposed sale area may be slow...." Again, slow recovery could reasonably be expected of a growing and possibly of a stable population, but if the population is in decline, then even slow recovery is not likely. In view of the cumulative, non-compensatory nature of mortality in low productivity Arctic breeders (Goudie et al.1994), caution should be exercised to be conservative and not further expose the population to loss. The Draft EIS correctly states (page IV-83, paragraph 3) that recovery from substantial mortality is not likely to occur while the population is declining. .017

Page IV-84, Effectiveness of Mitigation Measures: The mitigation measures identified and discussed in the EIS are reasonable and a good starting point, but we caution that these measures may need to be expanded as we learn more about a number of wildlife/development issues in the Beaufort Sea. These issues include the potential for bird collisions with offshore facilities and the importance of specific offshore areas to molting and staging. Research currently underway at the Northstar facility and existing literature (e.g., Weir 1976) should provide further direction regarding bird collisions and potential mitigation measures. However, mitigation measures are still being investigated at Northstar and more research may be needed to determine appropriate facility construction requirements in the Beaufort Sea. In addition, we are not aware of information that suggests Cross Island may be no more or less susceptible to bird collisions than other sites within the planning area. .018

Page IV-90, paragraph 2: For clarity, the authors should specify that the eiders breeding on barrier islands are common eiders. .019

Page IV-90, paragraph 2: Referring to aircraft disturbance, the Draft EIS correctly points out that eider nesting colonies and long-tailed duck molting concentrations are "particularly susceptible." We also suggest that you consult (Johnson 1984, 1985; Johnson et al. 1987) for additional .020

research on long-tailed ducks and common eiders within the planning area. Brant and snow geese, two species highly sensitive to aircraft disturbance, also use islands and coastal habitats within the planning area (Johnson and Troy 1987) and potential impacts on their nesting and molting (Derksen et al. 1992) could occur. .020

Page IV-90, paragraph 5-6: In discussing disturbance from boat-traffic, the Draft EIS states "...no significant overall effect is likely to result from these minor adverse effects...." We want to point out that (Thiel et al. 1992) documented that molting seaducks are very vulnerable to boat disturbance. Additional published literature is likely available on this topic and could be included in the Final EIS. .021

Page IV-99: The discussion of effects of noise and disturbance from routine exploration activities and support for production facilities should include the potential for disturbance to denning polar bears (e.g., winter seismic exploration, exploratory drilling, etc.). .022

Page IV-107, paragraph 4: The Draft EIS states that polar bears would be most vulnerable to oil spill contamination along the ice-flaw zone north of Point Barrow east to Demarcation Bay. This is a very broad area that bisects the entire lease sale area. This section of the Draft EIS also states that the loss of 20-30 bears would be replaced by recruitment "within 1 year up to more than one generation (7-10 years)." Elsewhere in the document, recovery of a wider range and smaller numbers of bears is forecasted to occur within 1 year: (5-30 polar bears, page IV-138; 6-10 polar bears, page V-47), and recovery from the loss of up to 128 polar bears due to a very large oil spill (180,000 bbl) is estimated at 1 to 2 generations (up to 15 years, page IV-217). Any references or rationale to support the predicted recovery times would be useful. A clear explanation of how the numbers of impacted polar bears were derived would also be useful. It should be noted that recovery "in-kind" cannot occur within 1 year, although recovery to former population size may be possible for a population experiencing growth (however, as noted above, the most recent assessment of this population indicates it is stable, not growing). .023

Page IV-139, IV.C.11.b(2)(b)5: We suggest that the statement "common eiders [as an example] are not likely to suffer high mortality as a result of an oil spill, because they are not abundant in most of the proposed sale area...." is incorrect. Rather, the vast majority of the Pacific wintering population of common eiders moves through the Beaufort Sea in spring and fall. Significant proportions of this population could be susceptible to oil spills. In addition, the locally breeding common eiders, that nest on barrier islands during June through August, raise their young in lagoons during August and September when open water would spread and expose animals to any oil spill. Given that the combined population of U.S. and Canadian breeding common eider appears to be declining and that recruitment into the Alaskan population during the past 3 years has been close to zero (see Lanctot et al. 2001; USGS, unpubl. data), this species, as well as other sea duck species, is vulnerable to a spill. .024

Page IV-199, IV.G.6: In this paragraph, the authors suggest that alternate habitat areas for critical activities of marine and coastal birds are available. Given the lack of information on .025

habitat quality along the coast, this conclusion may be unfounded and additional information is needed to support this statement. .025

Page V-44, paragraph 5: The section on effects of noise and disturbance on polar bears indicates that current information on the distribution of den locations near oil facilities does not show that bears were permanently displaced from denning habitat. It would be very helpful if a reference were provided to support this statement. .026

Page V-45, paragraph 2: Although the Service 1-mile buffer for polar bear dens theoretically applies to all occupied dens, known den locations determined from telemetry or FLIR data represent only a small fraction of dens occupied in a given year and the majority remain unknown. Bears that occupy dens of unknown location are not effectively protected by the 1-mile buffer, and they may be disturbed by oil and gas exploration and development activities. .027

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MMS Response to Comment Letter L-0037

L-0037.001

The draft EIS did not use Amstrup et al. (2001) or Durner et al. (2001) as a source for estimates of the number of polar bears effects by a potential oil spill.

See also Response PH-Anchorage.028.

L-0037.002

The potential influence of turnover rates during, for example, king eider migration, is discussed in Section IV.C.6.a(2)(b)2)b). Dickson, Suydam, and Balogh (2000) are cited in Section III.B.5.a. Minor revisions of mortality-level statements clarify the severity implied by such statements in the Executive Summary, Large Oil Spill, third paragraph. However, some substantial mortality estimates cited are not likely to be minimum estimates.

L-0037.003

The possibility that all oil from a spill may not be cleaned up and, thus, might contact birds in the year(s) following a spill, is discussed in Section IV.C.6.a(2)(b)2)a). The potential for cumulative effects has been added to the Executive Summary, Cumulative Effects.

L-0037.004

Sale 186 should contribute more than 9% to the offshore cumulative effects, based on the number of currently operating facilities.

The MMS has selected overall production as a more realistic indicator of potential disturbance from operations and oil spills using the number of oil spills and oil-spill rates based on volume of oil produced. While the most likely number of spills for Sale 186 is zero, a contribution factor from the proposed lease sale based on the fractional increase in the estimated mean number of spills can be determined (Table V-12). The overall production volume also gives a good indication of disturbance and habitat effects from past, present, and reasonably foreseeable future activities (Table V-7b). In would be inappropriate to treat all platforms as equal, because we know some are high producers that are more likely to have an accident and there also are more activities associated with the high production. This would result in low production platforms being overweighed in their respective perturbation contribution. Also, the contribution of three platforms from the proposed multiple-sale scenario would be significantly less when past activities are factored in, as required by NEPA, because most of the activities on the Beaufort Sea offshore environment have failed or resulted in no commercial discoveries.

L-0037.005

Eiders have been included as a resource of concern that warrants continued close attention.

L-0037.006

Reference is made to page II-9 of the draft EIS under the heading II.H - Mitigating Measures, second paragraph. Some of the stipulations included in this analysis as assumed mitigating measures from past OCS oil and gas lease sales in the Beaufort Sea have been slightly reworded to bring them up to date with current information and situations (i.e., Protection of Biological Resources). Other changes were simply editorial (Conflict Avoidance Mechanisms to Protect Subsistence and Other Subsistence-Harvest Activities). Similarly, the third paragraph explains minor changes to the ITL clauses.

L-0037.007

A revision has been made to Section III.B.4.a(2)(b) that qualifies that deeper waters are greater than 10 meters in depth.

L-0037.008

Fischer (2002) has been replaced with Fischer (2001) in Sections III.B.4.a(2)(b), IV.C.6.a, and the Bibliography.

L-0037.009

The Steller's eider sightings information has been added to Sections III.B.4.a(2)(c), IV.C.5.c(1)(a)1)a), and IV.C.5.c(1)(b)2).

L-0037.010

The information on bird use of the barrier islands, supplied by the Fish and Wildlife Service, has been added to Section III.B.5.a(2).

L-0037.011

The shorebird habitat use and timing information supplied b y the Fish and Wildlife Service has been added to Section III.B.5.a(3).

L-0037.012

The habitat information supplied by the Fish and Wildlife Service has been added to Section III.B.5.b.

L-0037.013

The suggested change in the polar bear population trend from increasing at 2% to stable or slightly increasing in the stock assessment conflicts with statements made by Amstrup, McDonald, and Stirling (2001) about the size of the southern Beaufort Sea population of polar bears. The latter investigators suggest that this population number is "over 2,500 bears—many more than previously hypothesized." This information suggests that the southern polar bear population is larger than previously thought and, therefore, is more likely to sustain a one-time loss from a potential oil spill than previously thought.

L-0037.014

See Response L-0037.015.

L-0037.015

The comment regarding recovery of declining populations is discussed in PH-Barrow.018. Revisions dealing with this topic have been made in Sections IV.C.6.a(2)(b)2)c), IV.C.5.b(1)(a)1)a), and IV.C.5.b(1)(b)3).

L-0037.016

Appropriate revisions dealing with the severity of effects for oiled birds have been made in Sections IV.C.5.b(1)(b)2)b), IV.C.5.c(1)(b)2), and IV.C.6.a(2)(b)2).

L-0037.017

See Response L-0037.015.

L-0037.018

Terms and Conditions in the recently issued Biological Opinion for the Beaufort Sea Planning Area (October 22, 2002) requires that the Fish and Wildlife Service and the MMS cooperatively develop a lighting protocol to facilitate birds avoiding drilling structures. This effort will take place at Northstar Island.

The commenter is correct in assuming no information indicates that birds approaching Cross Island are no more or less susceptible to collision than elsewhere.

L-0037.019

The eider discussed at this point has been specified as common eider, Section IV.C.6.a(1)(a)1).

L-0037.020

A brant and snow goose discussion and long-tailed duck and common eider references have been added to Section IV.C.6.a(1)(a)1) concerning potential effects of aircraft disturbance.

L-0037.021

Additional documentation has been added to the discussion of vessel-traffic effects in Section IV.C.6.a(1)(a)1); however, MMS does not consider that the overall effect is likely to be sufficiently substantial to satisfy the definition of "significant" in this document.

L-0037.022

The text in Section IV.C.7.a(1)(b) - Effects of Seismic Activities has been revised in response to this comment.

L-0037.023

The estimate of 5-30 bears is based on the number of polar bears observed at whale carcasses, which is based on aerial survey data (see Sections IV.C and IV.A(2)(b)2) on specific effects of a large [1,500- or 4,000-barrel] oil spill). The more likely loss of 6-10 bears is based on the high density of 1 bear per 25 square kilometers times the area swept by a 1,500-barrel or 4,000-barrel spill (see the referenced section). The potential loss of up to 128 bears is based on the density of 1 bear per 25 square kilometers times the area swept by the 180,000-barrel spill, assuming all bears in the vicinity die (see Section IV.I.2.g). The MMS is concerned with the welfare of the polar bear population. "In-kind" replacement of individual bears of a certain age and sex should not be an issue in the conservation of polar bears.

See also Response L-0037.022**.**

L-0037.024

The common eider has been deleted from the discussion in Sections IV.C.11.b(2)(b)5) and IV.C.6.a(2)(b)2)c) as an example of a species that might not experience substantial losses from an oil spill because of numbers present or distribution. Clarifying revisions concerning population recovery have been incorporated in this discussion.

L-0037.025

Section IV.G.6 on the irreversible and irretrievable commitment of bird resources has been revised for greater specificity. However, it should be noted that there is little indication that nesting, staging, or foraging habitats for any species on the Arctic Coastal Plain is at carrying capacity.

L-0037.026

The MMS is not aware of any published information that shows that the locations of polar bear have been affected by oil facilities. Therefore, we assume in the absence of data that there is no effect. If the Fish and Wildlife Service has data to support a hypothesis that denning has been affected by oil facilities, we would appreciate receiving it and we will incorporate it in our NEPA analysis in the future.

L-0037.027

Although unknown den locations are not effectively protected by the 1-mile buffer, the chance that numbers of unknown denning polar bears would be disturbed during the winter season is very unlikely. Den locations vary greatly both on- and offshore, and they are widely dispersed both on and offshore.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

L-0038

RECEIVED
OCT 8 - 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Reply To
Attn Of: ECO-088

OCT - 3 2002

02-044-MMS

Paul L. Lowry
Minerals Management Service
949 East 36th Ave., Rm. 308
Anchorage, AK 99508-4302

Dear Mr. Lowry:

The Environmental Protection Agency (EPA) has reviewed the draft Environmental Impact Statement (EIS) for the *Beaufort Sea Planning Area for Oil and Gas Lease Sales 186, 195, and 202* in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The draft EIS assesses impacts associated with the proposed action (sales of 1,877 lease blocks in the Beaufort Sea Planning Area in years 2003, 2005 and 2007), the no-action alternative, and four deferral alternatives.

The EPA has rated the draft EIS, EO-2 (Environmental Objections-Insufficient Information). Enclosed is a copy of the rating system used to conduct our review. EPA has objections to the proposal since it did not include the deferral lease blocks that were associated with the four deferral alternatives (Alternatives III - VI). EPA also believes that portions of the analyses addressing impacts to whale hunting and environmental justice need to be strengthened. Additionally, EPA has concerns about the potential impacts of oil spills, noise disturbance, and the presence of vessels and structures on declining populations of listed eiders and the significance thresholds.

Subsistence Whaling

Each of the alternatives III through VI mitigate potential impacts to subsistence whaling by setting aside areas that protect subsistence whale areas. These deferral areas are not part of MMS' proposed action. EPA strongly recommends that the proposed action be revised to include all deferral areas contained in Alternatives III-VI. Without inclusion of these deferral areas, EPA believes that the proposed action will have high and disproportionate impacts on some or all of the Inupiat communities because of the impacts on their subsistence lifestyle. .001

Specifically, four of the five action alternatives defer areas from oil and gas leasing to enable subsistence whaling activities to continue and are referred to in the EIS as the deferral alternatives. Each of the four deferral alternatives protects the whaling area or a portion of the whaling area of only one of three Inupiat communities. This arrangement forces a decision maker to choose protecting the environmental resources critical for one community's subsistence needs while allowing significant adverse impacts to the subsistence needs of two other communities. The only other alternative left to the decision maker is to select the proposed .002

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action which does not provide protection to subsistence whaling for any of the communities. The absence of an alternative which would protect whaling areas for all three communities appears inconsistent with 40 CFR 1502.14, which requires that the EIS rigorously explore and objectively evaluate all reasonable alternatives. The proposed action should be revised to protect environmental resources adequately enough to ensure the continuation of subsistence whaling activities by all Inupiat communities. .002

The EIS should describe on what basis these alternatives were developed. It is not evident from reviewing the draft EIS whether deferral alternatives are based upon traditional knowledge provided by the subsistence whaling community and how the alternatives address their concerns. While Appendix E of the draft EIS contains scoping comments that Inupiat and non-Inupiat parties raised concerning the potentially significant impacts of action alternative to subsistence whaling, it appears that: 1) neither the mitigation measures nor the alternatives in the draft EIS adequately address the concerns expressed by these parties; 2) those impacted have not had meaningful participation developing information supporting the decisions that will impact them; and 3) that Environmental Justice requirements have not been adequately addressed. The EIS should explain how the information provided by the subsistence whaling community was used in the development of the alternatives and how the impacts for the preferred alternative would consequentially affect them. .003

The draft EIS appears to use only information on past whale strikes to define withdrawal areas for protecting subsistence whaling. This approach does not consider other important areas that are of critical importance for successful whale hunts, namely whale migration routes and the staging areas for whalers. Unless impacts to these areas are considered as well, it is not possible to evaluate the indirect impacts on subsistence hunters. For example, the draft EIS states that both scientific and traditional knowledge support the belief that noise and disturbance cause bowhead whales to take evasive actions. Changes in the migratory routes of whales from their historic patterns would likely affect subsistence whalers' access to whales and their success rate. These impacts, and other impacts to areas and resources important to a subsistence way of life, should be analyzed. Based on this analysis, it appears appropriate to expand protection areas (deferred leasing blocks) for subsistence whaling to include migratory routes and staging areas. .004

The analysis of the effects from a potential oil spill should be more rigorous and additional measures to prevent an oil spill should be put in place. The draft EIS states that in three oil spill cleanup drills, the industry has not proven its ability to adequately clean up spilled oil with mechanical equipment in relatively calm environmental conditions in ice-infested waters. This finding and the low success rate of oil spill clean up near shore and in other ice conditions highlights the need to take all available precautions to prevent oil spills. The draft EIS does not prescribe additional needed measures to prevent oil spills and instead accepts the 8-10% chance of an oil spill as insignificant without containing analyses that demonstrates that such a risk is acceptable for the various resources at risk. The EIS should contain additional measures for preventing oil spills or support with analysis conclusions that an 8-10% chance of an oil spill is insignificant, especially for animals hunted for subsistence, subsistence hunters and consumers, and threatened, endangered, and sensitive species. As part of this analysis, the EIS .005 .006 .007

should use scientific and traditional knowledge to describe the health effects and the effects on the perceived palatability of eating contaminated foods. Finally, the EIS should "analyze and evaluate... the equity of the distribution of benefits and risks..." of oil and gas exploration and development to the potentially impacted "minority and low-income populations and communities" consistent with Environmental Compliance Memorandum No. ECM95-3, dated May 30, 1995. .007 .008

The EIS should describe the methodology for identifying Barrow, Nuiqsut, and Kaktovik as the only subsistence communities potentially affected by action alternatives. In particular, the EIS should describe the 31% of the population of the North Slope Borough not located in Barrow, Nuiqsut, and Kaktovik in its Environmental Justice analysis. Without this explanation and analysis it is unclear how an evaluation of the equity of the distribution of benefits and risk could be conducted. Also, to mitigate the environmental impacts of the leasing, and avoid the risk of creating disproportionately high and adverse impacts, the EIS should also contain assurances that the behavior and abundance of animals hunted for subsistence purposes elsewhere (i.e., Point Hope and Wainwright) are not significantly affected by proposed activities in the project area. .009 .010

Finally, the EIS largely bases analyses of cumulative effects on past, present, and predicted future oil and gas activities in the project area rather than around affected resources. The draft EIS concludes that there are limited cumulative effects because oil and gas activities take place in a small percentage of the project area and that existing low oil and gas prices suggest a slow rate of exploration and development in the foreseeable future. This conclusion does not consider how important location is to the type and extent of resource effects. For affected resources, especially subsistence resources and their users, the EIS should disclose the range of potential cumulative effects from exploration and development activities occurring in sensitive versus insensitive areas. Such an exercise appears appropriate because multiple leases tend to be developed around successful finds and single pipelines and could potentially be congregated in a sensitive area. This analyses also appears necessary to fully disclose the multiple and cumulative impacts on subsistence populations and the resources upon which they rely consistent with NEPA 1508.2(c), CEQ's EJ Guidance under NEPA, and Environmental Compliance Memorandum No. ECM95-3 (May 30, 1995). .011

Threatened Eiders

The EIS states that proposed construction activities may disturb declining populations of threatened spectacled and Steller's eiders resulting in reduced fitness or reproduction of young. In addition, migrating threatened eiders may be vulnerable to mortality from collision with offshore structures resulting from the proposed lease sales. Section 7(a)(1) of the Endangered Species Act (ESA) requires all federal agencies to conserve (i.e., protect and restore) listed species. Since action alternatives would appear to worsen the condition of eiders rather than conserving them, the EIS should include enough alternatives and mitigation measures to demonstrate, through analysis, that sufficient mitigation measures exist to conserve listed eiders. .012

Significance Thresholds

EPA is concerned about the lack of information describing the basis for the significance criteria used in the EIS on page IV-4 of the EIS. For example, the significance criteria for biological resources is a decline in abundance and or change for three or more generations (except for polar bears). The EIS should explain the basis for selecting three generations for all biological resources (except polar bears) without taking into consideration the biological differences among species (e.g., reproductive rate). Similarly, the EIS does not describe what information was used to determine that a 2-5 year period of disturbance in a socio-cultural system was significant. The EIS should include the basis for its significance criteria for both biological and social resources. The latter is important because activities to extract natural resources, like the one proposed, are subject to boom and bust cycles. We are concerned that people that have relied upon subsistence might curtail or abandon these activities during boom periods and be left without the skills or knowledge to resume them when jobs associated with oil and gas exploration and development are no longer available.

.013

The staff contact for this review is Chris Gebhardt. Mr. Gebhardt can be reached at (206) 553-0253. Thank you for the opportunity to comment.

Sincerely,

for Elbert Moore, Director
Office of Ecosystems and Communities

Enclosure

cc: Rex Okakok, Sr., North Slope Borough, Barrow
Steve Lewis, USFWS, Fairbanks
Harry Bader, ADNR-DLM, Fairbanks
Al Ott, ADF&G, Fairbanks
Brad Smith, NMFS, Anchorage
Tom Lohman, North Slope Borough, Anchorage

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonaby available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Impacting the Environment. Februai

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ► 1

To Paul Lowry	From C. Gebhardt
Dept./Agency MMS	Phone # (206)553-0253
Fax # (907)271-6507	Fax # (206)553-6984

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

MMS Response to Comment Letter L-0038

L-0038.001

Before responding to the point we label as L-0038.001, the MMS needs to address the second paragraph of the letter. The Environmental Protection Agency rated this EIS as EO-2 rating (Environmental Objections – Insufficient Information). Several incorrect assumptions are presented in the letter based on what appears to be only a cursory reading of the draft EIS.

The most significant incorrect assumption is in the second paragraph of the letter, that deferral Alternatives III through VI are not mutually exclusive. The text of the draft EIS clearly indicates in several places (for example, see the last paragraph of Section II) that any one or all these alternatives could be chosen by the Secretary. Implicit in these EPA comments is an assumption that they are mutually exclusive and, thus, the Environmental Protection Agency makes the recommendation that the Proposal be modified by adopting these deferrals. Adopting their recommendation would result in an EIS with only a Proposal (with the adopted deferrals as part of it) and a no-action alternative–hardly an adequate set of alternatives for any EIS.

The Environmental Protection Agency also apparently does not understand the value and protective nature of MMS's standard stipulations and ITL clauses. The standard stipulations, especially Stipulations 4 (Industry Site-Specific Bowhead Monitoring Program) and 5 (Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence Activities) have proven to be effective in reducing and eliminating adverse effects on subsistence whaling. Proposed exploration and seismic activities have been modified or limited in scope to reduce conflicts with whaling and potential deflection of the bowhead whale migration. As stated in Section I.C.2.b, the MMS analysis indicates that the levels of effects offered by the standard stipulations and ITL clauses provide essentially the same level of protection offered by deferral Alternatives III, IV, and V.

The description and baseline data for Environmental Justice is found in Section III.C.6. The analysis of effects of the proposed action to Environmental Justice is found in Sections IV.C.16, which includes information about demographics for race and income and information about the reliance of the communities to subsistence foods and activities. Additional information about subsistence is found also in Section IV.C.11, and effects to the sociocultural systems are provided in Section IV.C.12. Section IV.C.16.d provides an analysis of how our standard stipulations and ITL clauses provide mitigation from OCS activities to the Native community. This analysis is consistent with the Department of the Interior and Council on Environmental Quality guidance for the executive order and meets the Agency's requirements to fully analyze the effects under the executive order. Furthermore, the MMS believes the analysis presented in this EIS is consistent with the Environmental Protection Agency guidance they provided as a cooperating agency for the Liberty EIS.

The MMS believes the current alternatives, with the standard stipulations and ITL clauses, offer an effective range of alternatives that also meets the goals and objectives of the OCS Lands Act to offer Federal offshore oil and gas resources for lease and possible exploration and development in an environmentally safe manner.

The MMS has found that under routine actions, disproportionate impacts on Inupiat communities would not occur; however, in the unlikely event of a large oil spill, disproportionately high adverse effects could occur. Such unlikely events are not expected and, thus, the MMS does not expect disproportionately high adverse effects to occur to the Inupiat community lifestyle.

L-0038.002

As mentioned in Response L-0038.001, the Environmental Protection Agency apparently misunderstands the structure of the alternatives of this EIS. They indicate that all the deferral alternatives (Alternatives III through V) should be melded into Alternative I, the proposed action, because a decisionmaker would be forced to chose only one alternative. That is incorrect, and a closer reading of the EIS is warranted. The action alternatives are not mutually exclusive. As the text indicates in several places, a decisionmaker could choose any or all of Alternatives I, II, IV, and IV or Alternative II, the No Lease Sale Alternative.

The Environmental Protection Agency then goes on to draw another inaccurate conclusion that the Proposal does not provide protection to subsistence whaling for any of the North Slope communities. The MMS has worked with the Inupiat communities for more than 20 years to develop stipulations and ITL clauses that protect subsistence

whaling for all the North Slope villages. The MMS strongly disagrees with the Environmental Protection Agency's implication that these have no value. The Environmental Protection Agency would have been well served to take the time to ask the Mayor of the North Slope Borough and the Executive Director of the Alaska Eskimo Whaling Commission whether the entire suite of stipulations and ITL clauses should be dropped as valueless before preparing their comments of October 3, 2002.

The MMS believes that the Proposal provides adequate subsistence-whaling protection for the three communities. Alternatives III, IV, and V would provide a small additional increment of protection for the respective villages. However, the increment is so small that we cannot differentiate their estimated incremental effects, given the uncertainty inherent in estimating future exploration and development activities let alone the environmental effects of such activities. Hence, we feel strongly that this EIS is completely consistent with 40 CFR 1502.14.

L-0038.003

The text does indeed indicate the basis for the development of alternatives. See Sections I.C.2, II, II.A, II.D, II.E, II.F, and Appendix E. See also Response L-0038.001. The Environmental Justice protocol followed for the Beaufort Sea multiple-sale EIS was modeled closely after the protocol agreed to by the Environmental Protection Agency for the Liberty Project EIS, which was developed between the Environmental Protection Agency and the at meetings in Seattle in October 2001. The MMS added substantially to the already extensive Environmental Justice sections in the Liberty EIS, on which the Environmental Protection Agency signed off. This EIS has parallel mitigating measures as standard stipulations and ITL clauses, and the text is very similar in content to the analysis in the Liberty Final EIS. The MMS also conducted a very similar public participation process for this EIS. Our Environmental Justice Analysis is fully consistent with the Executive Order and the accompanying Council on Environmental Quality guidance. We urge the Environmental Protection Agency to read the detailed discussions in Sections III.C.6, IV.C.16, IV.I.2.p, and V.C.16.

L-0038.004

Concerning the development of alternatives, please see Sections I, II.A, II.D, II.E, II.F, and Appendix E of this EIS. Effects analyses done in Section IV.C.5 for subsistence whaling, in Section IV.C.11 for Subsistence Harvest-Patterns, and in Section IV.C.16 for Environmental Justice do consider the effects of noise and disturbance on bowhead whales. Conclusions for these sections dissolve the commenter's claims that these impacts were not considered or analyzed.

L-0038.005

The analysis of effects from potential oil spills in this EIS is extremely rigorous. It is described in detail in Sections IV.C, IV.I and V.C. However, if the Environmental Protection Agency's staff finds the analysis too detailed given their time constraints in reading the EIS, we would be pleased to make a verbal presentation at our office or at their Region 10 offices, describing the spill-statistical methods, spill-trajectory modeling, and assessment of effects analysis we perform for each EIS, including this one. The commenter uses a key word: "prevention." That is our main defense against oil spills. While our preventive measures also are spelled out in detail in the EIS, we would be pleased to also cover this topic in a meeting. Finally, the Environmental Protection Agency provides no specific recommendation on how the analysis should be made more rigorous or what additional measures they recommend. If they have such recommendations, we would be pleased to consider them.

The drills conducted during 1999 and 2000 indicated that estimated operational limits for one series of oil-spill-cleanup tactics were more constrained than previously thought. These trials established more reasonable maximum operational limits for the R-19A barge-based spill-response tactic. Industry has a large amount of equipment and numerous other tactics that could be employed in a spill-response situation to address environmental conditions. We suggest review of these tactics in the several oil-spill-contingency plans that apply to the Beaufort Sea. Through the pollution-prevention programs, safety systems, and spill-response programs, sufficient precautions are in place to protect the environment.

L-0038.006

The question the commenter asks is one of value and judgment. The MMS makes clear our value judgments and acknowledges that other stakeholders may not reach the same value judgments (Section IV.A.4.a(1)). The MMS believes that through the pollution-prevention programs, safety systems, and spill-response programs, sufficient precautions are in place to protect the environment. And, regardless of the spill probability, the EIS evaluates the effects of an unlikely large oil spill on the resources.

L-0038.007

See response L-0038.001. The effects analyses done in Section IV.C.11, for Subsistence Harvest-Patterns, Section IV.C.12 for Sociocultural Systems, and Sections IV.C.16 and V.C.16 for Environmental Justice do consider potential health and tainting effects on subsistence foods.

We have now incorporated by reference in Section III.C.6 - Environmental Justice, the Environmental Justice Effects Section IV.C.16 - Summary of Human Health Effects, from the Cook Inlet Planning Area Oil and Gas Lease Sales 191 and 199 Draft Environmental Impact Statement (USDOI, MMS, Alaska OCS Region, 2002) that considers more extensively the potential health and tainting effects on subsistence foods. This additional information includes recent information provided by the Alaska Native Health Board and others on the risk of contaminants in subsistence foods.

L-0038.008

The Environmental Justice analysis fits the protocol of the Executive Order, and is fully consistent with Department of the Interior, Council on Environmental Quality, and Environmental Protection Agency guidance in addition to the Environmental Justice approach developed by the MMS with the Environmental Protection Agency for the Liberty Project in October 2001.

See Response L-0038.003.

L-0038.009

The approach we used for this EIS essentially is identical to the approach we developed with the Environmental Protection Agency Region 10 in Seattle in October 2001 for the Liberty Project EIS. The MMS directs the reviewer to Section IV.C.16, where the methodology for the analysis is outlined. As we noted in the Liberty EIS and Section IV.C.16, the North Slope Borough is, by latest census counts, 70% Inupiat Native. By definition, the population is a defined ethnic minority and any adverse effects experienced by this minority population would be in a disproportionate manner.

Under the Environmental Justice executive order, the primary impacts of concern that may occur from the proposed action to the minority population are those activities that could affect subsistence resources. We determined the affected community as the three Beaufort Sea coastal villages. The other villages the commenter mentioned are so far from the location of potential effects that they cannot be expected to experience significant effects.

L-0038.010

The MMS directs the reviewer to Section IV.I - Low-Probability, Very Large Oil Spill; and to Section V - Cumulative Effects; and particularly to the effects analyses for subsistence-harvest patterns, sociocultural systems, and environmental justice, in addition to the analyses discussing bowhead whales, fish, seals, and caribou within these large sections. These sections analyze effects on resources and communities outside the immediate lease-sale area.

L-0038.011

We refer the Environmental Protection Agency reviewer to the introductory sections of Section V - Cumulative Effects of the EIS. The analysis does consider a range of potential effects on resources in sensitive areas and is compliant with Council on Environmental Quality and Department of the Interior guidance on Environmental Justice. The document also meets the analysis requirements of NEPA and is consistent with the language and structure of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. We direct the reviewer to the MMS Offshore Program website at http://www.mms.gov/envd-bea/12898/guidance.htm, which discusses the MMS's approach to satisfying the mandate of Executive Order 12898 and the use of and compliance with the Department's 1995 Environmental Compliance Memorandum No. ECM95-3, and the 1998 Council on Environmental Quality Guidance. Additionally, the environmental justice analysis for this EIS was developed along the same guidelines negotiated in October 2001 with the Environmental Protection Agency for the Liberty Project EIS. The EIS has identified sensitive areas with respect to subsistence activities and with respect to the migratory corridors of marine mammals, birds, and terrestrial mammals. The transitory nature of these resources can put them in temporary conflict with exploration and development activities, as proposed in the scenario of proposed activities. We have attempted to determine zones of influence from activities and overlapping zones of influence for the cumulative-effects analysis, and we rely

primarily on the subsistence-hunting areas as to what may be called sensitive areas. For the most part, we have attempted to capture in our cumulative analysis all of the North Slope, both onshore and offshore.

L-0038.012

This EIS serves as the biological assessment document for Section 7 consultation under the Endangered Species Act. See Appendix C for the Biological Opinion from the Fish and Wildlife Service pertaining to the spectacled and Steller's eiders. Little evidence exists that activities associated with oil and gas development actually cause decreased fitness or productivity in threatened eider populations. In fact, substantial information from the Prudhoe Bay area shows that the presence of structures and the occurrence of routine oil-field activities have little effect in altering routine eider activities during the breeding season. The Environmental Protection Agency makes a good point regarding mitigation of potential threats to eiders. The recently finalized Fish and Wildlife Service Biological Opinion specifically addresses the problem of potential collision with offshore structures and requires a cooperative effort between the Fish and Wildlife Service and the MMS to develop a lighting protocol that could warn birds to avoid flying into the object in their path but also to not attract birds to it. See the information provided about Stipulation 8 in Sections I.C.3.a(2) and II.H.2.d and the analysis to Steller's and spectacled eiders in Sections IV.C.5.b and IV.C.5.c.

L-0038.013

This document is the eighth lease-sale EIS prepared in the Beaufort Sea. Two development EIS's in the Beaufort Sea (Northstar and Liberty) have been prepared. When we started preparing this document, we looked at the definitions and standards used in these previous EIS's. The definitions used in this EIS are the outcome of that review, which includes the best professional judgment of our senior staff biologists and sociologists. Furthermore, they are essentially the same standard used in the Liberty EIS, for which the Environmental Protection Agency was a cooperating agency and on which they signed off.

The definitions carried forward reflect the information and comments we have received in the past. While the MMS continues to receive comments about the appropriateness of the definitions we use for determining significance, we have not received specific suggestions for change. The current definitions for significance are still the best standards we have available. If we receive suggestions for a better definition with supporting information that provides us with a better standard and that is demonstrated to be more appropriate, and that can be applied to all threatened and endangered species, we will adopt the new standard.

As stated previously, the definition for significance for sociocultural effects is identical to the one used in the Liberty EIS. The significance definition in this EIS is based on our review and evaluation of past standards used in our previous NEPA analyses. Those documents have undergone public review and comment and, in many cases, withstood legal challenges. The Environmental Protection Agency questions the 2-5 year definition portion of the sociocultural definition, but they do not suggest an alternative definition or standard. There may be arguments that the timeframes in the definition are too short or too long; however, no one has provided the MMS with a better definition supported by scientific data and good rationale that has withstood our evaluation and/or the public review and comment process.

Subsistence skills and techniques are developed by hunters over their lifetime. The traditional knowledge used in hunting and gathering is passed down from generation to generation. While it is possible that some hunters may choose not to participate in hunting for a few years (well within the 2-5 year period in our definition), it is very unlikely that the all subsistence hunters in a community would lose those skills. In fact, during 1977, no subsistence bowhead whaling occurred and very limited hunting occurred in the years that followed; however, by the 1990's those activities had resumed, and the whaling crews have been very successful in taking their allotted quota. Furthermore, the typical boom-and-bust cycle associated with natural development may not be that applicable to the current oil and gas industry here in Alaska. The development of Prudhoe Bay (the boom) which is now declining has not led to the total bust, but it has resulted in an industry that currently is maintaining and starting to increase production and jobs over time. The late 1980's and early 1990's may have been the bust cycle for Prudhoe Bay, when the price of oil dropped and many oil and gas companies either left the business or went elsewhere for work. However, during that time period, whaling and subsistence harvesting of foods in the communities continued. A boom-and-bust cycle is very unlikely to result from the type of projects and the levels of resource development projected (460 million barrels of oil) for each of the three sales in this EIS. In fact, the current level of activities onshore and offshore in Alaska is likely to help create jobs and employment to maintain at least current levels.

1014 Black Oak Drive
Medford, OR 97504
Sept. 10, 2002

RECEIVED
SEP 13 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

L-0039

Dear Mr. Gould,

I have serious concerns about the oil lease sales proposed for the Beaufort Sea area. Leasing offshore from the Arctic National Wildlife Refuge is a particularly egregious betrayal of the public trust given the clear rejection, by both the U.S. Congress and the American people, of oil exploration and development in the Arctic National Wildlife Refuge. The potential for severe harm to that ecosystem is as great whether the drilling happens on land or a few miles offshore. Oil leasing in that area should be permanently removed from consideration.

.001 The Beaufort Sea is home to polar bears, walrus, seals, and migratory birds (including threatened eiders), and the endangered bowhead whale. Global climate change is already putting pressure on some of these animals because the pack ice is less reliably thick and long-lasting as formerly. Adding the near-certainty of petroleum leaks and large oil spills and these populations could be devastated. A spill around Teshekpuk Lake during the Pacific black brants' molting season or fouling the waters off the Refuge during bowhead migration east of Barrow could cause irreparable harm to these species. The risks are too great.

.002 Major spills - it is senseless to assume they won't happen - have already damaged Alaskan waters. They cannot be cleaned up adequately and the oil and its effects linger for decades. Some of the detrimental effects on living organisms

.002

may be permanent in terms of genetic damage. There is still oil, fresh and undiminished as when it went into Prince William Sound a decade ago, just beneath the rocks and gravels of that coastline. Trying to clean up a spill in breaking pack ice is expected to be so difficult that even the 10-15% cleanup achieved on spills in less severe climates is unlikely to happen around the Beaufort sites. Those leases should not be allowed to go forward, given the nature and magnitude of the risks.

.003

Historically, the Minerals Management Service has wisely seen fit to avoid leasing tracts off the Arctic National Wildlife Refuge and Teshekpuk Lake due to the extremely sensitive nature of the areas, the high environmental risks inherent in the development of these areas, and public opposition to leasing in these areas. They should, for these reasons, be permanently deleted from current and future lease sales.

The United States cannot drill its way to energy sufficiency or security. The amount of oil gained from offshore or refuge drilling in the Arctic (as well as other sensitive areas of the country) is simply not worth the danger of permanent environmental damage there. It is especially troubling that this is still an issue when nothing whatever has been done to require improved vehicle efficiency or invest strongly in alternative energy sources - wind, solar and fuel cells in particular. Continuing to hold our environment hostage to a fossil-fuel mindset has to stop. A refusal to allow exploration and drilling in the Beaufort Sea would set an excellent example.

Sincerely, Carol Arnold

MMS Response to Comment Letter L-0039

L-0039.001

With regard to the potential effects of global climate change on migratory birds, including threatened eiders, we could speculate that such change that results in the pack ice becoming less reliably thick and long lasting may represent a positive result for these birds in the Arctic. This could be the case, because at the conclusion of their spring migration to the Beaufort Sea they rely on the presence of open water to provide foraging areas where they can obtain food to replace fat reserves used up during migration, and to build up reserves for the breeding season, especially the production of eggs. This probably would be true for waterfowl species but may not be for some species such as the black guillemot (nonmigratory) that appear to use ice-edge habitat. Although the commenter probably is correct in stating that petroleum "leaks" (if this means small spills of a few barrels or less) are nearly certain to occur, the near certainty of a large oil spill is grossly overstated, given the 8-10% probability of such a spill occurring (pipeline plus platform) that is determined by the MMS oil-spill model. Thus, it is not likely, for most birds at least, that these two factors would act together to devastate their populations. With regard to potential effects of a spill in the Teshekpuk Lake area where brant molt in large numbers, we consider the probability as extremely small of such an event resulting from Beaufort Sea offshore lease activity, given its separation from the marine environment where such a spill might occur. A spill in coastal areas near the Arctic National Wildlife Refuge could affect local waterbirds and those migrating from farther east in addition to a small number of bowhead whales. However, as noted above, the chance of spill occurrence is quite small, and the period of vulnerability of these species to the initial presence of a spill is quite short, basically only during the migration period; therefore, effects are not likely to be significant in most instances. In most cases, the populations in or passing through this area that could experience oil-spill mortality are stable or increasing, and losses would be replaced.

L-0039.002

The EIS describes the probable effects in the unlikely event of a large oil spill (Section IV.A.4 and a very large oil spill (Section IV.I), and describes the decade-long persistence of spilled oil in Prince William Sound (Section IV.C.2.a(3)(b).)The assumed spill sizes in the Beaufort EIS are much smaller than the massive *Exxon Valdez* oil spill in Prince William Sound, because the use of tankers in the Beaufort Sea is not considered feasible.

L-0039.003

See Response L-0021.009.

L-0040

169 Wildflower Drive
Plymouth Meeting, PA 19462
September 2, 2002

RECEIVED
SEP 6 2002
REGIONAL DIRECTOR, ALASKA OCS
Minerals Management Service
ANCHORAGE, ALASKA

Mr. John Goll
Regional Director
Alaska OCS Region, Minerals Management Service
949 E 36th Ave., Rm 308
Anchorage, AK 99508-4363

Dear Sir,

While this letter is being mailed from Pennsylvania, it would be an error to assume that I have little knowledge firsthand of the area off the coast of Northeast Alaska. I have personally been on the Beaufort Sea from Demarcation Bay to Kaktovik, and have talked with persons who have traversed even wider portions of the northern coastline.

I remember a number of years ago attending a scientific presentation concerning attempts to clean up an oil spill from a wrecked tanker off the coast of Southern Argentina. While that spill had been ten years earlier, little could be done due to the cold, winds, and wave conditions. Standing on a spit in the ocean off the coast of northern Alaska, I can only imagine the horrors of trying to clean up an oil spill as the waves crashed on shore, and that was without any strong winds.

As I have discussed with others and experienced the many differences in short distances in ocean conditions, I find it abhorrent to think that Minerals Management Service has prepared a single plan that considers the entire coastline from the Canadian border to Barrow as a single area. That is a lot of coastline, and considering some of it abuts the Arctic National Wildlife Refuge, and portions adjacent to the environmentally sensitive Teshekpuk Lake area the lack of any consideration of the special circumstances of these two regions is appalling. .001

The Beaufort Sea lease sale 170 set the precedent for deferring leasing off shore of sensitive areas due to lack of information on the cumulative effects of exploration. The lack of information still continues.

We are a party to International treaties to protect the polar bear. Since denning areas on land are not uniformly distributed across the northern portion of Alaska, how can an EIS consider the entire region as a single piece? And as recently reported, the thinning ice off Barrow is having a potential serious impact on polar bears. Climate change and the effects on wildlife and the cumulative effects of oil exploration must be a part of the equation, yet this equation cannot be applied in a broad swatch across such a large area of coastline and adjacent ocean area. .002

MMS is planning to have three lease sales, but only one EIS. Yet, this covers approximately ten .003

.003

million acres. If there is one lease, then one EIS; two leases, two EIS's, etc. so that there are sequential EIS hearings just as there are proposed sequential leasings. This is how one gets an informed public and a full discussion of the issues involved.

I would be very interested in finding out how an oil spill clean up would be accomplished in such a severe climate. I suspect I already know the answer. Having one EIS cover such a large area is not the way to obtain proper answers to important questions.

As I approached a spit off the coast of northern Alaska, I noted that water was splashing higher than the height of the spit. As I stood on the ocean, the waves were only about three feet high with no wind. Recently, friends were on that same spit, and the winds were at gale force. An oil control boom would be of little value in conditions like that. However, the impact of an oil spill could be massive. Bird nests were on the spit, and a relatively fresh track of a polar bear when I was there. On an adjacent spit, several jellyfish had been washed up.

Tracks in the gravel indicated large tree trunks had been pushed over the spit, likely due to ice movement during break up. The shoreline is a very environmentally fragile area. If trees can be pushed over the spit, oil spills would have no difficulty breaching the spits and winding up on shore.

No, I must object to the idea of a single EIS covering such a large area of coastline, in regions that vary greatly in both topography, ocean bottoms, and wildlife potential.

Sincerely yours,

Robert Franz

MMS Response to Comment Letter L-0040

L-0040.001

See Response L-0002.016.

Although OCS areas are offshore of the National Petroleum Reserve-Alaska and the Arctic National Wildlife Refuge (both onshore Federal lands), there are approximately 3 miles of State waters between the shoreline and OCS jurisdiction. Oil-spill trajectories of spills in OCS waters are taken into consideration when modeling analysis of impacts to shoreline entities. The EIS analysis shows that impact probabilities will be minimal, if at all, to both the Petroleum Reserve and the Refuge.

L-0040.002

The EIS recognizes that polar bear denning areas are not uniformly distributed across the northern portion of Alaska, and that denning is more concentrated on the Arctic National Wildlife Refuge (see Section III.B.6.e - Polar Bears). The EIS recognizes the importance and sensitivity of the refuge and proposes deferral Alternatives V and VI that would defer leasing offshore of most of the refuge. Climate change-global warming would have catastrophic effects on polar bears and ice seals, if the polar pack ice continues to diminish over the next several years. It is very uncertain whether this warming trend will continue and, thus, this potential cumulative effect cannot be predicted in the EIS. If climate warming continues and the polar ice cap continues to disappear, the consequence and contribution of the Proposal to global warming would be insignificant.

L-0040.003

See Response L-0001.005.

VII.E Public Hearings and MMS Responses to Hearing Comments

The following are the transcripts from the Public Hearings in Nuiqsut, Kaktovik, Anchorage, and Barrow. Please note that two pages of transcripts are on a single printed page. The page number of the transcript is in the upper left-hand corner. After each hearing, the MMS responses to hearing comments are provided.

UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

OFFICIAL TRANSCRIPT -- PUBLIC HEARING

DRAFT ENVIRONMENTAL IMPACT STATEMENT
BEAUFORT SEA MULTIPLE SALE PROPOSED OIL AND GAS LEASE SALES
(SALES 186, 195, AND 202)

Nuiqsut, Alaska
Kisik Community Center
Wednesday, July 24, 2002
7:00 p.m.

00001
MMS PUBLIC MEETING

July 24, 2002

Nuiqsut, Alaska

00002
P R O C E E D I N G S

MR. NUKAPIGAK: In Native.

MS. L. AHVAKANA: In Native.

MR. NUKAPIGAK: In Native.

MR. STANG: Emily, can you give us a quick synopsis of what was said briefly.

INTERPRETER: Of what he was saying?

MR. STANG: Yes.

INTERPRETER: Okay. What Eli was saying was the introduction to what, where you came from and where you had specific instructions to go ahead and do with this lease/sale, if it's possible, and he mentioned that some of you came from Washington, D.C. and some of them from in other areas, BIA, BLM. So, he was introducing about where the lease/sale is going to be from Barrow to the border of Kaktovik to Canadian side. And then he asked Lucy Ahvankana to have an invocation.....

MR. STANG: Right.

INTERPRETER: .....and that's what she did.

MR. STANG: Okay. Thank you.

INTERPRETER: Yeah. That's what it was.

MR. STANG: Okay. Thank you. Well, good evening. I'm glad you came this evening. My name is, as Eli said, is Paul Stang with the Minerals Management Service of Department of Interior.

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INTERPRETER: In Native.
MR. STANG: We are here this evening to get your testimony and your statements and your expressions about the Beaufort Sea multi-sale EIS, or Environmental Impact Statement.
INTERPRETER: In Native.
MR. STANG: Thank you. We had a couple of copies, maybe about six or so copies on the desk there. This is the executive summary of that EIS. There is a light blue one that is translated into Inupiat. There were some copies of that and I believe some were sent out to villages -- were sent up to the village, but we've run out of copies in the back. I have one more here you're welcome to have. And also up there -- I don't know if we'll run out of these or not but -- we ran out of these? Yeah. This is a copy of the five-year program. If you want copies of these things, you can come up to us after the meeting and we'll mail them to you, but there were some sent to the village, so I guess Eli would be one who could check on that for you to figure out where those extra copies are. We also have the thick document, which George has here, which is three volumes, which is the full EIS, and that's what we're going to -- the focus of our discussion will be tonight. Ah, Eli has just brought some more out there.

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But first before we proceed, I'd like to introduce the members of Minerals Management Service who are here tonight. On my left is George Valiulis, who is in the EIS or the Environmental Impact office in our headquarters in Washington, D.C. area. On my right is Renee Orr, who is the chief of the Leasing Branch in Headquarters. And we also have Nathan, who is -- Hile -- who is doing our translation, and Albert Barros, right here, who is our community liaison, and Angela Mazzulo who helped you figure out what those maps were all about.
INTERPRETER: In Native
MR. STANG: Valiulis.
INTERPRETER: Valiolucas?
MR. STANG: Valiulis.
INTERPRETER: Valiulis.
MR. STANG: Good.
INTERPRETER: Okay. In Native.
MR. STANG: Angela Mazzulo.
INTERPRETER: Oh Angela. In Native.
MR. STANG: And Albert Barros.
INTERPRETER: Did I miss him? Albert Barros, you want to raise your hand? In Native.
MR. STANG: Thank you. What I'd like to do before anyone testifies is just to give you a little information about the lease/sale and the EIS, just a little

00005
bit. Not long.
INTERPRETER: In Native
MR. STANG: Good. The area that we're talking about, as Eli pointed out, is on the map in pink color. And if there's not a map there, there's a map here. In the pink color. And that area is the candidate area for leasing, and it extends from about three miles from shore out to 60 miles, nautical miles, from shore. And it is from 25 feet depth of water to 200 feet depth of water, generally speaking, and it is about 9.9 million acres. And it goes from the Canadian border on the east to Barrow on the west.
INTERPRETER: What was that, 25 feet, the depth?
MR. STANG: From 25 to 200 feet depth.
INTERPRETER: Okay.
MR. STANG: About 9.9 million acres.
INTERPRETER: In Native
MR. STANG: Thanks. Now we're doing the EIS a little differently this time. We have three sales that the Secretary of Interior scheduled in this document that was approved in June, and we are preparing one Environmental Impact Statement to cover those three sales. The first sale is in 2003. The second sale is in 2005. The third sale is in 2007. These are proposed sales.

00006
INTERPRETER: In Native.
MR. STANG: Thank you. After we complete the final version of this draft environmental impact statement, then we will hold the sale in September or so of 2003, and the decision will be made to hold the sale or to cancel the sale and to pick one alternative or the other. We'll talk about more of that in a minute. But, after that, before we hold the next sale, we'll do an environmental assessment and make a decision whether we need to a supplement to the EIS.
INTERPRETER: In Native.
MR. STANG: When we get any comments from you tonight, and last night we met with the members of the Tribe, and we got comments from them and we will meet on Friday night in the village of Kaktovik and then we have to come back on August 1st to meet with the village of Barrow. Any comments we get from you here tonight verbally, or these other meetings or in writing, we will consider in preparation of the final Environmental Impact Statement, and we will also consider them in light of the executive order on environmental justice.
INTERPRETER: In Native.
MR. STANG: Good. Thanks. When you send in your comments, or when you speak here, if you think this is a good idea for us to translate this executive summary into

00007
Inupiat, please let us know, as I think it's the first time we've done that, and if that's a benefit, we need to know and then we could do it at future EIS'. Along with these meetings, the public meetings, like this one, as I said, we're meeting with the tribes, and that's on a government-to-government basis.

INTERPRETER: In Native.

MR. STANG: Since 1979, we have held seven sales in the Beaufort Sea and we have issued 690 leases, and of those 54 are still active.

INTERPRETER: In Native.

MR. STANG: The lessees, the people who were awarded those leases, the oil companies, drilled 30 exploratory wells, but as of today, the only oil that's being produced from the Federal waters comes from Northstar, because some of the bottom locations of the wells are in Federal waters, even though the island of Northstar is in State waters.

INTERPRETER: In Native.

MR. STANG: The only other thing I want to say about your comments, and that is, you can give your comments verbally tonight, you can write them to us, and we have these sheets in the back. If you'd like to use these or any letter, the address is right on here. The end date for comments, we must receive comments by the 20th of

00008
September.

INTERPRETER: In Native.

MR. STANG: We are obviously making a transcript of this -- of everything you say, so we're having a record of that and will use that in our analysis, but the important thing is, when you come up to sit down at the table next to Emily, please state your name into the microphone so that when Nathan does the transcript, he'll know who was doing the speaking. So, with that, we can at this point -- I'd like to keep this informal so if you have questions of us, we'd be pleased to answer those, but our basic purpose is to come here and listen to what you have to say. So if anybody has any questions they'd like to ask, do so. Otherwise, I'd like to know who would like to testify first.

INTERPRETER: In Native.

MR. STANG: So who would like to testify first?

MR. LONG: I'll go first.

MR. STANG: Please, could you come on up Frank?

MR. LONG: I'm Frank Long, Jr., I'm member of Native Village of Nuiqsut and the vice-president. I'm also a member of the North Slope Borough Assembly and a member of the Alaska NANA Commission. My testimony tonight

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will be in regards of the lease/sale, which I will oppose. Due to the fact that we are the only people in the world that has culture and tradition. In the Lower 48, it's a big problem. They don't have culture. They don't have tradition, but they got stock market. When that stock market falls, I know a lot of you hurt. When you put something like this in front of me, it hurts. It hurts the heart. What if a drastic spill happen? Worse than Exxon did with 11,000,000 gallons. It will -- it's already affecting our seals, our fish our walrus. It may even have affect on the whale, which we subsist on yearly.

Other countries have the harder time on subsisting whales or any marine mammal. We have to go through IWC, which is, as far as I'm concerned, a foreign entity who tells me what the hell to do and I don't like that. We don't go to a different country from Alaska and tell them what to do, how to hunt, what to eat, where you should sleep, and why you should wake up.

I'm really heavy on this right now because I don't have a job. It indicates in there that there will be 600 jobs, but will a Native get any of those jobs. As of today, Natives have the hardest time of employing, when you can see a lot of employment all along. And this has been happening for years. We started very small in 1969 when we were inducted to the industry. I went in as a roust

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about. Came out a floor hand of a drilling rig, a chain thrower. And now today they're so automated that they hardly need anyone, even to make a connection on the drilling rig. When a drill pipe busts, it gets stuck in the bottom of the hole. You have to fish it out and it takes days to fish one little pipe, sometimes a week. Maybe they have a spill that will take longer.

If, today, Northstar has a drastic spill or accident, or nature decides to move it a little, what will the government do to help us? Are they going to give us some of this 1.5 billion dollars?

Thank you.

MR. STANG: Thank you. Frank. Would you like to translate?

INTERPRETER: In Native.

MR. STANG: Good. Thank you. Would anyone else like to testify now, please. Eli?

MR. NUKAPIGAK: Hello, good evening. My name is Eli Nukapigak from Nuiqsut, also representing city and North Slope Borough. I am preparing a (In Native) lease/sale for 2007. As the mayor and a council member for the community of Nuiqsut, we are honored to officially comment on behalf of the city office of Nuiqsut and the community. This common letter is in response to the five-year OCS leasing program that is currently in nomination of

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notice of intent to prepare an EIS and call for information.

The area of Alaska shore of what we would like to concentrate our input on and especially the area of Alaska's northernmost shoreline and offshore region, the Chukchi Sea and the Beaufort Sea. In contest, these waters have sentimental value to the marine mammal and the human environment coexistence continuously. Throughout, the shoreline of the Beaufort Sea is the human environment of Alaska Native and non-Native Alaskans who depend on the very subsistence resources flourishing in this region. The coexistence of the human environment and the marine mammal environment is maintained with our utter most care. The Native Alaskan population on the shoreline region of the Beaufort Sea share a common responsibility to share subsistence between the two environments.

As a result, our people exist with great pride in their ability to effectively manage the marine mammal and wildlife resources for generations to come. The Beaufort Sea and Chukchi Sea support plenty of activity in terms of subsistence hunting and fishing. The Native people who traverse the open sea and ice pack have a precious knowledge of an ever changing climate in the offshore area. Having that knowledge, the people know when it's safe to hunt and how best to travel the environment

00012
for a successful hunt. Just to know law and rule other aspects of renewed knowledge our people have followed for generations laws and rules which are observed and honored among Inuit environment.

Today, the indigenous population maintain these laws and rules in order to sustain the cleanliness of the waters. The providence of these natural habitat and the wildlife it supports and the human environment who are dependent on the providence of the water. The climate is predominantly cold and icy throughout the Beaufort Sea ad Chukchi Sea and for a period of time the sea ice gave way to very strong ocean water current. The Inuit people knew the power of this expanse and when it moved, it moved without any regard to anyone or anything. Whether it's natural shoreline or the man-made installation, be assured that the movement will damage and destroy when it contracts. It is everything that placing unnatural material into the sea does not hold very well, too well, when the ice is on the move unpredictably.

The people who live their lives from that expanse are the testament of this and we advise you to take this into account when considering oil and gas prospects of these shores. During the long winter months on the Arctic Slope, wildlife is still present and surviving the elements. The Inuit People of Alaska, Arctic Slope,

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customarily face each winter and summer on hunt in accordance with the ever changing elements. And traditional knowledge and rule obtained by our ancestors as the short summer of Alaskan Arctic Slope Inuit subsistence hunting.

Having to take advantage of this time and year across the region of the Beaufort Sea. Summer in this region is sufficiently for wildlife, whether they are land-faring mammal or seafaring mammal or water fowl. The ecosystem of the summer Arctic climate supplement the different species of animals with dietary needs, particularly, for each species. The Inuit people of Arctic Alaska take every opportunity to have -- to fill their winter cache during the short summer months as winter approach. The Inuit people work lengthily to ensure that their caches are full enough to last them most of the winter. In the Arctic summer climate, wildlife is further offshore than inland of the Beaufort Sea and Chukchi Sea. Wildlife such as waterfowl, caribou, polar bear, brown bear, moose, musk ox, reindeer, ground squirrel, fox, seal, walrus, wolverine, wolf, beluga whale, (In Native) fish of various choice, crab, clam, shrimp, bow head whale, and a number of other species of wildlife. The Inuit people of Alaska and the whole upper circle farther of Canada, Greenland and Russia depend on all the animals.

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The animals in their habitat provide foot to sustain life during the long cold winter season. Coexistence of the marine and non-marine mammal in the human environment in everything is vital to eat. And as we depend on them, they depend on the care that we provide for them and their habitat. It is our opinion, Inuit Eskimo, to ensure the plenteous environment for mankind and for wildlife. A clean, natural manner of maintaining the environment is the Inuit Eskimo uttermost approach. The clean and natural manner is the only way the Inupiat people believe is effective. This kind of environment has proven to be sure process in which all living beings benefit without unnatural cost of this kind of conduct.

Marine mammals of the Beaufort Sea and Chukchi Sea are especially important. Not only in their own habitat, but also to the Inuit Eskimo population for as long as it can be recalled. The Inuit Eskimos have hunted for whales, seals, polar bear and fish, walruses, other organic creatures since the people first journeyed over the land bridge of the Beaufort Sea. Our marine mammals in their habitat are vital to the folk of the Inuit. The Northern Inuit of Alaska especially esteem the bow head whale. The bow head whale, with its size, when it's harvest right for the community the food necessary to sustain the people traditional diet and nourishment.

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The arrival ice break up in the Beaufort Sea and Chukchi Sea, the Inuit ready themselves and all their traditional hunting tools for the harvest of the mighty creatures. The careful work to prepare for endurance is a combination of community corporation and our selfish desire to move forward for the health of the community. Our knowledge of oil and gas industry settlement in these waters will undoubtedly disrupt the percent of the cycle of each environment mentioned here.

Even though this other shares most of the -- most on subsistence ecology. based on our traditional knowledge, we encourage you to continue listening to the Inuit people who exist here and keep this account. This environment of the far north, during the EIS, on the proposed lease/sale. As evident, we are not in favor of lease/sale proposed for Beaufort Sea proposed 2002-2007. Permitting oil and gas efforts in these waters would only cause intense friction between the entity and the residents of Arctic Alaska.

Thank you.

MR. STANG: Thank you Eli.

INTERPRETER: In Native.

MR. STANG: Thank you Emily. Thank you very much and I appreciate your providing that testimony, Eli. Who else would like to testify now? Please. And if

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you would state your name please?

MS. HELMS: Hi. My name is Sarah Helms. Is this on?

MR. STANG: Yes. It turns out that's only being heard by Nathan, so.....

MS. HELMS: Oh okay. My name is.....

MR. STANG: .....you'll have to either speak up or use the microphone, whichever you prefer.

MS. HELMS: Okay. My name is Sarah Helms. My maiden name is Taliak and I'm originally from here and I work for Nanook, Incorporated, a subsidiary of Kuulpik Corporation. I wanted to bring up a training program, you know, that could be some good opportunities for the communities. If you're going to have a bunch of jobs, you can have the communities go through some training so where they can actually be part of working for your company. Look into something like that because most of the communities, they don't have too much training -- go for just laborers. You could have people go as technicians or any kind of other long-term job. I think that would be something really good to look into.

I do human resource for Nanook, Incorporated and I try to find qualified people from the villages and it's kind of hard when they don't have the proper training and it's pretty frustrating when you're

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trying to get people to work. I think that would be a good connection with the communities. We could work very closely with the village corporations or the North Slope.
That's all. Thanks.
MR. STANG: Thank you. I would like to mention and I think it was about two years ago, roughly, that BP was here in Nuiqsut talking about the Liberty Project, which has temporarily been put on hold. But they committed to -- and I don't know the status of this at the moment, but they committed to a $3,000,000 training program for North Slope residents. So it might be prudent for you to contact BP and ask them how the program's going and how you can get a little help here. That was a very clear commitment on their part publicly.
INTERPRETER: In Native.
MR. STANG: Thank you, Emily. Who else would like to testify please? Please. Thank you, Joseph.
MR. AKPIK: Good evening people of Nuiqsut. My name is Joseph Akpik and I want to welcome Paul Stang and your committee and George. Welcome to Alaska. Renee, also your staff here. I wanted to thank you on stressing and addressing the Environmental Justice Executive Order 12898 as ordered by President Clinton during his early era. But anyway, I would like to thank you again for addressing that. What I would like to see is to follow-up on that

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environmental justice in relating to this Beaufort Sea for this proposed lease/sale. How are we going to follow-up on that environmental justice, is one of my questions I would like to see before the evening is over. What does it mean, environmental justice?
And I do believe if we can follow-up that

then I would be pretty much agreeable with this proposed sale, but right now I would strongly oppose any offshore exploration due to the fact that the majority of our people, I do believe, are opposed to the sale. I would like to stress.
I wish to thank you again.
MR. STANG: Okay. Thank you.
UNIDENTIFIED MALE: In Native.
MR. STANG: Joseph, before you go, I will try to give you a partial answer to your question, if you'd like. Would you like that at this point?
MR. AKPIK: Yes, I would like to be addressed to the public here with the interpretation. I'm glad that Emily Wilson is here to interpret on some of these vital issues that we need to hear before the evening is over, especially to that environmental justice.
Thank you.
MR. STANG: Okay. In a nutshell, there's kind of two parts to the environmental justice issue. The

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first part is, is the project going to effect a minority or low income population in some disproportionate way? That's the question. And the other part is, will these be high adverse effects. So there's kind of two questions. I think that we have agreed that if there are effects here that Nuiqsut would be a minority and/or low income population. I think the minority population. The Inupiats are a minority population in the United States.

MR. AKPIK: Exactly.

MR. STANG: So, I think that, if you have, there's kind of two parts to this. George is our resident expert in headquarters, so he's going to correct me or add to what I say. Then the next question -- so you have a kind of yes to one of those. The next question then, is the effect high and adverse? At this point, we don't think that's the case as we see it in the Environmental Impact Statement.

Now, I'll tell you the reason for that. We have certain scenarios that we use when we do an environmental impact statement about what affects might occur. No one really knows until any development proceeds, so you do the best educated estimate that you can make. Let me stop right there for a minute to have Emily give that piece and then I'll give you the second part of what I'm going to say.

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INTERPRETER: I'll do my best. In Native.

MR. STANG: Okay. Thank you.

So, what we had was the question, do we have disproportionate affects on a minority or low income population and I said I believe that that's the case. The next question is, would those disproportionate affects be high and adverse. I don't think that's the case and I'll tell you the rationale behind it. We see basically two kinds of affects from offshore oil and gas. These are affects from what we call permitted activities. For instance, in the case of exploration, it's the drilling of an exploration hole. In the case of development, it's the building of an island and the drilling of the wells and laying of pipeline to shore. Those are permitted activities.

The company asks for a permit and the Federal government, if it passes all the rules, gives a permit. Same with the North Slope Borough. They issue a permit. We don't believe those affects in themselves are high and adverse. Now, question about an oil spill. If we expected an oil spill to occur, then I would think then we have an issue that we really need to deal with on environmental justice. But when we look at it, the best information that we have available and that we have presented in the EIS, is that we think that the probability

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of a large oil spill, now, I'm not talking about a small spill, but a large oil spill, the probability of that occurring is fairly small. And, therefore, we've talked with our lawyers about this particular provision of environmental justice, and we think that it doesn't meet the requirement of high adverse. That is, we don't expect that to occur.

Now, personally, and this is not Department of Interior speaking or MMS, but myself, personally if there were a spill then we would have to re-look, in my mind, at this provision. Let me ask George what, if anything he'd like to add to that.

MR. VALIULIS: Environmental justice, although it has been around since 1994, has really become prominent in the last few years. Likewise, in our environmental impact statement, especially in this one, you would find that we treat that quite prominently. The purpose of the Environmental Impact Statement is to provide information to people and ultimately to the decision-maker, so that person can make a proper decision. And what that executive order says is, when you provide that information, you have to specifically address environmental justice. Environmental justice, simplistically, says everyone has to be treated fairly and especially the minority and low income folks. So, we have done our job in making the

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analysis. Paul has indicated what our findings are in the draft EIS.

I think that's all I have to say so far.

MR. STANG: Okay. Let's let Emily.....

MR. AKPIK: Thank you very much, Mr. George, Joseph again. I do believe I want to stress strongly on this a little bit further that environmental justice orders tends to identify subsistence consumption.

(In Native)

If you can correct me on that, George. It says that executive order identifies subsistence consumption.

MR. VALIULIS: Right. That's the key here.

MR. AKPIK: Whatever we eat is something going to poison it?

(In Native)

That's all I have, thank you very much

MR. STANG: Thank you, Joseph. Can you.....

INTERPRETER: I think he.....

MR. STANG: Did he.....

INTERPRETER: .....explained that in Inupiat.

MR. STANG: He explained that.....

INTERPRETER: Yeah.

00023
MR. STANG: He explained what we said?
INTERPRETER: Yeah.
MR. STANG: Okay, good. Thank you.
INTERPRETER: Except for George's comments.
MR. STANG: Do you want to add those?
INTERPRETER: Yeah. Let me add them.
(In Native)
MR. STANG: Thank you. Thank you very much. Ruth would you please address us?
MS. NUKAPIGAK: Yeah
MR. STANG: Thank you.
MS. NUKAPIGAK: In Native.
MR. STANG: Thank you, Ruth. Emily if you could, for the record, give her first and last name.
INTERPRETER: Summary, yeah. My name is Ruth Nukapigak and I would -- this has been talked over several times before. The ones that have come here several times before and how many times the oil companies have come here to talk to us about this similar thing. The Inupiat people subsist on wildlife animals and oil and gas is all over here and they have had lease/sale before and where does the money go and where do they spend it? She had a question.
The ocean has plenty of wildlife that we subsist on. Several years ago, even before our time, our

00024
people survived on animals and wildlife and they help each other and this is how they survived within the environment. There was no oil and gas. There was nobody to bother them or anything like that. No lease/sale. When it comes to lease/sale she watched T.V. and watch everything. She is very curious about what they're going to do on how the oil spill was that had been done in waters. It killed all the wildlife and she has seen this on T.V. and the oil spills has happened in the ocean and that all of these has happened ad she had watched them on T.V. Now she knows that the drill rig is coming to Cross Island with Thomas Nukapigak, he's traveling with them and supposed to be planning to go to Cross Island for this.
They're waiting for that. Seal Oil Island [sic], they had visited several years ago and Seal Island is so far away from the land. There were several of them that went there. She looked at the pipes that were put onto go to the depth of the sea and to the gravel down below. It was about 30 feet deep where they were excavating gravel from down below. And then the water and onto the land at the bottom of the sea they were extracting small gravel they had seen. It's very small. She wondered how, you know, when you are excavating some gravel it spreads all over, the gravel does. It spreads everywhere. Maybe that's why there was so small proportion of it that

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came up. And then she knows that the gravel spreads a lot when you are disrupting it from the bottom of the sea.
And then there was ice that was cracked after they had done that. Then Nuiqsut experienced not many fish that time. For the summer they didn't come in very much and there was very small fishes that went through. She thinks about how they worked on this. Seal Island is small and they put a barrier off the -- to keep off the ice pressure ridges and they put steel over that so that it wouldn't hurt the island and it would block the ice pressures that were crumbling up. They said they were sure that was going to happen.
How is that effecting the hunting. How does it effect the Inupiat people? It would have to have an impact on the hunt -- the animals that they hunt. They survive on seal oil and with no jobs Inupiat people can survive on wildlife. However, when you try to buy something from the store it's very expensive and the person who is managing -- the manager or who is heading that, eats very good from the store and their food is very inexpensive. Here we have to get a lot of expensive food brought in and it's very, very hard. It's kind of a hardship buying the food from the store.
In lease/sale who is going to keep the money and where did it go? Do the Alaskans have it? The

00026
different wildlife will change by lease/sale. They will have to put pipes in and she mentioned again the T.V. and killing off the animals and different kinds. The pipelines are visible here at Nuiqsut. Several years ago they had no experience with any pipelines but nowadays it's surrounding Nuiqsut. She has one concern. She has a concern of the two rivers when the fish did not come in. It was the Sisco fish that they didn't catch very much of and that kind of lacked fish for the winter.
When the seismic people do seismic in the area and the environment, they spread wires all over looking for oil, indication of where it would be. Sometimes they have to pull all of these wires up to get to their rooms where they were staying and that's how bad it was.
And then she wants to mention the caribous were killed off so many of them. How did they -- who killed them? How did they die? Nobody knows about this. And then she had seen the one caribou that curled up and died. What happened to that? How did it die? We do not have the luxuries of eating in the good place, nor can we afford them. Oil and gas is surrounding us but, however, the Inupiat have been patient and they're waiting and sometimes they don't say anything. We value the jobs, but we value more of the wildlife animals that we subsist on.

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I welcome all of you for coming to Nuiqsut. I want to talk right, however, things are changing within our lives. I am opposed to the lease/sale if it's going to disrupt our Inupiat way of life.
MR. STANG: Thank you, Emily. Ruth, I think -- is Ruth still here?
INTERPRETER: Yeah.
MR. STANG: Oh, there you are. I'm sorry. I can answer one of your questions about the money and where does it go. The money that comes from these lease/sales, that we collect from the oil companies, for the, what we call up front payment and if there is subsequent royalties and there are rentals, that money goes into the general treasury of the United States, and that then can be appropriated as the Congress sees fit. If a tract is between three and six miles from shore, then 27 percent of those receipts go to the State of Alaska, but as I understand it, at this time, the State does not pass through any of that 27 percent to the communities of the North Slope, but uses it into their general receipts in the state. So, that's, at least, what happens to the money that comes to the Interior Department from the oil companies.
INTERPRETER: What did you mention about three miles?

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MR. STANG: Any tract that's between, I'll show you. Any tract that's from this line, which is the jurisdiction between State and Federal. State is on this side, Federal waters are on that side. From that line out three additional miles. So it's that band, the first three miles of Federal waters. Any receipts that we get from tracts in that area, 27 percent of that goes to the State. But beyond that, so somewhere out here, all of that money goes to the Federal government.
INTERPRETER: In Native.
MR. STANG: Thank you, Ruth. Anyone else would like to testify at this point please?
INTERPRETER: Sarah.
MR. STANG: Oh, Sarah. Sitting right there in front of me.
INTERPRETER: Yeah.
SARAH: My name is Sarah Kunaknana. In Native.
INTERPRETER: My name is Sarah Kunaknana. I would like to comment and I have made this comment before and she thinks about these things. At the ocean, the current is very strong and she has said this before. It will destroy anything when it starts going and it starts moving, it can destroy anything because the winds and currents are now in control when it does that. Damage to

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some people, some animals, some -- it doesn't have any -- it can damage anything that is in the way or something. The environment. It damages the environment and wildlife and seeing dead seals after the wind storms and stuff like that. They have seen seals that were beached to the shore and she has seen this several times at Cross Island and Flaxman Island is also where they had lived. Inneslaw [sic] Island and we hunted in this area with parents. The parents that they had, they prepared food, the meat that we hunted and they make the seal and make pokes into them and preserve the meat this way, with oil in it.

And only the boats come in only in the summertime. The Inupiat hunt in land, at sea, and animals and then they trade the furs when the boats come in summertime and this is when they get some of their grubs and stuff like that. They had this in the -- they had experienced this about two times doing some trading. Father bought a boat one time with a small engine and then their food was plentiful then and then they were able to come up with food for the winter.

Herding the reindeer for furs and meat was preserved. During that time there was hardly and herds of reindeer, but they do come around. They dry the seal skin, they do it the hard way and then they make it into ropes and then they use it for clothing and the seals have holes

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but they're not very big. They make nets and they put it in the water and they catch seals this way. This way they save some bullets for the guns. They didn't have to purchase any bullets for when they are trapping or when they are fishing this way with nets.

The meat is shared with the community and whoever is in need and they use some of it for trading. The first thing they do is feed the poor because there is no way -- they might be poor because they were unable to go or they might be sick or something and then they just don't look at poor people. They share what they have. In spring time the Arctic chars are very plentiful then. And this is how they -- they have fish for those and they hang these fish for drying after cleaning them and store them in ice cellars. They're very easy to store. They store them in the ice cellars. This is how they prepare for the winters.

And inland they do hunting but by trapping. It's almost the same thing. They take care of everything that they have caught by hunting. Her testimony is a

little bit different, but they are having a hard time at present. No jobs and no meals to eat at the table. This is very hard when the children are involved and they're hungry. She is involved with children from eight years on up and up to 17 years of age. They take them out camping and then they try to continue with traditional -- how they

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can prepare. They teach them how to fish and how to take care of them or any other animals they get. They teach them how to cut it and how to preserve it. Where she was in the tent was with girls. They have curfew at midnight. They encourage them to speak Inupiat and how to take care of the fish. At first they had a hard time but now they learn a little bit and much better towards the end. But this past year has been very hard. She has heard that the children were hungry. Without jobs it is hard to try to feed the children at present. She's trying to -- it's a little bit different from what she had, but this is what she has come up with. They survived by dog team several years ago and they didn't have to try to fix up the snow machine or anything like that. They don't have to buy anything. They just feed the dogs and then they use them for manpower in this way.

MR. STANG: Good. Thank you very much, Sarah. I appreciate your testimony. Yes sir?

MR. KASAK: Yeah, my name is David Kasak, Sr. They going to work on that drilling site on the ocean.

In Native.

INTERPRETER: His name is David Kasak, Sr. He has worked in a drill site, I mean on the drill site and you guys are going to work on the drilling site on the

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ocean. He has worked for ARCO at Prudhoe Bay and the caribou at that time were coming in and the truckers had to stop to make them go on their way. On one of these routes, one of the caribou had rabid and it became -- there was nothing they could do but only the one that can kill that was a policeman with guns. So this happened on land and one of the caribou had contacted the rabid disease and stuff like that. So, this was at the time when he was working at least that they were there and now he says that there won't be anybody down there to look out for these kind of things when there's a drill site going on the ocean.

He said that's all he has to say.

MR. STANG: Thank you, David. Thank you very much. Anyone else would like to present some testimony or viewpoints? Geoff?

MR. CARROLL: My name is Geoff Carroll. I work for the Alaska Department for Fish and Game, but these are just kind of my own comments. I didn't show up here with a good organized presentation I just happened to be in town for other reasons and came to listen in to the meeting.

In past years I did attend a fair number of these MMS meetings in relation to offshore development and kind of my duties have changed and I work more with land

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mammals now and I haven't been attending them regularly. But it sounds like things haven't changed dramatically since the past years. I kind of hear the testimony that people are very much afraid of oil spills and the impact that that's going to have on marine mammals and their way of life and for that reason they are quite opposed to offshore development.

It's stated in the summary that -- it almost discounts the chances of an oil spill. Chances of an oil spill, because of current technology and everything, are quite slight, but I don't know, we all still have vivid memories in our minds of the Exxon Valdez oil spill and what havoc that reaped and it's just a good illustration that even though the chances are very slight of an oil spill, it can very well happen. Just common sense tells us that even though for any exploration or development project, the chances of an oil spill are very slight when you start having more and more and more of these, which seems to be the direction we're going, we see more development every year and more proposals for development, that you start adding these up and eventually it adds up to the point that at some point there is going to be an oil spill out here.

I think it's quite clear to just about everybody that there is really no method for cleaning up an

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oil spill in the Arctic at this time. Even under good conditions, or relatively good conditions in Prince William Sound it took a long time to clean that up and start the recovery from that. In the Arctic, I don't think there is any evidence that there would be any reasonable chance to clean that up at all. So I feel that until there is a good method of cleaning up an oil spill in the Arctic, or until you can say that there's absolutely no chance for a spill that the leasing and the following exploration and development should not occur.

I know people have been saying this for many years at almost every meeting I've attended, the great majority of people get up and say that they don't want to have the leases continue, but for economic reasons and other things, they always do. So I assume that will be the same situation here that this lease will go ahead. If it does occur, I'd recommend that the Barrow, Nuiqsut, Kaktovik, and the eastern deferrals be incorporated to protect important hunting and feeding areas for bow head whales.

As I said, I'm not much of a whale biologist anymore, but I do spend a lot of time working with caribou and I'd just like to disagree with one statement that I saw in the summary concerning caribou, about the effects on caribou. Basically it said that

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possibly small numbers of terrestrial animals could be affected by offshore development. Like, last week, we had some very warm weather and it was just about the entire Central Arctic Caribou Herd and the Teshekpuk Caribou Herd moved up to the coast, as they do during warm weather for insect relief. I mean, many of them almost become marine mammals. They're out there wading up to their chests in water to get away from the bugs and they are just literally lining the beaches. Certain circumstances, if there was a big oil spill and it did end up along the beaches, I think that there's a possibility that it could have a considerable affect on a lot of caribou. I think that's understated in the summary.

That's about all I have to say for now. Thank you.

MR. STANG: Thank you, Jeff. Thank you very much. I appreciate your coming.

INTERPRETER: In Native.

MR. STANG: Thanks again, Jeff. Does anyone else have something they'd like to say at this point?

(No audible responses)

MR. STANG: While you're thinking about that, let me mention something that came up last night, and came up here a couple of times today. And that is concern

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about the Arctic Sisco. I had asked, Keith Coles who heads our science group in Anchorage to give me a little update on what's going on with Arctic Sisco, so what I'd like to do is read that to you because it's in partial answer to what Bernice is was asking about last night. We understand clearly that the Nuiqsut villagers are concerned that ice roads affecting salinity, drilling mud spilled underground during construction of alpine pipeline could be entering the river or other activities that have effects on the abundance of Arctic Sisco. Very low returns of fish the past five years have accentuated these concerns. Other factors that could affect Arctic Sisco populations include, but are not limited to, factors effecting recruitment at the McKenzie River, changes in the channel of the Colville River, and hence the distribution of fish available for subsistence use, fishing practices and harvest, and possibly the cumulative affects of offshore and on shore related development.

In light of that, and our understanding and we're hearing from the villagers concerns about the Arctic Sisco, we have had a study proposed, and it's been ranked very highly by our office. The study's entitled "Analysis of Variation in Abundance of Arctic Sisco in the Colville River". We expect that to be funded for FY03. We don't have a final decision yet, but we're pretty well expecting

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that to get funds. The first phase of that will include meetings with individuals, meetings of individuals in traditional and scientific knowledge about this species to help further design the topics. In the first phase we'll be talking with the Inupiat community about this issue to help define it more closely. We expect that that could start -- the fiscal '03 starts October first, so we would be working in shortly thereafter on that.

There is also another study that is ranked fairly highly and that's "Locating Overwintering Fish Habitat in the Colville River and Beaufort Sea". Finally, our region's fisheries oceanographer has been participating in the North Slope Borough sponsored Arctic Sisco working group and will continue working and coordinating the North Slope Borough on this issue. So, I just wanted to let you know that we heard what people have been saying here about Arctic Sisco for some time, and I think we're going to translate that into some studies that we hope will be useful in trying to assess the nature of the problem with Arctic Sisco.

INTERPRETER: Where is that?

MR. STANG: I have it here. I'll give it to you. Just a second.

INTERPRETER: Thank you. In Native.

MR. STANG: Thank you, Emily. So, Eli, if

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you could pass that on to Bernice that information and also apologize for me that, she was correct. We are in the field now studying and she observed that we weren't. But we hope to be in next fiscal year.

INTERPRETER: In Native.

MR. STANG: Thank you, Emily.

INTERPRETER: Uh-huh.

MR. STANG: Anyone else have any testimony that they would like to give or questions or any issues you'd like to raise?

(No audible responses)

MR. STANG: Well, hearing none, I want to thank you all for coming, and I want to thank you, Emily for doing such a wonderful job in your testimony. We certainly appreciate it. It was a very valuable service you provided tonight. We want to thank you.

INTERPRETER: You're welcome.

MR. STANG: Thank you, Mr. Mayor for arranging the meeting and setting everything up for us. We appreciate that. Thank you so much.

(Off record)

(END OF PROCEEDINGS)

C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Mineral Management Service Hearing was electronically recorded by Nathan Hile on the 24th day of July 2002, at Nuiqsut, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 26th day of August 2002.

_____
Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 4/17/04

MMS Responses to Nuiqsut Public Hearing Comments

PH-Nuiqsut.001a

The EIS assesses the effects of large oil spills in Section IV.C and the effects of very large oil spills in Section IV.I. However, the use of tankers is not proposed for the Beaufort Sea lease area, and the EIS does not assess the effects of a massive tanker spill such as the *Exxon Valdez* spill.

PH-Nuiqsut.001b

The 600 jobs (Table IV.C-2) are forecast during development. Table IV.C-2 indicates that these 600 workers will reside in Southcentral Alaska and Fairbanks. The numbers of forecast workers from Sale 186 who reside in the North Slope Borough are in the first three rows of Table IV.C-2. The text in Section IV.C.10 in the next to last paragraph under subsection "b" addresses the question of the number of Native residents of the North Slope Borough who might obtain work as a result of the lease sales proposed in this EIS. Mr. Long explains his personal work history in the oil industry, which we have summarized in Section III.C.1.b (4) - North Slope Oil-Industry Employment of North Slope Borough Resident Natives.

PH-Nuiqsut.001c

The government addresses compensation through two methods. Under the Oil Pollution Act of 1990, all operators in the offshore, whether in State or Federal waters, are required to get insurance policies, post financial bonds, or otherwise demonstrate that they have sufficient assets available to mount a spill-response effort and then pay for cleanup of the oil and restoration of the environment. The MMS is the Federal Agency designated to ensure that these Oil Spill Financial Responsibility documents are in place before allowing offshore drilling activities to proceed. Should a spill occur, these financial assets are made available to the U.S. Coast Guard should the responsible party decide not to take action.

The second method of paying for oil-spill-response activities and compensating people for damages caused by an oil spill is the Oil Spill Liability Trust Fund. The Fund was established under the Oil Pollution Act of 1990 to cover costs that responsible parties were unable to pay, or to pay for response efforts when the spiller cannot be identified. The fund was created through a nickel-a-barrel tax on crude oil production in the US. The fund is managed by the U.S. Coast Guard and is immediately available in the event of a spill. The fund is maintained at $1 billion dollars and should the fund be entirely expended in an incident, Congress can take action to add additional funds to continue spill cleanup and environmental restoration.

Once a spill occurs and if the responsible party is not responsive in paying claims for compensation for damage to equipment, property, and loss of income or subsistence hunting/gathering opportunities, the Coast Guard is then authorized to make payments to people and organizations that can demonstrate a loss. The National Pollution Fund Center (operated by the Coast Guard) will assist people in preparing and filing claims for compensation for damages.

PH-Nuiqsut.002

The MMS acknowledges the commenter's detailed knowledge of the region and of regional subsistence resources and practices and the dependence on these resources by the people of Nuiqsut. See also Response PH-Katovik.049. The MMS respects and incorporates the traditional knowledge of the Inupiat into its planning process. See Response L-0006.005 for a more detailed discussion of traditional knowledge. The MMS believes that it can effectively mitigate oil and gas activities in the waters off Nuiqsut. For a more in-depth discussion of mitigation, see Responses L-0001.009, L-0002.008, L-0002.011, L-0002.014, L-0034.019, L-0034.023, L-0034.024, and L-0034.026.

Section III.A.4 discusses sea ice and what the impacts are when it moves.

PH-Nuiqsut.003

Ms. Helms makes important points about job training, which we have added to Section III.C.1.b(4) - North Slope Oil-Industry Employment of North Slope Borough Resident Natives.

PH-Nuiqsut.004a

For a definition of Environmental Justice and a discussion of mitigation that is proposed to address Environmental Justice concerns, see Section IV.C.16. See also Responses L-0034.019, L-0034.023, and L-0034.024.

PH-Nuiqsut.004b

See Response PH-Anchorage.042.

PH-Nuiqsut.005a

Section III.C.1 Economy explains the history of collection of or rents, bonuses, royalties, escrow funds, and settlement payments collected by the Federal Government from OCS leases. Most funds to the Federal Government and the State of Alaska go to the Treasury and General Fund, respectively, and are not allocated to specific programs.

PH-Nuiqsut.005b

The equipment for spill responses is described in EIS Section IV.A.6. The equipment includes skimmers, containment booms, and collection pumps. The section also describes the ongoing research on spill responses.

PH-Nuiqsut.005c

The effects of pipeline dredging are assessed briefly in EIS Section IV.C.1.a(2) and are assessed in detail in the Liberty EIS (USDOI, MMS, Alaska OCS Region, 2002), which is referenced in this EIS. The Liberty EIS conclusion was that coarse sediment would settle to the seafloor very near the trench, but that a plume of fine suspended sediment would drift several miles. There is no known direct correlation between gravel settlement and the abundance of fish in an area.

PH-Nuiqsut.005d

This EIS assesses the potential effects on subsistence harvest. We recognize that some households on the North Slope have higher cash incomes than others. For an analysis of these issues, see Section IV.C.11 - Subsistence-Harvest Patterns and IV.C.16 - Environmental Justice, respectively. We answer the question regarding lease-sale money in Response PH-Nuiqsut.005a. In the Cumulative Effects section, we analyze the spread of the oil pipeline system on the North Slope, especially as it nears Nuiqsut (see Section V.C.11 - Subsistence-Harvest Patterns).

PH-Nuiqsut.005e

To the best of our knowledge, pipelines have no measurable effect on fish populations other than during the construction phase. During construction, fishes generally avoid the immediate area where pipeline construction is occurring but quickly reenter the area following that period.

PH-Nuiqsut.005f

Ocean-bottom cables would disturb seafloor organisms, as discussed in EIS Section IV.C.2.a(2). The section explains also that ice keels disturb the seafloor.

PH-Nuiqsut.005g

Most of the caribou herds on the North Slope have been increasing in recent years except for the Porcupine Caribou Herd on the Arctic National Wildlife Refuge. This herd has been on the decline in recent years due to adverse weather conditions and low calf survival. The MMS is not aware of any oil-industry pollution or activity that has or would cause the direct mortality of caribou. Individual caribou may die from diseases that are part of the natural environment. It is possible that some caribou could ingest soil or plants that were contaminated at old drilling-mud and -cutting reserve pits on the North Slope oil fields, although there is no evidence to support this suggestion.

PH-Nuiqsut.006

The MMS appreciates the commenter's vast knowledge of currents, winds, marine mammals, and the long history of regional subsistence practices. We agree that the winds and currents can be strong at times in the Beaufort Sea. Recent measurements in Stefansson Sound have recorded currents greater than 100 centimeters per second. We also appreciate the problems that sometimes arise when subsistence food is not available during certain seasons. We also acknowledge that jobs are scarce in the smaller North Slope communities. Although the MMS, as a Federal

Agency, cannot require local hire, we do encourage the oil industry to vigorously pursue it. It is our understanding that the Alpine Project has provided some new local employment.

PH-Nuiqsut.007

Rabies is a natural disease that is common in arctic foxes and in wolves. Oil workers are instructed to stay away from these animals and to not feed them. The same would be true for diseased caribou. This concern is not likely to be a problem out in the ocean except for potential encounters with polar bears. Oil workers are instructed to avoid encounters with polar bears. The oil industry requires oil workers to follow specific guidelines when working in polar bear habitats. These measures are expected to prevent any adverse encounters between oil workers and polar bears and other wildlife in the Arctic.

PH-Nuiqsut.008a

See Section IV.A.4 - Oil Spills regarding the chance of an oil spill occurring. The commenter is correct that as more development occurs, the chance of a spill occurring increases. The cumulative case in Section V looks at the issue of increasing development and analyzes future development and the impacts of oil spills.

PH-Nuiqsut.008b

See Response PH-Barrow.004.

The MMS has considered the environmental effects of an oil spill and has factored this into the deferral options offered for the Secretary of Interior's lease-sale decision process. The various deferral options are discussed in Sections II.D through II.G.

PH-Nuiqsut.008d

The large spill assumed in the EIS is either 1,500 barrels or 4,000 barrels. Such a spill is not likely to oil hundreds or more caribou, even if they are concentrated along the coast (the caribou are more likely to be on land rather than in the water). Much of the oil from the assumed spill could oil shorelines where caribou are not present. Caribou and other ungulates that frequent coastal areas are not known to be particularly vulnerable to oil spills. Only animals that swim offshore in open water are likely to be come oiled enough to be adversely affected by the spill. Caribou generally wade in the water along the coast and do not swim offshore. If the caribou move out on the shorefast ice (as they are known to do the spring-early summer), they are not likely to be come oiled. Spill-cleanup activities could include hazing to keep the caribou from entering oiled waters. Even if some caribou are oiled, there is no direct evidence that mortality would occur. There was no evidence that the *Exxon Valdez* oil spill that extensively oiled beaches in Prince William Sound had any effect on the Sitka black-tailed deer that frequent the coastal beaches during the time of the spill.

UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

OFFICIAL TRANSCRIPT -- PUBLIC HEARING

DRAFT ENVIRONMENTAL IMPACT STATEMENT
BEAUFORT SEA MULTIPLE SALE PROPOSED OIL AND GAS LEASE SALES
(SALES 186, 195, AND 202)

Kaktovik, Alaska
Quargi Community Center
Friday, July 26, 2002
7:00 p.m.

00001

MMS PUBLIC MEETING

July 26, 2002

Kaktovik, Alaska

00002

P R O C E E D I N G S

(On record)

MR. STANG: Maybe this is a good time to start. First I'd like to thank you all for coming. We don't need to translate I trust, and if you do need translation, Suzie's here to help when, and if you do. The purpose here is to have a meeting to discuss and to hear your testimony on a lease/sale EIS, Environmental Impact Statement, Draft Environmental Impact Statement for three lease/sales. One schedule for 2003, one scheduled for 2005, and one scheduled for 2007. We are from the Minerals Management Service in Anchorage and in Herndon, Virginia, which is our Minerals Management Service headquarters. My name is Paul Stang, S-T-A-N-G. I'm the regional supervisor for leasing and environment here in Alaska. On my left is George Valiulis, who is the key person in headquarters for the environmental impact issues and statements and assessments for Alaska. On my right is the head of the leasing division in headquarters. Why don't you say a few words, Renee, and then we'll introduce the other people.

MS. ORR: Okay. I'd just like to say what an honor and pleasure it is for me to be here tonight to actually hear from you what your questions and concerns are about the proposal. It's quite a different thing to be able to actually hear from you all personally and see

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Kaktovik, rather than sitting at my desk in Washington, D.C. and reading about it in documents like that, so I'm very pleased to be here tonight.

MR. STANG: We also have, in back, who greeted you coming in, Albert Barros, who is our community liaison and Angela Mazzulo, who is in the budget shop in headquarters and she wanted to get some idea about what goes on here in Alaska. Nathan Hile is our court reporter and he's going to be transcribing everything that you say -- everything that is said here tonight. As I said, the purpose is to get your comments on this Draft Environmental Impact Statement. Now what you have in your hands is either an English or an Inupiat version of the executive summary of that Environmental Impact Statement. We sent a bunch of those up. Did they arrive here Lon?

MR. SONSALLA: Yes, (indiscernible)

MR. STANG: Okay. The environmental.....

MR. SONSALLA: (Indiscernible)

MR. STANG: Good. And we have it both in hard copy, which is a document here. George has a copy right here. Three volumes. And they're also there on CD. If you have a CD you need to have internet access or you need Adobe Acrobat in order to pull it up on the CD. The area that we're talking about I can show you on the map and Agnela gave you a brief description of it. It's that pink

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area on the map on the right there on the wall. That extends from three miles offshore to about 60 miles offshore. Of course, the first three miles of ocean water is State waters, and so Federal waters start from three miles and go on out. The depth range from about 25 feet to 200 feet and we're talking about an area that's about 9.9 million acres. It goes from the Canadian border on the east to Barrow on the west.

And then on the left map, there's an outline that shows the same area as the pink area, but we also have four candidates for deferral. What we mean by deferral is these are alternatives that are in the EIS that could be selected by the Secretary of Interior where leasing would not occur. So she has those for her consideration so she could propose leasing the whole pink area. Have no leasing at all or she could lease like the whole area except for one of those areas. So, if you take, let's say the green area right off Kaktovik, she could say well, I'll propose leasing in the whole pink area except for the green area. Okay? If you follow what I'm saying. Those are candidates for her consideration.

The three on the left, the one related to Barrow, the one related to Nuiqsut, and the one related to Kaktovik are there for whaling deferral. The one on the east is there because some people have indicated that

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that's a bow head whale feeding area. So those are what we call deferral options.

One of the things that we are trying to do here is to consider your comments, and we consider them both in and of themselves, and consider them in light of the executive order on environmental justice, so we consider it in both those ways. The information we gather will be shared with the State of Alaska and other Federal agencies. We also have had a series of government to government meetings up here on the North Slope concerning leasing, and we will continue to have those. To date, we have held seven lease/sale in the Beaufort Sea starting in 1979, and in total in those sales we leased 690 blocks. Those are basically three mile by three mile areas. A number of those have expired. The primary term has expired and those leases have been relinquished. There are still 54 that are active. So while there's been a lot of leasing, that many tracts leased, there hasn't been a lot of activity that has occurred.

To date, only 30 exploration wells have been drilled. We have, so far, only produced oil from the Northstar facility. Northstar, as you may know, is right just shy of three miles from land. Most of the wells being drilled from Northstar are from State waters. There are a few of the wells, the bottom hole location of those wells

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are in Federal waters. That's to date the only Federal oil that is being produced.

You might recall we came here and talked about the Liberty Project. Well, in January we had finished the Environmental Impact Statement and were about ready to issue it and BP decided that they had to re-think that project, so they said let's hold up for the time being. And then in June they formally withdrew their proposal. But they have indicated to us that they intend to resubmit a new configuration for the Liberty Project sometime within the next year. Now, of course, I guess we hear them, but we're not sure what we're going to get until we get it. When we get it then we'll look at it and see what goes from there. That's a possible thing on the horizon.

The only other thing that is active at the moment, is called the McCovey Prospect. Phillips and ANTANA, which is the new name for Alberta Energy is, this winter, planning to do an exploration at the McCovey Prospect which is a little northwest, maybe about six miles northwest of Cross Island. They will see whether they find any oil or they don't. The timing on the first sale is scheduled for about September of 2003. We will, this fall, produce a -- or I guess it's in February, will produce a Final Environmental Impact Statement, and then there will

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ultimately be a decision by the Secretary and the sale will occur a little more than a year from now.
The EIS will cover all three sales. But before we start the process for the sale in 2005, we're going to do a check to make sure that that document is still up to date. So, we'll do what we call an Environmental Assessment and that we'll make that publicly available. And then we'll decide then if we need to do a supplemental Environmental Impact Statement or whether this one will serve as adequate for the 2005 sale. We'll do the same thing again for the 2007 sale. We'll do also a consistency determination with the State, of course in consideration there of the North Slope Borough's Land Use Plan for Coastal Zone, Coastal Zone Plan. We have to do a consistency determination to say that the sale is consistent with that and demonstrate that for all three of these sales. Part of the reason to do one Environmental Impact Statement for three sales is because those are expensive to produce. They cost about $1,000,000 to produce this document. That's the government producing it. The one for Northstar cost $7,000,000 to produce. We understand the one for the TAPS pipeline renewal that they're talking about now, that one costs $6,000,000 to produce. They're expensive things and to a large degree things don't change that rapidly. So it doesn't make sense

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for us to do three of these things where one would be hardly different than the next, unless we find that we need to do a supplemental. Then we would do a supplemental. So that's the story behind it.
The decision, as I said, is made by the secretary of the Department of Interior, Secretary Norton. She's the decision-maker for these sales. But the person to your right here -- to my right, has a little to say about it and we, in our office have a little to say about it too. We write a recommendation to the Secretary and then that's taken by Renee Orr's office and they modify it or shape it or add their own viewpoint and send a decision memo, which they prepare then for the Secretary to make a decision.
We want to indicate that the sign-in sheets are a public record and can be released under the freedom of information. So that information that you have on there could be released to the public. If that gives you a problem, we could strike your address, but we still need to keep the names of the people who appeared here. That's a kind of for your information piece of information.
These proceedings here will be transcribed, and that transcript will be available upon request, but the comments that you make in there will be responded to in the Final Environmental Impact Statement. So, that's kind of

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the background that we wanted to present to you briefly.
At this point, we can do one of two things, because I'd like to keep this as informal as possible. If you have questions that you want to ask about what we're doing or why we're doing it or anything like that, feel free. If you have testimony you want to give, we ask you to sit up here at the table and make sure you state your full name first for the record so Nathan will know and whoever does the typing will actually know who did the speaking. So, let's keep it that way. If somebody would like to testify first, jump right up. If you have questions, let me know.
SUSAN: I have a question on that Liberty?
MR. STANG: Susan, yes.
SUSAN: BP was going to and they decided not to go through with it. What make them want to.....
MR. STANG: Hold off?
MS. S. AKOOTCHOOK: .....no, what made them want to reopen it again?
MR. STANG: Okay. Well, they didn't decide not to do it. They decided that it was -- the configuration and the approach they were using, according to them was too expensive. The cost that they projected would be higher than they felt reasonable given their assessment of how much oil was there. Part of that, I

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think, was based on their experience with Northstar. Northstar cost -- the construction and initial operating cost of Northstar turned out to be much higher than they anticipated. And I think that BP, as a corporation, in London looked at this project and they said, your projected costs are too high. So, what they are doing is they're looking at this project again to see if there's a way that it can be produced more economically. We've heard various ideas about what they may do, but I think the best thing to do is wait until they actually submit a plan for development and production and then you know what they're actually proposing, or if they ever do submit a plan for development and production. We don't know. I mean, they -- from all we can tell, there's 140,000,000 barrels of oil sitting there and they just need to find a way that they can produce it economically. As you know, costs up here are very high compared to the Lower 48 for instance, and so they have to make sure that it's an economic prospect.

SUSAN: (Indiscernible) Are they going to make a barge ship or something to go out to the ocean here?
MR. STANG: Yes. Yes.
SUSAN: (Indiscernible)
MR. STANG: Here's the deal. They were -- this SDC is the name, Steel Drilling Cason, I think is the correct interpretation. It's basically a vessel that can

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be sunk, that's basically how, and stuck onto the bottom. That's where it was over near Nome, sitting there kind of in storage in the ocean. A week and one half or so ago, they fueled it up and made sure it was in operating condition and blew the ballast and floated it and they're steaming around. I don't know exactly where it is at the moment, but apparently it's somewhere past Barrow but I'm not sure how far. It probably depends basically on the ice, as to what the ice conditions are so they can get it the McCovey site. Then what they'll do is they'll just drop it right down on the sea floor. Just flood the ballast tanks and it will submerge right on the sea floor. They will start preliminary work on it but wait until winter and it's locked in before they do their exploration. They'll be locked in the ice.

MS. ORR: Nathan's saying if we want the questions on the transcript they need to come to the microphone.

MR. STANG: Okay. Right. We can do one of two things. Let me see how long the cords are. Well we can't really. We'll need any questions -- unfortunately we have to have them on the microphone in order to record them. So if you have a question, you've got to go to the microphone, otherwise it'll be missed. I think in your two questions we can figure out what they were by the answers

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I gave, but for subsequent questions we ought to come to the microphone.

Okay. So any other questions or who would like to provide some testimony? Please, Marilyn.

MS. TRAYNOR: My name is Merylin Traynor and I have two or three questions. Could you show us where the 54 existing leases are? Are those leases that are near Kaktovik that are now existing and how they relate to looking at a map?

MR. STANG: Let me see. We've got two maps here. Let's see if we've got ones that have existing leases. I'm afraid we don't. Is there one in the EIS, George, do you think? We can show you generally where they are on this map here. George will look and see if he can find one.

MS. TRAYNOR: Also, it would be interesting to see the one you're talking about, McCovey right, where it relates to Liberty.

MR. STANG: McCovey is there. Liberty is here. Northstar is there. Now on this map, it's kind of a small map. That map is kind of a small map, but basically that is the general area where the leases are. There are a couple of leases off the National Petroleum Reserve, but I don't know if there are any leases east of the Canning. I don't think there are leases east of the Canning.

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MS. TRAYNOR: Well what I see on this map here, it only goes to this side of the Stains River, Flaxman Island, so it doesn't even come over here. So there are no existing leases off of Kaktovik then?
MR. STANG: See, those aren't leases, those are prospects.
MS. TRAYNOR: Oh, okay. Those are.....
MR. STANG: Or as they call them new discoveries or fields, or whatever have you. But, we're trying to find a chart that shows you the exiting leases. The difficulty is on these graphics for existing leases is that they change frequently because these leases get relinquished along the way, either at the end of the lease term or if the company decides they just don't want to pursue it any more. They're paying a rental on those leases and they.....
MS. TRAYNOR: So how long are these leases?
MR. STANG: The leases are 10, aren't they here? We use 10 year leases basically in Alaska. Some leases elsewhere are five or eight years.
MS. TRAYNOR: I guess what I'm asking is outside of this pink and green zone of Barter Island is there any existing leases out there?
MR. STANG: No. No. Just in the area where you see what we call these, well, just what the title

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says, "Fields, New Discoveries, Proposed Activities", the leases are in there with one exception which I think is about six tracts that are out there off NPR-A that they haven't done anything about. One thing that -- just so you understand. Since 1979, there has been leasing all around Alaska. There has been leasing in the Chukchi, in Prince William Sound. There's been leasing in a whole bunch of places way out in Naverin. Way out 300 miles from shore. But, none of those leases resulted in any development. Some were drilled. They drilled some holes out there, but they didn't find enough oil or gas to produce. They found a whole load of gas in Chukchi, but it's not economic around Prudhoe Bay, so, therefore, it's not going to be economic in Chukchi.
MS. TRAYNOR: Okay. I guess I had one question of drilling, sound pollution on mammals.
MR. STANG: Sound from drilling?
MS. TRAYNOR: We have new questions down in the Gulf of Mexico about maybe sounds that they're producing down there and proof that it's damaged and killed some of the sea mammals.
MR. STANG: Correct. One of the activities in the Gulf of Mexico that has produced mortality is when, at the end of the life of a platform, they were using explosive charges to blow the legs of the platform clear

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and they were killing a lot of animals due to the pressure wave in the immediate vicinity. So they made an assessment of that. So there was mortality from that. The main issues that we've had here in Alaskan waters with respect to noise has related to seismic exploration. We have had whole series of ongoing studies. What's interesting, of course, is the Inupiat whalers were saying, we can tell you what happens when the sound comes. We can see what happens to the whales and that there's a deflection that the whales in the migratory path seismic noise goes off, they deflect out away and, of course, that's been a big concern.

Our initial science indicated that the deflection wasn't particularly -- the whales didn't deflect that far. The whalers were saying yes it does. In fact, what's happened as more and more data -- we've gathered more and more data and we've listened a little more carefully, is I think we're closer to agreement about the nature of that deflection. With respect to drilling noise and noise related to operations, we literally don't have any facility on the outer continental shelf yet. As I said, we have Northstar, which is right on the edge of State waters just close to Federal waters. We are doing a series of measurements to try to assess the amount of sound and the effects of sound on species from the Northstar operations. This is for development drilling.

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Now, what we've done for Northstar is that there is a window when drilling will not be taking place and it's during the migration. So in a sense, we don't have much data on the effects of drilling on the whales because we haven't been drilling when the whales are there. The Annaninna Project, which basically is a project on monitoring, not only sound but the quality of the water and other aspects is a project that we initiated as a first priority of our science program based on information that we got here in Nuiqsut and Kaktovik and Barrow. People were saying we need you to monitor what's going on in the water before you build any of these islands and before you have any production. So, if there's a problem, we'll have a baseline from which to measure the problem that occurred. We've had that program ongoing from early in the beginning of Northstar and well before Liberty was scheduled to go. Now we have a lot of data on the Liberty area but we don't have a Liberty project yet. So, we're doing our best to keep track of the effects of these projects and what effects they may have. Then we can use that information to make any modifications that are appropriate to how drilling is done or how production is done.

MS. TRAYNOR: With all the wells that have been drilled in the Gulf of Mexico and off the Pacific Coast, do you have data on all the sounds and does the

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temperature of the water -- I don't know how it effects the sound.
MR. STANG: It does. Sound propagates in the ocean and it propagates differently at different temperatures. In fact, if you have a thermoclimb, which is one temperature here and another temperature there, the sound basically bounces off of that, doesn't go up through that thermoclimb. Yes, there's a lot of data in the Gulf of Mexico and some in the Pacific about the affects, but they may relate and give us a first approximation, but we have a different situation here. We have shallower water. We have ice over the top of it. We have a bottom that may be different for the most part here than there. We have water temperature that's much colder. So, all of those things affect the environment.
MS. TRAYNOR: So we must know what colder water does to sound. Does it make it higher or lower? What does ice do? Does it hold it down in the water?
MR. STANG: One of the things that ice does because of the very ragged underside of the ice -- the underside of the ice is quite uneven and the top, a lot of the ice is quite uneven, too. That's a baffle. That tends to baffle the sound to some degree. The temperature, and I can't remember my physics that well as to the speed, but I think it's a relatively minor affect on the speed of

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sound through water, whether it's cold water or hot. It's not a major affect. There's some change but not enough. But the key is that we don't have data from the Gulf of Mexico that indicates that we have an alarming problem that we have to deal with. But it's what happens here in the Arctic. We get a first approximation from what happens elsewhere, but what we really need to know is what happens here in the Arctic.
MS. TRAYNOR: We have seals out here, I assume, all winter and they're under the ice and on top of the ice and you saw them today so.....
MR. STANG: Right. Exactly. But remember again, so far we haven't had any, except Northstar -- this is out three miles from shore and it's going to be a big difference if you're in the very shallow water versus if you're out that far. But it's something we're very much attuned to and will remain attuned to. We do have a fairly decent science effort. Our whole purpose of that is to identify problems which we get here. We take information and questions like that and questions that we have ourselves back to our science group and we say, look, what are the most important key issues we need to work on. Let's devote the immediate funds to that and then we have a priority system. We have a whole series of issues like, for instance, Nuiqsut had been quite concerned about the

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Arctic Sisco and they haven't been catching much in the last four years. So we are directing one of our studies in 2003 to that very issue. So we try to, and that's what I said on the Annaninna Project, the monitoring project, is one in which we have refocused our priorities to look at monitoring those specific sites where we expect, well in the case of Northstar and where we thought Liberty was going to go.

MR. VALIULIS: Can I add to that?

MR. STANG: Sure. Please.

MR. VALIULIS: This is George Valiolis. In this document, we treat noise as a very important element. I don't remember and I can't tell you exactly what our findings were, but I do know that they're in this document. I can tell you that it did not reach the level of concern that it would be a significant impact in the view of our analysis. But, again, we have a large section devoted to answering some of the things that you mentioned.

MS. TRAYNOR: Thank you.

MR. STANG: Thank you, Merylin. Suzie.

MS. S. AKOOTCHOOK: Good evening. My name is Suzie from right here. Just listening to Merylin's questions and your answers on noise and acoustics or noises down underwater. I was very fortunate to work with North Slope Borough when they were counting the whales and

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observing the whales. They had an acoustic crew and I was very fortunate to be on the acoustic crew. I can tell you that the noise from the ice, you can hear it. We had radios going all the way from 25 feet, 75 feet, 50 feet, to 100 feet, 150 feet from the ice. That's how deep we had those.....

MR. STANG: Hydrophones.

MS. S. AKOOTCHOOK: Yeah. When people are walking over the ice, 100 feet below you can hear them walking on the ice. The whales are very sensitive to noise. There was an airplane, a small airplane. I don't know if it was 160, 175 or 189 plane but anyway, I'm not sure how high it was flying, but I could hear that, the sound of the airplane in the water.

MR. STANG: Through the hydrophones 100 feet down.

MS. S. AKOOTCHOOK: Yes, I could do that, and all that is recorded.

MR. STANG: Yes.

MS. S. AKOOTCHOOK: How closely have you guys worked with North Slope Borough on getting the information about that? You guys are talking about your guys own crew, right?

MR. STANG: Right.

MS. S. AKOOTCHOOK: How much information

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have you gotten from the North Slope?
MR. STANG: I can't answer you specifically on the amount of information we've gotten from the North Slope, but I can tell you this. The scientists for the North Slope Borough and our scientists are in daily, or not daily, but frequent communication. The fisheries people talk to the fisheries people. The oceanographers talk to the oceanographers. The acoustic people talk to the acoustic people at the staff level. We also, when we have our studies planned as to what should be studied. That's the question. What should we be studying? We request that information from the North Slope Borough, in particular, as well as a variety of other sources. We send out these requests. What's the most important thing to be studying?
They tell us and we factor those in. We then do our priorities. Then we send out that list of our priorities. When you know the way it's going to work you're going to fund the first, second, third, fourth, fifth maybe with the amount of funds you get until you don't have anymore funds. You got to stop and then try again next year. We send that list out to them so we have a constant communication on what data we have and what data we need. We share data. We share data with them, they share data with us. So we work closely with them. It's a very important element.

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MS. S. AKOOTCHOOK: So you're talking about the constituency on offshore. You guys are working with North Slope Borough right, on the costal planning, Coastal Plan management?
MR. STANG: Yes. That's correct.
MS. S. AKOOTCHOOK: Also on the deferral. You guys were talking like if one area is -- when you said there's -- I know we had our deferral, right? Lon, was this in the State waters or was that off the State waters?
MR. SONSALLA: The last time there was a deferral, I think it was within 50 miles of (indiscernible) a 50 mile radius. That's what we have.
MS. S. AKOOTCHOOK: And it's still in effect to this day, right?
MR. SONSALLA: I don't know. I think it's lapses (indiscernible).
MS. S. AKOOTCHOOK: So we'll have to testify about what areas we want deferred?
MR. STANG: That's a very legitimate area to testify on. It certainly is.
MS. S. AKOOTCHOOK: I would like to testify then. Our area from Demarkation Point all the way to -- well actually, as far as we can travel that we have a deferral -- a request for a deferral in our area, as the whaling captains, when they go out whaling in falltime

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depending on what the ice condition is. We don't know how the ice condition is until when the month comes. Cold weather is out there, 12 miles, 15 miles. What miles is it the most last year? Was it 14 miles out or was it 15 miles out?
MR. SONSALLA: Twenty-two or 23 miles.
MS. S. AKOOTCHOOK: Twenty-two or 23 miles up they were last year, last fall. So our whaling crew goes quite a ways out to go and get their whales. I will continue to request that there be a deferral in our area because that's a feeding area for the whales and it's been on record for many years.
MR. STANG: Okay.
MS. S. AKOOTCHOOK: We live off the ocean. We've got people that are out there that are fishing right now. We've got people out there going after seals or oruuks (ph) because we need to harvest.
MR. STANG: Seals and oruuk?
MS. S. AKOOTCHOOK: Yeah. Harvest for winter and also harvest for the whaling season so that the whaling crew can have food out there when they're out there all day. They take off like sometimes six in the morning and they're out there until it gets almost dark. So it's what, like, about 12 hours or almost that many hours out there in the ocean. And they need, you know -- I prefer to

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have our area deferred. I request that. Because we live off -- they get real serious in their whaling. I know you don't see much of them here, but those of us that care are here prefer to continue to see it be deferred in our area as far as 50 miles out like it was. And if there should be anything in writing. I believe so. I believe that the entities here can get together to agree on what areas they want deferred, like the city, KRC and Tribal government.
MR. STANG: Okay. Speaking of that, there's something I didn't mention, and I should have. That is that September 20th, is the last day for written comments to be received by the Minerals Management Service. On the table over there is this sheet of paper, which basically converts into a mailer if you want. It has an address on it. It has a place for your return address and a place for a stamp and a place on the inside to write what you want. So a simple way to submit a comment in writing is just to take this, fill it in, fold it in half and tape it and put it in the mail. That's the simple way. Any way you want to write it is fine. As I said, this testimony here is taken as testimony and comments on the document. So what you just said is recorded verbatim and also understood as a specific comment.
MS. S. AKOOTCHOOK: Another question on that deferral, that deferral that the city had at one time.

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Is that still active or do we have to re-do it?
MR. STANG: Right. The way a -- let me tell you in a nutshell the way that system works. This document is the five-year plan for 2002 to 2007. It was approved at the very end of June by the Secretary herself. She had sent out three preliminary versions of this over the last 18 months or so for comment. So this is her approved five-year program. This is the one that has those three sales that I mentioned, the three sales here in the Beaufort in it. The way the law is written, Suzie, is that for each five-year period, the Secretary is to look at the entire Outer Continental Shelf, and make an assessment of one area relative to the next on a whole bunch of criteria. So, in a sense, she is supposed to start with a clean slate when we're talking not about what people have said in the past, but when we're talking about what areas to be included. So she looks at those and makes her judgement. Obviously, any Secretary who is worth her or his salt would consider what people have said in the past. I think Gail Norton has done that.
Literally though, she is obliged to start afresh. Then the pink area is the area that she chose to be considered for leasing. Then when we started structuring these three sales, after she did her thing, we started structuring these three sales, we considered and we

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added consideration of these four candidate deferral areas. Basically, the three on the left there, the one by Barrow, the one by Nuiqsut, and the green one by Kaktovik, were based on the actual whaler strike data, where strikes were made. That was the basis for that. So in a sense, yes, you start afresh for each five-year program.
MS. S. AKOOTCHOOK: Okay. Thanks.
MR. STANG: Sure. George and Renee chime in and Albert and Angela if you have anything to add or whatever, please, please just jump right in.
MR. THOMPSON: Yeah, my name is Robert Thompson.
MR. STANG: Yes.
MR. THOMPSON: I have a question. Has the ability to clean up an oil spill in broken ice conditions ever been demonstrated adequately to the government or to anybody?
MR. STANG: That's a good question. There is capability of dealing with oil in broken ice. There are a variety of ways to deal with it. The one that they've been working on, and it's partly because of the way the state's laws are written and the way they're interpreted, is they are looking at mechanical clean up. Clearly, they had some difficulties in their tests for mechanical clean up in broken ice. Another way to deal with oil in broken

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ice is by burning. That is a viable way and has been tested and we are, in fact, continuing to pursue efforts in that testing. The MMS itself and through contract. The jury hasn't concluded on what and how best to do everything. That's an ongoing process. But, I'll acknowledge that some of the tests they ran on mechanical clean up of oil in broken ice were less than optimal, that's for sure.

MR. THOMPSON: So would it be fair to say that the government has never demonstrated the ability to clean up?

MR. STANG: I would say if you are speaking mechanically, for mechanical clean up, that's probably correct. For burning, I think that's probably a different story. You probably have -- and there's some conditions that are needed in order to do burning of oil. You need a certain thickness of oil and you have to get access to it. So there are situations that you can't assure you're going to be able to burn your broken ice under any conditions. You have to be able to get access to it and it has to be thick enough to ignite.

MR. THOMPSON: Has it ever been demonstrated that the burning is possible?

MR. STANG: Yes. I wouldn't say that we're done with our investigations, but we do know and we have

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been working with the Norwegians and we've been working with some others who, as you may know in the United States, we may not put oil in the water in order to do a test. We can't do that. That's not allowed. But the Canadians can do it and the folks from Norway can do it. So we've been relying and working with them on these tests of burning oil and we've funded and helped participate with those and we're continuing to do so.

MR. THOMPSON: Okay. What percentage of the oil is being able to be burned.

MR. STANG: I can't answer that specific question, but I can get you documentation if I have your address. We can give you the best information we have on what success rate, what were some of the conditions, what were some of the problems they ran into, what were some of the successes?

MR. THOMPSON: The reason I ask this, I believe in the Exxon Valdez oil spill, more than 80 percent of the oil was never ever recovered.

MR. STANG: Correct.

MR. THOMPSON: Most of it isn't at the surface, It goes throughout the water level where it would not be accessible to be burned.

MR. STANG: Yes. Clearly, any oil that gets into the water column, burning obviously is not a

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choice. Burning typically has got to occur very early in a spill. For two reasons. One, the oil is thicker and two, it has more of the volatile components that make it susceptible to burning. The longer it goes, the more of it is mixed into the water column and the more of the volatile components evaporate and you're left with the ones that aren't as volatile and hence, not as subject to burning. So, you're right.

MR. THOMPSON: Does this Environmental Impact Statement reflect the latest findings of the Clean Water Act in regards to how toxic the oil is on environments? Specifically on fish?

MR. STANG: I'm going to have to defer to George on that because I read parts, but I don't remember literally what we've got there.

MR. VALIULIS: It's considered in two parts. It's considered under water quality and then it's considered under the organisms that are affected, primarily fish has been the concern, fish eggs and that sort of thing. It reflects the latest knowledge that we have on the topic.

MR. THOMPSON: Were any of these tests on how toxic the oil is done in cold water conditions, Arctic conditions?

MR. VALIOLIS: I'd have to look at the

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section.

MR. STANG: I'm fairly certain we have in our science studies program a fair amount of data on the toxicity of oil to fish, but again, if you'd like me to get a specific answer to that question I'll do so and mail it to you.

MR. THOMPSON: Yeah, I would like an answer on that.

MR. STANG: Okay. So, we want success in burning in broken ice.

MR. THOMPSON: Or clean up of any type.

MR. STANG: Okay. Well, okay. Let's say.....

MR. THOMPSON: Mechanical or burning.

MR. STANG: .....mechanical and burning. I don't know that we've done others, but those tow. And then you want the toxicity of fish in cold water.

MR. THOMPSON: Toxicity of the oil in cold water.

MR. STANG: Toxicity of the oil on fish.

MR. THOMPSON: Or wildlife.

MR. STANG: Any wildlife.

MR. THOMPSON: Because I understand it takes a lot longer to break down in cold water. It may not break down at all.

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MR. STANG: I know one thing. There's a lot of data on toxicity of oil on wildlife in general just because of all the research that happened on Exxon Valdez. There's a load of it there. That's cold water too. Now, if you're talking about Arctic water, are you differentiating between Exxon Valdez data from Prince William Sound and Arctic?
MR. THOMPSON: Yes.
MR. STANG: You're looking at Arctic specifically?
MR. THOMPSON: Yeah like 28 degree water or how ever cold it is here.
MR. STANG: Right. Arctic water. Okay. All right. We will -- did you have a chance to put your address down?
MR. THOMPSON: Yes.
MR. STANG: We'll make sure you get that information?
MR. THOMPSON: Does this Environmental Impact Statement reflect any impacts outside of the lease area?
MR. STANG: Well.....
MR. THOMPSON: And if not, why not?
MR. STANG: .....yes and no. The majority, and George fill in here, the majority of the focus is in

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the specific area that we're talking about. The primary focus is what's happening here in the lease area. We do, however, when we address cumulative effects, we look at the species that are affected by -- potentially affected by development that would occur in the pink area. But we look at, also, what other affects they would receive in the rest of their migratory path. So, for instance, if we're talking about birds that could be affected here, birds migrate down to South America, so we look at along their migratory route to see what affects there could be on those. We also look to see if any of the affects, whether it be from the actual development itself or from the potential of spilled oil would have beyond the borders of that pink area. But I can give you a general statement that, by and large, we don't see much affect that proceeds out of, let's call it the pink area, of oil or of noise or of sediments or whatever have you. The reason being, is by the time oil would transport itself that far, it would be so dissolved and diluted in the ocean water that you probably couldn't perceive affects let's say around from the northwest of Alaska or east over into Canada. They would be so diminished that you wouldn't be able to measure any difference between that and the natural phenomena that occur.
MR. THOMPSON: Well, has there been studies

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to verify that?
MR. STANG: I think our analysts look at those specific issues and they make their best judgement based on the data that they've got available. After you get to certain dilution -- you know, we have studies that indicate you can't differentiate any effect. It's kind of like the same concept with the EPA where EPA sets water quality standards and they say if the parts per million fall below an area that we presume it's safe because we can't find any health affects based on that.
MR. THOMPSON: So then you would say that the studies have been done in cold water to verify what you're saying?
MR. STANG: To some degree. There's no absolute.....
MR. THOMPSON: Either the studies have been done or they haven't.
MR. STANG: Well there have been some studies done.....
MR. THOMPSON: In cold water?
MR. STANG: Huh?
MR. THOMPSON: In cold water, ice conditions? I mean Arctic conditions?
MR. STANG: There have been studies done in cold water in Arctic conditions on the -- well, let me be

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careful here. One of the difficulties we've got is that we have laboratory tests in cold water, but one problem is, one of the benefits, as well as an issue here, is we don't have a lot of data on spills in the Beaufort Sea because we haven't had spills in the Beaufort Sea. You've got to have an oil spill in order to measure its affects. So, we haven't had spills of any substance in the Beaufort Sea from offshore oil that we have been able to measure. Until you -- in a sense you don't want to ever have that, but until you do, you can't measure everything that you would need to answer the question as definitively as you would like.
We can use foreign studies and laboratory studies to make judgements as to how dilute an affect where you would see an affect and where you wouldn't see an affect depending on the pollutant.
MR. THOMPSON: Have any studies been done to determine the affects that this additional amount of oil that's anticipated will have on the existing pipeline and have you incorporated any of this data with the pipeline renewal permit?
MR. STANG: Your last question I don't know the answer to, but we can certainly find out. The real key here is the pipeline is well below its capacity. It's pumping, I think, at about half the rate that it was at its

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peak. Any of the discoveries that we anticipate from any of these three sales, individually or collectively, is not sufficient to over extend the capacity of that pipeline. In fact, it's almost the other way.
MR. THOMPSON: My understanding is there is a known reserve of about 30 years from this existing pipeline and additional permitting will cover that life span, so if this area is to develop at a later time, have you taken that into consideration?
MR. STANG: It's a kind of yes, but, answer. My understanding is that they are producing oil at a rate that's about half the rate that they used to produce here on the North Slope. Yes, there is, and I don't know if it's 30 years or how many years worth of oil that they will be producing, but it's the rate of production. The rate of production has dropped precipitously in Alaska -- in the North Slope in recent years. So while they still could be pumping for 30 years, the rate keeps dropping down. So any oil that would be produced related to this sale, that we envision and obviously you never know until you find it, would not in any sense of the word exceed the capacity of the pipeline.
MR. VALIULIS: If I could also interject. Your questions, to a degree, are on what we call cumulative impact. This activity along with others. We've made a

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best estimate of what we think other activities or future activities are going to be and we have a scenario for that and we've -- doing cumulative the proper way, we've considered what the actions here would be to that and then come up with a total. Plus we also evaluate what contribution this present project would have to the overall in that. In doing that, we also go beyond the bounds of the lease area. We're looking at the oil being transported down and even being tankered out. So I think our cumulative section is pretty thorough and, although I can't tell you off the top of my head some of the answers, I can tell you that it's in this document.
MR. STANG: That was George Valiulis speaking.
MR. THOMPSON: Okay. I'm concerned about the clean up costs. Who would be responsible for that?
MR. STANG: Good question. The cost of clean up falls on the companies. It's their obligation and responsibility to clean up. There was an act passed by the Congress in 1990 regarding oil spill liability. Companies can be under that act, required to have bonds up to $150,000,000 for this very issue of who is responsible for the clean up. The way, and I'm going to give you an approximation of the way the system works, and either Renee or George can fill in if I miscategorized. The way the

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system works is that the Coast Guard is the on-scene commander. They are the ones who are in charge of making sure that that clean up is done in the optimal way. So, you don't say, okay, before we clean up BP or Phillips, cough up the money to spend. The government steps in immediately, takes over and runs the operation and incurs whatever costs are necessary. Those costs then are passed to the company to clean up and the bonding, this up to $150,000,000 bonding, is to ensure that these guys don't claim bankruptcy and bail out on us. All right? So, there is the responsibility under the law. There are penalties under the law if they attempt to avoid these costs. I think the OPA, Oil Pollution Act, I'm not sure if I got the exact name correct of 1990, is a pretty tough piece of legislation. We have a whole group in our headquarters office whose responsibility it is to make sure that that is operating correctly with our permitees and licensees. That's the obligation for the financial obligation.

The Coast Guard has training exercises for oil spill contingency. Each company has to have an Oil Spill Contingency Plan and then there's some broad overall Oil Spill Contingency Plans. Then there are these drills. You were referring to the clean up in broken ice. That was one of the drills that they undertake to test the capabilities and obviously they didn't meet the

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expectations that we would have liked to have seen on that. But I remember attending a meeting in Barrow where a bunch of folks from the North Slope and the Coast Guard and our people and the companies all got together to meet, to help assure the maximum and most efficient clean up scenario.

Furthermore, companies have equipment stationed at various places and, of course it depends to some degree on where the action is, where the activity is as to where that would be stationed.

MR. THOMPSON: Okay. Before these lease/sale are put out for bid, I understand there's supposed to be a need for the development. How do you have the need for development if you have known reserves for Prudhoe Bay?

MR. STANG: Okay. The Secretary of Interior in developing a five-year program is looking at that program from the prospective of the nation as a whole. So what the Secretary is doing is looking at what are the needs of the nation as a whole and where are the prospects for oil and gas around the nation. Now, as you may know, the Congress has set aside certain areas of the Outer Continental Shelf by a device called an annual moratoria, which they've placed on a bunch of areas where the Congress has kind of intervened relative to what the Outer Continental Shelf Act says. They have taken off the whole

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East Coast and they've taken off the whole West Coast for new leasing, as well as the eastern Gulf of Mexico. So, they've removed a good portion of the Outer Continental Shelf through their acts of Congress.

Yet, the Secretary has still to meet the mandate of finding and producing oil in an environmentally sound manner. So it's a judgement that she makes about what's the need for the nation as a whole. Now, obviously if you're in the central and western Gulf of Mexico, or if you're in Alaska, you're in the area where this production is occurring, and to a small degree in Southern California. While on one hand you say there's a 30-year supply of oil in tracts -- already discovered oil that will take 30 years to produce out. That's a diminishing rate and she sees the need for additional exploration and development to find sources to replenish those as they diminish.

MR. THOMPSON: Okay. Have there been studies on ocean currents and to determine where exactly this oil will go if it gets away?

MR. STANG: There certainly have. This is one area I have a little familiarity with and we have expended a lot of resources on those assessments. We have a modeling group in Herndon who are specifically devoting their careers to modeling where oil would go based on the best information we have on currents. So one, we do have

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information on currents, some of which we generated, some of which we get from the National Oceanic and Atmospheric Administration. Some of which are picked up from satellite. We do know how the currents flow pretty well and it depends on the season. We know that there are a lot of shifts in those currents. They have statistical models that are very rigorous models that take a lot of computer horsepower to run to project where oil spills would flow, how they would flow and where they would hit shore and how they would hit shore, and what would happen to the oil as it degrades over time. Those models are fairly sophisticated. The summary of the results of that does appear in the EIS.

MR. THOMPSON: And does it, the EIS reflect ability to clean up outside of the immediate area in the under ice conditions?

MR. STANG: The clean up under ice and on ice is viewed, generally speaking, to be pretty good as long as that spill occurs sometime from the early formation of the ice to, and I'm guessing now, about a month before break-up. Basically what they can do is mine the ice. Just literally mine the ice to get the oil because it gets encapsulated. If there was a spill let's say in November or December, the ice would form underneath it. The oil would be encapsulated. That oil we understand does not

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change in composition. You made note of that earlier. Because of the cold water there is no degradation. Well, because it's locked in the ice there's even less degradation. As long as you can mine that ice before break-up, you're in good shape. However, if a spill occurred under ice just before break-up and you weren't able to mine it, then it would release into the water as break-up occurred in the slow fashion. That would be a more complicated clean up issue.

MR. THOMPSON: How large of an area would people be able to mine?

MR. STANG: It depends on how many bucks and how many pieces of equipment you have, I would imagine.

MR. THOMPSON: I mean, if the oil happened to go 100 miles?

MR. STANG: Obviously, if it would have to go 100 miles it would take a lot of equipment to mine it. One of the advantages of the underside of ice is it really tends to trap oil because of its uneven nature. If the ice were perfectly flat, the oil would flow great distances, but the underside of ice is pretty porous and jagged and therefore, it would tend to, in itself, arrest the flow of that oil. So I doubt it would go a couple hundred miles.

MR. THOMPSON: In areas of open leads in the winter time and new formed ice in open leads it could

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go a long distance.

MR. STANG: In leads it probably would. I agree.

MR. THOMPSON: So there's no studies to determine how far it might go in those conditions?

MR. STANG: I have to look at -- I know they model not only in open water, but they do model in ice and in spring break-up. Whether or not they have an element of the model that deals with spring leads, I don't know. But we can find out. I'd be pleased to find that out for you too if you'd like.

MR. VALIULIS: If I could add to perhaps this discussion. This is George Valiulis. The oil spill aspect -- the large oil spill aspect is the number one concern in addition to the noise affect on whale migration. The Environmental Impact Statement almost goes ad-nauseam in trying to reflect that. We do it two ways. We assume conservatively if there was no ability to clean up the oil spill. We analyze it that way then we superimpose what the effectiveness of the oil spill clean up would be to the degree we can, so that's something else that's being done. So, we are doing that.

As far as the spill under ice and so forth, we consider that too. That's the 180-day spill and the idea is, yeah, it would go so far it would probably be

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trapped and we'd probably have to drill through the ice to suck it out and so forth. Those are some thoughts on that.
MR. THOMPSON: Okay. Does this Environmental Impact Statement reflect changes in the environment due to global warming and will you incorporate the studies that the government is now funding into Arctic global warming.
MR. STANG: George will take a crack at that.
MR. VALIULIS: We look at global warming very carefully especially at the five-year environmental impact statement, because that's an overall concern. Global warming is a large geography type of concern over a great amount of time. That's the point at which we look at it. We, in this document, go back to the five-year program EIS and indicate our thoughts, our best knowledge on global warming. I don't think we're addressing global warming within specifically to the lease period we're talking about for these actions, but on broad.....
MR. THOMPSON: If the government funded studies do, in fact, prove there is global warming, will you incorporate findings that the government is.....
MR. VALIULIS: We have been incorporating. Our air quality people, especially a person in Washington who sits next to me. That's his job. We incorporate and

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update for all our OCS program areas.
MR. STANG: I'd like to add to what George said a little bit. The reason for doing it at the five-year program stage rather than the individual lease/sale stage, is because global warming is a long-term trend issue that affects not just the Beaufort, but the world. The globe obviously. We felt issues such as that would be more appropriately dealt with at the five-year program stage than at the individual lease/sale stage. Not that the individual lease/sales aren't -- that's not a relevant issue for that, but in a sense it's more relevant to cover it at the programmatic stage where the Secretary has in front of her the overall decisions for the program. The global warming, to the degree we understand it, is related to the burning of emissions rather than, for instance, the leasing and exploration and development of oil on the North Slope. It's related primarily to burning of hydrocarbons. Most of that doesn't occur on the North Slope. Most of that occurs down below.
MR. THOMPSON: Yeah. What I'm talking about is lessening the depth of the ice and the possible change in ocean currents.
MR. STANG: Our science group -- I've got a science group in Anchorage that are looking at changes in the environment here in Alaska and trying to make

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assessment of it. Now, one of the challenges is to understand exactly what changes relate to global change, global warming, and what changes are natural variations. Whether we -- we don't know everything there is to know about the cause and nature of global change. We do know it's happening but we don't know all the answers to exactly why it's happening.

MR. THOMPSON: Okay. Is the clean up equipment going to be in place before the activity is permitted? I mean adequate clean up equipment, not just this ConEx you have down here at the airport. I mean enough to clean up whatever happens.

MR. STANG: The -- let's take -- we've got three phases. We have the leasing stage, the exploration stage and the development/production stage. Basically, at the leasing stage we talk about the need for clean up but companies aren't doing anything yet. They're just acquiring leases at the leasing stage. At the exploration stage where, generally speaking, I think there's general agreement that the risk of a severe accident is relatively low compared to exploration/production stage. So there is oil spill contingency plans needed for the exploration phase, but typically the big concern is development and production, for instance Northstar. So Northstar has to have a specific contingency plan to show how and what oil

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they would clean up. That has to meet, because it's in State waters, the State requirements. The State says you need to clean up so much of that oil in so many days and so on and you have to show us in a contingency plan how that would be done. So if we had -- if the Liberty Project went ahead or if we sold a lease here of McCovey goes ahead. Those are in Federal waters. They have to have the same thing. They have to have a contingency.....

MR. THOMPSON: On site and not.....

MR. STANG: On site.

MR. THOMPSON: .....civilian equipment halfway across the state?

MR. STANG: That's right. That's right. We're talking about this project right here, you show us how you clean up oil associated with this project on the island from the pipeline to shore. And then, once you get to shore and you're hooked into the network, then that's part of a broader contingency plan for the pipeline system and if there's a spill in the pipeline system on shore.

MR. THOMPSON: Are these studies that you mentioned that will be ongoing, are they funded by the United States government or are they funded by the oil companies?

MR. STANG: Both. We have a budget that's, I think, in the ballpark now in Anchorage of about three to

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five million bucks a year for scientific studies. We have a group in Herndon, Virginia that has money to do technological issues such as, we had a big issue on the type of pipeline to use for Liberty. Should it be single wall, should it be double wall, that sort of thing. In addition -- and those studies as I mentioned earlier, are all driven by our best assessment with the advice of the North Slope Borough, with the advice of our Outer Continental Shelf Scientific Committee, may of whom are from the Alaska area, scientific experts in their field, independent of MMS, independent of the government. Their best advise as to what the priority should be on those studies. And finally, the companies, when they submit their exploration and development plans, they often include with that plans they have for certain studies that they'll do. In addition, as a condition of permits, the Corps of Engineers, the Fish ad Wildlife Service, National Marine Fisheries Service, and our office can require other studies of them that they need to fund. For instance, in Liberty the Corps of Engineers required -- it was about a $500,000 study on sediment plumes that would occur from dredging and from laying the pipeline and how that sediment would flow, in which direction and when. So it's both Sederal money and in State waters, State money. Less State money than Federal generally, and then private companies have to pay

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a variety of studies themselves.
MR. THOMPSON: I've got a question about the deferral area?
MR. STANG: Yes.
MR. THOMPSON: Is there any assurance that no pipelines will traverse these areas?
MR. STANG: The deferral is related strictly to leasing. That is, at this stage tracts -- let's say as a hypothetical, the Secretary decided to pick one of the alternatives. Let's just say hypothetically the Secretary decided to pick the Kaktovik green deferral and say I won't have leasing there. Her decision is literally about no leasing of that area. In itself, that kind of removes, from this lease/sale anyway, the great likelihood that there would be any pipelines or anything traversing the area because you go from the green area to shore. You don't go out to sea. Typically any infrastructure would want to get to shore as quickly as they can and then traverse over to Pump Station 1 on shore, typically.
But the technical answer to your question is no. The deferral doesn't remove the possibility of transiting that area with a pipeline, for instance. But by removing those from leasing, the probability of having any -- you'd literally have to have a tract out beyond it. It would literally have to be a tremendous find to justify and

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then you'd have to prove to the Secretary that that's the best route to come right through that, over through that tract to get to shore. So the answer to your question is no, but from a practical viewpoint I don't think you could anticipate significant activity in the area.

MR. THOMPSON: So now if you have the oil lease/sale outside the deferral area, is there any possibility that they would consider oil pipeline under the ocean to access the existing Trans-Alaska Pipeline?

MR. STANG: To bury the pipeline?

MR. THOMPSON: Under the water.

MR. STANG: Yeah. Yeah. In fact, the pipeline from Northstar to shore is buried six to eight feet under the sediments. The pipeline that was proposed for Liberty was buried a similar depth. I, in fact, saw the burying of the pipeline from Northstar to shore. What we had included in the Northstar pipeline. There were actually two pipes strapped together because they were going to take gas from the Badami to go out to the Northstar Isle to fire up all the equipment. And then the other one was the oil pipeline flowing to shore. In addition to that, there's a tube about this big in diameter, which is the LIOS tube. What that LIOS tube is a tube that can sense the presence of hydrocarbons at the molecular level. So if there were a small leak in the

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pipeline, this LIOS tube would be able to detect it down to a third of the barrel. But, I think their capability is even more. They say a third of a barrel, but I think they can detect even less oil coming out. That check is run every 24 hours through the life of the project. It's a pretty sophisticated device. It's a German device that's been used under rivers and under land in Germany. Allbeit, we haven't run it this distance in the ocean, but the engineers tell us that technically they don't see much difference. Furthermore, it's calibrated every 24 hours to make sure it's working.

The proof of the pudding on the Northstar pipeline is that they have zincs on the pipeline to prevent rust from occurring on the pipeline and so when they do this LIOS tube testing, every 40 feet, which is the length of the pipeline, they're seeing the off gassing of the zincs being generated. The hydrogen from the zincs is off gassing and they're picking it up on this tube every 40 feet. They see this when they have the read-outs on this thing. So they know that think is at least working that way. But BP is being very conservative about that LIOS tube and they're not saying we have definite proof this works at this time. I think they will ultimately, but they're being very conservative on how they make their statements.

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MR. THOMPSON: Just one more question. The State of Alaska is on record being in favor of a natural gas pipeline along the existing pipeline. If these oil lease/sales go into effect, would that allow the gas producing companies to circumvent the wishes of Alaska and go down through the gas pipeline into Canada?
MR. STANG: To that the -- they call it the over the top route? Is that what you mean? To go along the Beaufort Sea over into Canada?
MR. THOMPSON: Yeah. Could the leases allow the gas producing companies to do that?
MR. STANG: No. These lease only allow companies to develop and produce hydrocarbons and bring them to market. It doesn't give them access to transport a pipeline along the shore. That's a separate permit that would have to be achieved. A right of way. Now we would be involved in that. Our office would be involved in that right of way if they wanted to go through the Outer Continental Shelf in Federal waters over to Canada. We would certainly be involved in it, but this lease doesn't give them right to transport other hydrocarbons. It only gives them the right to develop and produce hydrocarbons from this particular lease.
MR. THOMPSON: The transportation would be a separate hearing and separate lease?

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MR. STANG: The transportation of the hydrocarbons from the particular lease would not be, but the transportation of other hydrocarbons across the Outer Continental Shelf would be. Now, I don't think it's realistic to expect that they would discover so much gas on a particular lease that they would then transport that to Canada. Because we already have 30 years of gas reinjected sitting there in Prudhoe Bay that no one has to drill for it. It's there. All you have to do is produce it. All you need is a pipeline and down it will go for 30 years. So, you've already got a lot of the natural gas sitting there. But these -- what we're doing here has nothing to do with the ability to transport or decide where the pipeline would go.
MR. THOMPSON: Okay. Well that's all the questions I have for now. Thank you.
MR. STANG: Thank you, Robert. Your questions were very appropriate. Yes, Albert.
MR. BARROS: This is Albert Barros.
MR. STANG: You'll need to come over here, if you wouldn't mind.
MR. BARROS: This is Albert Barros. Just two quick notes for Robert. About two or three weeks ago, Alaska Clean Seas did conduct a spill drill with some of their equipment on Prudhoe Bay and the results I got from

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Christy Bolt, one of our oil spill specialists, said that it was encouraging from what they had the last time they did it where it really didn't work in the broken ice. I think it was either Johnny or Gordon Brower that was at the drill and he was impressed with the equipment. So that is more encouraging. We haven't got the results of that officially yet from Christy, but we hopefully will be getting the report.

Also in regards to global warming, the Alaska Intertribal Council is convening a meeting on August 18 through 20 in Anchorage where they will be talking about the Native perspective and signs that they've been getting on global warming, especially here in Alaska. That's just for your information.

MR. STANG: Thank you Albert. Lon?

MR. SONSALLA: My name is Lon Sonsalla and I don't think I have too many questions but I'd like to make a few comments. Basically they are just reinforcing what has already been said tonight. I also don't believe that we have seen any real demonstration of oil spill clean up capacity in ice infested waters. Also the one that we keep referring to because it's the one that's already in place is Northstar. I believe that's in a more protected area than a lot of these newer proposed leases that are being offered or proposed at this time. And so that gives

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me concern that they would be in an area, possibly, that wouldn't be as protected as where Northstar is at from the ocean and the ice movements.

Also, as Suzie said, the noise had been demonstrated fairly thoroughly that it disturbs the migration patterns of the bow head whales, as well as the other mammals that we rely upon. To me it seems really silly to even be discussing possibilities of leases off of the coast of the Arctic National Wildlife Refuge because there is no way to make a landfall. I mean, these are things that we've said before over and over again, so I just would like to reiterate them for this time.

So at this point, I would recommend that we have a deferral for the Kaktovik subsistence whale deferral number five, and also number six, which is the eastern deferral, which has been demonstrated to be a primary whale feeding area. I don't even think that takes in enough consideration like I said that the whole area off the shore of ANWR should be deferral area. That's staying within the confines of what is proposed here.

To get off a little bit on a tangent. While I was looking through this, and I've commented on this before in the past, that, and you've mentioned it tonight that in the Lower 48 there is a moratorium on the new leasing on the East Coast, as well as the West Coast.

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Because of that, I'm assuming that the folks that live in those areas do not have to contribute their comments. It seems like we're always on the defensive here. This is something that happens over and over that these are proposed and we say no, we don't want them and then once again, there's another proposed lease/sale and we've all done individual lease/sales and I'm not sure if this five-year plan would preclude individual lease/sale commentaries or if this is a one time.
MR. STANG: Well, let me jump, if I could, Lon, on that. Paul Stang here. This program was approved in late June by the Secretary, developed by Renee's office and approved in late June. It specifically includes the three sales we're talking about. The sale in 2003, 2005, and 2007 showing that pink area. That's the starting place for the individual lease/sale. You start with the pink area and then you raise issues just like we're raising here today about these three sales. So that's how it works.
MR. SONSALLA: The way we've done it in the past is there was a five-year proposal.....
MR. STANG: Right.
MR. SONSALLA: .....and then each lease/sale would come up and we'd also comment on each lease/sale.....
MR. STANG: And that's.....

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MR. SONSALLA: .....it would be the same way?
MR. STANG: And that's what we're doing right now.
MR. SONSALLA: Okay.
MR. STANG: But instead of commenting for an EIS for each lease/sale, we have an EIS for all three lease/sales. Just like we had an EIS for this whole program.
MR. SONSALLA: Okay. That makes it a little bit easier. So anyway, what I would like to propose, besides saying that we should have a deferral, is that we should have a moratorium as same as the East Coast and the West Coast. We're not interested in offshore leasing here off the coast of ANWR, especially if ANWR is not developed and there's no possibility of making landfall, it just seems like a waste of time for us. And yet, as you can see, we're still willing to come here and comment and, as glad as we are to see you Paul and Albert once again, well you know we've become acquaintances over time.
MR. STANG: Right.
MR. SONSALLA: It does have an impact. This is a beautiful evening tonight and we're willing to give up some of our time to come here and make the comments

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that we've done in the past. So a moratorium would mean that we wouldn't have to keep doing this, at least not as long as the moratorium was in effect. So, like I say, it does have an impact. One thing that we keep asking for and there hasn't really been a reply, but I'll bring it up again. We need an impact office to help us deal with these outside forces. It would be, and I'm asking that it would be a federally funded office located locally here that people could come in contact with and give their thoughts and feelings. Not everybody is here as you can see. I think a central gathering place, as well as a type of spokesperson for the rest of the folks who aren't here. So once again I'd like to ask that would be considered that we have some type of impact office to help us deal with these impacts that we seem to be constantly incurring.
MR. STANG: Understand.
MR. SONSALLA: So that's all I have.
MR. STANG: Thank you for your testimony. I appreciate that and we appreciate your coming to the hearing. Merylin.
MS. TRAYNOR: Hi. This is Merylin Traynor again. I had some questions Robert brought up as he was talking. You were talking that the Coast Guard is the commander on site for the spill. Is that what you said?
MR. STANG: I believe there is an on-site

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commander who is up here on the North Slope. I believe I am correct. I can't guarantee it but I certainly can find out rather quickly and let you know if you'd like.
MS. TRAYNOR: Okay. Yeah, I've never heard of a Coast Guard person around Kaktovik.
MR. STANG: Oh, okay. You're talking about Kaktovik.
MS. TRAYNOR: Well, the North Slope.
MR. STANG: Okay.
MS. TRAYNOR: Yeah. You talked about Barrow but I -- west of Barrow or east of Barrow.
MR. STANG: Okay. Is there an on-scene Coast Guard commander in charge of clean up? I'll check it and let you know.
MS. TRAYNOR: And with the new offices being set up, the Coast Guard is being pulled into the homeland security, what happens if the Coast Guard at that point? That's a question they're asking in Congress.
MR. STANG: That's a question a lot of people are asking. You're right.
MS. TRAYNOR: Well what are we going to do for the next year or two where people are trying to figure out their jobs who are now sitting with.....
MR. VALIULIS: I can add to that question. George Valiulis. There will be an on-scene coordinator.

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I am not 100 percent sure that will be the Coast Guard, but we know that would occur. We can check where the Coast Guard comes in, but.....
MS. TRAYNOR: And how long will it take for that person to get here.
MR. VALIULIS: Immediately. That person becomes -- no, that person becomes -- somebody has to take charge of a spill immediately. There are protocols and all that worked out and it will become more obvious if a project develops. But this is not just for here, it's for everywhere. Some cases it's the Coast Guard. Some cases it could be EPA. It may even be us. But the reason for having an on-scene coordinator in charge is to get to it real quickly and organize things. So.....
MS. TRAYNOR: Knowing weather and conditions, I can see a possible delay.
MR. VALIULIS: Yes. I participated in such drills and it's very structured.
MS. TRAYNOR: Okay. I want to -- Lon said it, but I also want to say that I don't see a pipeline coming on shore in ANWR under the current conditions that ANWR is under. So, they shouldn't be drilling anywhere north of ANWR, because I don't know where you're going to get your pipeline on the land until you get over to the Canning River there.

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I also have a question on the pollution of the air around the oil fields of Prudhoe Bay. I understand that it's some of the -- some very high pollution just from drilling oil over there. But -- and I'm not a scientist so I don't.....
MR. VALIULIS: The studies that we have done, and it's one of the requirements we have and EPA has to approve the permits for that. We know that the action we propose would be from these leases, based on what we know so far and the scenarios that we've adopted would not be significantly detrimental.
MS. TRAYNOR: What is the actual pollution from the oil if, say, a well were to be developed? What's the pollution factors there?
MR. VALIULIS: I'm not an air quality specialist and I do know that we cover this in the Environmental Impact Statement but I can tell you that it's a very limited affect.
MR. STANG: In fact, just reading while I've been up on this trip, the air quality for Cook Inlet, in that document -- and I'm presuming it's just as precise in this -- is they're quite specific about the amount of pollutants they would expect and what affect there would be on air quality. I think -- in fact, it's fairly easy to find in here. Did you get a copy of this baby?

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MS. TRAYNOR: The big one?
MR. STANG: Yeah.
MS. TRAYNOR: No.
MR. STANG: You've got some copies here, Lon, I think. Okay. I mean, we can show you exactly where it is if you'd like to see. Probably the easiest thing to read is the one for the proposal itself because the alternatives are only slight variations from that. The air quality section in the proposal itself in section four will be pretty informative to you and help you answer that question.
That question with respect to development that would occur on the Outer Continental Shelf. Not as informative about the situation of pollutants in Prudhoe Bay.
MS. TRAYNOR: I understand that the situation of the air quality in Prudhoe Bay suffers greatly from just bringing oil out of the ground. I don't know that that's a fact because, strictly somebody said that.
MR. STANG: I don't know the answer.
MS. TRAYNOR: Okay.
MR. VALIULIS: I do know it's covered in the Environmental Impact Statement.
MR. STANG: Yeah. But how extensively for Prudhoe Bay, I'm not sure. Certainly it's covered fairly

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extensively for our proposals.
MR. VALIULIS: This is George Valiulis. We're not guessing at this. We've modeled this and we have the information. There are very strict requirements. Now when you're dealing with an area as large as this, obviously you can't be as precise as when you have a

particular development. Then it gets -- the criteria and such that have to be applied are much more strict. But given the whole area and our assumptions of how much may be developed, I can say that we don't see a problem.
MR. STANG: A good way to see that for a specific development is for us to look at the Liberty Final Environmental Impact Statement, which would talk about air quality associated with some specific project to get you some feeling about that.
MS. TRAYNOR: Oh, okay, a single project. Okay. Thank you.
MR. STANG: Thank you. Isaac.
MR. AKOOTCHOOK: My name is Isaac Akootchook, raised here in Kaktovik. I've been here 80 years and I've look at the -- having many times this hearing, a hearing in our land and we talk about oil development in the Beaufort Sea. Many times we opposing. I'm always saying we oppose it. The oil development in our area, oceans is our living. We're fishing and seal and all

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already we testimony about all those things already. But this is still happening. Same old things that coming back to us and play more -- something else to give you more testimony, but -- I have a lot of big books as to how many boxes is coming in to us. I've not really read it because I don't know how to read much about it. But big things arrive and I just set them up in my floor and that's it. But one of the things is we're always saying that, is still there, we oppose oil development in the ocean because our life, living, we pass it on to our generations and generations.

And one of the things I'd questions, always is make it answer. It happened to the pipeline oil spill drill, whatever, did Kaktoviks people have a benefit from that? Happen to use the money for all his life? I don't know. I don't think you will have answer that. I don't think we will get any benefit. Happen to our yards, in the oceans spill. That's how -- I'm always listening to that because we are government, we pay the taxes, you know. Anything -- there's always a government doing it, we pay. Everything -- the income, you konw, all of that income through taxes. Same thing with the North Slope government.

We'd like to know sometime if you come back maybe you get answer for that because it's not going to stop. We're going to oppose [sic] the oceans and the

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inland and we always favor to ANWR and make plans, we always favor about it, but not in the ocean.

That's all I have to say. Thank you very much.

MR. STANG: Thank you, Isaac. Anyone else would like to provide some testimony? Good. Thank you. Lilly.

MS. L. AKOOTCHOOK: Lillian Akootchook. I'd like to say that ocean is our garden. Just like you white people. You have your garden in springtime, plant it and harvest. We depend on baby seal, seal, whale and fish and if there's ever a spill that's going to be the end of it, you know. And it's going to be a big mess. So I'm against that ocean drill, you know, but otherwise that's our livelihood in relation to our generation.

Thank you.

MR. STANG: Thank you, Lilly. Anyone else? Yes, Merylin.

MS. TRAYNOR: While I was sitting and listened to Isaac and I realized how many years, you know, they've dealt with this and dealt with this, and I've had the luck to get to fly along the coast a little bit this year and to see that ice move and to see that ocean move, I know what can happen out there if an oil spill should occur. I've seen it over the last three weeks with storms

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and it just changes constantly. It would be devastating if we had a spill. Exxon Valdez was bad. It would be very bad here. It would affect Canada depending on the weather conditions. The weather conditions change just constantly. We need to really think about what we're doing if we're going to drill in this ocean.
MR. STANG: Thank you, Merylin. Anyone else who would like to make a statement or ask a question?
(No audible responses)
MR. STANG: Well, I want to -- would you like to make another.....
UNIDENTIFIED VOICE: No.
MR. STANG: Okay. I would like to thank you all for coming. I really appreciate your coming. It certainly is a gorgeous evening to be inside and, as Merylin said, you better enjoy it while you can because the weather can change very quickly. But I want to thank you for spending your time and for coming and giving us your thoughts and your inner feelings. I really appreciate that.
We've made a record. We've taken notes to talk about it as soon as we get back to the office what you've said and we have a transcript that Nathan will have word for word. So, thank you very much.
What we would like to do is leave these

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maps if you'd like, with you and we have some extra copies which I have back at the hotel. I can leave you with those, too, or I can take them back and we'll leave these extra documents. I think you may have the final Liberty EIS still here, copies of that. If you'd like one, Merilyn, and we have copies of this document.
(Off record)
(On record)
MR. STANG: If I could. This was the first time that we translated the executive summary into Inupiat and we would like to know if this is a good idea for us to do this. Generally speaking, if you could kind of give me your views from the audience.
UNIDENTIFIED FEMALE: Well, I take it home and (indiscernible) trying to read this. An Inupiat reader. (Indiscernible)
MR. STANG: Okay. So I take that as a yes. You like the idea and that we should do this in subsequent documents. Is that correct?
MS. S. AKOOTCHOOK: Yeah. And then send them to the school, Inupiat.
MR. STANG: And send them to the school?
MS. S. AKOOTCHOOK: Yeah (indiscernible)
MR. STANG: Okay. Good. Here or where?
MS. S. AKOOTCHOOK: (Indiscernible)

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MR. STANG: Well, maybe what we ought to do is have Albert make -- well, leave those for sure and leave the one I've got here -- but maybe what we ought to do for the final, we ought to look to see how many we should deliver to the North Slope because I think, you know -- on these things, once you go through the cost of translation and the cost of printing the first batch, the subsequent copies are pretty cheap. So, that might be a really good idea for the schools. Good idea, Suzie. We'll look forward to doing that.

UNIDENTIFIED FEMALE: Who was the translator?

UNIDENTIFIED FEMALE #2: Mabel Hobson.

UNIDENTIFIED FEMALE: Mabel Hobson.

MR. STANG: Yes. Yes. Good. Again, thank you all for coming very much. We appreciate it. We always love to come to Kaktovik and visit your beautiful village.

MS. ORR: Especially when the weather is like this.

(Off record)

(END OF PROCEEDINGS)

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C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Mineral Management Service Hearing was electronically recorded by Nathan Hile on the 29th day of July 2002, at Kaktovik, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 26th day of August 2002.

_____

Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 4/17/04

MMS Responses to Kaktovik Public Hearing Comments

PH-Kaktovik.001

BPXA notified the MMS on March 5, 2002, that they were re-evaluating the development plan for the Liberty Project. The re-evaluation contains a number of development scenarios. The scenarios range from moving the proposed development island to the construction of a drilling island with three-phase flow back to existing infrastructure.

PH-Kaktovik.002

The transcript is unclear as to whether a question is being asked about the Liberty Project or the McCovey Project, and part of the question is indiscernible. Rather than try to guess what was being asked, we have decided not to respond.

PH-Kaktovik.003

This response is in addition to the answer provided during the public hearing. Seismic noise and its effects on endangered species also is an issue in the Gulf of Mexico. Some species of whales may be affected and possibly injured by the seismic noise. The MMS is working closely with the NMFS to find ways to mitigate this problem. In Alaska, the MMS and seismic companies work closely with the NMFS to ensure no animals are injured. The NMFS issues an Incidental Harassment Authorization to operators of oil and gas activities in the Beaufort Sea. One of the requirements is that all seismic surveys and drilling activities during the fall bowhead whale migration must conduct a monitoring program to determine the level of sound and any changes in the behavior of the whale. This information is provided to the NMFS and is discussed in a peer-review forum consisting of representatives from the NMFS, the Alaska Eskimo Whaling Commission, the North Slope Borough, the MMS, and industry.

PH-Kaktovik.004

Sound is transmitted efficiently through water. Hydrophones often detect underwater sounds created by ships and other human activities many kilometers away, far beyond the distances where human activities are detectable by senses other than hearing. Sound transmission from noise-producing sources is affected by a variety of factors, including water depth, salinity, temperature, sound frequencies, ice cover, bottom type, and bottom contour. In general terms, sound travels farther in deep water than it does in shallow water. Sound transmission in shallow water is highly variable, because it is strongly influenced by the acoustic properties of the bottom material, bottom roughness, surface conditions, and ice cover. Smooth, annual ice cover may enhance sound propagation as compared to open-water conditions. However, as ice cracks and roughness increases, sound transmission generally becomes poorer than in open water of equivalent depth. At this point, the roughness of the under-ice surface becomes more significant in influencing sound-transmission loss than bottom properties. Temperature and salinity also can have a significant effect on sound propagation. In general, sound travels more slowly in freshwater than in oceanic water, and sound travels more slowly in cold water than in warm water.

PH-Kaktovik.005

See Response PH-Kaktovik.004.

PH-Kaktovik.006

The EIS describes the species of seals and their habitats that occur in the Beaufort Sea Planning Area (see Sections III.B.6a, Ill.B.6b, and III.B.6c).

PH-Kaktovik.007

Under the right conditions, ice cover can enhance sound propagation through the water. See Response PH-Kaktovik.004.

PH-Kaktovik.008

To avoid potential disturbance to whales, the NMFS has long determined that airplanes should maintain at least a 1,000-foot altitude above sea level. Special permits are required to fly lower than that. We fully support the 1,000-

foot guideline for all fixed-wing aircraft. Our Bowhead Whale Aerial Survey Project plane normally surveys at a 1,500-foot altitude.

PH-Kaktovik.009

Deferral areas are considered on a sale-by-sale basis. For each OCS sale, deferral areas are designed to address specific concerns existing at the time of the Proposal. An area considered for deferral or actually deferred in a previous sale will not automatically be carried over to the next proposed sale. These decisions are based on information that is current at the time these deferral areas are designed.

PH-Kaktovik.010

Our office has proposed that the area around Kaktovik be considered for deferral as Alternative V - Kaktovik Subsistence Whaling Deferral. The reasons for Alternative V are described in the EIS in Section II.F. This subsistence area is shown on Map 2- -Beaufort Sea Multiple-Sale Deferral Options. The extent to which feeding by bowhead whales takes place in the eastern Alaskan Beaufort Sea is summarized in this EIS in Section III.B.4.a(1), based on more detailed scientific findings and whaler testimony in the report *Bowhead Whale Feeding in the Eastern Alaskan Beaufort Sea: Update of Scientific and Traditional Information* (OCS Study, MMS 2002-012).

PH-Kaktovik.011

See Response PH-Kaktovik.009.

PH-Kaktovik.012

See Response PH-Barrow.004.

PH-Kaktovik.013

See Response PH-Barrow.004.

PH-Kaktovik.014

In situ burning of oil has been demonstrated both in open-water conditions off the Canadian east coast and in broken-ice conditions in a containment basin on the North Slope. In 1993, an offshore burn experiment was conducted off the coast of Newfoundland, Canada to evaluate aquatic toxicity from in situ burning of oil. The results of these experiments are published in *Aquatic Toxicity from In-situ Oil Burning: Newfoundland, NOBE Offshore Burn Experiment*. These experiments focused more on the effects of in situ burning on the aquatic environment and did not address the overall efficiency of the burn itself. During the early 1980's in Prudhoe Bay, in situ burning tests in broken ice were conducted. Efficiencies realized in these experiments ranged from 55-85% removal of oil from the water's surface. The results from those tests are contained in *Oil Spill Response in the Arctic: An Assessment of Containment, Recovery, and Disposal Techniques.* Additional laboratory tests have realized burning efficiencies in excess of 95% oil removal.

The MMS funded additional in situ burning tests in October 2002 in Prudhoe Bay. A series of burns will be conducted in the Alaska Clean Seas wave tank to better understand in situ burning in freezeup/slush-ice conditions.

PH-Kaktovik.015

See Response PH-Kaktovik.014.

PH-Kaktovik.016

The answer provided by Mr. Stang is correct.

PH-Kaktovik.017

The previous Beaufort Sea lease-sale EIS was published in 1998; the current EIS contains several references to studies that have been published since then. For example, the section on toxicity of oil to lower trophic-level organisms (Section IV.C.2.a(3)) is based partly on studies that were published by Gibson during 2000 and by Shirley and Duesterloh during 2002. The section is based also on spill-recovery information in the current web site for the *Exxon Valdez* Oil Spill Trustee Council (www.oilspill.state.ak.us/facts/lingeringoil.html). Further, the section on toxicity of oil to fishes (Section IV.C.3.a(2)) is based partly on studies that were published by Marty et al. during 1999, by Pearson et al. during 1999, and by Rice et al. during 2001. This EIS does reflect recent information on the toxicity of oil.

PH-Kaktovik.018

The toxicity studies were conducted in cold water. The studies by Rice et al. were conducted at the Auke Bay laboratory near Juneau, Alaska. The studies by Shirley and Duesterloh were conducted at the Juneau Center of the University of Alaska. The studies for the *Exxon Valdez* Oil Spill Trustee Council were conducted in water from Prince William Sound. The studies on the toxicity of diesel oil to kelp (Section IV.C.2.a(3)(b)(1)) were conducted in the Antarctic.

PH-Kaktovik.019

The toxicity of hydrocarbons on fish in cold water has been studied for many years, and there is a wealth of information on that subject. Most of these studies were not funded by the MMS.

PH-Kaktovik.020

See Response PH-Barrow.004.

PH-Kaktovik.021

See Response PH-Kaktovik.019.

PH-Kaktovik.022

The EIS recognizes that spilled oil can take a long time to break down in the cold temperatures of the Arctic (see Section IV.C.9 - Effects on Vegetation and Wetlands). The effects of oil toxicity on wildlife is discussed in Section IV.C on lower trophic-level organisms, fishes, essential fish habitat, endangered species, marine and coastal birds, marine mammals, and terrestrial mammals. However, to put the concern about crude oil-spill effects on wildlife and on the arctic environment into perspective, the public should recognize that natural crude oil seeps occur along the arctic coast of Alaska. The largest known seep occurs at Cape Simpson east of Barrow; there also are oil seeps just east of Kaktovik. This means that wildlife and the environment are exposed naturally to some crude oil and its toxicity. The main concern regarding oil spills should be the exposure of wildlife to a large volume of oil at one time. The effects of a large spill are analyzed in Section IV.C.9.a(2).

PH-Kaktovik.023

Because of the seasonality and migratory behavior of most arctic species, it is necessary to consider potential effects outside the proposed sale area. This is true for both marine and terrestrial species of concern. The treatment of this important concept is in the cumulative analysis of each resource category under transportation effects. Our emphasis has been on potential spills from potential onshore pipelines and from tankering of oil to Far East and West Coast markets. Tankering out of Valdez has received the greatest emphasis, and we have estimated six spills to occur, four in port and two at sea (Section V.C). Taken over the 20-year life of this proposed activity, these events are not seen as additive to the same population, and differences in time and space allow for recovery of the population prior to an additional exposure.

PH-Kaktovik.024

The analyses in the EIS are based on multiple oil-weathering studies, including dispersion and dilution, under arctic conditions in the laboratory and directly in the Arctic Ocean. Several of these studies were conducted by the MMS Alaska OCS Region or by international consortiums including the MMS. Field experiments have been conducted the U.S. and Canadian Beaufort seas, Baffin Bay, and in the Norwegian Arctic. Some of the reports and publications that have been taken into account by MMS analysts in writing this EIS are cited here and have been added to the bibliography: Adams, Scott, and Snow (1975);.Arctec Canada (1983); Boehm et al. (1983); Buist and Bjerkelund (1986); Buist and Dickins (1988); Buist, Joyce, and Dickins (1987); Buist, Pistruzak, and Dickins (1981); Buist et al. (1989); Comfort and Purves (1982); Cox and Schultz (1981); Cox et al. (1981); Dawe et al. (1981); D.F. Dickins Associates Ltd. (1992); Dickins, Buist, and Pistruzak (1981); Humphrey et al. (1987); Kovacs et al. (1981); Martin (1979, 1981); Martin, Kauffman, and Welander (1978); Payne (1987); Payne et al. (1984, 1987, 1989, 1991); Payne, McNabb, and Clayton (1991); Reed et al. (2000); Rosenegger (1975); Sayed and Løset (1993a,b); Stringer and Weller (1980); Sydnes et al. (1985); and Tebeau, Meehan, and Myers (1982).

PH-Kaktovik.025

No studies have been done or are planned to determine the effects this additional amount of oil would have on the existing pipeline system. The optimistic estimate of 460 million barrels of oil from each of the three sales does not

constitute volumes that would translate into any meaningful information. The pipeline, with a capacity of 1.7 million barrels per day, presently is running at below capacity at 1.38 barrels/day and readily can accommodate any additional inputs, especially that of the magnitude of the proposed lease sales (Conally, 2002, pers. commun.). The volume transported has been dropping for several years and recent estimates from BP state that a new Alpine or Northstar discovery is needed each year to maintain the present volume of oil transport. Trans-Alaska Pipeline System pipeline spills have been included in the analysis of cumulative effects (see Table V-12).

PH-Kaktovik.026

By our informal definition, the foreseeable future is over the next 2-3 decades. Beyond that, speculation about the timing and size of possible discoveries is beyond any accurate estimation. It would be misleading to discuss the possible impacts beyond the foreseeable future. Reserve estimates will change as new discoveries are made and brought into production. If no additional discoveries are made on the North Slope or Beaufort Sea, oil production from northern Alaska will be nearing the end of life in 30 years. However, if new oil discoveries are made, the pipeline corridor and facilities could be refurbished to handle production for decades more.

PH-Kaktovik.027

The company responsible for the oil spill is responsible for funding the cleanup. The MMS requires that operators post bonds or other methods of insurance demonstrating that there are funds available to cover spill-response and -cleanup costs. In addition to these funds, following the *Exxon-Valdez* spill, Congress created the Oil Spill Liability Trust Fund to cover response costs in the event the responsible party is unable to completely fund the cleanup or if the responsible party cannot be identified. The Fund is managed by the U.S. Coast Guard. The Fund was created through a nickel-a-barrel tax on crude oil produced, and the Fund stands at $1 billion. In the event these funds should be exhausted, Congress can allocate other Federal dollars to ensure spill-response efforts continue.

PH-Kaktovik.028

The petroleum industry has billions of dollars invested in North Slope infrastructure and intends to use it as long as it is feasible. However, most of the North Slope oil fields are past their production peak and are facing depletion and abandonment in the next 20-30 years. Since 1977, the Trans Alaska Pipeline System pipeline has carried between 20% and 25% of total U.S. oil production to a growing economy. Maintaining this transportation system is a key element in our domestic energy strategy. New discoveries and development in northern Alaska are necessary to support the continued operation of North Slope infrastructure and the pipeline. This is important to the U.S. and vital to the Alaska economy.

PH-Kaktovik.029

Considerable effort has been made by the MMS to acquire observation data on ocean circulation in the area considered in this EIS. Information about these studies can be found in the Environmental Studies Program Information System, which makes all completed Environmental Studies Program reports available online as full electronic “pdf” documents, including images and graphics. Technical summaries of more than 700 MMS-sponsored environmental research projects in addition to full “pdf” documents of more than 2,000 research reports are available for online, full-text search. The information is grouped geographically to help locate the most useful documents. Their efforts to obtain circulation data have been quite successful. The most recent study was a circulation study (Weingartner and Okkonen, 2001) for the Stefansson Sound, as recommended by the National Research Council in 1994. In addition to the MMS’s own funded science, we use data that have been certified by investigators available from several Federal archives (for example, the National Oceanographic Data Center). Data also are available from researchers in their published results in addition to data reports. Due to the scientific interest in the causes and impacts of global warming in the Arctic, several oceanographic research studies have been conducted in the late 1990’s and early 2000’s (for example, Pickart (2001)).

PH-Kaktovik.030

The EIS does not evaluate the ability to clean up spilled oil. The EIS evaluates impacts to the environment when no cleanup actions are conducted. The ability to track, access, and clean up oil spills is evaluated during the course of the oil-spill-contingency plan review and approval process.

PH-Kaktovik.031

If encapsulated oil traveled 100 miles or more from the spill site, mining may not be the best response method. Ice mining is most appropriate for areas in close proximity to the spill source, where heavy concentrations of oil would

be present. As oil begins to freeze into the ice, the responsible party would position tracking buoys with the oil so that it could be followed as the ice shifted. The best methods of oil removal in areas significantly distant from the Prudhoe Bay infrastructure would be to collect the oil with a skimmer or conduct an in situ burn as the oil surfaces through the brine channels in the spring. Alaska Clean Seas has a number of response tactics to collect or burn the oil in these conditions.

PH-Kaktovik.032

The MMS conducts an oil-spill-trajectory analysis as part of the EIS analysis. Part of this oil-spill-trajectory analysis examines the paths of thousands of hypothetical oil spills from hundreds of locations and tracks them for as long as a year. These spills are tracked in both open water and in ice. Depending on the winds and the currents, some of these hypothetical oil-spill paths can move quite far from the location where they were launched. A small percentage (1-8%) of the trajectories launched in winter can move as far as 300-400 miles over a year (360 days, Appendix A, Table A.2-54.). Summer trajectories move as far, but a lower percentage of trajectories travel that far.

PH-Kaktovik.033

See Response L-0026.015. Mr. Stang's comment p 44-45 sufficiently reinforces Mr. Thompson's statement on line 20-22.

PH-Kaktovik.034

The Oil Pollution Act of 1990 requires that industry have sufficient equipment available to respond to a worst-case discharge. As the agency responsible for enforcing these regulations, the MMS ensures that any offshore operations have sufficient equipment onsite to initiate a response until the rest of the oil-spill-response equipment can arrive. As operations move farther away from the Prudhoe Bay complex, additional equipment most likely would be staged across the North Slope to ensure that assets are available for a timely response. As potential spill quantities increase, so do the requirements for response equipment and personnel.

PH-Kaktovik.035

Mr. Stang's comment on pages 46-47 sufficiently responds to Mr. Thompon's question on page 46, line 20.

PH-Kaktovik.036

Mr. Stang's response on pages 48 and 49 to Mr. Thompson's question about assurance that no pipelines will traverse the deferral areas (page 48, line 5) essentially is correct. Any oil produced from the Federal OCS in the Beaufort Sea would be transported to shore via undersea pipeline and through the Trans-Alaska Pipeline System. However, this assumes leases in areas not deferred, and that if an exploration well were drilled and a discovery made, a developmental environmental assessment would be prepared, as mandated by the OCS Lands Act. This assessment would be based on specific detailed data submitted by the lessee in its development and production plan. This plan and environmental assessment (or EIS) would analyze potential effects, would consider pipeline or transportation alternative routes, and the public will have an opportunity to comment on the analysis prior to the decision.

PH-Kaktovik.037

Mr. Stang's comment on page 49 sufficiently responds to Mr. Thompon's question on page 49, lines 6-9. Also see Response PH-Kaktovik.036.

PH-Kaktovik.038

Mr. Stang's comment on page 51 sufficiently responds to Mr. Thompon's question on page 51, lines 1-6.

PH-Kaktovik.039

Mr. Stang's comment on page 52 sufficiently responds to Mr. Thompon's question on page 51, lines 24 and 25.

PH-Kaktovik.040

See Response PH-Kaktovik.012.

PH-Kaktovik.041

The commenter is correct in that present law prohibits any landfall or facilities on the coastal plain of the Arctic National Wildlife Refuge. Also, regarding noise disturbance to the bowhead, see Response PH-Kaktovik.003.

Regarding the commenter's recommendations regarding the Kaktovik subsistence whaling deferral and the Eastern deferral (deferrals V and VI), see Section I.C.2.b(3), areas offshore of the Arctic National Wildlife Refuge. Although no prohibition on offshore leasing is included in the Arctic National Wildlife Refuge statutes, its Comprehensive Management Plan restricts the use of the Refuge for infrastructure to support any offshore development. Any OCS activity (including pipelines to shore) would not be approved without thorough technical and environmental reviews and would have to meet the requirements of the Marine Mammal Protection Act, the Endangered Species Act, and several other Federal and State laws that help to protect the natural resources of the area and environment.

PH-Kaktovik.042

The opportunity to comment on various stages of the Proposal will continue throughout the process for each of the three sales proposed in this EIS. The next opportunity to comment on Sale 186 will be when we publish a proposed Notice of Sale and the final EIS for the three proposed sales. At the time we publish a proposed Notice of Sale we will also send a Consistency Determination to the State of Alaska. This document will address coastal zone consistency issues. The North Slope Borough will have an opportunity to review and comment on all of these documents. For each of the remaining two sales, Sale 195 and Sale 202, we will prepare additional environmental documents, proposed Notices of Sale, and Consistency Determinations. Each of these steps will provide the opportunity to comment on each of those sales individually.

PH-Kaktovik.043

See Response L-0034.027 and Section I.C.1.e(1).

PH-Kaktovik.044

In the event of a large spill, the Unified Command would be activated to oversee oil-spill-response activities. In the Beaufort Sea offshore, the Unified Command is comprised of representatives from the company that spilled the oil, the U.S. Coast Guard, the State of Alaska, and the North Slope Borough. If a large spill occurs, the Responsible Party is the On-Scene Commander, who is responsible for ensuring that sufficient spill-response equipment and personnel are available to effectively clean up the oil. The Responsible Party will work with the other parties of the Unified Command to ensure that critical response elements are addressed, such as protecting environmentally sensitive areas, implementing an in situ burn, protecting archeological resources, collecting oiled wildlife, etc. The Coast Guard On-Scene Coordinator would take over the spill response only if he determines that the Responsible Party is not adequately managing the spill response or does not have sufficient assets available to respond.

Were a large spill to occur, the members of the Unified Command would be onsite within hours of notification. The spill-response effort does not wait for the Coast Guard or any of the other Government agencies to be onsite. Each of the operators has an Incident Management Team present on the North Slope at all times, and this team sets in motion their contingency plans to ensure a spill response is organized immediately. Industry conducts annual, full-scale spill-response exercises called Mutual Aid Drills, which bring together the entire Unified Command; supporting industry; and Federal, State, and local government agency personnel to practice large-scale spill response. These drills help to ensure that an effective spill-response effort is initiated without delay and a minimum of confusion.

PH-Kaktovik.045

See Response PH-Katovik.041.

PH-Kaktovik.046

Please see Table III.A-5 for ambient air quality standards for the program area and Table III.A-6 for measured air pollutants at Prudhoe Bay.

The air pollutants measured at Prudhoe Bay (Table III.A-6) represent the air pollution that was occurring from a very large complex including many wells in Prudhoe Bay, Kuparuk, and several smaller nearby fields. The pollution expected from "a well" would be vastly smaller.

PH-Kaktovik.047

See Response PH-Kaktovik.046. Also, see Section III.C.1.m(2)(b) of the Liberty final EIS (USDOI, MMS, Alaska OCS Region, 2002), which is a fairly detailed discussion of the analysis of air quality impacts for that proposed

project. Tables III.D-1 and III.D-2 from the Liberty final EIS present the most relevant data from the site-specific air-quality modeling analysis that BPXA performed.

PH-Kaktovik.048

The MMS acknowledges the commenter's opposition to offshore oil exploration and development in the Beaufort Sea. We also acknowledge that there is an inequitable distribution of development benefits and risks on Inupiat communities on the North Slope and particularly to the bowhead whaling subsistence hunt. At the same time, the MMS has a mandate to develop oil resources offshore Alaska. In an effort to bring these two opposing views to a place of compromise, the MMS has endeavored to improve its dialogue with Native stakeholders on the North Slope. The MMS has supported impact-assistance legislation. See Section I.C.1.e(1) and Response L-0034.027. The MMS has funded long-term studies and surveys of the bowhead whale, recently awarded a study to examine Native residents' perspectives on effects from offshore oil activity on bowhead whaling and social traditions and, with the urging of the North Slope Borough, has developed conflict resolution processes to increase stakeholder involvement in MMS decisionmaking.

While these efforts do not solve the larger problems of an ongoing threat to Inupiat traditions from increasing development in the region and the powerful influences of modernity, such as cable television, the internet, and an increasing dependence on a wage-based economy, they do provide processes for a dialogue where compromise has often successfully been achieved. For a discussion of benefits derived from MMS lease sales, see Responses L-0034.020 and L-0034.027.

PH-Kaktovik.049

The MMS acknowledges Inupiat dependence on the ocean for their food, the seriousness of food tainting in case of an oil spill, and the potential for an unwarranted community avoidance of subsistence foods. This is discussed using *Exxon Valdez* spill research in Section V.C.12 - Cumulative Effects on Sociocultural Systems. In the Environmental Justice analysis, we concluded that a spill would produce disproportionate, high adverse effects because of potential effects to subsistence resources and harvest and concerns over food palatability and tainting.

Regarding oil spill cleanup, see Response PH-Barrow.004.

Since the *Exxon-Valdez* oil spill, new legislation in the form of the Oil Pollution Act of 1990 has mandated that industry and the government significantly increase and improve their oil-spill-response capabilities. Oil-spill-contingency plans are routinely exercised by both industry and the government to ensure that response activities are initiated immediately following a release to limit the impacts of a spill on the environment.

PH-Kaktovik.050

The impacts of a very large spill are analyzed in Section IV.I. The MMS acknowledges that a very large spill would be of grave concern; however, these types of very large spills are rare. This analysis of where hypothetical oil spills can travel considers the climatological "weather" that occurs on the Alaska North Slope in the Arctic. The MMS acknowledges that large spills in the U.S. Beaufort Sea sometimes can move into the Canadian Beaufort Sea. The results of the oil-spill-trajectory analysis bear out this fact.

UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

OFFICIAL TRANSCRIPT -- PUBLIC HEARING

DRAFT ENVIRONMENTAL IMPACT STATEMENT
BEAUFORT SEA MULTIPLE SALE PROPOSED OIL AND GAS LEASE SALES
(SALES 186, 195, AND 202)

Anchorage, Alaska
Minerals Management Service
3rd Floor Conference Room
Tuesday, July 30, 2002
4:00 p.m.

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MMS PUBLIC MEETING

July 30, 2002

Anchorage, Alaska

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P R O C E E D I N G S

(Anchorage, Alaska - 7/30/02)

MR. STANG: A couple more people have signed up, but haven't arrived, but that's okay. My name is Paul Stang, I'm the regional supervisor for Leasing Environment here in the Alaska region of Minerals Management Service. The purpose of our meeting today is a public hearing on the -- what we call the multiple sale EIS for three lease sales in the Beaufort Sea that are proposed for the years 2003, 2005, and 2007. Our team here also consists of Fred King on my right, who's head of our Environmental Assessment Section, and Paul Lowrey on my left, also in the Environmental Assessment Section, who's the lead o the preparation of this EIS. And we have with us Salena Hile who's doing the recording, and she'll make a transcript of this. We also have with us some members of our staff in the back, as well as our regional director, John Gull.

MR. KING: And there's Angela.

MR. STANG: And Angela Mazzullo here who's with the budget shop in -- with our budget folks in our headquarters in Hernon, Virginia, so if you're in need of money, see Angela, and we'll see what she's made out of here.

We're just starting. Come on in and grab

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a seat.
UNIDENTIFIED VOICE: Thank you.
MR. STANG: We're here to get your comments on this document, this environmental impact statement, and we also -- I would like to keep the meeting a little informal, so if you have questions that you would like to ask, or you need some clarification or whatever have you, please feel free, and I'll do my best to answer them. If we can't -- or Fred or Paul, and if we can't answer them, we will then take them down in writing and get back to you.
Just so you know, and I pointed out the map here on the left, the area we're talking about extends from about three miles from shore, which is the beginning of state waters, and the division between state and federal waters, beginning of federal waters basically out to six nautical miles in depth. And we are ranging out to 60 nautical miles. And the depth ranges from about 25 to 200 feet. It's about 9.9. million acres, and it goes from the Canadian border on the east to Barrow on the west.
The basic reason we're preparing a multiple sale EIS instead of an EIS for each of the three sales is that we're -- the proposal that we have, which was formulated by the Secretary of Interior in her five-

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year program which was just approved this past June at the -- actually just at the end of June, proposes that basically the same area be offered in all three sales, and to do three EIS's that essentially repeat themselves doesn't seem prudent, nor is it seem -- envisioned by NEPA, so what we're going to do is this multiple sale EIS, we'll hold the first sale, assuming it's -- that the sale is held, and then between the first and the second sale what we'll do is do an environmental assessment to determine if we need to do a supplemental EIS. And we'll do the same thing between the second and third sales. We will do a consistency determination for each of the three sales. By the way, on those environmental assessment, we will ask for public input.
This is one of a series of public hearings we've been having. We met last week in Nuiqsut and Kaktovik, and had originally scheduled a meeting for Barrow, but due to bad weather that was canceled, and we'll be meeting in Barrow on Thursday, the first of August.
We have held seven sales in the Beaufort Sea starting in 1979, and we've issued 690 leases, and 54 of those are still active. The lease area extends basically from three to 12 miles offshore or off the barrier islands, and we drilled 30 exploratory wells.

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But to date the only production has come from the Liberty project.
MR. KING: No, Northstar.
MR. LOWREY: Northstar.
MR. STANG: Excuse me, the Northstar project. Indeed that's a dream if it's the Liberty project. The Northstar project is in state waters and has a few downhole locations in federal waters, and that's how that production's occurring.
Speaking of the Liberty project, the Liberty project was -- the environmental impact statement was essentially finished when BP notified us that they were putting that project on hold to rethink it based on its location and economics, and they have since withdrawn their development and production plan, and they may within a year or so some in with a modified plan.
These comments that we get here at this public hearing and the other public hearings will be used by the Secretary of Interior in making her decision on the proposed sale, on each of these three proposed sales.
When we -- when you testify, if you would lease state your name before you testify, and the place to be testifying will be right here. And if someone else has a comment to add in the process, we need to get the microphone in front of you, because otherwise it won't be

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in the transcript.
I think that's a brief introduction that I wanted to give. Anything else that we're missing here as far as you two are concerned?
MR. KING: I don't think so.
MR. STANG: And is there -- yes?
MR. KING: Do we have a time limit?
MR. STANG: I'm not going to set a time limit for people giving testimony at this point, but if you go on much more than 15 minutes or so, I may take the privilege of setting a time limit, so we'll see how we go on that. Does anyone, before we start, have any questions or points they would like to make in general, that's of general interest to people? Okay. Well, I think Jeremy was the first one in, if you'd like to start. Again, state your name and organization if you would, and speak clearly into that, and you're on.
MR. MILLEN: Okay. My name is Jeremy Millen, I represent the Alaska region office of the Ocean Conservancy. And -- set to go? All right.
UNIDENTIFIED VOICE: Ready to go.
MR. MILLEN: First and foremost, thanks for the opportunity to comment to comment on the OCS oil and gas leasing program for the Beaufort Planning Area Draft Environmental Impact Statement.

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Alaska's Beaufort Sea OCS waters host endangered species, productive marine life and vibrant coastal communities. These proposed lease sales threaten these sensitive marine, coastal, and social environments, including the Arctic National Wildlife Refuge and areas near Teshekpuk Lake.

Secretary Norton's proposed leasing program is a major federal action requiring the preparation of an EIS, as mandated by the National Environmental Policy Act. NEPA's purpose is to promote efforts which will prevent or eliminate damage to the environment, to inform the public of environmental consequences, and to help public officials take actions that protect, restore, and enhance the environment. To be sufficient under the law, and EIS must address the direct and -- the direct, indirect and cumulative impacts of the project and its alternatives.

The Beaufort Sea DEIS fails to satisfy the above-listed requirements of NEPA. The proposed oil and gas lease sales endanger the fragile marine environment off the coast of northern Alaska. Productive marine ecosystems, marine mammals, sea birds, and coastal communities are all at risk from potential blowouts and pipeline oil spills. Additionally, marine life is threatened by toxic sediments and cuttings disposed at

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sea during exploratory drilling, noise pollution generated by vessel traffic, drilling, platform work, and seismic testing, and the laying of miles of pipelines in or on the sea floor. Even small amounts of oil can negatively affect marine life. Oil pollution increases susceptibility to diseases in fish, inhibits phytoplankton productivity, and interferes with reproduction, development, growth and behavior of many species.

And in -- the inclusion of all of the Beaufort lease sale area prominently ignores the ability to respond to an soil spill in ice conditions. Fierce climatic conditions, high winds and seas, seas ice, and cold temperatures challenge offshore technologies and spill cleanup far beyond present capabilities. Recent oil spill drills both by oil companies and contractors have confirmed their inability to in effect -- to effectively respond to a spill in broken ice and open water conditions that prevail for most of the year in the Beaufort Sea. The Exxon Valdez oil spill of 1989 taught Alaskans and the world harsh lessons about the ability to clean up a significant oil spill. Scientific studies of the Exxon Valdez oil spill show long-lasting and significant damage to fish, wildlife and subsistence.

Apart from large spills, smaller

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persistent spills can have a dramatic impact to the marine environment. For example, based on current sub-sea buried pipeline technology, persistent leaks of up to 100 barrels a day could go unnoticed, particularly if under the ice where sheening wouldn't be noticed.

The DEIS asserts that this offshore drilling is necessary to satisfy U.S. energy demands and to reduce reliance on oil imports. However, MMS fails to mention that the U.S. only has three percent of the global oil reserves, therefore the U.S. will never drill its way to energy security and independence, even if every last drop of oil is drilled from federal waters off the coast of Alaska.

Oil development off the coast of the ANWR poses risks to the Porcupine caribou herd, bowhead shales, fish, polar bears, and migratory birds using the refuge coastline, lagoons, and barrier islands. Offshore exploration and development would cause pollution, aircraft and vessel noise and related industrial activity, and oil spills degrading the refuge, even if there were no construction of infrastructure within its boundaries. I the future, there would be intense pressure to construct sprawling onshore airports, pipelines, roads, docks and other support facilities in the refuge. In light of these threats to our national

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treasure, MMS should do more than what is indicated by the eastern deferral, which only provides a thin margin of protection and assumes oil could be cleaned up before it travels a mere 20 miles into the Arctic Refuge from the Beaufort planning area.

Internationally significant brant molting areas are located along the Beaufort Sea coast in the Teshekpuk Lake areas of the National Petroleum Reserve. This area is sensitive to aircraft and other disturbances caused by industrial activities and infrastructure, as well as oil spills. We strongly support the exclusion of tracts in the spring bowhead lead zone around Barrow, but because of the above-listed concerns, we also urge the MMS to pursue a no sale alternative for the entire Beaufort Sea planning area.

In conclusion, Alaska's Beaufort Sea is too productive, sensi -- and sensitive to threaten with OCS oil, gas and development. Alaska is the only state in the nation where large portions of coastal residents depend on marine resources for subsistence. The fierce climatic conditions, high winds and seas, sea ice and cold temperatures challenge offshore technologies far beyond their present capabilities. These conditions make ecosystems more vulnerable and less resilient to disturbance and perturbations. Because of the

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inhospitable climate, challenging spill response and extreme productivity/ sensitivity of the marine ecosystems off Alaska, this is the last place in the world OCS exploration and development should be allowed. If moratoria are in place along the remainder of the U.S. coastline, except for the Gulf of Mexico, then logic would dictate that at the very least Alaska should be similarly exempted from leasing. Alaska shoulders more risk than any other state in the U.S., and the Beaufort sale areas constitute some of the riskiest acreage for proposing lease -- for proposed leasing. This is both unacceptable and dangerous to Alaska's unique environment. Please don't place our environment at such risk and add these -- and add this lease sale areas to the moratoria that is appropriate.

I want to thank you for your opportunity to comment, and these comments supplement prior letters and testimony we have submitted on the five-year program on three Beaufort Sea sales, and during the five-year program DEIS public hearing. Thank you very much.

MR. STANG: Okay. Thank you, Jeremy. Who would like to testify next? Please, Jim.

MR. SYKES: Thank you, Mr. Stang, members of the MMS. My name is Jim Sykes, S-Y-K-E-S, P.O. Box 696, Palmer, Alaska. I'm one of the founders of Oil

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Watch Alaska, which is a group that watches for our resources and oil companies and bureaucracies to make sure Alaskans are getting a fair share in whatever decisions are made. In the interest of full disclosure, I'm also a candidate for U.S. Senate, and so I've testified here before. Whether I get elected or not, I'll continue to follow these very important issues.

I'm speaking today in support of no action, no sale, which I believe is alternative number 2. I think there are compelling reasons not to go forward with this lease sale, or any of the three for that matter. Moratoria have been declared in most other offshore areas on the coast of the United States, and for good reasons. I find it incredible, and in fact reprehensible that there is a proposed sale for the Beaufort Sea. This is some of the most sensitive, most risky coast land that could possibly be considered for oil development, and if it's not good for California, if it's not good for Florida, it shouldn't be good for Alaska. It also is offshore from the Arctic National Wildlife Refuge, which is the only intact ecosystem in the Arctic under the jurisdiction of the United States.

It has already been proven that oil cannot be recovered from cold, icy water, and that's one of the questions I have for you. If you've come up with

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any proof that it can, I'd like to know about it. It cannot be cleaned up, and for this reason it's a great risk. The Inupiat people's that are dependent on subsistence resources all across the North Slope are at risk, and it's a risk we don't have to take. We ought to learn from our past. If you will recall, and I think it's been about 20 years now, leases were let by both the state and federal governments in Bristol Bay. It's a world renowned fishing area. The leases were bid, they were let, and what ended up happening was that the state and federal government ended up buying them back, because it was evident that even a small risk was not worth taking for the resources in Bristol Bay. And I think that we should save the taxpayers of this country, save the Inupiat people the fear of losing their cultural resources, and Alaskans of losing a very important part, and simply not to do the sales, because I don't -- I think that we'll end up buying them back if you do the sales, and I don't think that's necessary to do.

I've been following the leasing for quite a long time, and it's very clear to me that it's driven by industry. They simply want control over an oil supply, and they don't really care if they start offshore or onshore, and unfortunately they view this as a wedge between the two indigenous peoples, the Gwichen and the

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Inupiat of the North Slope, and we have to ask why? Why is this going forward? The oil is not needed. Whether you use federal estimates, state estimates or industry estimates, that little yellow area there in the middle of the map between the Canning and Colville Rivers has 30 to 40 years worth of oil, that we intend to help supply our nation's energy needs with. And as was pointed out by the previous speaker, we cannot drill our way out of the energy problem. The only thing that we can do is shift to alternative fuels, and we actually have an opportunity here -- the only way that we can achieve that energy security is by using natural gas is the most obvious choice for bridging fuel, developing renewal resources including hydrogen, which Alaska has the greatest potential for.

The figure that was not spoken of, the United States uses 25 percent of the world's daily oil production, and yet we have less than three percent left. If you think about that for just a couple of seconds, if we were to drill all of the oil available within the borders of the United States, it would only hasten the day where we would have no oil, and therefore be much more dependent, in fact completely dependent on foreign oil in the future. So it's a lose/lose situation.

I would like to also mention the fact

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that there is no way to get oil offshore of the Arctic Refuge to the current distribution system unless you keep offshore pipelines or allow pipelines within the refuge, which is currently not allowed, and I hope never is allowed. So unless we can start transporting oil through the air like we do telephone signals, I think that's a real bad deal, and there's no proven technology for the ice pad drilling that has been proposed. There's no proven technology to deal with a spill, and it's simply not worth the risk.

I would like to say a word about natural gas. There's 60 trillion cubic feet estimated on the North Slope. All we need to do is get a pipeline to tidewater to help the energy-starved West Coast which was never previously a market for liquified natural gas. The U.S. would have control of the supply, there would be no opportunity for the Canadians to stuff their gas into a Trans Alaska Highway line, and there would be no opportunity for the Canadians to strip the gas liquids, which they've threatened to do if we run a line through Canada. Of that 60 trillion feet, only 7 trillion feet is within the Arctic Refuge or offshore from the Arctic Refuge, so the gas resources, which is the next step in energy policy I hope in this country, are not even a factor in these areas. It's almost nothing.

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The lease to me looks like perhaps Washington Bureaucrats are hoping that a relatively small number of Inupiat people who are dependent on subsistence hunting and other Alaskans will be easy to steamroll by the industry. That's the problem with this lease sale proposal, that's the problem with our lack of national energy policy, which is now controlled by the oil industry. We have to get it out of the control of the oil industry, and here's a real good place to stop and say, look, all you want is control over a supply of oil. There's plenty of other oil, and we've already got plenty of oil in Alaska to help our nation's energy needs. This is one area that we're not going to lease in. And that's where I'm coming from on it, because I know -- I fully understand, I have sympathy for the Minerals Management Service, because as these moratoria occur across the United States for very good reasons, the Minerals Management Service has less to do. Well, I think that you should concentrate on some other minerals, or concentrate on some renewable energy, because it looks like an excuse to keep this bureaucracy in motion that probably doesn't have any reason to exist. And this is the last area of the United States that should be considered for oil development. It's not needed, and if it's not good for the coast of California or coastal

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Florida because of environmental concerns or the risks there, it should be less good here, and there's just simply no excuse for it.

So I do have those two questions if somebody would like to address them. Is there actually any proof that the proposed ice islands that some of the offshore developments have proposed will actually work? Is there documentation to this? And is there any documentation that exits that demonstrates that oil can be cleaned up in ice-filled waters?

MR. STANG: Well, on the first question, to my knowledge right now, there isn't a proposal for an ice island in front of the Minerals Management Service. John?

MR. GULL: John Gull, the regional director with MMS. There have been a number of ice islands that have been used off the Beaufort Sea and in Canadian.....

MR. STANG: Maybe you take that to the.....

MR. GULL: Pardon me. And in Canadian waters, so we could have you talk to some of our engineers.....

MR. SYKES: Okay.

MR. GULL: .....at some time. And with

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regard to cleanup within -- primarily the problem is more in the ice -- broken ice conditions, and there are methods that can be used in addition to mechanical cleanup, such as in situ burning, also allowing the oil to be encapsulated into the ice. Other countries have done things like this. You'll never get absolutely everything cleaned up, of course, and there was a test done two weeks ago where within the broken ice during the springtime where they maneuvered the smaller vessels, and they were able to maneuver and be used, the mop ropes system. That seemed to work well. Again, they were able to maneuver. Again, it's -- nothing is perfect, but there are tactics that can be -- that, you know, can be used in response. And again we could talk about that more also.

MR. SYKES: Okay. Well, I would simply suggest to you that this DEIS talks about mitigating circumstances and effects for routine permit and activities, and I think it's not a question of whether oil will be spilled. I think it's only a question of when. And when you weigh the risks of development against possible mitigation of what could happen, it's simply not worth taking the risk. Thank you.

MR. STANG: Thank you, Jim. Who would like to testify next?

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MR. WIENHOLD: I would.
MR. STANG: Okay, Bob.
MR. WIENHOLD: My name is Bob Wienhold, W-I-E-N-H-O-L-D. I'm testifying as a private citizen. I'm a retired fishery biologist.
I haven't had a chance to go through this in depth. I think as usual, there's too much verbiage in these documents. Some of these pages I think could very well become paragraphs without loss of any, shall se say, thread along the way.
I note that in one of the documents you have all of the reference points on the beach marked quite well, maybe to the point where it's cluttered, but on this map you do not. For instance, it would be -- it would make things -- make the reader understand a little bit more. You're talking about the Colville River, why not put the Colville River on this map? Let's have an Urtok (ph) River, why not put it on the map? The same thing with the Canning River. That will be only three reference points you have to put in there. It wouldn't cost you a nickel's worth of nothing to do it. Do it.
Okay. The last -- as I said, I haven't really had a chance to go through this thing in detail, but I think if you were to increase and improve your graphics, you could cut down on cutting down trees to

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publish these things. In other words, they don't have to be this big.
Last. Camden Bay. I think Camden is within the lease sale area, but it's on state land. And that's not marked on here at all. Nor is Flaxman Island, the abandoned DEW Line site. Camden Bay has a beached LST, landing ship tank, from World War II. It's been there since 1965 or '66 when they were building the DEW Line sites along the Arctic coast. They were using this particular LST as a floating warehouse for construction purposes. They were towing it up the beach toward Kaktovik, which at that time was called Barter Island I think. It's a good idea to put down some of the Anglicized names as well as the native names for these things. It wouldn't hurt a bit. Anyway, the tow line broke, the LST went up on the beach in Camden Beach. If I'm correct, that particular LST has petroleum products in it yet. If I am correct, it's still there. Now, you can say, okay, that ain't my department, because we're the federal MMS, but oil that goes -- it's in state waters, of course, on the beach. Oil that goes onshore can also go offshore into federal waters. I would ask that perhaps the oil industry or someone determine or ascertain the status of that LST. I know it has not been salvaged. I don't think it's salvageable. but it would

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be a good idea I think to determine what happened to it and where it is.

Conversely -- or also, a number of other -- by the way, I started working up there in January 1969 when Prudhoe Bay consisted of ATCO trailers full of disgruntled Texan drillers that wanted to get the hell out of there. But anyway -- and I also flew this particular area. We lost a couple of biologists up there in August of 1969. I went up on the search, and I flew everything from Atigrew Point down Demarcation Point in a Cessna 180 on floats, out to the edge of the ice pack, back and back, back and back, looking for these people. We never found a trace of them. So I know a little bit about the area. Or did know a little bit about the area.

The other thing I think would be handy perhaps on this map would be for you to put the boundaries of the present development on here, just, you know, even dotted lines or block diagrams or something like that, so the general public knows what you are talking about. These things are paid for by the general public. They should be understandable by the general public. And if you can't get them down to where the general public can understand them, then you probably ought to go to another type of format I think.

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That's all I have to say. If you have any questions, I'll try and answer them. I've not -- like I say, I haven't had a chance -- I just picked this thing up about a half hour ago, so this is pretty much extemporaneous. But I want to reiterate that LST needs to be looked into.

MR. STANG: Okay. Thank you very much, Bob.

MR. WIENHOLD: Thank you.

MR. STANG: Appreciate your testimony.

MR. KING: Was that a Navy.....

MR. WIENHOLD: It's a landing ship tank. It's ocean-going, shallow draft vessel that was used in our invasions in World War II. As I said, it's an ocean-going vessel. It's a big one. And I'll bet you dollars to donuts that there's oil aboard that thing yet as well as other things. See, and it's very difficult for people to get on board, because there's a -- you've got to climb to really get up on that thing.

MR. KING: So it's military in origin?

MR. WIENHOLD: It's military in origin, that's right, and it was -- I've seen photographs of it. I've flown over it, I've seen it. I know it was there when I flew over it in '69 and '70, and there were photographs of it taken in 1966, I think, and I think

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that there's probably of a photograph of it in the MMS library some place if you want to go back and take a look through it. But it's against the beach in Camden Bay, and ice may have broken it up, but there still should be traces of it. I know it was -- I'm reasonably sure that it was not salvages. Reasonably sure. Okay. That's all I have. Thank you.

MR. STANG: Thank you.

MR. KING: It's probably a historic site by now.

MR. STANG: Yeah.

MR. KING: Thanks, Bob.

MR. STANG: Pam, would you like to testify next?

MS. MILLER: Sure. Well, my name is Pamela A. Miller. I'm with Arctic Connections.

Secretary Norton's proposal to have three lease sales in the Beaufort Sea and five others off Alaska's coast for the next five years is a return to the massive sales with millions and millions of acres off Alaska as was first launched in the 1980 by Interior Secretary James Watt. These proposed leasing plans sharply contrast with the leasing moratoria that were rightly imposed elsewhere in the nature off sensitive coastlines due to citizens pressure.

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For over 25 years the local citizens of Alaska have opposed offshore drilling in these areas now at stake. These three lease sales in the Beaufort Sea stretch from the Canadian border nearly to Barrow. At about 10 million acres apiece, this is ten times the size of the last lease sale held in this region. Secretary Norton is further short-circuiting the public review with one impact statement covering all three lease sales. One public hearing on a beautiful summer's day in Anchorage for three lease sales. There are no maps in the EIS, in the main body of it, nor in the executive summary that's a special stand-alone document, where you can see the size of the past lease sales, nor even the current proposed alternatives. The three proposed lease sales as I said are 10 times as big as the last one.

Public relations experts say something like you have to hear it eight times before you really hear it. Well, this is the eighth MMS has tried to do a lease sale in the Beaufort Sea. Perhaps now listen and hear what the public has had to say all these times. Perhaps now we can have a moratorium on new lease sales off Alaska.

When people hear about the Arctic Ocean, they think it's flat like the water in an ice cube tray that freezes. They think the ocean bottom is empty sand,

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but hear the coast the Beaufort Sea is an estuary. It's like Chesapeake Bay. It's like Puget Sound. It's even like Prince William Sound. The waters are very different than what people think they're like. This is a very rich zone. It's called Arctic Ring of Life. That was the name given to it by a polar bear biologist from Russia. It's a bountiful zone with endangered whales, the bowheads and beluga whales that migrate through there, millions of migratory birds that come from many continents. And it supports the local Inupiat residents as it has for thousands of years with the bowhead whales, the fish, and the other subsistence resources.

In the last week or so I visited this area again. I stood along the coast off Kaktovik. I saw the huge ice bergs. I saw flocks of migratory birds. I even saw polar bear tracks. I turned around at that point.

Unlike the last Beaufort Sea sale, which was considerably smaller, Secretary Norton plans on leasing the area of the coast of the Arctic Wildlife Refuge, as well as the Teshekpuk Lake area of the National Petroleum Reserve. This is a roll-back of incremental steps that the Interior Department had taken where they had done some leasing deferrals or deletions. At this point, Secretary Norton is ignoring the public

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request that the area off the coast of the Refuge, the Teshekpuk Lake Special Area, and the spring bowhead whale migration path in the lead zone be deleted from these sales. This specific request was made by seven Alaskan and national environmental organizations representing local Alaskans along the coast as well as millions of Americans, as well as the City of Kaktovik and the North Slope Borough requested that the entire area off the coast of the Arctic Refuge be deleted. Yet this deletion or deferral was not one of the alternatives. It would be far more preferable as an alternative than any of the deferrals you have proposed.

What's been proposed are small teeny-weeny, meaningless and confusing deferrals. Whether inadvertent or intentionally deceptive, these options would not achieve their named goal. They're called things like the Kaktovik subsistence well deferral, the Barrow subsistence well deferral. It looks to me like somebody took a little GIS program and drew a line around some points on a map and came up with some little squares. They have nothing to do with avoiding the resources that subsistence depends on. The bowhead whale feeding grounds located off the shore of the Arctic Refuge, the whale fall migration corridor along the entire coast, the spring whale migration route, nor the

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area where oil spills or noise from exploration and production would occur and could harm the whales habitat and the migration route.

I also note that in the sale 170 final impact statement there was what was called the Kaktovik deferral. This was a different beast than what is shown in this new document. It went from 35 miles west of Kaktovik, and then all the way to Canada. The new so-called Kaktovik subsistence well deferral goes from about Kaktovik east for 30 miles and then it stops. So if you chose that alternative, it would stop and you could lease east of there. It doesn't make any sense.

I'll talk about two other topics. The first is with respect to the Arctic Refuge, there are tremendous potential impacts not only from the chance of an oil spill hitting the beach, but also from the potential that there would be onshore infrastructure to support offshore activities. While this is not currently allowed under the conservation plan that is governing the refuge, and the Arctic Refuge is rightly closed to oil and gas development and exploration, there would be pressure in the future if this area is leased and developed, to put pipelines to shore. If not, then you're going to run up to 100-mile long subsea pipeline to reach areas that are proposed for leasing. That just

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doesn't make sense. We don't have a record, and at the time of the last lease sale, 170, a precedent was set of not leasing off the coast of the Arctic Refuge. At that time the Interior Department cited among many reasons the lack of information on cumulative impacts to the resources of the refuge, the lack of emergency response plans for oil spills, and the risky new technology of subsea pipelines. We don't have a track record for these subsea pipelines. Only one exists, Northstar. It just started operating. It's too soon to tell what the true risk is.

I was out there on a series of three or four spill drills that showed industry's inability to contain and clean up an oil spill in Arctic waters during most of the year. Like I was just up in Kaktovik in July, the ice is to the shore. That's the part of the year when oil spills couldn't be cleaned up. These four field tests were very revealing. In one of them, popcorn couldn't be picked up. In one of them, the barge couldn't get out of -- away from the beach. In one of them, the ice had frozen in, the drill hadn't been done soon enough, and so you couldn't put anything in there.

I'm sorry that the public wasn't invited to observe this most recent drill that may have occurred, but when I saw these little rope mops dumped into the

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Beaufort Sea, I took a picture of them. I showed a friend of mine the pictures. She said, those look like little dental floss. That's about what it's like putting these rope mops into a major spill in the Beaufort Sea. Imagine some real dental floss out there. That's the nature of what you're going to clean up. And not dental floss in the sense of being a preventative tool, but just this skinny strand of rope mop.

Also, this concept of oil being encapsulated into the ice, how are you ever going to catch it? The shipwreck of the Karluk, a research vessel, occurred in August 12th, 1913. It was abandoned by the great explorer Stephanson on a pretty cowardly move. It was in Camden Bay near Flaxman Island. Over the next five months it drifted hundreds of miles to the west in the pack ice until it sank north of the Wrangell Island, Russia on January 10th, 1914. That's where oil could go. There's polar bears denning in Wrangell Island. That's where oil could go. But the oil spill trajectory studies for the open water season use in

supporting this environmental impact statement only look at a 30-day period for the open-way season. August is open-water season. We don't have a clue where that oil is going to go, how it's going to hit the bowhead whale migration and so on.

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The impact statement downplays the number of polar bears that could be oiled in an Arctic spill. The modeling done for the Northstar and Liberty development projects estimated that up to 78, 108, 61 polar bears could be oiled. 108 polar bears. Maybe it's not a high chance, but there is a chance, and that's what the biologist's modeling showed could be oiled from an oil spill from a production platform in the Beaufort Sea. But this environmental impact statement says that an estimated 50 to 30 bears could be harmed. So it's not even listening to the science that might be out there.

I'll mention one other thing about the fuzzy math. The chance of an oil spill. I looked up the Interior Department's final impact statement for the five-year plan published just in April. And it assumed that there would be one large platform spill and one large pipeline spill due to OCS activity from these Beaufort Sea sales, and they calculated the chance of a spill greater than or equal to 21,000 gallons being 81 to 94 percent chance. What do we read now? Well, up to 10 percent chance. Just since April, the Minerals Management Service has changed its tune. What's this based on? There's a new study, it's in press, it hasn't been reviewed. But we looked back at the Northstar field, the Army Corps of Engineers projected 24 percent

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chance of a major spill just from that one project alone. And in fact the last lease sale environmental impact statement projected a 46 to 70 percent.

You could say, oh, this is a bunch of numbers. But where's the credibility in a change by the same agency from April to August? At any rate, we know that accidents do happen, they will happen, and that if a spill does occur, it would be devastating.

In conclusion, alternative 2 is the only alternative you've proposed that addresses my concerns about oil spill risks and the impacts to the Arctic National Wildlife Refuge and the coast of the Teshekpuk Lake Special Area. Areas that were deferred or deleted from past Beaufort Sea sales, including the area north of the of the coast of the Arctic National Wildlife Refuge and the National Petroleum Reserve, as well as the spring lead system should be permanently removed from the lease sales.

Finally, there should be a full environmental impact statement process complete with hearings for each lease sale that is had, that is held. Thank you for this opportunity to comment.

MR. STANG: Thank you, Pam. Would anyone else like to comment?

MS. MILLER: I do have testimony to read

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from Sylvia Ward, but if there's somebody else in between, that might be a nice break.

MR. STANG: I think maybe you're on, Pam.

MS. MILLER: Okay. Deb Moore from the Northern Alaska Environmental Center requested that I read her testimony into the record. So if that's fine, I'll go ahead do it.

MR. STANG: Sure.

MS. MILLER: This is the testimony of Deb Moore, Arctic Coordinator, Northern Alaska Environmental Center.

Good evening and thank you for this opportunity to comment on the draft environmental impact statement for the three Beaufort Sea lease sales. My name is Deb Moore and I am the Arctic Coordinator for the Northern Alaska Environmental Center. The Northern Center is the Nation's most northerly, broad-spectrum environmental advocacy organization, based in Fairbanks. Our mission is to conserve Alaska's stunning natural resources, by advocating management and stewardship policies that promote sustainable, responsible practices.

The Northern Center opposes leasing the Beaufort Sea, particularly off the shore of the Arctic National Wildlife Refuge or Teshekpuk Lake in the National Petroleum Reserve of Alaska. Our reasons for

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this opposition are many. The potential impacts from oil spill risks are too great to risk in these sensitive wilderness and wildlife ares. Previous Beaufort Sea lease sales have deferred or deleted the areas off the Arctic Refuge and Teshekpuk Lake from leasing due to this high risk, thereby setting a precedent that we believe should be continued; and the United States should be focusing on ways to decrease our dependence on oil, not encouraging that dependence by developing in frontier areas.

The Beaufort Sea is home to polar bear, walrus, seal, migratory birds, including the Pacific black brant, threatened spectacled and Steller's eiders and the endangered bowhead whale. Oil spills in this harsh ice-dominated environment would have a severe impact on many of these species, particularly on the bowhead whales during migration east of Barrow and offshore the Arctic National Wildlife Refuge, and on black brant during molting along the coast in the Teshekpuk Lake area of the NPRA. Considering the industry's proven lack of ability to read -- to clean up oil spills in the Beaufort Sea during most of the year, as well as the maximum of 10 to 15 percent of spilled oil that is ever, quote, cleaned up even in these much less severe climates, the risks to these species and sensitive

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areas are too great to allow new lease sales to go forward.

The Minerals Management Service has developed a recent history of not leasing or of deferring the sale of lease tracts off the coats of the Arctic National Wildlife Refuge and the Teshekpuk Lake area of the NPR-A. It is our understanding that these deferrals have occurred due to the sensitive nature of the areas, the high environmental risks associated with development of these areas, and the overwhelming public opposition to these leases. For these reasons, we request that these areas not only be deferred, but permanently deleted from the current and future sales.

While the Northern Center agrees that the United States should decrease its reliance on oil it imports, we believe that domestic offshore drilling is not the correct way to accomplish this. The U.S. has only three percent of global oil reserves while accounting for 25 percent of the world's oil consumption. Therefore, the U.S. will never drill its way to energy security and independence, even if every last drop of oil is drilled from federal waters off the coast of Alaska. In fact, the expansion of development into frontier areas such as the Beaufort Sea encourages this dependence. Instead, to decrease our reliance on all oil, not just

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imported oil, the United States should halt offshore leasing and focus its efforts on improving energy conservation and energy efficiency and shifting toward the use of more alternative, renewable energies.

Finally, we would like to make two comments about public process. The Northern Center is disappointed that the Minerals Management Service chose not to hold a hearing in the Fairbanks area. As the second largest community in Alaska, it is very likely that numerous individuals would have been interested in attending and commenting at such a hearing. However, by excluding Fairbanks, you have excluded these people, many of whom cannot take the time to travel to Anchorage or find another person to speak for them as I have. We encourage you not to overlook Fairbanks in the future.

In addition, we are concerned with MMS' efforts to lump three lease sales into one environmental impact statement process covering approximately 10 million acres. As these three sales are expected to be held sequentially, not simultaneously, so there should be three full public EIS processes held sequentially. In this way, each EIS will reflect the most current knowledge, experience and technology at the time, not reflect outdated information, as may be the case when using this current EIS process for a lease sale not set

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to begin for five years. In addition, by holding separate EIS's sequentially, the public will be a more active and informed part of the process, focusing their attention of each individually and basing their comments on the immediate situation for each sales.

Once again, thank you for the opportunity to comment.

MR. STANG: Thank you for reading that, Pam. Appreciate that. Anyone else that would like to testify at this point? Or make any observations? Okay. Well, what we're going to do is we're going to be here until 7:00, but unless someone else comes in or someone gets inspired to say something else, then we'll just be rather quiet here in the room.

MR. GULL: Just go off the record until somebody else comes.

MR. STANG: We can do that.

(Off record)

(On record)

MR. STANG: We're ready to roll.

MS. APP: Great. My name is Jenna App, and I'm with Trustees for Alaska. First I guess I'd like to say that, of course, we will be submitting written comments, and so these are just sort of the brief initial comments that I have from reading through the draft

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environmental impact statement.
As you know, these proposed sales extend from Barrow to the Canadian border, from approximately three to 60 miles, nautical miles, and water depth from 26 feet to 200 feet. And the area consists of 1,877 whole and partial leasing blocks, or about 9.8 million acres, an area very unprecedented in terms of actually proceeding with the OCS lease sale in the Beaufort Sea. It's nearly six times the size of the proposed 1998 sale 170 which was to encompass 1.7 million acres, and although the -- I guess it was the 2000 proposed sale 176 encompassed approximately 9.9 million acres, it was deferred by Secretary Babbitt for lack of available information.
Trustees for Alaska opposes the proposed lease sales due to the irretrievable adverse impacts oil and gas development on marine mammals, fish, coastal birds, and other wildlife. Our opposition is also due to the fact that direct and cumulative effects of exploration, development and production will result in permanent harm to the Arctic in general, and the unique wildlife and wilderness values of the Arctic National Wildlife Refuge and Teshekpuk Lake Special Area in particular.
We therefore have -- we therefore

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recommend that MMS select alternative 2, the no action alternative. I'm sure you're all not surprised with that, and we have several particular concerns.
First, the protected areas and species are likely to be impacted by the three separate sales. Although the areas proposed -- although the areas proposed to be part of sales 186, 195, and 2020 are all offshore, the lease sale will have unacceptable impacts on onshore protected areas. Transportation of oil from the sale areas would presumably involve some combination

of subsea pipelines, tankering, or onshore pipelines. Each of these alternatives would have permanent adverse effects on valuable onshore areas, such as the Teshekpuk Lake Special Area and the Arctic National Wildlife Refuge.
The area around Teshekpuk Lake, inside the NPR-A has been designated a special area. A special area is one that is identified by the Secretary of Interior as having significant subsistence recreational, fish and wildlife or historical and scenic value, and, therefore, warranting maximum protection of such values to the extent consistent with the requirements of the Act for the exploration of the Reserve.
The Teshekpuk Lake area has extraordinary wildlife. It is the home of the Teshekpuk Lake caribou

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herd, and this herd calves on the land around the lake and provides subsistence food for the North Slope villagers. There are large numbers of waterfowl, including more than 20 percent of the world's black brant population, which molt along the shores of the lake and east of Teshekpuk. Spectacled and Steller's eiders, both listed under the federal Endangered Species Act, also use this area.

This area remains off limits to oil and gas leasing, and support for oil and gas activities from development outside of the area under recent decision by the Secretary of Interior. The former Secretary of Interior, Secretary Babbitt.

The three sales are also offshore of the entire expanse of the Arctic National Wildlife Refuge's northern boundary.

The coastal plane of the Refuge provides important insect-relief habitat for tens of thousands of caribou from the Porcupine caribou herd. Other wildlife species found in great abundance include musk ox and grizzly bears, wolves and Arctic foxes. Wolverine, marmot, voles, lemmings, weasels and dozens of other mammal special joint in the tapestry of wildlife that make the coastal plain of the Refuge the highly valued wildlife preserve on the continent.

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Oil from the lease sales would presumably reach the Trans-Alaska Pipeline System, or TAPS, by either subsea pipelines, tankers, and/or other onshore pipeline infrastructure. If oil transportation by hundred-mile-long subsea pipelines is unacceptably dangerous, and if tankering is unacceptable under the local government's Coastal Zone Management Programs, then that puts tremendous pressure to transport oil in pipelines across the Arctic National Wildlife Refuge and the Teshekpuk Lake Special Area. This would result in long-term habitat loss and disturbance to calving and post-calving habitats of the Porcupine and Teshekpuk Lake caribou herds, migratory bird nesting, molting, staging habitats, and prime polar bear denning areas. Such infrastructure would not only be compatible -- would not be compatible with the purposes of the Arctic National Wildlife Refuge. If MMS considers leasing off the Refuge, then it must provide adequate analysis for the potential effects of such onshore pipelines and other support infrastructure in order to comply with NEPA's requirement to analyze all reasonably foreseeable actions resulting from the sales.

Permanent deletion of the sale area would best protect the full spectrum of the Refuge and special area ecosystems from the direct, indirect, and cumulative

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effects of outer continental shelf development. It would also reduce certain impacts to the sensitive marine ecosystems in this region by feeding -- used by feeding and migrating bowhead whales, denning and feeding polar bears and other marine mammals, migratory birds, and wildlife and their habitat -- and other wildlife and their habitats.

Because there is no legal or environmentally and technically acceptable means of transporting oil from the lease sale areas to off -- off the coast of these protected areas, we do not believe that it is in the public interest for these sales to go forward, particularly offshore of the Teshekpuk Lake Special Area and the Arctic National Wildlife Refuge.

Second, there are unacceptable problems associated with oil transportation, oil spills, and oil spill clean up.

As you know, no roads or docking connecting to areas outside of the planning area of NPR-A are allowed, without exception. Further, no pipelines are permitted with the Teshekpuk Lake -- within the Teshekpuk Lake Special Area. The same is true of the coastal plain of the Arctic National Wildlife Refuge.

Consequently, to move oil from the western edge of the proposed lease sale, a subsea

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pipeline or other transportation method would have to run parallel to shore for nearly 160 miles before it would reach existing onshore infrastructure. On the eastern edge of the proposed sale, an 80-mile subsea pipeline or other method will be necessary. This does not take into consideration the distance the pipeline would need to span in order to reach shore. This alone could be 60 miles or more.

And as you know, the Northstar Project was the first offshore development project in America's Arctic that relies solely on a subsea pipeline to transport the oil to market. It is located approximately six miles offshore of the existing oil field development on the North Slope.

And in the final EIS for the Northstar Project, the Corps specifically said that the challenges for oil spill response were significant, and that given the -- given present oil spill response technology, broken ice, unstable ice, rough seas or high wind conditions could hamper the ability or prevent any cleanup response for over 50 percent of the year. As far as I know, there has been no consideration of different technologies that are available now that have not been yet available at Northstar, so we still face the same restrictions in oil spill cleanup.

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Additionally, when MMS and the Corps were selecting -- were helping to select the route for the Northstar pipeline, the agencies made a strong argument for the shortest pipeline possible, because the shortest pipeline possible, the one directly to shore, would probably or potentially have the smallest risk in terms of spill, whereas the Fish and Wildlife Service preferred a longer pipeline that would go outside the barrier islands.

What we're talking about here is an extremely long potential for a pipeline, 150 miles or so, and MMS and the Corps both recognize that a long pipeline is a risky pipeline. So even the relatively short pipelines are fraught with risk, but as I've said, that risk is multiplied many times over for a 100-mile long pipeline. This level of spill risk combined with the inability to clean up spills is unacceptable. And as MMS found in combination with DEC during the 1999 and 2000 oil spill response drills for Northstar, that response technology isn't in place yet. And until it is, we should not be leasing those land -- those offshore areas.

Third, sale 170 and 176 precedent should stand.

In the spring of 1998, the Interior Department deferred lease sale 170 tracts offshore of the

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Refuge. And in January of 2001, the Interior Department again deferred the sale out of a concern about the lack of knowledge of potential impacts. These deferrals established an important precedent on several fronts. First, they recognized that offshore from the Arctic Refuge is the last place where untested oil transportation technologies, such as subsea bed pipelines, especially long ones, should be deployed. Secondly, they confirm the inherent difficulties associated with oil sill response in Arctic conditions. Third and most importantly, they acknowledge the need to safeguard the full range of intact ecosystems of the Arctic Refuge, including its lagoons, barrier islands, river mouths and shorelines. In the year and a half or so since the sale 176 deferral, these concerns have not be addressed.

Fourth, the cumulative effects of sale 176 are -- or not 176, 1 -- I get all the numbers confused, 186, 195 and 202 are significant.

These cumulative effects -- the cumulative effects analysis for the three sales must consider the impacts from all the state and federal activities in the Beaufort Sea. Offshore oil development is progressing at an ever-increasing rate with little analysis of the possible cumulative effects of such

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development. The State Beaufort Sea areawide lease sales, the Northstar and possibly someday the Liberty project, the McCovey project, the proposed Armstrong Resources exploration projects in Harrison Bay, and now the three proposed lease sales reflect just a small sample of the aggressive future offshore development in the Beaufort Sea. So far no one project has meaningfully examined the cumulative effects, the impacts of offshore development. And this trend has continued in this draft environmental impact statement. This failure can't help but result in an under-assessment of significant environmental impacts, including cumulative air, noise and water pollution associated with normal operations and infrastructure requirements as well as catastrophic oil spills. A cumulative impacts analysis for the sales must include the incremental expansion of oil field roads and pipelines,onshore processing facilities, increased potential tanker traffic out of Valdez, and increased offshore supply vessels, including boats, fixed-wing planes and helicopters, and other development associated with oil and gas leasing in this area.

Further, we encourage that MMS supply information regarding human health risks associated with the sales. Given the high rate of consumption of fish and wildlife by North Slope communities potentially

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affected by the sale, MMS must identify the risks of this consumption and communicate those risks to the public, in conjunction with the existing and future risks of impacts from other offshore development.

Yet another environmental justice issue is implicated in the proposed sales, is the consideration of cumulative effects of the sale on several caribou herds. Onshore support for offshore sales may well threaten the herds' ability to thrive, especially given the insect relief necessary in the barrier islands offshore of the Arctic Refuge. This would in term harm subsistence livelihoods of many Alaska Natives and Canadian Nations -- First Nations people.

I addition to the direct cumulative effects from offshore development and offshore pipelines, like threats to subsistence-based cultures, there will be indirect effects related to offshore development, including global warming. As you know, and as you've probably read in the paper, Anchorage Daily News and the New York Times lately, Alaska is warming at a rate three to five times higher and faster than the global average, resulting in melting permafrost and glaciers, and changes in the thickness and the extent of sea ice. Additional fossil fuel extraction will only serve to increase this greenhouse effect.

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The impacts on the ice edge environment are already documented, with thinning ice and warmer temperatures, which create particularly dangerous conditions for whaling crews, as well as threats to Arctic -- as well as threats to the Arctic environment in general.

MMS just consider the impacts of climate change on the Arctic marine ecosystem in a cumulative assessment of the impacts of the OCS lease sales. By perpetuating the industry's access to the frontier areas in Arctic OCS, the MMS permits unnecessary destruction of a unique and fragile environment, as well as the cultures that dependent on healthy marine and coastal ecosystems for their survival.

Fifth, the sales may be inconsistent with potentially applicable laws.

There are several potential conflicts between the lease sales and state and federal law. A lease sale of such enormity, 9.8 million acres, may well be inconsistent with Alaska's Coastal Management Plan, applicable district plans, and the broader goals of the Coastal Zone Management Act.

Additionally, these sales will affect several threatened or endangered species, and will undoubtedly raise concerns under the Endangered Species

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Act. The sale's size, the presence of endangered species and threatened species, the recognized inability to clean up spills, the State's proximi -- and the sale's proximity to protected areas, and the potential use of extremely long subsea bed pipelines may all serve to invoke a wide range of relevant laws including, but not limited to, the Outer Continental Shelf Lands Act, the National Environmental Policy Act, and the Oil Pollution -- and the Oil Spill Prevention Act of -- Pollution Act of 1990. Additionally MMS makes the rather dubious claim that one EIS is preferable under NEPA regulations. However, impacts associated with the first sale must be fully assessed prior to later sales in an EIS document, or an EIS-type document.

So, in conclusion, the oil industry does not have the technology to respond safely and develop safely the offshore oil resources in the Beaufort Sea.

We urge you to cancel these three sales because of the high risk associated with the high risk associated with the offshore development to bowhead whales, polar bears, threatened and endangered species, ringed seals, migratory birds, fish, sensitive habitat, and the people of the North Slope who depend on these resources for survival. Should MMS decide to proceed with these sales, we would urge MMS to delete the entire

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area off the coast of the Arctic National Wildlife Refuge from being considered for these lease sale processes in this five-year plan in order to safeguard the full range of intact ecosystems of the Arctic Refuge, including its lagoons, barrier islands, river mouths, and shorelines from inevitable industrial intrusions.
And I thank you all for the opportunity to comment.
MR. STANG: Good. Thank you.
MS. APP: Thanks.
MS. APP: You can turn it off.
(Off record)
(On record)
MS. OBERMEYER: .....Obermeyer, and I, of course, looked over the little ad that was in the newspaper, I have it here.....
UNIDENTIFIED VOICE: Actually that's.....
MS. OBERMEYER: .....and what the -- or did I leave it there. Yeah. Do you know how much these ads cost these days?
MR. STANG: Uh-huh. (Affirmative)
MS. OBERMEYER: Just these little ads. I mean, I don't, but I find this newspaper just unbelievable, because, of course, I am running for office and you wouldn't even know it. My opponent gets hard

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news stories almost every other day, with colored pictures, and my name hasn't even been printed in the newspaper. I think it was in the Ear once. And as Judge Karen Hunt said to me, Theresa, you've got to get out of the Ear and onto the hard news stories. But, I don't know, I mean, it's as if there isn't even a race.
And, you know, what I'd like to talk about just momentarily is, and I think I've said, I would like to take your documents and read them over, but I just think you people are the experts on what's going on in the Beaufort Sea. I don't even go to the Beaufort Sea. I've never been there. And so is this the document?
MR. KING: Part of it.
MR. STANG: That's -- here, this is the.....
MS. OBERMEYER: Is this the main one?
MR. STANG: .....this is the whole document.
MS. OBERMEYER: Oh, sure.
MR. STANG: That's the main section, yes.
MR. KING: There's three volumes to the document.
MS. OBERMEYER: Is this -- this is the main one?

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MR. STANG: That's the main section.
MS. OBERMEYER: Okay. Well, I'd like to look that over when I have time, but I just consider you people are the experts about all this.
What I'd like to talk about briefly is nepotism, and I'd like to talk about our Congressional Delegation. Now, of course, what we've tried to do is we have tried to put a smattering of documents, of what has gone on for about a 25-year period on a website. It is tobermeyer, O-B-E-R-M-E-Y-E-R, dot-info, I-N-F-O. That's a domain. And what we -- but we could never be complete. This has been going on for -- well, it's really been going on for almost 25 years. It started when I sued the University of Alaska, and it's all very long. I'd like you to understand that, but I'm not sure if you can, because as I say, you'd have to look at like how the files interrelate.
But if I could get back just briefly to nepotism, I'd like to talk about each one of the three members of our Congressional Delegation, and how they have each gotten their family members in influential positions, and my theme here is I live in a place where we have term limits, recalls and run-offs of our neighbors, the school board and the assembly. And U.S. Senators are in office for life. We have never even met

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them. They have both put their own children in the state legislature, and I would start with Lisa Murkowski who never even has had an opponent. I guess she does have an opponent this time, and the name is Nancy Dahlstrom, D-A-H-L-S-T-R-O-M, whom I don't know, but I support her unequivocally. And then -- but you see, my point would be, it's very educational to have an opponent in a political campaign. Then you remember who you're really working for. Lisa only is working for her father. And just to mention, when Lisa did run in 1998, and I go to church with Terry Martin. I remember how he wired that seat for Lisa. And then there was another man, his name was Rick Helms who runs a traffic school that had put his name in. And I called him and he hung up on me. That's how much competition Lisa Murkowski had. So now Lisa is running for her third term, and, of course, we know that her father is running for governor, and I am positive, and let's see how the whole thing goes, that blood is thicker is water, and I just -- I know that -- and I put if on my website that Frank Murkowski got a veto override through the state legislature on January 16th, that he gets to appoint his successor to the U.S. Senate within five days of him being sworn in.
And then I really started thinking about all this, because then there's also this man that's 77

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years old, that's the 34-year incumbent who put his son in the state senate. Now, just to mention, and I'm not sure if you people even follow all this, there's another Stevens named Gary Stevens that's from Kodiak. He's not related to those people.

And, of course, I don't know how it will go, because if Frank Murkowski should get elected, it could be possible that they would both put their children in the U.S. Senate. I don't know what they're going to do. I have no idea. I only know my theme is, not only nepotism, but the blood is thicker than water.

Then let's go on to Don Young, because I have just recently learned that his son-in-law is running against Terry Crawford. His son-in-law's name is Art Nelson.

But before I finish all this, I also wanted to mention that I learned only in May of 2002 that Frank Murkowski's middle name is Hughes, H-U-G-H-E-S, and then the whole thing really became very clear to me, because, of course, John Hughes is Hughes Thorsness, the law firm, and Mary Hughes has been Municipal Attorney from 1994 until 2000, and so, of course, she was appointed by Rick Mystrom, but really Rick Mystrom worked for her instead of the other way around, because she was John Hughes' daughter. She is Frank Murkowski's cousin.

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And I've learned all this, and it's just scary, because also know, and, you know, just in looking at my website, it will become clear to you what I'm really talking about, that the governor of Alaska has so much power that one law firm are the attorneys for the Pension Investment Board, the Public Employees Retirement System, the Teachers Retirement System, the Alaska Housing & Finance Corporation, the Alaska Industrial Development & Export Authority, and then Eric Wohlforth is the former chair and the current vice chair of the Alaska Permanent Fund Board. They only have $25 billion. And it was in the newspaper on Sunday that he was reappointed. I mean, that's so ridiculous. I don't know how -- I don't know what to say. They don't have terms of office. All of a sudden these people evaporate and they put somebody else on. There are four attorneys on it. There's Bruce Botelho, who's Attorney General, and Bruce isn't elected. He is only investing in Exxon as he uses his position on the Permanent Fund Board. And I have these signatures on my website, I hope you'll check their signatures. Then we have Eric Wohlforth, Clark Gruening, and then we have Wilson Condon, who is Commissioner of Revenue for the state, and past Attorney General I believe. I think Wilson has been. I mean, he has probably, what would you say, 700 employees working

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for him? This is Wilson. I don't know how many, but, you know, those are all public employees, so they're all trying to get their retirement from Eric. It's scary, when you really sort, start sorting all this out.

But if you would allow me to must briefly mention the Hughes family, and what I've learned, but I have run for mayor of Anchorage in 2000, and I ran for school board in 2002. Now, in 2000, and I have this on my website, it says manipulation of mayoral election 2000-slash-AIDEA, Alaska Industrial Development and Export Authority. And what I know, just to laugh with you, because it's scary, it's so funny, see, Wilson Hughes chairs AIDEA, and he is not related to the Hugheses. Wilson Hughes works for GCI. He's a vice president of GCI. I'm not sure if you know these people. We live in such a small town though, you might. And I have kidded Wilson, I said, Wilson, if you don't like what I've got on my website, just pull the plug, because I have my website through GCI.

But anyway, I know that when I went to the AIDEA meeting on April 26th, 2000, I watched Andy Eaker (ph) who is Mary Hughes' husband, he owns all the Alaska Clubs, get a refinance of his Alaska Clubs for $13,300,000, and then, you know, I really reflectively said -- just to mention, I have always been around

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politics. I don't even think of myself as a politician, but I got 1.9 percent of the vote, not -- I'm absolutely positive I couldn't have gotten that few votes. I'm not necessarily saying I would have won, but I made a joke out of it, because I'm Irish. And I said, couldn't Andy and Mary have had enough brains to give me 20 percent? Well, guess what I got in the school board election? I mean, it's -- and of course, then going on to the school board election, I was required to run against to licensed attorneys, and my husband still isn't licensed. Now, I consider that demented. I know that Jeff Friedman was going to run, and then when I filed, John Steiner filed. And John, of course, is working as one of the almost 500 of 2266 state -- you know, attorneys that are licensed in our state. We live in a state that has about 2266 attorneys. We have more oil development than the State of Texas, and they have 64,000 attorneys. Now, can we start figuring this out? I think you people are very bright, and you probably figured all this out. I don't know.

I only know what I've learned, and I'm going to read over what you've learned and I truly wish you well, but, you see, I know we didn't even have the last two Municipal elections were not fair, and it's all these things.

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If you would allow me to just go over what I've given you. I gave you a press release when I filed for the U.S. Senate that's date June 3rd, 2002, and then I gave you on the same letterhead what I wrote as a press release after I got out of jail when I ran six years ago. And at the time we had filed -- I had the Federal Public Defenders as my attorneys, and we filed lengthy briefs. We did not get anywhere in any of that. It was just dropped and dissolved, so my husband and I filed a civil suit, and that also was dropped and didn't go anywhere. You see, we've tried to do these things for many, many years.

Then just briefly I'd mention the other documents, and that is that I have sent to the 60-member legislature. We've been doing this now since about 1992. We mail lengthy documents. We do not even get a response. And this -- these are just, let's see, a total of three public opinion messages. One is my husband's and the date is almost cut off. From February 16th, 1998. You know, we just said that since there is absolutely no level of accountability, we thought the legislature would simply license my husband, and, of course, not only has he not been licensed, but I have been prosecuted now for 12 years. And then Tony Knowles and AIDEA have paid out $37 million when I've run for

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office. I mean, really sort this out yourselves. I would really like for you to understand it. I consider you very bright people. I'm trying just for us as neighbors to know what I really believe is true, and that I can prove.

And, you know, reflectively in terms of the Hughes family and the thing that is so appalling, they're supposed to be attorneys? And I absolutely am positive that about six weeks before I have actually been knocked out cold, waking up in a pool of blood and having to have seven stitches in the back of my head. That was on February 20th, 1998, when I was invited to the Hilton Hotel by the general manager. I was warned that that was going to happen by John Thorsness, who is one -- is the son of the partner David Thorsness, who is now deceased. I was warned. I mean, all these things really have -- fit together now that I know that Frank Murkowski is really related to these people. It's unbelievable. They commit criminal acts in the name of American law. And so just to finish up here, because I didn't want to take your time, because you're tired, and, oh, my gosh, it's after 7:00. You know, we live in the only state in the United States that does not have a law school. I am positive that is why all of this could have happened. And so all I can do is is explain it to you, hope that we

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all speak English. I don't know. I mean, you know, I'd like you to just look at this yourself, and sort it out.
Of course, I have given issues about fair elections to the U.S. Attorney, Tim Burgess. He does not follow up with me. He's my neighbor. He used to be my chil -- my daughter's basketball coach. We live in such a small town.
And so I'd really like for you to read this over and look at it, and understand it, and then I would be glad to field questions. You're probably tired and want to go. And would you forgive me for coming late? I should have come earlier, and I wanted to, but I just didn't get over here until right now. So I'm sorry to -- I hope I'm not keeping you.
Did anyone have a question about anything I've said?
MR. STANG: Maybe after we go off the record. I just had something to ask about the school board, but.....
MS. OBERMEYER: Oh, sure.
MR. STANG: .....maybe separate.
MS. OBERMEYER: Would you want to go off the record?
MR. STANG: Are you done?
MS. OBERMEYER: Yes, of course. Unless

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you have -- any of you have a question. I'd be glad to field questions.
MR. STANG: Okay.
MS. OBERMEYER: And thank you to Mrs. Hile for tape recording.
(END OF PROCEEDINGS)

C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Mineral Management Service Hearing was electronically recorded by Salena Hile on the 30th day of July 2002, at Anchorage, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 29th day of August 2002.

_____
Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 4/17/04

MMS Responses to Anchorage Public Hearing Comments

PH-Anchorage.001

The MMS notes your preference in alternative choice. In this final EIS, the MMS presents the various options for this lease sale (Section II) and gives our rationale (Sections IV and V) for and recommendation (Section II.I – Agency-Preferred Alternative) to the Secretary of the Interior for her decision regarding this lease sale under consideration.

PH-Anchorage.002

See Responses L-0001.002 and L-0001.003.

PH-Anchorage.003

See Response L-0007.001.

PH-Anchorage.004

See Response PH-Barrow.004.

PH-Anchorage.005

The OCS leasing program in Alaska has been in place since the mid-1970's. Twenty OCS lease sales have been conducted in Alaska; seven of them have been in the Beaufort Sea. Eighty-three exploration wells have been drilled; 30 of them in the Beaufort Sea, and the Northstar Unit is producing from several wells. These activities have been extensively studied, and no evidence of significant impacts to the resources of the region has been discovered. Cooperation of the local residents has been an important component of these activities and will continue to have a significant role in the process.

The North Aleutian Basin leases were relinquished by the lessees as part of the settlement agreement in a lawsuit brought by lessees. Following lease issuance, U.S. congressional appropriations included yearly moratoriums that provided that no funds were to be expended by the Department of the Interior for leasing or the approval or permitting of any drilling or other exploration activities on lands within the North Aleutian Basin Planning Area. Lessees sued the Government to buy back the leases. In 1995, the MMS announced a settlement to a portion of the lawsuit. As part of the settlement agreement, companies relinquished all of the leases issued in Sale 92.

PH-Anchorage.006

The OCS Lands Act of 1953 (43 U.S.C. 1331 et seq.), as amended states that the OCS is "…a vital national resource reserve held by the Federal government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs…." The 1978 amendments to the Act (43 U.S.C. 1801 et seq.) states the purposes of the Act include establishing "…policies and procedures for managing the oil and natural gas resources of the Outer Continental Shelf which are intended to result in expedited exploration and development of the Outer Continental Shelf in order to achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments in world trade…." The Act also requires that these efforts must include "…the enforcement of safety, environmental, and conservation laws and regulations," and cooperation with "…relevant departments and agencies of the Federal Government and of the affected States." The MMS is carrying forward the provisions of the 5-year program approved by the Secretary and the Congress in June 2002 and in accordance with the mandate of the OCS Lands Act.

PH-Anchorage.007

See Responses L-0001.002 and L-0001.003.

PH-Anchorage.008

Pipelines have many advantages over other types of oil-transportation systems such as tankers, trucks, and rail. For that reason, pipelines continue to be the preferred method for transporting oil.

Many ice islands have been used successfully for exploration drilling over the last 30 years. Ice islands have the unique advantage that they melt in the spring, leaving little evidence that they were ever there.

PH-Anchorage.009

No one knows with reasonable certainty how much oil or gas exists in undiscovered fields on the North Slope or, for that matter, anywhere else. Resource estimates change constantly when new information becomes available. In their 1995 assessment, the U.S. Geological Survey estimated that 63.5 trillion cubic feet of undiscovered gas was recoverable in all of northern Alaska. In a 2002 assessment, they reported that 61.4 trillion cubic feet of undiscovered gas was recoverable in the National Petroleum Reserve-Alaska alone (less than half of northern Alaska). Over the last 2 decades, published gas resource estimates for the Arctic National Wildlife Refuge have ranged from 3.5-31 trillion cubic feet. To state that there is "only 7 trillion feet" in the Refuge ignores that uncertainty surrounding resource estimations. However, it is widely known that more than 30 trillion cubic feet of gas is recoverable in and around existing oil fields on the North Slope. This potential reserve base has been known for 2 decades but, for economic reasons, it has not been developed. It will take tens of billions of dollars to build the infrastructure to move this stranded gas to market, and more gas reserves will be needed to support this costly project. Areas of high potential, along proven trends in northern Alaska and the Beaufort Sea represent the best, untested lands in the United States under Federal jurisdiction. As such, all high potential areas are considered important to meet future domestic energy needs.

PH-Anchorage.010

See Responses L-0001.002 and L-0001.003.

PH-Anchorage.011

The MMS has been involved in the assessment of ice-island technology for many years. The MMS Technology Assessment and Research Branch maintains an internet site where information on ice mechanics, including ice islands, can be downloaded. The internet site address is http://www.mms.gov/tarprojectcategories/ice.htm.

PH-Anchorage.012

There are reports on oil-spill-response capabilities in broken-ice conditions. In 1983, an oil-industry taskforce (Amoco, Exxon, Shell, and SOHIO) prepared a study entitled *Oil Spill Response in the Arctic: An assessment of Containment, Recovery and Disposal Techniques*. This report covered oil-spill response for mechanical and in situ burning methods in broken-ice conditions.

The MMS has conducted research with the MORICE skimmer, designed specifically for broken-ice response; sponsored research on the effectiveness of in situ burning in broken ice; and currently is participating in research to better define the limits for burning oil in freezeup conditions. In 2000, the MMS was one of the sponsors for the Oil and Ice Workshop conducted in Anchorage, Alaska that brought together cold-water-response experts from around the world to discuss methods of recovering oil in ice-infested waters.

Environment Canada, the Canadian branch of government responsible for environmental oversight, also has conducted extensive research in oil recovery methods in broken-ice conditions.

PH-Anchorage.013

Thank you for your comment.

PH-Anchorage.014

The maps in question (Executive Summary maps) were reviewed and reference point consistency (i.e., add major river names to maps) was checked and added for clarity.

PH-Anchorage.015

After contacting the U.S. Coast Guard Marine Safety Office, the MMS learned that the vessel in question, LST 642, was beached 50 yards off the east shoreline near Demarcation Point in Demarcation Bay, not Camden Bay, and has been there for about 40 years. The U.S. Army Corps of Engineers contacted the Coast Guard Marine Safety Office in April 2000 regarding the LST, because residents of Kaktovik had asked the Corps to remove the vessel as part of their Formerly Used Defense Site (FUDS) Environmental Restoration Program. The Corps' FUDS Program did not

cover remediation of ships, but they wanted to address the local concern about potential contamination from fuel aboard the vessel.

Coast Guard Marine Safety Office information revealed that the ship was used to transport materials for DEW Line station construction in the late 1950's and early 1960's before a storm beached the vessel, and it was abandoned. One account has the vessel being purchased by an oil company that moved it to Barter Island. Many Kaktovik residents remember climbing on the vessel in the 1950's. Apparently, it was anchored at Barter Island for many years, and some local residents believed that fuel and other items were taken off the ship at that time. The vessel then seems to have been sold to Canadians who decided to tow it from Barter Island to the MacKenzie River Delta; however, while en route, the vessel encountered a heavy storm and the towline to the LST was cut and it was lost and considered a "ghost ship" until it was found ashore at Demarcation Bay. The Fish and Wildlife Service believes this occurred before the original Arctic National Wildlife Range was established in 1960. On one of their slides of the vessel is written "This vessel was not abandoned. It was beached under authority of its owners." Years later, when the Corps began its DEW Line cleanup efforts, local people first mentioned the vessel. The Corps believed that the best way to dispose of the LST was to blow it up. Local residents protested, asserting that the vessel was a historic site. More recently, local residents have come to consider the vessel a safety hazard, and the Corps has said it has no responsibility for the hulk.

The BLM made a flyover of the vessel in the late 1960's. In 1989, the Fish and Wildlife Service took some photos during an overflight of the vessel, believing at the time that it was a Liberty ship. The Corps boarded the vessel in 1993 or 1994 and noted that the decks were "greasy" in places. In 1999, the Corps did an overflight of the vessel and reported the vessel was within 50 yards of the shore and in fairly good shape. No sheen was sighted. More recently, personnel from the Coast Guard Marine Safety Office made an overflight of the vessel and reported that it had either been broken up by ice or sunk into the beach and buried. During the course of their inquiries, the Coast Guard contacted an expert on LSTs, Commander Melcher (U.S. Navy, Retired), who revealed that these vessels did not carry much fuel and that most was carried in port and starboard day tanks of up to 2,000 gallons each. These tanks would not have lasted the 40 years that the vessel has been on the beach and, as mentioned, probably were emptied while the LST was anchored at Barter Island. No sheens or spills have been reported over the years the vessel has been ashore.

PH-Anchorage.016

Map 16 was added to the EIS. It shows all the leases that have been issued, which includes current active leases. Figure III.A.1 provides a graphic that shows the developments, both onshore and offshore.

PH-Anchorage.017

See Response PH-Anchorage.015.

PH-Anchorage.018

The Secretary of the Interior under the OCS Lands Act proposes a 5-year program at regular intervals. At this stage, the entire OCS is a clean slate and recommendations are proposed for various OCS leases sales around the Nation. The 5-Year Oil and Gas Leasing Program includes an EIS, with public review and comment at this stage. Each new Administration makes their recommendations, and the political process does influence the outcome. Although past lease-sale history within a given region is taken into consideration, the 5-year program that emerges may or may not reflect past thinking and boundaries.

PH-Anchorage.019

Please see Responses PH-Anchorage.014, PH-Anchorage.018, and L-0003.007.

PH-Anchorage.020

A primary objective of the OCS Lands Act is to make lands available for oil and gas leasing in an environmentally acceptable manner, taking into consideration protection of the marine, coastal, and human environments. The MMS must write the EIS based on many uncertainties, including whether or not any given area will be leased, explored, and then possibly developed and produced. These uncertainties are complicated by uncertain environmental effects. We consider that the proposed mitigating measures will provide a significant level of protection to the environment while allowing some level of exploration and development to proceed.

Also see Response L-0005.007.

PH-Anchorage.021

These deferral areas were designed in response to comments received during the scoping process for this EIS. Particular attention was given to the areas where successful subsistence hunting has occurred in the past.

PH-Anchorage.022

See Responses PH-Anchorage.021 and PH-Kaktovik.009.

PH-Anchorage.023

Congress has not restricted oil and gas exploration or development offshore of the Arctic National Wildlife Refuge.

Pipelines have many advantages over other types of oil-transportation systems, such as tankers, trucks, and railways. For that reason, pipelines continue to be the preferred method for transporting oil.

PH-Anchorage.024

The MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open water, spring broken ice, and fall freezeup. The equipment, tactics, and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal and would not be limited to a single skimming configuration; they would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and MMS to add new tools and increase effectiveness of existing methods and equipment.

PH-Anchorage.025

Were oil to be spilled during the onset of solid-ice conditions, the responsible party would release a number of tracking buoys and markers that would move with the ice. The buoys would be tracked, and the current position of the contaminated ice would be maintained. Once ice conditions would permit personnel and the use of heavy equipment, recovery efforts would begin.

PH-Anchorage.026

See Responses L-0025.011 and PH-Anchorage.027.

PH-Anchorage.027

The hypothetical oil-spill trajectories can run for more than the open-water or ice season if they freeze into the ice. The trajectories age while they are in the water and/or on or in the ice. For each day that the hypothetical spill is in the water, the spill ages—up to a total of 360 days. The text has been clarified to state that trajectories that start in open water and freeze into ice are followed up to a total of 360 days. The MMS has statistical information based on thousands upon thousands of trajectories followed through as long as 360 days. There are 735 spill points, each with 2,700 trajectories (1,984,500 trajectories) and 13 pipeline segments, each with 100 points and 27 trajectories (35,100 trajectories). These trajectory data provide statistical information on where an oil spill goes, how long it takes to get there, and what resources have a chance of being contacted.

PH-Anchorage.028

The EIS does not ignore the "polar bear/oil spill" models. The Liberty EIS model is cited in this EIS. Both the Northstar and Liberty models assume a larger spill–5,600 barrels–than the one assumed for this EIS (1,500 or 4,600 barrels). Thus, the estimate of polar bears killed would be larger. These models do not factor in ice coverage at the time the spills are assumed to occur (late September-October) when much of the Beaufort Sea can be iced over. Under those conditions, polar bears likely would not be exposed to the oil. These models have not been subject to peer review for publication and do not represent accepted science. The analysis of the results of the models runs suggests that polar bear densities used in the models are overestimates of the number of bears in the area, and that

the model may be counting the same bears over again to come up with the 78, 108, and 61 dead bears. The models represent a type of "worst case" where all the bears that maybe at the same location as the assumed spill will die, even though no direct contact with the oil occurs.

PH-Anchorage.029

The chance of an oil spill occurring has changed over time due to input from stakeholders. The draft EIS for the BPXA Northstar Development Project included oil-spill probabilities to aid in analyzing the potential effects from oil spills. Questions on how these probabilities were generated, and what they mean to the local environment in regard to impact assessment, were raised during the review of the draft EIS (June 1998). A white paper on the probability of a Northstar oil spill was written (USDOI, MMS, 1998), which addressed the uncertainty in estimating probabilities, the rationale for selecting the spill size used in the oil-spill probabilities, the primary sources of an oil spill for the proposed project, several methods and data used to compute spill probabilities, North Slope oil-spill data, and measures that have been adopted in the Northstar design and operation to significantly reduce the chance of spills. The paper ended with overall conclusions regarding the safety of the offshore portion of the Northstar Project and the likelihood of a significant oil spill reaching the water. Several probabilities were described in the Northstar final EIS, including the 24% mentioned by the commenter.

Because there was concern regarding spill rates in the Northstar draft EIS, the MMS collated and analyzed all available spill data. In July 1999, the MMS released a request for proposals on *Estimation of Oil Spill Risk from Alaska North Slope, Trans-Alaska Pipeline and Arctic Canada Oil*. That study was completed in April 2000. This study looked at spill rates in an arctic environment by the same companies that were operating in that environment. The Liberty Project included all available information about historical spill rates, including Alaska North Slope spill rates for facilities and pipelines.

These Alaska North Slope rates were used in the 5-year EIS. If we look at the individual numbers in the 5-year and other EIS's, it will be clearer to the commenter. See Table 4.1.e - The Proposed Action (Alternative I) Oil Spill Assumptions in the Five-Year EIS (USDOI, MMS, 2002a). In the 5-year EIS, the resource ranges from 1.02-1.71 billion barrels of oil for the Beaufort Sea. In Table 4.1.e, the 81-94% chance of one or more spills greater than or equal to 500 barrels is for facilities, pipelines, and tankers. The tanker spill is listed in the Gulf of Alaska column. If we look only at facilities and pipelines, the chance of one or more spill greater than or equal to 500 barrels is 45-63%.

Because there was stakeholder concern regarding the applicability of Alaska North Slope onshore spill rates to the offshore, the MMS released a second request for proposals in July 2000. This request was for *Alternative Oil Spill Occurrence Estimators for the Beaufort and Chukchi Seas*. This effort was aimed at alternative methods to estimate oil-spill occurrence for areas where historical spill data are lacking. The final report was available in August 2002, several months after the 5-year final EIS was published. For the Beaufort Sea multiple sales, we use the mean 1.38 billion barrels, to which each sale contributes 0.46 billion barrels. The chance of one or more spills greater than or equal to 1,000 barrels for each sale is 8-10%. The chance of one or more spills greater than or equal to 1,000 barrels for all sales (Alternative I) is 26%.

Let's talk about why there are some of these differences. First, the 5-year final EIS and the Beaufort multiple-sale EIS are using two different size categories. The probabilities in the 5-year EIS were calculated on spill rates based on greater than or equal to 500 barrels, because no spills from facilities and pipelines on the North Slope (excluding the Trans-Alaska Pipeline System) exceed 1,000 barrels. The probabilities in the Beaufort Sea multiple-sale EIS were calculated based on spill rates greater than or equal to 1,000 barrels. Because of the logarithmic nature of oil spills, where more small spills and fewer large spills would occur, we would expect higher probabilities at greater than or equal to 500 barrels relative to the cut off of greater than or equal to 1,000 barrels. Second, the rates these probabilities were estimated from were derived from two different sources, as previously described. The Bercha Group Inc. (2002) report was not available for use in the 5-year EIS. The MMS has made continual progress in response to stakeholder concerns in obtaining information about spills and alternative methods to estimate oil-spill occurrence.

We understand that it may be frustrating to the reader that the values have changed. We hope this explanation helps the reader to understand the differences in the values between documents and why they have changed through time.

PH-Anchorage.030

See Responses PH-Anchorage.020 and L-0005.007.

PH-Anchorage.031

See Responses to L-0002.016 and L-0015.002.

PH-Anchorage.032

Impacts to resources in the arctic environment that would be irretrievable or lost on a permanent basis have not been identified. While some of the resources may be disturbed and some losses could occur, when factoring in recovery and alternative habitats, no known permanent loss can be identified. It is even more difficult to establish permanent loss of resources to onshore habitats from activities that are occurring primarily offshore. Going beyond the resilience of the biotic community, physical structures that are permitted to be established onshore are not considered a permanent or irretrievable loss. The infrastructure support facilities and transportation networks are ongoing and projected to be removed and the area or habitat reclaimed with natural vegetation, as onshore and offshore activities shift or shutdown upon completion.

PH-Anchorage.033

The MMS has presented alternatives and our rationale for each alternative within the body of the EIS. The MMS recommendations to the Secretary of the Interior are presented in Section II.I – Agency-Preferred Alternative.

PH-Anchorage.034

The commenter has not identified the unacceptable risks to protected onshore areas from the transportation of oil. Tankering is not a part of the transportation equation, at least to the protected areas of concern–Teshekpuk Lake and the Arctic National Wildlife Refuge. No onshore pipelines are present or projected that would pose a risk to protected areas, such as the Teshekpuk Lake Special Area. These areas are easily protected with environmentally sound planning of permitted pipeline rights-of-way and other mitigation, as appropriate. The limited scale of these proposed projects would require connecting with existing infrastructure and the existing landfalls, which include the Oliktok Point landfall, the Northstar landfall, and Badami. The Arctic National Wildlife Refuge is not going to be crossed with a pipeline or support any transportation infrastructure. Present pipelines and infrastructure have not been oppressive to wildlife populations, such as caribou in the Central Arctic Herd and polar bears, both of which are ubiquitous throughout the area.

PH-Anchorage.035

The MMS recognizes the importance of the Teshekpuk Lake Special Area for black brant and caribou (see Sections III.B.5 and III.B.7.a) and assumes that no onshore oil facilities would be located within this area.

PH-Anchorage.036

The MMS recognizes the importance of the Arctic National Wildlife Refuge for caribou and other terrestrial mammals (see Section III.B.7.a) and assumes that no onshore oil facilities, including pipelines, would be located within this area.

PH-Anchorage.037

The MMS does not consider opening up the Arctic National Wildlife Refuge for onshore facilities to support OCS development offshore of the Refuge to be reasonably foreseeable action under NEPA requirements. It will take an Act of Congress to open the Refuge to any type of oil development.

PH-Anchorage.038

Pipelines have many advantages over other types of oil transportation systems such as tankers, trucks, and railways. For that reason, pipelines continue to be the preferred method for transporting oil.

PH-Anchorage.039a & b

See Response PH-Barrow.004.

PH-Anchorage.040

See Responses L-0005.007 and PH-Anchorage.020.

PH-Anchorage.041

Cumulative effects must consider all activities, which are increasing. Aggressive future development includes the Liberty Project, the McCovey Project, the proposed Armstrong Resources in Harrison Bay, and the three proposed lease sales described in this EIS. There are no meaningful cumulative analyses to date, especially of air, noise, and water pollution, in addition to oil spills. An incremental expansion of oil-field roads and pipelines, support activities, and increased tanker traffic out of Valdez must be included.

Exploration and development activity for oil in the arctic environment has slowed significantly from former years, while the content and complexity of the commutative analysis has more than tripled during this same time period. This effort alone with the focus and forthcoming National Research Council report on arctic cumulative effects is evidence of the importance the MMS has given this ever-evolving topic of concern. The offshore projects of concern–Northstar, Liberty, McCovey, and Armstrong–represent most of the present and proposed future activities and are not "just a small sample." While these projects represent a potential concern they are separated by distances of from 25 to more than 100 miles and have timetables that do not coincide to yield a cumulative effect. The incremental contribution of these past, present, and reasonably foreseeable future activities have been assessed and are included in the Table V-2 (Past), Table V-5 (Present), and Table-6a (Reasonably Foreseeable Future). The overall contribution of these activities, as indicated by the production of oil, is about 4% (Table V-7a).

PH-Anchorage.042

Although much research has been done by other polar nations on the issue of human-health risks, there is not a large body of information available for the Alaskan Arctic. A short summary of human-health research is included in the Environmental Justice analysis in Section IV.C.16 of the EIS. Section V.C.8 - Cumulative Effects on Terrestrial Mammals did not find significant distribution or abundance impacts from the proposed lease sales on caribou; therefore, the Environmental Justice analysis did not included caribou in its assessment of disproportionate, high adverse effects.

PH-Anchorage.043

See Response L-0026.015.

PH-Anchorage.044

The concept of global climate change has been treated in the programmatic OCS Oil and Gas Leasing Program (2002-2007) 5-year EIS. See Section I.C.1.e(3). A "greenhouse effect" is recognized as occurring but remains very difficult to quantify as is the contribution of the various sources. Changes in solar radiation along with human activities are attributed to most of the global average surface temperature increase of 0.6 degrees Celsius during the past 100 years. Numerous variables and the extended timeframe of this ongoing investigation does not lend itself of a meaningful interpretation in the context of cumulative effects and the reasonably foreseeable future events, which is our best prediction of events during the expected 20-year life of this proposed project.

PH-Anchorage.045

The size of the sale has no direct applicability to the Federal Coastal Zone Management Act or the Alaska Coastal Management Program. The Alaska OCS Region has conducted seven oil and gas lease sales in the Beaufort Sea since 1979, some of which offered much more acreage than the current Proposal. Coastal zone consistency determinations were prepared for these sales, and the State of Alaska concluded that each of the sales was consistent with the Alaska Coastal Management Program. The analysis of areas in an EIS is only one of the preliminary steps in a process that involves opportunity for future public comment, including at the time MMS publishes a proposed notice of sale and after leases are issued–at the time site-specific lease activities are proposed. Each of these steps represents a narrowing of the area being considered. In the Beaufort Sea, for the past 18 years, an average of only 7% of the acres offered were actually leased. Of the 548 leases issued during that time only 14 leases have been explored (about 3% of the leases) and only one is producing. If the average 7% of the area in the current Proposal is leased, it could result in approximately 12-15 leases.

PH-Anchorage.046

The MMS believes that threatened and endangered species and their habitat are being adequately protected. The MMS is required under the Endangered Species Act to consult with the National Marine Fisheries Service (NMFS) on bowhead whales, because bowheads are listed as endangered, and with the Fish and Wildlife Service on spectacled and Steller's eiders, which are listed as threatened. As part of the consultation process, the MMS

prepares a biological assessment analyzing the potential effects of leasing and exploration activities on these species and provides this document to the NMFS and the Fish and Wildlife Service. These agencies then determine whether the proposed lease sale and exploration activities are likely to jeopardize the population of these species and issue a biological opinion, which may include recommendations and/or conditions to reduce or eliminate any adverse effects. The MMS and lessees abide by those recommendations/conditions. Information on bowhead whales and on eiders provided in the biological assessment to the NMFS and Fish and Wildlife Service are found in Section IV.C.5 of the EIS.

The NMFS recently determined that it was not necessary to designate critical habitat for the bowhead whale because, among other things, the population is still increasing and existing laws and practices adequately protect the species and its habitat. The Fish and Wildlife Service recently determined that it was not necessary to designate critical habitat offshore for either eider species.

PH-Anchorage.047

In carrying out its mandate under the OCS Lands Act, the MMS ensures all activities that are subject to MMS regulation are conducted in accordance with all applicable laws and regulations, including NEPA, the Oil Pollution Act, and many others.

PH-Anchorage.048

As pointed out in Section I.A of the EIS, the NEPA regulations allow agencies to consider one large leasing area under a single EIS, even if the same geographical area is offered for lease several times, as long as the impacts and consequences are essentially the same. Following the first lease sale, subsequent offerings will have an Environmental Assessment prepared to evaluate any changes taken place since the initial EIS was written, and supplemental NEPA documentation will be prepared to document this change.

PH-Anchorage.049

The MMS has the responsibility to make resources available to meet the Nation's energy needs and balance orderly energy resource development with protection of the human, marine, and coastal environment. In carrying out these responsibilities the MMS reviews the proposed technology to ensure that things get done safely. The MMS also funds technological research to advance and assess new technology.

PH-Anchorage.050

The MMS analysis and decisions are set forth in the Final EIS. Deferral options, including deletion of OCS areas off of the Arctic National Wildlife Refuge, are evaluated within the body of the EIS. If these lease blocks do proceed forward under the Secretary of Interior decision process, we feel that the proposed Stipulations and Notices to Lessee's provide adequate environmental protection.

UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

OFFICIAL TRANSCRIPT -- PUBLIC HEARING

DRAFT ENVIRONMENTAL IMPACT STATEMENT
BEAUFORT SEA MULTIPLE SALE PROPOSED OIL AND GAS LEASE SALES
(SALES 186, 195, AND 202)

Barrow, Alaska
Inupiat Heritage Center
Thursday, August 1, 2002
7:00 p.m.

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MMS PUBLIC MEETING

August 1, 2002

Barrow, Alaska

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P R O C E E D I N G S

(Barrow, Alaska - 8/1/02)

MR. STANG: We're going to go ahead and start, even though we -- there are only a couple here, that's fine. And we can -- if more come later, we can add to our discussion at that time. My name is Paul Stang. I'm the regional supervisor for Leasing Environment of Mineral Management Service, and we have some other people here today, too. On my left is Fred King who's the section head of our section called Environmental Assessment, and on my right is Angela Mazzullo, without an i. Back there is Albert Barros. Angela is with the budget group of MMS in Hernon, Virginia, and Albert Barros is our community liaison in Anchorage.

What we're here to talk about is this document here which is the environmental impact statement for multiple sales, three sales. The sales will occur, or are planned to occur in 2003, 2005 and 2007. The area that's represented is on the map back there, the pink area which runs basically from the Canadian border on the east to Barrow on the west, from about 3 to 60 nautical miles, three miles from shore out 60 nautical miles from shore. About 9.9 million acres are covered, and the particular sale numbers are sale 186, which is for 2003,

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195 is 2005, and 202 is 2007.
These three sales were selected by Interior Secretary Norton, and published in final in late June of this year, and that -- there's a blue document back there that has a description of that program. And this EIS covers each of those sales, and it's a little different than what we normally do. Normally we have one EIS for each sale, but because the area covered by all three sales is essentially identical, that pink area, and the alternatives considered are those areas on the other map, the subsistence whaling deferral off Barrow, the one off Cross Island, and one off Kaktovik, are the -- three of the four areas deferral areas, and the one, the eastern deferral, the reddish color is the fourth. These will apply for all three sales.
However, because we may gain new information and new insight, we will do an environmental assessment before we begin the second sale, and if need be, we will do a supplemental EIS. We will also do the same thing, and environmental assessment, and if need be a supplemental EIS for the third sale.
The State of Alaska and the North Slope Borough have coastal zone management programs, and we're obliged to do a consistency determination to see if our program is consistent to the maximum extent practicable

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with the enforceable policies of those programs, and we will do that consistency determination for all three sales.
So the documents we've got are this three volume EIS here, the -- this blue document is a Inupiat translation of the executive summary of the EIS. This is just a reproduction of the executive summary in English. And we have the EIS on a CD, you need Adobe Acrobat in order to be able to use the CD. There's also coffee in the back you're welcome to have, and there are some pencils that you can feel free to pick up.
The normal way most people hold hearings is they just go ahead and sit and listen to what people have to say, but we are most willing and interested in engaging in any discussion or answering any questions, of if they -- if you have questions, please feel free to ask them.
There are three ways you can submit comments, and it's on one of those sheets back there. There's a fax number, there's an address, and the other is here at these public hearings. We're fortunate to have Salena Hile with us, who's doing the court recording, and so she'll make a transcript of everything that's said. The comment due date is September 20th, so any written comments need to be submitted by then.

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I can tell you just a little bit about the area we're talking about here from an oil and gas perspective. We have been issuing or holding lease sales in the Beaufort Sea since about 1979, and we have held seven lease sales so far. And in that period of time during those seven lease sales, we've issued 690 leases, and currently there 54 of those that are remaining active. We've drilled about 30 exploratory wells, and yet to date the only production from the Outer Continental Shelf comes from a few of the down hole locations from wells drilled from Liberty Island, which.....

MR. KING: North Star.

MR. STANG: Excuse me, I did it again. From North Star Island, which is in, just inside state waters. It's out near the three-mile line, but just inside waters, so the North Star Island drills mainly into state reserves for oil, or state resources, but some into federal.

And speaking of Liberty, Liberty was a proposal that we -- was just about wrapped up and ready to go for final decision. We had completed the EIS and BP decided that it looked like it was too expensive after their experience with North Star, so they pulled back and asked us to hold off for a while, put the project on the

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shelf, and they withdrew their exploration -- I mean, their development and production plan and are currently rethinking the project to see if they can develop it in a way that would be less expensive.

MR. HOPSON: Do you the right to encourage industry to go drill after you tell them?

MR. STANG: Well, that's a good question. There's.....

MR. HOPSON: I don't see after you -- if something goes wrong, you know, (indiscernible).

MR. STANG: Could I ask you please to come and sit over at that microphone, Charles, because that way we can get your question on the record. Would you be willing to do that for us? Thank you.

MR. HOPSON: I was just asking you a question.

MR. STANG: I will answer it, if we can get it on the record.

MR. HOPSON: (Indiscernible)

MR. STANG: Or, wait a minute. Here. Here, she'll bring a microphone right to you.

UNIDENTIFIED VOICE: We'll get more answers if you keep asking.

MR. STANG: You can sit down, that's easiest. Okay. The question was can we encourage

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companies to drill. I guess we could verbally, but we have no legal mechanism to encourage them to drill. The way it works, is that once a lease is issued, the pri -- let's say the primary term is 10 years. We have some ability to determine what that primary term is and set it as part of the lease term, but let's say it's 10 years. And the company then has no obligation to do anything for ten years. They can hold that lease, but at the end of the 10th year, they have to relinquish that lease. That is, they've paid money for it, they've paid a rental, but all that ends. So there's no -- at the end of 10 years. Now, if on the other hand they are progressing in efforts to find oil through exploration and seismic work and whatever have you, and they continue that, at the end of the 10 years, we can extend their lease as long as they're actively pursuing. So in a sense the lease has a built-in incentive to encourage them to do something.

MR. HOPSON: Do they pay additional money after your 10 are up? Do they pay additional money to hold those leases?

MR. STANG: They pay a rental rate during the duration of the lease, and that continues on after the 10th year. So as long as they hold a lease, they keep paying a rental rate. The bonus money is an up front payment.

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MR. HOPSON: If I get a lease for a million dollars, and then you'd encourage me to rent this place, were -- like you say rent? Lease it?

MR. STANG: No, you -- if you get -- if you pay a million dollars for a lease.....

MR. HOPSON: Okay.

MR. STANG: You have to pay an annual -- I think it's annual rental?

MR. KING: It's an annual rental.

MS. MAZZULLO: Yes.

MR. STANG: Yeah. You have to pay an annual rental rate to hold that lease. That's an obligation you have.

MR. HOPSON: How much?

MR. KING: That's.....

MR. STANG: $25 a.....

MR. KING: No, it's -- the rental is $8 per hectare.

MR. STANG: That's $8 per hectare, which.....

MR. KING: Per year.

MR. HOPSON: .....comes out to, what is it.....

MR. KING: It's about three.....

MR. STANG: .....$8.....

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MR. KING: .....$3 per acre per year is what they have to pay rental.
MR. STANG: Right. Right. The.....
MR. KING: And.....
MR. STANG: .....$25 per acre is a minimum bid typically, is the minimum bid is $25 per acre, but the rental is $3.....
MR. KING: Is $8 per hectare, and $3 per acre.
MR. STANG: Right.
MR. KING: And then in addition, there's a royalty rate on that. If they discover oil, then they have to pay a percent of the royalty on top.
MR. STANG: They pay you.
MR. KING: Yeah, they pay the Federal Government.....
MR. STANG: They pay the Federal Government.
MR. KING: .....on top of that.
MR. STANG: That's correct.
MR. KING: Any money that's received from this goes directly into the OCS treasury, so any receipts go directly there. They don't come back to the agency. The agency doesn't get anything from issuing more or less leases. Any money received from the leases goes directly

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into the treasury.
MR. STANG: And.....
MR. HOPSON: So after 10 years the industry is literally getting a lot of this land for free.
MR. STANG: No, no, it's not.....
MR. KING: No, they either turn it back over or they're doing something with the land.
MR. STANG: The industry gets only -- when they buy a lease, all they get is the right to explore.....
MR. HOPSON: To explore?
MR. STANG: .....for and drill for.....
MR. HOPSON: Okay.
MR. STANG: .....oil. They have no other rights on that leasehold. They don't own the tract. They don't own any of the other resources on it. They don't -- if there was gold under that lease, they have no right to that gold. They have right to only to explore for and develop oil.
MR. HOPSON: So actually if there's -- you know, if someone was exploring, have a blow-out then I have the right to sue?
MR. STANG: If a company has a lease.....
MR. HOPSON: Or selling these leases.

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This is your -- you say this is your land.
MR. STANG: Okay. Well, in a sense. It's a question about right to sue. We are the agency that administers the Outer Continental Shelf Act. We issue the leases. If a company had a blow-out let's say, we have a provision under the law to how that will be dealt with with respect to liability for oil spills. There was an act passed in 1990, the Oil Pollution Act of 1990 which specifies how an oil spill must be cleaned up. It specifies the bonding required of companies to operate on the OCS.
MR. HOPSON: So at the same time if you're going to lease these lands over there, I'm going to hold you responsible, so I'm going to require you, if you're going to lease those, I'm going to require you, me and my whaling crew, there's 15 of them, we're going to require you to put a one billion dollar bonding on whatever happens on those leases. Me and my 15 crew members will do that. We have the right to do that, right?
MR. STANG: I can't answer that question, that you have the right to do that. I can tell you.....
MR. HOPSON: What right do I have?
MR. STANG: Well, I can tell you this, the OPA, the Oil Spill Pollution Act of 1990 specifies

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that companies, depending on what the project is, can be required to have a bond up to $150 million before they operate, and with respect to what happens if there's a spill, the law.....
MR. HOPSON: You're the responsible party.....
MR. STANG: Yes, the.....
MR. HOPSON: .....you're selling leases.
MR. STANG: The primary responsible party is the oil company under the Oil Pollution Act of 1990, so the company doing the spilling is the primary responsible party. Clearly the Department of Interior has a role, and I would say if we were negligent in carrying out our responsibilities under the Outer Continental Shelf Lands Act, or the under -- responsibilities under the Oil Pollution Act, and we were brought into court, and those -- and negligence on our part of not conducting the activities we're obliged to under the Act was proven, then I would say we'd be liable. But it would be hard for me to tell you precisely what your rights are with respect to suing the Department of Interior, because it would probably depend on the specific charge and issue at hand.
MR. HOPSON: Before you give out these leases, are you willing to sign a piece of paper saying

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that me and my 15 crew members, plus their wives and kids, have the right to do that? You know, we're willing to collect only $1 billion from you just for my crew. I don't know how many other captains would do that. You know, I have the right.

MR. STANG: I can't answer the question. I don't know. I doubt if my -- I can give you a guess, that is, I doubt if the Secretary of Interior or the Director of the Minerals Management Service would sign a contract between you and them.....

MR. HOPSON: This is -- I'm not talking for AEWC. I'm talking about myself as a whaling captain, plus my crew.

MR. STANG: Right.

MR. HOPSON: You know, so I'm not getting anybody involved. He's a captain over there, too.

MR. STANG: Right. I'm speaking specifically.....

MR. HOPSON: Yeah.

MR. STANG: .....of that. My guess is that neither the Secretary of Interior nor the Director of the Minerals Management Service would sign a contract with you and your crew with respect to the oil and gas leases and how operations would occur.

MR. HOPSON: The reason why I said that,

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you know, who did the studies on there? There's a deferral.....

MR. STANG: Yes.

MR. HOPSON: .....on those three.

MR. STANG: Yes.

MR. HOPSON: You know, I notice the deferral, because there's the Barrow, then there for that.....

MR. STANG: Yes.

MR. HOPSON: .....and Kaktovik.

MR. STANG: Yes.

MR. HOPSON: Who did those studies?

MR. STANG: Okay. I can answer that. We requested data from AEWC on whale strikes.

MR. HOPSON: The problem with those deferrals, you know, they're just -- you know, you're -- the pink area is the route of the migration of the whales whether going down or up, you know.

MR. STANG: Yes.

MR. HOPSON: Why, you know, you put a little -- you know, one for Barrow, one for Nuiqsut. It's not right. The whole thing should be that, you know, that's -- you know. And during the whaling season, you know, they do something. They're way off in the water. There's no, you know, -- I thought the American

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people were my -- our friends. Now we have Japanese working on our whaling. Now you, you know. What's going to happen next to us, you know? It looks like there's no stopping the industry. And -- but the whales migration, you know, the deferral should be all the pink. You keep away from that pink, we'll be okay.

MR. STANG: I hear you.

MR. HOPSON: You know, that's -- well, that's the truth. That's the migration route of the, you know, the bowhead, you know.....

MR. KING: Yeah.

MR. HOPSON: .....why you decided Barrow, just a little spot over there, and then Nuiqsut, you know.

MR. STANG: Those are the -- that's the strike data.

MR. KING: Yeah. To a certain extent what you're saying is the no action alternative, which is, one of the things we look at in the EIS is what happens if we don't do any leasing, which is a no action alternative, is -- it's one of the things that we're required by NEPA and which we evaluate in the EIS.

MR. HOPSON: Uh-huh.

MR. KING: And then the other is these other deferrals as options for the Secretary to consider.

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MR. HOPSON: What -- before you wrote these proposal, was there any ice studies on the 20-30 miles out before, you know, you're going to lease it out, was there any ice studies, you know, on that in your thing? I didn't get a chance to read the thing.

MR. STANG: I can't.....

MR. HOPSON: The reason why I said that, you know, the 40-mile limit or, you know, 30, 40 miles out, that is the base of the -- you know, the moving ice, outer shelf where, you know, it's kind of vicious. A lot of ice activity, and there's about three or four currents that happens. And I don't think anybody with an icebreaker have gotten into trouble, because -- and these are, you know, made to take this kind of thing. The American people always say, hey, we've got the top notch, you know, ice breakers to do this, you know, then they go home cripple. The same thing is going to happen. We have a top notch island we're going to build, or thing, and something happens, you know. We're -- you know, we'll be in a heap of trouble.

MR. STANG: I understand.

MR. HOPSON: You know, like anybody else, I spent a total of 11 years in the Arctic Ocean, the -- six of the 11 years, I spent six years floating around. I passed by that area three times coming in from the

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Barter Island, you know, on the -- that other side going to there, you know, and the further north you go is not too bad, but, you know, the further closer you get to the mainland, you're going to pressure cooking (ph), the inside ice is so big that you just -- momentum keep going there, you know, it just pushes you right out. And this island that I was in was four and a half miles wide, eight and a half miles longs, 115 feet thick, you know, it's part of a glacier from by Osmere, by Greenland, and when we got close, within 200 (ph) miles, we started moving, you know, 15 miles on a good, windy day. Fifteen miles, three knots, sometimes we just sit there. But it's kind of vicious, you know, but people need to do study before they start putting out leases, especially in the, you know, 30, 40 miles. You know, that's vicious country out there.

MR. STANG: I understand.

MR. KING: There's probably a couple of things that we acknowledge in the EIS, and that is, is you've got the ice conditions out there. You've also got water depth. Both of those in addition to what you're saying also translate into economic costs for the company. I think if you read the EIS you'll notice in there that we acknowledge that we think it's very unlikely companies would be interested out there because

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of the economics and what you've spoken about. We don't think there's a high degree of chance somebody's going to go out there and buy up a lot of land.

MR. STANG: That far offshore.

MR. KING: Yeah. We're not saying.....

MR. HOPSON: Well, then.....

MR. KING: .....that's a very likely thing.

MR. HOPSON: .....let's not do it. We all know it.

MR. KING: But we're not saying that's very likely to happen, but the other thing, the other problem you've got is oil is where oil is, and if a company wanted to buy a lease and then try to come in with proposals to show how they could do it safely, they can do that, and we would have to look at it further, and we'd have to have a lot more information like you're saying before we could approve a plan to go out there an operate.

MR. STANG: And we have to make an assessment that their proposal, should they make one, meets the technological and safety requirements under the Outer Continental Shelf Lands Act, so the environmental safety and also technical capability has to be demonstrated by the company before we'd go ahead and

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approve an exploration or development plan in that.....
MR. HOPSON: Anyway.....
MR. STANG: .....kind of a situation.
MR. HOPSON: Anyway, before you put any more leases out there, you know, we need to make improvement on the oil recovery system that they have. You know, they say they have it. No, they don't. These are some of the things that bother me, you know, the court (ph) -- the industry keep going this and that, you know. Maybe North Star was not a very good idea. We backed it, but, you know, they were going to spell a few hundred million. Yeah, they're approaching a billion dollars, you know, and, you know, and oil is starting to trickle a little bit, you know, maybe it -- you know, maybe further out, you know, you're going to talk about, you know, more money for the industry, maybe not worth the risk of, you know, having these lease sales, you know. I don't know. But.....
MR. STANG: Industry will have to make that judgment as to whether there's tracts out there that they think are developable and would produce enough oil to justify the costs associated with that development. And if they don't see that, they.....
MR. HOPSON: Well, that do you -- how much is justifiable?

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MR. STANG: Well, no, I meant -- what I'm saying is, before they buy a tract, they -- you know, as a sensible businessman, before they buy a tract, they have to look at the potential oil source that they think they could find, how much oil could they find if they did discover it, what their costs would be to produce it and bring it to shore and do a cost analysis of all that to decide even if.....
MR. HOPSON: I thought you were going to sell these things before they do anything, you know.
MR. STANG: Well, we.....
MR. HOPSON: Like you said, you know, the -- you're going to say, industry, give me your money, and we'll take it, let's do this. Under the table?
MR. STANG: No. No, there's no incentive. Here's the deal, and it's really kind of how the Outer Continental Shelf Lands Act is written. We make these tracts available for companies to bid on. Whether they bid or not is their option. It's their choice whether to bid or not to bid. If they're the high bidder, then that up front money that they put on the table will stay with the Federal Government. It won't go back to them. that money is spent. They don't get to recover it. And their judgment as to whether they want to proceed with exploration and development, they have to

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make. The great majority of tracts are purchased and relinquished without any exploration or development taking place. And we have in the Department of Interior gathered many billions of dollars and -- that have gone into the treasury, and to date the only thing which the oil companies have to show for that are some more knowledge that they've gained, but the only production is North Star. So companies have to make the judgment, should I buy a lease, and if so, can I develop it in a way that meets all the requirements and still make a profit. The company's obligation is to figure that out. We offer the leases as required by the Outer Continental Shelf Lands Act, and they have a choice to buy them or not to buy them. But to buy them, they have to bid on them, and they have to be the high bidder, and they have to meet all the requirements.

MR. HOPSON: Seismic boats, how do they -- are you on top of the seismic boats? How do you -- how do you go about, you know, going out with a seismic and to do these things? Who gives them the right?

MR. STANG: Okay. Two points here. One, at the moment to the best of my knowledge, there are no seismic boats on the North Slope.

MR. HOPSON: I mean actually that -- I didn't ask about the seismic boat, now who give the

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seismic crew the right to go out there at any time? I know there's none right now.

MR. STANG: Okay.

MR. HOPSON: Who -- do you give them a go ahead? Who gives them the permit to do that?

MR. STANG: They need to apply to us for a permit to do seismic work. They don't need a lease to do that. They just need a permit to shoot seismic. And basically what happens is companies shoot seismic on speculation. That is, they get a permit, shoot seismic on a whole bunch of tracts and then try to sell the data to oil companies who would subsequently want to bid on leases. So it's a totally speculative venture on their part. Now, obviously a company can contract for a seismic vessel to go shoot seismic, but basically the seismic work is done on speculation.

MR. HOPSON: And you issue the permits, right?

MR. STANG: We issue permits, correct, for them to.....

MR. HOPSON: Do they have to get a permit from the Borough, too?

MR. STANG: I imagine they do, but I can't be certain.

MR. KING: I don't know if they have to

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get a permit from the Borough for offshore for Federal, but I don't know at what point when they're shooting seismic, a lot of them move between federal and state, and in which case they were doing they'd have to -- I think as soon as they come under state, then it comes under your Borough jurisdiction.
MR. HOPSON: So the AEWC can control the seismic people, right, during whaling?
MS. LORD: Yes.
MR. STANG: There are agreements that are written, conflict avoidance agreements between the AEWC and the companies who are working the seismic boats, so that they have that very issue to avoid problems that would occur between seismic noise and the migration of the whale.
MR. HOPSON: On the leases, who determine over deferral areas in the maps? Who was the expert?
MR. STANG: Okay. The data on whale strikes we got from the AEWC.
MR. HOPSON: You know, when you make deferral, you don't do this on whale strike, you know, you're looking at the migrations of bowhead.
MR. STANG: Right. I understand your point. I'm trying to answer.....
MR. HOPSON: You know.

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MR. STANG: .....your specific question of who made that judgment, that we got data from AEWC, the regional director with staff from our office looked at that data and configured those candidate deferral areas, the Secretary of Interior has the job to make a decision of which, if any, of those she will select as candidate deferrals, and to actually defer them from a lease sale if we're to hold a lease sale.
MR. HOPSON: Did -- on any of the deferral, did they ever consider the feeding ground of these whales? The feeding area?
MR. STANG: We.....
MR. HOPSON: Those need -- if you're going to do that, you need to defer them also in there, maybe quadruple the size of the deferral area from Barrow north to Kaktovik.
MR. STANG: We.....
MR. HOPSON: Also in the feeding areas, you know, whales have to eat.....
MR. STANG: We got.....
MR. HOPSON: .....and.....
MR. STANG: .....other recommendations which we considered and looked at. We believe that the combination of these deferrals and the stipulations and information to lessees that we put out will provide

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protections needed for any conflicts that arise between the whaling issue and the development, and in particular, one stipulation, called stipulation 5, requires the companies who would purchase leases to have a conflict resolution agreement if conflicts arise between themselves and the AEWC, to resolve conflicts about exploration and development, much like the conflict resolution agreements that occur regarding seismic work.

MR. HOPSON: So we need -- so you guys need more ice studies in there?

MR. STANG: We.....

MR. HOPSON: Who does those, you know? Who does the ice studies?

MR. STANG: Well, it depends on the situation. Companies do some of their own ice studies. We at the Minerals Management Service have a science budget of several million dollars a year that we have to use for all of the science needs, be they ice studies, be they water quality issues, be they birds, part of our whale -- our BWASP (ph) program, the aerial overflight of the whale migration, comes all out of those budgets, so it's -- each year a priority is set up as to what's the highest priority. And studies are among those that we consider.

MR. HOPSON: You know, for years we've

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been talking about putting Arctic Res -- we had an Arctic Resource Lab out there for years, you know. Now so much activities are happening, we do need a science lab like we had NARL way back, so from the lease here, I think MMS have enough money, let's put up a good lab out there on UIC land and where MMS can use it, the -- you know, the onshore, ANWR can use it or -- and the NPR-A can use it. We need a lab that we can trust, you know. We have -- we're losing -- we are losing trust to the people that go there and study and never come back with the study that they did, you know. It's happening too much where, you know, you send up to do -- someone to do the study, and then they make a comment and they go home, then you never see that study again. We need some place to store it, so if we had a lab, we can now look at it, hey, look, this is what happened, you know. This has got to stop, you know. We need to, you know, we need to start doing these things here. I think you have enough money to help put up a good lab. Why don't you put in maybe $50 million, you know, will be a smoother meeting next time we have, you know, because we'll know, hey, we can look, remember this, we need to do this. We need to start helping each other. You need to start keeping some of the money here that you take off from our land, you know. That's all you want is take, take, take, you know, and here we are,

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you know, again. I've met you how many times through these meetings. Did I see any money from your last sale? No.
MR. KING: You didn't notice the.....
MR. HOPSON: I want a little bit, too. I'm getting old, you know.
MR. KING: You didn't notice your lower taxes after that sale?
MR. HOPSON: You know, well, we need to see some of that money, too, you know. Invest on a big lab out there at UIC. We can trust you better that way, you know. You made a bunch, a billion dollars, you know, then you take it home, you know, and here we are, still in the same situation we were 20 years ago, we're still arguing with you, don't do it, but you ignore us.
MR. STANG: Well.....
MR. HOPSON: We need to help each other. You need to help us whalers, you know. You're talking about my lifestyle, you're talking about my whaling crew and their kids. You know, we need to do something.
MR. STANG: Okay. Well, Angela's here from the budget shop and headquarters, and we're going to make sure.....
MR. HOPSON: I want to put in a request.....

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MR. STANG: .....she takes that back with her.
MR. HOPSON: .....for 50 million for a research.....
MR. STANG: Right. Okay.
MR. HOPSON: .....lab out there so you can put it out there, you know.
MS. MAZZULLO: Yeah. Well, I would like to address a couple of statements that were made earlier. You asked some questions about where the money goes from the lease sales, and actually we have two different rental rates. There's one rental rate for what's considered to be shallow water, and I think that's 7.50 a hectare, then there's 12.50 for deep water, but I think the majority of the proposed lease area is in shallow water, so.....
MR. STANG: Yeah.
MS. MAZZULLO: .....it would be at the lower amount.
MR. KING: Yeah, we don't have any deep water.
MS. MAZZULLO: Okay. And MMS actually does.....
MR. HOPSON: What do you call deep water?
MR. STANG: Gulf of Mexico. She's.....

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MR. KING: It's over 400.....
MR. STANG: referring to the Gulf of Mexico.
MR. KING: .....meters is what they consider.....
MR. HOPSON: How many?
MR. KING: Over 400 meters, so it's over 1,000 feet is what they consider deep water where they change the royalty rates.
MS. MAZZULLO: But also MMS does keep -- is permitted to keep some of the money from the rentals, from the lease sales to use as part of its budget.
MR. HOPSON: That's peanuts.
MS. MAZZULLO: And so part of that money is kept for use by MMS to operate.
MR. STANG: But let me just say that any money that comes from those receipts gets backed out of the appropriations bill.
MS. MAZZULLO: That's right.
MR. STANG: The Congress doesn't give us any extra.
MS. MAZZULLO: No.
MR. STANG: It's just -- if we take in money directly, then they give us less of an appropriation for that year, so.....

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MS. MAZZULLO: In fact, that's happened the last two years. We haven't gotten the amount from rental rates that we had in the past, and so they increased what they gave us out of the appropriated money.
MR. STANG: So it's a bit of a balancing act with funds.
MR. HOPSON: I think you guys need to take it more seriously when we testify this and that, you know, and -- I mean, you guys are going to be here next year, and, you know, we'll be talking about the same thing. You're going to ignore what I said today, a year.....
MR. STANG: Well.....
MR. HOPSON: .....and no money for a lab still, you know.
MR. STANG: Charles, we make sure that all of these comments get transmitted up to our bosses, and up to the director of MMS and to the Secretary, so she is aware of the comments that occur. And she keeps -- her job is to be -- understand those comments and the essence of them when she makes her decisions.
MR. HOPSON: Anyway, if you're going to ignore us and go ahead and put this out, I would quadruple the size of those deferrals for Barrow and

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Nuiqsut and Kaktovik, you know, 'cause, you know, it will give the whales more time to get back their path if they're ever, you know, deflected away, give them, you know, if there's any development out there, but these are the things that you need to consider, you know.

MR. STANG: Okay.

MR. HOPSON: That is too small, you know, where -- but I -- you know, if you ever do that, if you ever have these sales -- I know you're going to have the sale, but I would -- I'm opposed to these lease sales, you know, that -- you know, most of all I'm opposed to these lease sales in water out of our, you know, hunting areas for the villages. Maybe these guys have something to say, but I'll stand by for pretty much anything, and the comment of all.

MR. STANG: All right. Thank you.....

MR. KING: Thank you.

MR. STANG: .....very much, Charles.

MR. BROWER: I wasn't even going to say anything, all right.

MR. STANG: By the way, it's important that you state your name.....

MR. BROWER: Uh-huh.

MR. STANG: .....full name for the record, if you would, please?

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MR. BROWER: Yeah, Thomas Brower III, average (ph) Barrow employee. And, yes, I have reviewed your EIS on this environment -- on the project here, what not. And I've read one of your documents which is published by MMS which is called Sea Ice and Ocean Current Study, a Scientific Research, and I was kind of surprised to see that this scientific research study was a short-term study, but I was in with one of the conferences in Anchorage relating to ice current, ice movement and ocean current studies, and there was an individual from Japan that did a presentation there, but his English was pretty somewhat limited, but -- and one other request was -- by this -- some individual was to have this scientific research by this individual that did the Arctic Ocean study for over 40 plus years, but it would have taken somebody to translate it for X-number of years to translate it, because -- and his comment was that he stated that there was two type of currents in -- which provided in cycle terms, you know, anti-cyclonic and cyclonic system within the Arctic Circle, within the Arctic Ocean. And when I was reading the document that was put a contract by some firm or what not on this ice current and ocean current study, it was just a short-term study. And I was just kind of curious if MMS is going to look at or obtain this document from this Japanese

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scientific research program with data for 40 plus years or by a Russian scientist, which I guess they were pretty interesting. I talked to them when they did their presentation in Anchorage about a year and a half ago, when I sat in on it.
MR. STANG: I'm not familiar with that particular study, but I can check with our science staff if they have that. The conference was a year and a half ago, is that what you.....
MR. BROWER: Yeah, it was in Anchorage. It was called informational conference, which there was at least 40 -- I'm not sure, there were a good number of attendants there, so.....
MR. STANG: Specifically focused on ice, the whole conference, or.....
MR. BROWER: No, it was basically on the whole -- there was various -- I seen projects relating to, I think 40 some other projects having by contractors to MMS for.....
MR. STANG: It was an MMS meeting fundamentally?
MR. BROWER: Right. Uh-huh.
MR. STANG: It was an information transfer meeting?
MR. BROWER: Right.

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MR. STANG: Okay. I will check with our -- Cleve Coles, who's head of our section on Environmental Studies to see if we've got that copy. It's a Japanese study in 40.....
MR. BROWER: Yeah, and the Russian scientist also did that study, too, for 40 plus years on it.
MR. STANG: And the Russian scientist did.....
MR. BROWER: Uh-huh.
MR. STANG: .....the 40-year study?
MR. BROWER: Right.
MR. STANG: Okay.
MR. BROWER: I think the Japanese scientist did the ocean bottom, ocean currents -- ocean current study on there on the -- that.....
MR. STANG: Uh-huh.
MR. KING: One of the things we have is a scientific committee as -- do you remember how many members that is?
MR. STANG: It's 10 or so, 10 or 12.
MR. KING: Ten or 12 that includes all the different sciences and we rely heavily on them as an agency to help us say where, you know, how good the science is we're based on. They review stuff and help us

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with direction as well, so that's one of the things that we use, and I think there were some of those, or any time we have an ITM, we usually have a bunch of those coming to attend also to hear this, we'll have to get back. Right now I'm unaware of any proposed further studies on that is the best I can tell you, but we'll have to look into it.
MR. BROWER: I think just -- the study wouldn't have been conducted or what not, but then they was talking from the Russian scientist, and then translating it to English term would be very beneficial or what not.
MR. STANG: Okay. Good. We'll check on that, Thomas.
MR. BROWER: I think I've got the minutes in my office some place. I mean, I think I must have the individual's name on it, relating to that.....
MR. STANG: Good.
MR. BROWER: .....Russian scientist.
MR. STANG: If you could provide them to us, we'd sure appreciate it.
MR. BROWER: I think you guys should have it on record, too, on that.
MR. KING: We've probably got it on record where it's an ITM.

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MR. STANG: Right.
MR. BROWER: Yep, it was.
MR. STANG: Okay. Good. Thank you very much, Thomas.
MR. HOPSON: I've got one more issue.
MR. STANG: Certainly, would you mind coming up, Charles, please?
MR. HOPSON: One other thing that I forgot to mention, my name is Charlie Hopson, you know, one of the Barrow whaling captains. I think the Barrow whaling captains has expressed that, you know, the endangered species of bowhead. You know, the government really put forward what they have on endangered species, whale, you know, you're breaking your own law of endangered species, selling, you know, leases to where the endangered species travel. The government, you know, just about literally stop us from whaling a long time ago, because they say it would endanger species. Aren't you harming the endangered species more putting the leases over there? You know what I'm saying, you know?
MR. STANG: Yes, I know what you're saying.
MR. HOPSON: Because of the Barrow Eskimo -- AEWC, you know, the whale is almost out of endangered species because of the good job they have done counting

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the whale, this and that. It's going to devastate, you know, the population if something ever goes wrong and everything, and the government is backing us up, and then you turn around and give out leases where the passes of whales are, you know. You're breaking your own law that you made, you know, about endangered species, you know, forget them.

MR. STANG: We are obliged when we have an issue that affects or has a potential effect on endangered species, we're obliged to work with the National Marine Fisheries Service or the Fish and Wildlife Service, depending on which species, to provide them information about the activity and it's potential effects on that species. Then they have the obligation.....

MR. HOPSON: Do we get a chance to read it and see if it's right or wrong and.....

MR. STANG: I believe they -- well.....

MR. HOPSON: It's there?

MR. KING: Well, our assessment.....

MR. STANG: Right.

MR. KING: .....of the effects to, for example, the endangered species that would be involved here, and there's eiders as well as bowhead whales.....

MR. HOPSON: Uh-huh.

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MR. KING: .....is in this document, and that's.....

MR. STANG: Right.

MR. KING: .....part of the value of having it out for the review we've got now would be to have people read that, and if we've made what people consider to be a bad assessment or made some mistakes or anything in there for people to comment on them. That's part of the process we're in. So that assessment is part of this document.

MR. STANG: And I believe -- what I was going to say, is that the National Marine Fisheries Service in the case of bowhead whales has an obligation to write a biological opinion about that activity and the National Marine Fisheries Service assessment as to whether that activity would be a problem with respect to the particular endangered species, in this case, bowhead whale. And they're obliged to do that. I believe that they send that draft biological opinion to the North Slope, to -- and I can't tell you their mailing list, but I think they send it to the North Slope Borough and they -- I think they also sent it to AEWC.....

MR. KING: Yes, they send it to AEWC.

MR. STANG: .....to assure that the whalers have an opportunity to provide input into that

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before they make a judgement.
MR. HOPSON: Alfrieda?
MS. LORD: Uh-huh.
MR. HOPSON: We did make comments on those?
MS. LORD: Yes.
MR. HOPSON: Okay. I still have to read my thing. That's.....
MS. LORD: Yes.
MR. HOPSON: .....why I ask. I don't want to cross over to their stuff, too, you know, so.....
MR. STANG: Right.
MR. HOPSON: But I didn't want to -- you know, in case they haven't, I didn't want to, you know, you know, let it go if they haven't. I guess they did, but that was one of my concerns, too, is the endangered species.
MR. STANG: Certainly. And we have -- a good substantial part of this document deals with the effects on endangered species, and it's that information that the National Marine Fisheries Service and the Fish and Wildlife Services uses in writing their biological opinions.
MR. HOPSON: Okay. That was one of the ones that.....

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MR. STANG: Thanks very much, Charles.
(Whispered conversation)
MR. STANG: Would anybody else like to testify at this point? Or to provide comments, or ask questions or what have you?
MR. HOPSON: Take a break until you get more people.
MR. STANG: We can do that, and in a minute if somebody doesn't just up and.....
MR. HOPSON: (Indiscernible)
(Whispered conversations)
MR. STANG: Well, what we're going to do is take a break for about five or 10 minutes, because I think some people might not have gotten the word that we started at five, that they think we're starting at 7:00 and some people said they would be here at 7:00, so we'll take a break for a little bit here. Let's go off the record for a few minutes here.
(Off record - 6:57 p.m.)
(On record - 7:25 p.m.)
MR. STANG: We're going to go back on the record, and Alfrieda, you have some statement to make, if you would please state your name and who you're with, and then go ahead and make your statement? Thank you.
MS. LORD: My name is Alfrieda Lord. I'm

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with Alaska Eskimo Whaling Commission, and I'm here to official present Maggie Ahmaogak's, who is the executive director of Alaska Eskimo Whaling Commission, her comments on the Beaufort Sea Planning Areas Lease Sales 186, 195 and 202.

MR. STANG: Okay. We -- thank you, Alfrieda. We will take that testimony that you handed to Selena and make sure that that's part of the record verbatim.

TESTIMONY OF MS. MAGGIE AHMAOGAK:

The Alaska Eskimo Whaling Commission (AEWC) appreciates the opportunity to submit these preliminary comments, and reserves the right to submit additional comments on the DEIS for Oil and Gas Lease Sales 186, 195 and 202 by the U.S. Minerals Management Service by the deadline date in September of 2002.

The AEWC hereby endorses and incorporates by reference the comments submitted on this matter by the North Slope Borough.

Summary.

The draft Environmental Impact Statement (DEIS) prepared by the U.S. Minerals Management Service (MMS) for its proposed Oil and Gas Lease Sales 186, 195 and 202 in the Beaufort Sea Planning Area still fall short of the standards of review and analysis set under

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the National Environmental Police Act (NEPA). Important research results and other information from ongoing programs that could be used are still disregarded throughout the document. The AEWC applauds the MMS in its statements that it provided information from the consultation of the North Slope residents and the AEWC and this DEIS document. Unfortunately, one of the most important components of the DEIS, the cumulative effects/impacts analysis, contains only conclusive statements and entirely neglects any discussion of the past, present and reasonably foreseeable future activities whose impacts might interact with those of the proposed sale/action in federal activities.

Furthermore, this DEIS continues MMS' tradition of ignoring the dictates of federal law and Executive Order by continuing to refuse impact mitigation funding to our community. The DEIS responds to our request for impact assistance by refusing to acknowledge the possibility of pushing the administration to include mitigation impact assistance in the President's budget, or asking the Administration to put a request for impact assistance for North Slope communities in an energy bill. This is a fundamental flaw. We have heard agency officials claim that they would like to help us, but complain that MMS has no authority to fund impact

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assistance. We do not agree with the agency's legal opinion and we wonder whether MMS really wants to help us since we see no sign that you have ever asked for clearer legal authority to do what you say you want to do.

AEWC believes that MMS most certainly has the authority to budget for impact assistance. The one year allocation of funds to coastal states is evidence that Congress recognizes that coastal impacts from offshore oil development are a real problem. If MMS believes it does not have authority for funding, MMS needs to ask for it. This is part of MMS' responsibility to balance the orderly development of the OCS with protection of the human and marine environment.

Finally, AEWC believes that MMS has not performed or provided accurate and substantial analysis of the mitigation stipulations for this particular DEIS. A list of mitigation measures without analysis does not qualify as a "reasoned discussion" or a "hard look" as NEPA requires.

Requests from previous EIS to the 5-year leasing program.

On January 24, 2002, the AEWC submitted it comments on the DEIS for the OCS Oil and Gas Leasing Program: 2002-2007. In those comments, the AEWC noted a number of items that need to be addressed by the MMS

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before Lease Sales 826, 195 and 202 can be held. In particular, the AEWC requested that MMS acknowledge recent research results on the adverse industrial impacts of OCS development. MMS' failure to fully address these findings, especially given the participation of MMS representatives in hearings and meetings addressing these matters is extremely disappointing.

Again, the AEWC insists that MMS fully revise the sections of the DEIS in which it purports to address the "effects of accidental oil spills" and the "cumulative effects of past, present and future activities on the people and environment of Alaska's North Slope," as well as its conclusions within the Executive Summary on pages EXSUM 2, 3, 4, and 5. MMS had not performed or provided an accurate and substantial analysis of the mitigation stipulations for this particular DEIS. A list of mitigation measures without analysis does not qualify as a "reasoned discussion" or a "hard look" as NEPA requires.

For instance, the DEIS contains a stipulation prohibiting permanent facilities within a 10-mile zone around Cross Island unless the lessee can demonstrate that their placement in the zone will not have a significant impact on the subsistence harvest of whales. The DEIS claims that AEWC agreed to this, but we

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never did and do not now. The 10-mile figure is someone else's arbitrary and inaccurate invention. The document is dishonest in claiming our support. Our judgment now is the same as it has been. The exclusion zone should be expanded to include an area based on the real Nuiqsut traditional bowhead harvest area (which lies more to the north and east) and production noise effects on bowhead whales. The new zone should be defined in consultation with the AEWC and Nuiqsut and refined as noise monitoring studies produce more accurate information on impacts on whales.

In addition, we object to MMS' absurd characterization of an 8-10 percent chance of a major oil spill as "highly unlikely." Compared to what? What odds would you consider acceptable if your culture and your community were at stake? A risk of 8 percent to 10 percent is particularly unacceptable to AEWC and especially without an offer of impact assistance. We believe that the approach taken to risk evaluation and assignment in the DEIS violates the principles of environmental justice embodied in current executive order and other law.

Furthermore, given the vital importance of the analysis of oil spill and cumulative impacts to our community as a basis for understanding the impacts to

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our community from OCS industrial activity in the Arctic OCS, including the proposed lease sales, the AEWC insists that MMS revise the sections indicated above and make the revised DEIS available for review by the AEWC, the NSB and ICAS, and the consulting agencies including the National Marine Fisheries Service, the EPA, and the Marine Mammal Commission.

In addition to the above, in its comments on the DEIS for the OCS Oil and Gas Leasing Program: 2002-2007, the AEWC also requested that the MMS prepare a revised discussion on sociocultural impacts and environmental justice, including a balanced account of the "socioeconomic environment" for the North Slope, with a reasoned discussion of mitigation measures. the MMS has yet to provide this revised discussion.

In 1994, the National Research Council published a review of MMS' Environmental Studies Program in Alaska. The AEWC has pointed MMS to the conclusions and recommendations of this review on numerous occasions in recent years. These conclusions and recommendations remain relevant as MMS has yet to incorporate or otherwise address them. Notably, the NRC Committee conducting the 1994 review pointed out that, just as it does in the current DEIS, MMS in the past has devoted considerable attention the "amount and kind of

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subsistence activities, the importance of these subsistence activities for the maintenance of traditional cultures, and at least the potential for these activities to be disrupted in the case of catastrophic damage to the physical environment" without providing measures to protect against this potential disruptions.

In the first paragraph of Section 4.3.3.15. "Environmental Justice" within the 5-Year Leasing Program, it is noted that Executive Order 12898 alls for the development of mitigation measures to address "all identified effects." Agencies are also directed in the executive order to integrate those mitigation measures into the level of NEPA review required, in this case, into the environmental impact statement (EIS).

The AEWC hereby makes the statement that the MMS has failed to provide a clear analysis and reasoned discussion of all of the effects likely to result from the Lease Sales 186, 195 and 202.

Therefore, MMS has placed itself in a position where it cannot adequately identify mitigation measures necessary to address the "Environmental Justice" concerns raised by the proposed lease sales.

For these and other reasons, the present

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DEIS is in violation of the Outer Continental Shelf Lands Act and the regulations promulgated under the National Environmental Policy Act, which requires that the Secretary of the Interior provide "information needed for assessment and management of environmental impacts on human, marine, and coastal environments of the Outer Continental Shelf and the coastal areas which may be

affected by oil and gas development." Furthermore, as noted before, the Council on Environmental Quality requires that MMS ensure the "professional integrity, including scientific integrity" of the analyses in the draft EIS.

The AEWC believes that preparation of a single EIS for three incremental lease sales is inappropriate.

The AEWC recognizes MMS' desire to expedite permitting of energy projects, but the agency's proposed "tiering" is not appropriate in Alaska's OCS for several reasons.

MMS approach inevitably will short-circuit the chance for thorough environmental review of the three lease sales. Indeed, we believe that your proposed approach is not "tiering" but is in fact impermissible "segmentation" because the projects will be carried out in changing circumstances and may have

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different impacts.
In a stable, low-risk environment, MMS' approach might have merit, but not here. Weather, ice, and other environmental conditions in the Beaufort Sea are shifting, both year-to-year and over the long term with climate change. Three days ago the Washington Post ran a story about glacial melting and the rapidity of change in the ice of the Arctic. Now more than ever is the time to fulfill NEPA's mandate to take a hard look at the impacts of these projects. A hard look means one EIS per lease sale. We cannot afford to do less. Every year we learn more about and change our understanding of the Beaufort Sea environment, the habitat needs of the whales, and the scale and pace of change in those things resulting from shifts in the global climate. Moreover, on almost a daily basis the Nation's policies and attitude toward energy production and consumption are themselves changing. NEPA requires an informed evaluation and weighing of facts, legal requirements, and social concerns to strike a "productive harmony between man and the environment." The projects must be evaluated pursuant to the most up-to-date information and perspectives.
MMS cannot continue to ignore the fiscal crisis its ongoing actions are creating for the North

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Slope communities.
When congress passed the OCS Lands Act, it recognized, in its declaration of policy, "the national interest in the effective management of the marine, coastal, and human environments." (43 US 1332(4)) In order to accomplish this goal, Congress recognized that affected states and local governments are likely to "require assistance" in dealing with adverse impacts from OCS development.
Congress then went on to give the Secretary of the Interior a very broad grant of authority to administer the leasing of the OCS for the development of non-renewable resources, directing the Secretary to "prescribe such rules and regulations as may be necessary to carry out" the provisions of the OCSLA. (43 USC 1334(a)) Congress further authorized the Secretary to:
> At any time prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for the protection of correlative rights.

The AEWC was formed in 1977 for the purpose of representing the 10 bowhead whale subsistence hunting villages on issues related to the quota system imposed on our communities by the International Whaling Commission and for managing the bowhead whale subsistence

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hunt in compliance with that quota system. The Federal Government provides the AEWC a small grant through the U.S. Department of Commerce for these purposes. However, because of the aggressive leasing program administered by the MMS in the Beaufort Sea, and soon the Chukchi Sea, the AEWC has been forced to take on representation of our bowhead subsistence community in dealing with OCS oil and gas operators to try to protect our bowhead subsistence hunt from adverse impacts of OCS oil and gas activities.

Furthermore, the amount of work on OCS-related matters in recent years has grown to the point that it dominates the AEWC's staff time, again with no funding through the agency responsible for these impacts. Despite repeated requests, both formal and informal from the AEWC and residents of the NSB, MMS has yet to act to fulfill this statutory obligation.

As is the tradition of our community, we have taken whatever steps we can to protect ourselves. One of the most important mitigation measures in place at this time to protect our bowhead hunting is the annual "Open Water Season Conflict Avoidance Agreement". This agreement is the result of the extensive negotiations between the AEWC and oil and gas operators over more than 15 years, with no support from the U.S. Department of the Interior or the MMS. In recent years, the AEWC, along

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with the NSB and the Inupiat Community of the Arctic Slope (ICAS) has undertaken negotiations with oil and gas operators to try to address adverse impacts of North Slope oil and gas development, especially the OCS activities, on our traditional subsistence culture and on the physical and psychological well-being of our people. This is work that falls squarely within the Secretary's responsibility to protect "correlative rights) in the natural resources of the Outer Continental Shelf. Not withstanding this statutory responsibility and despite repeated requests, MMS continues to refuse to provide meaningful assistance to the AEWC, either through its regulatory or its funding authority.

In fact, in AEWC's September 21, 2001 comments on MMS's Draft Proposed Oil and Gas Leasing Program for 2002-2007, the AEWC specifically requested that MMS include mitigation funding in its agency budget to cover local mitigation costs under the new five-year OCS leasing plan. MMS has informed AEWC that the agency cannot do this. Furthermore, MMS representatives have indicated that the agency considers itself to be "unable" to provide this kind of support.

However, the Secretary has statutory responsibility for protecting our people's interests in our Beaufort Sea subsistence resources and for mitigating

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impacts to our community as a result of the OCS Leasing Program. Furthermore, the Secretary has been instructed by Congress to provide whatever measures "may be necessary" to protect our interests and mitigate impacts to our communities. Therefore, MMS is placing the Secretary of the Interior in direct violation of the OCS Lands Act by refusing to provide support for our community and to work with us to address and mitigate the adverse impacts of Beaufort Sea OCS oil and gas leasing and permitting.

Conclusion.

The Alaska Eskimo Whaling Commission, representing the bowhead whale subsistence whaling captains from ten villages of Kaktovik, Nuiqsut, Barrow, Wainwright, Point Hope, Kivalina, Wales, Little Diomede, Savoonga and Gambell, opposes OCS Lease Sales 186, 195, and 202 within the Beaufort Sea Planning Area due to the current and potential adverse impacts to our bowhead resource and our subsistence hunting. The AEWC continues to advise the MMS to heed the advice of the National OCS Policy Committee with respect to the need to address the fiscal issues raised and faced by our community.

Furthermore, the AEWC insists that the MMS to prepare a revised DEIS or a supplemental EIS to address the issues raised in these comments and in the

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comments submitted by the north Slope Borough.

Finally, let me share a general observation. MMS has an extensive environmental, social and economic studies program. MMS interviews our people. We see our traditional knowledge repeated in this and other MMS environmental studies.

But even with all that dialogue and all that purported understanding, MMS' decisions invariably run counter to our interests. We are gratified to see a cumulative effects analysis that pays attention to the long-term harmful effects of OCS development on our sociocultural systems, but we ask for meaningful mitigation, not more words and studies, to address it.

We have shown that we need coastal impact assistance. But MMS has not requested OCS mitigation funding in its agency budget, though the agency assures us that it has studied our way of life and needs.

MS combines three lease sales in one EIS, allowing an expedited and inevitably less accurate review of the impacts of these OCS lease sales on our hunt. It does not comfort us to know that there are thousands of pages of data on our culture when MMS sets up a process calculated to expedite damage to our interests.

The message you have delivered is that MMS, while claiming to know us by heart, chooses to

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refrain from making decisions that protect our way of life.
Thank you for this opportunity to express the views of the AEWC. I'd be happy to answer any questions you may have.
MR. STANG: Okay. And Robert?
MR. SNYDAM: Good evening. My name is Robert Snydam, I'm a wildlife biologist with the North Slope Borough, Department of Wildlife Management. First I'd like to say thank you to MMS for coming here today to hear testimony about the Beaufort Sea lease sales. This evening I would like to briefly talk about the mayor -- Mayor Ahmaogak's written testimony. I have a few comments I would like to pass on to you from Craig George, who's also a wildlife biologist with the North Slope Borough, and then I have a few comments as well.
First of all, I won't read the Mayor's testimony into the record, but I would certainly like to reference it and make sure that it gets typed into the record. You -- I understand you do have copies of his testimony?
MR. KING: Yes, we do.
MR. STANG: We will assure you that that will now become part of the record.
WRITTEN TESTIMONY BY MAYOR AHMAOGAK:

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I'd like to welcome the federal Minerals Management Service officials who have traveled to Barrow this evening. They have come to hear testimony from our North Slope residents on their agency's draft environmental impact statement for three proposed Beaufort Sea Outer Continental Shelf oil and gas lease sales. They will be traveling to Nuiqsut for a hearing on Wednesday evening and to Kaktovik for a hearing on Friday evening. MMS wants to hold one lease sale in 2003, one in 2005, and one in 2007. Each of the sales would offer all unleased blocks in the same planning area. Seven federal lease sales have been held in the Beaufort Sea since 1979. This is the first time MMS has published a single EIS covering more than one Beaufort Sea sale. We appreciate the chance to once again tell you what's on our minds, though if you've been paying attention for the last 25 years, you would have a pretty good idea of what you're going to hear tonight. You have heard from us many times before, and from our people in the affected villages. My comments tonight will be somewhat general, and preliminary to more detailed written comments we will submit by the close of the comment period on September 20th. Our review of the draft EIS is continuing, and we will consult with our villages, the AEWC, tribes and others before finalizing

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our comments.
I'll be honest and say that I'm not optimistic about our chances of convincing you to do the right thing from our perspective concerning oil and gas leasing in our Beaufort Sea. I've been mayor too long and testified at too many of these hearings over the years to expect that. You should not be leasing here, or in the neighboring Chukchi Sea. While in many ways this draft EIS seems better organized and more clearly written than similar documents we have reviewed in the past, it also seems in other alarming ways a step backward. MMS appears ready to roll back some of the hard-fought incremental positive steps we've taken during the planning of the seven previous sales. I'll touch on those points later. My comments tonight will be in two general areas: First, I'll again highlight some general process and policy concerns we have commented on before. Second, I will address the failure of the draft EIS to adequately respond to several points we raised during the scoping phase of this review. I'll hold off pointing out most specific concerns with the language and conclusions of the document until we finish our analysis and provide you with written comments.
Process and policy concerns. Leasing of Arctic Waters.

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Our concerns have been the same ever since the federal and state governments first considered offshore oil and gas leasing in the Beaufort and Chukchi Seas. We don't like it. We think it's a bad idea for all kinds of reasons. Offshore leasing leads to offshore exploration. Offshore exploration with minimal environmental impacts is perhaps possible in many cases with seasonal and other restrictions, but it leads to offshore development and production,. Even if there are no oil spills, production causes year-round impacts. Industrial noise in the marine environment has altered the distribution of bowhead whales and other subsistence resources in the past. The subsistence harvest of bowheads has defined our Inupiat culture forever. Our communities have known hardship in the recent past when industrial operations have put the whales out of the safe reach of our hunters. Protection of the opportunity for the Inupiat people to safely engage in the subsistence hunt of bowhead whales and other marine species should have the highest priority when governments are deciding on the best use of the Beaufort and Chukchi Seas.
We are frustrated that most OCS planning areas offshore of the Lower 48 states remain withdrawn from consideration for leasing by Executive Order or under a congressional moratorium. We do not think that

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these areas should be leased, but question why they are off limits while the Beaufort Sea is not. MMS has explained that several factors contribute to decisions about offering areas for leasing. The final EIS for the 2002-2007 OCS Oil and Gas Leasing Program was published in April. It says that these factors include not only environmental concerns, but also oil and gas potential, industry interest, and the views of the governors of coastal states. (Page 5-12) Other factors that we consider critical were not mentioned. Shouldn't it matter that the prevailing conditions of an area limit the ability to mitigate the potential risks of oil and gas operations? And shouldn't a primary factor be the views of the local residents who live adjacent to the planning area and who will feel 100 percent of the impacts of leasing? MMS continues to aggressively lease in remote, highly sensitive, challenging, and vulnerable arctic waters over the loud and continuous objections of the local Native Inupiat population. We are the population which bears all of the risks, and receives very little of the benefit. At the same time all other OCS planning areas except certain areas within the Gulf of Mexico are withdrawn or deferred from leasing. This raises significant questions of fundamental fairness and environmental justice.

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These questions have not been adequately addressed in the draft EIS or the five-year program final EIS. All OCS planning areas should be considered in an analysis of the equitable sharing of the benefits and environmental risks of leasing, development, and production. It is unfair that states adjacent to waters under a moratorium from leasing still receive federal 8(g) payments from OCS revenues, while the Borough and other local governments receive no direct payments, but suffer the greatest impact from ongoing leasing and industrial activity. Not weighing the potential environmental and cultural risks against the potential benefits of nationwide leasing choices is clear environmental injustice.

And the unfairness keeps getting worse. Adding insult to our ongoing injury was the President's announcement at the end of May that the federal government would spend $235 million to buy back oil and gas rights in the Everglades and in federal waters in the eastern Gulf of Mexico off the Florida coast. Of the total, $120 million would go to three oil companies to buy out offshore leases. Though not fully explored, the offshore unit is believed to contain at least 700 billion cubic feet of economically producible natural gas. The President announced the deal with his brother , the

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Florida Governor, at his side. It's no surprise that the popular moves to prevent oil and gas drilling are sure to help Governor Bush's standing with environmentalists as he seeks reelection this year. They also just happen to boost support for the President in the state, which decided his 2000 election. Speaking at the announcement, Interior Secretary Norton said, "When it comes to energy development on federal lands, each case must be evaluated individually in cooperation with the people who live in the area. IN this case, the amount of oil was relatively small compared to the nation's overall energy needs, the impact of development could be significant, and the government and people of Florida supported this action."

All I can say is, where's the justice in spending federal money to buy back Gulf of Mexico leases containing 700 billion cubic feet of producible gas, and continuing to offer oil leases in the Beaufort Sea? We're the people who live in this area, and for more than 25 years we have told you that you shouldn't be leasing here.

EIS process for Beaufort Sea Sales.

We are frustrated with MMS over the way you deal with public input in your reviews. We are always told that our concerns will be fully addressed during some later review. We review the five-year

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leasing program, and are told that addressing our concerns is premature at the program level. We review individual lease sales under the five-year program, and are told things will get worked out during a specific project review because a lease stipulation requires consultation. The Borough commented several times before publication of the final EIS for the 2002-2007 OCS Oil and Gas Leasing Program in April. At each step in the process it seemed that MMS ignored the comments we submitted at the preceding stage. These Beaufort Sea sales will fall under the 2002-2007 Leasing Program, but their review was started long before the leasing program was finalized. In our comments on both the leasing program and on this Beaufort Sea leasing proposal, the North Slope Borough has strongly objected to the new multiple sale review process. We believe that there should be a full public process associated with each of the three proposed sales. The public process and consultation with the Borough, the AEWC, and the affected communities, interested organizations, and general public has improved with each of the past Beaufort Sea sales. Improvement in the process has been slow over the years, but has led to stronger mitigation measures and appropriate area deferrals, and has stimulated necessary scientific study.

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We continue to believe that any marginal benefits in efficiency and reduction in burnout among MMS authors realized by consolidating three sales in a single EIS is outweighed by the reduction in public engagement and MMS interaction with the directly affected North Slope community. An EIS should be developed and a Coastal Management Program Consistency Analysis should be conducted for each sales. Both processes are valuable. MMS officials should not find it burdensome to visit the three most directly impacted communities of Barrow, Nuiqsut, and Kaktovik for scoping meetings and for public hearings for three lease sales in five years. And it should be the highest MMS officials in Alaska who should make those visits along with their staff to hear the concerns of the community.

The draft EIS does not adequately answer our concerns over this new process. It only says that multiple-sale EIS's have been used for other areas. It mentions the Gulf of Mexico and the NPR-A. There are differences between those areas and the Beaufort Sea. The Gulf of Mexico was highly industrialized long before MMS used a multiple-sale EIS process for the region under the last two five-year oil and gas leasing programs. The 2002-2007 Final EIS notes that "the Western and Central Gulf of Mexico Planning Areas...are two of the most

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active offshore oil and gas areas in the world." (Page 3-42) Production has occurred there for many years, and the issues raised during the public planning process are fairly well understood. The Beaufort Sea is a frontier area for the oil industry. The first production island was just constructed, and oil only began flowing at the end of October last year. Many issues remain unresolved, and new pipeline, spill response, and other technologies must be developed to cope with arctic conditions. Many information gaps exist, and traditional knowledge and western science do not always agree. The relationship of Inupiat subsistence users to our marine environment and our cultural, nutritional, and spiritual dependence on its resources is very different from the commercial and recreational relationship which the many Gulf of Mexico users share with that environment, no matter how deep their ties.

In the same way, onshore activities in the NPR-A are following long-established patterns developed and refined over three decades at Prudhoe Bay. Still, because it was essentially a newly leased area that had not been offered for many years, 79 mitigating measures were attached to the Northeast NPR-A sale in 1999. You now want to cover three Beaufort Sea sales with a single EIS, and only five assumed standard

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stipulations and 16 purely advisory clauses when there continue to be many unknowns about the Beaufort Sea and broad disagreements over potential impacts to many resources and uses. The reasons and justifications given for using a multiple-sale EIS for the Beaufort Sea just aren't good enough.

Inadequate response to previous comments.

Area deferrals.

The North Slope Borough believes that areas around Barrow, Kaktovik, and Cross Island sufficient to protect vulnerable resources and the subsistence harvest of bowhead whales and other species should be deferred from leasing. The deferral alternatives developed for the draft EIS don't get the job done. They are inadequate and you have to some extent issued data we provided to define them. At a meeting with MMS Alaska Region Director John Goll in my Barrow office in November, I agreed to work with the Borough's Department of Wildlife Management and the AEWC to release to MMS bowhead whale subsistence harvest locations for the three Beaufort Sea whaling communities. It was made very clear to MMS in subsequent written and e-mail correspondence with members of my staff, and acknowledged by Director Goll, that it would be absolutely inappropriate to use the harvest locations

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alone to define either subsistence whaling zones or appropriate deferral areas intended to protect subsistence whaling opportunities. That, however, is exactly what MMS has done in this draft EIS.

The data are primarily provided as one tool to assist MMS in determining the appropriate extent of an offshore area around the Nuiqsut subsistence whaling base of Cross Island which should be considered for exclusion or heightened protection in future Beaufort Sea OCS oil and gas lease sales. Data were also provided to help in refining previously identified deferral areas offshore of Barrow and Kaktovik. I thought we had made it clear to MMS prior to release of the information that harvest data alone do not provide a true picture of the entire zone utilized by and essential to subsistence hunters in the successful harvest of bowhead whales include staging areas for crews, supplies and harvested product, areas of pursuit, routes used for the transportation of crews, supplies and harvested whales and whale product, and areas used for the processing of harvested whales. Harvest data alone also do not define the area east, or upstream of the full area utilized by subsistence crews from Barrow, Nuiqsut, and Kaktovik within which industrial disturbance would adversely impact subsistence efforts. This distinction is

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important. To provide a reasonable chance of a successful bowhead whale subsistence harvest, protection must be provided to a combination of two areas. First, there is clearly the area utilized directly by subsistence whalers for all related purposes. Let's call this the subsistence use area. Next, there's the area east of the subsistence use area we can call the area of influence. That's the area within which migrating whales could be affected significantly enough by industrial activities so that they are deflected beyond the subsistence use area of are made more difficult to harvest within the subsistence use area. These qualifications must accompany any publication and use of the harvest location data, and any conclusions drawn from the data.

Let's start with the Barrow area. Everyone should accept by now that the spring lead system concentrates wildlife resources and is too valuable and vulnerable to offer for lease and potential development. The area is also a critical year-round subsistence use area which extends farther offshore and to the east than the spring lead system alone. It reaches at least to Cape Halkett. Your own Stipulation 5 describes the timing and area utilized by Barrow hunters for subsistence whaling in the fall. It recognizes that occasional use may

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extend to Cape Halkett. As we have repeatedly stated, this area should never be lease, and the Borough will oppose the siting of any permanent industrial facilities in the vicinity of the spring lead system, and within the Barrow subsistence use area and area of influence east of that. The permitting of any permanent facility or non-winter exploratory operations in this area would be inconsistent with the Borough's Land Management Regulations (LMRs) and North Slope Borough Coastal Management Program (NSBCMP).

The eastern Beaufort Sea is a similar case. It is a feeding area for bowhead whales migrating westward in the fall, and a use area for subsistence hunters from the community of Kaktovik, Kaktovik hunters take whales as they move westward through the waters offshore of their community. In the past, fall exploratory drilling operations occurring to the east of that harvest zone have deflected whales beyond the reach of subsistence hunters. The community suffered great hardship, stress, anxiety, and depression when no whales were taken for two consecutive seasons. That experience would be evidence to support our opposition to any drilling operation within Kaktovik's subsistence use area or upstream area of influence proposed during the fall whaling season. Such a proposal would be inconsistent

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with those provisions of our LMRs and the NSBCMP that explicitly prohibit development which prevents subsistence user access to a subsistence resource. You have included two eastern Beaufort Sea deferrals as Alternatives V and VI in the draft EIS. You did not include as an alternative a deferral of all waters offshore of ANWR. We believe you should have, and that such an alternative would be preferable to Alternative IV, Alternative V, or any combination of the two. Sale 170 did not offer the waters offshore of ANWR. In doing that, MMS noted the lack of information on cumulative impacts on the Refuge, insufficient information on emergency response plans, and the inability to make direct landfall with a subsea production pipeline. Those problems still exist, and the deferral of all waters offshore of ANWR is appropriate.

Nuiqsut's subsistence whaling base of Cross Island presents a somewhat different case. A deferral area should be established for the protection of subsistence uses alone. The lease stipulation included in Beaufort Sea Sale 170 prohibits the placement of permanent facilities within a 10-mile zone around Cross Island unless the lessee can demonstrate that such facilities placed within the zone will not have a significant impact on the subsistence harvest of bowhead

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whales. The 10-mile distance was chosen somewhat arbitrarily after the community of Nuiqsut had requested a zone 50 miles in radius. You've played with that stipulation by breaking it into tow parts in the draft EIS. You've also included a Nuiqsut Subsistence Deferral Area as Alternative IV. We acknowledge that a zone of 60 miles in all directions from Cross Island is perhaps too large. WE also believe, however, that there should be acceptance by all parties that 10 miles north and east of Cross Island does not accurately define the full extent of the area within which impacts on fall migrating bowhead whales can disrupt the Nuiqsut subsistence hunt. Again, your Stipulation 5 recognizes that Nuiqsut whalers use an area extending east to Flaxman Island.

The Borough was pleased by the adoption of the current lease stipulation. We believe MMS should now be willing to consider the available harvest data as a starting point in defining the actual extent of a zone around Cross Island requiring heightened protection. A new zone which includes the full subsistence use area plus the upstream area of influence should be defined in consultation with the AEWC, Nuiqsut, and the National Marine Fisheries Service, and refined as noise monitoring studies, including those associated with the British Petroleum's Northstar Development Project, produce more

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accurate information on noise impacts to migrating whales.

Potential effects.

The analysis of the potential effects of leasing, exploration, and development in the EIS is driven largely by the development scenarios used. What makes no sense is the way MMS deals with the effects of the various deferral alternatives within those scenarios. MMS reaches a conclusion concerning the Barrow and two Eastern Beaufort deferrals that really defies logic. The draft EIS first finds that because these are far from existing infrastructure, they are less likely to be leased and developed. We agree. MMS then goes on to say that because these areas are less likely to be leased and developed, the consequences to resources and subsistence harvest patterns with or without the deferrals would be essentially the same. That's where we part company. The implication of that analysis is that if there would likely be no reduction in effects, but would be a reduction in resource potential, why defer the areas? That reasoning avoids the most critical question of what effects there could be if the deferrals are not adopted and leasing and development occurs in those areas. At the heart of our desire to see these areas deferred is the belief that if activities occur in these areas,

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impacts will be greatest compared with other blocks within the Beaufort Sea planning area. A reduced likelihood of activities occurring in the far eastern or western portions of the planning area does not mean that the effects would be insignificant if exploration and development do take place there.

A general flaw in the development scenarios applied in the draft EIS is that they do not consider the specific potential effects if one of the projects predicted is located in a particularly sensitive area. The very reason deferral areas are being discussed is that all areas within the Beaufort Sea planning area are not the same. Some contain resources which are more concentrated or sensitive. In many cases, these areas are also critical for subsistence. MMS should do impact analyses of alternatives using scenarios, which place one or more developments squarely within proposed deferral areas. Then you will get at the issues most important to the affected North Slope Inupiat community.

Cumulative Impacts.

The draft EIS significantly understands the current and potential levels of cumulative impacts of oil and gas activities on North Slope resources and community residents. These proposed Beaufort Sea sales

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and the offshore and onshore operations that would follow will not occur in isolation. More onshore exploration took place on the North Slope this past winter than at any time in decades. Development in the near term is likely from Point Thomson on the border of ANWR in the east to the National Petroleum Reserve-Alaska (NPR-A) in the west. Companies are looking south to the foothills of the Brooks Range. The Bureau of Land Management has held a second northeast NPR-A lease sale, and expects to offer a northwest area twice that size next year. MMS and other state and federal leasing agencies are moving ahead with their plans without a good handle on the cumulative impacts of all of this on the environment, wildlife resources, and residents of the North Slope. Serious cumulative impacts have already occurred, and are certain to increase. MMS should acknowledge and describe that.

The issue of cumulative impacts of oil and gas activities on the North Slope is being studied by a committee of the National Research Council. Its report due out this year. MMS should acknowledge the importance of the committee's work and agree to put forth appropriate effort and funds to see that any recommendations offered in its report are acted upon. This EIS should be modified as appropriate to reflect the

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Committee's findings.

The Borough and the people of the North Slope are the only ones now dealing with and paying for these impacts. We believe that through past Beaufort Sea lease sales, and continuing today, MMS has failed to meaningfully follow the intent of the OCS Lands Act with respect to the study of all effects of OCS leasing, exploration and development on the social, economic and cultural systems of the North Slope. We provide subsistence abuse treatment, counseling, public assistance, crisis lines and shelters, and other social service programs. We provide the search and rescue services, which must respond when hunters put themselves at risk in the pursuit of scarce or less accessible game deflected from normal migration paths. We provide the police force, which must respond to all of the kinds of unfortunate situations which arise when people and entire communities are subjected to long-term and persistent stress. We provide the biologists, planners, and other specialists who review and offer recommendations on the staggering volume of lease sale, exploration plan, and development project documents which are produced and distributed each year. We must absorb the ever-increasing expense of travel to Fairbanks, Anchorage, Juneau, Seattle, and Washington, D.C. where the agencies

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conduct most of their work and make most of their decisions. Travel to our own remote villages has greatly increased as areas under oil and gas leasing continue to expand. We again ask that the EIS provide a detailed description of ongoing costs borne by the Borough and other local entities as a direct or indirect result of OCS leasing, exploration, and development. That analysis should include the budgetary effects on the Borough, community, and tribal governments of attempting to fully participate in OCS review and planning processes. That information should be a necessary component of your impact assessment, and would serve as a means of identifying an appropriate level of impact assistance, which should accompany any continued OCS leasing.

Conclusion

In conclusion, I'll add that even at this early point in our review of the DEIS, we have notices many of the same problems we have seen in previous MMS documents. Analysis seems biased in favor of leasing. Impacts, and especially cumulative impacts, are understated. The potential impacts of vessel and aircraft traffic are all but dismissed. Figures given for "trips" should really be doubled to reflect that they are actually round trips and involve two passes between shore and drilling structures. The issue of increased

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skittishness of bowhead whales following exposure to industrial noise is not adequately addressed. The difficulties and delays due to weather, distance, and other factors in responding to oil spills in the more remote reaches of the planning area are not adequately discussed. The significance, value, and vulnerability of the traditional subsistence culture is not given appropriate weight in balancing its protection against the risks of leasing. After all these years of listening to us, MMS just doesn't seem to fully understand how hard it is to be successful at subsistence in this environment; how many things you have to do right, how many things out of your control have to go right, and how little it takes to cost you your harvest of your safety. Once again, it seems that traditional knowledge is included in the document, but does not contribute to your analysis or conclusions.

I thank you for coming tonight, and encourage you to listen closely to what you hear in Barrow and when you travel to the villages. We will provide more detailed written comments at a later date. You are going to have your lease sale I think. But I also think you should defer the areas most important to the people who will be most impacted, honestly talk about the impacts which have occurred and will occur, and use

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strong mitigating measures to protect resources in the areas you do lease.
MR. SNYDAM: Thank you very much. I would like to highlight a couple things that the Mayor has written in his testimony. First of all, again his thanks for coming here to hold a public hearing, to hear testimony about the lease sales in the Beaufort Sea. Probably the most important thing I would like to pass on from the Mayor's testimony though is the North Slope Borough's position that there shouldn't be any lease sales that are occurring in the Beaufort Sea, that it's an inappropriate place to lease. It's an inappropriate place to explore for oil, and it's an inappropriate place to develop oil fields.
And there are lots of different reasons for this that the Mayor has highlighted in his testimony. Among the important ones is that if an oil spill were to occur in the Beaufort Sea, the ability of Industry and agencies to clean up the oil spills is very low, that the technology isn't there to clean up an oil spill. And there are other issues related to noise and disturbance to bowhead whales and to other marine animals that are also of great concern to the people of the North Slope Borough.
Another issue that the Mayor points out

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has to do with something that recently has happened in Florida where the Federal Government has purchased, has bought back lease sales occurring in the Gulf of Mexico, off the Florida coast. And during that buy-back process, Interior Secretary Gail Norton is quoted as saying, when it comes to energy development and federal lands, each case must be evaluated individually in cooperation with the people who live in the area. In this case, the amount of oil was relatively small compared to the Nation's, excuse me, overall energy needs. The impact of development could be significant, and the Government and people of Florida supported this action.
That applies much more so to the Beaufort Sea than to the Florida coast. For years and years and years, maybe decades now, the people here have been saying the Beaufort Sea and the Chukchi Seas are inappropriate places to lease, that the technology isn't there to clean it up, the habitats are very -- are at risk because of noise and because of oil. And if the federal government is taking this approach in Florida, then they sure should be taking that same approach here in Alaska as well. The people here do not want development, do not want exploration in the Beaufort Sea.
There are many other topics in the Mayor's letter that I won't read, but I'm glad that it

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will be entered into the record and we look forward to the response by MMS in the final EIS.

Craig George is a wildlife biologist with the North Slope Borough. One of his primary responsibilities is to study bowhead whales, and Craig has been involved in bowhead whale studies since the late 1970s, and so he's certainly one of the world's leading experts, one of the most knowledgeable people on bowhead whales in the world. And he has a couple of comments about leasing in the Beaufort Sea related to bowhead whales.

One of the first comments that both he and I would like to make have to do with the hunting deferral areas that were put into the lease sale, into the draft EIS. Several years ago, a year and a half, two years ago, there was discussions of the North Slope Borough and Alaska Eskimo Whaling Commission providing the locations of strikes and landed whales in the Beaufort, particularly for Kaktovik, Nuiqsut and Barrow. When those data were handed over to the MMS, we asked that the data be used with great caution, that the deferral area shouldn't be just where those points -- where those whales were hunted, but the hunting area was much, much greater than that. The area around those landed whales was as important as the area where the

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whale was caught, so there was a great need to interpret those data with great caution. Unfortunately MMS used the data exactly like we feared they would, that a line was drawn around the points where whales were landed and saying these are the areas that should be deferred. And again, the areas are much, much greater that are important. The areas that are important for the whaling crews in Barrow, Nuiqsut, and Kaktovik and the area that's used to catch whales is as important as the areas where actually the whales are landed. So we hope that these data can be changed and the interpretation of the data changed, and that the hunting areas can be used as deferral areas for these lease sales. That's again the areas that the hunters use are as important as the locations where the whales are actually caught.

Seismic activity has always been a concern with oil and gas exploration in the Beaufort Sea. Many years hunters here, elders here has told the MMS, those people have told the MMS that seismic activity and noise in the ocean creates a great disturbance to whales. The distance at which whales are disturbed by this noise, at first we were saying, oh, it's only a short distance, and the hunters and the elders said, no, no, it's much, much greater. It took years and years and years for the science to finally tell -- to say the same thing that the

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elders were saying. And so we're pleased that the elders' knowledge has finally been verified by science.
But there's some additional science that has recently been reported on from Russia that also talks about seismic activity and how seismic activity displaces whales, and Craig asked me to talk a little bit about that this evening. Some recent work by an individual named David Weller and his colleagues on the Western Pacific stock of grey whales near Sahklene Island suggests that whales can be displaced from important and preferred feeding areas, and that this -- that they can be disturbed by seismic, and they can be moved away from areas. So David Weller's work showed that whales occurred in an area and fed in this area heavily, and then as soon as seismic ships moved in and seismic work occurred, that the whales moved away 30 kilometers and fed in another area, or attempted to feed in another area while the seismic activity was occurring. After the seismic activity stopped, the whales returned to this area that they preferred for feeding. So this is just additional data to show that whales are disturbed dramatically by seismic activity. We hope that this study will be used by MMS again to show that seismic activity has a big impact on bowhead whales -- has a big impact on whales, and likely bowhead whales are

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responding similarly to grey whales.
The next topic that Craig asked me to talk about was the Science Advisory Committee of the North Slope Borough is in the process of planning a thorough review of the statistical techniques and data basis that have been used to estimate oil spill probabilities, that we don't have great confidence in the oil spill probabilities that have been presented to us by the Federal Government, and so we feel like it's important to evaluate both the data sets that are being used as well as the statistical techniques that are used to estimate what the probabilities of oil spills will be. So that review will be ongoing, and hopefully will be available in the not too distant future for MMS to evaluate and hopefully incorporate into lease sales in the future.
The next topic that Craig asked me to talk about was a similar species to bowhead whales, and that's the right whales. The North Atlantic right whales are critically endangered. There's only a few hundred of them, probably 300 of them. They occur in an area where there's a considerable amount of industrial activity, lots of boat traffic. There's also a considerable amount of fishing activity and tourist traffic. One of the greatest threats to the North Atlantic right whale are

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these vessels in their habitat. Boats striking adults, boats are striking calves. Fishing gear is -- the whales are becoming entangled in fishing gear and this group of whales, this population of whales isn't growing, and in fact it's probably declining. We feel that this is a good model for what could occur here in the Beaufort Sea, or in the habitat of bowhead whales as well. If ice continues to shrink, and if traffic, vessel traffic increases, we've seen a dramatic increase in vessel traffic here in the last few years. There are many icebreakers here, industrial activity boats, tourist ships, fishing ships potentially, and if this continues, bowhead whales could be in a very similar place to right whales, but this activity could definitely negatively impact -- negatively impact bowhead whales.

The last topic Craig asked me to talk about was about habitat protection. Craig says as all good hunters know and understand, hunting removals or the animals that are taken by hunters are sustainable only if the habitat remains intact. That the habitat must be in good shape in order for whales to continue to live successfully, to continue to reproduce, continue to be here for the people that have relied on them for centuries, and so we ask that the habitat be protected in the Beaufort Sea. The Beaufort Sea is an important area

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for bowhead whales for feeding, and, of course, they migrate through the Beaufort Sea two times a year, and thus are vulnerable to impacts from oil exploration and oil development within the Beaufort Sea.

And, finally, as my responsibility, or some of my responsibilities with the North Slope Borough include the study of birds and beluga whales, and so I would like to briefly make a few comments on birds and belugas. The draft EIS I don't feel does an adequate job of dealing with birds in particular. And of the waterfowl species that are important up here, eiders is especially an issue that the EIS does not deal with appropriately. Eiders are an important subsistence resource for the people here in the North Slope. They're hunted in the springtime during spring migration, and then they're hunted again in the falltime during the molt or the fall migration. The two species of eiders that are most important here are the king and the common eider, and both of these populations have declined by about 50 percent in the last 20 or 25 years.

The EIS, the draft EIS, deals with eiders not from a migration standpoint typically, but more from a resident's standpoint. It often says that eider populations are in low densities, and that's probably true during most of the season, but when the eiders are

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migrating through, they're in extremely high densities. As an example, migration account occurred -- a migration count that occurred here in Barrow back in the 1970s, the two researches that were counting the birds estimated that 360,000 eiders passed in the 10-hour period with the peak passage within that 10 hours of 113,000 eiders in a half an hour. You can see that the densities of birds during migration isn't low. I mean, it's exceedingly high, so if oil exploration, if oil development occurs in an area where the peak passages of eiders occur, a large number of eiders risk more -- risk being killed or injured by this activity. Now, how could that occur? One way is through collisions with structures. The draft EIS says that mortality from collisions with structures is likely low, because eiders and other seabirds, sea ducks are at low density. Like I just stated, that that's not true. They can be at incredibly high densities. As is seen in North Star, and the development's already in offshore areas and OCS areas as well as state offshore, eiders have been seen -- eiders have hit the structures and died. So with more structures in the Beaufort Sea, this adds an incredible risk to the eiders. A large number of eiders could be killed in a short period of time just by physically striking structures. So the draft EIS has again not

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adequately evaluated the potential impacts of structures to migrating eiders or other seabirds.

The draft EIS also states that there is likely sufficient time between lease sales for regional bird populations to recover from the minor effects that may result from each sale. And I would like to state that this is absolutely not true, that eider populations in particular are declining. If there's any added mortality at all, it means that it steepens the decline. So no matter how much time may occur between sales, it's impossible for eider populations to recover because of a lease sale, no matter how much time occurs. Okay. There cannot be enough time for recovery if the population is declining anyway.

Additionally, eiders live long lives, and they have low reproductive success on an annual basis, and so they're adapted for the arctic environment to live long and produce very few young, which means that if a population declines, it takes a long time to recover. So again the EIS doesn't do a satisfactory job of dealing with recoveries for eiders, especially because the eider populations are declining.

I'd also like to say that eiders are at great risk to oil spills and other discharges within the Beaufort Sea. The draft EIS says staging and migrating

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flocks are generally dispersed, and thus would not necessarily occur in the vicinity of clean-up activity in the event of a spill. But on the same page of the draft EIS, the MMS states that migrating birds can occur in relatively large densities and that losses could be substantial. So on one hand it's saying there's not an impact, and then on the other hand it's saying it could be a huge impact, and I would agree with the latter statement that an oil spill has a potential to kill lots of eiders in a short period of time.

And finally I'd like to make a couple of comments about beluga whales, that there are two stocks of beluga whales that occur within the Beaufort Sea. There's a population of belugas that migrates in the springtime past western Alaska, past Barrow and across northern Alaska to Canada, the eastern Beaufort Sea stock. That stock is doing really -- relatively well, really well. It probably numbers 100,000 animals, even though scientists now say there's probably only about 30,000 animals, that many people off the record say that there are probably 100,000 animals in that stock. So it's doing well. But all of those belugas, almost all those belugas migrate across the shelf break when they return to the Bering Sea for wintertime, so those belugas are at risk, and the draft EIS recognizes that stock.

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There's another group of belugas however that the draft EIS doesn't do a very good job of recognizing exists, and that's the eastern Chukchi Sea stock. Over the last six or seven years, we've attached satellite transmitters to these belugas, and we've learned a great deal about their movements and their distribution. And we were actually quite surprised when many of the belugas that we've tagged ended up in the Beaufort Sea and spent the summer in the Beaufort Sea, some as far east as Canada. So the eastern Chukchi Sea stock is also at risk to offshore oil exploration and development. And those belugas from the eastern Chukchi Sea, there are many people that depend upon those belugas, and so any activity in the Beaufort Sea could negatively impact people in Point Lay that depend on these belugas in particular, and potentially the people in Kotzebue as well.

Also the draft EIS makes a statement about beluga whales and helicopter traffic. The statement in the draft EIS says some beluga and grey whales might be diverted by helicopter noise up to 100 meters away, and it cites Richardson, et al., 1995. It's not exactly clear what this means. What does it mean, helicopter noise up to 100 meters away. Is that a 100 meters laterally? Is it 100 vertically? It's not clear.

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But when I went back and read Richardson, et al., they actually state the belugas are often disturbed by helicopter noise when the helicopter is less than 250 meters laterally, and 460 meters in elevation. Okay. So it's not belugas might be diverted with helicopter noise up to 100 meters away, but it's a lot greater distance than that. So the EIS way understates what the data say. There could be a huge and likely would be a huge disturbance to belugas.

The other thing that I'd like to point out is that when Richardson did his study, he did it here in Barrow, and he was looking at bowhead and beluga whales. There are no grey whales within a long distance of where he was doing the study. So I'm not sure how the draft EIS came up to say that grey whales may be diverted by helicopter noise at that certain level. So the draft EIS again in this case needs to be cleaned up tremendously to reflect actually what the reference says.

We have only begun to review the draft EIS, and the North Slope Borough will definitely provide extensive written comments on many aspects of the EIS, and we will have those to you by the deadline I believe is September sometime, is.....

MR. STANG: The 20th.

MR. KING: 20th.

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MR. SNYDAM: So thank you again for the opportunity to comment tonight, and I hope that the comments that you receive, both testimony in public hearings here and in the other villages, as well as the written comments that you receive from the North Slope Borough as well as other residents of the North Slope. We hope that MMS can adequately address those and adjust the EIS accordingly. Thank you again.

MR. STANG: Okay. Thank you, Robert. Todd, you had mentioned you wanted to testify. Would this be a good time for you?

MR. O'HARA: Sure. I kind of think I'm the youngest in the crowd, so I (indiscernible, away from microphone) elderly (indiscernible - away from microphone). That's really a microphone?

REPORTER: It is.

MR. O'HARA: Wow. My name is Todd O'Hara. I'm a resident of Barrow, Alaska, and I also work for the Department of Wildlife Management. I'm speaking both I guess on behalf of the North Slope Borough, and as myself. Robert gave you a good introduction to some of the concerns we have related to wildlife and their habitat, so I'll just second what he said for Craig and on his behalf, too. We feel very strongly about that.

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So I'll follow up with some comments about the bowhead whale and the feeding areas, and the known feeding areas that exist within the lease sale area. We have overwhelming evidence in our opinion that's published as well as in reports and based on observations of scientists and hunters, that when we look at stomach contents, tissue chemistry, direct observation of the whales, and just basic common sense, this is an important feeding area between the border with Canada and Barrow. And the fact that this seems to enter some kind of debate is always interesting for us when it's so apparent. And so if it's ever confusing to you, please contact us. We'll be glad to share the reports with you. It's in the published literature as well as in a variety of reports that have been produced by federal agencies as well as the Borough, so I would encourage you to be more careful in describing it as a feeding area.

So then if we acknowledge it as a feeding area, which it is, how will the noise and the increased traffic that Robert was talking about affect the use of this area when it comes to feeding? We're very concerned about that. We know that MMS sponsored a study off of Kaktovik to address this, but I would encourage you that there's probably feeding areas equally or if not more important to the west of Kaktovik as well, and

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displacement from the feeding area, or changes in behavior in the feeding area, whether it's residence time, actual time feeding, we think it's very important, because the bottom line is we think the whales in the fall are in better condition than they are in the spring. We have evidence for this working with various universities on looking at the body condition of whales. This has been recently put out in a report of a workshop we held here in October of last year, so I would hope and encourage you to contact us about that. So the feeding area I think is something that you have addressed, but unfortunately it's probably very focal, and doesn't include the whole lease sale area, and I understand your spatial problems, especially with the massiveness of this area, and I think we need to be more aware of the feeding areas along that entire lease sale area.

Now I'd like to talk to you about hydrocarbons. I'm a toxicologist and I'll approach this from a variety of perspectives, that a lot of people talk about spills, and, of course, we're interested in the spill, because it can affect the health of the animal, but also it can affect the quality and palatability of food. And I think the last component there, palatability of food is often missed. So I had a question for MMS, is do we know current background concentrations in the many

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subsistence species from Canada to Barrow? In other words, do we know before they start producing oil, which they already are, what the levels, concentrations are in the various tissues and body components we'd be interested in? Those that are edible, for instance, for subsistence users, and also those components that would be important to the animal like their stomach contents or what they're exposed to in their eyes or in their lungs. The answer is no. And there is a program trying to address this, but it's not accomplishing its mission, and we can talk about that later.

Without the proper background data, I'm wondering how we'll be able to defend ourselves in court if it comes to a damage assessment. I don't think we will be able to. I think right now we're crippled in that regard, that we don't have the proper data, if there is a spill, to go and show that levels have changed if they actually have, because the proper background doesn't exist.

So if a spill occurs, what can we expect from the communities as far as response? One that worries me is unwarranted avoidance of subsistence foods due to fear or poor taste, that palatability issue. I'm afraid that this has already been documented in Alaska with other spills, and I think this is something that is

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usually understated in these EIS's or the concerns about what would happen in the face of a spill, is that the community response can be rather large when there's maybe an unwarranted reason. And if we were planning ahead, we might be able to offset that unfortunate avoidance response. This has been documented in many native communities in North America, Canada and U.S.

And then we already mentioned the concern about the health and -- of the wildlife, and, of course, this is direct toxicoses, and the information on that is practically nonexistent for arctic species. However, that lack seems to always translate into no effect in many of these EIS's, and I'd urge you to say in the absence of data, not to be so flippant with no effects in many of these species, especially when the studies have been conducted on animal models that are not ice-adapted species. We do not know how these animals will respond to an oil spill. And we know that one of the responses could be very dramatic, and as Robert pointed out, many of these animals are endangered, and that heightens our concerns.

So I would appreciate it in the absence of data that we're careful in extrapolations and flippant comments in EIS's about no effect on the animals.

Then if there is a spill, which we hope

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won't occur, my next major concern is how will we collect data from these potentially impacted wildlife in the legal context of the response. That is, now there will be higher scrutiny because it will become a legal issue, and data collection becomes extremely difficult. Just to conduct good science up here is logistically difficult, now to face the requirements of lawyers and judges, it would probably be impossible to accomplish, and I refer you to things like chain of custody. How in the world will we be able to respond to stranded animals whether alive or dead and maintain the rigors of sampling and datum quality here in the arctic? I don't think that's been properly addressed. And to be quite honest, we sit on some of the MMS boards that review studies, and the scientists there have great difficulty with quality assurance, quality control and chain of custody working in the arctic, so I think that's something we need to be very serious -- think very seriously about is how will we compete, or how will we be well represented in the legal system if a spill was to occur and we wanted to determine if damages were apparent or not. And I also advise you to think about these would be live and dead animals. There are no rehabilitation centers up here. There's no skilled volunteer group to go out and work with live animals like you might have in California, for instance.

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We do have skilled hunters, so examining some of these animals, if we had that in place, might work for the dead animals.

So with respect to hydrocarbons, I've mentioned many concerns that I think are legitimate if there's going to be much more activity offshore with production of oil.

We are aware of the ANIMIDA Program, and we've talked to some of you about it before, and unfortunately we feel it's not adequately addressing many of these issues. Some of the issues they are addressing in a rather good, scientific manner, but other components of the ANIMIDA Program have fallen well short of their goal, and quite frankly it left a void in your program. And we hope that that can be remedied, but right now here you are with an EIS, and this void exists. And we've been giving comments to you about ANIMIDA for the past two or three years, and unfortunately we think that the MMS and the contractors have fell short on the objectives of that ANIMIDA Program.

I also want to thank you for coming up here and for taking our comments seriously, and we very much want to help you in the process, and as has been pointed out by others, we are overwhelmed by the number of EIS's and responsibilities placed on the Borough

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Government, and when you think about impacts, think about the meeting as an impact, and the demand on our resources here, whether it's personnel, financial and data, and how much that is actually worth, and that that's mostly being supported by the Borough. And we do get some federal funding from various federal programs and agencies, but the majority of this is the responsibility and only would result from the Borough. Thank you for coming up, and I hope you understand how important wildlife are here between Barrow and Canada. Thank you.

MR. STANG: Thank you, Todd. Thank you very much. If I make one comment here, part of the reason for -- on your last point, part of the reason for a single environmental impact statement for the three sales is that very issue you raise with having to review environmental impact statements when one would be very similar to the next, and so that's why we're doing one multiple sale EIS for the three sales, and then we will do environmental assessments, and if necessary supplemental EIS's for the second and third sales. Thank you. Charles?

MR. HOPSON: Yeah, Charles Hopson again from Barrow. I had testimony earlier, I just want to add on that what the doctor said. I had mentioned the feeding area earlier on your map up there, and we need to

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also -- you need to also plot where the feeding area on the pink might be, like the deferral for the Barrow, Nuiqsut, Kaktovik. You need to identify those, because, you know, those are some of the -- you know, the feeding areas for the whales that Doc had mentioned. I had mentioned that earlier, too. You need to plot those on there. I think when you look at the map up there that would be about maybe 50 to 70 percent of the pink area that you have up there. I don't know. We need to identify those and put them on there, not just, you know, leave the whole thing, you know. That was just some follow-up that I had mentioned earlier.

MR. STANG: Okay. Thank you very much. Okay. Would anybody else like to provide some testimony at this time? Or anybody have any questions or observations that they'd like to make or ask?

UNIDENTIFIED VOICE: How big or what is the 30 kilo -- I had a question for one of you scientist. 30 kilometers is how many miles? What is that?

UNIDENTIFIED VOICE: About 17 or 18 miles.

UNIDENTIFIED VOICE: Seventeen or 18 miles, okay.

MR. STANG: Okay. Please.

MR. TEGOSEAK: Good evening. My name is

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Bill Tegoseak. I'm a life-long resident of the Village of Barrow. This evening I came to represent myself rather than any organizations that I either worked with or have had any association with, and I see right now I'm somewhat in a precarious situation, because we met in similar or identical situations so often that, Paul, you and I know each other, and Albert, and we've become pretty good friends over the years.

I'm sure that you've -- if you met with members of the whaling crews from Barrow this afternoon, that gives you a pretty good indication of the mood of the native people here in terms of their association with the Arctic Ocean. The native people here are historically tied to this ocean. They've lived in this region, we have, for a minimum of 5,000 years. We've seen many changes, but until the most recent past, we have always depended on the resources of the land and the ocean for survival.

I feel somewhat ill at ease to be talking with you on so many different occasions, particularly when the Minerals Management Service has already heard the mood of the native people, the interest that they have in the health of the land and the ocean, the natural resources we have always depended on for survival. Tonight I certainly wish that all of you representing the

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United States Government realized that this land, this ocean where you're at, or where you propose to drill is the last battlefield for American Indian environmental justice. There's been many wrong things that have happened in the history of the United States in terms of the treatment the American Indian has endured from the East Coast to the West. And you also realize the change in the lifestyles, the health of the lands and the air as America from the East Coast began industrialization to the West Coast, and then you are finally here at the top of the world.

The intent of the industry is to withdraw from the oceans fossil fuels to continue to provide the resources necessary for industrialization to continue, and in doing so, there's always been an increase in environmental health wherever industry has turned to fossil fuels for the sake of gaining a few dollars.

Today I came here to speak to each of you as an individual as I mentioned, because there has been so much decimation of Indian lands in the Lower 48, not only Indian lands, but also the American Indian. Here you cannot say at this point in time with your intent to industrialize the Arctic Ocean that you have in any way improved the lifestyles of those people and those tribal governments which have been here for the 5,000 years of

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our history. Other people have gained. Other organizations here in Barrow have gained, but our people continue to suffer poor health, poor housing, poor education. These things must be addressed if our relationship is to improve at all, because you have not given one red cent to the people that lived here before anybody else was here. My people's lives are changing, and for once if drilling in the Arctic Ocean, out here in front of this village occurs, there is a catastrophe. You have no proven clean-up technology to stop a major catastrophe, nor does oil industry or the United States Government have any type of monetary agreement for the damage that will eventually occur simply because anything that's manmade is bound to fail. And industrialization out in this ocean causes a tremendous amount of jeopardy, not only to the natural resources we depend on, but also the culture of those that depend on the natural resource.

I know I could sit here and speak for a length of time, but this is the message I want to bring across. You are making changes to the lifestyles of the native people here already, but not at one point have you offered anything in return for the natural resources that you have taken from underground from this place where we have lived and depended on the marine mammals, the land

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fast animals, the ducks and the fish. There will be damage, but I don't see how in the major -- in the event of a major spill that you will be able to respond and say that because we have a permit, it's okay, and maybe we'll clean up some of this stuff that might come up on the shores. You see what's happened with the Prince William Sound. The only cleanup happened there was the topsoil. The damage is still right under the beaches of Prince William Sound. We need to take a closer look, at least the United States Government needs to take a closer look as to whether or not technology exists to be able to respond to a catastrophe here which is bound to occur. Thank you.

MR. STANG: Thank you very much, Bill, I appreciate that. Okay. Anyone else who would like to make a statement or anybody else have a question or something they'd like to bring up?

MR. HOPSON: Bill just mentioned money earlier, can we get our $50 million for a research lab up here? They don't mention (indiscernible) taking money, (indiscernible) would be a good time to (indiscernible).

MR. STANG: Okay. We'll keep that as a note and the tie between those two testimonies. Anyone else who would like to make a statement of say something?

MR. KING: Go ahead.

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MR. STANG: Yes, please.
MR. BJORNSTED: Thank you.
MR. STANG: Just be sure to give your name and affiliation if you would, please?
MR. BJORNSTED: My name is Neil Bjornsted. I'm with the Native Village of Barrow. I'm the grant administrator. Again, Paul and Fred, I wanted to thank you on behalf of our tribe for showing the respect to our organization, to come by, and spend your valuable time explaining in a very brief way what your intentions are and to seek our input on what we feel.
I'd like to reiterate and put on record a concern that we have as a tribe in terms of our cooperation with natural resource development both on land and offshore, and how negative impacts are mitigated, and federal assistance that is intended to come to the tribe to help offset some of those damages is being denied the tribe, and I'd like to explain a little bit our concerns there, too.
For quite a bit of time now the Department of Interior has recognized the inherent right of the village, the Native Village of Barrow in its stewardship of many environmental aspects of the land and its people in the area around Barrow. And we appreciate many of the ongoing programs that our departments, such

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as Environment, have with you. A concern that we have however, is that the intent of certain programs declared by Congress that end up being administered by the State of Alaska are designed with very restrictive eligibility rules that we believe by intent preclude the participation of all natives tribes in the area. Specifically when legislation is passed in Congress, such as the NPR-A program, I believe it's called the Impact Program Grants, are passed into law, and where substantial amounts of money are set aside to help local people with present and future impacts, negative impacts from oil development, that we think as a tribe that we have been egregiously harmed by not being able to directly participate in and benefit from these programs. And this happens because of a process that we don't understand, and we wish we had the wisdom and financial resources to better understand. What we in our hearts wish to have the money and legal ability to do is basically to question federal law and it's application to state law, specifically with what authority does the State of Alaska have, if they indeed are the ones driving and determining such things as eligibility rules? Do the restrictive rules that they come up; with which shut out direct participation by all native villages come about through their own legislative processes, or are these

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issues to which the DOI perhaps through BLM gave some guidance to? Or if program rules and the administrative details were left up to the state, we would like to find a way to challenge those, because we believe those are unjust.

Obviously I'm not of this land, but in the time I have been here, I have become very involved with and empathetic for the concerns of the traditional way of life here. You can walk along the beach any evening, you look at people's homes. It's a very simple, very blessed way of life, and I can speak on behalf of our tribe, that I believe we're being asked to provide opinion on impacts of things to which the potential perceived dangers are very troubling to people, yet we lack the resources to properly understand them and to contemplate them properly. As has been more eloquently mentioned by our organization of the Borough here this evening, we're very hesitant to believe that in a process that is laid out which conducts lease sales every two years to which there's one EIS done, that the process that is established, actually would give enough deliberation between the lease sales to actually review and consolid -- not consolidate, but to hold dialogue with the affected people to make sure that we understand the process and if we see change on the land, that we

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have some resources by which to study it and to properly defend our interest in the land.

But again, in many ways we as a tribe view the government of the United States as being empathetic to our needs. We're delighted to have you here. We wish you can help us right the wrong of being excluded from programs which originated by the United States Government for the direct mitigation of impacts to which we as a native tribe are denied access to. I'd like to thank you for coming, and we wish to work with you on these issues.

MR. STANG: Thank you very much, I appreciate your coming and presenting that information. I guess, Neil, that on your request, I don't now exactly which programs, but it would seem to me that you could, to any federal agency, write a letter from a tribe, probably better to come from a tribe rather than come from an individual, to the federal agencies that administers program grants or whatever have you, which you say come through the state, and ask those very specific questions, and ask for a specific reply to how that's formulated so that you can -- certainly the Federal Government can answer half of that question, can answer these are the restrictions that we place on the grants. They probably would have a more difficult time

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answering as a matter of policy or a matter of information about what the state does, but at least you could build the groundwork for knowing that the specifics are that the federal agency adds, or the criteria that the federal agency gives to the state. You could do that. And.....
MR. BJORNSTED: (indiscernible - away from microphone) depends on this program.
REPORTER: Wait. You have to come up a little closer.
MR. BJORNSTED: I'm sorry.
MR. STANG: If you could just come up and rephrase that?
REPORTER: While you're getting in your dialogue. Thanks.
MR. BJORNSTED: And thank you, Paul. I appreciate your concern. We would like to know exactly on policies such as this, which are to help people, what the intent of Congress is so that we can use those guiding spirits to follow through the various legislative procedures to compare the current programs, as to whether they meet the intent of Congress or not.
I'd like to add one more thought on this whole process, and it's a troubling one from our viewpoint. A year and a half ago the Native Tribe of

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Barrow was one of the first tribes to sign the Millennium Agreement with the State of Alaska. Our tribe did so in good faith and in anticipation that the State would add some actual substance to self-governance rather than just platitudes and promises of cooperation and dialogue. We approached the Office of the Governor last Friday on this issue of being denied access to grants, and we're reminded within two hours that in effect, by signing the Millennium Agreement, we had compelled ourselves to respecting state law, and that the only way that we could attempt to gain inclusion as a participant in programs to help remedy the impacts, the adverse impacts of oil and gas development is either to petition Congress or go about a lengthy process through the State of Alaska's Legislature to seek amendment to existing rules.
We are extremely troubled by underfunding at the state level to such organizations as the American Inter Tribal Council, which as of yesterday no longer has an executive director, and concerns in the short-term political horizon in the state that we hear from many sources that the State of Alaska are in essence trying to move all native tribes to the side, and on all issues that impact land, and specifically when subsurface rights are involved, that the State of Alaska intends to recognize and deal only with the 13 native corporations.

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So we're very concerned that through our good faith efforts in trying to cooperate, except in many cases where we don't understand, we actually see that in the end it is only money that counts, it is not jobs for us, it's not justice, and that the program administrators that we have to deal with to try to seek benefit are pushing us aside. Thank you.
MR. STANG: Thank you again for that additional information, Neil. Good. Please, Charles.
MR. HOPSON: Yeah, Charles Hopson again.

On the proposed final Outer Continental Shelf Oil and Gas Leasing Program, on page 91 it says most of the ocean off northern Alaska is ice most of the year and cannot be fished. This is incorrect. We do a lot of our fishing from on top of the ice. So on page 91 it said it cannot be fished. It's incorrect.
MR. STANG: Okay. Thank you. And that's the -- let me look at the front of that document? Okay. That's the five-year program. Okay. It's too bad that a fellow who was on our team last week couldn't be here today. He was going to be here had we held the meeting last Monday, because he's intimately involved with that documents, so we would -- but we will pass that information back to him that that's incorrect. Anyone else have a statement or a question? An observation?

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Yes, please, May.
MS. AKPIK: One of my questions would be if you were to do some drilling down, you know, the -- for oil in the ocean, and if it's going to be have an impact and destroy the area where the -- not only the fish, but -- not only the birds and the whales, I'm wondering, a lot of the people in the community go subsistence hunting up this way, not in the ocean, but a lot of us are hunting down there. And if there was to be a spill down there, what would be the -- the problem would be, there wouldn't be any more animals that are surviving right now, because a lot of the people are not only eating the animal that -- which we hunt, and a lot of people do not eat hamburger or the chicken, or, you know, go to store, because it is very expensive, or they -- that's not their diet. And there would be a big impact on the waterfowl as well as the fish, if it's really in a bad condition where there was a spill for instance. Because right now everyone is living under the animal we're getting, and it's not fair for people to go ahead and starve maybe in the future, because we understand that whale is an animal that is an animal that is living 100 years maybe, over 100 years. They've studied that. They've learned that. And I wish you would take care of the people themselves as well as the

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animals and the drilling the ocean. That's what I'm really afraid of, because once this is gone, what is the problem? There will be a big problem there, and I wish like all the years we've been here, we hunt a lot. We don't go out and do any other thing, except stay home. Because if you're here, you're here to work, you're here to see what's the problem. You're looking at it. And you're not here all the time. You have to live to understand what would be the problem if this is gone. I wish everybody would have a say-so about it, because you have to feel it, you have to know it, and once you don't eat it, who cares about it? That's what people will say, bit it's for the safety of our people, our culture. And I just thought about, you know, many things, because this isn't the only place where the hunting is done. We have the outlying villages.

I was wondering also, is there a number to call for more -- you know, because I'm sure there's more people that would like to involve and have a say-so about situations like this and be heard.

MR. STANG: Certainly there is. We have -- back there actually there's a sheet of paper. Could you -- would you mind bringing me up a copy of that, Albert, please? We have a sheet of paper as a handout, and I think Albert's going to give you one directly, and

00112
let me just go over what's on it, because you can pick a copy up. The one -- and in fact, you have this copy, I'll give you the one piece of information you asked for, which is the 800 number to call. You have here how to submit comments on this document, through the mail, through e-mail or fax, but the 800 number to call for information at any time for MMS in Alaska is 1-800-764-2627. That's 1-800-764-2627. And during business hours, somebody will pick up that phone, and if you have a question about a particular species or an event, or a question about the EIS or whatever have you, we'll make sure you're routed to the correct person. If not, I believe it goes on answering machine if no one's there to answer that, and then we'll get back to you. We take that 800 number seriously, so if you do have any questions at any point anything to do with MMS's processes, whether it's our lease sale processes, whether it has to do with the document that Charles cited, which is the five-year program document, or any questions about what's going on with McCovey or with North Star, any questions about what's going on with our science program, please call that number and we'll get you a response, so I appreciate what you had said, May, and your points that you had made a moment or two ago.

Anyone else who would like to say

00113
something?
MS. GISH: My name is Diana Gish, I'll speaking representing myself. I didn't come here to speak, I came to listen, but someone asked me to speak, and I feel like I owe a debt of gratitude, so I'm going to try to get some words out here.
On the official seal of the Department of Interior, there's a buffalo, and I think that's very symbolic of what we're discussing today, because we know at one time it was federal policy to eliminate the buffalo, to get rid of the native people populations that were considered to be an obstacle in the western expansion of our country. And I guess I would like to address this comment to Secretary Norton and the Congress and the President, and I would just like to ask them to consider how they would like to be recorded in history, and I think this is a critical moment and a crucial opportunity to protect one of the rarest cultures in our country. And the Inupiat people are one of the only groups left that are integrated and connected with their lands, and so this hearing was supposed to be about the environmental impact statement, but there's no way you can talk about the environment here without talking about the people who's lives are completely integrated with that environment.

00114
And as I mentioned, I think this is a rare opportunity to either do incredible damage or incredible good, and people who have lived, no one's really sure, 8,000 years here? Have so much to teach the rest of us who don't have that kind of connection to the land and the sea and to life itself. And what lessons will we lose? What will be lost if this culture is lost?

And when I first saw the map of the lease sale, proposed lease sales, I was pretty much shocked, because to me it looked like a picture of the end of the Inupiat culture, because it looked like a picture of the end of whaling. Back to the buffalo, we know the serious social, economic problems that Native Americans are still facing hundreds of years after that western expansion began. One of the problems in approaching this issue is that Inupiat culture and whaling can't be assigned a monetary value. It's value goes way beyond money, and it would be so much easier if it could be assigned a number and then perhaps could look at it and say, well, there's too much to be lost here, because this is worth this many dollars, but whaling isn't about money. Whaling is about something -- is about sharing, and it's about life, and all these wonderful things that I've learned since I moved here in 1994. And it's because I owe -- I'm so

00115
grateful to be able to learn these lessons that I'm up here speaking, even though I wasn't prepared to do that.

I guess the last thing I would say is that I think it's common sense to listen and learn to the people who are experts in an area, and after thousands of years of life on the ice, there are no greater experts than the aboriginal people that live here, and I think it would be very foolish not to put their knowledge up front as the highest level of expertise when dealing with these issues.

And I would like to say that working at the radio station, I'm very aware that Minerals Management Service goes to a great deal of effort to make sure that the public is aware of what's going on. There's a lot of advance notice about these meetings, and I see the effort that goes into the communication process with the public. So I will -- would like to say thank you for that effort.

MR. STANG: Thank you. And thank you very much for your words you shared with us. Anyone else who would like to say a word? Well, I thank you for coming. We're going to be here until 9:00 o'clock, so feel free between now and then to come back and share your thoughts.

00116
(Off record - 8:34 p.m.)
(END OF PROCEEDINGS)

00117
C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Mineral Management Service Hearing was electronically recorded by Nathan Hile on the 1st day of August 2002, at Barrow, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 29th day of August 2002.

_____
Joseph P. Kolasinski
Notary Public in and for Alaska

My Commission Expires: 4/17/04

MMS Responses to Barrow Public Hearing Comments

PH-Barrow.001

Mr. Stang's response to Mr. Hopson's questions on pages 6 and 7 are substantially correct. Also, the MMS regulations at 30 CFR Part 250 discuss conditions for extensions and/or suspensions of a lessee's primary lease term.

Mr. Stang's responses to Mr. Hopson's questions on pages 8-12 regarding lease rentals, royalties, and bonds are essentially correct. The MMS regulations at 30 CFR Part 256 discuss rentals, royalties, and bond requirements.

Mr. Stang's response to Mr. Hopson's question on page 12, lines 24 and 25 and continued on page 13, lines 1-19 are substantially correct. See also discussions on the Oil Pollution Act.

PH-Barrow.002

Mr. Stang's dialogue with Mr. Hopson on pages 14 and 15 regarding sale deferrals is substantially correct.

PH-Barrow.003

Considerable effort has been made by the MMS to acquire observations on sea ice in the area considered in this EIS. Information about these studies can be found in the Environmental Studies Program Information System, which makes all completed Environmental Studies Program reports available online as full electronic "pdf" documents, including images and graphics. Technical summaries of more than 700 MMS-sponsored environmental research projects in addition to full "pdf" documents of more than 2,000 research reports are available for online, full-text search. The information is grouped geographically to help locate the most useful documents. In addition to the MMS's own funded science, we use data that has been certified by investigators available from several Federal archives (for example, the National Snow and Ice Data Center). Data also are available from researchers in their published results and data reports. Due to the scientific interest in the causes and impacts of global warming in the Arctic, several oceanographic research studies have been conducted in the late 1990's and early 2000's. Portions of the testimony have been added as traditional knowledge about sea ice in the description of the environment in Section III.A.4.

PH-Barrow.004

The MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open-water, spring broken-ice, and fall freezeup conditions. The equipment, tactics, and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal; they would not be limited to a single skimming configuration, but they would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and the MMS to add new tools and increase the effectiveness of existing methods and equipment.

PH-Barrow.005

Mr. Stang's comments to Mr. Hopson's questions on page 19, lines 24 and 25 and page 20 are substantially correct. After the high bidder receives a lease, the company must comply with the MMS regulations in 30 CFR Part 250 regarding submittal of exploration and/or development and production plans. The company cannot conduct activities without prior MMS approval. Applications for exploration plans or development and production plans undergo an environmental assessment prior to any activity being approved. If the company does not meet MMS requirements, either the applications will be disapproved or the company will be requested to provide additional information.

PH-Barrow.006

The MMS is responsible for issuing permits in Federal waters. A seismic operator does not need a permit from the North Slope Borough to collect data in Federal waters. Both the State and the Borough claim jurisdiction in State waters, and both the Borough and the State require a permit.

The Alaska Eskimo Whaling Commission can influence the actions of the seismic operator but does not control the operator. Whaling activities along with fishing, crabbing, and conventional maritime activities, are conducted in the same oceans and seas as seismic activities. The MMS tries to minimize, as much as possible, the conflict between oil and gas operations and other users of the oceans and seas. We require dialog between seismic operators and other individuals or groups (such as the Alaska Eskimo Whaling Commission) expected to be operating in the same waters at the same time. This was the origin of the conflict avoidance agreements. It is not essential that an avoidance agreement be signed for permits to be issued. It is not possible in all cases for parties to come to agreement. Seismic operators are required to make a concerted and conscientious effort to communicate and to conduct their activities in a way that minimizes the impact on other users.

PH-Barrow.007

Mr. Stang's responses to Mr. Hopson's questions on pages 23-25 are substantially correct.

PH-Barrow.008

Mr. Stang's response on page 25 answers Mr. Hopson's question on line 12.

PH-Barrow.009

The MMS has noted Mr. Hopson's objection to the proposed sale(s), and these objections will be conveyed to the decisionmaker(s).

PH-Barrow.010

The cyclonic and anticyclonic systems referred to are the two Arctic circulation regimes that cause the Beaufort Gyre to switch rotation, first discussed by Proshutinsky and Johnson (1997). The Russian scientist mentioned by the commenter is Dr. Proshutinsky, and the conference was an Alaska OCS Region Information Transfer Meeting. Dr. Proshutinsky has been involved in the collating of historical international data for a series of Arctic oceanography atlases, which cover the 40-plus years mentioned by the commenter. Japanese and Russian data have been translated and included in this effort. Dr. Proshutinsky has been contracted by the Alaska OCS Region since 1999 to interpret oceanographic data in context of these two circulation regimes. Although a final report is not yet available, Dr. Proshutinsky's project has completed three peer-reviewed papers, three conference papers, and three annual reports. This information has been made available to the MMS and has been used in this EIS. In a parallel effort, the hindcast circulation model used by the MMS in for the oil-spill-trajectory analysis has been extended to cover a 15-year period and includes circulation patterns for both Arctic circulation regimes (Haidvogel, Hedström, and Francis, 2001).

PH-Barrow.011

No laws are being violated by leasing and exploration activities in the Beaufort Sea. The MMS prepares an EIS that is made available to all interested governmental agencies, environmental organizations, and the general public for review and comment. All comments are addressed, and changes are made in the EIS, as needed and appropriate.

The MMS also is required under the Endangered Species Act to consult with the National Marine Fisheries Service (NMFS) on bowhead whales, because bowheads are an endangered species. The MMS prepares a biological assessment analyzing the potential effects of leasing and exploration activities on bowhead whales and provides this document to the NMFS. The NMFS then determines whether the proposed lease sale and exploration activities are likely to jeopardize the population, and then they issue a biological opinion that may include recommendations and/or conditions to reduce or eliminate any adverse effects. Information on bowhead whales provided to the NMFS in the biological assessment is found in Section IV.C.5 of the draft EIS.

The MMS also requires mitigating measures to provide protection to bowhead whales. Both the MMS and the NMFS require lessees to conduct a site-specific bowhead whale monitoring program during the open-water season to determine when whales are present in the vicinity of the drilling rig and to determine the extent of any behavioral effects from these activities on the bowhead whales. Lessees also are required to obtain an Incidental Harassment Authorization (IHA) from NMFS that permits the lessee to "take" whales by harassment only. The IHA requires the

lessee to estimate the number of whales taken during the activity. The IHA would not be issued or it would be revoked, if it appeared that the activity could cause serious injury or harm to the species. The monitoring programs are designed and discussed in a peer-review forum with representatives from the NMFS, the Alaska Eskimo Whaling Commission, the North Slope Borough, the MMS, and industry. The results of these monitoring programs and IHA's are presented to the same forum.

PH-Barrow.012

See Responses L-0001.009 and L-0035.001.

PH-Barrow.013

See Response L-0035.067.

PH-Barrow.014

See Response L-0035.067.

PH-Barrow.015

Craig George has informed the MMS of the Science Advisory Committee review. The MMS is looking forward to providing information to the Committee.

PH-Barrow.016

We do not believe that the level of industrial activity, vessel traffic, fishing activity, and tourist activity in the Beaufort Sea will begin to approach the level of these activities on the Atlantic coast where the North Atlantic right whales are found. The Atlantic coast is heavily populated and has major cities/seaports that are centers for world trade and tourism. Some of the world's major fishing grounds are located in the North Atlantic. None of these are present in the Beaufort Sea. Vessel traffic in the Beaufort Sea is very limited, and vessels are relatively small compared to the number and size of vessels operating in the North Atlantic.

The MMS has no jurisdiction over any of these activities except those associated with oil and gas exploration and production. Oil and gas exploration and production activities in OCS waters in the Beaufort Sea have dramatically decreased since 1993. There have been no wells drilled in the Beaufort Sea during the open-water period since 1993, with the exception of development wells drilled at Northstar, which is not within the main bowhead migration route. Seismic surveys were shot, generally fairly close to shore, during the bowhead whale migration in three years since 1993. Overall, oil and gas activity in the Beaufort Sea (numbers of wells drilled and line-miles of seismic shot) during the 1990's is dramatically less than during the 1980's.

PH-Barrow.017

See Response PH-Barrow.011.

PH-Barrow.018

The comment correctly notes that although eiders generally occur at low density during the breeding season, they can occur at high density when in flocks migrating through an area. Sections IV.C.5.b(1)(a)1)c) and IV.C.6.a(1)(a)3) have been revised to address this point. The comment also addresses potential sources of eider mortality, specifically collision with structures and oil spills. With regard to collisions, the commenter says that the EIS suggests eider mortality from this factor would be low because of low duck density. In fact, this is not what is suggested. Rather, the EIS notes that collision of a flock of waterfowl with a structure could result in substantial mortality. It is stated that density of most species is *relatively* low in the Beaufort Sea; this is true most of the time over most of the area. The one exception is during the migration periods when migrating flocks are moving through the area. In this instance, substantial mortality could result if a collision occurred. The point made in the EIS is that very few structures (three or fewer as a result of these lease sales, unless the price of oil increases dramatically; Appendix F, Table F-3) will be constructed in the Beaufort Sea and will constitute a very low-density target. Thus, it is likely that the probability of a flock colliding with one of the structures would be quite low, unless structures were grouped in a small area or were coincidentally located along typical migration routes. Any such collision would result in substantial mortality, but it is not expected to occur frequently. To date, the largest number of ducks to strike Northstar Island in one breeding season is 20 (not counting any that were not retrieved); this does not suggest that "incredibly large numbers" will routinely collide with such structures. However, revisions added to Sections IV.C.5.b(1)(a)1)c) and IV.C.6.a(1)(a)3) clarify these statements. The MMS and the Fish and Wildlife

Service will cooperatively coordinate development of lighting systems for offshore structures, under terms of the Fish and Wildlife Service's biological opinion for this project, which may reduce the likelihood of bird collisions with structures. The discussion of low density of birds concerns onshore density during the nesting and postnesting periods, when the commenter notes they are at low density, and the low probability of collisions with pipelines.

The comment also addresses the potential for recovery of eider populations to former levels and the effects of oil spills. The opinion is expressed that eider populations still are declining. Recent eider aerial surveys indicate that king eiders, at least, are increasing at a nonsignificant rate. This would allow some recovery from minor mortality losses or maintenance of a stable population. The statements in the EIS do not imply that a population could be simultaneously declining and recovering. However, in the absence of specific information bearing on this question for any species occurring in the Beaufort Sea, it is reasonable to assume that any additional mortality occurring as a result of oil and gas development could increase not only the rate of decline for a declining species, at least temporarily, but also would delay the point (i.e., extend the time to status reversal) at which the population could enter a recovery mode (population decline reversed).

If additional mortality increases the rate of decline, the population presumably would decrease to a lower level over a given interval and, thus, it should take the population longer to recover to a specified former level (i.e., delay recovery) at a given rate of increase. Any statements noted as being contradictory with regard to bird densities, dispersion of flocks exposed to an oil spill, or recovery in Sections IV.C.6.a(2)(b)2)c), IV.C.5.b(1)(a)1)a), and IV.C.5.b(1)(b)3) have been revised for clarity; however, the statement regarding ducks at high density specifically refers to flocks of the extremely numerous long-tailed duck, not to eiders that generally are present at much lower densities, as indicated in the comment.

PH-Barrow.019

The EIS describes the Eastern Chukchi Sea stock of beluga whales in Section III.B.6.f and states its most recent population at 3,700, in addition to the large stock of belugas that migrate into Canada during summer. Both stocks of beluga whales tend to frequent offshore waters of the Beaufort Sea. Thus, they have a low chance of coming in contact with a potential oil spill that is likely to occur in nearshore waters, where oil exploration and development is likely to take place. Their exposure to helicopter and fixed-wing aircraft and vessel traffic also is likely to be minimal. The 100-meter distance stated in the EIS is lateral distance from the aircraft. It does not represent the distance at which noise/sound can be detected. The reader quotes Richardson et al. "that the beluga whales were often disturbed by helicopter noise when the helicopter was less than 250 meters laterally and less than 460 meters in elevation." The 100-meter distance is within this range. Even if belugas were disturbed at greater distances, such as up to 250 meters laterally and up to 460 meters vertically, the disturbance would be very brief and likely would have no lasting effect on the belugas that were disturbed. The experiments by Richardson et al. were deliberate attempts to disturb the whales to try and measure reactions of the belugas to the noise and movement of the aircraft. The definition of whether the belugas were disturbed was subjective, such as the animal swam away or dove away when the aircraft was estimated to be at less than 250 meters and 460 meters altitude. This does not mean that the belugas were harmed by the aircraft. There is no scientific evidence that noise from aircraft has harmful effects on belugas or other cetaceans. In fact, their change in behavior may have had nothing to do with the aircraft. Helicopter traffic associated with OCS exploration and development would not have a "huge" effect on belugas. Beluga whales in the Bering Sea are subject to high levels of both air and vessel traffic and associated noise on the fishing grounds in Bristol Bay during the salmon season, when they compete with commercial fishing for the salmon. The noise from all this fishing activity has not displaced the belugas from their feeding areas in Bristol Bay.

PH-Barrow.020

Gray whales are found in the far western Beaufort Sea Planning Area during summer (see Figure III. B-3.g) and potentially could be exposed to some level of aircraft traffic and other oil and gas activities in the planning area. Although there were no gray whales present in the area during the Richardson et al. study, the same estimate of 100 meters is a reasonable estimate to be used for gray whales, because no particular estimate is available on gray whale reaction to aircraft in the Beaufort Sea.

PH-Barrow.021

Additional information on feeding areas in the Beaufort Sea and the importance of those feeding areas has been added to the text in Section III.B.4.a.

PH-Barrow.022

The MMS does not have a direct role in natural resource damage assessment; the MMS also is not authorized to fund damage assessment studies. Natural resource damage assessment in case of a major spill would be the responsibility of the Trustee agencies, such as the Fish and Wildlife Service and Bureau of Land Management, as was the case in the *Exxon Valdez* spill. It is the responsibility of the oil industry to monitor such assessments in case industry disagrees with the Trustees' assessment. However, the MMS has funded multiple studies related to its NEPA responsibilities, which would provide appropriate prespill background if a major spill occurred. Direct monitoring studies conducted by the MMS, per recommendations of the Sampling Design Workshop for the *Beaufort Sea Monitoring Program* (Houghton, Segar, and Zeh, 1984), include the Beaufort Sea Monitoring Program (Boehm et al., 1986; 1990); *Historical Changes in Trace Metals and Hydrocarbons in the Inner Shelf Sediments, Beaufort Sea: Prior and Subsequent to Petroleum-Related Industrial Developments* (Naidu et al., 2001); and *Arctic Nearshore Impact Monitoring In the Development Area (ANIMIDA)* (Boehm, 2001b; Brown, Boehm, and Cook, 2001). These studies have or are gathering baseline information on sediments, water, bivalves, amphipods, and fish. The MMS has initiated and/or cosponsors three tissue archival programs suitable for pre- and postspill comparisons: the *Arctic Marine Mammal Tissue Archive Project* (York et. al., 1999); the *Alaska Frozen Tissue Collection* (Cook and Jarrell, 2001); and *Seabird Samples as Resources for Marine Environmental Assessmen*t (Winker and Rocque, 2001).

PH-Barrow.023

The MMS acknowledges the seriousness of food tainting in case of an oil spill and the potential for an unwarranted community avoidance of subsistence foods. This is discussed using *Exxon Valdez* spill research in Section V.C.12 - Cumulative Effects on Sociocultural Systems. In the Environmental Justice analysis, we concluded that a spill would produce disproportionate, high adverse effects; part of the rationale for this conclusion is based on concerns over food palatability and tainting.

PH-Barrow.024

The EIS does not assume there would be no effects in the absence of information on spill effects on arctic marine mammals, such as ringed seals and polar bears. The EIS assumes that if seals and bears become oiled they will die from the contact, even though there are no specific studies that conclude that these animals will die if contact with oil happens. See Section IV.C.7.a(2)(b)2) - Specific Effects of a Large Oil Spill.

PH-Barrow.025

The MMS agrees with the commenter that it would be very difficult to maintain quality control, chain of custody, etc., and to document spill effects on wildlife if a spill occurs. We have no quick answers to the logistical problems that are likely to occur in working in the Arctic environment. The logistical problems that will come about in trying to establish rehabilitation centers on the North Slope and transportation of animals to these centers from spill locations will be far more difficult than they were for the *Exxon Valdez* oil spill, where more manpower, facilities, and established transportation were available.

PH-Barrow.026

We believe that the MMS and Core Contractor have implemented most of the North Slope Borough's and others' scientific recommendations. *The Arctic Nearshore Impact Monitoring in the Development Area (ANIMIDA)* study has been reviewed by the public in annual open meetings in Anchorage, by the Core Contractor's Science Review Board, and by the Alaska/ANIMIDA subcommittee of the MMS Scientific Committee. The ANIMDA Science Review Board meets twice a year and provides consensus and written recommendations on ANIMIDA research design and results. The North Slope Borough reviewed the statement of work for this study, and the commenter is one of five scientists on the Science Review Board.

The North Slope Borough is one of many stakeholders with divergent interests and recommendations for the ANIMIDA study. The MMS has been forced to disagree with a few North Slope Borough recommendations when they clashed with needs of other stakeholders and with MMS's programmatic requirements. For example, the North Slope Borough recommended that ANIMIDA not analyze for persistent organic pollutants (POP's) because POP's are not conventional oil-industry contaminants. However, POP's analyses in the ANIMIDA study area are a priority aspect of the MMS's implementation of the Environmental Justice Executive Order 12898. The Executive Order requires Federal Agencies to identify multiple and cumulative exposures from contaminants, and POP's are of Arcticwide concern. In addition, other stakeholders, such as the Fish and Wildlife Service, specifically requested

POP's analyses be done in ANIMIDA, and the International Arctic Marine Assessment Program recommends that POP's be monitored around existing Arctic oil fields.

PH-Barrow.027

We understand your concerns over the amount of effort and resources placed on individuals and the Borough to review and comment on our EIS's. We agree it takes time to review and then provide meaningful comments to us. This, in part, is why the MMS has prepared this multiple-sale EIS for the three proposed Beaufort Sea lease sales covered in the current 2002-2007 5-year program. This multiple-sale EIS assesses environmental effects of the three sales, all of which consider for leasing the same geographical area in the Beaufort Sea. For the remaining two sales, we will prepare an environmental assessment to determine if the EIS is still adequate or if a supplemental EIS is needed. Specific impacts and concerns within each area would be addressed at each separate sale stage. Those environmental assessments will be made available for public review and comment before a decision is made. Funds available to the State and the Borough through sharing of OCS revenues may be used, in part, to cover the costs of the Borough through the State to address requests for comments and reviews. See also Response L-0034.027.

PH-Barrow.028

Additional information on feeding areas in the Beaufort Sea and the importance of those feeding areas has been added to the text in Section III.B.4.a.

PH-Barrow.029

The MMS acknowledges Mr. Tegoseak's detailed history of the exploitation of the Arctic by Western society, but we differ with his belief that oil development has not contributed some benefits to the people of Barrow and the North Slope. Borough taxation of onshore oil facilities has funded the developing infrastructure of the North Slope Borough and the local communities within its boundaries. For MMS's monetary contributions, see Responses L-0034.020 and L-0034.027.

The MMS acknowledges the cultural importance of subsistence and the impossibility of replacing the harvest or the food harvested with store-bought food. We believe that the best deterrent to any disaster is to build facilities and pipelines that will withstand the rigors of arctic ice and weather forces and to provide mitigation and conflict-avoidance agreements that minimize any development impacts. However, nothing is absolutely certain, and there must be contingencies for oil spills. There are subsistence impact funds administered by the Coast Guard under the Oil Pollution Act of 1990 legislation that would be available to provide for subsistence food losses, but no escrow accounts or trust funds have been established.

In 1994, the National Research Council suggested that the MMS set up a trust fund for subsistence and sociocultural effects mitigation; to date, there has been no agency movement on such a policy mainly because OCS Lands Act legislation does not authorize it. Nevertheless, the MMS acknowledges the need for such funds and has actively promoted impact-assistance legislation as a way to mitigate some of the real and perceived impacts of oil development on the North Slope. In 2001, Congress provided coastal States with a one-time award of impact-assistance funds. Alaska received an appropriation of $12.2 million, of which $1,939,680 will go to the North Slope Borough.

Regarding the effectiveness of cleanup technology, the MMS has participated in the equipment and tactic demonstrations conducted by industry in the Beaufort Sea during 1999, 2000, and 2002, in conditions ranging from open-water, spring broken-ice, and fall freezeup conditions. The equipment, tactics, and personnel are capable of responding to an oil spill in all of these environments. The oil-spill-response demonstrations conducted to date have identified individual tactic limitations and have led to the addition of new tactics to improve effectiveness in broken-ice conditions. In an actual response situation, industry would be able to use every tool at their disposal and would not be limited to a single skimming configuration but would mix and match tactics to most efficiently access oil in the environment.

The MMS believes that industry will be able to conduct a credible spill response regardless of the time of year. Industry has an extensive spill-response toolbox that includes mechanical response, in situ burning, and tracking capabilities. Research to improve oil-spill response is being actively pursued by both industry and the MMS to add new tools and increase effectiveness of existing methods and equipment.

Also, because of the *Exxon Valdez* oil spill, new legislation in the form of the Oil Pollution Act of 1990 has mandated that industry and the government significantly increase and improve their oil-spill-response capabilities.

Oil-spill-contingency plans are routinely exercised by both industry and the government to ensure that response activities are initiated immediately following a release to limit the impacts of a spill on the environment.

PH-Barrow.030

We applaud your efforts to obtain funds for a research lab in Barrow. There are many Federal and State agencies that may have grant funds to support such an effort, including the Departments of Agriculture, Energy, and the Interior. Impact-assistance funds that are available to the Borough and local communities are discussed in detail in response L-0034.027 and see Section I.C.1.e(1). See also Response PH-Barrow.026 regarding ANIMIDA.

PH-Barrow.031

The MMS can appreciate your concerns with how congressional programs designed to assist Native tribes are administered. Generally, when Congress passes legislation that provides impact assistance from national resource development, the intent is to mitigate direct and indirect impacts to the local people. See Section I.C.1.e(1) for additional information. Impact-assistance programs administered by the Department of the Interior include the NPR-A Impact Program Grants you refer to, in which the Department of the Interior refunds a portion of fees received as a result of oil development in the reserve to the State of Alaska. These funds are for the purpose of granting moneys to communities that have experienced adverse effects due to oil development in NPR-A. There are several other laws and programs that provide impact assistance, including the OCS Lands Act, as amended; for example, the Land and Water Conservation Fund, the Historic Preservation Fund, the Reclamation Fund, the Tribal Preservation Fund, and section 8(g) of the OCS Lands Act. The Oil Pollution Act of 1990 and the Oil Spill Liability Trust Fund provides for compensation for losses due to an oil spill.

Please see Responses L-0034.027, L-0021.005, PH-Nuiqsut.001a and Section I.C.1.e(1), which discuss these various programs and funds available to States, local communities, individuals, or organizations.

Regarding your remaining questions on program grants, the State of Alaska, through its Department of Economic and Community Development, may be able to assist you concerning eligibility rules for the various program grants they administer.

PH-Barrow.032

As you stated in your testimony, the Millennium Agreement signed by tribes is with the State of Alaska and government-to-government relationships with the State. The Federal Government is not a party to this agreement. The MMS appreciates your concerns with how funding to directly impacted local communities is handled and that for Federal impact assistance, most funds and programs are administered by the State of Alaska.

Please see Responses PH-Barrow.031, L-0034.027 and Section I.C.1.e(1) regarding Federal programs that provide revenue to States for impact assistance.

PH-Barrow.033

We cannot locate the referenced information concerning fishing and winter ice.

PH-Barrow.034

See Responses PH-Barrow.023 and PH-Barrow.029.

PH-Barrow.035

See Responses L-0006.005, PH-Barrow.023, and PH-Barrow.029.

VII.F Representative E-Mail Messages Received

The MMS received 4,871 e-mail messages. Most of the e-mail messages were identical to or based on two different form messages posted on an environmental group's internet web site. The issues–comments mentioned in these e-mails and the MMS responses–were similar to previously received correspondence. Included are representative examples of e-mails received: those categorized as following example (a) are e-mails E-0012, E-0417, E-1088, E-1137, E-1468, E-1506, E-1588, E-1939, E-2392, and E-2517; and those categorized as following example (b) are e-mails E-2754, E-3079, E-3288, E-3472, E-3769, E-4481, E-4714, and E-4724. E-3105 is an example of an e-mail promoting the lease sales if the oil-spills can be effectively cleaned up.

September 10, 2002

Regional Director John Goll
Alaska OCS, Region, Minerals Management Service
949 East 36th Avenue, Room 308
Anchorage, AK 99508-4363

E-0012

Dear Mr. Goll,

I am writing to you on behalf of the Siksik Foundation, an organization concerned with the protection of Arctic wildlife and their habitats.

We are asking that you please support Alternative 2, No Action, because it is the only alternative that addresses concerns about oil spill risks and impacts to the Arctic National Wildlife Refuge and Teshekpuk Lake (NPR-A) coastline.

We also request that all those areas that were deferred or deleted from past Beaufort Sea Sales, including the area north of the coast of the Arctic National Wildlife Refuge, and the National Petroleum Reserve-Alaska, the fall bowhead whale feeding grounds and migratory route, and the entire spring lead system should be permanently removed from the lease sales. None of the EIS alternatives address concerns about potential harm to these areas.

Finally, it seems to us that the MMS is inappropriately lumping three lease sales into one Environmental Impact Statement. As these three sales are expected to be held sequentially, not simultaneously, there be three full public EIS processes also held sequentially. In this way, each EIS will reflect the most current knowledge, experience and technology at the time - not reflect outdated information, as may be the case when using this current EIS process for a lease sale not set to begin for 5 years.

Thank you for the opportunity to comment.

Sincerely yours,

Steven E. Slap
Executive Director
Siksik Foundation
173 Leyfred Terrace
Springfield, MA 01108

September 13, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-0417

Dear Regional Director John Goll,

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

Jay & Sandy Lynch
6425 Cloverblossom Lane NE
Bremerton, Washington 98311

cc: Secretary Gale Norton

September 14, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1088

Dear Regional Director John Goll,

I have personally been to this area on an arctic trip. It is beautiful, stark and one of the last truly wild places in the world. The Bush administration's push to drill there is beyond unconscionable. It is criminal.

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

Mary Haan
314 Huntington Dr
Ann Arbor, Michigan 48104

cc: Secretary Gale Norton

September 14, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1137

Dear Regional Director John Goll,

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

I believe that we need to use our country's superior technology to develop new renewable energy sources, not to destroy our environment. Let's lead the world, as we always have, to a better future. As with technology, if you fall behind you will be eventually be trying to play catch-up.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

Tony Greiner
5314 Pounds Drive N.
Stone Mountain, Georgia 30087-3522

cc: Secretary Gale Norton

September 14, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1468

Dear Regional Director John Goll,

The idols of the Interior Dept, the Gas and Oil Barons, should not be allowed to terrorize the Bowhead Whales in the Beaufort Sea.I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

Thomas Aldridge
296 s 13 st
san jose, California 95112

cc: Secretary Gale Norton

September 14, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1506

Dear Regional Director John Goll,

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

Why make a species extinct if it is not necessary? The oil that is extracted from Alaska will only last approximately six months. It's not like it will be a lifetime supply of oil. The only reason we are going to drill there and farther endanger the wildlife is because we are too lazy as a country to find an alternative source of energy. Also because of a lack of caring for the environment and wildlife. What doest that say for our country?

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement. Thank you for considering my views.

Sincerely,

Stephanie Hazlett
285 Cherrington Rd.
Westerville, Ohio 43081

cc: Secretary Gale Norton

September 14, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1588

Dear Regional Director John Goll,

As a concerned citizen I'm 100% against lease sales in th Beaufort Sea. The cost to humanity and many other species is way to high. The risk of only one oil spill or ruptured gas line on the seas of this area would have reprecussions far in excess of just the immediate area. The food chain would be harmed to the possible extent of a major catastrophe. For what? An amount of oil and gas that might last 5 years.

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

D. Scanlon
1210 E. 89th
K.C., Missouri 64131

cc: Secretary Gale Norton

September 15, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-1939

Dear Regional Director John Goll,

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

As an animal lover I am against hurting any wildlife whatsoever! God gave them to us for us to enjoy and not destroy! Surely oil and gas can be found in other areas besides this one. Even the slight leakage could cause damage to our wildlife. I don't want them to become extinct! Please have a heart and find alternative ways of getting our natural resources. Think of the consequences of a wrong decision. Don't you want our future generations to be able to have a vast supply of wildlife to enjoy? God has given us all that we need on this earth to supply our needs. Please pray and ask God for wisdom to make a wise decision that will affect the generations to come! Thank you for your time.

Sincerely,

Barbara Ann Dembek
2427 Sixth Street
East Meadow, New York 11554-3114

cc: Secretary Gale Norton

September 16, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-2392

Dear Regional Director John Goll,

There are other fuels than oil and many more years to develop yet more sources, but Bowhead Whale has but one life. I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

Sincerely,

Chris Jacobs
244 Pitkin Rd
Craftsbury Common, Vermont 05827

cc: Secretary Gale Norton

September 17, 2002

Regional Director John Goll
Alaska OCS Region, Minerals Management Services
949 East 36th Ave., Room 308
Anchorage, AR 99508-4363

E-2517

Dear Regional Director John Goll,

I am writing to provide my public comment on the Draft Environmental Impact Statement for the Proposed Oil and Gas Lease Sales in the Beaufort Sea, Alaska (EIS). As someone who cares deeply about the health of our ocean waters, and the life they sustain, I strongly urge that the final EIS recommend Alternative II - that no lease sales go forward in the Beaufort Sea.

The Beaufort Sea is an important migratory route and feeding area for the endangered bowhead whale. The ecosystem is also important for other fish and wildlife including polar bears and migratory birds; as well as to the indigenous culture that relies on a close association with the environment. The Beaufort Sea is an area of harsh environmental extremes and field testing has shown an inability to contain and clean up an oil spill in Arctic waters during most of the year.

I am also concerned that if oil and gas development were allowed off the coast of the Arctic National Wildlife Refuge, it would lead to intense pressure for the development of onshore support facilities within the Refuge.

It is for these reasons that Beaufort Sea should be placed off limits to any further offshore oil and gas lease sales and I encourage the Mineral Management Service to make this recommendation in its final Environmental Impact Statement.

The surrounding areas in and around the Beaufort Sea are already subject to hundreds of miles of pipeline and wells as it is. This drilling would result in little additional oil,endanger wildlife and coastline and is what I think, a ploy to have future access to the Tongass area, which millions of Americans oppose.

Sincerely,

Adam Atherton
2233 Hedgerow Rd.
Columbus, Ohio 43220

cc: Secretary Gale Norton

September 17, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

E-2754

Dear Mr. John Goll,

Please consider future generations when you propose to open the Arctic Refuge to oil drilling. I wish that you would spend that time and effort on working out new sources of fuel. As a part of the next generation, I am 15 years old and already have to worry about what will be left for my children. Today's earth is tomorrow's future.

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system.

Thank you.

Sincerely,

Sarah Julian
~~~~ ~~~~~~~ ~~~~~
Clarkston, Michigan 48348
~~~~

E-3079

September 17, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system.

Thank you.

Sincerely,

Jessica King
2563 University Ave
Madison, Wisconsin 53705

E-3105

September 17, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am in support of oil drilling in the sensitive waters of the Arctic and write in support of proceeding as planned, provided that the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea.

Thank you.

Sincerely,

Paul Davis
PO Box 230708
Anchorage, Alaska 99523

E-3288

September 17, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system.

Thank you.

Sincerely,

Coreen Kendrick
591 Eckhardt Ave West
Penticton, BC, V2A 2B4
Canada

September 17, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

E-3472

Dear Mr. John Goll,

Please include my comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

As an Alaskan, I write in support of Alternative II, which requests that offshore lease sales do not go forward in the waters offshore of the Arctic Refuge. The oil industry has not conclusively demonstrated that oil spills in the Beaufort Sea could be effectively cleaned up. The risks to subsistence-based coastal communities and to wildlife in these waters are too great to allow new offshore leasing. In fact, coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing, including those areas that have been previously deferred or deleted from past Beaufort Sea oil lease sales. These areas specifically include areas north of the coast of the Arctic National Wildlife Refuge, areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and areas within the entire spring ice lead system. I will review the EIS to see that these comments have been included. After today's news regarding the Interior Department and BIA monies, it is apparent we need more citizens to monitor the integrity of the Secretary of the Interior.

Thank you.

Sincerely,

Janis Ohmstede
P.O. box 304
Ester, Alaska 99725

E-3769

September 18, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

It seems that the current leadership in Washington is determined to get at all the oil they can with absolutely no thought to the consequences on the environment, wildlife and even human life. Alaska has basically been out of their reach until now. How obvious their intents are to anyone paying attention. Greed and revenge are two terrible motivators. Americans should being paying close attention to those in decision making positions because if they are not willing to protect wildlife and plant life on this planet, they care very little for human life. The proof of political leaders is in the results of their actions, not the words they speak. It is time for serious change in America. We need people who are willing to take a stand to protect and preserve our environment-not destroy it for the personal gain of a few.

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system.

Thank you.

Sincerely,

Brenda Morgan
5045-D Eltha Drive
WINSTON SALEM, North Carolina 27105

E-4481

September 19, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am strongly opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system. Disturbing these areas now will likely lead to routine disruption that may eventually cause further loss of rare species and fragile habitats.

Thank you.

Sincerely,

Christopher Johnson
803 West Avenue
Austin, Texas 78701

E-4714

September 20, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

Drilling for oil in the sensetive waters of the arctic is irresponsible until the oil industry can conclusively demonstrate a effective way oil spills can be completely removed out of the Beaufort Sea.The risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based costal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Areas, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system. Please step away from greedy motivs ... mother earth and every being is in danger we have to stop and turn around, and live in peace with nature. Believe it or not but we are a part of nature too.

Thank you

Sincerely,

Silvia Hanna
34 Autumn St.
Buxton, Maine 04093

E-4724

September 19, 2002
Mr. John Goll
Alaska OCS Region, Minerals Management Service
949 East 36th Ave., Room 308
Anchorage, AK 99508-4363

Dear Mr. John Goll,

I am a PhD candidate in ecology and an environmental policy fellow at Princeton University. Please enter these comments into the record for your agency's EIS on the three proposed federal offshore drilling lease sales for the Beaufort Sea in the Arctic.

I am opposed to oil drilling in the sensitive waters of the Arctic and write in support of Alternative II, which requests that these offshore lease sales do not go forward. Unless and until the oil industry can conclusively demonstrate that oil spills could be effectively cleaned up in the Beaufort Sea, the risks to wildlife in these waters, including bowhead whales, polar bears and migratory birds, and to the subsistence-based coastal communities in the area, are too great to allow new offshore leasing. Coastal waters in the Beaufort Sea area should be permanently removed from consideration for any future leasing. These areas include those that have been previously deferred or deleted from past Beaufort Sea oil lease sales, including the areas north of the coast of the Arctic National Wildlife Refuge, those areas off of the Teshekpuk Lake Special Area, bowhead whale feeding grounds and migratory routes, and those areas within the entire spring ice lead system.

Thank you.

Sincerely,

Kai Chan
40 Edwards Place
Princeton, New Jersey 08540

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