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AMERADA HESS CORPORATION

REGIONAL SUPERVISOR
FIELD OPERATION
MINERALS MANAGEMENT SERV
P. O. BOX 2640
TULSA, OKLAHOMA 74102
918-599-4200

October 12, 1989

Unit Manager
Department of Natural Resources
Division of Oil and Gas
P. O. Box 7034
Anchorage, Alaska 99510-7034

Regional Supervisor
Minerals Management Service
University Plaza
949 E. 36th Avenue
P. O. Box 10-1159
Anchorage, Alaska 99510

Re: Northstar Unit

Gentlemen:

Pursuant to applicable laws, rules and regulations, Amerada Hess Corporation, as Unit Operator of the Northstar Unit, and on behalf of itself, Enterprise Oil Ex Co Inc, Murphy Oil USA, Inc., and Shell Western E&P Inc., hereby submits an application for unitization of the Northstar Unit consisting of the following:

1. The Unit Agreement executed by all of the Working Interest Owners, including Exhibit A (schedule identifying and describing each Unit Tract, showing the Working Interest of the parties in each tract and specifying the applicable royalty and net profit rates), Exhibit B (a map outlining the Unit Area) and Exhibit F (a schedule allocating Unit Expense);

2. The proposed Plan of Development for the Northstar Unit;

3. A copy of the Unit Operating Agreement executed by all of the Working Interest Owners which is submitted for information only and does not require approval;

4. The geological study supporting this application, which we request be kept confidential; and

5. A check in the amount of $1,000.00 made payable to the State of Alaska, Department of Revenue, covering the State's application fee.

There have been modifications of the standard unit agreement form and as a result of our negotiations, you are aware of the reasons for these modifications. For the most part, the changes were requested by the State and Federal authorities and were made to reflect current regulations.

Department of Natural Resources
and Minerals Management Service
Anchorage, Alaska 99510

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Amerada Hess Corporation is pleased to be making this application for unit approval and is most appreciative of the efforts of you and your staff in helping us in our effort. We stand ready to answer any questions and to supply you with any further data necessary to accomplish this task. Finally, we look forward to working with you for many years to come in the successful development of the Northstar Unit.

Yours very truly,

AMERADA HESS CORPORATION

By: _____
C. R. Richard
Manager, Engineering and
Technical Services

Enclosure

NORTHSTAR UNIT
PLAN OF DEVELOPMENT

This Five-Year Plan of Development is submitted to the Commissioner of the Department of Natural Resources, State of Alaska, and to the Regional Supervisor, Field Operations, of the Minerals Management Service pursuant to Article 8 of the Northstar Unit Agreement.

Introduction

Working Interest Owners in the Northstar/Seal prospect area were awarded leases in 1980 as a result of successful bidding in the 1979 BF lease sale. In the fall of 1980, the Working Interest Owners (Amerada Hess Corporation, Amoco, Murphy Oil USA Inc., Shell Oil, and Texas Eastern) met to develop a joint effort in exploring the Northstar/Seal area. Agreements were negotiated, prepared, and executed covering the construction of a gravel island and drilling of exploratory wells therefrom. Shell, as the operator, proceeded with the construction of Seal Island which was completed in 1982. The Working Interest Owners then proceeded with the drilling of BF-47 #1 which resulted in the discovery of hydrocarbons in the Ivishak Formation, testing approximately 5,000 barrels of oil per day. A confirmation well, OCS-Y-181 #1, was drilled in 1984 and was followed by another confirmation well, the BF-57 #1, which was completed in 1985. A fourth well was drilled from Seal Island to Amoco's Federal Lease OCS-Y-180 and resulted in a dry hole. In 1984 additional seismic was acquired over the prospect area. In 1985, Amerada Hess completed the construction of Northstar Island and drilled a 4-1/2 mile stepout (BF-46 #1) to the northwest confirming the extension of the hydrocarbon accumulation in the Ivishak Formation. Amerada Hess commenced the drilling of BF-46 #2 in 1986, encountered mechanical problems and ceased operations prior to reaching the Ivishak Formation.

Introduction - Continued

Island inspections have been conducted every summer and island maintenance (if required) has been performed. In 1988, due to a severe storm in late 1987, the Working Interest Owners spent approximately $3.6 million on the maintenance of Northstar and Seal Islands.

In summary, four of the six wells have encountered and tested hydrocarbons from the Ivishak Reservoir. Three wells (BF-46 #1, BF-47 #1, and OCS-Y-181) have been certified by the State of Alaska or the Minerals Management Service as capable of producing in paying quantities. To date, total investment by the Working Interest Owners is approximately $280,000,000 including leasehold investments.

Proposed Plan of Development

The Working Interest Owners are currently committed to the ultimate development of this field and in support of that commitment, submit the following Plan of Development to satisfy the requirements of Article 8 of the Northstar Unit Agreement. This plan will further define the hydrocarbon accumulation and address development scenarios and technical and environmental problems associated with developing an offshore Arctic oilfield. The Working Interest Owners of the Northstar Unit - Amerada Hess Corporation (Operator), Enterprise Oil Ex Co Inc, Shell Western E & P Inc., and Murphy Oil USA, Inc. - propose the following joint work program:

Proposed Plan of Development - Continued

SUMMARY

COMMITMENT	YEARS
Continued Island Maintenance	1990 - 1994
Petrophysical/Petrographic Study	1990 - 1991
Production Facility Design	1990 - 1991
Approximately 250 Miles of 2-D Seismic	1991 - 1992
Seismic Analysis / Interpretation	1991 - 1992
Reservoir Engineering Studies	1992 - 1994
Extension Fee Payments	1990 - 1994
Reevaluate Unit Area	1993

The estimated cost of the proposed Unit Plan of Development together with the Extension Fee Payments (paid by State lessees to the State of Alaska) required to be made to the State of Alaska under the Unit Agreement is approximately $21 million.

Petrographic and engineering studies are subject to refinement by the technical representatives of the Working Interest Owners. The attached Appendix outlines the currently envisioned scope of the items within the proposed initial Unit Plan of Development.

APPENDIX

Continued Island Maintenance - $1,000,000 - $2,000,000 Per Year Estimated

Annual island inspection consisting of above and below water surveys will be conducted each summer to determine the nature of island maintenance required. Reasonable island maintenance will be conducted with the Working Interest Owners reserving the right to abandon the islands in the event of expensive repairs due to major damage.

Petrophysical/Petrographic Study - $300,000 Estimated

The Working Interest Owners have identified log interpretation problems due to mineralogy - siderite, pyrite and micro porous chert. The proposed Petrophysical/Petrographic study will further identify mineralogy affecting logs and attempt to develop methods to allow the accurate interpretation of porosity and resistivity logs which is fundamental to determining oil in place.

Production Facility Design - $500,000 - $1,000,000 Estimated

The Working Interest Owners will undertake a study to determine the most economical way of developing the field, recognizing and addressing the many technical and environmental issues in the Beaufort Sea. Areas of investigation are summarized as follows:

- Type of Platform
  - The study will address the feasibility of islands vs. bottom founded structures. Construction materials, construction methods, the ability to withstand the offshore Arctic environmental conditions, associated monitoring, maintenance and operating costs will be investigated.

APPENDIX - Continued

Production Facility Design - Continued

- Drilling
  - Key issues to address include wellhead spacing, wellhead rrangement and configuration, drilling equipment and the associated drilling support systems.

- Prccessing Facilities
  - Utilizing processing scenarios from the current reservoir engineering data, production facilities will be designed and will include a list of equipment with footprint size, weight, and lead time. Both onshore and offshore locations of production facilities will be investigated. Packaging of the equipment will also be addressed. It is anticipated that injection of water and gas will be needed from the commencement of production and injection facilities will be included in the study.

- Pipelines
  - Assuming a subsea pipeline configuration, several routes will be studied from the unit area to shore. Facility departure and shore approach methods will be investigated along with the design of a pipeline to mitigate the sensitive environmental conditions that exist in Beaufort Sea. Construction methods will also be reviewed.

- Other Systems
  - Additional support systems to be included in the study are housing, offices, warehouses, utilities, etc.

Diagrams, plot plans, process flow sheets, and layouts will also be part of the study along with an implementation timetable. Cost estimates will also be prepared for developing the field.

APPENDIX - Continued

Seismic Program - $2,300,000 Estimated

A summary of the seismic program is as follows:

Summer Program

• Total Miles (Including Tails)	Approximately 221 Miles
• Method of Acquisition	Summer Marine
• Energy Source	Tuned Air Gun Array with Yo-Yo
• Grid	1/2 Mile x 1 Mile
• Recording/Coverage	120 Channel/60 Fold CDP
• Processing	Standard Contractor Processing (Phase Matching) with Selected Inhouse Applications

Winter Program

• Total Miles (Including Tails)	Approximately 28 Miles
• Methods of Acquisition	Winter-on-Ice
• Energy Source	Vibroseis
• Grid	1/2 Mile x 1 Mile
• Recording/Coverage	120 Channel/60 Fold CDP
• Processing	Standard Contractor Processing (Phase Matching) with Selected Inhouse Applications

APPENDIX - Continued

Based on the results of the seismic program and analysis, the Unit Operator and the other Working Interest Owners will reevaluate the Unit Area and take action to expand or contract the Unit Area to those lands geologically and geophysically appropriate for inclusion in the Unit Area.

Reservoir Engineering Studies - $600,000 Estimated

The Working Interest Owners will review all PVT data and develop a PVT model to simulate reservoir performance under different production scenarios. Sensitivity model studies will be conducted to determine grid size and the required number of layers for the development of a 3-D reservoir model study. The 3-D reservoir model study will investigate different production scenarios, limited versus full field development, estimates of recoverable oil volumes and be foundational to reservoir management.

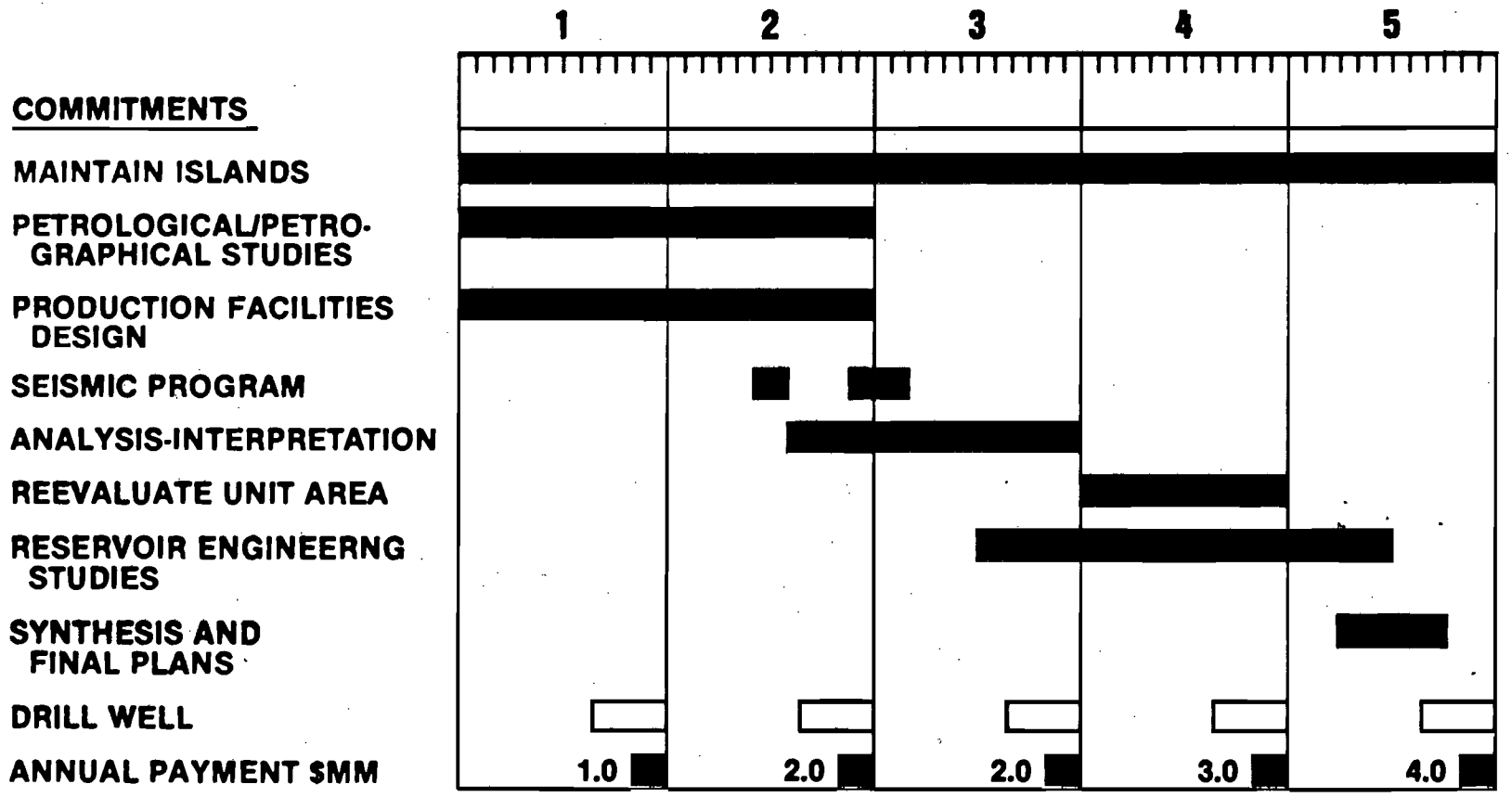
All Plan of Development studies will be available to the Alaska Department of Natural Resources and Minerals Management Service. The attached Plan of Development timetable shows the dates by which each project committed to by the Working Interest Owners will be completed. Copies of the final reports including the raw and interpreted seismic date will be provided to the Alaska Department of Natural Resources and the Minerals Management Service within 30 days of completion of each project.

The Unit Plan of Development and any required scheduled changes will be highlighted in annual progress reports submitted to the Alaska Department of Natural Resources and Minerals Management Service.

AMERADA HESS CORPORATION

NORTHSTAR UNIT

FIVE YEAR PLAN OF DEVELOPMENT



— ANNUAL PAYMENTS MAY BE MADE IN LIEU OF DRILLING A WELL IN YEARS ONE THROUGH FIVE.

* ANNUAL PAYMENTS ARE DUE BY JANUARY 31 OF THE FOLLOWING YEAR.