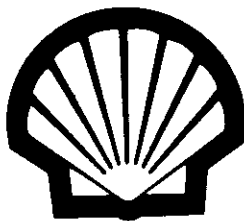


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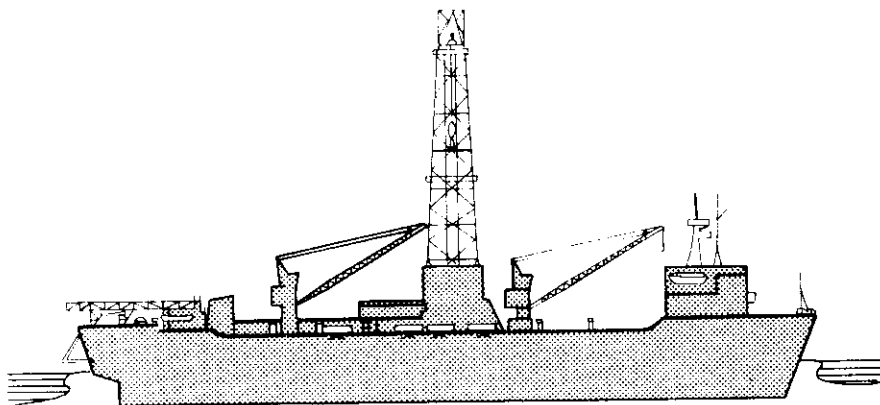
REGIONAL OFFICE  
GENERAL INVESTIGATIVE DIVISION  
DEPARTMENT OF NATURAL RESOURCES

## Exploration Plan

### OCS Lease Sale Area 109

### Chukchi Sea, Alaska

# Remote Offshore Prospects



Prepared for

**Shell Western E&P Inc.**

Anchorage, Alaska

Prepared by

**ENSR Consulting & Engineering**

Anchorage, Alaska

**January 1989**

Shell Western E&P Inc.



601 West Fifth Avenue • Suite 810  
Anchorage, Alaska 99501

July 24, 1989

RECEIVED

Anchorage, Alaska

JUL 25 1989

REGIONAL SUPERVISOR  
FIELD OPERATION  
MINERALS MANAGEMENT SERVICE

Mr. Rodney A. Smith  
Minerals Management Service  
Alaska OCS Region  
U. S. Department of the Interior  
949 East 36th Avenue  
Anchorage, Alaska 99508

Dear Mr. Smith:

SUBJECT: TYPOGRAPHICAL ERRORS IN SWEPI CHUKCHI EXPLORATION PLAN AND MMS  
FINDING OF NO SIGNIFICANT IMPACT

During a review of the subject documents, we discovered the following  
typographical errors:

Exploration Plan - Remote Offshore Prospects  
Page 5, Table 1, OCS-Y-1368-1 should be OCS-Y-1365-1 NR 3-1  
71-09-16.34N should be 71-08-16.34N  
Page 7, Table 1, OCS-Y-1355-1 should be OCS-Y-1335-1 NR 3-1

Finding of No Significant Impact  
Page 2, Lease 1355 Block 801 should be Lease 1335 Block 676 NR 3-1  
Lease 1368 Block 888 should be Lease 1365 Block 854 NR 3-1

If you have any questions or required further information, please call  
me at 907/276-2545.

Sincerely,

*W. F. Simpson*

W. F. Simpson  
Manager Regulatory Affairs  
Alaska Division

WFS/kd

Enclosure

WFSE/072189

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Cerveza	OCS-Y-1176-1	72-35-37.22N 168-04-30.49W	15,000	180
	OCS-Y-1178-1	72-30-14.34N 168-11-48.75W	15,000	180
Crackerjack	OCS-Y-1305-1	71-28-49.00N 165-45-12.10W	11,500	140
	OCS-Y-1304-1	71-30-06.63N 165-49-41.48W	9,500	140
	OCS-Y-1320-1	71-25-07.71N 165-32-29.51W	15,000	140
	OCS-Y-1321-1	71-23-23.57N 165-26-33.33W	15,000	140
	OCS-Y-1350-1	71-13-37.71N 166-13-44.23W	9,000	140
	OCS-Y-1355-1	71-20-08.97N 165-57-39.88W	10,600	140
	OCS-Y-1336-1	71-18-22.00N 165-48-57.45W	15,000	140

TABLE 1

Preliminary List of Exploratory Well Locations  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Baby Ruth	OCS-Y-136 <sup>5</sup> <del>4</del> -1	71-0 <sup>0</sup> <del>9</del> -16.34N 165-43-08.75W	15,000	140
	OCS-Y-1366-1	71-07-48.38N 165-32-38.87W	15,000	140
Blizzard	OCS-Y-1386-1	71-46-18.59N 163-34-50.92W	15,000	130
	OCS-Y-1391-1	71-40-59.63N 163-43-08.56W	15,000	130
	OCS-Y-1389-1	71-43-45.54N 163-41-49.46W	15,000	130
Burger	OCS-Y-1413-1	71-15-04.91N 163-11-40.78W	12,300	145
	OCS-Y-1421-1	71-12-13.52N 163-18-35.25W	12,600	145
	OCS-Y-1400-1	71-20-03.86N 163-10-42.06W	10,000	145

CORRECTIONS

Page 2

United States  
Department of the Interior  
Minerals Management Service  
Alaskan OCS Region  
949 East 36th Avenue  
Anchorage, Alaska 99508

NOTICE

February 17, 1989

FINDING OF NO SIGNIFICANT IMPACT

The Minerals Management Service (MMS), in accordance with the regulations implementing the National Environmental Policy Act (NEPA) (40 CFR 1501.4 [e] [1] and 1506.6 [b]), announces the availability of a Finding of No Significant Impact (FONSI) for the activity listed below:

Proposal

Shell Western Exploration and Production Inc., as operator for itself and others; Conoco Inc.; and Elf Aquitaine Inc. propose to drill one or two wells per year for 3 to 5 years to explore 13 "Remote Offshore" prospects and 5 "Near Offshore" prospects on leases acquired from Lease Sale 109 of May 1988. The Near Offshore leases are located in the eastern Chukchi Sea west of Icy Cape and Point Lay, 10 to 50 miles offshore in approximately 65 to 120 feet of water. The Remote Offshore leases are located in the central and northern Chukchi Sea Planning Area, 60 to 210 miles offshore in approximately 130 to 180 feet of water. The Remote Offshore prospects will most likely be explored first. The wells will be drilled during the open-water season, generally late June through October, from the CANMAR Explorer III--an ice-strengthened drillship--beginning as early as 1989. Drilling operations will occur after the spring bowhead whale migration.

Location

Lease	<u>Block(s)</u>
Near Offshore Leases	
OCS-Y 1505✓	NR 6-4 366
1506✓	367
1509✓	368
1510✓	411
1511✓	412
1512✓	413
1516✓	414
1517✓	456
1518✓	457
1520✓	458
1525✓	501

Remote Offshore Leases

<u>Lease</u>	<u>Block(s)</u>	<u>Lease</u>	<u>Block(s)</u>
1176✓	NS-208 373	1178✓	NS-208 460
1183✓	NS-307 227	1184✓	NS-307 229
1185✓	271	1189✓	317
1196✓	400	1198✓	444
1200✓	488	1203✓	531
1204✓	574	1207✓	618
1264✓	NR-301 106	1265✓	NR-301 107
1275✓	150	1304✓	501
1305✓	502	1320✓	591
1321✓	592	1326✓	632
1336✓	677	1350✓	762
1335✓	AMOCO 801 676	1359✓	807
1366✓	855	1368✓	TEXACO 888 854 of NR-301
1386✓	NR-302 187	1389✓	NR-302 230
1391✓	274	1399✓	629
1400✓	630	1404✓	672
1405✓	673	1413✓	718
1415✓	720	1420✓	760
1421✓	761	1430✓	807
1456✓	NR-303 109	1462✓	NR-303 152
1465✓	155	1466✓	156
1476✓	241	1482✓	287
1483✓	288	1494✓	418

Environmental Assessment (EA)

EA No. 89-01

FONSI Date

February 17, 1989

SUPPLEMENTARY INFORMATION: The MMS prepares EA's and FONSI's for proposals which relate to exploration of oil and gas resources on the Alaska Outer Continental Shelf (OCS).

The EA's examine the potential environmental effects of activities described in the proposals and present MMS conclusions regarding the significance of those effects. The EA's are used as a basis for determining whether approval of the proposals constitutes major Federal actions that significantly affect the quality of the human environment in the sense of NEPA Section 102 (2) (C).

A FONSI is prepared in those instances where the MMS finds that approval will not result in significant effects on the quality of the human environment. The FONSI briefly presents the basis of that finding and includes a summary or copy of the EA.

The FONSI and associated EA for the activity listed above are available for public inspection between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday at:

Minerals Management Service  
Alaska OCS Region  
Library  
949 East 36th Avenue, Room 502  
Anchorage, Alaska 99508  
Phone: (907) 261-4435

Persons interested in reviewing specific environmental documents, or obtaining information about EA's and FONSI's prepared for activities on the Alaska OCS, are encouraged to contact the above-listed MMS office.

*Alan D. Power*

Shell Western E&P Inc.



601 West Fifth Avenue • Suite 810  
Anchorage, Alaska 99501

January 13, 1989

Mr. Rodney O. Smith  
Regional Supervisor  
Field Operations (RS/FO)  
U. S. Department of the Interior  
Minerals Management Service  
Alaska OCS Region  
949 East 36th Avenue, Suite 110  
Anchorage, Alaska 99508-4302

Dear Mr. Smith:

SUBJECT: SUBMISSION OF CHUKCHI SEA EXPLORATION PLANS

We are pleased to submit Shell Western E&P Inc. (SWEPI's) Exploration Plans for leases in the Chukchi Sea obtained through OCS Sale 109.

SWEPI is submitting two separate Exploration Plans to cover these leases. We have determined that our Chukchi Sea drilling prospects located 50 miles or more from the mainland have a higher priority for exploration activities than those closer to shore. Due to the significant differences between the two areas in terms of water depths, geology, environmental sensitivities, and subsistence use of land adjacent to the near offshore tracts, SWEPI has prepared a separate Exploration Plan for each area (Remote Offshore Prospects and Near Offshore Prospects).

During the initial years of operation (1989 and 1990), SWEPI will attempt to concentrate all drilling activities within the more remote offshore leases. Exploration drilling in the leases located within 50 miles of the mainland (some of which are within the spring whale migration area) will not be considered during these early years unless ice conditions farther offshore preclude the possibility of drilling in the deeper waters. As such, we request priority approval be given the Remote Offshore plan.

Minimal impact to seasonal whale migration and feeding zones is anticipated as a result of Chukchi Sea exploratory drilling activities. Consequently, the cultural impacts, particularly those related to subsistence whaling, are considered to be minimal. Although the Beaufort offshore exploration activities have served as a model for expected Chukchi Sea activities, any potential cultural influences are further reduced due to the remoteness of the prospects and timing of the drilling season relative to the subsistence whale hunting season.

WFSD/010989



However, SWEPI has taken further steps to mitigate even minimal adverse impacts. These steps include:

- o Drilling and seismic activities are planned to be conducted from June through November. This will postpone rig startup until after the spring bowhead migration.
- o An oil spill response barge will be outfitted and will generally remain within close proximity of the exploration prospects during drilling activities.

Depending on the weather and sea conditions, the Oil Spill Response Barge could be positioned in Kotzebue Sound. Also, the barge may sometimes be stationed mid-way between Barrow and the rig location as an emergency helicopter landing site.

- o Barrow's existing facilities will be used for all primary air logistics support.
- o Kotzebue will provide marine support when required.
- o Kuparuk, Deadhorse, and Umiat will be utilized as secondary air logistics support bases.
- o Except for emergencies, no direct support facilities are planned at Wainwright, Point Hope, and Point Lay. This will minimize onshore activities near all identified environmentally sensitive areas.
- o Air and marine transportation routes will be selected to minimize adverse effects on subsistence resources and activities.
- o The drilling support vessels will employ state-of-the-art ice management procedures.
- o A life-saving capability will exist through the availability of the medic on the drillship and helicopter support.
- o A minimum of four Native residents from each of four villages along the Chukchi coast (Pt. Hope, Pt. Lay, Wainwright, and Barrow) will be offered employment opportunities for various drillship, support vessel, and oil spill response duties.

SWEPI recognizes the critical importance of local cultural resources, has taken early steps to identify key local cultural resource concerns, and has prepared exploration plans with strong considerations for North Slope resident concerns.

The Exploration Plan submission is complete with the following exceptions:

- 1) Exhibit 1-1. General Geological Information. This proprietary information was submitted under separate cover on January 4, 1989.
- 2) Exhibit 1-2. Geohazards Report. A geohazards report, based upon 1988 surveys, will be submitted in early 1989. Additional reports from future surveys will be submitted when they become available.
- 3) Exhibit 3-1. Environmental and Cultural Orientation Program. The production of the video portion of the program is currently scheduled to be completed by January, 1989. The handout materials should be completed by February, 1989.
- 4) Exhibit 3-2. Local Consultation Document, Stipulation No. 8-- Subsistence Whaling and other Subsistence Activities. SWEPI met with residents and officials of Barrow, Wainwright, Point Lay, and Point Hope in July, 1988, and again in mid-December. The comments and questions received at each village and our responses are included in Exhibit 3-2. When this process is complete, Exhibit 3-2 will be sent to you. We anticipate that this will be in early January, 1989.
- 5) Exhibit 5-1. Hydrogen Sulfide Contingency Plan. This Plan is being finalized and should be available to the MMS in February, 1989.
- 6) Exhibit 6-1 and 6-2. Explorer III Operations Manual and Explorer III Critical Operations Plan. These proprietary exhibits will be forwarded under separate cover.

Please direct further information requests on the Exploration Plans to me or Ms. Susan Brown-Maunders at (907)276-2545.

Sincerely,



W. F. Simpson  
Manager Regulatory Affairs  
Alaska Division

WFS/kt

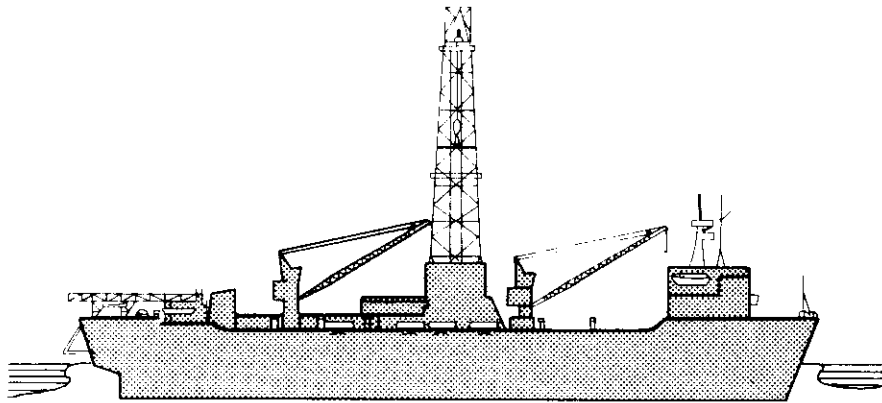


Exploration Plan

OCS Lease Sale Area 109

Chukchi Sea, Alaska

## Remote Offshore Prospects



Prepared for

**Shell Western E&P Inc.**

Anchorage, Alaska

Prepared by

**ENSR Consulting & Engineering**

Anchorage, Alaska

**January 1989**

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3	Canmar Explorer III, General Arrangement Outboard Profile
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5-1	Hydrogen Sulfide Contingency Plan
6-1	Canmar Explorer III Operations Manual
6-2	Canmar Explorer III Critical Operations and Curtailement Plan

\* All exhibits are prepared as separate documents.

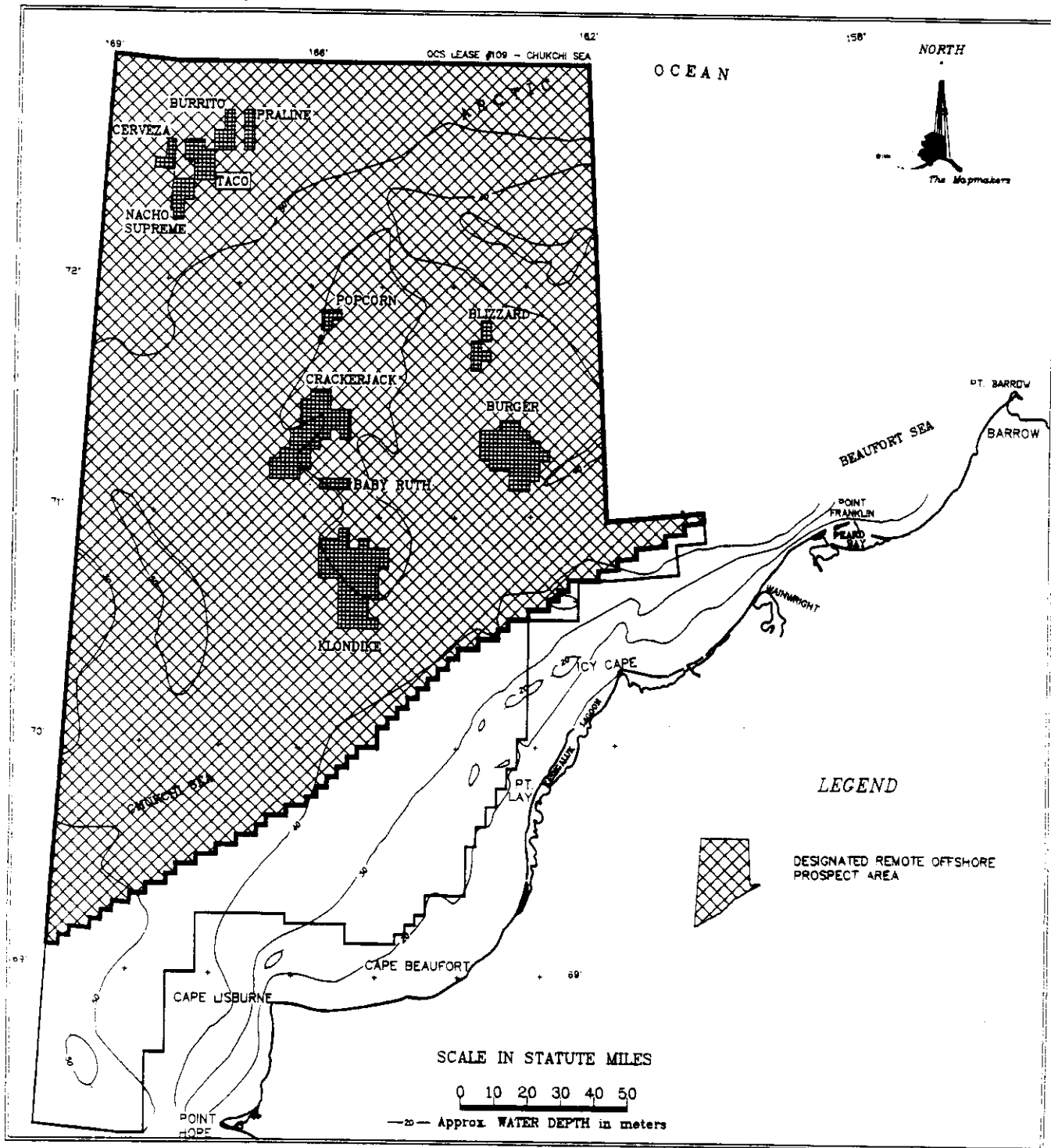


FIGURE 1. REMOTE OFFSHORE PROSPECT AREA REFERENCE MAP

## 1. INTRODUCTION

### 1.1 General

This Exploration Plan is submitted by Shell Western E&P Inc. (SWEPI) and covers proposed exploratory oil and gas drilling activities for REMOTE OFFSHORE PROSPECTS in OCS Lease Sale Area 109, Chukchi Sea, Alaska.

The Exploration Plan has been prepared under the revised 30 CFR, Parts 250 and 256, "Oil and Gas and Sulphur Operations in The Outer Continental Shelf, Final Rule" as presented in the April 1, 1988 Federal Register. The format presented in the Final Rule has been used throughout this document to retain consistency. In accordance with these new guidelines, information which would have been previously provided within a separate Environmental Report, is presented in the 21 Attachments to this Exploration Plan. Documentation referenced in the Attachments, which is extensive or proprietary, is provided as separate exhibits.

In general, SWEPI considers the leases which are more than 50 miles offshore to have a higher priority for exploration activities than leases located nearshore, within 50 miles of the coastline. For presentation purposes within this Exploration Plan, the 50-mile demarcation line will coincide with the Minerals Management Service (MMS) lease block boundary line presented in Lease Stipulation Numbers 6 and 7, OCS Lease Sale Area 109, Chukchi Sea, Alaska. Leases seaward of this line will be designated herein as REMOTE OFFSHORE PROSPECTS Figure 1, Reference Plan, opposite; while leases landward of this line will be designated herein as NEAR OFFSHORE PROSPECTS. Some NEAR OFFSHORE PROSPECTS lie within the spring whale migration area, while all REMOTE OFFSHORE PROSPECTS lie outside the spring whale migration area, Figure 2, Lease Stipulation Boundary Line. SWEPI has prepared a separate exploration plan for the REMOTE OFFSHORE and NEAR OFFSHORE PROSPECTS due, primarily, to the

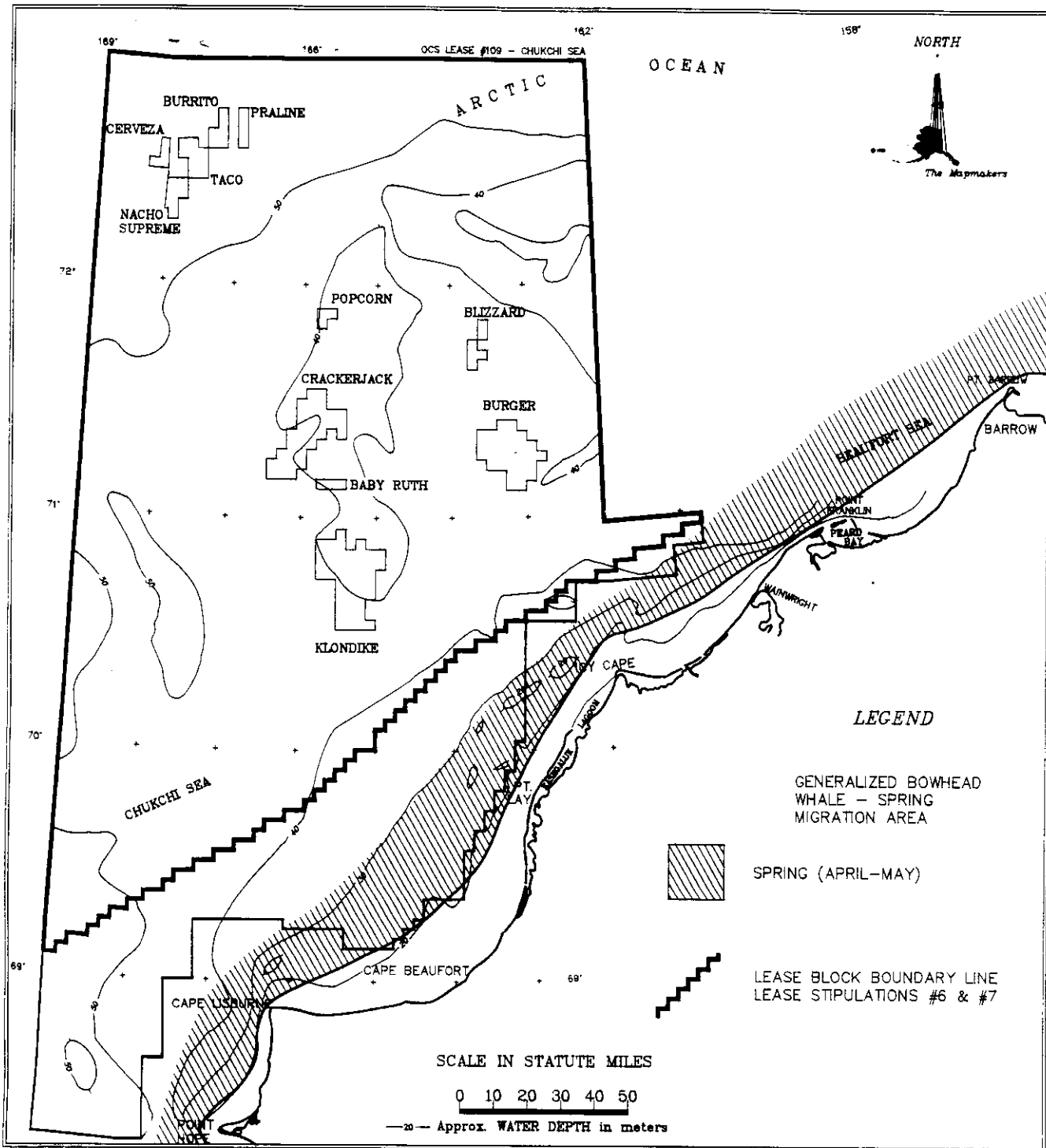


FIGURE 2. LEASE STIPULATION NUMBERS 6 and 7 BOUNDARY LINE

distinct geological and environmental characteristics associated with the respective areas.

During the initial years (1989/1990), SWEPI will concentrate drilling activities on the REMOTE OFFSHORE PROSPECTS. During this period, drilling activities on the NEAR OFFSHORE PROSPECTS will be conducted only if the ice conditions do not permit drilling on the REMOTE OFFSHORE PROSPECTS. SWEPI anticipates conducting geohazard surveys, as required, within both the REMOTE OFFSHORE and NEAR OFFSHORE PROSPECT areas during most summer seasons and years.

## 1.2 Type and Sequence of Exploration Activities

This Exploration Plan covers the drilling of exploratory wells on SWEPI's REMOTE OFFSHORE PROSPECTS during the ten-year term of the affected leases. The specific drilling program for each exploratory well will be defined in the Applications for Permit to Drill (APD) which will be submitted in advance of each drilling season. In these applications, the drilling fluid program, coring design, formation evaluation program, cementing program, hydraulics program, and other engineering material will be presented in detail. Much of this information will be proprietary in nature.

Table 1 is a preliminary list of exploratory well locations which are being considered for evaluation of the hydrocarbon potential of SWEPI's leases in the OCS Lease Sale Area 109, Chukchi Sea, Alaska during the exploration drilling phase of this project. Figure 3 shows the presently defined sequence of exploration activities through 1992. The schedule of activities, as well as the decision on when and where to drill specific wells, must remain flexible so that adjustments can be made as new data are

obtained from drilling. These decisions also will be dependent upon weather, sea state, ice conditions, availability of appropriate drilling equipment, results of drilling and seismic surveys conducted in the area, and/or government-imposed restrictions. Variations in the proposed schedule are likely due to early or late breakup, major interference from masses of multi-year ice, or early or late freezeup.

SWEPI has contracted the Canmar Explorer III drillship for the proposed program. So long as this is the only drilling vessel contracted for the project, exploration will most likely be limited to one or two wells per season. In the event that SWEPI contracts for an additional drilling vessel, the drilling schedule could be accelerated.

At present, the drillship Explorer III and its support vessels are in Victoria, B.C., Canada. The Explorer III is being modified to meet current U.S. Coast Guard Fire and Safety regulations; a top drive is being installed on the derrick; and SWEPI's communication equipment is being placed onboard. It is anticipated that this work on the drillship will be completed by May 1989 and that the Explorer III and support vessels will be moved to the Chukchi Sea in June 1989. Actual drilling will occur during the months of June through November depending on weather and ice conditions. At the completion of the 1989 drilling season, the Explorer III and support vessels will move to an undetermined West Coast port for overwintering and restocking for the following year's drilling activity.

Some lease block clearing activities (i.e., geohazards surveys) were conducted over SWEPI's blocks during 1988. It is planned that those activities will be continued during successive open water seasons, as required, in support of drilling activities.



TABLE 1

Preliminary List of Exploratory Well Locations  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Baby Ruth	OCS-Y- <sup>1365</sup> <del>1368</del> -1	71-0 <sup>8</sup> <del>9</del> -16.34N 165-43-08.75W	15,000	140
	OCS-Y-1366-1	71-07-48.38N 165-32-38.87W	15,000	140
Blizzard	OCS-Y-1386-1	71-46-18.59N 163-34-50.92W	15,000	130
	OCS-Y-1391-1	71-40-59.63N 163-43-08.56W	15,000	130
	OCS-Y-1389-1	71-43-45.54N 163-41-49.46W	15,000	130
Burger	OCS-Y-1413-1	71-15-04.91N 163-11-40.78W	12,300	145
	OCS-Y-1421-1	71-12-13.52N 163-18-35.25W	12,600	145
	OCS-Y-1400-1	71-20-03.86N 163-10-42.06W	10,000	145

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Burger (Cont'd)	OCS-Y-1415-1	71-16-28.54N 162-57-23.40W	9,000	145
	OCS-Y-1405-1	71-17-33.03N 163-20-55.56W	10,500	145
	OCS-Y-1430-1	71-10-03.81N 163-03-30.47W	9,500	145
	OCS-Y-1399-1	71-22-23.79N 163-21-46.01W	10,000	145
	OCS-Y-1420-1	71-12-24.37N 163-27-06.57W	9,500	145
	OCS-Y-1404-1	71-19-07.26N 163-29-36.86W	9,000	145
Burrito	OCS-Y-1185-1	72-41-11.93N 167-15-47.82W	16,000	175
	OCS-Y-1183-1	72-36-00.37N 167-14-41.91W	16,000	175

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Cerveza	OCS-Y-1176-1	72-35-37.22N 168-04-30.49W	15,000	180
	OCS-Y-1178-1	72-30-14.34N 168-11-48.75W	15,000	180
Crackerjack	OCS-Y-1305-1	71-28-49.00N 165-45-12.10W	11,500	140
	OCS-Y-1304-1	71-30-06.63N 165-49-41.48W	9,500	140
	OCS-Y-1320-1	71-25-07.71N 165-32-29.51W	15,000	140
	OCS-Y-1321-1	71-23-23.57N 165-26-33.33W	15,000	140
	OCS-Y-1350-1	71-13-37.71N 166-13-44.23W	9,000	140
	<del>OCS-Y-1355-1</del> <sup>1335</sup>	71-20-08.97N 165-57-39.88W	10,600	140
	OCS-Y-1336-1	71-18-22.00N 165-48-57.45W	15,000	140

~~Used~~ Corrected by  
 Small 7/24/89

TABLE 1  
Preliminary List of Exploratory Well Locations (Cont'd)  
REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Crackerjack (Cont'd)				
	OCS-Y-1359-1	71-11-57.22N 166-05-45.32W	12,000	140
	OCS-Y-1326-1	71-21-22.05N 166-03-41.36W	8,500	140
-----				
Klondike	OCS-Y-1482-1	70-42-39.20N 165-14-58.71W	15,000	140
	OCS-Y-1476-1	70-45-18.23N 165-27-17.51W	11,500	140
	OCS-Y-1466-1	70-51-24.93N 165-03-11.32W	15,500	140
	OCS-Y-1494-1	70-36-17.99N 165-20-36.64W	12,500	140
	OCS-Y-1465-1	70-50-20.97N 165-12-25.38W	12,500	140
	OCS-Y-1456-1	70-52-33.10N 165-23-33.93W	12,500	140

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Klondike (Cont'd)				
	OCS-Y-1462-1	70-49-58.33N 165-34-28.00W	14,000	140
	OCS-Y-1483-1	70-42-33.01N 165-00-13.27W	12,500	140
-----				
Nacho Supreme	OCS-Y-1204-1	72-22-33.43N 167-58-39.16W	15,700	170
	OCS-Y-1207-1	72-20-15.59N 167-51-37.48W	15,700	170
	OCS-Y-1203-1	72-25-25.57N 167-49-36.71W	15,400	170
-----				
Popcorn	OCS-Y-1275-1	71-51-16.28N 165-48-23.57W	14,500	140
	Alternate OCS-Y-1275-1	71-51-18.35N 165-49-42.81W	14,500	140

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Popcorn (Cont'd)				
	OCS-Y-1275-2	71-50-24.97N 165-44-11.14W	15,000	140
	OCS-Y-1265-1	71-51-20.60N 165-36-19.48W	15,000	140
	OCS-Y-1264-2	71-52-45.03N 165-49-46.74W	14,000	140
	OCS-Y-1264-3	71-52-03.96N 165-43-08.49W	15,000	140
-----				
Praline	OCS-Y-1189-1	72-38-18.20N 166-57-34.79W	17,000	175
	OCS-Y-1184-1	72-43-37.51N 166-53-49.61W	17,000	175
-----				

TABLE 1

Preliminary List of Exploratory Well Locations (Cont'd)  
 REMOTE OFFSHORE PROSPECTS\*

Prospect Area	Well Name	Geodetic Coordinates Surface Location	Proposed TD (in ft)	Approximate Water Depth (in ft)
Taco	OCS-Y-1196-1	72-33-19.34N 167-43-11.05W	15,000	180
	OCS-Y-1200-1	72-27-04.39N 167-36-37.91W	16,000	180
	OCS-Y-1198-1	72-30-40.44N 167-35-07.93W	15,500	180

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\* In spite of the large number of identified well locations, the total number drilled in any single year is not expected to be more than 1 or 2 wells. Partially, this number is limited by the availability of rigs capable of drilling in the rigorous Arctic conditions of the Chukchi Sea. The actual number of wells drilling in any single year will depend strongly on the results of early wells.

ACTIVITY	1988				1989				1990				1991				1992			
	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec
Predrilling Activities, Permitting, etc.		—————							—	—	—		—	—	—		—	—	—	
Move Drilling Vessel from Canadian Beaufort Sea to Victoria B.C. for modifications			—																	
Modifications to Canmar Explorer III			—————																	
Leaseblock Clearing			—			—————				—	—	—		—	—	—				
Mobilization of Drilling Vessel and Support Craft to Sale 109 Area						—				—				—				—		
Drill: Prospect						—————														
Drill: Prospect										—————										
Drill: Prospect													—————							
Drill: Prospect																		—————		
Demobilization of Drilling Vessel and Support Craft from Sale 109 Area								—				—				—				—

Figure 3. Proposed Schedule of Exploration Activities



## 2. DESCRIPTION OF THE DRILLING UNIT AND SUPPORT VESSELS

### 2.1 General

The drillship Canmar Explorer III or another suitable vessel will be used to drill the exploratory wells covered by this Exploration Plan. Prior to the use of an alternate vessel, details and specifications will be provided.

The Explorer III was built in 1973 specifically for offshore oil and gas operations in the Arctic regions of the world. The physical layout of the vessel is illustrated in Exhibits 1 through 4 presented as separate documents. Support vessels will include the M/V Robert LeMeur, the M/V Supplier III, the M/V Supplier IV, and the U.S. flag oil spill response barge and tug.

The following sections provide brief descriptions of the Canmar vessels. Additional information is provided on the data sheets of the following pages and in the appendices.

### 2.2 Explorer III Specifications

The Explorer III is the largest drillship in the Canmar fleet, and was developed for offshore oil and gas exploration in the Arctic regions of the world. The hull is built to DNV 1A1\* Ice A\* specifications, is fully equipped for open water arctic environmental conditions, and is classified by Det Norske Veritas (DNV).

The Explorer III has a rated drilling capacity of 24,000 feet in water depths up to 1,000 feet. The large storage capacity and up-to-date drilling equipment enable the drillship to sustain long periods of uninterrupted service.