

MINUTE ITEM -

This Calendar Item No. 1
was approved as Minute Item
No. 2 of the State Lands
Commission by a vote of 3
to 0 at its 12/22/82
meeting.

MINUTE ITEM

12/22/82
W 40185

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CONSIDERATION OF PROPOSED OIL AND GAS
LEASE PROGRAM - POINT CONCEPTION -
POINT ARGUELLO, SANTA BARBARA COUNTY

During consideration of Calendar Item 1 attached, the following
people testified:

1. Dr. Noele Davis
Chambers Consultants and Planners
2. Mr. Joe Caves
Representing Senator Gary Hart
3. Mr. Willis Edwards
NAACP
4. Mr. Patrick Heffernan
Resources Consultants
5. Mr. Kirk West
California Taxpayers Association
6. Supervisor DeWayne Holmdahl
Santa Barbara County Board of Supervisors
7. Ms. Elizabeth Byerly
League of Women Voters
8. Ms. Michele Perrault
Environmental Coalition on Lease Sale 53 and 73/
Sierra Club
9. Dr. Ruthann Corwin
Marin County
10. Mr. Allen Greenstadt
Pioneer Systems/Pioneer International Corporation
11. Ms. Martha Davis
Greenpeace
12. Ms. Jocelyn Kempe
Chairman, Sea Otter Task Force
Western Oil and Gas Association
13. Mr. Jim Kennedy
California Chamber of Commerce

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14. Ms. Naida West
California Council for Environmental
and Economic Balance
15. Ms. Carol Fulton
Friends of the Sea Otter
16. Mr. Clair Ghylin
Western Oil and Gas Association
17. Mr. Robert Burt
California Manufacturers Association

Written communications were received from the following:

1. Oceanic Society
San Francisco Bay Chapter
2. Dr. John Mohr
Scientific Review Committee
3. Ms. Maxine McCloskey
Whale Center
4. Mayor Melanie C. Billig
City of San Luis Obispo
5. Ms. Phyllis Faber
League for Coastal
Protection

After 5 hours of public testimony the Commission closed the hearing and discussed its options for a leasing program. The Commission then approved the following Recommendations, as amended, by a vote of 3-0:

THE COMMISSION:

1. FINDS THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED IN THE FEIR (EIR 308) AND RELATED MATERIALS BEFORE MAKING ITS DECISION ON THE PROPOSED PROJECT;
2. ADOPTS THE FINDINGS HERETO ATTACHED AS EXHIBIT "C" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (PUBLIC RESOURCES CODE SECTION 21000 ET SEQ.) AND THE STATE EIR GUIDELINES;
3. FINDS THAT THE PROPOSED PROJECT MEETS REQUIREMENTS WITHIN THE PUBLIC RESOURCES CODE (SECTION 3000 ET SEQ.) AND THEREBY CONFORMS WITH PROVISIONS OF THE CALIFORNIA COASTAL ACT;
4. FINDS THAT THE PROJECT, AS MODIFIED BY PROPOSED MITIGATION MEASURES AND STIPULATIONS, IS CONSISTENT WITH THE USE CATEGORY ASSIGNED TO THE PROPOSED LEASE AREA WITHIN THE SIGNIFICANT LANDS INVENTORY COMPLETED PURSUANT TO SECTIONS 6370 ET SEQ. OF THE PUBLIC RESOURCES CODE;

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5. ADOPTS THE FINDINGS HERETO ATTACHED AS EXHIBIT "D" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH SECTION 6318 OF THE PUBLIC RESOURCES CODE;
6. ADOPTS THE FINDINGS HERETO ATTACHED AS EXHIBIT "E" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH SECTION 6873.2 OF THE PUBLIC RESOURCES CODE;
7. ADOPTS STIPULATIONS 1-15, AS OUTLINED IN EXHIBIT "F", TO BE INCLUDED IN THE SPECIAL OPERATING REQUIREMENTS OF THE PROPOSED LEASE FORMS;
8. AUTHORIZES THE STAFF TO SOLICIT BIDS FOR ALL EIGHT TRACTS AS FOLLOWS:

- A. IN THE TRACT LAYOUT SHOWN IN EXHIBIT 3 OF STAFF REPORT (EXHIBIT B);
- B. WITH BIDS TO BE RECEIVED ON AUGUST 15, 1983;
- C. ON THE BASIS OF NET PROFIT SHARE (NET PROFIT SHARE LEASE, EXHIBIT 6 OF EXHIBIT B) WITH A MINIMUM NET PROFIT SHARE BID OF 65% FOR TRACTS 1 AND 2, AND 50% FOR TRACTS 3 THROUGH 8;
- D. RENTAL PAYABLE ANNUALLY IN ADVANCE FOR THE FIRST THREE YEARS TO BE PAID ACCORDING TO THE FOLLOWING SCHEDULE:

TRACTS 1 AND 2	\$10,000,000
TRACT 5	\$4,000,000
TRACTS 3,4,6,7, and 8	\$2,000,000

AND THEREAFTER THE MINIMUM RENTAL PAYABLE ANNUALLY IN ADVANCE;

9. DELEGATES TO THE CHAIRMAN THE AUTHORITY TO APPROVE LEASE LANGUAGE NECESSARY TO CONFORM THE LEASE TO THE INTENT OF THE COMMISSION. THE CHAIRMAN SHALL REPORT BACK TO THE FULL COMMISSION AT THE NEXT MEETING SUBSEQUENT TO THESE NEGOTIATED CLARIFICATIONS.

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12/22/82
W 40185
Staff

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CONSIDERATION OF PROPOSED OIL AND GAS
LEASE PROGRAM - PT. CONCEPTION
PT. ARGUELLO, SANTA BARBARA COUNTY

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CONSIDERATION OF PROPOSED OIL AND GAS
LEASE PROGRAM - POINT CONCEPTION -
POINT ARGUELLO, SANTA BARBARA COUNTY

The State Lands Commission has developed a program which could enable the State to lease, by competitive bid, approximately 40,000 acres of State tidelands and submerged lands for oil and gas exploration and development. Following the 1969 blowout and oil spill from a Union platform on a Federal Outer Continental Shelf (OCS) lease, the Commission adopted a moratorium on additional leasing of, or drilling on State lands. Since 1973, the Commission has considered and authorized additional drilling on existing leases, but has not, until this time, considered the issuance of new leases.

The proposed lease area extends from Point Conception north to Point Arguello, Santa Barbara County (Exhibit A). At present, the Commission's active leases extend from an area east of Point Conception, leased in April 1962, southward through Santa Barbara, Ventura, Los Angeles and Orange Counties.

At its meeting of November 29, 1982, the Commission accepted a Draft Staff Report on Current Status of Proposed Pt. Conception/Pt. Arguello Oil and Gas Leasing Program and

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directed its circulation to the public. Nearly 300 copies of the report and material related to the Characterization of Marine Biota Between Pt. Conception and Pt. Arguello have been sent to interested parties.

A final version of the staff report has been prepared and contains additional information requested by the Commission, specifically on the state and capabilities of oil spill response equipment near the project area and modes of transportation available for any oil and gas produced from the proposed lease area. The report also responds to a number of issues raised by commentators such as muds and cuttings. The final staff report is attached hereto as Exhibit B and is incorporated herein by reference.

COASTAL ACT POLICIES:

Several sections of the Coastal Act are germane to the proposed project, i.e., the proposed lease of State tidelands and submerged lands between Pt. Conception and Pt. Arguello, Santa Barbara County for oil and gas activities. Among them are the following.

The Coastal Act section 30210 (PRC) guarantees maximum public access and provisions for recreational opportunities ". . .consistent with public safety needs and the need to

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protect public rights, rights of private property owners, and natural resource areas from overuse". The final EIR has recognized potential adverse impacts to aesthetics and recreation in the proposed project area. Findings and discussion relative to these issues are at page 66 and 95.

Sections 30230-30231 of the Act also require protection of biological resources that may be impacted by development activities. The final Environmental Impact Report (FEIR) recognizes and analyzes the project area as one of biological significance. In addition to the investigation of all known information related to the nature and extent of the biological resources in the area, original data were gathered at eighteen sites in the most sensitive intertidal zone from Pt. Conception to Pt. Arguello. Through such analyses, it was determined that additional information would assist the decision-making process. The Commission therefore authorized a Characterization of Marine Biota Between Pt. Conception and Pt. Arguello which has been reviewed by a scientific review panel, federal, State and local agencies and the public as described in the report in Exhibit "B". The FEIR and the characterization study provide the most comprehensive information yet available about the biotic environment and marine resources of the proposed project area.

Methods and policies to further identify and protect the diverse organisms and habitat of the proposed lease area have been proposed by the Commission. Proposed Lease Stipulation 5 requires mandatory biological and marine mammal surveys prior to the consideration of site specific exploratory or development projects within the lease area. The proposed lease forms (Section 10 Royalty Lease; Section 11 Net Profits Lease) also require that: "The lessee shall abide by all measures designed to mitigate the environmental impacts of its operations under this lease set forth in site-specific environmental studies, including EIRs, completed prior to the consideration and approval of exploratory and development activities."

Other specific findings have been made in Exhibit "C" relative to marine resources in the proposed lease sale area, including commercial fishing, and are incorporated herein by reference.

Public Resources Code section 30232 requires protection of such areas against accidental oil spills. The most effective mitigation against oil spills is prevention, but effective oil spill contingency measures must also be provided. Discussions of findings regarding methods and

policies of the Commission are found at pages 82 to 96 in Exhibit "C" and pages 58 to 77 of the staff report in Exhibit "B". Each discussion is incorporated by reference herein.

Specific mitigation measures relating to oil spill contingency plans include proposed Lease Stipulation Nos. 11 (Oil Spill Response Capability) and 15 (All Season Ocean Current and Meteorologic Studies).

Section 30253(b) of the Coastal Act requires new development to be consistent with requirements imposed by the local air pollution control district. The final EIR analyzes the potential of significant impacts to the air quality of Santa Barbara County. See pages 30 and 43 of Exhibit "C" for the findings and discussions on air quality impacts.

Public Resources Code sections 30260 and 30262(b) pertain to policies regarding new development, coastal dependent industrial facilities, and new or expanded oil and gas facilities and their consolidation within the coastal zone. As stated in the October 1, 1982 memorandum from Michael L. Fischer, Executive Director of the California Coastal Commission to Coastal Commissioners and Interested Parties: ". . . state leasing in the vicinity of federal exploration and production would concentrate development, increase the feasibility of pipeline construction, and be located close to onshore processing facilities."

While it may be argued that the proposed project is inconsistent with the literal interpretation of these sections, Section 30260 of the Coastal Act provides that:

"Coastal-dependent industrial facilities (such as offshore oil drilling) shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Section 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible."

Regarding the first test, the proposed project, i.e. the lease of State tide and submerged lands, designates the area in which it is believed hydrocarbon resources occur. Stipulations in the proposed lease will require the applicant to abide by all measures designed to mitigate the environmental impacts of its operations as set forth in future site specific environmental studies, including EIR's. The Commission finds that there are no other feasible alternative locations for the lease sale.

The second test concerns the public welfare. Clearly, it is in the interest of the public welfare to search for and receive revenue from domestic sources of oil and gas.

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This must be balanced against the possible impacts on commercial fishing, biological resources and the public use of coastal resources for recreation. Specific findings regarding the mitigation of these impacts are located in this report and are incorporated herein by reference. Because these impacts have been mitigated, the Commission finds the project meets the requirement of this test.

The third test concerns mitigating impacts to the maximum extent feasible. By adopting the proposed stipulations and the other mitigation measures contained in the staff recommendation, the Commission finds that all environmental impacts have been mitigated to the maximum extent feasible.

Under the provisions of PRC Section 30262, oil and gas development shall be permitted in accordance with Section 30260, if conditions (a) through (f) therein and included below are met. Each subsection is hereafter included and discussed separately:

(a) The development is performed safely and consistent with the geologic conditions of the well site.

The FEIR contains a comprehensive analysis of geologic hazards within the project area based, in part, on over 200 line miles of original geophysical data gathered as part of the geohazards survey. The proposed lease forms contain a requirement for site-specific environmental studies, including EIRs. A geohazard survey is required as part of the preparation of such documents. The safeguards provided by the Commission's policies are further elaborated in Stipulations 3 and 4 within the proposed leases.

(b) New or expanded facilities related to such development are consolidated, to the maximum extent feasible and legally permissible, unless consolidation will have adverse environmental consequences and will not significantly reduce the number of producing wells, support facilities, or sites required to produce the reservoir economically and with minimal environmental impacts.

Discussed above via the memorandum from Michael L. Fischer, Executive Director, California Coastal Commission to Coastal Commissioners and interested parties (see page 5). See also the discussion of Alternatives herein.

(c) Environmentally safe and feasible subsea completions are used when drilling platforms or islands would substantially degrade coastal visual qualities unless use of such structures will result in substantially less

environmental risks.

The proposed lease forms contain Stipulation 1, Subsea Completions, which addresses this issue. A number of factors must be considered in the decision to require subsea completions - technical feasibility, aggregate environmental impacts, compatibility with commercial fishing operations, the religious beliefs of Native Americans and economics. The proposed stipulation requires a further comprehensive consideration of subsea completions on a site-specific basis and based on the above criteria prior to any construction activities.

(d) Platforms or islands will not be sited where a substantial hazard to vessel traffic might result from the facility or relocated operations, determined in consultation with the United States Coast Guard and the Army Corps of Engineers.

As implied in (d) above, and discussed in the findings contained in Exhibit "C" beginning at page 62, the U. S. Coast Guard and the Army Corps of Engineers have primary responsibility for port access routes, vessel traffic separation scheme (VTSS), safety zones in the vicinity of structures, structure markings and navigational aids, and

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restricted areas. The U. S. Coast Guard, 11th District, has developed recommendations for modifications and additions to the existing Santa Barbara Channel VTSS which could be implemented prior to any exploratory or development projects in the proposed lease area, i.e., within two years. The Commission supports and encourages these measures. (See Marine Traffic Impact and finding and page 4-333 of the FEIR for additional details which ensure compliance with the provisions of Section 30262(d).)

(e) Such development will not cause or contribute to subsidence hazards unless it is determined that adequate measures will be undertaken to prevent damage from such subsidence.

On page 4-32 of the FEIR, it is stated that "Oil field subsidence is not considered likely in the proposed lease area because reservoir characteristics will probably not be conducive to subsidence. Only the "Pico-Repetto" Formation would likely be subject to subsidence. However, since the "Pico-Repetto" is near the surface in the Western Santa Barbara Channel, it is not likely to contain producing reservoirs." In any event, the State drilling requirements contained in the proposed lease packages authorizes the suspension of drilling activity upon any evidence of subsidence.

Other policies and regulations of the Commission ensure the further validation of existing information. Stipulations 3 and 4 of the proposed lease forms and Section 2128(c) of the Commission's rules and regulations governing oil and gas drilling and production operations on State lands will provide additional geologic information. (See 2 Cal. Administrative Code section 2128(c)) Additional geologic information will be obtained through the Commission's permit system for seismic activities on State lands. All data obtained by such surveys must be provided to the Commission and as a result of the specific EIRs required by the proposed lease forms (Section 10, Royalty Lease; Section 11, Net Profits Lease) for both exploratory and development activities in the lease area.

Subsidence control generally consists of reinjection of sea water, etc. into the formation from which the oil and gas has been removed. In the event reinjection is warranted to eliminate subsidence or for enhanced resource recovery, such programs as defined must be approved by the staff of the Commission prior to initiation (2 California Administrative Code, Section 2132(e)).

(f) With respect to new facilities, all oilfield brines are reinjected into oil-producing zones unless the
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Division of Oil and Gas of the Department of Conservation determines to do so would adversely affect production of the reservoirs and unless injection into other subsurface zones will reduce environmental risks. Exceptions to reinjections will be granted consistent with the Ocean Waters Discharge Plan of the State Water Resources Control Board and where adequate provision is made for the elimination of petroleum odors and water-quality problems.

Where appropriate, monitoring programs to record land surface and near-shore ocean floor movements shall be initiated in locations of new large-scale fluid extraction on land or near shore before operations begin and shall continue until surface conditions have stabilized. Costs of monitoring and mitigation programs shall be borne by liquid and gas extraction operators.

As stated above, any reinjection program is subject to Commission regulation and approval. The proposed lease forms (Sections 10 and 11 of the Royalty Lease and Net Profits Lease, respectively) require lessee compliance ". . . with all valid laws and ordinances of the United States and of the State of California and its political subdivisions applicable to the Lessee's operations, . . ." These provisions ensure compliance with Section 30262(f).

PUBLIC RESOURCES CODE SECTION 6370 ET SEQ.

Under legislation passed in 1970 and amended in 1973, the State Lands Commission was required to:

1. Inventory unconveyed State school and tidelands and submerged lands; and
2. Identify those lands which possess significant environmental values of Statewide interest; and
3. Adopt regulations necessary to assure permanent protection to such lands; and
4. Provide a report to the Legislature which contained items 1-3.

In December, 1975, the Inventory of Unconveyed State School Lands and Tide and Submerged Lands Possessing Significant Environmental Values was approved by the Commission and transmitted to the Legislature. The lands between Pt. Conception and Pt. Arguello are included within this report (which is incorporated herein by reference) and are governed by land use Class B - Limited Use. This land use classification is as follows:

"Areas in which one or more closely related dominant, significant environmental values is present. Limited use compatible with and non-consumptive of such values may be permitted."

The Commission rules and regulations (2 Cal. Administrative Code, Section 2934) require that projects which affect such lands as herein described will be subject to review via CEQA and the State EIR Guidelines. Such regulations also provide that projects must be designed to be consistent with the use classification assigned to the affected area. Such consistency can be accomplished through mitigation or alteration of the project. Please refer to Exhibits C and F for the discussion of such mitigation and alterations affecting the proposed project.

ALTERNATIVES

Several alternatives to the proposed project, i.e., the lease of 40,000 acres of State tidelands and submerged lands for oil and gas activities, were discussed in the FEIR and have been raised by various commentators. Discussed were: (1) the no project alternative; (2) reduction of California energy consumption through conservation; (3) cooperative agreements with adjacent federal OCS lease operations; (4) a delay in leasing; and (5) phased or serial leasing. Each of these alternatives is discussed below, together with reasons why such alternatives are not recommended in place of the proposed project.

1. No Project Alternative:

The no project alternative would eliminate the significant environmental impacts resulting from the proposed project and identified in the EIR. However, the lease area would not remain the relatively pristine coastal area which it now is. Oil and gas activities on adjacent federal OCS leases will still cause significant environmental impacts in the region. However, total impacts would be less than if the proposed project is approved.

This alternative is not recommended for the following reasons:

(1) Intermediate and long term energy supplies to California would be enhanced by oil and gas discoveries on the proposed lease area. Such supplies of domestic oil and gas would contribute to a stronger balance of payments to the extent foreign oil supplies are replaced and would correspondingly provide for more secure oil and gas supplies.

According to the 1981 Biennial Report of the California Energy Commission (Energy Tomorrow, Challenges and Opportunities for Tomorrow), approximately 61 percent of the State's energy needs are supplied by oil. Of this amount, 20 percent is supplied by foreign sources. To meet the Energy Commission's goal to eliminate all foreign supplies by the

year 2000, additional production must therefore occur from in-state sources even with static demand. Such new production must also counteract the declining production from existing, mature fields within the State. As stated in the report at page 38:

"California, the nation's fourth largest oil producing state, has significant offshore oil and heavy crude oil resources. As a general policy, California needs to pursue environmentally sound actions both to increase production of these resources and to ensure that this oil can be refined into the type of oil products that consumers will demand."

(2) Significant potential income would be lost to the State. The State would be denied the benefits derived from the present and anticipated income from oil and gas provided from the area. Production from the area would provide a non-tax source of revenue to fund programs of statewide benefit such as capital outlay for higher education. Should no project occur, the State may also lose the full worth of oil "drained" by adjacent federal development. Even if federal/state drainage agreements could be negotiated, the State would be compensated only partially for its lost petroleum resources because such compensation may be

determined by revenue formulas less advantageous to the State than those proposed for use in leases within the project area.

2. Reduction of California Consumption: Conservation

Both the residential and commercial segments of California are inefficient energy consumers and energy savings have been and are clearly possible through accelerated conservation efforts.

The California Energy Commission has primary responsibility for the development and administration of conservation programs. (California Public Resources Code Section 25000 et seq.; see especially Section 25400 et seq.) These powers are detailed in Chapter VII of its 1981 Biennial Report, which is incorporated herein by reference. In its assessment of the State's energy needs, the Energy Commission Biennial report states at page 170:

". . . if current policy directions are continued, total California end-use energy demand will only be slightly greater in the year 2000 than it is today. Existing conservation programs and improved vehicle fuel economy are in large part responsible for sustaining this nearly zero energy demand growth future . . ."

". . . Even with declining oil use, some additional oil sources may need to be developed. Thus, nearly zero energy demand growth does not eliminate the need for energy supply development."

Other state agencies including the Public Utilities Commission and the Department of Transportation also have responsibility for conservation measures, as do other federal and local governmental agencies such as the U.S. Department of Energy. Further discussion of conservation is located in Section 5.1.1 of the Final Environmental Impact Report.

Nevertheless, conservation is not a viable alternative to the proposed project. Conservation measures such as those carried out in California by the Energy Commission complement rather than compete with the proposed lease sale. This is due to the somewhat limited nature of the conservation alternative. Conservation will assist in maintaining a nearly zero demand for energy growth. Oil and gas produced from the project area on the other hand, will help reduce the decline in domestic oil production and reduce the need for oil from foreign sources. Accordingly, conservation and the proposed project are viewed as complementary, rather than competing energy measures.

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3. Cooperative Agreements with Adjacent OCS Lease Operations:

Cooperative agreements with adjacent federal OCS lease operations are discussed in some detail in the staff report in Exhibit "B".

This alternative is not recommended for the following reasons:

This alternative is similar to the no project alternative, except to the extent the State's income loss would be moderated somewhat by compensation from Federal lessees for oil drained from State lands. Cooperative agreements would not however, compensate entirely for lost income. Compensation to the State would be a percentage of the revenue earned by the Federal government, including the bonus payment. Further, not all of the State lease could be developed from an adjacent Federal leasehold. The achievement of maximum efficient recovery of resources and optimization of financial returns are dependent on petroleum engineering considerations including reservoir location and properties. Under some conditions, such as a tight formation, the need for multiple platforms (State and Federal) is likely to remain.

The rejection of this alternative as a "substitute"

for the proposed action does not preclude the consummation of such agreements between the Governor and the Secretary of the Interior. Such agreements will continue to be pursued vigorously to protect the State's interests in those areas where conjunctive development of State and federal lands is feasible from a technical, environmental and economic standpoint.

4. Delay Leasing

The alternative of a delay in the proposed leasing program is discussed at pp. 3-5 of the final EIR.

This alternative is not recommended for the following reasons:

The occurrence of the environmental impacts described in the EIR would be delayed, but not necessarily further mitigated. Technology changes might conceivably mitigate some impacts further but may not and certainly not regarding all impacts. Increasing costs would likely make any project proposed in the lease area more expensive, together with the cost of potential mitigation measures. On the other hand, the value of any recoverable resources may also be greater.

The ultimate impacts of the delayed project would be similar to the proposed project, yet it would deny the State the present benefit of developing its oil and gas resources and the subsequent revenues. Perhaps most importantly, delay would most certainly result in permanent loss of revenues to the State due to drainage of State lands by adjacent Federal leases. Compensation to the State may be determined by revenue formulas less advantageous to the State than those proposed for use in leases within the project area.

Any delay in the proposed project would also delay the advent of oil and gas production from the area. The problems associated with the decline of existing domestic oil production and continuing supplies of foreign oil, as described in the No Project Alternative, would be exacerbated by this alternative.

5. Phased or Serial Leasing

This alternative is not recommended for the following reasons:

The FEIR analyzes the anticipated environmental impacts of leasing all possible tracts within the defined project area. As required, the FEIR quantifies and analyzes

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"worst case" impacts, i.e., the most adverse impacts which could be expected to occur. In this context, serial leasing, or the phased leasing of one or more tracts at a time within the project area until all tracts are leased, would vary the timing and concentrations of the impacts discussed in the Draft EIR according to the tracts involved in such scheduling. Thus, while the incremental impacts may vary, cumulative impacts could possibly remain unchanged or (more likely) be increased due to inefficiencies of project implementation, i.e., inability to consolidate facilities due to the timing of sequential, individual projects rather than concurrent developments. Absent the anticipated OCS developments, which could be producing before State lessees, serial or incremental leasing could, in part, adversely affect the development and implementation of comprehensive planning efforts of State and local governments such as the Local Coastal Program (LCP). Such efforts, as stated by several reviewers (Coastal Commission, Santa Barbara County, etc.), have encouraged consolidation or collection of production, processing and transportation systems. Such facilities are better justified and designed with knowledge of anticipated production, peak and long term, from the affected area.

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IT IS RECOMMENDED THAT THE COMMISSION:

- 1) FIND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED IN THE FEIR (EIR 308) AND RELATED MATERIALS BEFORE MAKING ITS DECISION ON THE PROPOSED PROJECT;
- 2) ADOPT THE FINDINGS HERETO ATTACHED AS EXHIBIT "C" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (PUBLIC RESOURCES CODE SECTION 21000 ET SEQ.) AND THE STATE EIR GUIDELINES;
- 3) FIND THAT THE PROPOSED PROJECT MEETS REQUIREMENTS WITHIN THE PUBLIC RESOURCES CODE (SECTION 30000 ET SEQ.) AND THEREBY CONFORMS WITH PROVISIONS OF THE CALIFORNIA COASTAL ACT;
- 4) FIND THAT THE PROJECT, AS MODIFIED BY PROPOSED MITIGATION MEASURES AND STIPULATIONS, IS CONSISTENT WITH THE USE CATEGORY ASSIGNED TO THE PROPOSED LEASE AREA WITHIN THE SIGNIFICANT LANDS INVENTORY COMPLETED PURSUANT TO SECTIONS 6370 ET SEQ. OF THE PUBLIC RESOURCES CODE;

- 5) ADOPT THE FINDINGS HERETO ATTACHED AS EXHIBIT "D" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH SECTION 6818 OF THE PUBLIC RESOURCES CODE;
- 6) ADOPT THE FINDINGS HERETO ATTACHED AS EXHIBIT "E" IN CONNECTION WITH THE PROJECT IN COMPLIANCE WITH SECTION 6873.2 OF THE PUBLIC RESOURCES CODE;
- 7) ADOPT STIPULATIONS 1-15, AS OUTLINED IN EXHIBIT "F", TO BE INCLUDED IN THE SPECIAL OPERATING REQUIREMENTS OF THE PROPOSED LEASE FORMS;
- 8) AUTHORIZE THE STAFF TO SOLICIT BIDS FOR ALL EIGHT TRACTS AS FOLLOWS:
- A. IN THE TRACT LAYOUT SHOWN IN EXHIBIT 3 OF STAFF REPORT (EXHIBIT B);
- B. WITH BIDS TO BE RECEIVED ON AUGUST 15, 1983;
- C. ON THE BASIS OF NET PROFIT SHARE (NET PROFIT SHARE LEASE, EXHIBIT 6 OF EXHIBIT B);
- D. RENTAL PAYABLE ANNUALLY IN ADVANCE OF RENTAL FOR THE FIRST FOUR YEARS TO BE PAID ON THE FOURTH

ANNIVERSARY DATE OF THE LEASE WITH A LETTER OF CREDIT TO BE FURNISHED WITH THE BID FOR THE AMOUNT OF THE FIRST FOUR YEARS RENTAL TO BE USED TO UNDERWRITE STATE REVENUE BONDS AND THEREAFTER RENTAL PAYABLE ANNUALLY IN ADVANCE.

- 9) DELEGATE TO THE CHAIRMAN THE AUTHORITY TO APPROVE LEASE LANGUAGE NECESSARY TO CONFORM THE LEASE TO THE INTENT OF THE COMMISSION.

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EXHIBIT B

STAFF REPORT
ON CURRENT STATUS OF
PROPOSED PT. CONCEPTION/PT. ARGUELLO
OIL AND GAS LEASING PROGRAM

December 22, 1982

State of California
State Lands Commission

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EXHIBIT "A"

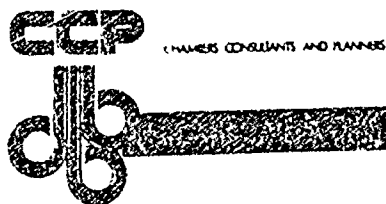
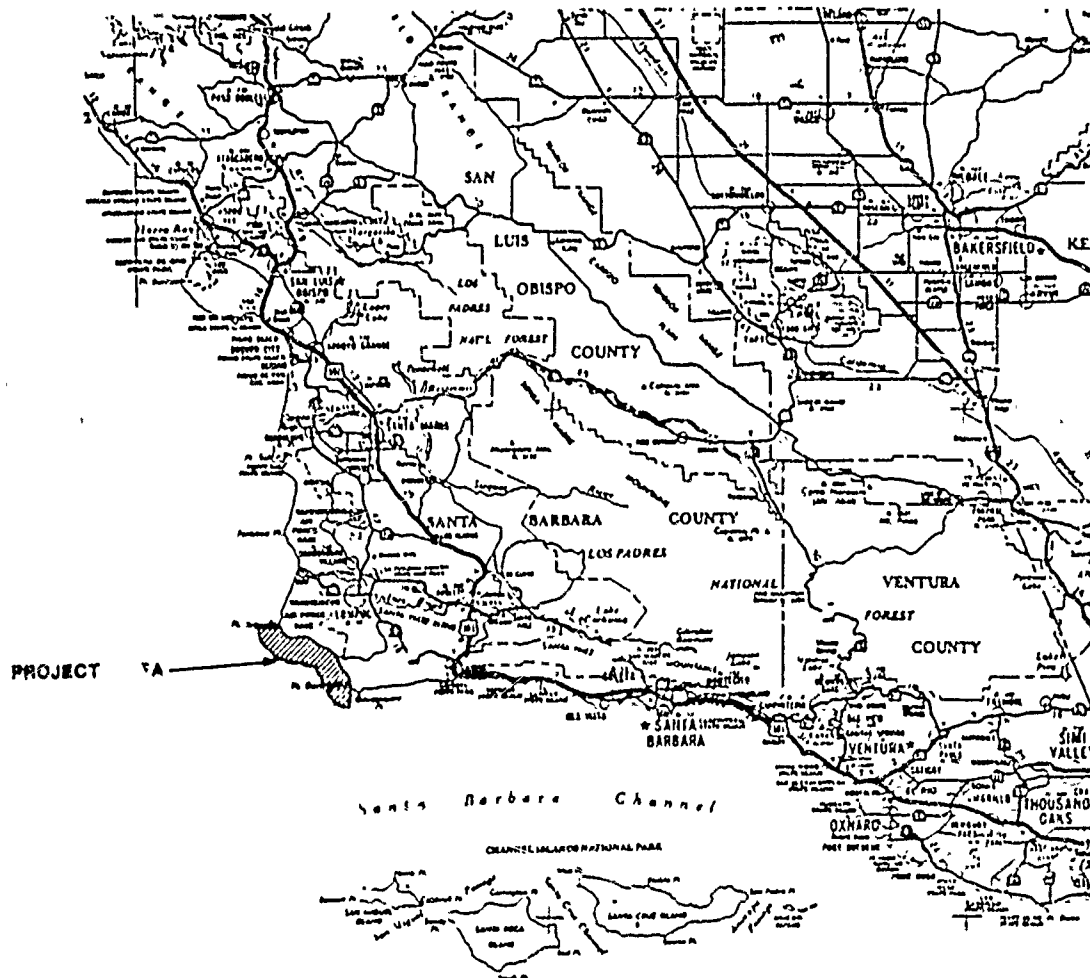


Figure 3-1. PROJECT LOCATION MAP

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Exhibit 6 - Net Profits Share Lease	-

PREFACE

For nearly four years, the Commission has been looking to the possible leasing of additional land for development of oil and gas resources. During the last three fiscal years, funds have been invested in geological resource studies, geohazard/cultural surveys and a program Environmental Impact Report. The Final EIR on the program was approved and certified as complete on September 23, 1982. Staff was directed to:

- hold a public hearing on leasing up to 40,000 acres for development of oil and gas, including tract selection, lease proposals and bid sequence
- establish a Scientific Review Panel to report to the Commission on the Biological Survey (Benthic Characterization Study)
- meet with industry representatives to get information about specific lease provisions

On November 29, 1982, staff was further directed to consider:

- The current state of oil spill containment response and available recovery equipment
- the disposal of muds and cuttings from drilling operations

- the limitation of drilling and production to the outer portions of the lease area
- the various transportation alternatives for produced oil and gas

All of these requests have been complied with. This is the staff report to the Commission on the results of this work.

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INTRODUCTION

California has had a favorable and profitable history of oil and gas development on State lands offshore. Over \$2.8 billion in revenue has accrued to the State from this source, nearly one-half of this has been received over the last four years. Significantly, the State has experienced no serious problems with spills, blowouts, or other adverse events.

As a consequence of the growing interest and activity by industry in the federal Outer Continental Shelf (OCS) lands adjoining State lands, and because of potential drainage problems that could occur as a result of discoveries that might be made, the State Lands Commission staff in 1979 undertook a review of available geologic data for a preliminary evaluation and assessment of resource potential on vacant offshore tide and submerged lands.

By November 1979, these lands had been ranked in priority order for potential leasing for oil and gas. The Point Conception/Point Arguello area (approximately 40,000 acres) was ranked number one. (Exhibit 1)

Although it was not determined at that time that it was in the best interests of the State to proceed with a leasing program, the Commission did direct the staff to investigate further the feasibility of leasing in the Conception/Arguello area.

During the last three fiscal years, the Legislature included funds in the Commission's budget to carry forward the leasing program evaluation, data collection and environmental work.

Several steps were taken to determine the feasibility of renewed leasing. Industry interest was evaluated and government, public and industry participation solicited. An evaluation of resource potential, income, cost, and risks was made. Once it was determined that a resource potential exists (which is usually indicated by industry interest) a pre-lease program environmental document was prepared. Geologic hazards data and cultural resource data are an integral part of that environmental assessment. Geological and geophysical studies were conducted to provide a more comprehensive review of potential resource values. And finally, a bid system and lease configuration must be chosen.

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SECTION 1

PROCESS AND ACTIVITIES

The goals of the leasing program proposed by the Commission were stated in its report to the Legislature on Proposed Oil and Gas Lease Sale Program Pt. Conception - Pt. Arguello, Santa Barbara County (Dec. 1981) and Supplemental Report to the Legislature (May 1982). These are :

- 1) provide a fair return to the State for the use of public resources;
- 2) increase and foster competition;
- 3) assure competent and safe operations;
- 4) avoid undue speculation;
- 5) avoid unnecessary delays in exploration, development and production;
- 6) discover and recover oil and gas resources in an efficient manner;
- 7) limit administrative burdens on government and industry; and
- 8) protect and enhance the environment.

The leasing program, as developed by the State Lands Commission, is separated into two major segments: pre-lease and post lease. Since the 1980-81 Fiscal Year the pre-lease activities for the project have included:

- (1) the conduct and analyses of geologic hazard and geophysical surveys;

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- (2) the conduct and analysis of a cultural resource survey;
- (3) acquisition and analyses of oil and gas resource data;
- (4) the preparation of a Program Environmental Impact Report (EIR) under the provisions of the California Environmental Quality Act (CEQA) for the Lease Sale and
- (5) the development of the lease system to authorize and govern the development of the State's oil and gas resources, e.g. number and size of tract offerings, bidding system(s), lease stipulations, requirements for additional environmental studies including EIRs, etc.

Following the sale and any subsequent lease awards, the Commission's program would be of an administrative nature, i.e. ensuring compliance with lease requirements, operating rules and regulations, and periodic audits.

In compliance with State law, the Commission's decision to lease the proposed area must be guided by the knowledge of the environment of the area and the nature and extent of the possible or probable adverse impacts to that environment which may evolve as a result of the lease. The geophysical and geologic evaluations cited previously are interrelated and complementary to the Program Environmental Impact Report

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(discussed below). For example, the geologic information provided by the geophysical surveys has been used in the evaluation of the seismicity of the lease area and in the discussion relative to geologic hazards. Correspondingly, the information gathered in the cultural resources survey was used as the foundation for the historical and cultural analysis of the area. Information relative to the location, size and depths of geologic structures formed the bases of facility location and production scenarios upon which air quality impact analyses depend, and so on. Thus, greater accuracy of environmental analyses has been assured since fewer extrapolations of related, but not specific, data are necessary.

PREPARATION OF PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR):

The proposed action is leasing of State tidelands and submerged lands for oil and gas activities. Significant adverse impacts to the environment of the project and related areas could occur as a result of the proposed action. To assess these impacts, it is necessary to develop realistic scenarios of activities which could occur subsequent to the lease as proposed. Such activities could include: seismic surveys; exploratory, development and production drilling and related work; oil and gas processing and transportation; and abandonment. As required by law, the Final Program EIR quantifies and analyzes the "worst case", i.e., the most adverse impacts which could occur if the highest estimate of

oil and gas reserves (5 percent probability) is discovered and developed.

A Program EIR, as authorized and described in Section 15069.8 of the California Environmental Quality Act (CEQA) Guidelines, has been prepared for the proposed action.

Section 15069.8(a) and (b) read as follows:
15069.8.

(a) General. A program EIR is an EIR which may be prepared on an integrated series of actions that are related either:

- (1) Geographically,
- (2) As logical parts in the chain of contemplated actions,
- (3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or
- (4) As individual projects carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(b) Advantages. Use of a program EIR can provide the following advantages. The program EIR can:

- (1) Provide an occasion for a more exhaustive

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consideration of effects and alternatives than would be practical in an EIR on an individual action.

- (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
- (3) Avoid duplicative reconsideration of basic policy considerations,
- (4) Allow the lead agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.
- (5) Allow reduction in paperwork.

The required Notice of Preparation (NOP) dated October 3, 1980 was sent, as specified in the Guidelines, to 44 responsible, trustee, commenting, and interested federal, State and local agencies and jurisdictions. Included within this distribution were 18 entities specified by the Governor's Office of Planning and Research (OPR) pursuant to Guidelines Section 15051(c). Also as required, the comments received from 15 respondees to the NOP have been addressed in the Final Program EIR. Comments from the public as to the content of the environmental analysis were also solicited, via a locally-published notice, during the preparation of the Draft Program EIR and the two comments received have also been addressed in the document.

In the process of preparing the Draft Program EIR, 15 individuals from seven local government agencies (8 from Santa Barbara County alone), 27 individuals from eight State agencies, 20 individuals from four Federal agencies and 39 private individuals were consulted. These individuals are listed by name and affiliation on pages 7-1 to 7-5 of the Final EIR and are incorporated herein by reference.

The requisite copies of the Draft Program EIR were submitted to the State Clearinghouse (OPR) on April 2, 1982 and, at the direction of the Commission, the public comment period was extended from 45 to 60 days to facilitate additional public participation. The dates of the comment period designated by the Clearinghouse, were April 3, to June 7, 1982. The required Notice of Completion, dated April 5, 1982, was published as specified and mailed with all copies of the Draft Program EIR. Nearly 400 copies of the Draft Program EIR were distributed for review by State, federal and local agencies, interested members of the public, environmental groups and industry.

Two public hearings, specified by public notice dated February 10, 1982 and by amended notice dated February 26, 1982, were held in Santa Barbara on April 30, 1982 and May 15, 1982. Public testimony was received from 21 individuals on April 30 and from 18 individuals on May 15. An additional public hearing on the Draft Program EIR was held in Sacramento on

June 7, 1982 at which testimony was received from six individuals. Written comments were received from six federal, nine State, and four local agencies, 17 members of the public and nine oil and gas companies. (See discussion, Sec. 2)

The responses to all comments received within the designated comment period are contained in the Finalizing Addendum to the Draft Program EIR. While not required by law, the Finalizing Addendum also contains responses to additional comments received after the close of the formal public comment period (June 7, 1982).

Additional efforts were also made to follow-up with those commenting agencies which indicated that they had further comments and concerns. Since the proposed project is located within Santa Barbara County, special attention was given the County's comments. Specifically, staff of the Commission and the consultant urged County staff to provide further comments. Repeated efforts, including the scheduling of personal meetings, produced no additional material or comments from the County.

During the preparation of the Finalizing Addendum, unprecedented opportunities were provided principal commenting State agencies, local agencies and environmental organizations to review and comment on material prepared for the addendum and on the agency's response to their comments on the Draft

Program EIR prior to the publication of such responses. Such opportunities were provided to the California Coastal Commission, the Department of Fish and Game, the Department of Conservation, the State Air Resources Board, and the Sierra Club.

1) State Coastal Commission

On August 9, 1982, staff met with representatives of the Office of the Attorney General, the Governor's Office of Planning and Research and the Coastal Commission. The material provided for review and comment included: (a) the supplementary cumulative impact discussions; (b) proposed stipulations; and (c) responses to the Coastal Commission's comments. In later meetings with the Coastal Commission staff, all changes suggested by the Coastal Commission were incorporated verbatim. The staff of the Coastal Commission was also informed of the "Characterization of the Marine Biota between Pt. Conception and Pt. Arguello" study, how it was being conducted and that it would be available within 60 days.

2) Department of Fish and Game

In early August, material comparable to that supplied to the Coastal Commission was given to the Marine Resources Branch of the department. At the department's suggestion, one of the responses to agency comments was revised. The department was also informed of the biotic characterization study.

3) Department of Conservation

During the week of August 16, 1982, material was supplied to

the department. No substantive comments were received prior to the printing of the Finalizing Addendum.

4) State Air Resources Board

Comments made by the staff of the Board, primarily to the responses to the Board's comments on the Draft Program EIR were incorporated as received.

5) Sierra Club

On August 20, 1982, a State representative of the Sierra Club was provided the supplementary cumulative impact discussion, the proposed stipulations, and responses to the Club's testimony given at the Commission's public hearing of June 7, 1982, on the Draft Program EIR.

The Draft Program EIR and the Finalizing Addendum, taken together, comprise the Final Program EIR. The Finalizing Addendum was sent to all commentors on September 7, 1982 and received by them on September 8, 1982. This schedule complies with the review period requirements of Article 10, Title 2, Division 3, Chapter 1, of the California Administrative Code (State Lands Commission).

The Final EIR was considered for certification by the Commission at its noticed meeting of September 23, 1982. During its consideration of the document, the Commission received testimony from six interested parties representing the oil and gas industry and public and environmental interest groups. The Commission certified that the Final EIR had

"...been completed in accordance with CEQA, the State EIR Guidelines and the Commission's administrative regulations; the Commission has reviewed and considered the information contained therein; and the Commission will further review and consider this information before approving the project, if and when the project comes before it for proposed action."

One of the major issues at the Commission's meeting was protection of the California Sea Otter. The Friends of the Sea Otter stressed the need to adopt a lease stipulation similar to that recommended by the Governor to the U.S. Department of the Interior for inclusion in Lease Sale 53 which is adjacent to the proposed sale area. That stipulation was not adopted by the federal government.

In response to the Commission's concern and direction, staff met on October 15, 1982 with representatives of the Friends of the Sea Otter to work toward the development of an acceptable stipulation. Staff worked from the draft provided by the Friends of the Sea Otter and with the California Department of Fish and Game during the next 30 days to meet the concerns of the Friends of the Sea Otter. The amended "Mandatory Biological and Marine Mammal Survey" was presented to the Friends of the Sea Otter and the Commission prior to the Commission's November 29, 1982 meeting. At that meeting, the Friends of the Sea Otter indicated that such stipulation was still inadequate. Subsequently, staff met again with the

Friends of the Sea Otter on December 9, 1982, to try to resolve their stated concerns.

As described on pages 19 to 24 (Sec. 3) of this report, the "Characterization of the Marine Biota Between Pt. Conception and Pt. Arguello" has been given wide circulation and analysis by the public and the scientific review panel authorized by the Commission. In addition to the circulation and review period previously described, the Commission has utilized the distribution services of the Office of the State Clearinghouse within the Governor's Office of Planning and Research and submitted the report for circulation within State agencies, most of which were included in the initial distribution. This action provided an additional review period of 25 days. The comment period ended on December 13, 1982. All relevant comments and recommendations have been considered by the staff and the final draft of the study is completed and utilized in the preparation of the staff recommendations.

In addition to the Friends of the Sea Otter, staff has met with representatives of the League for Coastal Protection and has responded to information requests, by telephone and by mail, from additional parties, e.g. Dr. Ruthann Corwin, Marin County; Mr. Fred Eissler, Scenic Shoreline Preservation Conference; Vandenberg Air Force Base; various representatives of the oil and gas industry; the Governor's Office of

Planning and Research; and the U.S. Coast Guard. Staff has continued to inform other State agencies of the progress of the Commission's decision-making process, including the California Coastal Commission.

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SECTION 2
PUBLIC HEARING

At its meeting of September 23, 1982, the Commission considered the Final Environmental Impact Report (FEIR) on the proposed leasing of State tide and submerged lands between Point Conception and Point Arguello, Santa Barbara County, for oil and gas activities. Following the conclusion of a public hearing on Calendar Item 20, the Commission certified that the document met the requirements of the California Environmental Quality Act.

Calendar Item 21 of the same agenda presented a preliminary designation of eight tracts or lease areas (See Exhibit 2) within the 40,000-acre area between Point Conception and Point Arguello. This item also recommended that the Commission authorize the staff to solicit public testimony on the proposed lease at a public hearing in Santa Barbara and encourage consideration of the lease of tracts 3-8. The Commission directed the staff to hold such a hearing but to include all eight tracts in the consideration.

By letter dated October 1, 1982, sent to ten federal, State and local agencies which would be affected by the proposed lease program, the Executive Officer solicited: (1) agency testimony at a proposed October 4, hearing on such program; and (2) continuing involvement, via written comments and

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recommendations or consultation, in the Commission decision process. To the latter request, the staff has received a letter from the State Department of Conservation, dated October 7, 1982, in which their comments on the Draft EIR were reiterated.

On Monday, October 4, 1982, a hearing was convened in Santa Barbara by the Executive Officer to receive public comments relative to the timing of any sale, the tracts to be let, conditions to be applied to the lease, bid factors to be used in any sale and impacts of any lease on the onshore areas of Santa Barbara County.

Fifteen individuals testified in afternoon and evening sessions. Four major interest groups were represented: (1) government (legislative and public agencies); (2) public interest; (3) fishermen; and (4) the petroleum industry.

The majority of the testimony received was duplicative of testimony received at the three public hearings on the Draft Environmental Impact Report and in public comments. The Commission's response to those comments appears in the finalizing addendum to the EIR. New testimony received included the following:

1. Senator-Elect Gary Hart

A. Urged the Commission not to act until the scientific review of the marine study had been completed. (That review is completed and will be discussed below.)

B. Urged that the stipulations be strengthened, that the related OCS activities be considered when the Commission makes its decision, and that drainage agreements be consummated as soon as possible.

2. United States Air Force

Stated for the first time that they are considering an exclusion of all surface structures and activities in proposed tracts 6-8 due to Vandenberg Air Force Base programs.

3. Bixby Ranch

Any development on State lands should not be in view of any public road or beach.

4. Oil and Gas Industry

Believed that all eight proposed tracts should be leased as soon as it was feasible, based on a bid system of a bonus payment and fixed royalty rate. Some also expressed concern that the proposed stipulations were stronger than required and established in the Commission and its staff too great a power to make unilateral decisions relative to the

conduct of oil and gas activities subsequent to the lease of the area.

Each major point received in testimony is listed in Table 1.

In addition to the public hearing, the Executive Officer and staff have had many discussions with interested members of the public, particularly in regard to the marine mammal stipulation.

SECTION 3

TECHNICAL ADDENDUM - BENTHIC CHARACTERIZATION
OF THE PROPOSED LEASE AREA

The Final Environmental Impact Report (FEIR) recognized and analyzed the proposed lease area as biologically significant. Responding to staff recommendations and public comments during the public review period of the Draft EIR, the Commission authorized the conduct of a comprehensive benthic characterization of the proposed lease area. The study provides information about the area which allows subsequent required site and project specific biological surveys to be related to the entire proposed lease area.

The scientific characterization was completed over a period of sixty days, ten of which were spent taking video, photographic and physical samples throughout the proposed sale area. The sampling and observation runs of the new study were tied into the sensitive areas which had been sampled and observed at 18 locations throughout the proposed sale area during the preparation of the environmental baseline and impact analyses completed for the FEIR.

On October 13, 1982, the Commission announced the designation of a scientific panel to review the benthic characterization study, and by letter dated October 22, 1982, the study and

related materials from the FEIR were transmitted to the panel members. The participation of the panel members was solicited by Commission staff after consultations with qualified marine scientists and the Marine Resources Region of the State Department of Fish and Game. The panel members are: (1) Paul Dayton, Ph.D., Scripps Institute of Oceanography (Benthic Ecology); (2) John Mohr, Ph.D., Professor Emeritus, U.S.C. (Protozoologist, Marine Biology); (3) Gil Jones, Ph.D., U.S.C. (Zoology); (4) Donald Maurer, Ph.D., Southern California Ocean Studies Consortium (Benthic and Pollution Ecology); (5) Rolf Mall, California Department of Fish and Game (Environmental Services Supervisor); and (6) Beatrice Sweeney, Ph.D., U.C. Santa Barbara (Marine Biology).

The scientific review panel was asked to advise the staff as to whether: (1) the study was performed in conformance with acceptable standards; (2) the data obtained was presented in a manner consistent with acceptable scientific standards; and (3) the analyses and conclusions in the study are consistent with the data.

It is the consensus of the panel members that the study meets or exceeds all three criteria. Panel members credited the study with providing an excellent data base with very high quality systematic determinations. They stated that it is more complete than any previous study, including the BLM OCS Benchmark Study, and is of a standard-setting level.

Some panel members expressed concern about marine mammals. These concerns are addressed in amendment to Stipulation No. 4 of the proposed lease.

Panel members also recognized the limitations of the study, particularly the inability to address seasonal variations and the absence of original planktonic work.

The panel recommended that the study be published in an academic or scientific journal to assure circulation of its data throughout the scientific community. Editorial and organizational recommendations to improve the draft submitted by the panel could be implemented in that process.

The question was also posed to the panel as to how the study should be used in making decisions regarding the potential selection and lease of tracts for oil and gas development. On this point, there was some diversity of opinion among panel members. Although all panel members stated that the study supported the characterization of the Pt. Conception - Pt. Arguello area as one of biological significance, some believed the study results could be used with additional analyses to determine magnitudes of impacts, if any, of oil spills and disposal of drilling muds for developing lease stipulations. Others believed the information should be used either to restrict any development in shorezone areas or to support the establishment of the proposed area as a marine preserve or

sanctuary. The importance of ongoing and proposed studies relative to plankton and current dispersion in the lease area was also stressed as a further tool to augment the study and its use in the decision-making process. Two panel members recommended a delay in any leasing decision until such studies were completed and their importance assessed.

On October 25, 1982, the characterization study was also distributed to the nearly 150 individuals and groups to which copies of the Finalizing Addendum of the EIR were sent. Reviewers of the study were asked to respond with comments to the staff of the Commission by November 12, 1982, the same date members of the scientific review panel were asked to submit their comments.

To date, the staff has received comments from the Friends of the Sea Otter, the Scenic Shoreline Preservation Conference, the Whale Center, the Marin County Comprehensive Planning Department, Chevron U.S.A., Inc., the Western Oil and Gas Association (WOGA), and the California Coastal Commission.

Public reviewers were not asked to respond to specific points of inquiry as was the scientific review panel. Most of the comments concerned the use of the information in the decision process. Some comments and recommendations, however, addressed the conduct of the draft study, its findings, and changes which should be made in the final document.

In general, industry reviewers stated that the statements and conclusions within the report, particularly those which concerned "unique" species or stressed benthic occurrences "particular to the area", were not placed in an areawide context. As such, industry believed that without proper contextual reference, the study overemphasized the nature of the benthic communities in the area and also concluded unnecessarily that oil and gas activities could significantly impact such communities.

In contrast, public and environmental interest comments stated that the study was not detailed enough to provide for the determination of specific losses which could occur in the event of an oil spill, for example, and how long it would take to reestablish the affected biological communities. It is the position of some reviewers that without such quantifiable information, the Commission could not adequately weigh the costs or benefits of any lease decision on the biology of the proposed lease area or on specific interests dependent on such resources, i.e. fishermen, the scientific community, etc.

There was also concern that not enough time was being taken by the Commission to allow for public input and analysis of materials such as the study, and to integrate and analyze necessary information and data into its own decision-making process.

The most serious area of concern, uncovered by the study and its review, is the potential long-term effect of drilling muds and cuttings on the marine biota. Although much work has been done in the Atlantic and the Gulf, there is no completed systematic study in the Pacific. Currently, detailed long-term studies have been initiated by the Central Coast Regional Water Quality Control Board and the University of Southern California.

In sum, the results of the study, in conjunction with the FEIR and other available information and additional analyses referenced by the reviewers, provides the Commission with an unusually complete environmental basis for decision.

SECTION 4

EVALUATION OF LEASING PARAMETERS

INDUSTRY INTEREST

The Point Conception/Point Arguello area has long been of interest to industry. State Oil and Gas Lease PRC 2879 was issued in 1962. (Figures 2 and 3 show the location of this and nearby OCS leases.) A portion of the State area currently under review and immediately adjacent to PRC .2879 was originally offered for lease in 1968 at the request of industry, but the offer was withdrawn in 1969 following the Santa Barbara Channel oil-spill from a federal offshore operation.

Activity on the Outer Continental Shelf (OCS) Pt. Conception Area began when the initial federal sale was held February 8, 1968. A bidding group composed of Exxon and Chevron purchased Lease P-0197 bordering the extreme southern end of the State's proposed 40,000 acre Pt. Conception lease area. In late 1968 and early 1969, three exploratory wells were drilled on this parcel. Lease P-0197 was included in the Santa Ynez Unit formed November 12, 1970.

Federal OCS Scale #48 was held in the early summer of 1979. A bidding group of four companies headed by Chevron purchased

three tracts (P-0316, P-0317, and P-0318) located in an east-west line (Exhibit 2). By early 1981 an exploratory well had been drilled on each of the three leases. Partial Tract P-0318 adjoins State property.

OCS Sale #53 was held May 28, 1981. This sale set a record for high bids with an all-time high of \$333.5 million for a single tract P-0450, bid by Chevron and partners. The group headed by Chevron also was successful in a block of four leases adjacent to the leases they had purchased in the OCS #48 Sale.

In November, 1981 after the OCS #53 Sale, Chevron disclosed a major discovery on tract P-0316. They designated the new field Pt. Arguello. Chevron maintained as confidential the test results from two other tracts (P-0317 and P-0318) but indicated that tests produced oil from structures separate from the Pt. Arguello strike. The discovery well, 316 #1, for the Pt. Arguello field is approximately 3 1/2 miles from State property.

Texaco, as operator for a group of four companies, drilled two wells on Tract P-0315 adjacent to the Pt. Arguello Field discovery and approximately three miles from State lands. In June 1982 they announced test rates up to 4,200 barrels of oil per day from an estimated 50 million barrel oil field they have designated "Hueso".

OCS Sale #68 was held June 11, 1982. It included several tracts near Pt. Conception. Partial Tract No. 9, adjacent to State land near the south end of the proposed lease area had been withdrawn from former sales because of potential geologic hazards. It was offered for lease for the first time in Sale #68. A high bid of over \$8 million by Texaco was rejected by the U.S. Department of Interior as insufficient. The next closest tract to the project area in the #68 Sale was OCS P-0456 (about 4 1/2 miles from State lands) adjacent to the Texaco announced "Hueso" field discovery. It received a high bid of \$4.5 million.

OCS Sale #RS-2 was held August 5, 1982. It included 27 Tracts that had either received no bids, or bids had been rejected in the Southern California OCS Sale #53. The resale resulted in 12 tracts receiving bids. The only tract close to the project area was Tract No. 233, located approximately two miles from State land due west of Pt. Arguello. It had a high bid of \$157,000 by Shell and was rejected as insufficient.

There is a sharp contrast between the bids in the hundreds of million dollars for the OCS Sale #53 tracts and the bids of the later #68 and RS-2 Sales in the Pt. Conception/Pt. Arguello OCS area. We believe this can be attributed to the following:

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1. Most tracts had been offered in former sales.
2. Almost all tracts were in water depths of 1,500 feet or greater.
3. Insufficient time was allowed between lease sales.
4. The economic projections of industry changed.

Exploratory delineation wells drilled by Chevron on their record priced, P-0450 Tract, indicated that the Pt. Arguello field is extensive and may be the same structure as the "Hueso" Field discovery by Texaco, on adjacent tract P-0315.

Information released by the companies in the "Hueso"-Pt. Arguello Field area indicated the productive horizon was the Miocene Monterey formation with a productive interval of more than 1,000 feet and combined production rates of up to 6,000 bbls. of oil per day.

Additional exploratory wells are presently being drilled in the Pt. Conception area. Chevron is drilling wells on two tracts (P-0318 and P-0451) directly offsetting State land and have announced tentative locations for wells on two other offset tracts (P-0453 and P-0452).

RESOURCE EVALUATION

During the past three years, the Commission has expended approximately \$343,000 to acquire and analyze resource data from geophysical surveys previously conducted between Pt. Conception and Pt. Arguello and has had an additional geophysical survey completed to complement the purchased "off-the-shelf" information. Resource evaluation, based on data from the surrounding areas, together with the geophysical surveys has identified six possible anticlinal structures which have the potential for accumulations of oil and gas resources (See Exhibits 2 and 3). The resource estimate, risked and expressed at a confidence level of 5% is 274 million bbls.; at 50% is 153 million bbls.; and at 95% is 63 million bbls.

It should be emphasized that there can be no direct evidence of hydrocarbon accumulation on the State lands proposed for lease until wells have been drilled. It would therefore be misleading - if not erroneous - to assign values to specific tracts. However, the geologic inferences and oil industry interest are strong indications of the likelihood of such accumulations.

Activity on adjacent OCS lands may have lowered the risk on some tracts. When the State eventually gains access to OCS data from offsetting leases, additional confirmation (or negation) of hydrocarbon values may be gained. Although the

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resumption of drilling on Lease PRC 2879 was approved by the Commission in May, 1980, Union Oil has not yet drilled its proposed exploratory wells adjacent to the contemplated lease area. This information will also help to confirm the validity of estimates.

Although not directly related to the Pt. Conception - Pt. Arguello area, it is important to recognize that the intensity of oil activity has increased significantly in other areas. This activity is an indication that industry is ready to explore State lands.

INDUSTRY PARTICIPATION

Participation by industry has generally been positive. Representatives have not hesitated to voice their opinions and preferences during discussions of strategies. With little exception, they were not willing to share geologic data, or to discuss resource estimates. They have evidenced a continued interest in not only the Conception/Arguello area, but in certain other unleased areas as well (Exhibit 1).

In a series of meetings, the Executive Officer and members of the staff met with representatives of several oil companies to discuss the possible leasing for oil and gas operations of State lands between Point Conception and Point Arguello. These meetings occurred during October 1982. The discussions

concerned the timing of the offering, the number and shape of the parcels, the bid variable, and the lease terms and components of a net profits accounting procedure.

Several companies suggested that the parcel boundaries should be drawn to conform as closely as possible to the federal OCS lease boundaries so that problems with adjoining lessees may be minimized. Preliminary tract boundaries are shown on Exhibit 2 and a possible tract layout meeting the company concerns is shown on Exhibit 3.

The companies unanimously felt that all parcels should be put out for bid at the same time. They urged the earliest possible notice of solicitation. Most of the companies stated a preference for having the bids due during the third quarter of 1983, although some wanted earlier dates. This timing was indicative of a desire for reasonably prompt leasing with allowance of adequate time for the companies to analyze and evaluate the geophysical data as well as the lease proposal.

All company representatives expressed privately, as they did at the public hearing, a strong preference for a fixed royalty (one-sixth) with a bonus as the bid factor. This method is not permitted under existing law. Net profits share bidding was given last preference. Many voiced strong arguments in opposition to such a bidding system, viewing it as having relative uncertainty. Among the most frequently cited

arguments against net profits were the following:

- Net profits share bidding, without up front cash outlays, may result in speculation and discourage rapid development of the lease;
- It may reduce the number of bidders and thus reduce competition for the parcels;
- It creates an unwanted partnership with the State that, unlike true joint ventures, may not involve an equal sharing of the risks;
- It could impose numerous administrative burdens on both the lessee and the State; and
- It postpones and, where the lease is not commercially productive, eliminates the financial return to the State for its land offering.

Given a choice between their perception of a net profits share lease with the net profit percentage to be paid to the State as the bid variable and a sliding-scale royalty lease having a one-sixth minimum with the bid variable being a cash bonus, the unanimous preference of the industry representatives was for the latter. However, the more certain the allowable

charges to the net profit account, the better the companies felt they could reasonably respond to such a lease proposal. All companies met with indicated they would bid on a net profits lease package if that were the only method available.

There was a wide difference of opinion as to the size of the bonus bids that could be anticipated if the State were to offer the parcels on the basis of a cash bonus with a sliding-scale royalty having a one-sixth minimum. Two companies thought that the total bonus bids on all parcels could run from a low of \$120 million to a high of \$600 million. At the opposite end, one company thought that the total bonus bids on all parcels would be in the range of \$20 million to \$100 million.

A major purpose of the meetings with the companies was to discuss the components of a net profits accounting procedure in the event of net profits share leasing. Almost every company participating in the discussions stated a strong desire for a capital recovery rate greater than 1.00. Such a capital recovery factor would permit the lessee to recover its initial exploration and development costs plus an additional amount for risk before the State would start sharing in the net profits.

The companies want some guarantee of recovery of their investment and some compensation for risk-taking. In return

for this guarantee, they should be willing to bid a higher percentage of net profits. Since a prime reason for net profits share leasing is to enable the State to share in any later increases in profits as a result of future oil prices increasing at a faster rate than future costs, the State should be concerned with long-term recovery which is a product of the net profit percentage bid.

By contrast, the oil companies are most concerned with the short-term recovery of their investment. Therefore, in exchange for giving the lessee some reasonable guarantee of such a return, the State should get a higher net profit bid and larger long-term share of the net profits.

In addition, every company expressed the belief that bottom hole or dry hole contributions should be an allowable charge against net profits.

Almost all company representatives said that abandonment costs should be an allowable charge against net profits on an accrual or unit of production basis. Most indicated that an operating overhead allowance of 10% was too low. Again, these are items, which if allowed as charges to net profits, provide additional guarantees of a reasonable return to the companies and should produce a higher net profits percentage bid.

As discussed in the "Supplemental Report to the Legislature on Proposed Oil and Gas Lease Program Pt. Conception - Pt. Arguello" (May 1982) it is possible to develop a number of lease configurations for the 40,000 acres within the Pt. Conception area; however the conventional 5,000-acre rectangular tracts extending from shore to the seaward boundary provide the greatest advantages.

Based on our present geologic knowledge, the conventional system would avoid dividing the geologic structures and provide for simpler reservoir control under one lessee (see Exhibit 2). Other advantages include a potential for reduction of the number of development programs, an easier overall program to administer, probably fewer platforms and associated facilities, less accounting problems and fewer site-specific EIR's.

As mentioned earlier, during the course of our Pt. Conception program review with the industry one item of concern was that the tract boundaries should be constructed to coincide as nearly as possible with the adjoining federal lease corners to reduce the complexities of unit or cooperative development if structures overlap the State-federal boundary. The proposed conventional lease pattern can be slightly modified to accommodate this request (see Exhibit 3).

The timing of the lease sales is an important element in

developing a leasing strategy. The three major options are:
(1) leasing all eight tracts at one time, (2) leasing sequentially in a checkerboard pattern, and (3) leasing sequentially only to offset drainage.

The leasing of all tracts at the same time would be consistent with the State's policy of encouraging development which provides for consolidation of facilities and operation. Sequential leasing and development would not permit planning to minimize duplication of facilities. Additionally the smaller independent companies have stated that, if less than the eight tracts are offered for sale, it would severely restrict their opportunities to obtain leases.

Pursuant to Section 6827 of the Public Resources Code, lands under the jurisdiction of the Commission may be offered for oil and gas lease on the following bid bases:

BID VARIABLE

FIXED ITEM(s)

1. Cash Bonus

Sliding scale royalty on oil, with a minimum of not less than 16 2/3% and a specified maximum. Not less than 16 2/3% on all non-oil products and a rental of not less than one dollar per acre.

2. Bid Factor

Factor greater than 1 applied to sliding scale royalty on oil, with a minimum of not less than 16 2/3% and a specified maximum. Not less than 16 2/3% on all non-oil products and a rental of

3. Royalty Share

not less than one dollar per acre.

Minimum bid specified at not less than 16 $\frac{2}{3}$ %. Not less than 16 $\frac{2}{3}$ % on all non-oil products and a rental of not less than one dollar per acre.

4. Net Profit Share

A rental of not less than one dollar per acre.

The basic theory of bidding is quite simple, and is discussed in more detail in the "Supplemental Report to the Legislature". Under normal oil and gas lease bidding, the bidder's calculation of the bid is based on the revenue remaining after deduction of estimated costs of production and required profits from the estimated potential gross revenue which has been risked and discounted for time. The remaining revenue can be translated to a cash bonus, percentage royalty, net profits or any combination of these options. The important consideration is that the basis for payment to the lessor in the form of a bid is the same regardless of the method of bidding. For example, in the case of the high net profits bid in the Long Beach Unit, since the area under consideration was not a prospect but rather an area of known production and reserves in close proximity to many refinery complexes, an equally high bonus plus a percentage of the gross could have been expected. Bid calculations in this instance included not only the known reserves but the refinery product profits in the computation. Profit from the production phase was a trade-off for assurance of supply. This is not the situation in the Pt. Conception area.

The cash bonus, sliding-scale royalty formula (Exhibit 4) on gross oil method of leasing (Number 1, above) has been used extensively by the Commission in past lease sales. The advantage of this leasing procedure is that the risk of resource evaluation is placed on industry. Large bonuses may reduce competition but would also prevent speculation and encourage prompt exploration and development. This system, with up-front bonus and royalties, will provide relatively early revenue returns.

Net profits leasing, in one form or another, has been used successfully by the Commission since 1964. The net profits bidding system has the advantage of protecting the State where oil prices increase at a rate faster than production costs as has been the case in recent years. Absence of large bonus payments could provide for greater competition in the bidding process but may also encourage speculation. Use of a reasonable land rental could strike a balance between these extremes. Except for the land rental receipts, the net profits system would have payments deferred for the period of time required to recover project costs. Under net profits, the State shares with the lessee the risks of a non-productive lease.

It is significant to note that the statutes (Public Resources Code) which provide the framework and restrictions in leasing State tidelands for the extraction of oil and gas are not the

same as those governing the Long Beach Unit (Chapter 138 Statutes of 1964, 1st E.S.). Under the latter, the legislation provided substantial economic and operational controls. In contrast, the Public Resources Code provides limited operational controls and economic decisions are left exclusively to the lessee.

Such provisions were adopted for the traditional leasing procedures where the lessor retains a royalty percentage of the gross production. However, under all but the most unique situation, these statutory provisions are sufficient to protect the State's interest in a net profit lease. Because the lessee is motivated to obtain the maximum economic recovery from the leased lands and maximize its share of profits, the State's interest will be protected by the lessee's acting in its own self-interest.

SUMMARY OF PROPOSED LEASE PROVISIONS

Forms have been prepared for a lease based on a sliding-scale royalty with a cash bonus bid (SS lease) and a net profit share lease with the percentage of net profits to be paid to the State as the bid variable (NPS lease). (Exhibits 5 and 6)

The sliding-scale royalty lease form provides a sliding-scale royalty formula (Exhibit 4) for oil that varies with the average amount of production per well per day with a minimum

royalty of 16 2/3% and a maximum royalty of 50% (SS lease Sec. 4.) For gas and other non-oil products, a 20% royalty is provided. The value of the oil and gas for royalty purposes is the current market price as determined by the State. Provision is made for the State to take in kind its royalty share of either oil or gas or both on 60 days' notice to the lessee (SS lease Sec. 4). A rental, payable throughout the life of the lease, is included (SS lease Sec. 3).

The net profits share lease form provides that the State shall receive a percentage of net profits from the lease operations which is the bid variable (NPS lease Sec. 4). Provision is made for the State, upon giving 60 days' notice to the lessee, to take in kind up to 20% of the oil or gas produced from the lease. The in-kind oil or gas shall be valued as provided in the accounting procedure for all lease production, which is the current market price as determined by the State, and that value credited to the net profits account. However, any excess value obtained by the State upon a sale or other disposition of its in-kind share shall not be credited to the net profits account (NPS lease Sec. 5, Exhibit "D" Sec. 121 (a)(2)). A lease rental is provided which shall not be chargeable to net profits. The rental will exceed the legal minimum for each year through the year in which production in paying quantities is first obtained and, thereafter, will be reduced (NPS lease Sec. 3).

The provisions of the net profits accounting procedures (NPS lease, Exhibit "D") are too numerous to give even a brief description of all of them. These accounting procedures are based on those adopted by the federal government for use in its OCS net profit share leases, with some modifications. Only the most significant distinctions between the State form and the OCS form will be mentioned. While setting up the mechanism for providing an allowance for capital recovery, the State form provides that such allowance shall not exceed actual cost (NPS lease, Exhibit "D" Sec. 120(b)). This is the most crucial distinction.

The State form does not allow a charge to the net profits account for bottom or dry hole contributions (NPS lease, Exhibit "D" Sec. 113(m)). Federal windfall profit taxes are an allowable charge only until net profit payments to the State begin and thereafter are disallowed (NPS lease, Exhibit "D" Sec. 111(i)). Lease rental is not an allowable charge (NPS lease, Exhibit "D" Sec. 113(b)).

Other provisions of the sliding-scale royalty and net profit share lease forms are identical. Many of these provisions are required by Division 6 of the Public Resources Code. The leases will have a 20-year primary term and continue so long as oil or gas is produced in paying quantities or the lessee is conducting drilling or well maintenance operations. There is a three-year drilling term and a schedule providing for

expeditious drilling of the leased lands after the first well is drilled (SS lease Sec. 1 and Exhibit "B"; NPS lease Sec. 1 and Exhibit "B"). An exploration plan must be submitted by the lessee for State approval within 120 days of the date of the lease and a development plan must be submitted within one year of a commercial discovery (SS lease Sec. 2; NPS Sec. 2).

Compliance by the lessee with all applicable laws and regulations of the State and with special operating requirements for these particular leases is required (SS lease Sec. 10; NPS lease Sec. 11). The special operating requirements are contained in Exhibit "C" to both leases and are patterned after the stipulations in the Finalizing Addendum to the Program Environmental Report. There are thirteen special requirements. They include subsea completions, pipeline feasibility, potential geohazards (including shallow gas zones), mandatory biological and marine mammal (including the sea otter and gray whale) surveys, a fisheries training program, two requirements of the military regarding operations at Vandenberg Air Force Base (provision for supervision of operations and evacuation and shelter of personnel, an assumption of risk and hold harmless clause), and the use of resident labor. There are special provisions for dealing with damages to third persons and property resulting from an oil spill or other pollution (SS lease Sec. 16; NPS lease Sec. 17). These provisions are patterned after the requirements the Commission has imposed on its existing

lessees when it has lifted the drilling moratorium.

There is provision for State approval of all production, processing, measurement and transportation facilities and a requirement that the lessee install whatever sampling and measuring equipment is deemed necessary by the State (SS lease Sec. 21; NPS lease Sec. 21). The State may compel the lessee to unitize with other operators, including those on the OCS, if it determines that ultimate hydrocarbon recovery will be increased, unreasonable waste of oil or gas will be prevented, land subsidence may be arrested or adjacent landowners will be protected (SS lease Sec. 23; NPS lease Sec. 23). Statutory requirements concerning the erection of offshore structures and deposition of materials in the ocean are included (SS lease Sec. 24 and 25; NPS lease Sec. 24 and 25).

Under the sliding-scale royalty lease, the lessee will be responsible for and obliged to pay all taxes levied on the leased lands and improvements on and production from the leased lands. This includes ad valorem, excise, severance and windfall profit taxes whether levied on the working interest or the royalty interest. This is as provided in current State oil and gas leases. However, any new severance or windfall profit taxes enacted by the California Legislature and applicable to the State's royalty interest will be borne, to the extent of their imposition on the royalty interest, by the State (SS lease Sec. 30). Taxes under the net profits lease

are payable by the lessee and chargeable to the net profits account as provided in the accounting procedure. All taxes are chargeable except income, federal windfall profit, profit share and other taxes based on income. Chargeable taxes will include severance, excise, ad valorem and, only until net profit payments to the State commence, federal windfall profit taxes (NPS lease Sec. 29 and Exhibit "D" Sec. 111(i)).

SECTION 5
DEVELOPMENT CONSIDERATIONS

DRILLING BAN

The Davidson Current is a coastal current which has a northerly flow from the proposed area and is a subsurface current in all but the months of December-March when it becomes a surface current. Such a current might carry spilled oil materials upcoast into waters used by sea otters. One suggestion for protection of the otter is a four-month ban on drilling activities during the critical period.

This current was considered in the oil spill analysis within the FEIR and as indicated between pages 4-420 and 4-421 thereof, if a spill occurred in the proposed area, with no oil spill response and ideal sea conditions, there is a 2% probability that a spill would impact the sea otter range (most southerly extension) within 10 days. This is the worst case analysis.

As acknowledged by reviewers, sea conditions in the area are not often ideal and oil spill response will be required for any subsequent exploratory and production activities in the proposed project area.

Tables in the FEIR (4.3-1 and 4.5-1 & 2) indicate that weather conditions which make critical operations more hazardous to the environment occur most often during the December through March period. State Lands Commission rules and regulations, as well as lease conditions, require that critical operations be stopped under these conditions.

These rules and regulations also require an oil spill contingency plan, a specified minimum on-site oil spill response capability, and additional, adequate onshore based equipment within a reasonable response time to the affected area for a spill larger than 50 barrels. (See Section 6, page 58)

A drilling ban from December through March would present serious scheduling problems to lessees, which in turn would result in additional costs to the lessee. Such costs would be anticipated by potential lessees, and would be reflected in bids received, whether they be cash bonus, or net profits. The additional costs would appear as reduced income particularly visible in any net profits shared by the state.

A four month ban in each year of the three year statutory drilling term, would in effect give the lessee only 2 years of actual drilling time. Since the Commission has the authority to extend the drilling term, if a ban is imposed there might be a basis for extending the term a year. This extension

would have its own economic effect from the imposition of an additional one-year delay in positive cash-flow to the State. Contracting for mobile exploratory drilling rigs is done well in advance of proposed operations with the understanding that unexpected drilling problems on a prior drilling commitment may result in delays in the rig availability for drilling on State lands. Establishing a 4-month drilling ban would severely limit the contractual flexibility. Rigs would have to be scheduled as close to the beginning of the "drilling window" as possible to allow for unexpected delays. A limited number of wells could be drilled within the "window". Rigs could not be retained under contract without paying standby costs of as much as \$90,000 per day for the 4-month ban period, unless it was feasible to use the rig on lands not subject to the ban. If not feasible, availability of rigs would be diminished if not lost and the drilling program delayed, affecting the economics of the project.

Exploratory drilling involves a relatively small number of wells and with judicious scheduling combined with possible activity on the OCS and other existing State leases, economic effects of the ban could be minimized.

Practically, there seems to be no basis for drilling restrictions on a fixed platform, other than those imposed through the Commission's regulations concerning curtailment of defined critical operations during specified sea and weather

conditions.

The effect of a drilling ban becomes more acute in development drilling because of the increased number of wells to be drilled. Additionally, drilling would probably be from a fixed platform, where the contract rig does not have the scheduling flexibility that a mobile rig might have, and cannot easily be removed for 4-month periods. In the case, therefore, of a ban on drilling from a platform, the imposition of over \$1,000,000 (typically \$10,000 per day for fixed rigs) per year of additional development costs could be anticipated.

DRILLING BUFFER ZONE

Witnesses suggested that the nearshore and intertidal zone is the most sensitive to an oil spill event. They felt that protection of this area might be enhanced by restricting drilling and production operations to the outer two (or possibly one) mile. For that reason staff has reviewed this proposal.

Limiting exploration to floating vessels anchored two miles from shore would make resource evaluation of the area almost impossible. The reason for this is a purely mechanical limitation. The distance from the location of the anchored vessel that a well bore can be directionally drilled and

penetrate a potential oil bearing formation is limited by the vertical depth of that formation. The potential producing zones in these state tidelands are shallow, in some areas only 2000' below the ocean floor. A vessel two miles offshore would have to reach nearly 10,000 feet horizontally to explore nearshore areas.

Exploration or development by long reach, high angle directionally drilled well bores increases risks, costs and length of time for exploration and development and also increases the difficulty of subsurface geological interpretation and formation evaluation. This would greatly restrict and in some cases prevent the development of oil and gas resources on the state tidelands.

MUDS AND CUTTINGS

The effects of drilling muds and cuttings when discharged into the marine environment is of concern to several commentators. There is, at present, extensive research regarding the methods of disposal used for drilling muds and cuttings, their physical behavior in a variety of oceanographic environments, e.g. high energy, low energy areas, etc., and their physical (smothering, etc.) and chemical (toxicity, etc.) impacts on marine organisms. With few exceptions, however, no such studies have been done in southern California waters and none have been done on site in the Santa Barbara Channel area where

existing oil and gas exploratory and development activities are presently concentrated. In addition, there have been few, if any, bioassays to test the toxicities of drill muds or drill mud components on Southern California marine organisms.

Initial efforts by the Central Coast District Water Quality Control Board to conduct a monitoring program for such discharges are the subject of a permit appeal action to the State Water Quality Control Board. Any discharge of muds and cuttings into the marine environment must be done in accordance with the regulations promulgated by the appropriate Regional Water Quality Control Board. In response to concern regarding the fate and effects of drilling muds and cuttings and numerous requests to discharge such materials during exploratory activities on State leases in the Santa Barbara Channel area, the staff of the Central Coast Board, in conjunction with an Oceanographic Technical Advisory Committee selected by the Board, proposed monitoring programs for selected soft bottom and hard bottom sites.

The technical committee, composed of representatives from the California Department of Fish and Game, the oil industry and the University of California at Santa Barbara, was also to supervise the soft bottom study which was required as a condition of the May 13, 1982 discharge authorization for Arco, Union and Texaco. On September 10, 1982, Aminoil and Phillips applied for discharge permits, but were denied

pending the results of "the soft bottom study", the contract for which had not yet been awarded.

Although the industry believed only two monitoring studies were to be done, the Board's position required studies for all wells. These diametrically opposed positions have resulted in the cessation of any work to award the contract for the soft bottom study and an appeal of the Board's September 10, 1982 decision to the State Water Resources Control Board. That appeal is still pending.

Other studies which pertain to the issue of muds and cuttings are underway or in the advanced planning stages. An example of the former is that of the Panel on Assessment of Fates and Effects of Drilling Muds and Cuttings in the Marine Environment. The panel is sponsored by the Marine Board of the National Research Council (National Academy of Sciences). The panel is composed of 13 members representing industry and academia and is expected to publish its report at the end of the Summer 1983.

The panel is conducting a "critical appraisal of reports that synthesize the abundant technical literature concerning the fates and effects of drilling fluids and cuttings on the U.S. outer continental shelf and what needs to be established to support resource decision-making. The applicability of research and studies to the marine environment will be

assessed, as will the transferability of research results from site to site and in different hydrodynamic regimes. The operational implications of the fates and effects, will also be established." It is hoped that information acquired in this study will have some relevance to California waters and marine life.

Of additional interest is a partially funded study proposed for the Point Conception/Point Arguello area by the University of Southern California. The study, presented to the National Science Foundation, will investigate the identified upwelling of currents in the area which is thought to contribute to the abundant marine food supply. In brief, the study will attempt to "understand the relationship between circulation and plankton processes that lead to persistent upwelling structures." As proposed, the study will run through 1985, but some preliminary information should be developed by December 1983. The work will further assist the analyses of the dispersion of materials, such as muds and cuttings, in the area.

On a case by case basis, the Commission has required the barging and disposal of muds and cuttings at upland sites.

Stipulation No.10 would prohibit discharge of muds and cuttings into the ocean until the results of appropriate studies are available and considered by the Commission.

TRANSPORTATION ALTERNATIVES

In the last four years, five studies have addressed transportation alternatives for oil and gas produced offshore Santa Barbara County. These studies are:

- 1) Santa Barbara Channel: Onshore Pipeline Feasibility Study (1979) - a joint industry/government study administered by Santa Barbara County;
- 2) 1985 California Oil Transportation Study, State Lands Commission (1981);
- 3) Feasibility Study - Southern California Coastal Pipeline (June and December 1981), Part A - an industry sponsored study administered by the Four Corners Pipeline Company (Arco);
- 4) Feasibility Study - Southern California Coastal Pipeline (Draft, November 1982), Part C - same as above; and
- 5) Final Report - Petroleum Transportation Committee (November 1982) - a revival of the joint industry/government effort evidenced in the initial study of 1979.

Each of these studies has examined anticipated production from the offshore, capabilities and capacities of the refineries within the State, capabilities and capacities of existing marine and pipeline transportation networks and transportation needs for the future. It is generally agreed that oil and gas production will increase in the area offshore Santa Barbara County to such a level that existing transportation networks, marine and pipeline, will not have sufficient capacity.

The State and Santa Barbara County have taken the position that pipeline transportation is feasible, economic and environmentally superior to marine transportation. The proposed Stipulation 2 in the contemplated tidelands lease is a reflection of and is complementary to that policy. Industry, however, has maintained that marine transportation is less expensive than pipelines and affords greater flexibility of destination.

Another major issue has been the question of refinery compatibility, i.e. processing capability, with the anticipated produced oil and market demand. It is speculated that the oils produced offshore will be heavy (more viscous) and high in sulfur content. Each of these characteristics complicate the transportation and refining of the increased production. For example, some additional refinery retrofit may be required in either major refinery center (San Francisco

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and Los Angeles) before the most economic processing of offshore oil can occur. The Los Angeles area has been the most frequently discussed destination for additional offshore production from the Santa Barbara Channel area. Such retrofit activities will have to comply with a more stringent set of air quality regulations recently adopted by the South Coast Air Quality Management District. Industry has indicated that compliance with the new standards could render such retrofits less economical.

Additional governmental and industry efforts will focus on:

(1) the establishment of a crude oil pipeline from the San Luis Obispo County/Santa Barbara County line to the Los Angeles Basin;

(2) the consolidation of existing marine terminals into one central modern terminal; and

(3) the concentration of processing facilities in the Los Flores Canyon area of Santa Barbara County.

The onset of increased production from the federal OCS in the Santa Barbara Channel and in the Santa Maria Basin (adjacent to the proposed lease area) requires, without consideration of any future oil production from State lands, the development of a viable means of oil transportation to refining centers. Such a transportation system(s) and the associated processing facility(ies) could also accommodate production from the proposed lease area provided the design capacities consider

the potential of such production.

OCEAN FLOOR OBSTRUCTIONS

The ocean-floor is not limited to naturally occurring objects. Besides known producing and/or abandoned well-heads, for example, there are multitudes of tires, tools, gloves, odd pieces of pipe, and various other remnants of every operation that has ever occurred on the ocean. Divers have reported this. Staff has observed it during several submarine investigations.

More recently the many fishermen who work from the ocean-floor, such as trawlers, have reported that such debris has caused financial losses. They have asked the Commission to help them by stipulating in oil and gas leases that debris be minimized, and that existing debris be accurately located by a navigational system available to them. Specifically they have asked for Loran C. coordinates. This is not an unreasonable request, and it is recommended that it be so stipulated in any new leases issued by the Commission. (See Stipulation No.13)

It would also be desirable to have similar stipulations in existing leases. However, there are problems in doing this. Existing leases do not contain mandatory provisions for locating ocean floor obstructions. The leases constitute a contract with the lessee which the State cannot now

unilaterally change.

Although the locations of many oil and gas related ocean-floor obstructions are known, their position is identified geographically by the more conventional latitudinal and longitudinal coordinates. Such coordinates are not mathematically convertible to Loran C coordinates because of the masking effect of the nearshore, and other physical geographical features. Therefore, the only way that the location of such obstructions can be identified is to locate

the object by using conventional coordinates, taking a position over it, and reading Loran C coordinates. Unknown objects could be located by use of a sidescan sonar system.

Since a stipulation could not be unilaterally inserted in existing leases and many of the obstructions may not even be associated with oil and gas operations some other process must be developed to handle the problem. A preliminary estimated cost to survey the outermost two mile strip of State lands between the City of Santa Barbara and Pt. Conception is \$250,000. Such a survey would locate any "target" one foot or higher on the ocean floor.

SECTION 6

OIL SPILL CONTAINMENT AND CLEANUP CAPABILITIES

PT. CONCEPTION TO PT. ARGUELLO

The best way to combat an oil spill is to prevent it from occurring. In this regard, State Lands Commission regulations set forth requirements to insure the safe completion of drilling on State Lands, particularly the prevention of oil or gas blowouts and spills. In addition to a detailed well program the lessee is required to submit a Critical Operations and Curtailment Plan and an Oil Spill Contingency Plan for the proposed operation.

State-of-the-Art oil spill equipment works well in calm weather and sea states. Equipment efficiency starts to deteriorate as seas reach 2' and winds increase and becomes inefficient in seas of 6' and winds of 20 knots. In adverse weather there is, however, a great deal of natural evaporation and dispersion of the spilled oil. Additionally oil disperants may be sprayed on the spill to aid in the dispersion of oil through the water column, however toxicity to wildlife is questionable.

The Critical Operations and Curtailment Plan details various conditions or circumstances which are considered critical with respect to well control and accidental discharge of oil and gas. When certain combinations of conditions and

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circumstances occur operations should be curtailed. For example drilling into a zone capable of flowing gas or oil during adverse sea and weather conditions limits the effectiveness of any oil spill cleanup equipment should a problem arise.

Oil Spill Contingency Plans must outline the equipment available for response to an oil spill and the action to be taken. Typically, a three tiered response is envisioned:

- Initial, equipment aboard the drilling vessel or a dedicated small cleanup boat;
- Second, Clean Sea Inc. cooperative, deployment of additional equipment;
- third, calling into action the U.S. Coast Guard Pacific Strike Team and their associated equipment.

Response time to a spill event is critically important. The equipment aboard a drill vessel and auxilliary boat is available immediately. However, because the Clean Seas Inc. vessels "Mr. Clean" I & II are based at Santa Barbara and Port San Luis, response times would be 6 to 9 hours, the minimum expected for the U.S.C.G. Strike Team response. A more realistic time frame for equipment to be in the water is 24 hours.

The following is a brief discussion of oil spill abatement and cleanup capabilities in the Pt. Conception - Pt. Arguello area. The term "Abatement" includes prevention of spills as well as the containment of spilled oil.

PREVENTION:

Prior to the drilling of any well on State lands, the lessee is required to submit a detailed drilling proposal to the State Lands Commission petroleum engineering staff for review and approval. This drilling plan is reviewed particularly for compliance with the SLC's "Regulations for Oil and Gas Drilling and Production Operations on State Tide and Submerged Lands". These regulations are designed to ensure safety and minimize the potential for an oil spill by requiring adequate equipment to provide control of the well at all times. Blowout Prevention is synonymous with well control and control of a well is basically a three fold process. A weighted column of mud (drilling fluid) is the primary control. The column of mud in the hole acts to control formation pressures and to prevent formation fluids from entering the well. Secondary control is by means of the casing, which is run through and cemented to the formation, thereby isolating it from the well bore and other formations. The third means of control is the blowout prevention equipment (B.O.P.E.) which provides the ability to stop fluid in the well from actually blowing out at the wellhead. The Commission requires

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redundancy of protective equipment on all offshore operations. Review and approval of the engineering data submitted helps insure that loss of well control will not happen and an accident such as the 1969 blowout in the federal Outer Continental Shelf area of the Santa Barbara Channel will not occur on State land.

In addition to the engineering data submitted for approval, the lessee is required to submit a Critical Operations and Curtailment Plan and an Oil Spill Contingency Plan. These are discussed in subsequent paragraphs.

The SLC regulations require that all drilling and supervisory personnel of the lessee and his drilling contractor attend a federally certified well control school. These schools usually require several days of class work including engineering theory and problem solving. Additionally each school has either a scale mock-up or full sized Blowout Prevention Equipment Simulator for hands-on experience and testing with a variety of possible problem situations. SLC engineering and field inspectors also attend these schools, when funds are available. To remain certified one must complete the full course and pass the final exam every four years with a refresher course on a yearly basis. Additional on-the-job training is furnished with actual BOP drills for each drill crew on a weekly basis. The lessee is also required to test functionally the BOP equipment each week.

Commission staff conducts rig inspections daily for safety and compliance with the SLC regulations concerning the types of equipment available for blowout control and the actual mechanical set up of the B.O.P.E. This includes observation and subsequent recommendations for various types of equipment to be present on the drill rig floor, changes in the mechanical plumbing, rig housekeeping, supplies of material on hand, such as mud weighting material (increases drilling mud weight for well control), and safe practices by the rig crew, to name a few. Additionally, various operations are witnessed by State inspectors, such as casing, cementing and production testing for adherence to regulations and the gathering of information.

Any production operation would also be similarly reviewed and approved. These facilities would be inspected by SLC field personnel as part of their daily monitoring of lease operations.

CRITICAL OPERATIONS AND CURTAILMENT PLANS

The SLC regulations require that lessees file with the Staff, for approval, a Critical Operation and Curtailment Plan that will be followed for each exploratory well. A separate plan is to be filed for both developmental drilling and for production well work. The purpose of this plan is to provide additional precautionary measures to minimize the likelihood

of an oil spill incident occurring when weather and sea conditions make oil spill containment and recovery equipment ineffective and transportation is hampered.

Certain operations performed in drilling and production well work are more critical than others with respect to well control and accidental discharge of oil and gas. This is particularly so when subsurface formations are exposed in the well that are capable of flowing oil and gas to the surface or when the well has been pressured by outside means. It is these critical operations that should be stopped, limited or not begun in order to minimize the likelihood of an oil spill occurring during adverse weather and sea conditions which could seriously impede both well control and oil cleanup efforts.

A list of critical drilling and production well work that is likely to be conducted on a lease would include, but not be limited to:

- (1) Drilling in close proximity to another well.
- (2) Drilling into a known lost circulation zone or into a zone capable of flowing oil and/or gas.
- (3) Continuation of drilling into zones that are suspected to be capable of flowing oil and/or gas or into zones suspected to be abnormally pressured.
- (4) If zones capable of flowing oil and/or gas are

exposed or suspected to be exposed in the well then the following are considered to be critical operations:

- a. Pulling out of the hole.
- b. Fishing operations.
- c. Drill-Stem testing.
- d. Wireline logging in open hole.
- e. Running casing.
- f. Cutting and recovering casing.
- g. Perforating casing.
- h. Well completion work.
- i. Remedial well work.
- j. Well stimulation.

A list of circumstances or conditions under which critical operations should be stopped, limited or not begun takes into account such considerations as:

- (1) Whether or not well operations are being conducted from a mobile rig or a fixed structure.
- (2) Adverse meteorologic or oceanographic conditions exist or are anticipated soon.
- (3) Limited availability and capability of oil containment and cleanup equipment.
- (4) Significant increase in oil spill control system response time for any reason.
- (5) Personnel or equipment for conducting a

particular critical operation are not available.

- (6) Insufficient supply of drilling mud materials on the drill site for emergency well control purposes.
- (7) Transportation equipment for personnel, supplies and oil spill containment and cleanup equipment is not readily available.
- (8) Construction and maintenance work involving welding, moving heavy equipment, etc. is being performed.
- (9) Other factors peculiar to the particular lease under consideration.

OIL SPILL CONTINGENCY PLANS

Poor engineering caused "the blowout" in federal waters in 1969. Adherence to the SLC regulations and good engineering practices would prevent a possible recurrence of this type of event. However, no matter how well engineered a project is, there is the potential for some kind of pollution incident. These range from very minor spills to those of major proportion. There have been no significant incidents in State waters involving exploration/production activities. Nevertheless, lessees are required to submit for approval by staff, an oil spill contingency plan for their particular lease(s). These plans outline corrective action for abatement

and clean up of minor and major spills in the ocean. Spills larger than 10-15 barrels are considered major because typical initial response oil spill containment equipment cannot control more than this and therefore secondary response equipment would have to be requested. The plans provide equipment lists and locations and personnel to be contacted as well as actions to take in various incidents. These contingency plans are typically reviewed by other agencies such as the Division of Oil and Gas, California Coastal Commission, the U.S. Coast Guard, and federal Minerals Management Service.

There are various other levels of contingency planning which will come into play depending on the size of a particular spill incident. These include an oil spill cooperatives' spill contingency plan. Cooperatives are entities formed by various consortia of oil companies, dedicated to spill control and cleanup whether it be in harbor or in the open ocean. Clean Seas Inc. is the cooperative that is responsive in the Santa Barbara Channel including the proposed lease area.

In addition to the individual oil spill contingency plans of the various cities and counties along the coast, the State also has an Oil Spill Contingency Plan. This plan is presently being revised under the review of the State Interagency Oil Spill Committee (SIOSC) by a contractor selected by the Department of Fish and Game and funded with

monies administered by the California Coastal Commission. This plan will detail the capabilities of each of the agencies in regard to a major oil spill. As outlined in the State Oil Spill Contingency Plan, SIOSC consists of the State Operating Authority (Department of Fish and Game) as Chairman, and a representative and alternate from, and appointed by the head of, each of the following agencies:

Attorney General
California Highway Patrol
California National Guard
Department of Conservation
Department of Fish and Game
Department of Health
Department of Transportation
Department of Parks and Recreation
Department of Water Resources
Department of Forestry
Office of Emergency Services
State Lands Commission
State Water Resources Control Board

SIOSC is responsible for:

(1) Establishing and maintaining liaison with federal, local and public and private organizations engaged in oil pollution and prevention and control.

(2) Coordination between State agencies and other organizations in day to day procedures and practices relative

to the prevention and mitigation of pollution from oil discharges.

(3) Recommending necessary research and development, and testing by appropriate organizations of materials, equipment and methods related to oil spill prevention and control.

Testimony at the Commission's November 29th meeting suggested that funding is needed to improve the revision of the plan. Although the revision has been funded through the California State Coastal Commission, there are insufficient funds to carry out studies identified by the Department of Fish and Game as being necessary to mitigate potential risks from increases in offshore oil development. Three areas of funding need have been identified.

First, funding to allow for oil spill response drills for the members of the State Interagency Oil Spill Committee is needed. The State Oil Spill Contingency Plan is currently being revised and the new plan will likely recommend drills and exercises periodically throughout each year. An available fund to allow for a realistic exercise to the location of a simulated spill by the appropriate State Agencies would enhance participation by all member agencies. This funding should be renewable annually in order to maintain response members of the State Interagency Oil Spill Committee in a state of readiness to react to a major spill. Preparation of

the exercise would take 6 to 8 weeks and the exercise would take two days to complete plus one day for a critique.

Second, the Department would like to see a biological inventory of organisms present during an entire one year annual cycle in the proposed area of the lease. The steps involved in a study such as this would include documentation of existing literature to determine known factors, then observations and testing in the marine shoreline and offshore areas for one annual cycle to validate the literature review and identify new information about the living resources. This would be an extensive study and require funding a project leader, staff and equipment to complete the study. A probable time period would be two years for this project. This suggestion is consistent with recommendations made by the scientific panel which reviewed the Commission's Benthic Characterization Study.

Finally, funding is required to support an evaluation of chronic toxicity of oil, oil dispersants and oil dispersants mixed with oil. This study could be conducted under contract to the Department of Fish and Game Water Pollution Control Laboratory. The industry could recommend the most likely dispersants to be used in the event of oil spills. This project would take one year to complete.

OIL SPILL CONTAINMENT AND CLEANUP EQUIPMENT:

At the outset it should be stated that available technology is not capable of controlling a major oil spill under adverse conditions. Weather actually determines if a containment and cleanup action will be undertaken at all. Heavy fog and darkness virtually eliminate the use of any equipment because the oil cannot be seen on the water. Waves in excess of six feet and/or winds of 20 knots or more reduce the efficiency of all equipment to nothing. It should be noted that in weather conditions of this sort the risk of injury to deployment personnel is considerable and therefore safety warrants waiting for better conditions. However, under these sea and wind conditions, natural evaporation and dispersion of the oil will eliminate a great deal of the oil spill. Small spills are dispersed to the point that a sheen cannot be detected on the water.

Presently 17 chemicals are licensed for use in California waters in controlling or dispersing oil. Exxon's Corexit 9527 dispersant is by far the most abundant of the chemicals on hand. Dispersants can be sprayed using aircraft when weather and sea conditions would make other spill control equipment ineffective. But, there remains some question as to toxicity to wildlife. Even though these chemicals have been licensed and toxicity studies on them completed, there is no information as to the toxicity of the combination of oil and

the chemicals. As noted above, the Department of Fish and Game would like research conducted on this aspect of the use of dispersants.

Weather and the sea states are not always bad and so equipment will function in many cases. Assuming that leasing has already taken place in the Pt. Conception - Pt. Arguello area, the following equipment would be available to combat a major spill from drilling operations in the Pt. Conception -Pt. Arguello area:

Initial Response: The drill vessel or a dedicated oil spill control vessel assigned to that drill vessel is required to have:

- 1500' of oil containment boom
- an oil skimming recovery device
(typically stationary)
- licensed chemical dispersants
- sorbent material to remove
15 bbls. of oil
- a boat that is to be available within
15 minutes, to help deploy the boom

This equipment should be able to contain and cleanup a spill of less than 10-15 bbls. of oil in seas of less than 2 feet and calm winds. In seas of 2 feet and increasing winds, oil spill equipment efficiency starts to decrease; at 6 feet and

20 knots of wind, efficiency is zero. If the spill is larger, Clean Seas Inc. will be called for assistance. In fact, Clean Seas would probably be called with a 10-15 bbl. spill as a matter of routine backup for the drill vessel's response. Secondary Response: Clean Seas Inc. has a large amount of equipment (See Clean Seas Inc. Oil Spill Clean Up Manual) stored in various locations for call out if the drilling vessels cannot handle a spill. Some of that equipment is enumerated below:

1. Containment Booms: numerous types of containment booms in their inventory including Vikoma, Kepner, Goodyear, Expandi and Bottom-Tension. Primary offshore reponse is with the Expandi 4300 and the Goodyear booms. The Bottom-Tension is very sturdy and is also for open ocean use, but it is outdated and probably will not be used because of the long time required to deploy it. The other booms are stored in vans at various locations including Pt. Dume, Port Hueneme, Ventura, Carpenteria, Santa Barbara, Gaviota, Avila Beach, and Morro Bay. For the most part the booms stored in the vans are for the protection of shoreline areas such as sloughs, harbor entrances, and environmentally sensitive

areas, etc.

2. Skimmers: numerous types of skimmers are available including the CSI, Mark II, Komara, Floating Weir, Acme Weir, Cyclonet, Oil Mop, ODI Skimming Barrier, and Walosep. Proven open ocean skimmers include the ODI, Cyclonet, and the Walosep (the Walosep is stationary, the ODI and Cyclonet are advancing types). The others are less than effective in anything other than calm seas, therefore they are stored in the vans, mentioned above, for shoreline protection. Advancing skimmers can be moved through a spill to pick up oil, the stationary ones basically wait for oil to be collected within a spill boom and then pick up the oil.

3. Dedicated Vessels: Clean Seas has two vessels (130' class) that are totally dedicated to pollution control and clean up. The vessels, "Mr. Clean I" and "Mr. Clean II" are assigned to Santa Barbara Harbor and Port San Luis respectively. "Mr. Clean I" has a Cyclonet 100 (advancing type) and a Komara Skimmer

(stationary) and will have a Walosep skimmer (stationary) by February, 1983; Vikoma, Expandi, and Goodyear booms; container for approximately 2000 bbls of fluid; 10 bbls of dispersant and application equipment; and assorted sorbent materials and boats for aid in boom deployment. "Mr. Clean II" has Walosep and ODI skimmers; Vikoma, Expandi, and Goodyear booms; storage for about 2000 bbls; 5-10 bbls of Exxon #9527 Corexit dispersant and applicator; sorbent material; and small boats for aid in boom deployment.

Response time for each of these two vessels from their current locations to the middle of the proposed lease area is a minimum of six hours, assuming all goes as planned. In a recent practice drill it took "Mr. Clean I" two hours to arrive on scene for a simulated spill approximately 10 miles from its base. This included approximately one hour for crew assembly. The proposed lease area is at least 60 miles from the home ports of each of the dedicated vessels.

Tertiary Response: If Clean Seas could not contain the spill, there are three contractors in Southern California; Crowley Environment Services, IT Services, and Crosby and Overton that

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could be called in to assist. These three possess large amounts of equipment, primarily used for harbor cleanup, each has some capability to respond to the lease area, but response times would be long. The most likely tertiary response would be the U.S. Coast Guard Pacific Strike Team. It would be called in from its Hamilton AFB home in Northern California. With its deployment comes vast quantities of equipment. The equipment could be flown in, most likely to Vandenberg AFB and then trucked to the shore for deployment. A very optimistic response time would be six hours for the arrival of equipment at Vandenberg AFB after the call out. The strike team can only be activated by the Coast Guard On-Scene-Coordinator. This officer would, in this area, be most probably, from the U.S.C.G. Marine Safety Detachment, Santa Barbara. Therefore his transit time to the spill scene must also be considered. A reasonable guess for the Strike Team actually to have gear in the water is probably 24 hours from the initial time of the spill.

Approximate Response Times for various groups to the Lease Area are as follows:

Drilling vessel/dedicated vessel -	1 hr.
Clean Seas Inc. "Mr. Clean" I -	6-8 hrs.
or II	
U.S.C.G. - Santa Barbara- boat	3 hrs.
(no spill equipment)	
U.S.C.G. -Los Angeles Air Station-	2 hrs.

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Helicopter

U.S.C.G. - Pacific Strike Team* 6-24 hrs.
SLC - Contract helicopter from 2-3 hrs.
Van Nuys with personnel from
Long Beach

These response times are obviously unacceptable. Therefore, we recommend that a fully dedicated vessel of the "Mr. Clean" type for oil spill response be outfitted and stationed in the Pt. Conception/Pt. Arguello area, and that a tertiary capability with a much more rapid response time be established.

SUMMARY AND RECOMMENDATIONS

Available oil spill containment and clean up equipment functions very well in calm seas and weather. When waves reach 2' (equipment will easily operate in long period swells; wind chop is the problem) the efficiency of the equipment starts to deteriorate. When waves reach 6' and winds are 20 knots or greater, oil spill containment and clean up equipment is not effective. Therefore critical operations aboard a drilling vessel should either be shut down or not initiated in these conditions.

*This call out requires a U.S.C.G. on-scene-coordinator who, most probably will arrive aboard their boat from Santa Barbara

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or the helicopter from Los Angeles.

In view of the slow response time for secondary and tertiary spill equipment to arrive in the Pt. Conception - Pt. Arguello area, there is a clear need for a dedicated spill control vessel to be located in the lease area. This should be arranged through Clean Seas Inc. and consist of a vessel similar to "Mr. Clean" I or II. One possible location would be near the old Coast Guard facility at Pt. Arguello. Alternate locations could be Cojo Bay or Gaviota. With a dedicated vessel based in one of these locations, secondary response time would be reduced to 2 hours or less. Costs would be approximately \$1,000,000 for initial outfitting of this vessel for the first year. The costs would be borne by the 15 members of Clean Seas Inc., a rather small figure for the increased protection afforded.

Funding should be provided for the establishment of a tertiary oil spill containment capability with a response time of 4 hours. Annual funding should be provided to allow for semi-annual oil spill response drills for the members of SIOSC (\$300,000/yr).

A biological inventory including marine mammals should be funded to cover a full annual cycle. Documentation of existing literature should be made along with observations and testing in the nearshore and offshore areas to validate the literature. New information about the living resources should

be identified (\$1,000,000).

Further research on the effect of disperants and oil on wildlife should also be funded since they are the only usable tool in times of rough weather (\$200,000).

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TABLE 1

<u>GROUP</u>	<u>TIMING</u>	<u>TRACTS</u>	<u>CONDITIONS</u>	<u>BID FACTORS</u>	<u>OTHER</u>
1. GOVERNMENT					
A. Assemblyman (Senator-Elect) Gary Hart	The timing of any SLC action should consider related OCS activities. * No leasing should occur until the completion and evaluation of the bio- logical study.		The proposed stipula- tions should be strengthened.		The State should con- summate, as soon as practicable, "drainage agreements" provided by the OCS Lands Act amend- ments of 1978.
B. U.S. Air Force					The U.S. Air Force may need to "require" the exclusion of all surface structures and activities within 3 nautical miles of Pt. Arguelic (Tracts 6-8) due to activities of Vandenburg Air Force Base but are otherwise unopposed to rest of sale provided military stipulations are included as pre- sented.
C. Santa Barbara County					The County stated that a "formal" response to the subjects of the hearing was not possible due to the length of the notice period, but reiterated their opposition to the proposed lease sale.

*Indicates subject matter not covered by testimony or comments received previously by the Commission.

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TABLE 1 (cont.)

<u>GROUP</u>	<u>TIMING</u>	<u>TRACTS</u>	<u>CONDITIONS</u>	<u>BID FACTORS</u>	<u>OTHER</u>
Get Oil Out, Inc.					
Brotherhood of the Tomol (Chumash Indians)		Tracts 1-3 should not be leased because of the "Western Gate". No position formulated on Tracts 4-8.			Don't lease the area. Oil from State lands should be development via "drainage agreements" with the Federal Government.
Bixby Ranch					
80					
Environmental Defense Center, Santa Barbara Los Padres Chapter, Sierra Club					Any development on State lands should not be in view of any public road or beach. The FEIR should be de-certified because it does not adequately recognize the resources of the area, the impacts to such resources or provide mitigation for such impacts. Litigation

Indicates subject matter not covered by testimony or comments received previously by the Commission.

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TABLE 1 (cont.)

<u>GROUP</u>	<u>TIMING</u>	<u>TRACTS</u>	<u>CONDITIONS</u>	<u>AD FACTORS</u>	<u>OTHER</u>
D. Environmental Defense Center, Santa Barbara Los Padres Chapter, Sierra Club					is contemplated unless the SIC de-certifies the FEIR. The State should be a model for the Federal government but the proposed lease process is not and is in contradiction to policies regarding Lease Sales 53 & 68.
E. Coalition on OCS Lease Sale 53-Sierra Club, Friends of the Earth, SRDC, Oceanic Society, Friends of the Sea Otter, Whale Center		Only area between 2 1/2 miles from shore should be considered for lease.			The area is inappropriate for leasing and efforts should be concluded to sign "drainage agreements". Any sale should not proceed until the cumulative effects of OCS activities are litigated and known. Also were concerned about "short notice" for the hearing.

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TABLE 1 (cont.)

GROUP

TIMING

TRACTS

CONDITIONS

BID FACTORS

OTHER

F. Scenic Shoreline
Preservation
Conference

The lease should be postponed and any oil and gas resource placed in a reserve status. Other alternatives to oil and gas use should be explored, such as conservation. Any decision to lease should occur at a public hearing in the area affected. Also concerned about "short notice" for the hearing.

3. FISHERMEN

A. Frank Donohue

Expressed concerns regarding conflicts between oil and gas activities and commercial fishing particularly regarding underwater obstructions. Suggested the establishment of a fund to compensate fishermen for equipment lost or damaged due to such obstructions.

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TABLE 1 (cont.)




<u>GROUP</u>	<u>TIMING</u>	<u>TRACTS</u>	<u>CONDITIONS</u>	<u>BID FACTORS</u>	<u>OTHER</u>
B. Gordon Cota-Pacific Coast Federation of Fisherman's Association					Same as 3A.
*4. OIL AND GAS INDUSTRY					
A. Chevron U.S.A., Inc.	Tracts should be put out to bid in early 1983.	All eight		Bonus bid, fixed royalty.	
B. Ogle Petroleum	Bids should be required to be submitted by the third quarter of 1983.	All eight		Bonus bid, fixed royalty.	
C. Champlin		All eight	Lessees should have more say in the application and conduct of the stipulations. Other changes also suggested to eliminate or lessen stipulations.	Bonus bid, fixed royalty.	
83					
D. Gatty Oil	Same as B above	All eight		Bonus bid, fixed royalty.	

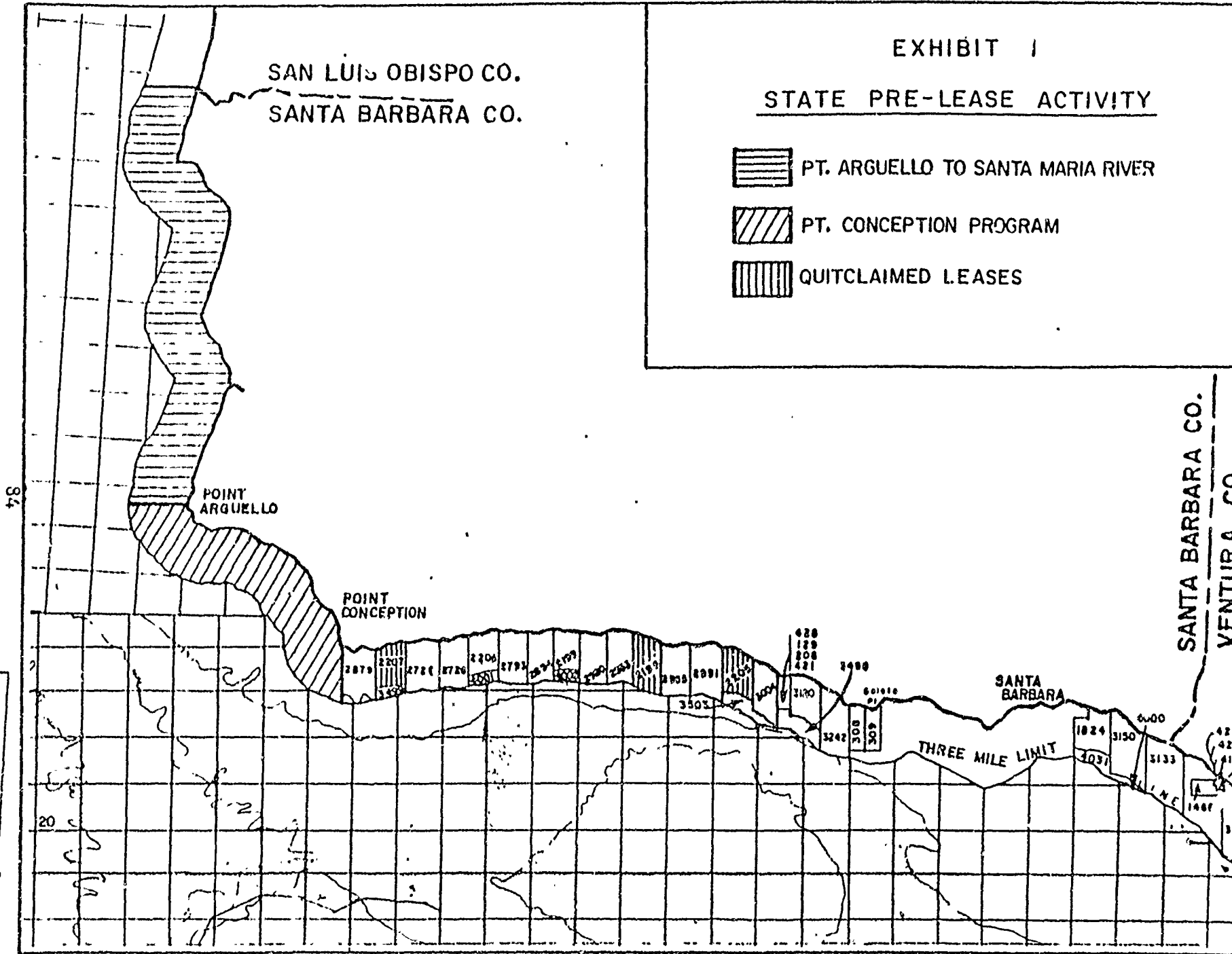
*Indicates subject matter not covered by testimony or comments received previously by the Commission.

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EXHIBIT I

STATE PRE-LEASE ACTIVITY

-  PT. ARGUELLO TO SANTA MARIA RIVER
-  PT. CONCEPTION PROGRAM
-  QUITCLAIMED LEASES



SAN LUIS OBISPO CO.
SANTA BARBARA CO.

POINT ARGUELLO

POINT CONCEPTION

SANTA BARBARA

THREE MILE LIMIT

SANTA BARBARA CO.
VENTURA CO.

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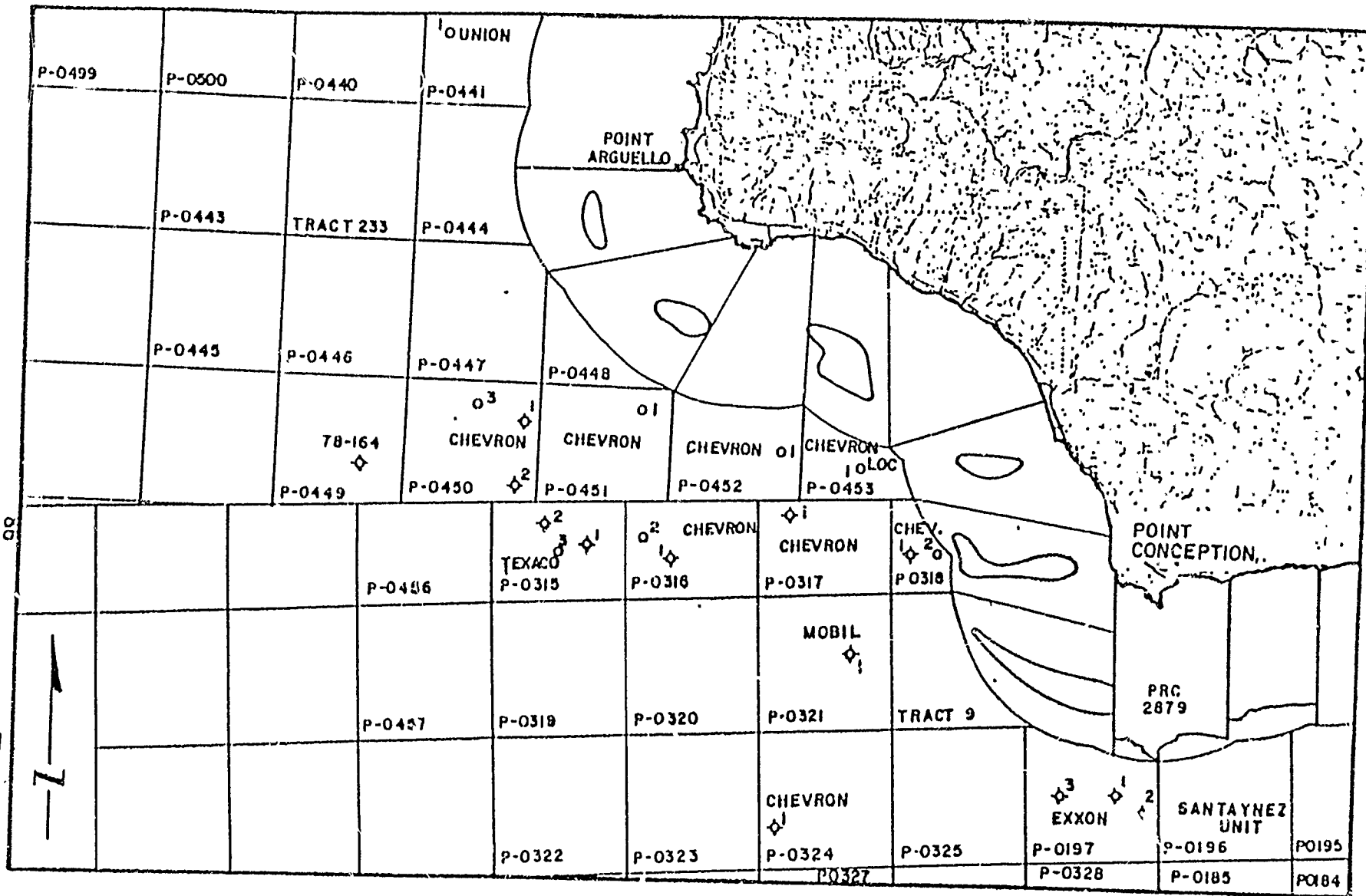


EXHIBIT 3
RECOMMENDED TRACT SELECTION

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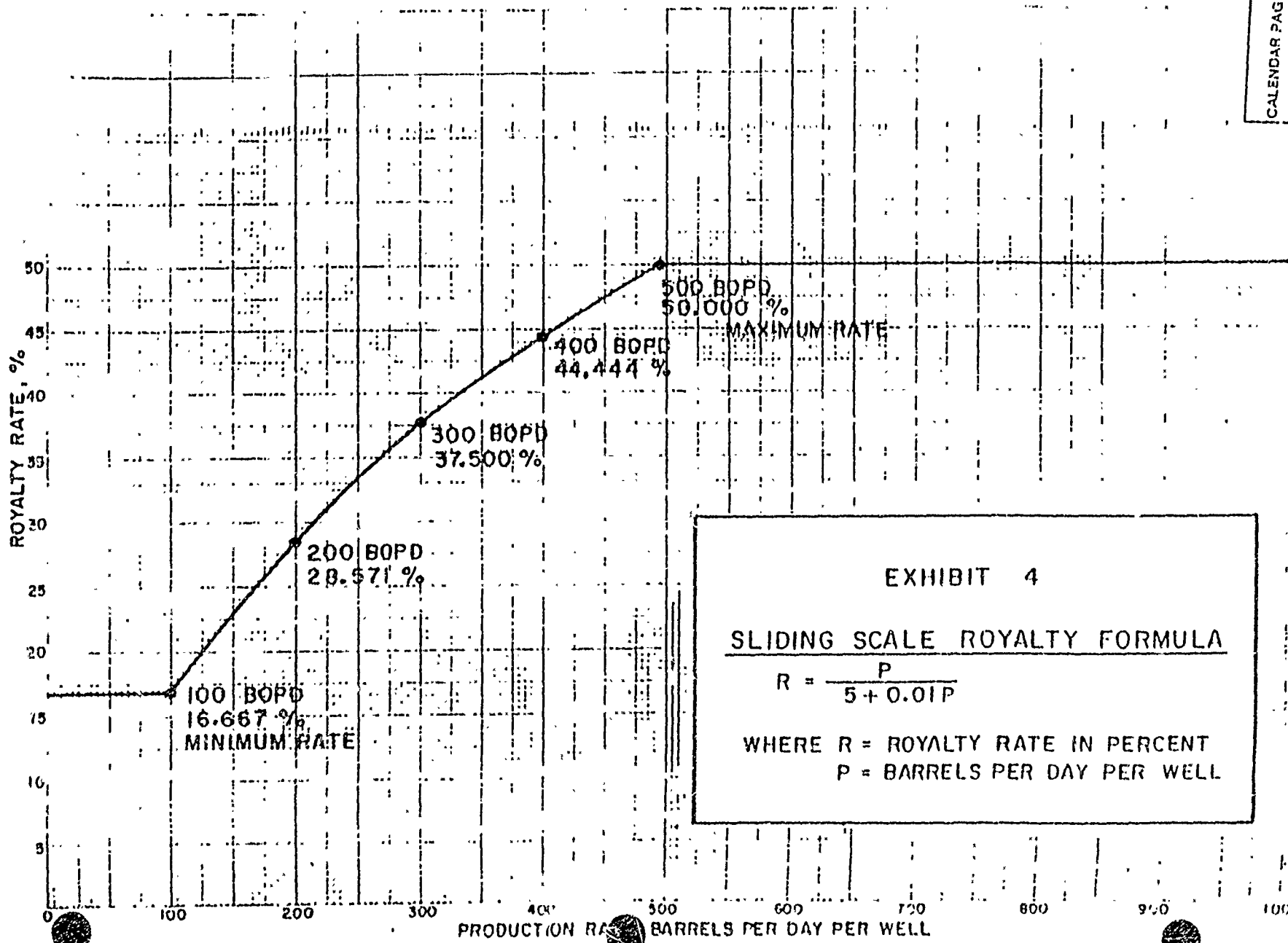


EXHIBIT 4

SLIDING SCALE ROYALTY FORMULA

$$R = \frac{P}{5 + 0.01P}$$

WHERE R = ROYALTY RATE IN PERCENT
 P = BARRELS PER DAY PER WELL

57

EXHIBIT 5

DRAFT

POINT CONCEPTION
SLIDING-SCALE ROYALTY
DRAFT
11-19-82

STATE LANDS COMMISSION

State of California

Oil and Gas Lease

(Sliding-Scale Royalty)

This Oil and Gas Lease is entered into this _____
day of _____, 19____, pursuant to Division 6 of the
Public Resources Code, and is between the State of
California, acting through the State Lands Commission, which
will be referred to as the State, and _____,
which will be referred to as the Lessee.

In consideration of the bonus, rental and royalty
to be paid and the covenants, conditions, agreements and
stipulations contained in this lease, the State leases to
the Lessee certain lands, which will be referred to as the
leased lands, situate in Santa Barbara County, California,
identified on the attached map that is marked Exhibit "A"
and described as follows:

* * * * *

1.

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1. TERM AND PURPOSE OF LEASE

This lease shall be for a primary term of twenty (20) years, and for so long thereafter as oil or gas is produced in paying quantities from the leased lands, or so long as Lessee is diligently conducting producing, drilling, deepening, repairing, redrilling or other necessary lease or well maintenance operations on the leased lands. The Lessee shall have the exclusive right to prospect for, drill for, produce and take only oil, gas and other hydrocarbon substances from the leased lands. This right includes the right to conduct geological and geophysical surveys on the leased lands for the purpose of determining subsurface conditions. However, the State may permit others to conduct geological or geophysical surveys on the leased lands as provided in sections 6212.2 and 6826 of the Public Resources Code and the applicable regulations of the State. This lease does not give the Lessee the privilege or right to store gas within the geological zones underlying the leased lands nor any other privilege or right not expressly stated. Within the drilling term of three (3) years from the date of this lease, or a later date determined pursuant to paragraph 24(b), the Lessee shall commence operations for the drilling of a well for oil or gas. If the Lessee fails to commence such operations before or to prosecute them diligently after the expiration of the three (3) year term, or any extension thereof, this lease

2.

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shall terminate. Whenever the leased lands cease to produce oil or gas, the lease will continue in force if within six months after production ceases, or such longer period as the State may authorize, the Lessee commences and prosecutes with reasonable diligence, drilling, deepening, repairing, redrilling or other operations for restoring production of oil or gas from the leased lands.

2. EXPLORATION AND DEVELOPMENT OBLIGATIONS
AND DRILLING REQUIREMENTS

Within one hundred twenty (120) days after the effective date of this lease, the Lessee shall submit to the State for approval an exploration plan for the leased lands, which plan shall provide at least for the drilling of one (1) well. After the completion of the site-specific environmental review, the Lessee shall commence within the three (3) year drilling term and diligently prosecute exploratory operations in accordance with the approved exploration plan, which shall include whatever measures are necessary to mitigate adverse environmental effects. No later than one (1) year after a commercial discovery, the Lessee shall submit to the State for approval a development plan for the discovered pool or pools. Upon completion of the environmental review, the Lessee shall commence and diligently prosecute development operations in accordance with the approved development plan, which shall include whatever measures are necessary to mitigate adverse

3.

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environmental effects. Development plans for later discovered pools capable of commercial production shall be submitted to the State for approval within one (1) year of discovery. The Lessee shall diligently pursue the acquisition of all permits necessary for the conduct of drilling and production operations on the leased lands and for the construction of structures and facilities on and off the leased lands required for the conduct of drilling and production operations. All drilling operations shall be conducted in accordance with the requirements in Exhibit "B".

3. RENTAL

The Lessee shall pay to the State, annually in advance, rental of \$ _____ per acre per year. If any portion of the leased lands is quitclaimed as to all zones, the annual rental shall be reduced \$ _____ for each acre quitclaimed. This reduction shall become effective on the lease anniversary date next following the date of quitclaim.

4. ROYALTY

(a) In addition to the rental provided in paragraph 3, the Lessee shall account for and pay to the State in money as royalty on oil, a percentage, determined in accordance with Exhibit "D" which is attached and made a part of this lease, of the current market price of all oil production removed or sold from the leased lands. The current market price shall be determined by the State and

4.

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shall include any premium or bonus paid for the oil. The current market price shall never be less than the highest price in the nearest field at which oil of like gravity and quality is being sold in substantial quantities. Money royalty on oil shall be due not later than the twenty-fifth day of the calendar month following the calendar month in which the oil is produced.

(b) At the State's option, exercised upon sixty (60) days' written notice, and in lieu of money royalty on oil production, the Lessee shall deliver to the State in kind a percentage, determined in accordance with Exhibit "D", of all oil production removed or sold from the leased lands. If the State elects to take in kind its royalty share of oil produced from the leased lands, the State may require the Lessee to provide at the Lessee's shipping tanks, without charge to the State, tankage of sufficient capacity to store the State's royalty share of oil produced from the leased lands during any continuous forty-eight (48) hours.

(c) In addition to the rental provided in paragraph 3, the Lessee shall account for and pay to the State in money as royalty on non-oil production, which consists of dry gas, including vented and flared gas (except during testing with approval of the State), natural gasoline, and other products extracted and saved from the gas produced from the leased lands, except gas used for lease

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operations or reinjected into the leased lands, twenty percent (20%) of the current market price of all such production removed or sold from the leased lands. The current market price shall be determined by the State and shall include any premium or bonus paid for the non-oil production. The current market price never shall be less than the higher of the highest price in the nearest field at which non-oil production of like quality is being sold in substantial quantities or the net proceeds or exchange value derived by the Lessee from the non-oil production removed or sold from the leased lands. Money royalty on non-oil production shall be due not later than the twenty-fifth day of the calendar month following the calendar month in which the non-oil production is produced.

(d) At the State's option, exercised upon sixty (60) days' written notice and in lieu of money royalty on non-oil production, the Lessee shall deliver to the State in kind, twenty percent (20%) of all non-oil production removed or sold from the leased lands.

(e) If the State elects to take in kind its royalty share or shares of oil or non-oil production, or both, it may elect thereafter, upon sixty (60) days' written notice, to take its royalty share or shares in money, and upon like notice at any time thereafter, may elect to take its royalty share or shares either in kind or in money.

5. TRANSFER OF LEASE

(a) Subject to approval by the State, this lease may be assigned, transferred or sublet to any person, association of persons or corporation who at the time of the proposed assignment, transfer or sublease possesses the qualifications provided in section 6801 of the Public Resources Code. Any assignment, transfer or sublease may involve all or any part of the leased lands or any separate or distinct zone or geological horizon or portion of such zone or horizon. Any assignment, transfer or sublease shall take effect on the first day of the month following its approval by the State and the filing with the State of an executed counterpart thereof, together with any required bond and proof of the qualifications of the assignee, transferee or sublessee to hold this lease or any interest in it. Unless approved by the State, no assignment, transfer or sublease shall be of any effect. Upon approval of any assignment, transfer or sublease, the assignee, transferee or sublessee shall be bound by the terms of this lease to the same extent as if such assignee, transferee or sublessee were the original lessee, any conditions in the assignment, transfer or sublease to the contrary notwithstanding.

(b) Any assignment or transfer of a separate portion of this lease or of a separate or distinct zone or geological horizon, or portion thereof, shall segregate the

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assigned or transferred portion from the retained portion. The approval of the assignment or transfer shall release the assignor or transferor from all obligations thereafter accruing under this lease with respect to the assigned or transferred lands or zones or horizons. The lease on any segregated portion of the lands or zones or horizons shall continue in force for the primary term of this lease, but for not less than two (2) years after the date of discovery of oil or gas in paying quantities upon any of the lands or zones or horizons originally subject to this lease, and so long thereafter as oil or gas is produced in paying quantities from such segregated portion.

(c) With the approval of the State, assignments or transfers may be made of parts of this lease which are on their extended term because of production. The lease on any segregated portion containing only undeveloped lands or zones or horizons shall continue in force for two (2) years and so long thereafter as oil or gas is produced in paying quantities from such segregated portion.

6. QUITCLAIM

The Lessee at any time may make a written quitclaim of all rights under this lease or of any portion of the leased lands comprising a ten-acre parcel or multiple thereof in a compact form, or of any separate or distinct zone or geological horizon or portion thereof underlying a ten-acre parcel or multiple thereof. The quitclaim shall be

effective when it is filed with the State, provided that the Lessee and its surety shall be subject to the continued obligation to pay all accrued rentals and royalties and to abandon all wells drilled into the lands or in the zones or horizons to be quitclaimed in accordance with the terms of this lease and the regulations of the State. At the option of the State, the Lessee may be required to place all such wells in condition for suspension instead of abandoning them. The Lessee shall then be released from all obligations thereafter accruing under the lease with respect to the lands, zones or horizons quitclaimed. The quitclaim shall not release the Lessee or its surety from any liability for breach of any obligation of this lease with respect to which the Lessee is in default at the time of the filing of the quitclaim.

7. CANCELLATION

If the Lessee fails to exercise due diligence and care in the prosecution of the exploratory or development work in accordance with the terms and conditions of this lease prior to the discovery of oil or gas in paying quantities and if such default continues after thirty (30) days' written notice to the Lessee, the State may cancel this lease. After discovery of oil or gas in paying quantities, this lease may be canceled upon failure of the Lessee, after ninety (90) days' written notice, to comply with the provisions of this lease or applicable statutes or

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regulations. In the event of cancellation, the Lessee shall have the right to retain any drilling or producing wells as to which no default exists, together with such rights of way into or through the leased lands as may be reasonably necessary to enable the Lessee to drill and operate the retained well or wells. In the event of any termination of this lease in whole or in part, the Lessee shall have a reasonable time to remove any property, equipment and facilities used by the Lessee in operations under the terminated portion of this lease.

8. RESERVATIONS TO STATE

The State reserves the right to grant, upon its own terms, joint or several easements or rights of way upon, through or in the leased lands as may be necessary or appropriate, and the right to allow, upon its own terms, the continued use of any existing easement or right of way upon, through or in the leased lands. The State also reserves the right to lease, sell or otherwise dispose of whatever transferable interest it may have in the surface of the leased lands, subject to the reasonable use by the Lessee of the surface for operations under this lease.

9. PREVENTION OF WASTE

The Lessee shall use all reasonable precautions to prevent waste of oil and gas in the leased lands and to prevent the entrance of water through wells drilled to the oil or gas-bearing strata that may destroy or injure the oil or gas deposits.

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10. COMPLIANCE WITH LAWS AND OTHER
OPERATIONAL CONTROLS

The Lessee shall comply with all valid laws and ordinances of the United States and of the State of California and its political subdivisions applicable to the Lessee's operations, including, but not limited to, the applicable provisions of Divisions 3 and 6 of the Public Resources Code and the regulations of the Division of Oil and Gas and State Lands Commission. The Lessee shall also comply with the special operating requirements set forth in Exhibit "C".

11. FORCE MAJEURE

The obligations imposed upon the Lessee by this lease may be suspended whenever the Lessee is prevented from complying with them by wars, strikes, riots, acute and unusual labor or material shortages, acts of God, laws, rules and regulations of any federal, state, county or municipal agency or by other unusual conditions that are beyond the control of the Lessee. In order for any obligation imposed upon the Lessee to be suspended, the Lessee must notify the State in writing as soon as possible that a condition warranting suspension has arisen. The notification shall state the nature of the condition, an estimate of the condition's duration and the steps to be taken by the Lessee to eliminate the condition. The Lessee shall use its best efforts to eliminate the condition and

notify the State in writing as soon as the condition no longer exists.

12. OPERATIONAL STANDARDS

The Lessee shall exercise reasonable diligence in the operation of the wells while their products can be obtained in paying quantities and shall not unreasonably or unnecessarily suspend operations. All operations shall be conducted in a proper and workerlike manner, in accordance with generally accepted good oil field practice and with regard for the protection of the safety and health of workers.

13. LIABILITY AND INDEMNIFICATION

The Lessee shall be liable to the State for all damage to any reservoir underlying the leased lands and any loss of oil, gas or other hydrocarbon substances to the extent that they are caused by the negligence of, or the breach of any provision of this lease by, or noncompliance with any applicable statutes or regulations by the Lessee, its employees, servants, agents or contractors. Nothing in this lease shall diminish any other rights or remedies which the State may have in connection with any such negligence or breach. The Lessee shall indemnify the State of California, its officers, agents and employees against all claims, demands, causes of action or liabilities of any kind which may be asserted against or imposed upon the State of California, its officers, agents or employees, by any third

person or entity arising out of or connected with the issuance of this lease, operations hereunder, or the use by Lessee, its agents, employees or contractors of the leased lands.

14. BONDS

The Lessee shall furnish upon execution of this lease and maintain a bond in favor of the State of California in the sum of \$_____ to guarantee the faithful performance by the Lessee of all provisions of this lease, Division 6 of the Public Resources Code and the regulations promulgated thereunder, including, but not limited to, immediate elimination of any contamination or pollution caused by or resulting from operations under this lease. If the Lessee places platforms or other fixed or floating structures on the leased lands, the Lessee shall file at the commencement of such placement and maintain an additional bond in favor of the State of California in a reasonable amount as specified by the State, but not exceeding fifty percent (50%) of the replacement cost of the structures, to guarantee the faithful performance by the Lessee of the placement of the structures, their maintenance and their removal at the State's request upon the expiration or sooner termination of this lease. All bonds shall require the surety to give at least ninety (90) days' written notice of its intention to cease acting as guarantor. If a surety gives notice of its intention to

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cease acting as guarantor, the Lessee shall provide to the State within sixty (60) days of such notice a replacement bond of equal value to become effective upon the expiration of the existing bond. Failure to provide such a replacement bond within the required time shall constitute a default entitling the State to levy against the entire amount of the existing bond.

15. SURRENDER OF PREMISES

At the expiration of this lease or upon its sooner termination, the Lessee shall surrender the leased lands and all improvements on them in good condition, or the State may provide that the Lessee shall remove some or all of the structures and other fixtures placed upon the leased lands and restore the lands, in whole or in part, to their natural condition at no cost to the State. The Lessee shall not be denied the right to remove any drilling, development and production equipment having a reuse or salvage value.

16. DAMAGES TO THIRD PERSONS AND PROPERTY

(a) The Lessee shall furnish upon execution of this lease a certificate showing that at all times throughout the life of this lease, the Lessee is insured against damages to third persons and their property resulting from an oil spill or other pollution caused by operations under this lease. The insurance shall be for an amount not less than ten million dollars (\$10,000,000) for each occurrence. The minimum amount may be raised by the

State if economic conditions change. The certificate of insurance shall indicate that the Lessee has obtained from a responsible insurance company doing business in California the required insurance coverage which shall include the State of California as a named insured, or shall demonstrate to the satisfaction of the State that the Lessee is capable of self-insuring the risk. The certificate of insurance shall remain in effect at all times throughout the life of the lease. A new certificate of insurance meeting the above requirements may be substituted by the Lessee with the State's approval.

(b) Should an oil spill or other polluting event occur which the State determines will result in the filing of a substantial number of claims against the Lessee, the Lessee shall open or cause to be opened within ten (10) days of such event a claims office in the City of Santa Barbara staffed with personnel sufficient to process all claims and having authority to settle all uncontested claims. Barring unusual circumstances, all claims shall be processed and all uncontested claims shall be settled within sixty (60) days of their filing. To facilitate settlement of contested claims, the Lessee shall agree to arbitration of claims of five thousand dollars (\$5,000) or less and mediation of claims in excess of five thousand dollars (\$5,000). The arbitration and mediation shall be conducted pursuant to agreements prepared by the State at or before

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the time of the invitation for bids.

17. SALES CONTRACTS AND EXCHANGE AGREEMENTS

The Lessee shall file with the State copies, certified by the Lessee to be true, of all contracts and other agreements for the sale, exchange or other disposition of oil, gas, natural gasoline and other substances produced from the leased lands. If the State elects to take its royalty share of production in money instead of in kind, the Lessee shall not sell or otherwise dispose of the royalty share of the production except in accordance with sales contracts or other methods first approved in writing by the State.

18. ROYALTY STATEMENTS

The Lessee shall furnish monthly true royalty statements in whatever form the State prescribes. The statements shall show for the preceding calendar month the amount, gravity and market price of all oil produced, saved and sold, the amount and gross value of gas produced, vented and flared (except during testing), saved, used and sold and the amount and gross value of natural gasoline or other products produced from the leased lands. The statement also shall show the number of days each well is on production.

19. EXAMINATION OF RECORDS AND INSPECTION OF PREMISES

Insofar as it has the right to do so, the Lessee consents to an examination by any person authorized by the

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State of the books and records of any individual, association or corporation which has transported for or received from the Lessee any oil, gas, natural gasoline or other products produced from the leased lands. The Lessee also consents to the inspection at all times by any person authorized by the State of its operations on the leased lands, including wells, improvements, machinery and fixtures used in connection with those operations.

20. SUBMISSION AND USE OF DATA

The Lessee shall file promptly with the State true copies of all geophysical data covering the leased lands and all logs (including electric logs), surveys, drilling records, well histories, core records, formation tests and related information as measured and recorded in the course of drilling, for the wells drilled into the leased lands. All data and information filed by the Lessee with the Division of Oil and Gas in connection with this lease, whether or not held in confidential status by the Division of Oil and Gas, shall be submitted to the State for its use in enforcing compliance with the terms of this lease and regulations of the State. All data and information supplied in confidence of the Lessee under this paragraph shall be kept confidential by the State and shall not be disclosed to any person or agency without the written consent of the Lessee or unless their disclosure is required by law. Notwithstanding the above, the State may

disclose any data or information filed by the Lessee to any governmental agency needing the data or information to regulate the leased lands or adjacent lands, provided that the disclosure is made pursuant to an agreement with the governmental agency specifying the purposes for which the data and information may be used and requiring the data and information to be kept confidential.

21. FACILITIES AND MEASUREMENT
OF PRODUCTION

The Lessee shall furnish to the State for its approval detailed plats, drawings and other pertinent data concerning the oil and gas facilities and pipelines to be used for the production, processing, measurement and transportation of the oil, gas and other hydrocarbon substances from the leased lands. Any changes, including emergency changes, in the facilities and pipelines shall be approved by the State. The Lessee shall install whatever sampling and measuring equipment the State deems necessary for the sampling and measuring of the oil, gas and other hydrocarbon substances. The Lessee shall measure and account for all oil, gas and other hydrocarbon substances produced from, used on or transported from the leased lands in accordance with the terms of this lease and the regulations of the State. The State shall have the right at all times to witness the measurement and sampling of all oil, gas and other hydrocarbon substances. The State may

elect to measure and sample the oil, gas and other hydrocarbon substances in the presence of a representative of the Lessee. The Lessee shall furnish samples of oil, gas and other hydrocarbon substances that are required by the State for laboratory tests. The Lessee shall be given the opportunity to witness the tests conducted by the State, and the readings and results of those tests shall be binding on the Lessee.

22. STATE'S RIGHTS TO DETERMINE WELL SPACING AND RATES OF DRILLING AND PRODUCTION

The State shall have the right to determine the spacing of wells and the rate of drilling and rate of production of wells to prevent the waste of oil and gas and promote the maximum economic recovery of oil or gas from, and the conservation of reservoir energy in, each zone or separate underground source of supply of oil or gas covered in whole or in part by this lease.

23. UNITIZATION

If the State determines that the ultimate recovery of oil or gas will be increased, oil or gas will be protected from unreasonable waste, land subsidence may be arrested or ameliorated, or adjacent landowners will be protected, the Lessee shall unite with other lessees of the State or with others owning or operating lands not belonging to the State, including lands belonging to the United States, in operating under a cooperative or unit plan of

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development or operation for the pool or field or any part thereof. The State, with the consent of the Lessee, may establish, change or revoke any drilling and production requirements of this lease, may permit apportionment of production, and may make such regulations concerning the institution and operation of any cooperative or unit plan that the State deems necessary or proper for the protection of its interests.

24. OFFSHORE STRUCTURES

(a) Subject to the provisions of Exhibit "B", each well may be drilled or slant-drilled to and into the subsurface of the leased lands from platforms or other fixed or floating structures in, on or over the tide and submerged lands covered by the lease or otherwise available to the Lessee.

(b) If the Lessee proposes to drill one or more wells from platforms or other fixed or floating structures and if permission from any federal or state agency is legally required for construction of such structures, the Lessee shall be allowed a reasonable time following the execution of the lease to secure the necessary permission from such federal or state agencies and, upon securing such permission, a further reasonable time, determined with regard to the nature of the structure or structures to be constructed, to commence drilling operations on such well or wells. The State shall extend

the drilling term of the lease by a period equal to the reasonable time necessary to secure the permission and, if necessary, to the date to which the time to commence drilling operations on such well or wells has been extended.

(c) Any platforms or other fixed or floating structures shall conform to the regulations of the State in effect at the time of the invitation for bids.

25. POLLUTION AND CONTAMINATION OF WATERS PROHIBITED

Pollution and contamination of state waters, impairment of and interference with bathing, fishing or navigation in state waters, and impairment of and interference with developed shoreline recreational or residential areas are prohibited. No oil, tar, residuary product of oil or any refuse of any kind from any well or works shall be deposited on or allowed to pass into state waters. The permission given in section 6873(b) of the Public Resources Code to the deposition in state waters of water not containing any hydrocarbons or vegetable or animal matter and drill cuttings and drilling mud which are free of oil and materials that are deleterious to marine life, shall not supersede any restrictions on the deposition of such substances which are contained in this lease, which includes the exhibits.

* * * * *

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26. SOLVENCY

If the Lessee at any time makes a general assignment for the benefit of its creditors, or a receiver is appointed over or an attachment is levied and permitted to remain for any unreasonable length of time upon or against the interest of the Lessee in any oil, gas, natural gasoline or other products produced from the wells drilled into the leased lands, the State may terminate this lease by giving written notice to the Lessee.

27. USE OF PRODUCTION FOR LEASE OPERATIONS

With the approval of the State, the Lessee may use oil produced from the Lessee's wells drilled into the leased lands for lease operations only. Oil so used shall be reported to the State monthly. Such oil shall not be included in computing for royalty purposes the total production or oil removed or sold from the leased lands during the month, nor in computing for royalty purposes the current market price of such production, but shall be used in computing the average production of oil per well per day for the purpose of determining the royalty rate as provided in Exhibit "D". With the approval of the State, the Lessee may also use gas produced from the Lessee's wells drilled into the leased lands, or gas received currently in exchange for gas so produced, for the following purposes only: fuel, gas lift, injection into oil sands from which the well or wells may be producing and reinjection into the leased

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lands. Gas so used, or gas given in exchange for gas so used, shall be reported to the State monthly, but shall not be included in computing for royalty purposes the total production removed or sold from the leased lands during the month, nor in computing for royalty purposes the current market price of such production. The State may take, free of cost to it and at no expense to the Lessee, all produced surplus gas which cannot be marketed or beneficially utilized by the Lessee. The surplus gas taken by the State shall be for the use of the State of California. The existence of this option shall not relieve Lessee of the obligation to pay royalty on gas vented or flared at times other than during testing.

28. LESSEE'S DISPOSITION OF STATE'S ROYALTY

The Lessee shall be empowered to convey good title to the State's royalty share of oil, gas, natural gasoline and other products produced and saved, if and when such sales have been approved in writing by the State. The proceeds from the royalty share of oil, gas, gasoline or any other products produced from the leased lands shall be held by the Lessee in trust for the State until the Lessee makes the full royalty payment to the State.

29. NOTICES

All notices to be given under this lease shall be deemed to have been fully given when made in writing and deposited in the United States mail, registered and postage

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prepaid, and addressed as follows:

To the State:

To the Lessee:

The addresses to which the notices shall be mailed may be changed by written notice given by one party to the other as provided above. Nothing contained in this paragraph shall preclude the giving of any notice by personal service to the Lessee or its officer or agent. All payments specified in this lease shall be made to the State at the address provided for notices to the State.

30. TAXES

The Lessee shall pay timely all taxes or assessments levied under the laws of any state, county, city or the United States of America against Lessee's interest in the leased lands, against improvements placed on the leased lands by the Lessee and against all oil, gas and other products produced from the leased lands. There shall be no deduction from the royalties payable to the State by reason of any charges levied against the Lessee pursuant to sections 3400 et seq. of the Public Resources Code and any successor statute. Notwithstanding the above, any state severance tax or windfall profit tax enacted by the

California Legislature after the notice of invitation for bids and applicable to the State's royalty share of production, shall be paid by the State to the extent only of its applicability to the State's royalty share.

31. FAILURE TO ENFORCE

The failure of the State to enforce any provision of this lease, which includes the exhibits, shall not constitute a waiver by the State of that or any other provision.

STATE LANDS COMMISSION OF THE
STATE OF CALIFORNIA

By:

Executive Officer

LESSEE:

ATTEST

EXHIBIT "A"
MAP

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EXHIBIT "B"

DRILLING REQUIREMENTS

1. All operations shall be conducted in accordance with generally accepted good oil field practices.

2. An oil or gas zone is defined as any sequence of strata containing oil, gas or other hydrocarbon substances, where the reservoir characteristics, such as pressure, temperature, specific gravity, viscosity, permeability, and porosity, are similar and whenever such sequence of strata is separated from dissimilar producing strata by a competent layer of shale or other impervious rock.

3. Within one hundred twenty (120) days after the date of the cessation of drilling operations in the first well, the Lessee shall commence operations for the drilling of the next well. Operations for the drilling of each succeeding well shall commence within one hundred twenty (120) days after the cessation of drilling operations in the preceding well. The term "drilling operations" as used in this paragraph 3 shall include any of the following: actual drilling in the ground, logging or surveying the well bore, coring, sidewall sampling or coring, drill stem or formation testing, carrying on fishing operations, running and cementing protection or production casing, running tubing, perforating casing, milling casing, reaming, setting whipstock for redrilling, operations to stop lost

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circulation, and actual plugging and abandonment of the well. The term "cessation of drilling operations" as used in this paragraph 3 shall not include a temporary stoppage of drilling operations of less than seventy-two (72) hours relating to the resumption of drilling operations in the same well or a similar stoppage of longer duration which has been approved by the State. Irrespective of the requirements of this paragraph 3, the Lessee may suspend and resume drilling operations at any time during the drilling term of three (3) years or any extension of it. After oil or gas is discovered in commercial quantities in any oil or gas zone in the leased lands, wells shall be drilled to each commercially productive oil or gas zone, if it is mechanically practicable to do so, as follows:

- a. At least one (1) well for the production of oil into each twenty (20) acres of the area contained in the leased lands where the bottom of the productive interval of the well as completed for production is at a vertical depth of less than 6,000 feet.
- b. At least one (1) well for the production of oil into each forty (40) acres of the area contained in the leased lands where the bottom of the productive interval of the well as completed for production is at a vertical depth in excess of 6,000 feet.

c. At least one (1) well for the production of gas or gas condensate from any zone which produces gas or gas condensate into each one hundred-sixty (160) acres, or major fraction thereof, of the area contained in the leased lands.

The drilling requirements set forth in subparagraphs a, b, and c of this paragraph 3 are required for and are applicable to each separate commercially productive oil or gas zone. With the approval of the State, a well may be completed in more than one zone and shall be considered a well for each zone into which it is completed and producing for the purpose of satisfying the drilling requirements of sub-paragraphs a, b, and c of this paragraph. The zones shall be segregated within the well bore and produced through separate tubing strings. The Lessee shall not be required to operate more than one (1) drilling string at any time, unless the operation of more than one (1) drilling string at any time is necessary in order to commence an offset well within the time required by paragraph 5 of this exhibit.

4. Any well drilled in accordance with the provisions of this lease shall be drilled only from a surface location and on a course and to an objective approved in writing by the State prior to the commencement of drilling. The Lessee shall submit a detailed well drilling program to the State for its review and approval

prior to commencement of drilling. Any significant changes in the approved drilling program, such as altering the casing program or re-drilling, deepening or abandoning a well, shall require advance approval by the State.

5. if any well producing in commercial quantities only gas and/or gas condensate has been, is or shall be completed on other than State lands, with any part of its producing interval within fourteen hundred eighty-nine (1489) feet from the exterior boundary of this lease, or if any well producing in commercial quantities oil and gas has been, is or shall be completed on other than State lands, with any part of its producing interval within five hundred (500) feet from the exterior boundary of this lease, the State may notify the Lessee in writing to drill an offset well. Within the time specified in the notice, which shall be a reasonable time, taking into account the availability, type and location of facilities required, and which in no event shall be less than one hundred-twenty (120) days from the date of the notice, the Lessee shall commence operations for the drilling of an offset well on the leased lands to the same zone as that zone from which such well is producing, or is capable of producing, oil or gas. For the purpose of this paragraph, an offset well for the production of only gas and/or gas condensate shall mean a well, the midpoint of the producing interval of which is situated at a location in the leased lands not more than fourteen hundred

eighty-nine (1489) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset. For the purpose of this paragraph, an offset well for the production of oil and gas shall mean a well, the midpoint of the producing interval of which is situated at a location in the leased lands not more than five hundred (500) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset.

6. An electric log or logs shall be made of all formations penetrated to the drilled depth of each well or to such depth as is mechanically possible. At least one oriented core or dipmeter record shall be made during the drilling of the first well to each zone if it is mechanically practicable to do so, or during the drilling of the earliest subsequent well in which it is mechanically practicable to make such core or record. True copies of all electric logs, surveys, paleontological reports, dipmeter records, oriented core records, rock core records, and all other drilling, test and production data taken by Lessee or its agents shall immediately be available to the representatives of the State. State representatives also shall have ready access to all rock cores and samples which may be obtained during the drilling of each well.

7. Each well drilled landward of the ordinary high water mark shall be completed in such manner that all production equipment and facilities are recessed, covered or

otherwise screened from view to the satisfaction of the State.

8. The State reserves the right, upon receipt of any evidence of subsidence of the surface of either the leased or adjacent lands, to determine that any or all further operations under this lease would or might cause or aggravate subsidence in or cause damage to the leased lands or other properties. In the event of such determination, the State may notify the Lessee in writing to suspend, in the manner and to the extent specified in the notice, its operations under this lease within thirty (30) days of the notice, and the Lessee shall suspend its operations within the time, in the manner and to the extent specified.

Exercise of either or both of the foregoing rights by the State is subject to the following:

(a) The determination may be made by the State at any time during the term of this lease but only at a meeting of the State Lands Commission at least thirty (30) days after written notice to Lessee that the State has received evidence of subsidence and proposes to determine whether any or all further operations under this lease would or might cause or aggravate subsidence in or cause damage to the leased lands or other properties. At this meeting, Lessee may present facts and arguments relevant to such determination.

(b) At least thirty (30) days prior to the

meeting, the State, to the best of its ability and to the extent permitted by law, shall make available to the Lessee for study, any written or graphic information or opinions received by or prepared for the State relative to subsidence of the surface of the leased and adjacent lands.

(c) Operations under this lease that have been suspended pursuant to this paragraph 8 may be resumed by the Lessee only in the manner and to the extent provided and subject to conditions contained in a program designed to alleviate or prevent further subsidence that has been agreed to by the State and the Lessee.

(d) Notwithstanding any agreement by the State to any such program, the State, upon receipt of evidence of further subsidence occurring after the resumption of operations under such program, may notify the Lessee again to suspend operations in accordance with the provisions of this paragraph, and Lessee shall so suspend operations.

During any period of suspension pursuant to this paragraph 8, the drilling, offset and production obligations of Lessee shall likewise be suspended only to the extent that the performance of such drilling, offset and production obligations is rendered impracticable or unreasonable as a result of the notice to suspend issued by the State pursuant to this paragraph 8.

The rights reserved by the State under this paragraph 8 shall be exercisable to the extent that such exercise is permitted by law.

EXHIBIT "C"

SPECIAL OPERATING REQUIREMENTS

1. SUBSEA COMPLETIONS

In preparing a development plan, the Lessee shall give the same consideration to the use of subsea completions as it does to fixed platforms. When approving a development plan, the State may require the use of subsea completions in those cases where it determines that economics, technical feasibility, environmental impacts, compatibility with commercial fishing operations and the religious beliefs of Native Americans, considered together rather than separately, indicate that subsea completions would be preferable to fixed platforms. When subsea completions are used, the Lessee shall promptly prepare and continually update maps showing the exact location of every subsea installation and shall make such maps available to commercial fisherman and other members of the public.

2. PIPELINE FEASIBILITY

(a) Pipelines will be required by the State for the transportation of produced oil, gas and other hydrocarbons if pipeline rights-of-way can be obtained and the State, acting upon information supplied by affected parties and responsible governmental agencies, determines that the laying of pipelines is economically and technologically feasible and environmentally preferable to other methods of transportation. The State reserves the

right to require the placement of any pipeline in certain designated pipeline corridors.

(b) Following the completion of a pipeline, no hydrocarbons produced from the leased lands shall be transported by surface vessel from offshore production sites, except in cases of emergency as determined by the State.

(c) Where the criteria in subparagraph (a) above are not met and surface transportation must be employed, all vessels used for transporting produced hydrocarbons shall conform with all standards established for such vessels under the Port and Tanker Safety Act of 1978 (33 U.S.C. sections 1221 et seq.).

(d) The State shall not approve any development or production plan which proposes the use of tankers or barges to transport produced hydrocarbons unless the Lessee, in cooperation with the State, has performed a study which demonstrates to the satisfaction of the State that a pipeline cannot meet the criteria in subparagraph (a) above.

(e) If the State determines that a pipeline cannot meet the criteria in subparagraph (a) above, the Lessee shall use the safest available transport vessels. The use of oil barges will be permitted only if the Lessee demonstrates to the satisfaction of the State that barging is environmentally preferable to tankering.

3. POTENTIAL GEOHAZARDS

Drilling operations shall not be conducted and seafloor wellheads and fixed structures for the production, transportation or storage of oil, gas or other hydrocarbons shall not be placed within geologically unstable portions of the leased lands such as potentially unstable sediments, areas of mass movement, submarine canyons or channels, shallow gas zones and areas near active faulting or surface ruptures unless the Lessee has demonstrated to the satisfaction of the State that such operations can be conducted and such wellheads and such structures can be designed and placed so as to withstand the maximum probable effects of the identified geohazards. Site-specific surveys shall be conducted prior to exploration and development operations to determine the potential for unstable bottom conductions and other geologic hazards. Extension of these surveys outside the leased lands may be required where necessary to evaluate the magnitude and significance of the hazard. All potentially unstable areas, including fault zones, must be mapped before any seafloor wellheads or fixed structures are installed. The State may require site-specific soil testing before exploration and development operations are allowed.

4. MANDATORY BIOLOGICAL AND MARINE MAMMAL SURVEYS

(a) Prior to the commencement of any drilling operations and prior to the commencement of construction or

placement of any structure, including pipelines, on the leased lands, the Lessee shall conduct site-specific biological and marine mammal surveys as specified by the State after consulting with the Department of Fish and Game, the United States Fish and Wildlife Service, the Minerals Management Service and the National Marine Fisheries Service. The site-specific biological and marine mammal surveys shall determine whether the site contains areas of special biological significance that may be adversely affected, either directly or indirectly, by drilling operations or the placement of structures on the leased lands. The surveys shall also determine whether adjacent areas of special biological significance may be similarly affected. Areas of special biological significance include, but are not limited to: (1) existing or potential critical habitats for rare, threatened or endangered species, including but not limited to the California sea otter and the California gray whale; (2) areas used by rare, threatened or endangered species for breeding or migrating; (3) areas containing very unusual or rare ecosystems or ecotones; (4) areas with large numbers or high diversity of species; and (5) areas containing species of limited regional distribution due to natural range or significantly reduced populations.

(b) The biological surveys shall include a characterization of (1) the area within a one (1) kilometer

radius of the development site (and within three hundred (300) meters of pipelines) and (2) areas potentially affected by the development by on-site observations of a marine biologist using a submersible device for deep water or scuba equipment for shallow water. A remote camera survey (video and/or film) may suffice in soft bottom areas. Observations shall be accompanied by photodocumentation and the taking of samples. Box core samples shall be taken on soft bottoms. Rocks, portions of rocks or organisms living on rocks shall be taken from hard bottoms. Sampling and observations shall be most intense within three hundred (300) meters of the development site and within one hundred (100) meters of pipelines. Sample species collected shall be identified to the lowest possible taxonomic level.

(c) The marine mammal surveys shall be performed by a qualified mammologist and shall consist of systematic observations which accurately describe mammal occurrences in and uses of the project area, including an on-site census and behavioral observations of feeding, breeding and migration. The surveys shall also indicate the relationship of project area observations to known data on sea otter and other marine mammal population, size, dynamics, structure and movements in adjacent present or potential habitats.

(d) If the results of site-specific biological and surveys show the existence of a special biological

resource marine mammal that may be adversely affected by lease operations, the Lessee shall (1) pursue feasible alternatives which will not have a significant adverse effect upon the resource identified or employ mitigation measures, (2) establish through submissions to the State of such documents as an oil spill contingency plan and critical operation and curtailment plan, that operations will not have a significant adverse effect upon the resource identified, or (3) establish that it is in the best interests of the State to permit the project even though no feasible alternatives or mitigation measures exist. The State will review all data submitted and after consultation with the Department of Fish and Game, the United States Fish and Wildlife Service and the National Marine Fisheries Service and preparation of a project specific environmental impact report, will determine in writing whether a special biological resource exists and whether it may be significantly affected by lease operations. No lease operations may be commenced until the State has approved the project and has given the Lessee written directions on how to proceed and the Lessee has obtained all necessary governmental approvals and permits. Any mitigation measures provided in the State's written directive shall be based on laws and regulations of the State governing offshore oil and gas activities on State lands and shall be made in consultation with the Department of Fish and Game, the United States Fish and Wildlife

Service and the National Marine Fisheries Service.

(e) If any area of biologically significant resources should be endangered during the conduct of any lease operations, the Lessee shall immediately report such occurrence to the State and take every reasonable effort to protect the resource.

5. FISHERIES TRAINING PROGRAM

The Lessee shall include in its exploration and development plans a proposed fisheries training program. The training program shall be subject to approval by the State after consultation with the Department of Fish and Game and the National Marine Fisheries Service. The training program shall be for the personnel involved in operating vessels used in carrying out lease operations and platform and shore-based supervisors. The purpose of the training program shall be to familiarize persons working on the leased lands of the value of the commercial fishing industry, methods of offshore fishing operations and potential hazards, conflicts and impacts resulting from offshore oil and gas activities. The training program shall be formulated and implemented by qualified instructors.

6. SUSPENSION OF OPERATIONS AND
EVACUATION OF AND SHELTER FOR PERSONNEL

(a) Before the Lessee operates or causes to be operated on its behalf boat or aircraft traffic into individual, designated warning areas, the Lessee shall

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coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC) or other appropriate military agency. Such control and instruction will provide for positive control of boats and aircraft operating in the warning areas at all times.

(b) Recognizing that mineral exploration, exploitation and recovery operations on the leased lands can impede tactical military operations, the Lessee acknowledges and agrees that the United States reserves and has the right to suspend temporarily lease operations in the interest of national security requirement. Such temporary suspension of operations, including the evacuation of personnel and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all personnel engaged in operations on the lease for the duration of any Department of Defense activity from flying or falling objects or substances), will become effective upon the order of the Commander, WSMC, other appropriate military agency or higher authority when national security interests necessitate such action. Any temporary suspension of operations for national security may not exceed seventy two (72) hours, provided that any such suspension may be extended by order of the appropriate authority. Equipment may remain in place during periods of suspension.

(c) The Lessee shall control its own electromagnetic emissions and those of its agents,

employees, invitees, independent contractors and subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, WSMC or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control and coordination with the Lessee, its agents, employees, invitees, independent contractors and subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area, provided that control of such electromagnetic emissions shall permit at least one (1) continuous channel of communication between the Lessee, its agents, employees, invitees, independent contractors or subcontractors, and onshore facilities.

7. ASSUMPTION OF RISK AND HOLD HARMLESS

Whether or not compensation for damage or injury might be due under a theory of strict or absolute liability or otherwise, the Lessee assumes all risks of injury or damage to persons or property which occurs in, on or above the leased lands to any person or any property of any person who is an agent, employee or invitee of the Lessee, or its agents, independent contractors or subcontractors, in connection with any activities being

performed by or for the Lessee in, on or above the leased lands, if such injury or damage to such person or property occurs by reason of the activities of any agency of the United States, its contractors or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the WSMC or other appropriate military agency.

Notwithstanding any limitations of the Lessee's liability in this lease, the Lessee assumes the risk that such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents or employees. The Lessee shall indemnify and save harmless the United States against all claims for loss, damage or injury to the Lessee and to the agents, employees and invitees of the Lessee, its agents, independent contractors and subcontractors, in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of their officers, agents or employees, and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

* * * * *

8. LABOR REQUIREMENT

(a) During exploration, development and production activities on the leased lands, all vessels, rigs, platforms and other vehicles or structures under the control of the Lessee must be manned by citizens of the United States or aliens lawfully admitted to the United States for permanent residence.

b) The requirements of subparagraph (a) do not apply if the Lessee files with the State and the Department of Industrial Relations a report, deemed adequate by these agencies, showing that there is an insufficient number of qualified citizens of the United States, or aliens lawfully admitted to the United States for permanent residence, available for such work.

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EXHIBIT "D"

SLIDING-SCALE ROYALTY FORMULA

The oil royalty shall be calculated according to the following formula:

$$R = \frac{P}{5 + 0.01P}$$

Where R is the royalty rate in percent, and P is the average production of oil per well per day under the lease determined by dividing the total lease production in barrels for the month by the total number of well-production days of 24 hours each.

In no event shall the Lessee pay an oil royalty rate of less than sixteen and two-thirds percent (16-2/3%) or more than fifty percent (50%).

For purposes of applying this formula, a multiple completion well shall be deemed a separate well for each zone into which it is completed and producing where the average daily production from each zone is separately measured and the production from each zone is produced through a separate string of tubing or through casing which is not in communication with any other zone. No well shall be deemed a producing well for inclusion in the formula in any month unless for that month the well produces an amount of oil or gas sufficient to pay for its direct lifting costs as determined by the State.

EXHIBIT 6

DRAFT

POINT CONCEPTION
NET PROFITS SHARE
DRAFT
11-19-82

STATE LANDS COMMISSION
State of California
Oil and Gas Lease
(Net Profits Share)

This Oil and Gas Lease is entered into this _____
day of _____, 19____, pursuant to Division 6 of the
Public Resources Code, and is between the State of
California, acting through the State Lands Commission, which
will be referred to as the State, and _____,
which will be referred to as the Lessee.

In consideration of the rental and share of net
profits to be paid and the covenants, conditions, agreements
and stipulations contained in this lease, the State leases
to the Lessee certain lands, which will be referred to as
the leased lands, situate in Santa Barbara County,
California, identified on the attached map that is marked
Exhibit "A" and described as follows:

* * * * *

1.

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1. TERM AND PURPOSE OF LEASE

This lease shall be for a primary term of twenty (20) years, and for so long thereafter as oil or gas is produced in paying quantities from the leased lands, or so long as Lessee is diligently conducting producing, drilling, deepening, repairing, re-drilling or other necessary lease or well maintenance operations on the leased lands. The Lessee shall have the exclusive right to prospect for, drill for, produce and take only oil, gas and other hydrocarbon substances from the leased lands. This right includes the right to conduct geological and geophysical surveys on the leased lands for the purpose of determining subsurface conditions. However, the State may permit others to conduct geological or geophysical surveys on the leased lands as provided in sections 6212.2 and 6826 of the Public Resources Code and the applicable regulations of the State. This lease does not give the Lessee the privilege or right to store gas within the geological zones underlying the leased lands nor any other privilege or right not expressly stated. Within the drilling term of three (3) years from the date of this lease, or a later date determined pursuant to paragraph 24(b), the Lessee shall commence operations for the drilling of a well for oil or gas. If the Lessee fails to commence such operations before or to prosecute them diligently after the expiration of the three (3) year term, or any extension thereof, this lease

2.

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shall terminate. Whenever the leased lands cease to produce oil or gas, the lease will continue in force if within six months after production ceases, or such longer period as the State may authorize, the Lessee commences and prosecutes with reasonable diligence, drilling, deepening, repairing, redrilling or other operations for restoring production of oil or gas from the leased lands.

2. EXPLORATION AND DEVELOPMENT OBLIGATIONS
AND DRILLING REQUIREMENTS

Within one hundred twenty (120) days after the effective date of this lease, the Lessee shall submit to the State for approval an exploration plan for the leased lands, which plan shall provide at least for the drilling of one (1) well. After the completion of the site-specific environmental review, the Lessee shall commence within the three (3) year drilling term and diligently prosecute exploratory operations in accordance with the approved exploration plan, which shall include whatever measures are necessary to mitigate adverse environmental effects. No later than one (1) year after a commercial discovery, the Lessee shall submit to the State for approval a development plan for the discovered pool or pools. Upon completion of the environmental review, the Lessee shall commence and diligently prosecute development operations in accordance with the approved development plan, which shall include whatever measures are necessary to mitigate adverse

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environmental effects. Development plans for later discovered pools capable of commercial production shall be submitted to the State for approval within one (1) year of discovery. The Lessee shall diligently pursue the acquisition of all permits necessary for the conduct of drilling and production operations on the leased lands and for the construction of structures and facilities on and off the leased lands required for the conduct of drilling and production operations. All drilling operations shall be conducted in accordance with the requirements in Exhibit "B".

3. RENTAL

The Lessee shall pay to the State, annually in advance, rental of \$ _____ per acre per year through the year in which production in paying quantities is first obtained. Thereafter, rental shall be \$ _____ per acre per year and shall be payable annually in advance. If any portion of the leased lands is quitclaimed as to all zones, the annual rental shall be reduced \$ _____ for each acre quitclaimed. This reduction shall become effective on the lease anniversary date next following the date of quitclaim.

4. NET PROFITS

The Lessee shall pay to the State _____ percent (_____) of the net profits from the operations under this lease. Net profits shall be determined as provided and paid in the manner prescribed in the net profits accounting

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procedure, which is Exhibit "D" to this lease.

5. IN-KIND SHARE

From time to time the State may elect to take in kind up to twenty percent (20%) of the oil, gas and/or other hydrocarbon substances removed or sold from the leased lands. The State shall make this election by giving at least sixty (60) days' written notice to the Lessee. In the notice, the State shall specify which hydrocarbon or hydrocarbons it elects to take in kind, the percentage, up to twenty percent (20%), of each hydrocarbon it elects to take in kind and the date it wishes to begin receiving in kind the hydrocarbon or hydrocarbons. If the State elects to take in kind a percentage of the oil removed or sold from the leased lands, the State may require the Lessee to provide at the Lessee's shipping tanks, without charge to the State, tankage of sufficient capacity to store the State's in kind of oil produced during any continuous forty-eight (48) hours. Whenever the State exercises its right to take in kind a share of any hydrocarbon, the value of such hydrocarbon determined in accordance with Exhibit "D" shall be credited to the net profits account. However, any additional value received by the State in a sale or other disposition of any hydrocarbon taken in kind shall not be credited to the net profits account. Upon sixty (60) days' written notice to the Lessee, the State may elect to stop receiving in kind any or all hydrocarbons or any

portion of any or all hydrocarbons taken in kind. The State may exercise its right under this paragraph to take hydrocarbons in kind at any time it is not taking the full twenty percent (20%) of all hydrocarbons removed or sold from the leased lands.

6. TRANSFER OF LEASE

(a) Subject to approval by the State, this lease may be assigned, transferred or sublet to any person, association of persons or corporation who at the time of the proposed assignment, transfer or sublease possesses the qualifications provided in section 6801 of the Public Resources Code. Any assignment, transfer or sublease may involve all or any part of the leased lands or any separate or distinct zone or geological horizon or portion of such zone or horizon. Any assignment, transfer or sublease shall take effect on the first day of the month following its approval by the State and the filing with the State of an executed counterpart thereof, together with any required bond and proof of the qualifications of the assignee, transferee or sublessee to hold this lease or any interest in it. Unless approved by the State, no assignment, transfer or sublease shall be of any effect. Upon approval of any assignment, transfer or sublease, the assignee, transferee or sublessee shall be bound by the terms of this

assignment, transfer or sublease to the contrary notwithstanding.

(b) Any assignment or transfer of a separate portion of this lease or of a separate or distinct zone or geological horizon, or portion thereof, shall segregate the assigned or transferred portion from the retained portion. The approval of the assignment or transfer shall release the assignor or transferor from all obligations thereafter accruing under this lease with respect to the assigned or transferred lands or zones or horizons. The lease on any segregated portion of the lands or zones or horizons shall continue in force for the primary term of this lease, but for not less than two (2) years after the date of discovery of oil or gas in paying quantities upon any of the lands or zones or horizons originally subject to this lease, and so long thereafter as oil or gas is produced in paying quantities from such segregated portion.

(c) With the approval of the State, assignments or transfers may be made of parts of this lease which are on their extended term because of production. The lease on any segregated portion containing only undeveloped lands or zones or horizons shall continue in force for two (2) years and so long thereafter as oil or gas is produced in paying quantities from such segregated portion.

* * * * *

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7. QUITCLAIM

The Lessee at any time may make a written quitclaim of all rights under this lease or of any portion of the leased lands comprising a ten-acre parcel or multiple thereof in a compact form, or of any separate or distinct zone or geological horizon or portion thereof underlying a ten-acre parcel or multiple thereof. The quitclaim shall be effective when it is filed with the State, provided that the Lessee and its surety shall be subject to the continued obligation to pay all accrued rentals and net profits and to abandon all wells drilled into the lands or in the zones or horizons to be quitclaimed in accordance with the terms of this lease and the regulations of the State. At the option of the State, the Lessee may be required to place all such wells in condition for suspension instead of abandoning them. The Lessee shall then be released from all obligations thereafter accruing under the lease with respect to the lands, zones or horizons quitclaimed. The quitclaim shall not release the Lessee or its surety from any liability for breach of any obligation of this lease with respect to which the Lessee is in default at the time of the filing of the quitclaim.

8. CANCELLATION

If the Lessee fails to exercise due diligence and care in the prosecution of the exploratory or development work in accordance with the terms and conditions of this

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lease prior to the discovery of oil or gas in paying quantities and if such default continues after thirty (30) days' written notice to the Lessee, the State may cancel this lease. After discovery of oil or gas in paying quantities, this lease may be canceled upon failure of the Lessee, after ninety (90) days' written notice, to comply with the provisions of this lease or applicable statutes or regulations. In the event of cancellation, the Lessee shall have the right to retain any drilling or producing wells as to which no default exists, together with such rights of way into or through the leased lands as may be reasonably necessary to enable the Lessee to drill and operate the retained well or wells. In the event of any termination of this lease in whole or in part, the Lessee shall have a reasonable time to remove any property, equipment and facilities used by the Lessee in operations under the terminated portion of this lease.

9. RESERVATIONS TO STATE

The State reserves the right to grant, upon its own terms, joint or several easements or rights of way upon, through or in the leased lands as may be necessary or appropriate, and the right to allow, upon its own terms, the continued use of any existing easement or right of way upon, through or in the leased lands. The State also reserves the right to lease, sell or otherwise dispose of whatever transferable interest it may have in the surface of the

leased lands, subject to the reasonable use by the Lessee of the surface for operations under this lease.

10. PREVENTION OF WASTE

The Lessee shall use all reasonable precautions to prevent waste of oil and gas in the leased lands and to prevent the entrance of water through wells drilled to the oil or gas-bearing strata that may destroy or injure the oil or gas deposits.

11. COMPLIANCE WITH LAWS AND OTHER OPERATIONAL CONTROLS

The Lessee shall comply with all valid laws and ordinances of the United States and of the State of California and its political subdivisions applicable to the Lessee's operations, including, but not limited to, the applicable provisions of Divisions 3 and 6 of the Public Resources Code and the regulations of the Division of Oil and Gas and State Lands Commission. The Lessee shall also comply with the special operating requirements set forth in Exhibit "C".

12. FORCE MAJEURE

The obligations imposed upon the Lessee by this lease may be suspended whenever the Lessee is prevented from complying with them by wars, strikes, riots, acute and unusual labor or material shortages, acts of God, laws, rules and regulations of a federal, state, county or municipal agency or by other unusual conditions that are

beyond the control of the Lessee. In order for any obligation imposed upon the Lessee to be suspended, the Lessee must notify the State in writing as soon as possible that a condition warranting suspension has arisen. The notification shall state the nature of the condition, an estimate of the condition's duration and the steps to be taken by the Lessee to eliminate the condition. The Lessee shall use its best efforts to eliminate the condition and notify the State in writing as soon as the condition no longer exists.

13. OPERATIONAL STANDARDS

The Lessee shall exercise reasonable diligence in the operation of the wells while their products can be obtained in paying quantities and shall not unreasonably or unnecessarily suspend operations. All operations shall be conducted in a proper and workerlike manner, in accordance with generally accepted good oil field practice and with regard for the protection of the safety and health of workers.

14. LIABILITY AND INDEMNIFICATION

The Lessee shall be liable to the State for all damage to any reservoir underlying the leased lands and any loss of oil, gas or other hydrocarbon substances to the extent that they are caused by the negligence of, or the breach of any provision of this lease by, or noncompliance with any applicable statutes or regulations by the Lessee,

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its employees, servants, agents or contractors. Nothing in this lease shall diminish any other rights or remedies which the State may have in connection with any such negligence or breach. The Lessee shall indemnify the State of California, its officers, agents and employees against all claims, demands, causes of action or liabilities of any kind which may be asserted against or imposed upon the State of California, its officers, agents or employees, by any third person or entity arising out of or connected with the issuance of this lease, operations hereunder, or the use by Lessee, its agents, employees or contractors of the leased lands.

15. BONDS

The Lessee shall furnish upon execution of this lease and maintain a bond in favor of the State of California in the sum of \$ _____ to guarantee the faithful performance by the Lessee of all provisions of this lease, Division 6 of the Public Resources Code and the regulations promulgated thereunder, including, but not limited to, immediate elimination of any contamination or pollution caused by or resulting from operations under this lease. If the Lessee places platforms or other fixed or floating structures on the leased lands, the Lessee shall file at the commencement of such placement and maintain an additional bond in favor of the State of California in a reasonable amount as specified by the State, but not

exceeding fifty percent (50%) of the replacement cost of the structures, to guarantee the faithful performance by the Lessee of the placement of the structures, their maintenance and their removal at the State's request upon the expiration or sooner termination of this lease. All bonds shall require the surety to give at least ninety (90) days' written notice of its intention to cease acting as guarantor. If a surety gives notice of its intention to cease acting as guarantor, the Lessee shall provide to the State within sixty (60) days of such notice a replacement bond of equal value to become effective upon the expiration of the existing bond. Failure to provide such a replacement bond within the required time shall constitute a default entitling the State to levy against the entire amount of the existing bond.

16. SURRENDER OF PREMISES

At the expiration of this lease or upon its sooner termination, the Lessee shall surrender the leased lands and all improvements on them in good condition, or the State may provide that the Lessee shall remove some or all of the structures and other fixtures placed upon the leased lands and restore the lands, in whole or in part, to their natural condition at no cost to the State. The Lessee shall not be denied the right to remove any drilling, development and production equipment having a reuse or salvage value.

* * * * *

17. DAMAGES TO THIRD PERSONS AND PROPERTY

(a) The Lessee shall furnish upon execution of this lease a certificate showing that at all times throughout the life of this lease, the Lessee is insured against damages to third persons and their property resulting from an oil spill or other pollution caused by operations under this lease. The insurance shall be for an amount not less than ten million dollars (\$10,000,000) for each occurrence. The minimum amount may be raised by the State if economic conditions change. The certificate of insurance shall indicate that the Lessee has obtained from a responsible insurance company doing business in California the required insurance coverage which shall include the State of California as a named insured, or shall demonstrate to the satisfaction of the State that the Lessee is capable of self-insuring the risk. The certificate of insurance shall remain in effect at all times throughout the life of the lease. A new certificate of insurance meeting the above requirements may be substituted by the Lessee with the State's approval.

(b) Should an oil spill or other polluting event occur which the State determines will result in the filing of a substantial number of claims against the Lessee, the Lessee shall be required to be bonded within ten (10) days of such occurrence for the purpose of providing a surety fund for the payment of claims. The State shall have the right to require the Lessee to provide a surety fund sufficient to process all

claims and having authority to settle all uncontested claims. Barring unusual circumstances, all claims shall be processed and all uncontested claims shall be settled within sixty (60) days of their filing. To facilitate settlement of contested claims, the Lessee shall agree to arbitration of claims of five thousand dollars (\$5,000) or less and mediation of claims in excess of five thousand dollars (\$5,000). The arbitration and mediation shall be conducted pursuant to agreements prepared by the State at or before the time of the invitation for bids.

18. SALES CONTRACTS AND EXCHANGE AGREEMENTS

The Lessee shall submit to the State for approval all contracts and other agreements for the sale, exchange or other disposition of oil, gas, natural gasoline and other substances produced from the leased lands. The Lessee shall not sell or otherwise dispose of the lease production except in accordance with sales contracts or other methods first approved in writing by the State.

19. EXAMINATION OF RECORDS AND INSPECTION OF PREMISES

Insofar as it has the right to do so, the Lessee consents to an examination by any person authorized by the State of the books and records of any individual, association or corporation which has transported for or received from the Lessee any oil, gas, natural gasoline or other products produced from the leased lands. The Lessee

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also consents to the inspection at all times by any person authorized by the State of its operations on the leased lands, including wells, improvements, machinery and fixtures used in connection with those operations.

20. SUBMISSION AND USE OF DATA

The Lessee shall file promptly with the State true copies of all geophysical data covering the leased lands and all logs (including electric logs), surveys, drilling records, well histories, core records, formation tests and related information as measured and recorded in the course of drilling, for the wells drilled into the leased lands. All data and information filed by the Lessee with the Division of Oil and Gas in connection with this lease, whether or not held in confidential status by the Division of Oil and Gas, shall be submitted to the State for its use in enforcing compliance with the terms of this lease and regulations of the State. All data and information supplied in confidence of the Lessee under this paragraph shall be kept confidential by the State and shall not be disclosed to any person or agency without the written consent of the Lessee or unless their disclosure is required by law. Notwithstanding the above, the State may disclose any data or information filed by the Lessee to any governmental agency needing the data or information to regulate the leased lands or adjacent lands, provided that the disclosure is made pursuant to an agreement with the

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governmental agency specifying the purposes for which the data and information may be used and requiring the data and information to be kept confidential.

21. FACILITIES AND MEASUREMENT
OF PRODUCTION

The Lessee shall furnish to the State for its approval detailed plats, drawings and other pertinent data concerning the oil and gas facilities and pipelines to be used for the production, processing, measurement and transportation of the oil, gas and other hydrocarbon substances from the leased lands. Any changes, including emergency changes, in the facilities and pipelines shall be approved by the State. The Lessee shall install whatever sampling and measuring equipment the State deems necessary for the sampling and measuring of the oil, gas and other hydrocarbon substances. The Lessee shall measure and account for all oil, gas and other hydrocarbon substances produced from, used on or transported from the leased lands in accordance with the terms of this lease and the regulations of the State. The State shall have the right at all times to witness the measurement and sampling of all oil, gas and other hydrocarbon substances. The State may elect to measure and sample the oil, gas and other hydrocarbon substances in the presence of a representative of the Lessee. The Lessee shall furnish samples of oil, gas and other hydrocarbon substances that are required by the

State for laboratory tests. The Lessee shall be given the opportunity to witness the tests conducted by the State, and the readings and results of those tests shall be binding on the Lessee.

22. STATE'S RIGHTS TO DETERMINE WELL SPACING AND RATES OF DRILLING AND PRODUCTION

The State shall have the right to determine the spacing of wells and the rate of drilling and rate of production of wells to prevent the waste of oil and gas and promote the maximum economic recovery of oil or gas from, and the conservation of reservoir energy in, each zone or separate underground source of supply of oil or gas covered in whole or in part by this lease.

23. UNITIZATION

If the State determines that the ultimate recovery of oil or gas will be increased, oil or gas will be protected from unreasonable waste, land subsidence may be arrested or ameliorated, or adjacent landowners will be protected, the Lessee shall unite with other lessees of the State or with others owning or operating lands not belonging to the State, including lands belonging to the United States, in operating under a cooperative or unit plan of development or operation for the pool or field or any part thereof. The State, with the consent of the Lessee, may establish, change or revoke any drilling and production requirements of this lease, may permit apportionment of

production, and may make such regulations concerning the institution and operation of any cooperative or unit plan that the State deems necessary or proper for the protection of its interests.

24. OFFSHORE STRUCTURES

(a) Subject to the provisions of Exhibit "B", each well may be drilled or slant-drilled to and into the subsurface of the leased lands from platforms or other fixed or floating structures in, on or over the tide and submerged lands covered by the lease or otherwise available to the Lessee.

(b) If the Lessee proposes to drill one or more wells from platforms or other fixed or floating structures and if permission from any federal or state agency is legally required for construction of such structures, the Lessee shall be allowed a reasonable time following the execution of the lease to secure the necessary permission from such federal or state agencies and, upon securing such permission, a further reasonable time, determined with regard to the nature of the structure or structures to be constructed, to commence drilling operations on such well or wells. The State shall extend the drilling term of the lease by a period equal to the reasonable time necessary to secure the permission and, if necessary, to the date to which the time to commence drilling operations on such well or wells has been extended.

(c) Any platforms or other fixed or floating structures shall conform to the regulations of the State in effect at the time of the invitation for bids.

25. POLLUTION AND CONTAMINATION OF WATERS PROHIBITED

Pollution and contamination of state waters, impairment of and interference with bathing, fishing or navigation in state waters, and impairment of and interference with developed shoreline recreational or residential areas are prohibited. No oil, tar, residuary product of oil or any refuse of any kind from any well or works shall be deposited on or allowed to pass into state waters. The permission given in section 6873(b) of the Public Resources Code to the deposition in state waters of water not containing any hydrocarbons or vegetable or animal matter and drill cuttings and drilling mud which are free of oil and materials that are deleterious to marine life, shall not supersede any restrictions on the deposition of such substances which are contained in this lease, which includes the exhibits.

26. SOLVENCY

If the Lessee at any time makes a general assignment for the benefit of its creditors, or a receiver is appointed over or an attachment is levied and permitted to remain for any unreasonable length of time upon or against the interest of the Lessee in any oil, gas, natural

gasoline or other products produced from the wells drilled into the leased lands, the State may terminate this lease by giving written notice to the Lessee.

27. USE OF PRODUCTION FOR LEASE OPERATIONS

With the approval of the State, the Lessee may use oil produced from the Lessee's wells drilled into the leased lands for lease operations only. Oil so used shall be reported to the State monthly. The value of such oil shall not be used in determining net profits pursuant to Exhibit "D". With the approval of the State, the Lessee may also use gas produced from the Lessee's wells drilled into the leased lands, or gas received currently in exchange for gas so produced, for the following purposes only: fuel, gas lift, injection into oil sands from which the well or wells may be producing and reinjection into the leased lands. Gas so used, or gas given in exchange for gas so used, shall be reported to the State monthly, but shall not be used in determining net profits pursuant to Exhibit "D". The State may take, free of cost to it and at no expense to the Lessee, all produced surplus gas which cannot be marketed or beneficially utilized by the Lessee. The surplus gas taken by the State shall be for the use of the State of California.

28. NOTICES

All notices to be given under this lease shall be deemed to have been fully given when made in writing and

deposited in the United States mail, registered and postage prepaid, and addressed as follows:

To the State:

To the Lessee:

The addresses to which the notices shall be mailed may be changed by written notice given by one party to the other as provided above. Nothing contained in this paragraph shall preclude the giving of any notice by personal service to the Lessee or its officer or agent. All payments specified in this lease shall be made to the State at the address provided for notices to the State.

29. TAXES

The Lessee shall be responsible for paying timely all taxes applicable to Lessee's interests in and operations on the leased lands and to all oil, gas and other hydrocarbons produced from the leased lands. Taxes shall be charged to the net profits account as provided in Exhibit "D".

30. FAILURE TO ENFORCE

The failure of the State to enforce any provision of this lease, which includes the exhibits, shall not

* * * * *

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constitute a waiver by the State of that or any other provision.

STATE LANDS COMMISSION OF THE
STATE OF CALIFORNIA

By:

Executive Officer

LESSEE:

ATTEST

EXHIBIT "A"
MAP

24.

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EXHIBIT "B"

DRILLING REQUIREMENTS

1. All operations shall be conducted in accordance with generally accepted good oil field practices.

2. An oil or gas zone is defined as any sequence of strata containing oil, gas or other hydrocarbon substances, where the reservoir characteristics, such as pressure, temperature, specific gravity, viscosity, permeability, and porosity, are similar and whenever such sequence of strata is separated from dissimilar producing strata by a competent layer of shale or other impervious rock.

3. Within one hundred twenty (120) days after the date of the cessation of drilling operations in the first well, the Lessee shall commence operations for the drilling of the next well. Operations for the drilling of each succeeding well shall commence within one hundred twenty (120) days after the cessation of drilling operations in the preceding well. The term "drilling operations" as used in this paragraph 3 shall include any of the following: actual drilling in the ground, logging or surveying the well bore, coring, sidewall sampling or coring, drill stem or formation testing, carrying on fishing operations, running and cementing protection or production casing, running tubing, perforating casing, milling casing, reaming, setting whipstock for redrilling, operations to stop lost

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circulation, and actual plugging and abandonment of the well. The term "cessation of drilling operations" as used in this paragraph 3 shall not include a temporary stoppage of drilling operations of less than seventy-two (72) hours relating to the resumption of drilling operations in the same well or a similar stoppage of longer duration which has been approved by the State. Irrespective of the requirements of this paragraph 3, the Lessee may suspend and resume drilling operations at any time during the drilling term of three (3) years or any extension of it. After oil or gas is discovered in commercial quantities in any oil or gas zone in the leased lands, wells shall be drilled to each commercially productive oil or gas zone, if it is mechanically practicable to do so, as follows:

- a. At least one (1) well for the production of oil into each twenty (20) acres of the area contained in the leased lands where the bottom of the productive interval of the well as completed for production is at a vertical depth of less than 6,000 feet.
- b. At least one (1) well for the production of oil into each forty (40) acres of the area contained in the leased lands where the bottom of the productive interval of the well as completed for production is at a vertical depth in excess of 6,000 feet.

c. At least one (1) well for the production of gas or gas condensate from any zone which produces gas or gas condensate into each one hundred-sixty (160) acres, or major fraction thereof, of the area contained in the leased lands.

The drilling requirements set forth in subparagraphs a, b, and c of this paragraph 3 are required for and are applicable to each separate commercially productive oil or gas zone. With the approval of the State, a well may be completed in more than one zone and shall be considered a well for each zone into which it is completed and producing for the purpose of satisfying the drilling requirements of sub-paragraphs a, b, and c of this paragraph. The zones shall be segregated within the well bore and produced through separate tubing strings. The Lessee shall not be required to operate more than one (1) drilling string at any time, unless the operation of more than one (1) drilling string at any time is necessary in order to commence an offset well within the time required by paragraph 5 of this exhibit.

4. Any well drilled in accordance with the provisions of this lease shall be drilled only from a surface location and on a course and to an objective approved in writing by the State prior to the commencement of drilling. The Lessee shall submit a detailed well drilling program to the State for its review and approval

prior to commencement of drilling. Any significant changes in the approved drilling program, such as altering the casing program or re-drilling, deepening or abandoning a well, shall require advance approval by the State.

5. If any well producing in commercial quantities only gas and/or gas condensate has been, is or shall be completed on other than State lands, with any part of its producing interval within fourteen hundred eighty-nine (1489) feet from the exterior boundary of this lease, or if any well producing in commercial quantities oil and gas has been, is or shall be completed on other than State lands, with any part of its producing interval within five hundred (500) feet from the exterior boundary of this lease, the State may notify the Lessee in writing to drill an offset well. Within the time specified in the notice, which shall be a reasonable time, taking into account the availability, type and location of facilities required, and which in no event shall be less than one hundred-twenty (120) days from the date of the notice, the Lessee shall commence operations for the drilling of an offset well on the leased lands to the same zone as that zone from which such well is producing, or is capable of producing, oil or gas. For the purpose of this paragraph, an offset well for the production of only gas and/or gas condensate shall mean a well, the midpoint of the producing interval of which is situated at a location on the leased land not more than fourteen hundred

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eighty-nine (1489) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset. For the purpose of this paragraph, an offset well for the production of oil and gas shall mean a well, the midpoint of the producing interval of which is situated at a location in the leased lands not more than five hundred (500) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset.

6. An electric log or logs shall be made of all formations penetrated to the drilled depth of each well or to such depth as is mechanically possible. At least one oriented core or dipmeter record shall be made during the drilling of the first well to each zone if it is mechanically practicable to do so, or during the drilling of the earliest subsequent well in which it is mechanically practicable to make such core or record. True copies of all electric logs, surveys, paleontological reports, dipmeter records, oriented core records, rock core records, and all other drilling, test and production data taken by lessee or its agents shall immediately be available to the representatives of the State. State representatives also shall have ready access to all rock cores and samples which may be obtained during the drilling of each well.

7. Each well drilled landward of the ordinary high water mark shall be completed in such manner that all production equipment and facilities are recessed, covered or

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otherwise screened from view to the satisfaction of the State.

8. The State reserves the right, upon receipt of any evidence of subsidence of the surface of either the leased or adjacent lands, to determine that any or all further operations under this lease would or might cause or aggravate subsidence in or cause damage to the leased lands or other properties. In the event of such determination, the State may notify the Lessee in writing to suspend, in the manner and to the extent specified in the notice, its operations under this lease within thirty (30) days of the notice, and the Lessee shall suspend its operations within the time, in the manner and to the extent specified.

Exercise of either or both of the foregoing rights by the State is subject to the following:

(a) The determination may be made by the State at any time during the term of this lease but only at a meeting of the State Lands Commission at least thirty (30) days after written notice to Lessee that the State has received evidence of subsidence and proposes to determine whether any or all further operations under this lease would or might cause or aggravate subsidence in or cause damage to the leased lands or other properties. At this meeting, Lessee may present facts and arguments relevant to such determination.

(b) At least thirty (30) days prior to the

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meeting, the State, to the best of its ability and to the extent permitted by law, shall make available to the Lessee for study, any written or graphic information or opinions received by or prepared for the State relative to subsidence of the surface of the leased and adjacent lands.

(c) Operations under this lease that have been suspended pursuant to this paragraph 8 may be resumed by the Lessee only in the manner and to the extent provided and subject to conditions contained in a program designed to alleviate or prevent further subsidence that has been agreed to by the State and the Lessee.

(d) Notwithstanding any agreement by the State to any such program, the State, upon receipt of evidence of further subsidence occurring after the resumption of operations under such program, may notify the Lessee again to suspend operations in accordance with the provisions of this paragraph, and Lessee shall so suspend operations.

During any period of suspension pursuant to this paragraph 8, the drilling, offset and production obligations of Lessee shall likewise be suspended only to the extent that the performance of such drilling, offset and production obligations is rendered impracticable or unreasonable as a result of the notice to suspend issued by the State pursuant to this paragraph 8.

The rights reserved by the State under this paragraph 8 shall be exercisable to the extent that such exercise is permitted by law.

EXHIBIT "D"

SPECIAL OPERATING REQUIREMENTS

1. SUBSEA COMPLETIONS

In preparing a development plan, the Lessee shall give the same consideration to the use of subsea completions as it does to fixed platforms. When approving a development plan, the State may require the use of subsea completions in those cases where it determines that economics, technical feasibility, environmental impacts, compatibility with commercial fishing operations and the religious beliefs of Native Americans, considered together rather than separately, indicate that subsea completions would be preferable to fixed platforms. When subsea completions are used, the Lessee shall promptly prepare and continually update maps showing the exact location of every subsea installation and shall make such maps available to commercial fisherman and other members of the public.

2. PIPELINE FEASIBILITY

(a) Pipelines will be required by the State for the transportation of produced oil, gas and other hydrocarbons if pipeline rights-of-way can be obtained and the State, acting upon information supplied by affected parties and responsible governmental agencies, determines that the laying of pipelines is economically and technologically feasible and environmentally preferable to other methods of transportation. The State reserves the

right to require the placement of any pipeline in certain designated pipeline corridors.

(b) Following the completion of a pipeline, no hydrocarbons produced from the leased lands shall be transported by surface vessel from offshore production sites, except in cases of emergency as determined by the State.

(c) Where the criteria in subparagraph (a) above are not met and surface transportation must be employed, all vessels used for transporting produced hydrocarbons shall conform with all standards established for such vessels under the Port and Tanker Safety Act of 1978 (33 U.S.C. sections 1221 et seq.).

(d) The State shall not approve any development or production plan which proposes the use of tankers or barges to transport produced hydrocarbons unless the Lessee, in cooperation with the State, has performed a study which demonstrates to the satisfaction of the State that a pipeline cannot meet the criteria in subparagraph (a) above.

(e) If the State determines that a pipeline cannot meet the criteria in subparagraph (a) above, the Lessee shall use the safest available transport vessels. The use of oil barges will be permitted only if the Lessee demonstrates to the satisfaction of the State that barging is environmentally preferable to tankering.

3. POTENTIAL GEOHAZARDS

Drilling operations shall not be conducted and seafloor wellheads and fixed structures for the production, transportation or storage of oil, gas or other hydrocarbons shall not be placed within geologically unstable portions of the leased lands such as potentially unstable sediments, areas of mass movement, submarine canyons or channels, shallow gas zones and areas near active faulting or surface ruptures unless the Lessee has demonstrated to the satisfaction of the State that such operations can be conducted and such wellheads and such structures can be designed and placed so as to withstand the maximum probable effects of the identified geohazards. Site-specific surveys shall be conducted prior to exploration and development operations to determine the potential for unstable bottom conditions and other geologic hazards. Extension of these surveys outside the leased lands may be required where necessary to evaluate the magnitude and significance of the hazard. All potentially unstable areas, including fault zones, must be mapped before any seafloor wellheads or fixed structures are installed. The State may require site-specific soil testing before exploration and development operations are allowed.

4. MANDATORY BIOLOGICAL AND MARINE MAMMAL SURVEYS

(a) Prior to the commencement of any drilling operations and prior to the commencement of construction

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or placement of any structure, including pipelines, on the leased lands, the Lessee shall conduct site-specific biological and marine mammal surveys as specified by the State after consulting with the Department of Fish and Game, the United States Fish and Wildlife Service, the Minerals Management Service and the National Marine Fisheries Service. The site-specific biological and marine mammal surveys shall determine whether the site contains areas of special biological significance that may be adversely affected, either directly or indirectly, by drilling operations or the placement of structures on the leased lands. The surveys shall also determine whether adjacent areas of special biological significance may be similarly affected. Areas of special biological significance include, but are not limited to: (1) existing or potential critical habitats for rare, threatened or endangered species, including but not limited to the California sea otter and the California gray whale; (2) areas used by rare, threatened or endangered species for breeding or migration; (3) areas containing very unusual or rare ecosystems or ecotones; (4) areas with large numbers or high diversity of species; and (5) areas containing species of limited regional distribution due to natural range or significantly reduced populations.

(b) The biological surveys shall include a characterization of (1) the area within a one (1) kilometer

radius of the development site (or within three hundred (300) meters of pipelines) and (2) areas potentially affected by the development by on-site observations of a marine biologist using a submersible device for deep water or scuba equipment for shallow water. A remote camera survey (video and/or film) may suffice in soft bottom areas. Observations shall be accompanied by photodocumentation and the taking of samples. Box core samples shall be taken on soft bottoms. Rocks, portions of rocks or organisms living on rocks shall be taken from hard bottoms. Sampling and observations shall be most intense within three hundred (300) meters of the development site and within one hundred (100) meters of pipelines. Sample species collected shall be identified to the lowest possible taxonomic level.

(c) The marine mammal surveys shall be performed by a qualified mammalogist and shall consist of systematic observations which accurately describe mammal occurrences in and uses of the project area, including an on-site census and behavioral observations of feeding, breeding and migration. The surveys shall also indicate the relationship of project area observations to known data on sea otter and other marine mammal population, size, dynamics, structure and movements in adjacent, present or potential habitats.

(d) If the results of site-specific biological and marine mammal surveys show the existence of a special

biological resource that may be adversely affected by lease operations, the Lessee shall (1) pursue feasible alternatives which will not have a significant adverse effect upon the resource identified or employ mitigation measures, (2) establish through submissions to the State of such documents as an oil spill contingency plan and critical operation and curtailment plan, that operations will not have a significant adverse effect upon the resource identified, or (3) establish that it is in the best interests of the State to permit the project even though no feasible alternatives or mitigation measures exist. The State will review all data submitted and after consultation with the Department of Fish and Game, the United States Fish and Wildlife Service and the National Marine Fisheries Service and preparation of a project specific environmental impact report, will determine in writing whether a special biological resource exists and whether it may be significantly affected by lease operations. No lease operations may be commenced until the State has approved the project and has given the Lessee written directions on how to proceed and the Lessee has obtained all necessary governmental approvals and permits. Any mitigation measures provided in the State's written directive shall be based on laws and regulations of the State governing offshore oil and gas activities on State lands and shall be made in consultation with the Department of Fish and Game, the

United States Fish and Wildlife Service and the National Marine Fisheries Service.

(e) If any area of biologically significant resources should be endangered during the conduct of any lease operations, the Lessee shall immediately report such occurrence to the State and take every reasonable effort to protect the resource.

5. FISHERIES TRAINING PROGRAM

The Lessee shall include in its exploration and development plans a proposed fisheries training program. The training program shall be subject to approval by the State after consultation with the Department of Fish and Game and the National Marine Fisheries Service. The training program shall be for the personnel involved in operating vessels used in carrying out lease operations and platform and shore-based supervisors. The purpose of the training program shall be to familiarize persons working on the leased lands of the value of the commercial fishing industry, methods of offshore fishing operations and potential hazards, conflicts and impacts resulting from offshore oil and gas activities. The training program shall be formulated and implemented by qualified instructors.

6. SUSPENSION OF OPERATIONS AND EVACUATION OF AND SHELTER FOR PERSONNEL

(a) Before the Lessee operates or causes to be operated on its behalf boat or aircraft traffic into

individual, designated warning areas, the Lessee shall coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC) or other appropriate military agency. Such control and instruction will provide for positive control of boats and aircraft operating in the warning areas at all times.

(b) Recognizing that mineral exploration, exploitation and recovery operations on the leased lands can impede tactical military operations, the Lessee acknowledges and agrees that the United States reserves and has the right to suspend temporarily lease operations in the interest of national security requirements. Such temporary suspension of operations, including the evacuation of personnel and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all personnel engaged in operations on the lease for the duration of any Department of Defense activity from flying or falling objects or substances), will become effective upon the order of the Commander, WSMC, other appropriate military agency or higher authority when national security interests necessitate such action. Any temporary suspension of operations for national security may not exceed seventy two (72) hours, provided that any such suspension may be extended by order of the appropriate authority. Equipment may remain in place during periods of suspension.

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(c) The Lessee shall control its own electromagnetic emissions and those of its agents, employees, invitees, independent contractors and subcontractors emanating from individual, designated defense warning areas in accordance with requirements specified by the Commander, WSMC or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control and coordination with the Lessee, its agents, employees, invitees, independent contractors and subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area, provided that control of such electromagnetic emissions shall permit at least one (1) continuous channel of communication between the Lessee, its agents, employees, invitees, independent contractors or subcontractors, and onshore facilities.

7. ASSUMPTION OF RISK AND HOLD HARMLESS

Whether or not compensation for damage or injury might be due under a theory of strict or absolute liability or otherwise, the Lessee assumes all risks of injury or damage to persons or property which occurs in, on or above the leased lands to any person or any property of any person who is an agent, employee or invitee of the

Lessee, or its agents, independent contractors or subcontractors, in connection with any activities being performed by or for the Lessee in, on or above the leased lands, if such injury or damage to such person or property occurs by reason of the activities of an agency of the United States, its contractors or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the WSMC or other appropriate military agency.

Notwithstanding any limitations of the Lessee's liability in this lease, the Lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents or employees. The Lessee shall indemnify and save harmless the United States against all claims for loss, damage or injury to the Lessee and to the agents, employees and invitees of the Lessee, its agents, independent contractors and subcontractors, in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of their officers, agents or employees, and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

3. LABOR REQUIREMENT

(a) During exploration, development and production activities on the leased lands, all vessels, rigs, platforms and other vehicles or structures under the control of the Lessee must be manned by citizens of the United States or aliens lawfully admitted to the United States for permanent residence.

(b) The requirements of subparagraph (a) do not apply if the Lessee files with the State and the Department of Industrial Relations a report, deemed adequate by these agencies, showing that there is an insufficient number of qualified citizens of the United States, or aliens lawfully admitted to the United States for permanent residence, available for such work.

EXHIBIT C

The following findings relate to each of the potential significant effects identified in the environmental impact report prepared for the project:

WATER QUALITY

Impact: Minor degradation of water quality in the project area from the ocean disposal of sanitary sewage and produced water, as well as barge pollution, small spills and other inputs

Finding:

a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. (Regional Water Quality Control Board, Central Coast Region.) Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Finding:

Oil and gas operations in the proposed lease area will result in several water quality impacts to the marine environment from daily operations in the area. These discharges could result from drilling vessels, supply and support vessels, and production platforms and appurtenant structures. These impacts will be most pronounced within a few hundred meters of the discharge point. Outside of this zone of mixing, no difference from ambient conditions is anticipated to be detected.

The Regional Water Quality Control Board, Central Coast Region, has jurisdiction and responsibility over all discharges into the waters of the State of California in the proposed lease area. (Division 7 of the Water Code.) The authority of the Board also extends to the administration of regulations under the Federal Clean Water Act. A copy of a National Pollution Discharge Elimination System (NPDES) permit for oil and gas operations in state waters is located in Appendix C to the final EIR.

The State Regional Water Quality Control Board enforces strict regulations on discharges into the marine environment. As such, all drilling vessels, production platforms, and other dischargers of sewage maintain on board sewage treatment facilities. Discharge standards are set by

the Regional Water Quality Control Board, and discharges must be sampled periodically to determine they are within the specified standards. Prohibitions and limitations contained in a typical discharge permit are given in section 4.4.2.1 of the final EIR.

The proposed leases require the lessee to ". . . abide by all measures designed to mitigate the environmental impacts of its operations under this lease set forth in site-specific environmental studies, including EIRs completed prior to the consideration and approval of exploratory and development activities." (See proposed lease paragraph 10, Royalty Lease and paragraph 11, Net Profits Lease).

The proposed lease also requires that the lessee comply with all regulations administered and permit conditions imposed by the Regional Water Quality Control Board regarding the project. (See proposed lease paragraph 10, Royalty Lease and paragraph 11, Net Profits Lease.)

The measures summarized above will mitigate the identified water quality effects to a substantial extent. However, certain effects may remain.

Oil exploration activities did occur near Point Conception during the late 1950's and early 1960's. The

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proposed lease area is relatively pristine and unaffected by oil and gas development to date. As such, the activities resulting from the proposed project may result in localized increases in the oxygen demand, nutrients, residual chlorine, and, in addition, some light attenuation will occur from the discharge of treated sewage. Other pollutants, i.e., small spills, metal ions from bilge, will have localized impacts as well.

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AIR QUALITY

Impacts:

Minor increases in short-term air pollutant concentrations are projected during light, southeast winds. Specifically, under worst conditions:

- a) SO₂ would slightly exceed the 3-hour average significant level (25 ug/m³) and reach 14 percent of the 1-hour State standard.
- b) total suspended particulates would reach 15 to 45 percent of the 24-hour State standard;
- c) NO₂ would reach 57 percent of the 1-hour State standard.

Finding:

a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding (Santa Barbara Air Pollution Control District and the California Air Resources Board).

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Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting Finding:

For the purposes of the EIR, worst-case emissions for NO_x, SO₂ and TSP were estimated by analyzing four types of facilities used in petroleum operations. The selected facilities include a nearshore production platform with a supply boat along side; a derrick barge in the process of installing a platform, and three tugboats associated with it; an offshore processing facility for both oil and gas; and a tanker-maneuvering operation typically involved when loading is to be undertaken. These four operation scenarios were analyzed using standard modeling techniques to determine the worst-case short-term air emissions occurring from the proposed lease sale area.

The values produced through this analysis peak at the shore or 1 to 2 kilometers offshore. The predicted increases in short-term concentrations constitute only minor increases in existing ambient onshore conditions. According to the Air Resources Board, ambient air standards now occasionally violate federal and/or state ozone and particulate standards.

Jurisdiction and regulatory authority over air quality in the proposed lease area resides with the Santa

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Barbara Air Pollution Control District and the Air Resources Board. The District has and enforces rules and regulations applicable to oil and gas projects in the waters of the State of California. These rules and regulations require the use of best available control technology, trade-offs of emissions where standards are violated, and other applicable measures.

The EIR identifies several potential mitigation measures that these agencies should consider. These include:

- a) the use of craft and machinery with emission controls;
- b) the use of low-nitrogen/sulfur fuel, and
- c) lowering peak power use to the extent practicable.

The lease proposed to the Commission includes a condition that all federal, state and local requirements regarding air quality control applicable to this project be complied with. (See lease form, paragraph 10, Royalty Lease and paragraph 11, Net Profits Lease) This provision will serve to mitigate the air quality impacts otherwise associated with this project.

As identified in the EIR and several public comments, a major source of air pollution generated by petroleum

operations in the project area would be tanker transportation of oil from offshore drilling facilities to receiving points. The required use of oil pipelines in lieu of tanker transportation would mitigate substantially these air quality impacts. Proposed lease stipulation no. 2 requires the pipeline transportation option, if prescribed conditions are met.

Under the worst case conditions analyzed in the EIR, certain pollutant concentrations still significantly increased during some meteorological conditions. However, only minor changes to existing onshore ambient conditions would result.

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MARINE BIOTA

Impact:

Disruption of benthic communities by anchors, pipelines, wells, platforms and other activities which might affect the bottom.

Finding:

Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

Impacts to benthic communities result primarily from the burial, removal or displacement of marine organisms in adjacent areas. Drilling platforms typically displace 7 square meters for a 6 jacket leg configuration and 18 square meters for a 12 jacket leg configuration. Subsea completion systems typically occupy 13 to 21 square meters of bottom area. Along pipeline corridors, 15 meters on each side of the installed pipeline are typically disturbed. Other disturbances can occur from anchoring drilling vessels and also from work barges that disturb 6970 to 7430 square meters of bottom area.

The Characterization of Marine Biota completed in connection with the leasing proposal documents the diversity and sensitivity of marine organisms inhabiting the project area. Any future oil exploration and production activities must be performed in a manner that minimizes adverse impacts on the marine community. Accordingly, the lease form proposed to the Commission contains a detailed stipulation that requires site-specific biological surveys of all proposed specific project areas in the marine environment. (See stipulation no. 5 to proposed lease form.) A separate stipulation requires special year-long biological inventories of the proposed lease area, under the direction of the California Department of Fish and Game, to determine the chronic effect of oil and gas dispersants on marine biota. (See stipulation no. 12 to proposed lease form in this calendar item.) Under the lease, site-specific environmental impact reports for both exploration and development activities are also required. Particular mitigation measures for site-specific activities will be developed in those future EIRs in response to information gleaned from the site-specific biological surveys. These potential mitigation measures, to be considered as conditions for approval for the site-specific proposals, include:

- 1) Use of turbidity-reducing and seafloor disturbance reducing construction methods would lower some impacts.

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2) If found at a specific site, benthic populations unique to the area of disturbances will be avoided or organisms shall be transplanted to another area.

3) The additional mitigation measures identified in proposed lease stipulation no. 5.

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WATER QUALITY

Impact:

Localized, short-term degradation of water quality from the discharge of drilling muds and cuttings into the marine environment, by increasing trace metal concentrations and increasing turbidity.

Finding:

- a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR;
- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. (Regional Water Quality Control Board, Central Coast Region) Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Finding:

The proposed project is the leasing of tide and submerged lands. Site specific environmental impact reports for both exploration and development activities will be required under the lease. Site specific biological surveys

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will also be required. (See proposed lease stipulation no. 5.) Mitigation measures for site specific activities will be developed in conjunction with those site specific environmental impact analyses and will become conditions for approval for site-specific drilling proposals.

There is currently a large volume of research information regarding the methods of disposal used for drilling muds and cuttings, their physical behavior in a variety of oceanographic environments etc., and their impacts on marine organisms. With few exceptions, however, few of such studies have been done in southern California waters and none have been done on site in the Santa Barbara Channel area where existing oil and gas exploratory and development activities are presently concentrated. In addition, there have been few, if any, studies to test the toxicities of drill muds or drill mud components on southern California marine organisms.

Various parties in this proceeding have emphasized that comprehensive studies on the effects of drilling muds and cuttings on water quality and the marine environment are currently underway. These studies are expected to go far in resolving present uncertainties.

For example, the Central Coast District Water Quality Control Board has initiated action to investigate the impacts of disposing drilling muds and cuttings on the marine environment in this general area. The scope of this project, initiated in early 1982, has been the subject of considerable debate.

The Board's September 10, 1982 decision to require monitoring of muds and cuttings disposal at all exploratory well sites has been appealed to the State Water Resources Board. That appeal is still pending at this time. (For a more detailed discussion of the procedural history of this matter, see the staff report in Exhibit "B".)

Additionally, a comprehensive study of drilling muds and cuttings has been commissioned under the auspices of the National Academy of Sciences. The N.A.S., through its Marine Board of the National Research Council, has established a panel on Assessment of Fates and Effects of Drilling Muds and Cuttings in the Marine Environment. The panel is composed of 13 members representing industry and academia and is expected to publish its report at the end of Summer 1983.

Specifically, the panel is conducting a "critical appraisal of reports that synthesize the abundant technical

literature concerning the fates and effects of drilling fluids and cuttings on the U.S. Outer Continental Shelf and what needs to be established to support resource decision-making. The applicability of research and studies to the marine environment will be assessed, as will the transferability of research results from site to site and in different hydrodynamic regimes. The operational implications of the fates and effects, will also be established." Many parties commenting on this project have indicated the belief that information acquired in this study will have relevance to California waters and marine life.

A third study pertinent to this lease proposal is one proposed for the Point Conception/Point Arguello area by the University of Southern California. The study, presented to the Nation Science Foundation, will investigate the identified "upwelling" of currents in the area. This upwelling is thought to contribute to the abundant marine food supply. In brief, the study will attempt to "understand the relationship between circulation and plankton processes that lead to persistent upwelling structures." As proposed, the study will run through 1985, but some preliminary information should be developed by December 1983. Again, various commentators have suggested that this work will further assist the analyses of the dispersion of materials, such as muds and cuttings, in the area.

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Given the fact that these pertinent studies are not yet completed, it would be premature at this time to mandate permanently any particular means of disposal. The results of this research will be available before specific well construction proposals come before the Commission for review. This information will be integrated with the site-specific EIRs and biological surveys in an effort to arrive at the most environmentally acceptable means of resolving these water quality impacts.

Depending on the information obtained from those studies, a final decision could be made to:

- a) require drilling muds and cuttings to be disposed on shore, thus eliminating this impact;
- b) permit discharge into marine environment, with appropriate mitigating conditions; or
- c) barging these materials to one or more centralized offshore disposal site(s).

At the same time, sufficient data has been presented concerning the potential harm muds and cuttings could have on the marine environment to demonstrate that care is warranted pending conclusion of the research studies summarized above. Proposed stipulation No. 10 therefore provides that until

these studies are completed and reviewed, all drilling muds and cuttings generated by the project must be disposed onshore. This will eliminate these water quality impacts in the short term, and permit any long term Commission decision on muds and cuttings disposal to be based on the best possible scientific information.

Finally, the Commission recognizes the principal role of the Central Coast District Water Quality Control Board in regulating water pollution, including drilling muds and cuttings, in the project area.

The Commission's Regulations for Oil and Gas Drilling and Production Operations on State Tide and Submerged Lands specifically provide:

"The lessee shall dispose of these drill cuttings and drilling muds associated with drilling and production well work, in accordance with regulations promulgated by the appropriate Regional Water Quality Control Board. The method employed to dispose of the drill cuttings and drilling muds shall be submitted to the Staff for approval along with the drilling mud program that is required in section 2128(d)(1)." (2 Cal.Admin.Code section 2138)

AIR QUALITY: NO_x

Impact:

Strong NO_x point source (e.g., barge, vessel) emissions are projected to create a significant increase in peak Oxidant (O₃) episode concentrations in coastal valleys during certain meteorological (post-Santa Ana) conditions.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. (Santa Barbara Air Pollution Control District and the California Air Resources Board). Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Finding:

Photochemical modeling of expected worst-case emissions from the lease area indicates that under certain meteorological conditions significant Oxidant (O₃)

concentrations may potentially occur in coastal valleys north of the project area. The primary areas would be Lompoc/Santa Ynez, Los Alamos and possibly Santa Maria Valley.

This meteorological condition would occur when an air mass from the Los Angeles basin containing substantial quantities of reactive hydrocarbon (RHC) moves parallel to the coast, passing over federal OCS tracts and the lease area. NO_x emissions from the federal OCS tracts and State leases may combine with RHC in a photochemical reaction and cause significant increases in oxidant in those coastal valleys.

Jurisdiction and regulatory authority over air quality in the proposed lease area resides with the Santa Barbara Air Pollution Control District and, indirectly, the California Air Resources Board. The District enforces rules and regulations applicable to oil and gas projects in the waters of the State of California. These rules and regulations require the use of best available control technology, trade-offs of emissions where standards are violated, and other applicable measures.

There are several potential mitigation measures applicable to the project that these agencies should consider. First, approved site-specific air quality modeling studies should be performed. These may demonstrate that such impacts

would not in fact occur. Alternatively, during the described meteorological conditions described above, operation of strong NO_x emission sources should be curtailed. These measures should be approved by the Santa Barbara Air Pollution Control District and the California Air Resources Board.

Due to the cumulative nature of these pollutants, O₃ episode peak concentrations may persist, irrespective of conditions on the State project area, unless NO_x emissions are also curtailed on federal OCS tracts and other sources in the region.

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MARINE BIOTA:COMMERCIAL FISHING/GEOPHYSICAL EXPLORATION

Impact:

Geophysical exploration done in conjunction with exploratory well drilling may cause conflicts with fishermen due to gear damage, vessel conflicts and dispersal of fish from fishing grounds.

Finding:

Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

Vessels used in geophysical exploration trail long cables used to record sounds emanating from the noise source aboard the boat. These cables, sometimes over one mile long, can get caught in fishing gear. This in turn can result in lost crab/or lobster traps, net damage and lost time and area for fishing.

To mitigate this impact, the Commission has implemented and will continue to enforce a permit system for seismic activities affecting State lands which include

"Notification Procedures for the Conduct of Geophysical Surveys
and Geological Surveys on State Lands"

These procedures, adopted by the Commission on August 26, 1982, require advance notification to fishermen by all geophysical vessel operators. Among other things, notification provides a map of proposed operations, proposed dates of activity, types of equipment and use, and a contact person for further information. The intent of these measures is to reduce conflict by notifying fishermen so that gear in place can be moved or, alternatively, that the seismic operator can learn of the gear's presence so that conflicts and damage may be avoided.

In the event damage to fishing gear does occur, the Commission procedures provide for compensation to fishermen.

(Copies of these Notification Procedures are on file at the offices of the State Lands Commission. The provisions thereof are incorporated herein by reference.)

A permit mandated under these procedures shall be required for any geophysical activities conducted by or on behalf of potential lessees. With these measures in place, the impacts to the commercial fishermen from geophysical exploration activities are reduced considerably.

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MARINE BIOTA :DISPOSAL OF DRILLING MUDS AND CUTTINGS

Impact:

Ocean disposal of drilling muds and cuttings will cause adverse impacts on marine organisms by turbidity, alteration of sediments and potential toxicity to marine biota of chemicals in drill muds. Some dispersion and dilution through circulation will occur.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR;

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. (Regional Water Quality Control Board) Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting Finding:

The ocean disposal of drill muds and cuttings may have several different kinds of potential impacts on benthic (sea floor) organisms. Those living in the immediate area of

the platform or exploratory drilling area would be buried. Discharge of muds would also increase turbidity, thereby reducing light. These activities could lead to a localized change in the ocean floor.

In addition to the physical impacts, there is a possibility that some of the substances used in drilling muds could be toxic to benthic organisms; accumulation of drilling mud components in food chains is another possibility.

The Commission has completed a major survey of the marine biota within the project area. That survey demonstrates the diversity and sensitivity of marine organisms in the project area. The information obtained from this survey is a necessary first step in determining the appropriate means of disposal and avoidance of specific sensitive areas.

Individual, site specific EIRs will be done prior to the consideration of future exploration and production projects in the lease sale areas. The proposed lease also requires the lessee to abide by mitigation developed in such studies to respond to stated significant environmental impacts. A stipulation to all leases further requires that a site-specific biological survey be performed before any drilling activity takes place. (See stipulation no. 5.) These will identify

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specific areas of biological significance. Furthermore, these measures will further an informed decision on the final disposal method to be made by the Commission and responsible agencies so that appropriate balancing of the different environmental impacts can be achieved.

As noted above, several academic and governmental studies are currently underway on the effects of drilling muds and cuttings on the marine environment. (See discussion under Water Quality at pp 37, above.)

Depending on the information obtained from those studies, a decision could be made to:

- (a) require drilling muds and cuttings to be disposed onshore, thus eliminating this impact;
- (b) permit discharge into marine environment, with appropriate mitigating conditions; or
- (c) barging these materials to one or more centralized offshore disposal site(s).

See discussion in Water Quality, p. 37 herein.

At the same time, sufficient data has been presented concerning the potential harm muds and cuttings could have on the marine environment to demonstrate that care is warranted pending

conclusion of the research studies summarized above. Proposed stipulation No. 10 therefore provides that until these studies are completed and reviewed, all drilling muds and cuttings generated by the project must be disposed onshore. This will eliminate these water quality impacts in the short term, and permit any long term Commission decision on muds and cuttings disposal to be based on the best possible scientific information.

The Commission recognizes the principal role of the Central Coast District Water Quality Control Board in regulating the effects of drilling muds and cuttings on marine biota in the project area. The Commission's Regulations for Oil and Gas Drilling and Production Operations on State Tide and Submerged Lands specifically provide:

"The lessee shall dispose of these drill cuttings and drilling muds associated with drilling and production well work, in accordance with regulations promulgated by the appropriate Regional Water Quality Control Board. The method employed to dispose of the drill cuttings and drilling muds shall be submitted to the staff for approval along with the drilling mud program that is required in Section 2128(d)(1)." (2 Cal. Admin. Code section 2138)

Finally, the lease contains a provision that any ocean disposal of drilling cuttings and muds be performed in

strict compliance with all federal, state and local laws and requirements relating to water quality. (See proposed lease, paragraph 10, Royalty Lease and paragraph 11, Net Profits Lease.)

MARINE BIOTA: INJURY TO ANIMALS DUE TO BLASTING

Impact:

Possible injury to marine birds or marine mammals, including some protected species, by blasting in hard substrate for pipeline construction.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

Blasting, such as may be required to bury subsea pipelines in bedrock, can pose a threat to marine birds and mammals, including some rare and endangered species. Death or permanent hearing and balance disorders could result to birds which are too close to the blasting area. Marine mammals, such as seals, sea lions and even possibly a gray whale, can conceivably be killed by underwater blasts. The proposed lease forms contain a provision to require site specific EIRs prior to any exploratory or production-related construction activities. The lease also requires compliance by the lessee with all mitigation measures developed as a result of the site-specific environmental review. Stipulation 2, as proposed, also provides: "The State reserves the right to

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require the placement of any pipeline in certain designated pipeline corridors". The purpose of this stipulation is to consolidate required pipelines into defined corridors, thereby minimizing adverse impacts on sensitive seafloor areas as well as the need for blasting.

As identified in the EIR, pipeline construction on softbottom, rather than bedrock areas eliminates the need for blasting, thereby further reducing environmental effects. Proposed lease stipulation no. 2 requires the construction of pipelines to occur on softbottom areas whenever feasible. This strong bias in favor of softbottom area construction will greatly reduce or eliminate the need for blasting.

Should conditions nonetheless require blasting, adverse impacts can still be almost totally mitigated by avoiding blasting when marine mammals or birds are near. The lease requires that a qualified observer, approved by the U.S. Army Corps of Engineers and the California Department of Fish and Game, be employed to allow detonation only when the area is clear of these animals. (See proposed lease Stipulation no. 2.)

MARINE BIOTA: EFFECTS OF NOISE

Impact:

Noise and activity of oil operations could disturb harbor seal haul-out (shoreline) areas and/or marine bird colonies in the project region.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The noise and activity associated with all phases of operations could disturb marine mammals. Of particular concern in the project area are the harbor seal haul-out areas and the nesting bird colonies. The federal government is currently conducting a research study of the potential impacts of the noise from offshore oil and gas operations.

These impacts can and will be mitigated substantially by avoiding noisy operations, especially low-flying aircraft or helicopters in these sensitive areas.

Individual, site-specific EIRs are required under the proposed lease for all future exploration and production projects in the lease sale areas. Additionally, site-specific marine biological and marine mammal surveys must be performed before any construction or drilling occurs. These studies will more specifically identify the sensitive areas that could be affected by these noise impacts.

Until this information becomes available, specific mitigation measures designed to reduce or eliminate any adverse noise impacts cannot be precisely determined. Precise mitigation measures such as those identified above will be based on the relationships between the nature and location of the proposed exploratory or production activity and identified sensitive areas.

MARINE BIOTA: COMMERCIAL FISHING

Impact:

During pipeline construction, barge anchors may make huge pits, ditches and mounds on the seafloor which make trawling impossible by commercial fishermen. Pipeline appendages, debris and subsea completion systems also may snag fishing gear, thus causing an adverse impact on trawl fishing.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Findings:

Alterations of the sea floor by placing such structures as pipelines and subsea completion systems may snag fishing gear or make trawl fishing impossible. During construction, the anchors of the barges laying pipeline(s) can make huge seafloor pits, ditches and mounds that interfere with trawling. Subsea production and completion systems may preclude trawling altogether in specific areas. Furthermore, debris and abandoned subsea wellheads can snag and damage gear.

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Several measures have been adopted to mitigate these concerns. First, regulations proposed for adoption by the Commission require an "as built survey" for any pipeline arising from the project to be located and mapped by lessees in detailed form. The Commission will require that this information be prepared by the lessees and filed with the Commission as part of detailed "as built" engineering drawings. Specific location of any such hazards to fishing operations is made possible by reference to the Loran C. coordinate system. This information shall be available to all fishermen and other interested parties working the area.

Proper care in the construction and design of subsea structures will also go far to mitigate these impacts. Subsea structures should be designed to reduce snagging of gear. The Commission, as part of its application procedures, requires the submission of engineering plans which are reviewed and approved by staff prior to project implementation. Necessary modifications are made based on the analyses in EIRs and accepted engineering practices. Proposed stipulation no. 1 further requires that the lessee prepare and continually update maps for commercial fishermen and other interested members of the public showing the exact location of every subsea installation in the project area.

Debris that could be lost during construction could be marked with the owner's name so a fisherman can claim compensation for damaged gear. After the pipelines are laid, the seafloor can be restored to normal conditions. Proposed lease stipulation no. 13 further requires that the lessee prepare maps indicating any ocean floor obstructions either existing in the lease area before commencement of the project or deposited by the lessee during project operations.

Finally, proposed lease stipulation no. 6 mandates a fisheries training program for project personnel. The purpose of this program is to familiarize these individuals with commercial fishing operations in the project area, thus reducing conflicts between the two activities.

SOCIOECONOMIC ENVIRONMENT: MILITARY USES

Impact:

Potential conflict with existing and planned future military activities at Vandenberg Air Force Base. The presence of oil activities in the project area could represent a potential source of significant interference with space and missile launches.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The project area constitutes a military area important to national security and defense, as well as the space program. Potentially, military security could be rendered less certain by some types of petroleum activities in the project area, particularly in the northwestern portion. In general terms, these security interests would be enhanced through coordination with oil representatives to assure that certain types of petroleum activities would not occur in portions of the project area during specified times, e.g. when secret launches are scheduled.

The potential conflict between these two distinct activities has been reflected in previous federal OCS leasing programs (Lease Sales Nos. 48 and 53). To mitigate these potential conflicts, the paramount interest of military activities has been reflected in stipulations that have been incorporated in proposed leases for all potentially-affected tracts. (See proposed lease stipulations Nos. 1, 7 and 8)

These stipulations address consideration of subsea (underwater) completions; coordination with the Commander of the Western Space and Missile Center, mandatory suspension of petroleum operations and evacuation of petroleum industry personnel upon notice from the military, and appropriate sheltering of personnel not evacuated; control of electromagnetic emissions; and inclusion of a "hold harmless" clause.

These stipulations will eliminate or substantially reduce potential conflicts between petroleum operations in the project area and adjacent military/space operations.

MARINE TRAFFIC

Impact:

The increased risk of a vessel collision with a drilling vessel, support craft or a fixed platform.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. (U.S. Coast Guard and U.S. Army Corps of Engineers) Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting Finding:

Construction and operation of oil drilling equipment in the project area increase the potential for conflict with marine traffic which may travel near the area.

Primary responsibility for addressing this concern rests with the federal government, principally the U.S. Coast Guard. The Coast Guard is responsible for establishing port

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access routes and vessel traffic safety lanes wherever necessary to provide safe access to U. S. ports and safe transit through coastal waters.

In an investigation of vessel access routes to ports in southern California, the U.S. Coast Guard (11th District) developed recommendations for modifications and additions to the existing Santa Barbara Channel Vessel Traffic Separation System (VTSS); the Coast Guard Port Access Route Study concluded that an extension of the existing VTSS is warranted. It is expected that this extension will become effective internationally in about two years. (The Coast Guard findings and recommendations relevant to the project area are included in the DEIR, (page 4-333.)

The Commission supports and encourages these measures. In particular, the planned extension of VTSS in the general vicinity of the project area and application of U.S. Coast Guard and Corps of Engineers regulations for all vessels and offshore oil drilling structures will substantially mitigate the marine traffic hazards in the project area that might otherwise be present as a result of state leasing. The extension of the VTSS will confine marine traffic in identified corridors away from the project area and thus diminish encounters between established marine coastal traffic and structures which may be placed in the project area.

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Safety zones may be established in the vicinity of a structure in State waters whenever the Coast Guard believes it is necessary to exclude all vessels except those engaged in the construction and operation of such a structure. The Coast Guard has also proposed the establishment of permanent safety zones around a number of selected structures on the federal OCS tracts, and it is probable they would do so in the project area, if warranted.

The Coast Guard also requires markings and navigational aids on all structures in State waters.

Through both broadcasts and published notices, the Coast Guard keeps all mariners advised of the location and construction of drilling structures and associated pipelines and cables, as well as the existence of safety zones and the condition of navigable aids.

The U. S. Army Corps of Engineers also is involved with safety of navigation. That agency establishes restricted areas when it is necessary to exclude vessels. They are typically associated with military operating and training areas, as well as those related to man-made obstructions.

The Coast Guard regularly offers advice to other federal, and State agencies regarding possible impacts on vessel traffic, anchoring, etc. While these agencies issue permits for the routing and depth of associated pipelines and cables, such Coast Guard advice has a strong impact on the permitting process. Any such recommendations regarding State lease activities shall be considered as part of the required site-specific approvals for subsequent exploratory or development approvals in the proposed lease area.

Finally, proposed lease stipulation No. 2 also mitigates against marine traffic hazards. Specifically, paragraph 2(c) of the stipulation requires that if the preferred oil transportation method (i.e., pipelines) cannot be utilized, any oil tankers transporting hydrocarbons must comply with the Port and Tanker Safety Act of 1978 (33 U.S.C. §1221 et seq.). Paragraph 2(e) mandates that any such surface transportation incorporate the safest available transport vessels.

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SOCIOECONOMIC ENVIRONMENT: AESTHETICS

Impact:

Offshore industrial elements such as drilling vessels and platforms would significantly alter the current highly scenic and remote/undeveloped character of the project area.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

Oil and gas development offshore in the Point Arguello-Point Conception area would have a considerable aesthetic impact on what is now an almost pristine area. Aesthetic impacts from development of the proposed leases would act in an incremental, cumulative fashion with other developments in the region. Most significant would be the construction of platforms on existing federal OCS leases adjacent to the State lands area. If platforms are placed on these federal leases, the aesthetic character of the region will change significantly. Against a background of offshore federal OCS platforms, platforms on State lands would

represent additional nearshore industrial elements. They would not, however, constitute a unique visual presence in the area.

Aesthetic impacts could be reduced in two ways: first, platforms offshore should be limited wherever practicable. The Public Resources Code enables the Commission to require unitization of leases provided certain conditions are present. (Public Resources Code §6829.2) Such unitization limits the number of platforms in individual lease parcels to the maximum extent feasible. A final determination in this regard is dependent on adequate information on the geologic structures affected, etc. Information generated by site specific EIRs and geophysical surveys will facilitate such determinations.

Second, subsea completions (i.e., underwater drilling platforms) would reduce the adverse aesthetic impacts involved. Subsea completions provide a means of obtaining oil and gas reserves from facilities located on the ocean floor. Subsea systems would mitigate the aesthetic impact of offshore platforms, although additional drill vessel presence and expense would be required.

However, the utilization of subsea completions involve environmental tradeoffs. As discussed in the EIR, compared to fixed platforms, subsea completions constitute an

increased risk to the marine biota, enhance the threat of serious oil spills and pose additional threats to commercial fisheries.

A reasoned decision as to whether, on balance, subsea completions are warranted necessarily depends on analyses required by Stipulation 1 within the proposed lease forms. Stipulation 1 requires that subsea completions be considered for use in the lease sale area to the same level of detail as fixed platforms. The ultimate decision depends, in significant part, on the information and analyses required as a part of site-specific EIRs for all development activities within the lease area (See Section 10, Royalty Lease and Section 11, Net Profits Lease).

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CULTURAL RESOURCES: SUBMARINE ARCHAEOLOGY

Impact:

During offshore construction, penetration or disruption of the seafloor might damage or destroy a submarine cultural resource feature.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Finding:

Cultural resources may be discovered in waters off Point Conception and Point Arguello, areas considered sensitive zones for submarine cultural resources, particularly shipwrecks. Oil drilling activities in these areas may well encounter such shipwrecks.

The State of California has performed a historical and cultural resource survey over the entire project area. Included were side-scan sonar and magnetometer surveys providing data likely to indicate the possible presence of underwater cultural resources. This and related survey work produced an inventory of subsurface anomalies likely to indicate the presence of historical or cultural features on the sea floor.

As a condition of each lease, the Commission will require site-specific cultural resource surveys to be performed in potentially affected areas. (2 California Administrative Code, Section 2 2128 (c)). Construction activities, such as anchor setting, dragging or laying of pipelines will be sited to avoid known side-scan sonar and magnetometer anomalies. Provision will be made for each potentially affected site to be investigated by qualified archeological specialists.

These measures will largely eliminate the project's potential adverse effects on submarine cultural resources.

Prior to exploratory or productive drilling construction, a site-specific survey for cultural resources must be performed. These surveys are required as a component of site specific EIRs mandated under the terms of the leases which will be in effect for the project area (see Section 10, Proposed Royalty Lease; Section 11, Proposed Net Profits Lease).

Where cultural resources are discovered during these surveys, two courses of action are available. The first option is avoidance of potential impacts to any cultural resources identified as existing in the area. Avoidance can include requiring that project siting development take place away from the identified resource, thus avoiding impacts during construction, maintenance and operation of facilities. The second option is a program of further investigation of discovered cultural resources, including, but not limited to, further remote sensing and visual inspection by qualified diver-archaeologists or other appropriate specialists.

Although numerous cultural resources have been identified in the project area and on the adjacent coastal terrace, the lack of a comprehensive archival records search and a surface survey precludes conclusive identification of all cultural resources in the area. Nevertheless, data gathered in preparation of Appendices D and E of the final EIR can be used as a general indicator of relative densities and distributions of cultural resources. As a result, areas known to contain potentially sensitive cultural resources can be designated for special consideration in initial planning for facilities approval, placement and construction activities.

Other agencies besides the Commission have authority over submarine cultural resources. Under Section 5097 et seq. of the Public Resources Code, the Department of Parks and Recreation is authorized to survey State lands for evidence of historic, paleontological or archeological resources. The Department is authorized to make recommendations to the Commission concerning appropriate ways of preserving such cultural resources. Any such recommendations will be incorporated into the Commission's decision-making process on specific site development plans. (For a detailed discussion of other laws and agencies bearing on submarine archeological resources, see the Draft EIR at pp. 4-386 through 4-399.)

A final decision on the appropriate means of protecting submarine cultural resources must await the final results of mandated site-specific surveys documenting the existence and nature of such resources and mitigation measures identified and recommended in the site-specific EIRs. Site-specific recommendations of other interested agencies such as the Department of Parks and Recreation and the State Office of Historic Preservation must also be obtained. The measures outlined above, however, demonstrate that appropriate means of preserving submarine cultural resources are and will be incorporated into the project.

CULTURAL RESOURCES:ARCHAEOLOGY

Impact:

Onshore construction incident to the project may affect presently unknown archaeological site(s).

Finding:

a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Findings:

A variety of federal, state and local laws and directives mandate consideration of cultural resources (including archeological sites) during project planning. These are reflected in the permitting responsibilities of the

involved agencies. These regulatory constraints direct not only the identification, evaluation and appropriate disposition of potentially affected historic and archaeological resources, but also the protection of Native Americans' traditional beliefs and practices. These directives are detailed in page 4-386 of the EIR.

In general, consideration of cultural resources as part of the project planning is required under historic preservation legislation, including the Federal National Historic Preservation Act of 1966 and the California Archaeological, Paleontological and Historic Sites Act (Public Resources Code 5097 et seq.). This legislation addresses specific rights of ethnic groups, especially Native Americans.

Although numerous cultural resources have been identified in the project area and on the adjacent coastal terrace, the lack of a comprehensive archival records search and a surface survey precludes conclusive identification of all cultural resources in the area. Nevertheless, data gathered in preparation of Appendices D and E to the final EIR serve as a general indicator of the relative densities and distributions of cultural resources. Any project which could impact archeological resources, as identified in the final EIR

and the supporting material, will be subjected to a site-specific EIR as required in the proposed lease forms (Section 10, Royalty Lease; Section 11, Net Profits Lease). As such, the impacts of the proposed project will be analyzed and appropriate, specific mitigation developed and incorporated into project implementation. Such EIRs present the analysis and implementation of recommendations of responsible and interested agencies such as the State Department of Parks and Recreation, the State Office of Historic Preservation, the Native American Heritage Commission and locally affected Native American interests.

Appendix D includes preliminary indications of probable low sensitivity areas among the known resource locations. Preliminary selection of corridors and facility sites will be performed on the basis of these data to avoid these locations. Direct impacts can be minimized by planning for the use of previously disturbed areas rather than developing new areas. Potential impacts from installation of pipelines will be minimized by placing pipelines within existing corridors whenever feasible. (See Stipulation 2.)

In summary, archaeological resources will be protected under a variety of mitigation measures.

Preconstruction surveys and planning program for specific construction areas will be required. Exact configuration of construction activities and pipeline alignments will be performed with the assistance of a qualified archaeologist who is well acquainted with the area. The Commission will require construction away from archaeological sites or in previously disturbed corridors to the maximum extent possible.

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CULTURAL RESOURCES: NATIVE AMERICAN VALUES

Impact:

During onshore archaeological testing or construction, an Indian burial site might be unearthed. Artifacts unearthed during construction activities could subsequently be destroyed or pilfered from the site. Native Americans are intensely concerned about potential desecration of any burial site that might be discovered, and about the potential loss of artifacts of their culture.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

Facts Supporting Finding:

As discussed in considerable length in the EIR, Native Americans have expressed concern about the effects of

the proposed project on their cultural resources and heritage. These concerns include the following:

(1) Native American participation in all phases of cultural resource management.

(2) Protection of human burials.

(3) Protection of plant, animal and other natural resources.

(4) Protection of sacred sites.

(5) Avoidance of unnecessary impacts to archaeological sites.

(A detailed analysis of these concerns is set forth in Section 4.10 of the EIR, commencing at page 4-369.)

The proposed lease forms for the project area require site-specific EIRs. Should any future development project involve onshore components, their impacts will be analyzed and approved specific mitigation developed and incorporated into the project.

Evaluation of project-specific constraints and potential impacts, as required by mandatory site-specific EIRs (Section 10, Royalty Lease; Section 11, Net Profits Lease), will require further ethnographic fieldwork with existing Native American organizations concerned with cultural resource preservation.

Further, a variety of federal, State and local laws and directives mandate consideration of cultural resources during project planning in accordance with the permitting responsibilities of the involved agencies. These regulatory constraints direct not only the identification, evaluation and appropriate disposition of potentially affected historic and archaeological resources, but also the protection of Native Americans' traditional beliefs and practices.

A thorough summary of these measures is included in Section 4.10.5 of the EIR.

Existing local governmental provisions afford additional protections as to Native American concerns regarding impacts of onshore development.

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The Santa Barbara County Local Coastal Program, required under the Coastal Act, permits oil and gas development in accordance with Public Resources Code Sections 30260 and 30262. The County Land Use Plans designate only two small areas near Point Conception for coastal-dependent industry; they are the sites of existing oil and gas facilities near Government Point and Little Cojo. These two designated areas encompass approximately 10 acres each, areas only somewhat larger than the facilities present there now. Consequently, all petroleum developments proposed concerning the project must be centralized with these existing sites. Any coastal development outside these sites would require changes in the Land Use Plan as well as Coastal Development Permits. The nearest designated industrial site outside the project area is the 100 acre Getty Oil Company marine terminal at Gaviota, about 24 km (15 miles) east of Point Conception.

Other specific measures of concern to Native Americans regarding their cultural resources have been analyzed in those sections of the EIR on aesthetics, submarine cultural resources-archeology, and cultural resources-archeology. Findings and underlying facts concerning these matters have been previously discussed in the staff report and are incorporated herein by reference.

These measures, taken together, constitute substantial mitigation of impacts to Native American cultural resources adopted by the Commission and recommended to or adopted by other interested agencies.

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IMPACTS RELATED TO POTENTIAL OIL SPILLS

The potential exists for an accidental spill of petroleum to occur within the project area and cause significant impacts to: (1) water quality; (2) air quality; (3) marine biota; (4) recreational and commercial fishing activities; (5) marine biota - special biological features in the general area; (6) rare, threatened, endangered species; and (7) the socioeconomic environment, particularly recreational uses. These impacts are addressed in further detail below.

OIL SPILL IMPACTS

Water Quality:

(a) The nature and extent of the impact on water quality from any given spill would depend on the type and volume of material released as well as weather and sea conditions at the time of the spill. While the presence of petroleum products from an oil spill in the water column will be temporary due to the evaporation of the more toxic volatile fractions of hydrocarbons, longer lasting effects could come from oil trapped in sediments and slowly released by weathering after the initial impact. (See section 4.4.4, page 4-73, section 4.4.4.1, pages 4-74 - 75, and section 4.7.11, page 4-207 of the final EIR

regarding biological impacts from water quality effects of spills.)

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

Potential measures to mitigate these impacts are of two types: (1) preventive; and (2) reactive to any possible accident which could result in the discharge of petroleum into the marine environment.

Preventative:

1. Transportation:

The lease(s) which will govern the conduct of lessee activities contains a stipulation which requires the use of pipelines for the transport of all oil and gas produced from lease developments if certain prescribed conditions are met. The incremental increase in the probability of an oil spill resulting from project area petroleum development has been calculated, based on the 30% probability resource level and the 5% probability resource level discussed in the EIR, at from 1.6

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to 3.9 percent, respectively, if pipelines are used and 3.6 to 5 percent if tanker transportation is used. Accordingly, the likelihood of an oil spill is substantially reduced (by approximately half) through the adoption of this mitigation measure alone.

2. Operations:

The California Public Resources Code and the Commission's implementing regulations govern and control oil and gas activities on State lands. Specifically, Commission regulations "...pertaining to oil and gas drilling operations on State oil and gas leases located on State tide and submerged lands under the jurisdiction of the State Lands Commission, and are applicable to operations conducted from mobile rigs, fixed offshore structures and upland locations serving these leases." (2 Cal. Admin. Code section 2125(a)) The specific references to the Administrative Code are as follows: (1) Article 3.2 - Oil and Gas Drilling Operations; (2) Article 3.3 - Oil and Gas Production Regulations; and (3) Article 3.4 - Oil and Gas Drilling and Production Operations: Pollution Control. (These provisions are incorporated herein by reference.)

The regulations as a body significantly reduce the likelihood of any pollution incident, i.e. an oil spill. In addition to engineering requirements (blowout preventers, etc.), training and supervision competency, inspection and

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equipment testing, etc., the regulations require the submission and approval by Commission staff of "Critical Operations and Curtailment Plans" which " . . . provide additional precautionary measures to minimize the likelihood of an oil spill incident occurring from offshore drilling and production well work during: (1) adverse weather and sea conditions when oil spill containment and recovery equipment, material and techniques are not effective and marine transportation is severely hampered; and (2) the time that oil spill containment and recovery equipment, material, manpower, and transportation thereof are not readily available to the site of operation." (2 Cal. Admin. Code section 2141) The Commission staff will consult with a variety of concerned interest groups including local government, environmentalists, fishing interests and the oil industry in reviewing and certifying these plans for the project area.

Reactive:

1. Operations:

Commission regulations further require the submission and approval by the staff of the Commission of an oil spill contingency plan prior to any drilling or production activities. (2 Cal. Admin. Code Sections 2139, 2140.)

These regulations provide that specific pollution control and removal equipment are required to be onsite, both at mobile drilling and fixed production facilities and at onshore locations. The regulations state in pertinent part that, "Equipment for the control and removal of larger oil spills shall be maintained at an offshore or onshore location near the area of lease operations where deployment and response to the spill would provide the most feasible protection of coastal resources. All equipment shall be inspected regularly and shall be maintained in good condition for immediate use." (2 Cal. Admin. Code section 2140(d); these regulations are incorporated herein by reference.)

Like the related plans summarized above, the Commission will consult with interested parties in reviewing and certifying all oil spill contingency plans in the project area. (See additional information regarding oil spill containment and clean-up capabilities at pages 58 to 77 of the staff report (Exhibit "B"); this material is incorporated herein by reference)

Proposed lease documents require compliance with the regulations cited above and provide for the cancellation of any lease in the event of noncompliance with these laws. The proposed leases also specifically require the lessee to ". . . abide by all measures designed to mitigate the environmental impacts of its operations under this lease set forth in site-

specific environmental studies, including EIRs completed prior to the consideration and approval of exploratory and development activities." (Proposed lease at Section 10, Royalty Lease; Section 11, Net Profits Lease.)

Three separate proposed stipulations also serve as important means of mitigating impacts relating to potential oil spills. Stipulation No. 11 mandates extensive, state-of-the art oil spill response capability, including 1) sophisticated containment equipment capable of prompt deployment in the project area; and 2) lessee-funded oil spill response training for the State Interagency Oil Spill Committee.

Proposed stipulation No. 12 requires special year long biological inventories of the lease area, under the direction of the California Department of Fish and Game, to determine the chronic effect of oil and oil dispersants on marine biota. The information generated by these data will promote more effective and environmentally sound oil spill containment procedures.

Finally, stipulation No. 15 requires that all-season studies of ocean currents be performed in the project area in cooperation with other efforts of this nature. These studies will ensure better understanding of likely movements of any oil spills in the area, thus enhancing prompt and effective response capability.

These three stipulations, together with the other mitigation measures outlined above, substantially reduce the likelihood of oil spills occurring in the first place or causing substantial environmental damage if they do take place.

OIL SPILL IMPACTS

Air Quality:

The effect of a spill on air quality is the sudden release of a large volume of evaporated hydrocarbons. Depending on the prevailing atmospheric conditions, a large spill could contribute significant concentrations or quantities of photoreactive hydrocarbons. These emissions could in turn react during the day with sunlight and Oxides of Nitrogen (NO_x), if present, to form Ozone (O₃). No long term impact on air quality would be expected. (See section 4.6.11.3, pages 4-169-170 of the final EIR for a detailed discussion of these impacts.)

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

OIL SPILL IMPACTS

Marine Biota:

Biota - Biological impacts of oil spills include lethal and sublethal effects and indirect effects resulting from habitat alteration and destruction or contamination of a population's food supply. Direct lethal effects may be chemical, such as poisoning by contact or ingestion, or physical, by coating or smothering with oil. Sublethal effects (those which do not kill an individual, but which render it less able to compete with individuals of the same species and of other species) would also be likely to occur.

Most studies of oil spills have shown that rocky intertidal biological communities particularly tend to suffer a harmful impact. Should a spill occur in the project area,

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It would have an extremely high probability of affecting some of the rocky intertidal areas between Point Conception and Point Arguello. Although the rocky intertidal areas are the most serious concern, adverse effects from oil spills have also been documented on the marine life of sandy beaches.

An oil spill in the project area would be expected to affect the seafloor if large quantities sank to the bottom within a restricted area. Cumulative impacts of oil spills from this project and other local leases could affect benthic populations by changing the consistency of the sediments and adding to hydrocarbon loads in the environment which might then have sublethal effects on benthic organisms.

Phytoplankton and zooplankton could suffer lethal or sublethal effects. Sublethal effects could include decreased photosynthesis, decreased growth, abnormal feeding and abnormal behavioral patterns. (See sections 4.7.14.2 - 5 and pages 4-247 - 252 of the final EIR regarding these impacts.)

Finding:

(a) Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

OIL SPILL IMPACTS

Recreational and Commercial Fishing Activities:

Surface fish (bonito, jack mackerel, northern anchovy, California grunion) would be most affected by a spill, as well as egg and larval stages of fish in general. Commercial and recreational fishermen may also avoid any area affected. This in turn may result in adverse economic impacts, particularly to commercial fishing interests. (See sections 4.7.8, page 4-200 and 4.7.14.6, page 4-254 of the final EIR regarding these impacts.)

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

OIL SPILL IMPACTS:

Special Biological Features:

The nearshore area between Point Conception and Point Arguello could be considered a special interest biological feature because it is a biogeographic transition zone and relatively undisturbed. Areas of special interest include harbor seal haul-out areas, seabird nesting areas and large concentrations of intertidal abalone. Areas outside the project area that could potentially be affected include the Northern Channel Islands, the mouth of the Santa Ynez River, the mouth of San Antonio Creek, kelp beds between Point Conception and Rincon Point, Naples Reef, etc. (see section 4.7.9, page 4-201 of the final EIR.)

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the

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significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

Oil Spill Impacts:

Rare, Threatened, Endangered Species:

The California least tern nests to the north of the project area at the mouths of the San Antonio Creek and the Santa Maria River. California brown pelicans forage along the shoreline throughout the project region. Of the seven endangered mammals occurring in southern California, the California gray whale passes through the project area during their annual migrations from November through March. The southern sea otter, whose colonies exist 50 miles north of the project area may also be affected by activities within the area.

Pelicans may be affected by oil spills through contamination of their plumage, since they dive for food and drift on the water surface. Such contamination could contribute to direct mortality or result in reduced hatches of eggs oiled from the fouled plumage of the adult. Similarly, least terns have the potential for being contaminated by oil from a spill as they dive for food.

Sea otters are known to be particularly susceptible to oil and may die if they become fouled with oil and gas. Contamination of 30 percent or more of the body surface will probably result in death.

There is little information available on effects of oil on gray whales.

(See sections 4.7.14.7, page 4-255 and section 4.7.14.8, page 4-257 of the final EIR.)

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

OIL SPILL IMPACTS:

Socioeconomic Environment - Recreation:

The occurrence of an oil spill could result in short-term reductions or dislocations in human use of beaches or other coastal areas. Such reductions or dislocations in beach uses, while temporary, could further result in economic impacts to the local communities involved.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The facts supporting this finding of mitigation are

the same as those stated above concerning oil spill impacts on water quality. They are therefore incorporated herein by reference.

GEOLOGICAL CONDITIONS

Impact:

Various geologic conditions in the proposed lease area will affect the project. Seismic hazards including earthquake-related ground motions or fault rupture are the most significant constraints. Other geologic hazards necessitating consideration in any oil platform design and operation are hydrocarbon seeps, shallow gas, entrainment of hydrocarbons in seafloor sediments, submarine slumping, landslides, liquefaction, tsunami, overpressured reservoirs and subsidence.

Finding:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects thereof as identified in the final EIR.

Facts Supporting Finding:

The nature and extent of geological hazards related

to the project, together with particular measures necessary to resolve them, necessarily depend upon the particular type, location and operation of drilling equipment. With this in mind, the Commission has incorporated specific lease stipulations (proposed Lease Stipulations No. 3 & 4) requiring lessees to demonstrate the safety of their operations where geologic hazards exist. If this cannot be demonstrated to the satisfaction of the Commission, lessees will be required to operate from locations outside areas of geological instability.

In this connection, the stipulation further requires lessees to conduct site-specific geologic hazard surveys before any exploration or development activities, and to demonstrate to the Commission the operational feasibility and safety of all proposed activities.

Site-specific environmental impact reports are also required by the lease for both exploration and development activities.

These requirements mitigate potential geologic hazards associated with the project. Information gleaned from the site-specific EIRs and geologic surveys will form the basis for additional, particularized mitigation measures as necessary.

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EXHIBIT D

On numerous occasions, e.g., the Notice of Preparation, extended review period for the Draft EIR, etc., the Department of Parks and Recreation was consulted and its comments solicited as to the relationship of the proposed project to "possible interference with the recreational use of lands littoral" to the project area. To date no comments have been received from the department in this regard.

Finding: The Commission finds that the project, as proposed, will not unreasonably interfere with the maintenance or use of the littoral lands for recreational purposes or protection of shore properties.

Facts Supporting Findings: As discussed in detail in Exhibit C, the proposed mitigation measures are designed to minimize the effects of the project on shoreline areas and insure compatibility with the existing recreational areas (i.e., Jamala State Park) adjoining proposed tract No. four. These measures have been discussed in detail in connection with CEQA (Exhibit C see especially findings and analysis regarding aesthetics and oil spill impacts) and Public Resources Code Section 6873.2 (Exhibit E). These items are incorporated herein by reference.

EXHIBIT "E"

CONFORMANCE WITH PUBLIC RESOURCES CODE SECTION 6873.2

As required by Public Resources Code Section 6873.2, the staff held two noticed hearings in Santa Barbara (on April 30, and May 15, 1982) following the notice and requirements specified in the statute. A plan for the control of subsidence and pollution, as summarized in the Draft Environmental Impact Report, and proposed mitigation measures, were developed and presented for public comment.

At these hearings, the staff also received evidence and public comments under Section 6873.2 on whether the issuance of a lease or leases would result in the impairment or interference with the shoreline recreational or residential access adjacent to the project area. Specific concerns included whether the proposed lease or leases would:

(a) Be detrimental to the health, safety, comfort, convenience, or welfare of persons residing in, owning real property, or working in the neighborhood of such areas;

(b) Interfere with the developed riverbank or shoreline, residential or recreational areas to an extent that would render such areas unfit for recreational or residential uses or unfit for park resources;

(c) Destroy, impair, or interfere with the aesthetic and scenic value of such recreational, residential, or park areas; or

(d) Create any fire hazard or hazards or smoke, smog, or dust nuisance or pollution of waters surrounding or adjoining such areas.

The Commission's analysis of these concerns has taken place in conjunction with the general environmental review of the proposed project. The EIR prepared by the Commission considers a wide range of environmental impacts concerning the proposed project. These include: subsidence, aesthetics, recreational uses, public safety, and the other items specified in section 6873.2. The EIR and related materials identify numerous mitigation measures in response to these identified environmental impacts. These impacts, proposed mitigation measures, and findings under the California Environmental Quality Act are summarized in Exhibit "C", applicable to the considerations required by Section 6873.2 and are therefore incorporated by reference.

The following findings are proposed in conformance with Public Resources Code section 6873.2;

Finding: The project, as proposed will not be detrimental to the health, safety, comfort, convenience, or welfare of

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persons residing in, owning real property, or working in the neighborhood of the project area.

Facts Supporting Finding:

There are no developed residential areas or lands immediately adjacent to the proposed lease tract. Therefore, there will be no detriment to the health, safety, comfort, convenience, or welfare of persons residing in the neighborhood of the project. As specified in the EIR, the coastal lands bordering the project area are currently undeveloped in principal part, with isolated military, agricultural and industrial uses being present.

However, even if such developed residential areas presently existed adjacent to the recommended lease areas, there would be no serious detrimental effects on the health, safety, comfort, convenience, or welfare of persons residing in, working, or owning real property in such developed areas. Petroleum development of current offshore leases is occurring in areas bordering developed onshore areas. Moreover, the EIR discusses the potential environmental impacts of the proposed leasing project, and identified proposed mitigation measures for such impacts. The mitigation measures proposed in conjunction with project approval (lease conditions, stipulations, etc.) substantially reduce or eliminate the adverse environmental effects that might otherwise result from the project. (See,

e.g., discussion and findings in Exhibit "C" regarding aesthetics and oil spill contingency measures). The above discussions and findings regarding these mitigation measures are incorporated herein in their entirety.

Finding: The project as proposed will not interfere with the developed riverbank or shoreline, residential or recreational areas to an extent that would render such areas unfit for recreational or residential uses or unfit for park purposes.

Facts Supporting Finding:

The only identified, developed shoreline recreational facilities adjacent to the project area is located at Jalama Beach Park. That park borders proposed lease tract number four. There are no developed recreational areas adjacent to the other seven recommended lease tracts. There are no known developed residential areas adjacent to any of the eight proposed lease areas. As noted in the County of Santa Barbara's comments to the draft EIR, the Local Coastal Plan has designated the Pt. Conception area for agricultural use.

The leasing of the project area for petroleum exploration and production will not interfere with the developed shoreline recreation area to an extent that would render it unfit for recreational or park purposes. The mitigation measures incorporated into the project are designed to ensure that it is wholly compatible with recreational and

park activities. The latter may continue concurrently with any oil and gas development of the project area. Moreover, the mitigation measures proposed in conjunction with the project substantially reduce or eliminate any adverse effects that might otherwise result from the project. (See, e.g., discussion and findings in Exhibit "C" concerning aesthetics and oil spill impacts). These discussions and findings regarding proposed mitigation measures are incorporated by reference.

Finding: The project as proposed will not destroy, impair, or interfere to a significant degree with the aesthetic and scenic value of such recreational, residential, or park areas.

Facts Supporting Finding:

The EIR did identify impacts on aesthetic and scenic values that can occur from the development in the project area. The only established recreational or park area affected thereby is Jamala State Park, off proposed tract No. 4; no established residential areas exist.

The proposed measures adopted to mitigate the potential aesthetic effects of the project are discussed both immediately above and in the applicable portions of the findings and analysis prepared in conformance with CEQA. These materials are incorporated by reference.

Additionally, the EIR noted that these aesthetic impacts will occur due to pending development on federal OCS

parcels nearby and adjacent to the project areas, and specifically, proposed tract number four. Any extractive activity on State lease(s) will represent an incidental increase over the background activity on the federal OCS parcels. (See pages 66 to 68, in Exhibit "C" for findings in this regard.

Finding: The project as proposed will not create any fire hazard or hazards or smoke, smog, or dust nuisance, or pollution of waters surrounding or adjoining such areas.

Facts Supporting Finding:

The EIR identifies potential impacts of water pollution and air pollution, including smoke, smog and dust. The EIR also identified numerous measures proposed to reduce or eliminate these potential water and air impacts. The proposed findings and underlying analysis regarding potential air and water pollution are summarized in detail in Exhibit "C". They are directly applicable and are therefore incorporated by reference.

Potential fire hazards incidental to the project are analyzed in the EIR. Comprehensive measures to mitigate and eliminate fire and related hazards are found in the Commission's regulations regarding petroleum activities on tide and submerged lands. (2 California Administrative Code Section 2125 et seq.

see esp., Section 2132(g)(4)). These regulations are directly applicable to operations conducted by lessees.

Finding: The proposed project will not interfere with developed riverbank or shoreline recreational or residential areas adjacent to the project area.

Facts Supporting Finding:

As noted above, the coastal region bordering the project area is quite remote and virtually undeveloped. No residential areas exist adjacent to any of the eight proposed lease tracts. The only developed recreational area is a state park on the edge of proposed tract number four. None exist adjacent to tracts one through three and five through eight.

The additional facts supporting this finding are contained in (1) the analysis provided regarding the four findings immediately preceding; and (2) the findings and discussion provided in Exhibit "C" in conformance with CEQA. These materials are therefore incorporated herein by reference.

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EXHIBIT "F"

SPECIAL OPERATING REQUIREMENTS

1. SUBSEA COMPLETIONS:

In preparing a development plan, the Lessee shall give the same consideration to the use of subsea completions as it does to fixed platforms. When approving a development plan, the State Lands Commission (State) may require the use of subsea completions in those cases where it determines that economics, technical feasibility, environmental impacts, compatibility with commercial fishing operations and the religious beliefs of Native Americans, considered together rather than separately, indicate that subsea completions would be preferable to fixed platforms. When subsea completions are used, the Lessee shall promptly prepare and continually update maps showing the exact location of every subsea installation and shall make such maps available to commercial fisherman and other members of the public.

2. PIPELINE FEASIBILITY:

(a) Pipelines will be required by the State Lands Commission (State) for the transportation of produced oil, gas and other hydrocarbons if pipeline rights-of-way can be obtained and the State, acting upon information supplied by affected parties and responsible governmental agencies, determines that the laying of pipelines is economically and technologically

feasible and environmentally preferable to other methods of transportation. The State reserves the right to require the placement of any pipeline in certain designated pipeline corridors. Wherever feasible, such corridors shall be located in soft rather than hard bottom areas of the tide and submerged lands. In the event, however, that any blasting is required during the installation of any pipeline, a qualified observer, approved by the U.S. Army Corps of Engineers and the California Department of Fish and Game, shall be retained and shall determine that the area is free of marine birds or mammals, prior to allowing detonation.

(b) Following the completion of a pipeline, no hydrocarbons produced from the leased lands shall be transported by surface vessel from offshore production sites, except in cases of emergency as determined by the State.

(c) Where the criteria in subparagraph (a) above are not met and surface transportation must be employed, all vessels used for transporting produced hydrocarbons shall conform with all standards established for such vessels under the Port and Tanker Safety Act of 1978 (33 U.S.C. sections 1221 et seq.).

(d) The State shall not approve any development or production plan which proposes the use of tankers or barges to transport produced hydrocarbons unless the Lessee, in cooperation with the State, has performed a study which demonstrates to the satisfaction of the State that a pipeline cannot meet the criteria in subparagraph (a) above.

(e) If the State determines that a pipeline cannot meet the criteria in subparagraph (a) above, the Lessee shall use the safest available transport vessels. The use of oil barges will be permitted only if the Lessee demonstrates to the satisfaction of the State that barging is environmentally preferable to tankering.

3. and 4. POTENTIAL GEOHAZARDS:

Drilling operations shall not be conducted and seafloor wellheads and fixed structures for the production, transportation or storage of oil, gas or other hydrocarbons shall not be placed within geologically unstable portions of the leased lands such as potentially unstable sediments, areas of mass movement, submarine canyons or channels, shallow gas zones and areas near active faulting or surface ruptures unless the Lessee has demonstrated to the satisfaction of the State Lands Commission (State) that such operations can be conducted and such wellheads and such structures can be designed and placed so as to withstand the maximum probable effects of the identified geohazards. Site-specific surveys shall be conducted prior to exploration and development operations to determine the potential for unstable bottom conditions and other geologic hazards. Extension of these surveys outside the leased lands may be required where necessary to evaluate the magnitude and significance of the hazard. All potentially unstable areas, including fault zones, must be mapped before any seafloor

wellheads or fixed structures are installed. The State may require site-specific soil testing before exploration and development operations are allowed.

5. MANDATORY BIOLOGICAL AND MARINE MAMMAL SURVEYS:

(a) Prior to the commencement of any drilling operations and prior to the commencement of construction or placement of any structure, including pipelines, on the leased lands, the Lessee shall conduct site-specific biological and marine mammal surveys as specified by the State Lands Commission (State) after consulting with the Department of Fish and Game, the United States Fish and Wildlife Service, the Minerals Management Service and the National Marine Fisheries Service. The site-specific biological and marine mammal surveys shall determine whether the site contains areas of special biological significance that may be adversely affected, either directly or indirectly, by drilling operations or the placement of structures on the leased lands. The surveys shall also determine whether adjacent areas of special biological significance may be similarly affected. Areas of special biological significance include, but are not limited to: (1) existing or potential critical habitats for rare, threatened or endangered species, including but not limited to the California sea otter and the California gray whale; (2) areas used by rare, threatened or endangered species for breeding or migration; (3) areas containing very unusual or rare ecosystems or ecotones;

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(4) areas with large numbers or high diversity of species; and
(5) areas containing species of limited regional distribution due to natural range or significantly reduced populations.

(b) The biological surveys shall include a characterization of (1) the area within a one (1) kilometer radius of the development site (or within three hundred (300) meters of pipelines) and (2) areas potentially affected by the development by on-site observations of a marine biologist using a submersible device for deep water or scuba equipment for shallow water. A remote camera survey (video and/or film) may suffice in soft bottom areas. Observations shall be accompanied by photodocumentation and the taking of samples. Box core samples shall be taken on soft bottoms. Rocks, portions of rocks or organisms living on rocks shall be taken from hard bottoms. Sampling and observations shall be most intense within three hundred (300) meters of the development site and within one hundred (100) meters of pipelines. Sample species collected shall be identified to the lowest possible taxonomic level.

(c) The marine mammal surveys shall be performed by a qualified marine mammalogist and shall consist of systematic observations which accurately describe mammal occurrences in and uses of the project area, including an on-site census and behavioral observations of reeding, breeding and migration. The surveys shall also indicate the relationship of project area observations to known data on sea otter and other marine mammal population, size, dynamics, structure and movements in adjacent,

present or potential habitats.

(d) If the results of site-specific biological and marine mammal surveys show the existence of a special biological resource that may be adversely affected by lease operations, the Lessee shall (1) pursue feasible alternatives which will not have a significant adverse effect upon the resource identified or employ mitigation measures or, (2) establish through submissions to the State of such documents as an oil spill contingency plan and critical operation and curtailment plan, that operations will not have a significant adverse effect upon the resource identified. The State will review all data submitted and after consultation with the Department of Fish and Game, the United States Fish and Wildlife Service and the National Marine Fisheries Service and preparation of a project specific environmental impact report, will determine in writing whether a special biological resource exists and whether it may be significantly affected by lease operations. No lease operations may be commenced until the State has approved the project and has given the Lessee written directions on how to proceed and the Lessee has obtained all necessary governmental approvals and permits. Any mitigation measures provided in the State's written directive shall be based on laws and regulations of the State governing offshore oil and gas activities on State lands and shall be made in consultation with the Department of Fish and Game, the United States Fish and Wildlife Service and the National Marine Fisheries Service.

(e) If any area of biologically significant resources should be endangered during the conduct of any lease operations, the Lessee shall immediately report such occurrence to the State and take every reasonable effort to protect the resource.

6. FISHERIES TRAINING PROGRAM:

The Lessee shall include in its exploration and development plans a proposed fisheries training program. The training program shall be subject to approval by the State Lands Commission (State) after consultation with the Department of Fish and Game and the National Marine Fisheries Service. The training program shall be for the personnel involved in operating vessels used in carrying out lease operations and platform and shore-based supervisors. The purpose of the training program shall be to familiarize persons working on the leased lands of the value of the commercial fishing industry, methods of offshore fishing operations and potential hazards, conflicts and impacts resulting from offshore oil and gas activities. The training program shall be formulated and implemented by qualified instructors.

7. SUSPENSION OF OPERATIONS AND EVACUATION OF AND SHELTER FOR PERSONNEL:

(a) Before the Lessee operates or causes to be operated on its behalf boat or aircraft traffic into individual,

designated warning areas, the Lessee shall coordinate and comply with instructions from the Commander, Western Space and Missile Center (WSMC) or other appropriate military agency. Such control and instruction will provide for positive control of boats and aircraft operating in the warning areas at all times.

(b) Recognizing that mineral exploration, exploitation and recovery operations on the leased lands can impede tactical military operations, the Lessee acknowledges and agrees that the United States reserves and has the right to suspend temporarily lease operations in the interest of national security requirements. Such temporary suspension of operations, including the evacuation of personnel and appropriate sheltering of personnel not evacuated (an appropriate shelter shall mean the protection of all personnel engaged in operations on the lease for the duration of any Department of Defense activity from flying or falling objects or substances), will become effective upon the order of the Commander, WSMC, other appropriate military agency or higher authority when national security interests necessitate such action. Any temporary suspension of operations for national security may not exceed seventy-two (72) hours, provided that any such suspension may be extended by order of the appropriate authority. Equipment may remain in place during periods of suspension.

(c) The Lessee shall control its own electromagnetic emissions and those of its agents, employees, invitees, independent contractors and subcontractors emanating from

individual, designated defense warning areas in accordance with requirements specified by the Commander, WSMC or other appropriate military agency, to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing or operational activities conducted within individual, designated warning areas. Necessary monitoring, control and coordination with the Lessee, its agents, employees, invitees, independent contractors and subcontractors, will be effected by the Commander of the appropriate onshore military installation conducting operations in the particular warning area, provided that control of such electromagnetic emissions shall permit at least one (1) continuous channel of communication between the Lessee, its agents, employees, invitees, independent contractors or subcontractors, and onshore facilities.

8. ASSUMPTION OF RISK AND HOLD HARMLESS:

Whether or not compensation for damage or injury might be due under a theory of strict or absolute liability or otherwise, the Lessee assumes all risks of injury or damage to persons or property which occurs in, on or above the leased lands to any person or any property of any person who is an agent, employee or invitee of the Lessee, or its agents, independent contractors or subcontractors, in connection with any activities being performed by or for the Lessee in, on or above the leased lands, if such injury or damage to such person

or

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property occurs by reason of the activities of any agency of the United States, its contractors or subcontractors, or any of their officers, agents or employees, being conducted as a part of, or in connection with, the programs and activities of the WSMC or other appropriate military agency. Notwithstanding any limitations of the Lessee's liability in this lease, the Lessee assumes the risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of their officers, agents or employees. The Lessee shall indemnify and save harmless the United States against all claims for loss, damage or injury to the Lessee and to the agents, employees and invitees of the Lessee, its agents, independent contractors and subcontractors, in connection with the programs and activities of the aforementioned military installations and agencies, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of their officers, agents or employees, and whether such claims might be sustained under theories of strict or absolute liability or otherwise.

9. LABOR REQUIREMENT:

(a) During exploration, development and production activities on the leased lands, all vessels, rigs, platforms and other vehicles or structures under the control of the Lessee must be operated by citizens of the United States or aliens

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lawfully admitted to the United States for permanent residence.

(b) The requirements of subparagraph (a) do not apply if the Lessee files with the State and the Department of Industrial Relations a report, deemed adequate by these agencies, showing that there is an insufficient number of qualified citizens of the United States, or aliens lawfully admitted to the United States for permanent residence, available for such work.

10. DRILLING MUDS AND CUTTINGS

Notwithstanding the provisions of Section 6873(b) of the Public Resources Code, or any other section of State law or this lease, the discharge of drilling muds and cuttings into the marine environment is expressly prohibited. Such prohibition shall remain in effect until the Commission indicates in writing that it is satisfied with the results of appropriate studies showing that the prohibition is no longer warranted. The State Lands Commission may require any additional studies that it deems appropriate to assist it in making such a decision.

11. OIL SPILL RESPONSE CAPABILITY

(a) Lessees shall supply and maintain a dedicated spill control vessel, comparable to Mr. Clean II operated by Clean Seas, Inc., and equipped with the most effective equipment available. The vessel must be capable of being on location in the project area within 2 hours of notification that a spill has

occurred. Such vessel shall be available for use in the proposed lease area prior to the consideration and approval of any drilling activities on any lease within the area. Initial capital cost for the vessel and equipment shall not exceed \$1,000,000.

Annual costs of operation, including such amounts as needed for a sinking fund to replace equipment, shall not exceed \$1,000,000, adjusted for inflation. The annual cost limitation shall be cumulative and at any point in time shall not exceed, but may equal, \$1,000,000 (adjusted for inflation) times the number of years the lease has been in effect.

(b) Lessees shall fund semi-annual oil spill response training of the members of the State Interagency Oil Spill Committee (SIOSC) as directed by the Chairman of the SIOSC for the period of the lease. These costs shall not exceed \$300,000 per year adjusted for inflation.

(c) The lessees shall fund the establishment, staffing, maintenance, and operation of an open-water oil-spill containment and recovery system capability equivalent to that available from the U.S. Coast Guard Pacific Strike Team, but with the added capability of response time to any part of the lease area of no more than 4 hours. Such capability shall be demonstrated on at least a semi-annual basis by participation in drills conducted under the direction of the State Operating Authority as defined in the California oil spill contingency

plan. This funding shall also include amounts necessary to finance monitoring activities of the State Lands Commission and the Department of Fish and Game. Initial capital cost shall not exceed \$10,000,000.

Annual costs of operation, including such amounts as needed for a sinking fund to replace equipment, shall not exceed \$1,000,000, adjusted for inflation. The annual cost limitation shall be cumulative and at any point in time shall not exceed, but may equal, \$1,000,000 (adjusted for inflation) times the number of years the lease has been in effect.

12. SPECIAL STUDIES

(a) When directed by the State Lands Commission, Lessees shall fund studies under the direction and control of the California Department of Fish and Game to provide a biological inventory of the proposed lease area for a full year cycle. Costs for these studies shall not exceed a total of \$700,000.

(b) When directed by the State Lands Commission, lessees shall fund a study or studies under the direction and control of the Department of Fish and Game to determine the chronic effect of oil, oil dispersants and a combination of oil and oil dispersants on marine biota, excluding marine birds and mammals. Costs for these studies shall not exceed a total of \$300,000.

13. OCEAN FLOOR OBSTRUCTIONS

The Lessee shall provide to the Commission and, upon request, to any member of the public, a map of the exact location of any under sea obstruction on the lease premises either in place at the time of the lease award or placed deliberately or accidentally by the Lessee or its agents on the lease. This map shall be updated at the discretion of the Commission.

14. SEA OTTER STIPULATION

Lessees shall fund (1) studies to determine better the potential effects of oil and gas exploration and production on the sea otter and (2) measures to mitigate the adverse effects of oil and gas exploration and production on the sea otter population.

Content, timing and implementation of these studies and measures shall be determined by the Director of the California Department of Fish and Game, in consultation with the U.S. Fish and Wildlife Service and appropriate members of the public and scientific community. Such studies shall be made available to the public and used by the State Lands Commission in their consideration of subsequent activities undertaken pursuant to this lease. These studies and measures shall include development of an oil spill contingency plan, including stockpiling of equipment and supplies, designed to minimize

otter mortality and impacts on otter habitat. Measures to be considered and evaluated include: how (or should) otters be captured, herded, contained, transported, cleaned and rehabilitated.

Funds for these studies and measures (not to exceed a total of five million dollars) shall be deposited, as needed, in a separate account with the Department of Fish and Game at the direction of the State Lands Commission, upon acceptance of the study contractors bids by the Commission.

Critical operations during exploratory drilling shall not be permitted between December 1 and April 1 when the State Lands Commission, acting on its own, on the recommendation of the Department of Fish and Game (who shall consult with the U.S. Fish and Wildlife Service) or the public, and pursuant to the Commission's own rules and regulations, determines that the risk of oil spills from such operations is sufficient to damage significantly the sea otter population.

15. ALL SEASON OCEAN CURRENT AND METEOROLOGIC STUDIES

The lessees shall fund a continuing study of oceanographic and meteorologic conditions in the lease area. Such study should include, but not be limited to, the placement of the necessary instrumentation to obtain high-quality measurements of wave, wind, current, and temperature.

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performed will be by a contractor and in a manner satisfactory to the State Lands Commission and will consider all work currently underway by others. Costs for these studies shall not exceed \$1,000,000 per year, adjusted for inflation, for the life of the lease.

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EXHIBIT "H" .
ACCOUNTING PROCEDURES FOR DETERMINING NET PROFIT SHARE
PAYMENT FOR STATE OIL AND GAS LEASES

101. Purpose and Scope

(a) These accounting procedures establish methods for determining the Net Profit Share base and calculating Net Profit Share Payments due the State for production from State leases.

(b) These procedures apply to the lease issued by the State under a net profit share bidding system established by Division 6 of the Public Resources code.

102. Definitions

For purposes of these accounting procedures:

"Allowance for Investment Recovery" means the amount of interest calculated according to procedures specified in Section 120. This amount allows the lessee a return on the Costs advanced for the development of the NPSL until recoupment is made from the Production Revenue Account.

"Compensated Personal Absence" means any absence from work for illness, vacation, holidays, jury duty, military training, disability benefits and other customary allowance, for which the lessee pays compensation directly to an employee under an existing plan of the lessee.

"Controllable Material" means material which at the time of inventory is so classified in the Material

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Classification Manual as most² recently recommended by the Council of Petroleum Accountants Societies (COPAS).

"Cost" means an expenditure incurred by a lessee in conducting NPSL Operations.

"Cost Pool" means a grouping of incurred Costs identified with more than one lease, whether the leases are NPSL's or other types of leases.

"Credit" means a payment, rebate, or reimbursement to a lessee, exclusive of Production Revenue, in the course of NPSL operations.

"Direct Costs" means any Cost listed in Section III that benefits NPSL Operations; or if the NPSL is subject to an operating agreement in which at least one working interest owner is a third party to a lessee, then the direct operating costs for the NPSL are direct charges that are incurred by the Operator in operating that NPSL that are reimbursable to the Operator by the lessee under terms of that operating agreement.

"Executive Officer" means the Executive Officer of the State Lands Commission, or authorized delegate.

"Field Employee" means an employee below a first level supervisor who is directly employed in the NPSL project area in a field operating capacity.

"First Level Supervisor" means an employee whose primary function in NPSL operations is the direct supervision of other employees and/or contract labor directly employed on the NPSL project area in a field operating capacity.

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"C&G" means geological, geophysical, geotechnical and geochemical examinations and other such investigations on or adjacent to the NPSL relating to operations on the NPSL.

"Joint Cost" means any cost listed in Section III that benefits NPSL operations and one or more other operations of the lessee or outside party.

"Lessee" means a person authorized by a State lease, or an approved assignment thereof, to develop and produce oil and gas, including all parties holding such authority by or through the lessee, and the person designated to conduct the NPSL operations.

"Material" means equipment, apparatus, and supplies acquired or held for use in NPSL operations.

"Net Profit Share Base" means the end of the month credit balance in the Development Account. The Net Profit Share Base is the credit balance remaining after subtracting all allowable costs and adding all allowable credits (including production revenue) in accordance with the procedures established by these accounting procedures.

"Net Profit Share Payment" means the portion of the net profit share base payable to the State.

"Net Profit Share Rate" means the fixed percentage share of the net profit share base payable to the State.

"NPSL" means a non profit share lease, which is a State lease that provides for payment to the State of a share of the profits for production of oil and gas from the tract.

"NPSL Operations" means all activities subsequent to

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issuance of the NPSL necessary and proper for the exploration, development, maintenance, operation, dismantlement, abandonment, and restoration of the NPSL Property according to law or regulation. If all or part of a NPSL is included in a participating area of a unit, a cooperative drilling agreement, or other similar arrangement, such that production (in kind or in value) or Direct Costs are attributed to the NPSL for activities of the unit, the formula or method of governing the attribution of net production or direct cost to the NPSL Tract shall be according to the Unit Agreement which is approved by the State.

"NPSL Project Area" means the NPSL Tract, Offshore Facilities, shore base production facilities, Shore Base Facilities, shore base support facilities, pipelines, and any other such facilities so designated by the Executive Officer which may be necessary and essential to the NPSL Operations.

"NPSL Property" means the NPSL Tract, material and facilities acquired for use in NPSL Operations and that are installed and/or used on the NPSL Tract and any other such property in the NPSL Project Area which may be necessary and essential to NPSL Operations and the Costs thereof are Direct Costs to NPSL Operations.

"NPSL Tract" means a tract subject to a NPSL.

"State Lease" means a State lease for oil and gas issued by the State Lands Commission.

"State Lease Sale" means the proceeding by which leases for certain State tracts are offered for sale by

competitive bidding and during⁵ which bids are received, announced, and recorded.

"Offshore Facilities" means platform and support systems located offshore and that are necessary to conduct NPSL Operations, e.g., oil and gas handling facilities, living quarters, offices, shops, cranes, electrical supply equipment and systems, fuel and water storage and piping, heliport, marine docking installations, communication facilities, and navigation aids.

"Outside Party" means any person who is not a lessee.

"Outside Substances" means all substances obtained from any source other than the NPSL tract and used for purposes of production, pressure maintenance, secondary recovery, or other recovery programs that may be employed in the NPSL Operation.

"person" means a natural person and includes, in addition to a natural person an association, a State or a private, public or municipal corporation.

"Personal Expenses" means travel and other reasonable reimbursable expenses of lessee's employees.

"Production" means all oil, gas and other hydrocarbon products produced, removed, saved and sold from the NPSL Property except so much thereof as used in the conduct of NPSL Operations; or the Production produced, removed, saved and sold which is allocated to the NPSL Tract in accordance with the Unit Agreement, when applicable.

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Production does not include oil or gas lost as a result of venting or flaring, spills and line leaks except as caused by the gross negligence or willful misconduct of a Lessee.

"Production Revenue" means the value of all oil and gas Produced saved, removed and sold attributable to an NPSL Property, or, if the tract is unitized, the value of all oil and gas produced saved, removed and sold and credited to the tract under a unitization formula, during a month, which value is determined in accordance with Section 121(a)(2).

"Railway Receiving Point" or "Recognized Barge Terminal" means the location that a vendor would use in determining the sale price to the lessee of new material to be delivered to the NPSL Project Area.

"Shore Base Facilities" means onshore facilities necessary for NPSL Operations including:

(a) Shore base support facilities and piers, e.g., a receiving and transshipment point for material, staging area for shuttling personnel to and from the NPSL Tract, a communication, scheduling and dispatching center; and

(b) Shore base production facilities to include, but not limited to, pumps, gathering systems, pipelines, separating facilities, gas plants, compression facilities, cleaning and dehydration facilities and tankage for production from or allocated to the NPSL Tract.

"State" means State Lands Commission.

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"Technical Employees" means those employees having special and specific engineering, geological or other professional skills, and whose primary function in NPSL Operations is the handling and resolution of specific operating conditions and problems for the benefit of NPSL Operations.

"Tract" means land located in the State that is offered for lease through a State lease sale and that is identified by a leasing map or an official protraction diagram prepared by the State.

"Unit Agreement" means unit agreements, cooperative drilling agreements, operating agreements or other similar agreements for the operation of all or any portion of the NPSL Property with all or any portion of any adjoining Properties.

110. Profit share accounts.

(a) For each NPSL Tract, three accounts shall be established and maintained by lessee for NPSL Operations, as follows:

(1) Development account.

This account shall include (i) the direct and allocable joint Costs and Credits incurred for the exploration and development of the NPSL until Production is no longer obtained and there is a cessation of NPSL Operations, (ii) allowance for investment recovery on direct and allocable Joint Costs less Credits as specified

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in Section _____⁸, (iii) overhead allowances as specified in Section 112. Exploration and development shall include but not be limited to the following operations:

- (1) geological, geophysical, geotechnical and geochemical examinations and other investigations on or adjacent to the NPSL as provided by the lease;
- (2) cost of design of construction projects, as defined in an approved NPSL Development Plan;
- (3) accumulated Cost of capital work in progress, on or adjacent to the NPSL or on a contractor's premises;
- (4) rentals and other payments directly attributable to the NPSL such as lease rental (except rental payable on or before the fourth anniversary date of the lease), licenses or permits, renewal or extension fees, and other similar payments required and made to maintain the interest of the lessee in the NPSL;
- (5) drilling costs for wells bottomed on the NPSL, under an approved Exploration Plan or Development Plan;
- (6) Costs to acquire, construct and/or install facilities and equipment on or in support

of the NPSL that directly result in or are necessary for continued or enhanced production from the NPSL, under an approved Development Plan;

7. before the commencement of Production, ad valorem tax paid to the state (net of all credits and refunds for municipal ad valorem taxes on the same property) for property used in the drilling described in (5) of this subsection on for property described in (6) of this subsection, that is installed or constructed before the commencement of Production and ad valorem and other taxes paid to one or more municipalities that were incurred directly as the result of, and in the course of, the drilling described in (5) of this subsection and/or the acquisition, installation or construction of property described in (6) of this subsection before the commencement of Production but excluding any franchise, or income taxes.

(2) Production Revenue Account.

The Production Revenue Account shall include Credits reflecting the value of Production from the NPSL Tract or which is allocated to the NPSL Tract under a Unit Agreement, during

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a month in which value is determined in accordance with Section 121. The account shall be debited with Direct Costs for the operation, maintenance, dismantlement, abandonment and restoration of the NPSL Property, and the overhead allowance specified in Section 112.

(3) Net profit Share Payment Account.

The Net Profit Share Payment Account shall include the amounts of Net Profit Share Base.

(b) NPSL accounts shall be kept on a cash basis. Costs shall include but are not limited to:

- (1) Financial obligations for commitments to major projects in progress.
- (2) Cash advance payments to contractors or others for which accounting is not yet provided.
- (3) Working funds advanced to outside parties for NPSL Operations.
- (4) Fixed obligations for return of contractor's equipment.
- (5) Payments or obligations required by law for environmental, safety or other regulatory purposes.
- (6) Contractor retentions.
- (7) Mobilization and demobilization of contractors' personnel, drilling vessels, drilling rigs and other such equipment and services.
- (8) Any other Costs incurred or attributable to the

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NPSL which are necessary for the exploration,
development, maintenance, operation
dismantling, abandonment, and restoration of
the NPSL Property according to law or
regulation.

(9) Abandonment costs.

111. Schedule of Allowable Direct and Allocable Costs and Credits.

The Costs and Credits specified in the following paragraphs of this section may be charged direct, or allocated to NPSL Operations, as appropriate in accordance with Section 114.

(a) Lease rental. All lease rental except those lease rentals for the first four years of the lease.

(b) Labor.

(1)(i) Salaries and wages of field employees, First Level Supervisors and Technical Employees employed in the NPSL Project Area in NPSL Operations, if such Costs are not charged under subparagraph (g) of this section. (ii) Salaries and wages of Technical Employees who are either temporarily or permanently assigned to, and directly employed in the NPSL Operations. Such labor shall be charged on the

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basis of time reports and hours worked directly benefiting the NPSL Tract.

(2) The cost of compensated personal absence paid to employees whose salaries and wages are chargeable to NPSL Operations under subparagraph (b)(1) of this section.

(3) Expenditures of contributions made pursuant to assessments imposed by governmental authority that are applicable to lessee's costs chargeable to NPSL Operations under subparagraphs (b)(1) and (b)(2) of this section.

(4) Reasonable Personal Expenses, including relocation cost of employees whose salaries and wages are chargeable to NPSL Operations under subparagraph (b)(1) and (b)(2) of this section and that are paid for which are reimbursed under lessee's normal practice.

(5) Lessee's current Costs of established plans for employee's group life insurance, hospitalization, pension, retirement, stock purchase, dental, thrift, bonds, and other benefit plans of a like nature that are made available to all employees on an equitable basis, applicable to lessee's labor cost chargeable to NPSL Operations under subparagraph (b)(1) and (b)(2) shall be

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lessee's actual cost not to exceed the percent
currently recommended by the Council of
Petroleum Accountants Societies (COPAS).

(6) Charges for expenses incurred under
subparagraphs (b)(2) and (b)(5) of this section
may be made to NPSL accounts on a "when and as
paid" basis or a percentage assessment method.
If the percentage assessment method is used, it
shall be based upon actual cost experience for
the preceding year expressed as percentage of
costs chargeable under subparagraph (b)(1) and
(b)(2) of this section, and adjustments shall
be made at the end of each fiscal year to
balance total charges made to NPSL accounts
during the year with the actual costs for the
year. Under either method the cost of
administering the plan and paying the salaries
and benefits defined in this paragraph shall be
excluded. In determining actual cost experience
of any employee benefit plan, any dividend or
refunds received applicable to insurance of
annuity policies shall be used to reduce the
cost of such policies.

(c) Material.

(1) Material purchased or furnished by a lessee
as NPSL Property shall be charged or credited

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at amount specified in Section 115. The purchase and inventorying of material are subject to conditions and provisions in Section 132.

(2) Credit for salvage or returned material shall be made to the NPSL account originally charged.

(d) Transportation. Transportation of employees and material necessary for NPSL Operations, to, from and within the NPSL Project Area, but subject to the following limitations:

(1) If material is moved to the NPSL Project Area, no charge shall be made to NPSL Operations for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Executive Officer.

(2) If surplus material is moved from the NPSL Project Area, no charge shall be made to NPSL Operations for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or Railway Receiving Point unless agreed to by the Executive Officer. No charge shall be made to NPSL Operations for moving material to other properties owned by or under the control of a

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lessee, unless agreed to by the Executive Officer.

(3) In the application of subparagraph (1) and (2) of this paragraph, there shall be no equalization of actual gross trucking costs of \$400 or less, excluding accessorial charges.

(e) Contract services. Except when excluded by paragraph (f) of this section and/or Section 113(d), the cost of services and utilities provided under contract by outside parties and which constitute proper and necessary NPSL Operations or support for NPSL Operations, and rental charges paid to outside parties for the rental of equipment used in the NPSL Project Area in support of NPSL Operations, may be charged to NPSL Operations.

(f) Legal expenses. Expense of handling, investigating and settling litigation or claims, discharging of liens, payments of judgments and amounts paid for settlement of claims incurred in or resulting from NPSL Operations, or necessary to protect or recover the NPSL Property are allowable, except those costs listed in Section 113(g) as unallowable. This includes the salaries and wages of lessee's legal staff and expense of outside attorneys who are assigned to matters described in

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this paragraph if supported by adequate time records showing the nature of the matter, its direct relationship to NPSL Operations, and the hours spent on the matter.

(g) Rental of equipment and facilities furnished by lessee.

(1)(i) The NPSL accounts shall be charged for the use of equipment and facilities owned by a lessee that are proper and necessary for NPSL Operations, including shore base and offshore facilities and pipelines from the tract to shore base production facilities, and that are not NPSL Property. Rental charges shall be made at rates based upon actual Costs of acquisition, construction, and Operations. Such rates may include labor, the Cost of setting up and dismantling equipment, maintenance, repairs, other operating expenses, insurance, taxes, depreciation (calculated using a method consistent with generally accepted accounting principles, consistently applied) and a return on the remaining undepreciated basis not to exceed ten percent (10%) per year except that the Executive Officer may from time to time establish a different maximum percentage. Any Cost of acquiring real property in excess of that reasonably required to support the facilities furnished for NPSL Operations shall not be included in the Cost used to establish these

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rates. Rates charged shall not exceed average commercial rates. Rates charged shall not exceed average commercial rates for equipment and facilities of similar nature and capability currently prevailing in the vicinity of the NPSL Project Area.

(ii) The term "equipment and facilities" is used in the broad sense to include equipment that may be mobile or semimobile and also installations that may be semipermanent or permanent in nature. Such equipment and facilities listed below shall be charged on the basis indicated.

<u>Equipment/facilities</u>	<u>Basis of charge</u>
A. Mobile equipment:	
Aircraft	Hour
Automobiles	Mile or hour
Trucks	Mile or hour
Tractors	Hour
Bulldozers	Hour
Mobile cranes	Hour
Trailer-mounted test separators	Hour
Truck-mounted cement mixers	Hour
Boats	Day or hour
House	Day
B. Semimobile equipment:	
Drill Rigs	Foot or day
Workover rigs	Hour
Pulling units	Hour

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Derricks	Day
Drilling tender	Day
Barges	Day
C. Semipermanent installations:	
Skid-mounted separators	Day or volume
Skid-mounted compressors	Day or volume
D. Permanent installations:	
Compressor stations	Volume
Saltwater disposal wells	Volume or wells
Source water wells and supply systems	Volume
Roads	Wells
Production/drilling platform	Volume or wells
Canals	Wells
Dock	Wells
Oil storage and loading facilities	Volume
Gathering systems and pipelines	Volume
ACT systems	Volume
Laboratory services (excluding research work	Hour or unit
Shore base production facilities	Volume
Shore base support facilities	Wells
E. Miscellaneous:	
Drill pipe	Foot or day
Casing setting tools	Day
Well testing equipment	Day

Equipment and facilities that are not listed shall be charged on a basis consistent with the nature of the use.

(2) In lieu of charges in paragraph (g)(1) of this section, the lessee may elect to use average commercial rates prevailing in the vicinity of the NPSL Project Area less 20 percent. For equipment for which no commercial rate exists, the lessee shall submit the basis for determining such costs to the Executive Officer for approval.

(h) Damages and losses to NPSL Property. All Costs necessary for the repair or replacement of NPSL Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other causes not covered by insurance, except those resulting from lessee's gross negligence or willful misconduct. Any settlement received from an insurance carrier should be credited to NPSL Operations when received.

(i) Taxes. All taxes, except income taxes, federal windfall profit taxes, profit share payments, and taxes based upon income, that are assessed or levied upon or in connection with NPSL Operations and which have been paid by the lessee. Allowed taxes shall include, but are not limited to, production, severance, State of California windfall profit taxes

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if applicable to ²⁰ total production, excise, advalorem, and mineral taxes. Federal windfall profit taxes are allowable until net profit payments to the State commence.

(j) Insurance, Bonds and Letters of Credit.

(1) Net premiums paid for insurance required to be carried and costs of bonds and letters of credit required to be obtained for NPSL Operations. For NPSL Operations in which the lessee may act as self-insurer for Worker's Compensation and Employer's Liability, the lessee may include the risk under its self-insurance program in providing coverage under State and federal laws and charge NPSL Operations at lessee's cost not to exceed manual rates.

(2) NPSL Operations shall be credited for all reimbursements for costs of damage to NPSL Property or personal injury. Reimbursements for damaged NPSL Property shall be credited to the NPSL account charged for the cost of replacement or repair of the damaged NPSL Property.

(k) Communications. Costs of leasing, acquiring, installing, operating, repairing and maintaining

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communications systems, including radio, microwave facilities and computer production controls for the NPSL Operations. If communication facilities systems serving the NPSL Tract serve Operations and/or facilities outside the NPSL Project Area, charges to NPSL Operations shall be made as provided in paragraph (9) of this section or shall be allocated to NPSL Operations in accordance with Section 114.

(1) Ecological and environmental. Costs incurred in the NPSL Project Area as a result of requirements for archaeological and geophysical surveys relative to identification and protection of cultural resources, mandatory biological and marine mammal resources, fisheries training programs, and other environmental ecological surveys or training programs required by the state or the federal government or other regulatory authority, may be charged to the NPSL accounts. Also, the Costs allocated to the NPSL to provide or have available pollution containment and removal equipment, including payments to organizations and/or funds which provide equipment and/or assistance in the event of oil spills or other environmental damage are allowable. The Costs of actual control and cleanup of oil spills and resulting responsibilities

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required by law or regulation, applicable laws and regulations are allowable, except that a charge shall not be allowed for any such Costs attributable to the lessee's gross negligence or willful misconduct.

(m) Costs of temporary platforms, feasibility design studies and similar marine projects, for the NPSL Project Area or NPSL Property incurred in compliance with applicable laws, regulations, or plan or development approved by the Executive Officer.

(n) Standby costs incurred while NPSL Operations are deferred, suspended or curtailed by reason of force majeure, law, rule, regulation, or direction of the Executive Officer or the Commander, Western Space and Missile Center (WSMC) or other appropriate military agency. Costs of evacuation of personnel and appropriate sheltering of personnel not evacuated, are an allowable charge when ordered by the Commander (WSMC), or other appropriate military agency or other authority.

(o) Cost of compliance, or training programs for NPSL personnel, for applicable state, federal, or.

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governmental agency laws, regulations or directives that are related to the NPSL Operations in effect at the date of the lease agreement or later enacted or adopted.

(p) Dry or bottom hole contributions to wells drilled by others within 1,489 feet of the exterior boundary of the NPSL for information relative to the exploration or development of the NPSL.

(q) Costs of permits and licenses for the NPSL Operation in the Project area.

(r) Costs of Outside Substances, less cost recoveries, used as injection for production, repressuring, pressure maintenance, cycling or other primary, secondary or tertiary recovery purposes.

(s) Costs of required work commitment for the NPSL.

(t) Charges for cleaning, dehydration, desulphurization, compression, etc., for making the production marketable.

(u) Dismantling, Abandonment and Restoration Costs of NPSL Property.

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Following commencement of production, estimated dismantling, abandonment and removal costs of wells and facilities charged as NPSL Property and restoration of the NPSL Project Area may be included as a direct operating costs, and, if included, must be amortized on a unit-of-production basis. The unit amount amortized per Btu equivalent equals the estimated real cost (i.e., without regard to inflation) determined in accordance with generally accepted accounting principles as of the commencement of production for the NPSL, divided by the number of Btu equivalents represented by the proved reserves of the NPSL as determined under Financial Accounting Standard Board rules as of that time. The amount amortized per Btu equivalent may be redetermined, not more often than once every two years at the commencement of the lessee's fiscal year or later than five years prior to the estimated date of final abandonment of the NPSL Tract, by dividing the number of Btu equivalents represented by the proved reserves of the NPSL as of the time of redetermination into the difference between the then-estimated real cost for abandonment of the wells and facilities on or in support of the NPSL and the

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cummulative amortization already charged as of that time for the NPSL Property. The amount of dismantling, abandonment and removal costs charged as a direct operating cost and amortized hereunder shall be invested in an interest bearing fund account as a cash reserve for the purpose of paying the final cost of abandonment of the NPSL Project Area. The Lessee and the State shall have the privilege of withdrawing its proportionate net profit percentage share of the earned interest on the anniversary date of the fund account. The selection of the savings institution the periodic interest rates, and withdrawal of funds for the intended purpose shall be approved by the Executive Officer.

If, upon abandonment of all wells and facilities for the NPSL and restoration of the NPSL Project Area, the actual costs there of, less salvage value (if any) are less than the total amount amortized for such purposes for NPSL Property, the excess amortization funded must be included in the Production Revenue account for the purposes of determining a lessee's Net Profit Share Base. If, upon abandonment of all wells and facilities on the

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NPSL and restoration of the NPSL, the actual costs thereof, less salvage value (if any), exceeds the total amount amortized and funded for such purposes on that NPSL, the difference may neither be included as a Direct Cost or included as development and production cost for the purposes of determining a lessee's Net Profit Share Base.

(v) Other Costs. Any other Costs not covered in the preceding Paragraphs of this section and not prohibited by Section 113 that are incurred by the Lessee in the necessary and proper conduct of NPSL Operations and are approved by the Executive Officer.

(w) Other credits. Credits shall be given to the Development or Revenue Production Accounts, depending on when incurred, for NPSL Property leased or used in non-NPSL Operations, and for the sale of information derived from test wells and G&G and for any and all amounts earned or otherwise due a Lessee as a result of NPSL Operations.

112. Overhead Allowance

(a) The Development Account and Production Revenue Account shall be charged the respective overhead allowance for Direct Costs and

allocable joint ²⁷ costs on the following percentage basis.

1. Development Account: Four percent (4%)
2. Production Revenue Account: Ten percent (10%)

(b) Application of Overhead. Except as provided in subparagraph (c) below, Development Account overhead shall be charged on all Direct Costs which are included as allowable charges in the Development Account and Production Revenue Account overhead shall be charged on all Direct Costs which are included as allowable charges in the Production Revenue Account.

(c) Overhead shall not be charged on the value of:

1. Legal expenses (Section 111(f));
2. Ad Valorem Taxes on personal property or mining rights rendered for NPSL Property;
- (3) Outside Substances charged to the NPSL (Section 111(s));
- (4) Credits for material charged under Section 111(c) that are salvaged, returned, or used for the benefit of non-NPSL Operations.

113. Unallowable Costs.

The following costs shall not be charged as direct or joint costs to NPSL Operations:

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- (a) Bonus payments to the State and lease rentals for the first four years of the lease;
- (b) Interest (except as permitted under Section 111(g) and 120;
- (c) Depreciation, depletion, amortization or any other charge for investment recovery, except as explicitly provided by the Allowance For Investment Recovery calculated according to Section 120, for material charged to a NPSL account under Section 111(c);
- (d) Research and development costs except that this type of cost shall not be construed to cover the resolution of specific technical problems confronting NPSL Operations, specific engineering design problems related to equipment or facilities required for NPSL Operations, or services required to comply with any federal or state, laws, rules or regulations;
- (e) The following legal expenses:
 - (1) The costs of litigation against the State;
 - (2) Fines or penalties levied by any governmental agency except when the actions subject to fine or penalty are performed at the order or direction of applicable law, rule or regulation or by order of the Executive Officer.

- (3) Settlement of claims or other litigation resulting from violation of regulatory requirements or gross negligence or willful misconduct; and
- (4) The costs of the Lessee's legal staff or expense of outside attorneys except as allowed according to Section 111(f) or when approved by Executive Officer.
- (f) The Lessee's own cost of administering employee benefit plans;
- (g) The cost of acquiring or constructing Shore Base Facilities and real property improvements supporting NPSL Operations that are chargeable as Costs under Section 111(g).

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114. Allocation of Joint Costs and Credits.

(a) Joint Costs shall be grouped in Costs Pools for allocation to NPSL and non-NPSL Operations in reasonable proportion to the beneficial or causal relationships which exist between a specific Cost Pool and the operations. That portion of a joint Cost Pool that may be allocated to NPSL Operations is called an allocable Joint Cost.

(b) The following allocation principles apply in allocating Joint Costs:

- (1) G & G. G & G except as conducted solely for the benefit of the NPSL, shall be allocated on a line mile per tract basis.
- (2) Compensated personal absence, payroll taxes and personal expenses. These items shall be allocated on the same basis as wages and salaries.
- (3) Transportation Costs. Transportation Costs for employees that are not charged direct shall be allocated on the same basis as their salaries and wages.

(c) Joint Credits shall be allocated in the same manner as Joint Costs.

(d) When the NPSL is made a part of a unit, the allowed Costs shall be charged to the NPSL accounts on the basis specified in the unit operating

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agreement as approved by the Executive Officer. Revenues and other credits shall be made to the NPSL Accounts on the same basis as specified in the approved operating agreement. Joint Costs of an NPSL and a non-NPSL Tract that are adjacent to one another and are on the same structure shall be allocated on a basis approved by the Executive Officer.

115. Pricing of Material Purchases, Transfers, and Dispositions:

(a) (1) Purchased Material. Except as provided in paragraph (a) (2) (B) (i) of this section, Material purchased for use in NPSL Operations shall be charged to NPSL Operations at the price paid, after deduction of any discounts received. Should any purchased Material be defective or returned to a vendor for other reasons, the credit shall be made to NPSL Operations when received by the Lessee in accordance with Section 111(c) (3).

(2) Material transferred within the NPSL Operations or furnished from Lessee's warehouse or other properties.

(A) Material required for NPSL Operation shall be purchased for direct charge whenever practical; however, if the NPSL Operation is in a location

where Material needed for operations may be not be generally available, the most practical location for obtaining such Material may be from other points in the Continental United States where Material is readily available and the Lessee has necessary facilities and personnel to forward Materials to the NPSL Operations. Therefore, under circumstances where it is economically beneficial to the NPSL for Lessee to furnish Materials from Lessee's warehouse or other properties located at other points in the Continental United States, such Material movements are subject to the conditions in subparagraphs (i) and (ii) below, except that the pricing and transportation origination point of such Material shall be provided under this Section 115 FOB a reputable supply store or Railway Receiving Point nearest such Lessee storehouse from which the Material is furnished.

(i) New Material (Condition "A").

(a) Tubular goods, except line pipe, shall be priced on a maximum carload and/or barge load weight basis regardless of quantity transferred and equalized to the lowest prevailing price FOB Railway

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Receiving Point or recognized barge terminal nearest the NPSL Property where such Material is normally available effective at date of transfer.

- (b) Line pipe shall be priced at the current replacement cost effective at date of transfer from a reliable supply store nearest the NPSL Property where such Material is normally available if the movement is less than 30,000 pounds. If the movement is 30,000 pounds or more, it shall be priced on the same basis as casing and tubing under Subparagraph (a) of this Paragraph 2B of this Section 115.
- (c) Other Material shall be priced at the Current replacement cost of the same kind of Material, effective at date of movement and FOB the supply store or Railway Receiving Point nearest the NPSL Property where Material of the same kind is normally available.
- (ii) Used Material (Condition "B" and "C")
- (a) Material in sound and serviceable condition and suitable for reuse without reconditioning, shall be classified as Condition "B" and priced at seventy-five

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percent (75%) of the current price of new Material.

(b) Material which is not suitable for its original function until after reconditioning shall be transferred under one of the two methods defined below:

(1) Classified as Condition "B" and priced at seventy-five percent (75%) of the current price of new Material. The cost of reconditioning shall be absorbed by the transferor.

(2) Classified as Condition "C" and priced at fifty percent (50%) of current price of new Material. The cost of reconditioning also shall be charged to the transferee, provided Condition "C" value, plus cost of reconditioning, does not exceed Condition "B" value.

(c) Obsolete Material or Material which cannot be classified as Condition "B" or Condition "C" shall be priced at a value commensurate with its use. Material no longer suitable for its original purpose but usable for some other purpose, shall

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be priced on a basis comparable with that of items normally used for such other purpose.

- (d) Material involving erection Costs shall be charged at applicable percentage of the current knocked-down price of new Material.
- (3) Transferred and disposed material which cannot be priced according to Section 115(a)(2) shall be disposed of by offer for division in kind or sale to outsiders.
- (e) Pricing conditions.
- (1) Loading and unloading Costs shall be charged at a rate of twenty-five cents (\$.25) per hundred weight, or such other rate as may be set by the Executive Officer, on all tubular goods movements, in lieu of loading/unloading Costs sustained, when the actual hauling Costs of such tubular goods is equalized under provisions of Section 111(2).
- (2) Material involving erection Costs shall be charged at the applicable percentage of the current knocked-down price of new material.

(b) Pricing conditions.

(c) When Material subject to subparagraphs

(a) (2) (B) (ii) of this section is

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transferred, the cost of reconditioning shall be borne by the receiving property.

- (d) Transshipment Costs. Costs for labor, payroll burden and employee benefits, material, supplies, transportation and other related costs, incurred by the Lessee in connection with the accumulation, packing, crating and preparing Material and equipment for transshipment to the NPSL Property shall be a Direct Charge to the NPSL Operations.

120. Calculation of Interest on Development Account Balance.

- (a) The Allowance for Investment Recovery shall be calculated monthly for any month in which the absolute balance in the development account is a debit balance after considering all Credits since that balance represents the unrecovered investment at the end of that month.
- (b) The amount of interest to be applied shall be calculated monthly at one-twelfth of the weighted average annual prime rate interest in effect for the month for Bank of America, San Francisco; Security Pacific Bank, Los Angeles; and the First Interstate Bank, Los Angeles or

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their successors.

- (c) The base for applying the interest rate is the amount equal to one-half of the absolute value of the sum of the account beginning month's balance and the preliminary ending account balance (before adding interest) for the month.
- (d) The interest rate calculated in subparagraph (b) above is to be applied to the average account balance determined in subparagraph (c) above to determine the dollar amount to be debited to the development account as the monthly Allowance for Investment Recovery.
- (e) The amount of interest determined in subparagraph (d) above is debited to the development account as a Direct Cost for the month.

121. Determination of the Net Profit Share Base.

- a. During each month of the lease term:
- (1) The development account shall be debited with allowable direct costs, overhead and Allowance for Investment Recovery, according to the valuation specified in subparagraph 2 below, Sections _____, _____, _____, _____ and credited with allowable Credits.

(2) The debit or credit balance of the production revenue account shall be determined by considering differences between the allowable direct costs, and overhead and credited with an amount reflecting the production revenues for the month, calculated in accordance with the value basis as follows:

The value basis for determining the actual value of all hydrocarbon production and for purposes of computing net profits in accordance with the bidding system shall be the current market price as determined by the State and shall include any premium or bonus paid for the hydrocarbon shipments. For oil shipments, the current market price never shall be less than the highest price in the nearest field at which oil of like gravity and quality is being sold in substantial quantities. For non-oil shipments, which consist of dry gas, natural gasoline, and other products extracted and saved from the gas produced from the NPSL Tract, the current market price never shall be less than the higher of the highest price in the nearest field at which non-oil production of like quality is being sold in substantial quantities or the net proceeds or exchange

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value derived by the Lessee from the non-oil production removed or sold from the NPSL Tract. If the State elects to take in kind part or all of the share or shares of oil or non-oil production which the State is authorized to take in kind, the value of the hydrocarbons delivered to the State in lieu of money net profits shall be included as a credit to the NPSL development account and shall be deducted from the State's share of the net profits due for the period when such hydrocarbons were taken in kind or produced. The value of such hydrocarbons shall be determined by the State and shall be the same as that of other like hydrocarbons produced during the same month. If the account balance is a debit balance, that balance is carried forward as the beginning balance of the production revenue account for the succeeding month. If the account balance is a credit balance the credit amount shall be cleared to the development account by debiting the production revenue account and crediting the development account.

(3) If as a result of the accounting transactions described in this Section 121 there is a debit balance in the development

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account this debit balance is the preliminary ending balance for the calculation of interest for the Allowance For Investment Recovery.

(4) If, as a result of the accounting transactions described in this Section 121 there is a credit balance in the development account, after the calculation of interest for the Allowance for Investment Recovery on any remaining debit balance, this credit balance is the Net Profits Share Base for the month.

122. Calculation of the State's Net Profit Share Payment and Lessee's net profit share.

- (a) The State's Net Profit Share Payment due shall be calculated by multiplying the Net Profit Share base calculated in accordance with Section 121 by the Net Profit Share Rate.
- (b) The Lessee's net profit share shall be calculated by subtracting the net profit share payment due the State from the net profit share base.
- (c) At the end of each month during the period for which a Profit Share Base is calculated, the following transactions shall be made in the NPSL accounts.

(1) Debit the development account by the

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Profit Share Base for the month.

- (2) Credit the net profit share payment account by the Net Profit Share Base for the month.
- (3) Debit the net profit share payments account by the net profit share payment to the State.
- (4) Debit the Lessee's net profit share payment account by the Lessee's net profit share for the month.
- (5) The net profit share payment due the State shall be paid to the State in accordance with the provisions of Section 131.

130.

Maintenance of Records

(a) The Lessee shall establish and maintain such records as are necessary to determine for each NPSL:

- (1) The volume and disposition of all oil and gas production saved, removed or sold for each month;
- (2) The value of all oil and gas production saved, removed or sold for each month;
- (3) The amount and description of costs and credits to the NPSL development account;
- (4) The amount and description of all costs of acquisition, construction, and operation of

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equipment and facilities furnished by the Lessee and charged to the NPSL development account under Section 111(g). Such records shall include worksheets or other documents that indicate the method used to calculate the amount of each charge made under Section 111(g);

(5) The cumulative balance of Costs and Credits to the NPSL development account; and

(6) The inventory of material.

(b) The ledger cards showing the charges and credits to the NPSL development account shall be maintained until twenty-four months after the cessation of NPSL Operations by the Lessee. All other documents, journals and records shall be maintained for twenty-four months from the due date or date of mailing of the statement of account on an NPSL, whichever comes later, except that nothing in these procedures shall limit the time for investigation or the need to produce records when prima facie evidence of fraud or willful misconduct is obtained with respect to the State's interest in the NPSL Tract.

131. Reporting and Payment Requirements

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- (a) Each Lessee subject to this part shall file an annual report during the period from issuance of the NPSL until the first month in which production revenues are credited to the NPSL accounts. Such report shall list the cost incurred, including allowances applied, credits received, and the balances of the NPSL accounts. Not later than 30 days after the end of the first month in which production revenues are credited to the NPSL accounts, a final report relating to the period shall be filed.
- (b) Beginning with the first month in which production revenues are credited to the production revenue account, the Lessee shall file a report for each NPSL not later than 30 days following the end of each month, containing the following information for the month for which the report is filed:
- (1) The volume and disposition of all oil and gas production saved, removed or sold;
 - (2) The Production Revenue;
 - (3) The amount and description of all Costs and credits to the NPSL accounts;
 - (4) The balances of the NPSL development account and the production revenue account; and

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- (5) The net profit share base and Net Profit Share Payment due the State and the monthly profit share of the Lessee.
- (c) The Lessee shall submit, together with the report required by paragraph (b) of this section, any net profit share payment due the State for the period covered by the report.
- (d) The Lessee shall file a report not later than 90 days after each inventory is taken, reporting the controllable material on hand, acquired, transferred or used.
- (e) The Lessee shall file a final report, not later than 30 days following the cessation of Production, together with the appropriate Net Profit Share Payment, indicating the remaining balance and Costs and Credits to the NPSL accounts for the period.
- (f) Reports required by this Section shall be filed with the Executive Officer either separately or as part of the reports that are currently filed.
- (g) Interest shall be calculated at the respective rates established under Section 120(b) in effect for the period or periods over which the Net Profit Share Payment is owed, compounded monthly, on the amount of a Net Profit Share

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Payment, from the due date 30 days following the end of each month for which the payment was due of a Net Profit Share Payment until such payment is received by the State.

132. Inventories

- (a) The Lessee is responsible for NPSL Material and shall make proper and timely Cost and Credit notations for all Material movements affecting NPSL Property. The Lessee shall provide only such Material as may be required for immediate use or is consistent with practical, efficient, and economical operations. The accumulation of surplus stocks shall be avoided by proper material control, inventory and purchasing. The Lessee shall make timely disposition of idle and surplus Material through sale.
- (b) At reasonable intervals consistent with accepted industry practice on the west coast, inventories of Controllable Material shall be taken by the Lessee. Written notice of intention to take inventory shall be given by the Lessee at least 30 days before any inventory is to be taken so that the Executive Officer may be represented at the taking of inventory. Failure of the Executive Officer to

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be represented at an inventory shall bind the Executive Officer to accept the inventory taken by the Lessee, except in the case of wilfull misrepresentation or fraud.

- (c) Inventory shall be valued with any generally accepted accounting method used by the Lessee to value the same Material for financial or income tax reporting purposes, provided that the method is consistently applied throughout the life of the Material.
- (d) Reconciliation shall be made of a physical inventory with the NPSL development account by the Lessee, and a list of overages and shortages shall be available to the Executive Officer for audit as provided in Section 133. Inventory adjustments of Controllable Material shall be made by the Lessee to the Development Account for overages and shortages but Lessee shall be held accountable only for shortages due to lack of reasonable diligence. Controllable Material removed from physical inventory that has not been credited to NPSL Operations under Section 115(a)(2) shall be credit to NPSL Operations at its original value, except that when the cost of the material originally qualified for an Allowance

for Investment Recovery in Section 120, the Credit shall be calculated pursuant to Section 121(a)(3).

133. Audits

(a) The accounts of an NPSL Lessee or of a contractor of the Lessee which are related to NPSL Operations shall be subject to audit by the State or its appointed agent. Where possible, the auditor for the State shall coordinate audit efforts with other nonoperators, if any. The State shall have the right to initiate an audit any time within twenty-four months of the due date of the monthly statement that is to be audited or the date that the statement was mailed, whichever is later, provided, however, that audits may not be conducted any more frequently than once every year except upon a showing of fraud or willfull misrepresentation.

(b)(i) When nonoperators of an NPSL call an audit in accordance with the terms of their operating agreement, the Executive Officer shall be notified of the audit call in the same manner as the operator is notified. The State may elect to send an

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auditor with the audit team specified by the nonoperators in lieu of calling for a separate audit by the State.

(2) If the State determines to call for an audit, the State shall notify the Lessee of its audit call and set a time and place for the audit. Such a notice shall be sent at least thirty days before the suggested time for the audit to allow the nonoperators to join in the State's audit in lieu of calling for their own audit. The place for the audit will normally be the place where the Lessee maintains its records pertaining to the NPSL lease. The Lessee shall send copies of the notice to the nonoperators on the lease. The Lessee shall use reasonable effort to notify all operators, but failure to include one or more nonoperators in the notification shall not void the notice.

(3) When the State calls for an audit, the State may suggest the date and time when the audit may commence. The estimated duration of the audit may be mentioned to the Lessee as well as to the other nonoperators who may elect to

supply an auditor for their own audit purposes. The Lessee's office where the audit will be held may be named or, if not known, inquired about. If a visit to a field plant or field office is contemplated by the State auditor, such a field trip may be mentioned. If the State expresses a desire to review a period on which the twenty-four month time limitation has expired, it is the Lessee's prerogative to allow the review or to request that the State adhere to the time limitation specified in these regulations.

(c)(i) Exceptions to the accounting by the Lessee, whether in favor of the State or the Lessee, shall be noted in a report to the Lessee. The Lessee shall have 60 days from the mailing of a notice of exceptions to agree to the adjustments proposed by the State auditor or to object to the proposed adjustments. If the Lessee accepts the proposed adjustments, the adjustment shall be booked in the month in which the Lessee agrees to the adjustment, except where such adjustment would have resulted in a change in any Net Profit Share Payment due the State. In such a

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case, there shall be a redetermination of the NPSL accounts pursuant to Section 134.

(2) If the Lessee disagrees with the adjustment, the Lessee shall have the right to appeal the adjustment to the Executive Officer.

(d) Upon receipt of an agreement by the State auditor that there are no required audit adjustments, upon final determination with respect to any audit adjustment proposed by the State auditor, or upon the lapse of twenty-four months from the due date or date of mailing of the statement of account on an NPSL lease, whichever comes later, the books shall be closed for audit adjustment purposes, except upon a showing of fraud or willful misrepresentation.

(e) Records required to be kept under Section 130(a) shall be made available for inspection by any authorized agent of the State at any time during normal business hours upon the request of the Executive Officer or other authorized official.

134. Redetermination and Judicial Review

(a) If, as a result of an inspection of records or

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an audit under Section 133, the Executive Officer determines that there is an error in the NPSL Accounts or an error in calculating the Net Profit Share Payment, whether in favor of the state or the Lessee, the Executive Officer shall redetermine the Net Profit Share Base and recalculate the Net Profit Share Payment due the State and notify the Lessee of the recalculation.

- (b) The Lessee shall pay any additional amount of Net Profit Share Payment owed plus interest, compounded monthly, from the date that the payment was due until the date it is actually paid. Interest shall be calculated at the rate established under Section 120(b) in effect for the period or periods over which the payment is owed.
- (c) If the recalculated Net Profit Share Payment is less than the amount paid the State, the Lessee shall apply such overpayment to the Net Profit Share Payment, plus interest as calculated in the same manner as provided in subparagraph (b) above not to exceed the amount(s) due and payable under item (b) above.
- (d) Within 30 days after receiving notice of the recalculation as provided in paragraph (a) of

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this Section, the Lessee may seek appropriate judicial review of the decision of the Executive Officer.

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