



FILE: Santa Clara Unit POE

CALIFORNIA COASTAL COMMISSION
631 Howard Street, San Francisco 94105 — (415) 543-8555

CONSISTENCY CERTIFICATIONS STAFF RECOMMENDATION

NOTED - DUNAWAY

Consistency Certification No.

- (1) CC-8-80
- (2) CC-9-80
- (3) CC-10-80
- (4) CC-11-80
- (5) CC-12-80

3/6 Month Period Ends:

- (1) 9/4/80 - 12/4/80
- (2) 9/4/80 - 12/4/80
- (3) 9/16/80 - 12/16/80
- (4) 9/23/80 - 12/23/80
- (5) 9/23/80 - 12/23/80

APPLICANT FOR FEDERAL PERMITS:

- (1) Chevron USA, Inc.
- (2) Chevron USA, Inc.
- (3) Texaco, Inc.
- (4) Challenger Minerals, Inc.
- (5) Conoco, Inc.

FEDERAL PERMITS FOR WHICH COMMISSION CONCURRENCE WITH APPLICANT'S CONSISTENCY CERTIFICATION IS REQUIRED:

U.S. Geological Survey Exploratory Well Drilling Permit; OCS Exploration Plan; U.S. Army Corps of Engineers Permit to Conduct Exploratory Drilling

FEDERAL PERMIT ACTIVITY LOCATION:

On the Outer Continental Shelf in the Santa Barbara Channel on OCS Parcels:

- (1) 0215, 7-8 miles southwest of the City of Ventura.
- (2) 0324, 7-10 miles southwest of Point Conception.
- (3) 0315, 10 miles west of Point Conception.
- (4) 0248, 16 miles south of Santa Cruz Island.
- (5) 0325, 05 miles southwest of Point Conception.

FEDERAL PERMIT ACTIVITY DESCRIPTION:

- (1) Drilling two wells on OCS Parcel 0215 to explore for oil and gas from an anchored drillship, the Glomar Grand Isle.
- (2) Drilling ^{three? #1,3,4 #2 withdrawn,} two wells on OCS Parcel 0324 to explore for oil and gas from an anchored drillship, the Glomar Coral Sea.
- (3) Drilling four wells on OCS Parcel 0315 to explore for oil and gas from a

FEDERAL PERMIT ACTIVITY

DESCRIPTION:

- (3) semisubmersible, the Diamond M General.
- (4) Drilling one well on OCS Parcel 0248 to explore for oil and gas from an anchored drillship, the Glomar Coral Sea.
- (5) Drilling one well on OCS Parcel 0325 to explore for oil and gas from a semisubmersible, the Ocean Bounty.

PUBLIC HEARING AND VOTE:

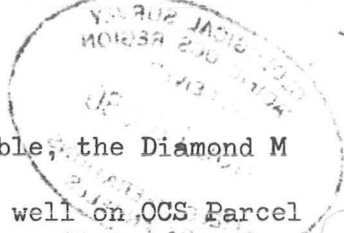
Public hearing and possible action at the Commission's August 19-21 meeting in Marina Del Rey.

STAFF NOTE: CONSISTENCY

Under regulations which implement the Federal Coastal Zone Management Act, the United States Geological Survey, the Environmental Protection Agency, and the Corps of Engineers cannot grant a permit for any activity described in an Outer Continental Shelf (OCS) Plan of Exploration until the Coastal Commission concurs with a certification by the oil company applicant that the activity is consistent with the California Coastal Management Program (CCMP) or determines that the activity has no effect on the coastal zone.

A. Project Description.

1. Chevron USA, Inc. proposes to drill two exploratory wells in the Santa Barbara Channel 7-8 miles southwest of the City of Ventura. (Exhibit 1) The proposed wells will be located in federal OCS Lease Parcel 0215. Four wells have previously been drilled on this tract. Chevron wants to drill the proposed numbers 5 and 6 wells to determine whether the oil-bearing structures in the neighboring leases extend onto OCS Parcel 0215. Drilling time will be 65-75 days for well #5 and 75-100 days for well #6. Water depth at the two locations is 84-121 feet.
2. Chevron USA, Inc. proposes to drill ^{three?} two exploratory wells in the Santa Barbara Channel 7-10 miles southwest of Point Conception. (Exhibit 1). The proposed wells will be located on OCS Parcel 0324. Wells #1 and 3 will be drilled on separate structures. (Well #2 was withdrawn from the Plan of Exploration) No previous wells have been drilled on P0324. Drilling time would be 110 days per well in waters 1260-1320 feet deep.
3. Texaco INC proposes to drill four exploratory wells in the Santa Barbara Channel on OCS Parcel 0315 10 miles west of Point Conception. (Exhibit 1) Depending on results from drilling on the first well, the other wells may be drilled. No previous wells have been drilled on P-0315. Drilling time would be 100 days per well in waters 600-810 feet deep.
4. Challenger Minerals, Inc. proposes to drill one exploratory well from OCS Parcel 0248 in the Santa Barbara Channel, 16 miles south of Santa Cruz Island and 50 miles southwest of the City of Ventura. No wells have been drilled before on this tract. Drilling time would be 60 days and would be in 1350 feet of water.
5. Conoco Inc. proposes to drill one exploratory well on OCS Parcel 0325, 5 miles southwest of Point Conception in the Santa Barbara Channel. The proposed location is about 570 yards beyond the proposed extension to the Vessel Traffic Separation



5. (Contd) Scheme in the Santa Barbara Channel, and therefore beyond the 500 yard "buffer zone" to the proposed lanes. No previous wells have been drilled on this tract. Drilling time would be 90 days and would be in 840 feet of water.

B. Applicants' Consistency Certification and Findings. Each of the applicants has submitted a consistency certification stating that the proposed activity described in detail in the Plan of Exploration and the application for the U.S. Army Corps of Engineers permit will be conducted in a manner consistent with the CCMP.

STAFF RECOMMENDATION

I. Concurrence

The Commission hereby concurs with the consistency certifications made by Chevron, Texaco, Challenger, and Conoco because their Plans of Exploration are consistent with the policies and objectives of the California Coastal Management Program (CCMP). Chevron's Consistency Certification states that only Sections 30230 and 30232 of the Coastal Act are relevant to the Commission's consistency review of these proposed activities. The Commission disagrees and finds that Sections 30260 and 30262 also are applicable. Therefore, this consistency review also includes analysis of these additional policies.

II. Findings and Declarations

The Commission finds and declares as follows:

A. Protection of Marine Resources. Section 30230 of the Coastal Act provides for protection of marine and coastal resources:

"Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes."

All of the proposed exploratory wells are beyond 6 nautical miles of the northern Channel Islands or state-designated Areas of Special Biological Significance. Because of the location of the proposed activities, the Commission finds that the activities are consistent with the CCMP's policy of protection of marine resources.

B. Protection Against the Spillage of Crude Oil. Regardless of the precautions taken against well blowouts and resulting spills of **crude** oil in the open ocean, there is always a risk of this occurring at a drill site. Such a spill may reach the coast of California and damage marine life, scenic areas, and recreational uses of the coast. Because of this risk, the proposed drilling operations must be consistent with Section 30232 of the Coastal Act, incorporated in Chapter 3 of the Coastal Management Program which states:

Protection against the spillage of crude oil, gas, petroleum products or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Onsite Equipment (First Line of Defense). Oil spill containment and cleanup equipment stored on an exploratory drilling vessel or on a production platform is primarily designed to provide a first line of defense for a major spill or to contain and cleanup small spills that may occur. This equipment must be able to surround the largest areas possible within an acceptable period of time. If the equipment is too large and difficult to handle, then its purpose is defeated. The Office of Planning and Research report on Offshore Oil and Gas states, "Speed of response is critical to the success of such efforts, because: oil slicks are thickest immediately after the spill occurs and thus most easily contained and removed; water-soluble toxic hydrocarbons have not yet been released from the slick in large quantities; and the slick has less time to spread or move toward shore." The following list includes the equipment which the Commission has established as minimum requirements for Plan of Exploration consistency determinations in the past. Each of the applicants has committed in its plan to include this equipment onboard the drilling vessel:

- 1) 1500 feet of open ocean oil spill containment boom;
- 2) one oil skimming device capable of open ocean use;
- 3) fifteen bales of oil sorbent material; and
- 4) a boat capable of deploying the oil spill boom on the site at all times or within fifteen minutes of the drilling vessel.

It may be difficult to maintain a workboat or supplyboat onsite or within 15 minutes of the site during periods of adverse sea conditions exceeding 6 to 8 feet. Oil industry representatives have provided testimony to the Commission on the problems involved with mooring a boat near the drillship during these periods of adverse sea conditions. The Commission staff is currently reevaluating the oil spill equipment maintained on the site of drilling operations in the CEIP funded study of oil spill capabilities in California. The requirement of an onsite oil spill deployment boat will be evaluated in depth in this study. Until the oil spill study is complete, the Commission believes that workboats and supplyboats should not be required to stay onsite in seas exceeding six feet because of the difficulty of maintaining these boats onsite under these conditions and because of the drastically reduced efficiency of oil spill equipment in seas over 6 feet.

Logistical problems with deploying oil spill containment boom in excess of 1500 feet would lengthen the deployment time and decrease the effectiveness of the onsite equipment. Therefore, an increase in the length of containment boom could actually be counterproductive to this first stage onsite containment effort.

Clean Seas Inc Oil Spill Cooperative (Major spills, second line of defense).

In the event of an oil spill, industry is required to notify the Coast Guard (Federal Onscene Commander) and the State Department of Fish and Game (State operating authority) immediately, so that federal, State, and local agencies can begin to mobilize if the spill turns out to be large. However, under Federal law, the containment and removal of spilled oil in coastal or marine waters is undertaken by the party responsible for the spill, under the supervision and, if necessary, the direction of the U.S. Coast Guard. Because of this requirement, oil production companies operating in the Outer Continental Shelf belong to oil spill cooperatives which have equipment capable of dealing with large offshore spills. The oil spill cooperative used for the Santa Barbara Channel is Clean Seas. Clean Seas will be notified immediately in the event of a spill and will be called to the site if the spill is beyond the capability of the onsite equipment. In the event of a major oil spill, Clean Seas is equipped with large bottom tension boom which measures 8 feet from top to bottom. They also have a large skimming device capable of picking up as much as 800 gallons of oil per minute. The

large boom takes approximately 36 to 48 hours to assemble from storage and the large skimmers take longer to get on site than the figures mentioned previously. The Coast Guard monitors the entire operation and if the On Scene Commander thinks that the cooperative is not doing an adequate job of containment and cleanup, then the Coast Guard can provide direct aid.

Oil Spill Equipment Inspection. The State Agency Coordinator for Oil Spill Contingency Planning, Jack Traub, or his designated representative will accompany the U.S. Geological Survey on a surprise deployment exercise of the oil spill containment and recovery equipment. The drill will be called by representatives of the U.S. Geological Survey in cooperation with the State of California. The purpose of the drill will be to verify the existence of the oil spill equipment and to ensure that the equipment can be deployed in a timely and organized manner. Each oil company applicant has agreed to allow state personnel onboard the drilling vessel to observe the deployment exercise.

Effectiveness of Equipment under the Coastal Act. The equipment specified by the applicants cannot assure protection of marine resources under Section 30230 nor can it prove effective containment and cleanup as required by Section 30232. Under adverse weather conditions such as high wind and waves, oil spill equipment is not effective in containing spills. Section 30260 states that oil and gas development may nonetheless be permitted even when not consistent with other Coastal Act policies if, among other things, adverse environmental effects are mitigated to the maximum extent feasible. The state-of-the-art in oil spill control technology is a factor to be considered in reaching a feasibility determination.

The Commission finds that the oil spill containment and cleanup equipment as provided in the proposed Plans of Exploration and consistency certifications provide maximum feasible mitigation at this time and therefore concurs with the Consistency Certification of Chevron, Texaco, Challenger, and Conoco.

Concurrence by the Commission, however, is not an indication of satisfaction with the degree of protection afforded coastal resources by the oil spill containment and cleanup equipment referenced in these Plans of Exploration. Currently ongoing studies funded by the Commission will review existing oil spill equipment and cleanup capabilities along the California coast. The study may indicate the need to upgrade and increase standards for both onsite and onshore oil spill cleanup and containment capabilities. Such findings will be used in future consistency determinations.

Oil Spill Risks from Vessel Collision. The Commission finds that the proposed exploratory drilling activities are consistent with the policies in the CCMP to protect against the spillage of crude oil and substantial hazards to navigation.

Oil spill risks can be reduced by minimizing hazards of collisions between vessels and drilling rigs. The Coastal Act requires that coastal resources be protected against oil spills in Section 30232:

Protection against the spillage of crude oil, gas, petroleum products or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

In addition, Section 30262(d) of the Act states:

Oil and gas development shall be permitted in accordance with Section 30260, if the following conditions are met:

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

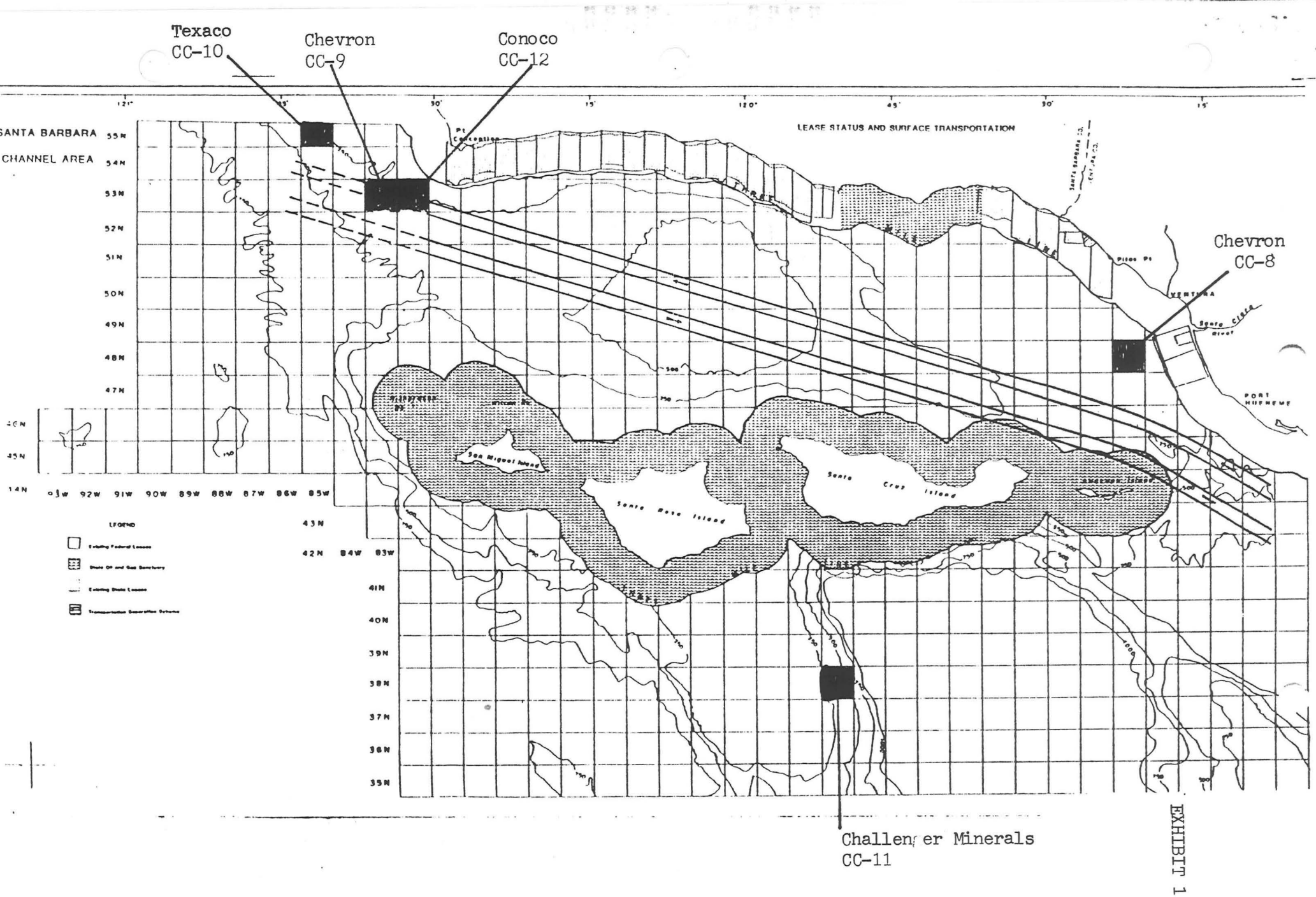
Section 30262 indicates a concern over siting OCS facilities in locations where they will present a substantial hazard to navigation. Placement of drillships in the Coast Guard Designated Vessel Traffic Separation Scheme (VTSS) or buffer zones could present such a hazard because of the risk of collision and possible spillage of oil from passing tankers.

None of the proposed exploratory wells are located within 500 yards of a VTSS or proposed extension of the VTSS. Therefore, the Commission finds that the proposed drilling activities permitted by the U.S. Geological Survey and Corps would be consistent with Sections 30232 and 30262(d) of the Coastal Act and therefore with the CCMP.

The U.S. Army Corps of Engineers Permit to conduct Exploratory Drilling, which addresses the issue of placement of an exploratory drillship on an OCS lease, comes under the scope of the Commission's consistency review. The Commission believes that the Coast Guard decision is in fact the decision which approves placement of a drillship in a VTSS or buffer zone and therefore should come under the Commission's consistency review. The Corps permit states that exploratory drilling shall not be conducted within the VTSS or within 500 yards, or within 500 yards of the proposed extension of the VTSS without written consent from the Commander of the 11th Coast Guard. Since the Corps permit is not effective within a VTSS proposed extension or their buffer zones until the Coast Guard approves the location of the drilling, the Coast Guard action is in fact the granting of the permit to conduct exploratory drilling and therefore comes within the provisions of NOAA's consistency regulations.

D. NPDES Permit

Because the proposed location for the exploratory drilling is beyond 1000 meters from the coastal zone, the Commission will not review the consistency of the activities permitted by the Environmental Protection Agency's National Pollutant Discharge Elimination System permit. At the March 21 meeting in Santa Barbara, the Commission determined that discharges of drill muds and cuttings from exploratory drilling operations conducted more than 1000 meters from the state's 3-mile boundary do not affect the coastal zone. Therefore, no consistency review is required for the discharge activities in this proposal.



CALIFORNIA COASTAL COMMISSION
631 Howard Street, San Francisco 94105 — (415) 543-8555

September 5, 1980



TO: STATE COMMISSIONERS

FROM: MICHAEL FISCHER, EXECUTIVE DIRECTOR

SUBJECT: Added Staff Analysis on Five OCS Plans of Exploration Before the Commission for Consistency Review (For consideration and possible action at the September 16-18 meeting.)

This is added analysis on five proposed OCS Plans of Exploration:

1. CC-8-80, Chevron USA, OCS Parcel 215 offshore Ventura
2. CC-9-80, Chevron USA, OCS Parcel 324, offshore Point Conception
3. CC-10-80, Texaco, Inc., OCS Parcel 315, offshore Point Conception
4. CC-11-80, Challenger Minerals Inc., OCS Parcel 248, south of Santa Cruz Is.
5. CC-12-80, Conoco, Inc., OCS Parcel 325, offshore Point Conception

The OCS parcel locations are shown on Exhibit 1.

Introduction. The Commission opened the public hearing on the consistency of these five POEs at the August 19-20 meeting. The Commission requested added information on these POEs. The following analysis discusses the risks of oil spills from exploratory offshore drilling and from offshore oil production activities, the equipment available to attempt to contain and cleanup a spill that might occur, the sea states at the five drilling locations, and the directions a spill might travel from each location.

Staff Recommendation. Staff continues to recommend that the Commission concur that exploratory drilling at these locations would be consistent with the California Coastal Management Program. At the August 19-20 meeting the Commission objected for the first time to a proposed POE. That POE involved locating a drillship 400 feet from the vessel traffic lane in the Channel and 5.7 miles from the breeding area of the endangered brown pelican on Anacapa Island. The State of California and the Commission have consistently opposed oil leasing and development at that location. The State and the Commission have not opposed federal leasing of the OCS parcels that are the subjects of these five POEs. These five parcels are not near marine wildlife breeding areas, although any oil spill could affect valuable marine and coastal areas. That is true for an oil spill from any location in and near the Santa Barbara Channel. If the Commission concurs with these five POEs, if petroleum is found, the Commission would have the opportunity in the future to object to oil production and transportation activities or to require state-of-the-art oil spill protection for any developments that do occur.

The Risk of Oil Spills from Exploratory Offshore Drilling. There is frequently the risk of an oil spill from offshore exploratory drilling, but that risk is very low. Since 1963 the U.S. Geological Survey in LA has approved 210 OCS exploratory wells. USGS and Coast Guard data indicate there have been no oil spills from these operations. Since 1948 there have been thousands of exploratory wells drilled on the U.S. OCS, primarily in the Gulf of Mexico. U.S.G.S. data indicate these exploratory operations have not resulted in any oil spill larger than 50 barrels. The risk of spills from exploratory drilling is low because:

- during exploration 5 to 10 percent of the wells encounter petroleum;
- the drilling of an exploratory well lasts about 60-90 days;
- during the drilling, information is recorded and analyzed, but there is no handling of large amounts of oil; and
- usually the exploratory well is sealed off and abandoned.

Since 1955 there have been 18 well blowouts from mobile offshore exploratory drilling rigs in U.S. waters. All these blowouts involved gas and not oil. According to the USGS, there has been one large oil spill from an exploratory well worldwide. That was the largest oil spill on ocean waters, the spill from the Ixtoc exploratory well in the Bahia de Campeche offshore Mexico. That well was supervised by the national Mexican oil company Pemex. Although there were differences in circumstances between the drilling and supervision of that well and the drilling and supervision of exploratory wells on the U.S. OCS, that event showed that a risk does exist.

Spills from Production Activities. The USGS has approved 313 OCS oil and gas production wells offshore California and the State Lands Commission has approved hundreds more in State waters within three miles of shore. Current offshore oil production from State tidelands is about 150,000 barrels of oil a day and from the California OCS about 20,000 b/d. The major spills on the U.S. OCS have been from production operations. The 1969 Santa Barbara Channel spill resulted from a blowout on a production well. Other major OCS spills occurred from pipeline ruptures and storage tanks ruptures in the Gulf of Mexico in 1973 and 1974. Since then the trend has been no major spills from offshore oil activities. Recently there has been a slow leak from Platform Holly in State waters in the Santa Barbara Channel.

Oil Spill Equipment Response. Section 30232 of the Coastal Act recognizes there is frequently the risk of oil spills and requires protection against the spillage of crude oil and the provision of effective containment and cleanup equipment for spills that do occur. Because the Commission has consistently found that the state-of-the-art in spill control equipment cannot effectively contain spills in high seas conditions, proposed developments that involve oil drilling on the ocean have not met this policy. The Commission has then applied Section 30260 of the Act, which in effect requires the best feasible equipment be available. Feasibility involves technical, economic and environmental considerations. The oil spill equipment involves two stages, the first line of defense at the drillship itself, and the second line of defense, which involves large equipment and trained workers deployed from staging areas onshore.

Drillship Onsite Equipment. The five POEs have the same onsite oil spill containment boom, skimmer and sorbents that the Commission has required on 15 previous POEs. The staff recommendation states that the boat for deploying the boom should be on station at all times, but can be released when wave heights exceed six feet. The containment boom effectiveness is much reduced in such waves because the oil will slop over the boom. In addition it is difficult to maintain a small boat on location in such seas.

Exhibit 2 shows the percentage of time that seas exceed 6 feet offshore Point Conception, south of Santa Cruz Island, and offshore Ventura. The annual averages range from 7 to 25 percent. In the Point Conception area the service boat could reach sheltered waters in areas east of the Point. South of the islands the boat could move to the lee of the islands, and offshore Ventura the boat could seek shelter in Port Hueneme. In most cases the boat could be back at the drillsite within 1 to 1.5 hours after the 6 foot seas subside.

Clean Seas Cooperative. The Commission has contracted for a study which is now comprehensively evaluating the capabilities of the Clean Seas Cooperative to respond to oil spills in the Channel area. This industry cooperative was formed to respond to large spills. It stores much of its equipment in large vans which can transport the equipment to areas where it is needed. Exhibit 3 shows the location of these vans and of Clean Seas' main supply base at Carpinteria.

Clean Seas would use heavy equipment, mainly booms, stored at Carpinteria and Santa Barbara to respond to a spill at tracts offshore Point Conception. Clean Seas could get added containment boom to the site in five hours, at a minimum, and the large oil recovery skimmers within about 17 hours. Time for the large skimmers to the south of Santa Cruz Island location would be about 13 hours, and to offshore Ventura about 9 hours. Because the large bottom tension oil containment boom, 8 feet in height, must be connected and launched from the beach at Mandalay, its deployment takes at least 36 to 48 hours.

The equipment is at the Eastern Channel now because that is where nearly all State and federal offshore production is at present. Clean Seas has plans to obtain quicker deployment skimmers. The cooperative's plans, the benefits of added equipment, the need for new equipment staging areas at the Western Channel if more oil is produced there, and other issues are being evaluated by the Commission's consultants. The evaluation report will be available in early 1981. Staff is not recommending that a new staging area and added equipment be provided in the Western Channel at present pending the results of this evaluation and the results of the exploratory drilling.

Oil Spill Trajectories. The most sensitive areas in the Channel to oil spill effects are the breeding areas of marine mammals and seabirds on the offshore islands. Other valuable but less sensitive areas include kelp beds, open water fishing areas, rocky intertidal coastline, and boat harbors. Any coastal area, including sandy beaches, can be damaged by oil spills for a period of time. Because of changing daily and seasonal wind patterns, circular currents, and the number of days an intact spill can stay on the water, a spill from any location in the Channel area can affect sensitive areas. Exhibit 4 reports the results of Bureau of Land Management computer simulations of oil spill paths from different locations. Under worst case assumptions, the Exhibit shows the percentage of spills from each POE area that would hit the listed islands within three days. In general spills from all locations would travel offshore. The worst cases show about a one-third chance spills from west of Point Conception would hit San Miguel Island.

Texaco
CC-10

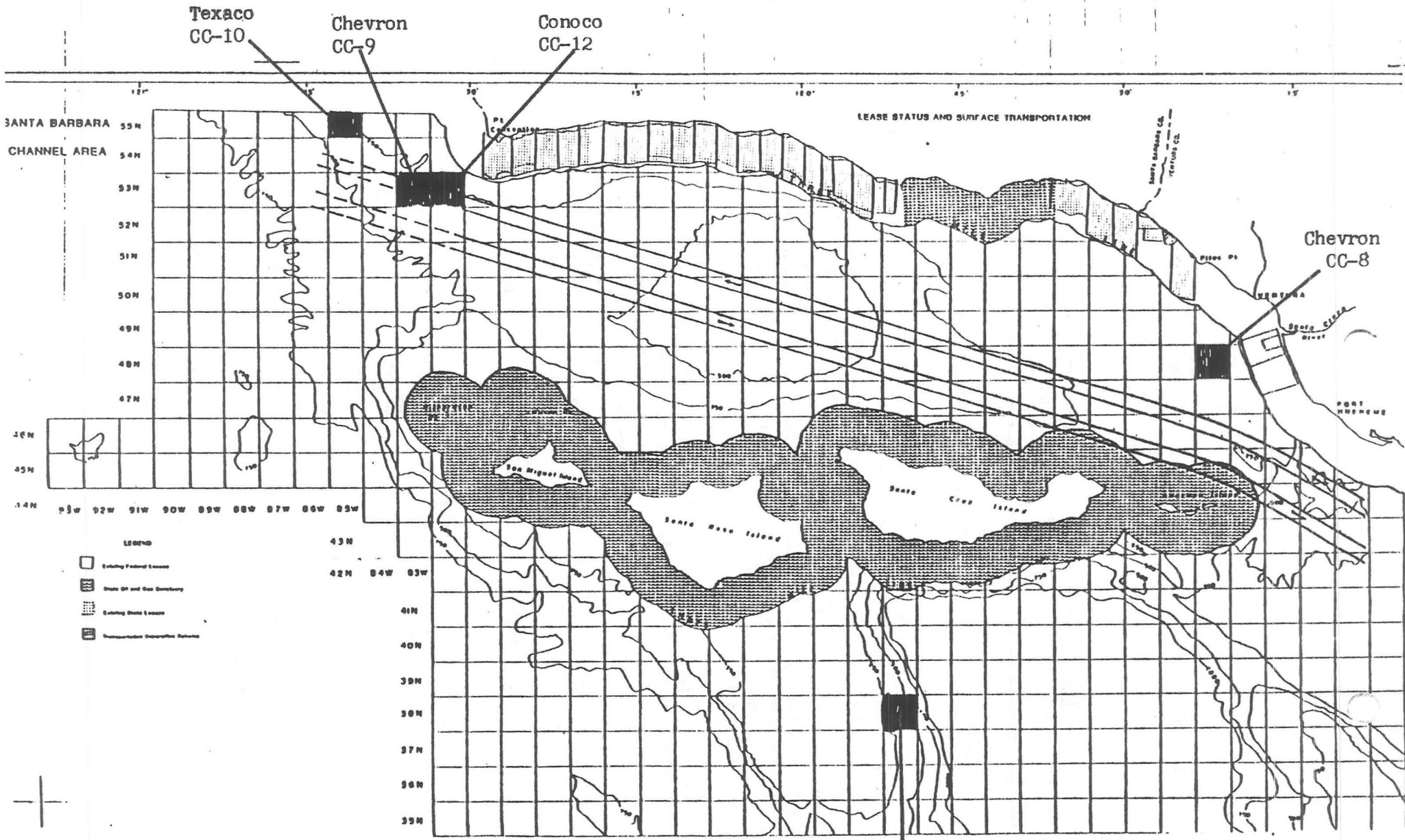
Chevron
CC-9

Conoco
CC-12

Chevron
CC-8

Challenger Minerals
CC-11

EXHIBIT 1



WAVE HEIGHT, PERCENT FREQUENCY OF EXCEEDANCE)

LOCATION	WAVE HEIGHT, PERCENT FREQUENCY OF EXCEEDANCE)								WIND SPEED >34 Kts	
	>2'		>6'		>9'		>12'		Annual Ave	Worst Best
	Annual Ave	Worst Best	Annual Ave	Worst Best	Annual Ave	Worst Best	Annual Ave	Worst Best		
CC-11-80 LEASE PARCEL 248 12 Mi. South of Santa Cruz	62	MAR/APR/MAY 70 MAY/MON/US 55	<u>17</u>	Apr/May 25 Aug 8	4	May 7 Many ≤ 2	1	May 3 Many ≤ 1	1	May 4 Many ≤ 1/2
CC-8-80 LEASE PARCEL 215 5 Mi. SW of Ventura	45	May 56 Oct 38	<u>7</u>	May 15 Jul-Nov 4	2	Mar 4 Many ≤ 2	1	May 2.5 All others ≤ 1	1	May 2 Many ≤ 1/2
CC-9-80 CC-12-80 LEASE PARCELS 324 & 325 3-10 Mi. West of Pt. Conception	69	Apr 80 Nov 58	<u>21</u>	Apr 32 Jul 12	5	May 11 Jul-Nov 2.5	2	Nov-Jun 2.5 Jul-Oct 1	1	Mar-May 2 Many ≤ 1/2
CC-10-80 LEASE PARCEL 315 15 Mi. West of Pt. Conception	74	Apr 83 Nov 65	<u>25</u>	Apr 35 Jan/Jul/Nov 20	6	Apr 11 Sept 2	2	Feb 3 Jul-Oct 1	1.4	Mar-May 2.5 Aug/Sept 1/2

* PERCENTAGE OF TIME THAT DEPLOYMENT BOAT COULD LEAVE THE SITE OF THE DRILLING VESSEL

Exhibit 2

SOURCE: CLIMATOLOGICAL STUDY, SOUTHERN CALIFORNIA OPERATING AREA, NATIONAL CLIMATIC CENTER, ASHVILLE, N.C. MARCH 1971

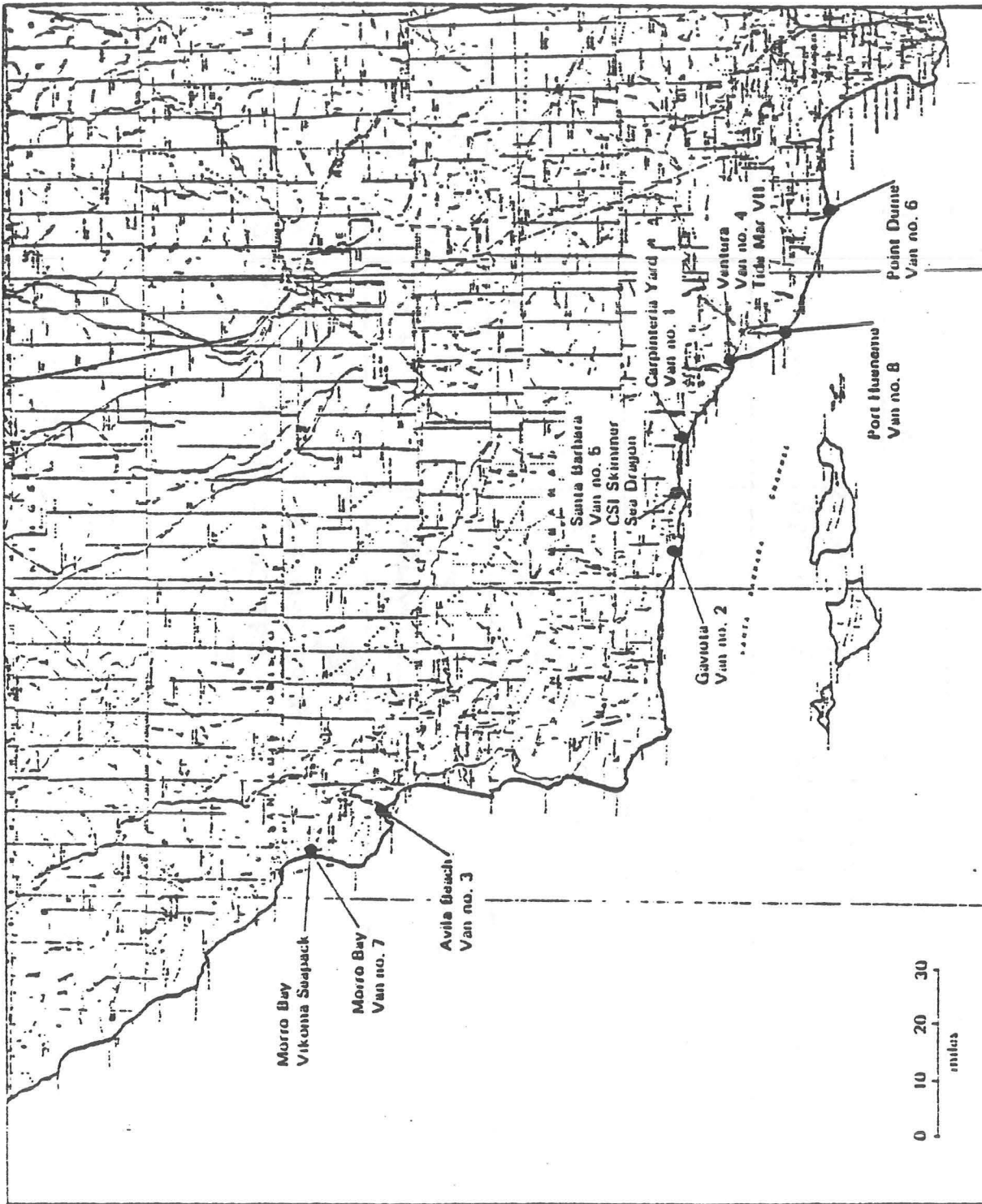


Figure 600-1. LOCATION OF CSI EQUIPMENT

OIL SPILL TRAJECTORIES FOR THE FIVE PLANS OF EXPLORATION

*Probabilities (in percent) that an oil spill starting at the approximate location of each Plan of Exploration will reach certain land areas within 3 days.

1. CC-8-80 Lease Parcel 215, 7-8 miles southwest of Ventura

If spill occurs:	Santa Cruz Island	9%
	Anacapa Island	21%

2. CC-9-80 Lease Parcel 324, 7-10 miles southwest of Point Conception

If spill occurs:	San Miguel Island	32%
	Santa Rosa Island	15%

3. CC-10-80 Lease Parcel 315, 10 miles west of Point Conception

If spill occurs:	San Miguel Island	18%
	Santa Rosa Island	1%

4. CC-11-80 Lease Parcel 248, 16 miles south of Santa Cruz Island

If spill occurs:	San Nicholas Island	7%
	Begg Rock	2%

5. CC-12-80 Lease Parcel 325, 5 miles southwest of Point Conception

If spill occurs:	San Miguel Island	32%
	Santa Rosa Island	15%

NOTIFICATION OF COMMISSION ACTION
ON CONSISTENCY REVIEW
FOR OCS PLANS

USCS - CONS. DIV.
SEP 22 1980
RECEIVED
LOS ANGELES

NOTED - DUNAWAY

FILE:
Santa Clara
Unit. POE

On September 16, 1980, the California Coastal Commission
date
concurred with Chevron USA's certification that the
name of applicant
federally-permitted activities described in the OCS Plan and listed
below comply with California's approved Coastal Management Program
and will be conducted in a manner consistent with such program.

- USCS Plan of Exploration
- USCS Permit to Drill
- USGS Permit for Pipeline Right of Way
- Environmental Protection Agency NPDES Permit
- U.S. Army Corps of Engineers Permit to Install a Pipeline
- U.S. Army Corps of Engineers Permit to Install a Platform
- U.S. Army Corps of Engineers Permit to Conduct Exploratory Drilling
- USGS Plan of Development

For CC-8-80 Lease Parcel 215 and CC-9-80 Lease Parcel 324.