

MINUTE ITEM

This Calendar Item No. 5  
was approved as Minute Item  
No. 15 by the State Lands  
Commission by a vote of 3  
to 0 at its 10-7-87  
meeting.

CALENDAR ITEM

5

A )  
S ) Statewide

09/23/87  
W 6005.3  
Willard/Meier

CONSIDERATION OF APPLICATIONS FOR  
RENEWAL OF NON-EXCLUSIVE GEOPHYSICAL SURVEY PERMITS  
ON TIDE AND SUBMERGED LANDS UNDER THE JURISDICTION OF THE  
STATE LANDS COMMISSION

APPLICANTS: See Exhibit "A".

REQUESTED ACTION: The Commission has before it requests from  
nineteen applicants for renewal of non-  
exclusive geophysical survey permits on tide  
and submerged lands under the Commission's  
jurisdiction.

STAFF RECOMMENDATION:

Staff recommends that the Commission deny renewal  
of the nineteen Non-Exclusive Geophysical Permits  
as requested. Staff further recommends approval  
of an amended Limited Non-Exclusive Geophysical  
Permit to be issued to the nineteen applicants.  
The amended permit would allow only those  
geophysical surveys which use low-energy  
acoustical or passive survey equipment. Such  
surveys would be conducted on tide and submerged  
lands under the jurisdiction of the State Lands  
Commission within permit regions I, II, III and IV  
as depicted on Exhibit "B" hereto.

Staff also recommends that the Commission modify  
five permits which expire after September 28,  
1987, so that such permits are subject to the same  
limitations, terms and conditions as those new  
permits which the Commission may authorize. Such  
modification would be effective on October 28,  
1987, after thirty days notice, as required under  
the current permit.

TERMS AND CONDITIONS:

The terms and conditions of the amended permit would be as set forth in Exhibit "C". The amended permits would terminate on October 1, 1990, unless earlier renewed.

STATUTORY REFERENCES:

- A. P.R.C. Section 6826.
- B. Cal. Adm. Code, Title 2, Article 2.9, Section 2100.

DISCUSSION:

On May 24, 1984, pursuant to the provisions of the California Environmental Quality Act (CEQA) and Title 14 of the California Administrative Code, Division 6, Chapter 3 (the CEQA Guidelines), the Commission prepared, circulated, considered and adopted a Proposed Negative Declaration (NE 358, State Clearinghouse 84021113), for the issuance of geophysical survey permits with initial terms of three years. At that time, the Commission found that there was no substantial evidence that the program and permits, as revised and approved, would have a significant effect on the environment. (14 Cal. Adm. Code 15074(b)).

The 36 permits issued on or after the above date were to expire on May 31, 1987. Prior to that date, the Commission received applications for renewal of a number of these permits. At its regular meeting on May 28, 1987, the Commission extended the term of the existing permits for 120 days, terminating on September 28, 1987. The purpose of the extension was to allow the Commission and its Staff to complete a series of workshops with commercial fishermen and to obtain and analyze additional information necessary for a complete evaluation of the renewal proposal now before the Commission. At this time, the Commission has before it renewal applications from nineteen permittees.

The primary issue before the Commission is whether to require the preparation of an environmental impact report (EIR) before permitting further geophysical activity. Staff recommends that the Commission require that an EIR be completed before permitting further offshore geophysical activity employing high or moderate energy acoustical pulses. This would give the Commission an opportunity to evaluate the full environmental effects of such work. However, geophysical activity employing

low energy acoustical or passive data collection equipment should be allowed to proceed, insofar as Staff has been presented with no evidence such activity may have an adverse effect on the environment.

A. GEOPHYSICAL ACTIVITY GENERALLY

The geophysical permits currently issued authorize and regulate any activity involving seismic, gravity, magnetic, electrical, and geochemical methods used to measure and record physical properties of surface and subsurface geological structures. Among the many activities for which the data obtained is used are the following: 1) engineering, design, and construction of offshore projects, such as docks, breakwaters, sewer outfalls and offshore pipelines; 2) dredging; 3) environmental research, such as the identification of hard- and soft-bottom habitat; 4) the location of ocean-bottom hazards, both natural and manmade; 5) location of cultural and archeological resources; 6) identification of shallow faulting which may indicate some earthquake hazard; and 7) performance of offshore system safety programs. Data obtained by using high energy acoustical equipment is also used for identifying geological structures which may contain oil or gas. Essentially all work offshore and many major onshore projects require the collection and analysis of offshore geophysical data.

Geophysical survey work most frequently involves the generation of acoustical waves or pulses. As these pulses reflect off different kinds of materials, other devices, called hydrophones, are used to collect the reflected signals. The different ways in which a signal is reflected provide evidence of the type of materials and geological features present. In the past, explosives were used to generate such acoustic pulses. Because the use of explosives in open waters killed large numbers of fish under certain circumstances, their use is not allowed under the permits currently issued. Technological advances now provide less damaging means of doing the work.

Oil and gas exploration requires deep subsurface information to identify strata and structures which may contain hydrocarbons. With existing technology, the amounts of energy needed to penetrate sufficiently below the surface cannot be generated except by air or water compression devices or high energy sparker systems. Hydrophones located on marine seismic cables up to two miles in length are necessary for recording the reflected acoustic signal.

Where deep, subsurface penetration is not needed, lower energy levels are employed. Smaller air and water compression

devices and other instruments, such as some sparkers and gas exploders, are used to generate acoustic pulses of moderate energy levels. Low energy acoustic pulses are generated by side-scan sonar, sub-bottom profilers, fathometers, mini-sparkers and electro-mechanical devices. These instruments are towed on cables 30 to 1000 feet in length. Long cables for hydrophones are not needed for low energy systems.

Entirely passive data collection methods, involving the use of gravity meters or magnetometers, are also employed, although they are of limited value. Even though no energy is generated by these devices, their use is regulated under the existing permit.

### B. THE ENVIRONMENTAL ISSUES

The Commission Staff has received considerable public commentary calling for completion of an EIR before further geophysical activity is permitted. The primary environmental issues concern the effect high energy acoustic pulses may have on marine life and divers.

The concern most frequently raised by commercial fishermen involves fish dispersal; i.e., the situation in which acoustic signals cause fish to disperse from their normal feeding grounds and deviate from more normal feeding and behavior patterns. Fishermen claim that, when high energy work is performed in an area, fish immediately disperse and, after a series of surveys, may vacate an area altogether. While some contend that these claims are exaggerated or not well founded, the claims have given rise to a serious controversy in the fishing community.

Three studies have been released which attempt to address the claims regarding such behavioral changes among fish. All three studies examined the effects created by the use of large air and water compression devices producing high energy acoustic pulses.

The first, completed in Norway in 1984, determined that, under certain conditions, the discharge of large, high energy acoustic pulses causes modification in fish behavior. This study, commonly called the "Norwegian" study, has been criticized as being improperly and unrealistically performed. Nevertheless, since its translation into English in 1986, it has been cited as evidence of the need for an EIR.

Another study was prepared at the behest of the Fish Dispersal Committee, which included representatives of the State Lands Commission, MMS, the Department of Fish and Game, other federal and state agencies, and the oil and fishing industries.

Because this study lacked adequate scientific controls, its results did not clearly demonstrate whether or not fish behavior modification occurred.

The Minerals Management Service (MMS) released a third study in July of this year. The MMS study was specifically intended to address concerns in California, and the work was performed in waters off San Luis Obispo County.

As with the Norwegian study, the MMS study concluded that, under the conditions in which the work was performed, fish did change their behavior and did not immediately return to normal patterns after acoustical work stopped. Fishing with hook and line was also attempted while air compression devices were discharged nearby. Under such conditions, catch of specific rockfish species was reduced when compared with catches in the area when geophysical work was not performed.

However, as with the Norwegian study, the MMS study has been criticized as being too narrow in scope, improperly controlled, and unrealistically conducted in comparison to actual operating conditions. Many individuals and organizations nevertheless find considerable support in the study for an EIR.

Another potential environmental issue involves the effect high energy acoustic pulses may have on abalone and sea urchin divers. Potential damage to eardrums and loss of equilibrium or consciousness are the primary concerns. While substantial data exists on the subjects of underwater acoustics and standoff distances, it is not clear how much of this information may be relevant to the issues here involved. Until such data is gathered and analyzed, such as in the preparation of an EIR, the Commission will not be in a position to determine the validity of the expressed concerns. Nor will the Commission be able to determine what, if any, conditions or regulations may be appropriate in order to ensure diver safety during the performance of high energy acoustic work.

Another issue involves damage to crab and lobster traps caused by the one- to two-mile long cables used for high-energy geophysical work. These long cables are difficult to control and may entangle and break lines connecting traps with their marking buoys. If the trap cannot be located and retrieved, it will continue to collect crabs. Because crabs are scavengers and cannibalistic, dead crab in a trap will continue to attract more crab from the area until the trap itself disintegrates after four to six weeks. The problem was addressed in 1984, when the Commission required geophysical operators to avoid fishing activity. The Commission also adopted notice requirements under which the geophysical operators are required notify the fishing

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community of pending surveys in order to identify and avoid potential conflicts. Nevertheless, problems still occasionally arise.

The shorter cables of 30 to 1000 feet employed in low energy geophysical work do not present a problem for crab and lobster fishermen because the shorter cables are more easily controlled. The Commission Staff has never in fact been presented with a complaint involving the shorter cables.

CEQA provides that an EIR must be completed before a project is approved where there is substantial evidence the project may have a significant effect on the environment. The results of the Norwegian and MMS studies and fishermen's claims regarding fish dispersal, although contested, may be considered sufficient evidence of a potentially significant impact, insofar as they show at least some modification of fish behavior. The concerns raised by divers and the potential impacts on crab trapping posed by the long cables used for high energy acoustical work also support the position that an EIR must be prepared.

While the fish dispersal studies have been criticized and the claims by fishermen and divers disputed, the controversy itself may be considered support for an EIR. The CEQA Guidelines provide that, where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment and where a serious public controversy over the project's environmental effects has arisen or experts disagree over whether the project's environmental effects are serious, an EIR should be prepared. In this case, the Commission is faced with both a disagreement among experts and a serious environmental controversy.

Other environmental issues have been raised with respect to geophysical activity involving acoustic pulses of high and moderate energy levels. Nevertheless, the issues raised above are sufficient in Staff's opinion to justify the preparation of an EIR before the Commission permits any further geophysical activity which employs high or moderate energy acoustic pulses.

C. SCOPE OF THE EIR

Staff is recommending that the proposed EIR address the potential environmental effects of the use of high and moderate energy acoustic devices, because the use of such devices has given rise to controversy. All evidence of potential adverse effects has been directed toward the use of such equipment. Furthermore, all of the studies addressing fish dispersal have been confined to the effects of high energy acoustic pulses,

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producing energy levels of 50 to several hundred kilojoules of energy. Other studies concerning the effects of geophysical activity on eggs and larvae were similarly directed solely toward high energy acoustic pulses.

Staff has never heard a complaint or comment with respect to any work using side-scan sonar, sub-bottom profilers, or low energy mini-sparkers or electro-mechanical devices. Nor has Staff been presented with any evidence, substantial or otherwise, that low energy acoustic pulses cause any potentially adverse environmental effects. The energy levels involved with these acoustic sources are less than 2 kilojoules. For comparison, the acoustic energy levels produced by a typical diesel power sport fishing or recreational boat are approximately 2 to 5 kilojoules.

The use of low energy devices also does not involve the use of long cables. The lower the energy levels employed, the closer the signal-collection equipment will be to the geophysical vessel. The low energy levels here contemplated would involve cables no longer than 1000 feet. Such cables are sufficiently maneuverable to preclude physical conflicts. No physical conflicts with such short cable lengths have ever been reported to Commission Staff.

Low energy work is also necessary for environmental work, particularly in identifying hard- and soft-bottom habitat, oceanbottom topography, and underwater geological hazards and debris. Work for the benefit of the fishing and diving industries, such as harbor development and maintenance, dredging, and topographical surveys, also requires data from low energy geophysical activity. It is therefore Staff's opinion that a comprehensive prohibition of all geophysical work would be unnecessary and inappropriate.

**D. STAFF'S RECOMMENDATION**

Based on the foregoing, the analysis within the previously certified Negative Declaration, and public comments received, low energy or passive geophysical work should be permitted to continue under the provisions and conditions of the Commission's permit, as amended and contained in Exhibit C.

The same cannot be recommended for geophysical activities employing high energy sources. The serious public controversy which has recently arisen, the current studies which have shown potential effects on fish dispersal, claims from the fishing and diving communities, and the general disagreement among experts on the issues lead the Commission Staff to recommend completion of an EIR before further offshore high energy work is authorized.

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The permit recommended by Staff would limit the energy levels of the acoustic pulses generated during geophysical activities to 2 kilojoules. No potential for adverse environmental effects has been identified at that level. The energy-level limitation would permit the use of electro-mechanical devices and mini-sparker systems, which produce up to 2 kilojoules of acoustic energy; sub-bottom profilers and side-scan sonar, which produce almost no acoustical energy; and entirely passive geophysical devices, such as gravity meters and magnetometers. Given current technology, no air or water compression devices could be used.

While adverse environmental impacts would also likely be avoided even at higher levels, Staff has insufficient data to determine the level at which the potential for harm may begin to arise. The 2-kilojoule limit therefore avoids any potential for adverse effects.

On March 16, 1987, Staff recirculated the Negative Declaration previously certified by the Commission in 1984 with respect to all offshore geophysical activity. The recirculated Negative Declaration included a supplemental fisheries discussion regarding dispersal and potential impacts to the eggs and larvae of commercial species. In response, Staff received numerous comments from commercial fishing and diving organizations and various public agencies, including Santa Barbara, San Francisco, and Mendocino Counties and the Coastal Commission, each of which called for preparation of an EIR. However, all such comments were directed solely toward issues arising from high energy acoustical work.

**CONCLUSION**

Staff believes that completion of an EIR is necessary and appropriate before the Commission permits any further offshore geophysical activity involving the generation of high energy acoustic pulses. Geophysical work entailing moderate energy acoustic pulses, from 2 to 50 kilojoules, should also be prohibited because of the uncertainty regarding the environmental effect. The potential for environmental impact decreases as lower energy levels are employed, but the level at which all potential harm is avoided cannot be determined with exactitude, given present data.

Nevertheless, when acoustic energy levels of less than 2 kilojoules are generated, no environmental risks are apparent. Staff therefore recommends that such low energy work be allowed to proceed.

EXHIBIT

- A. List of Applicants
- B. Permit Regions
- C. Permit Form

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE DENIAL OF THE APPLICATIONS FOR RENEWAL OF NON-EXCLUSIVE GEOPHYSICAL SURVEY PERMITS, AS REQUESTED BY THE NINETEEN APPLICANTS IS EXEMPT FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) PURSUANT TO SECTION 15270 OF THE GUIDELINES, IN THAT CEQA DOES NOT APPLY TO PROJECTS WHICH A PUBLIC AGENCY REJECTS OR DISAPPROVES.
2. DENY THE APPLICATIONS FOR RENEWAL OF NON-EXCLUSIVE GEOPHYSICAL SURVEY PERMITS, AS REQUESTED BY THE APPLICANT LISTED IN EXHIBIT A.
3. DETERMINE THAT ON MAY 24, 1984, A NEGATIVE DECLARATION, ND 358, STATE CLEARINGHOUSE 84020113, WAS CONSIDERED AND ADOPTED FOR THE PROGRAM UNDER WHICH ISSUANCE OF THIS PERMIT IS PROPOSED PURSUANT TO THE PROVISIONS OF CEQA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN AND THE COMMENTS IN THE COMMISSION'S FILES WHICH WERE RECEIVED IN RESPONSE THERETO.
4. DETERMINE THAT THERE IS NO SUBSTANTIAL EVIDENCE THAT THE PROGRAM UNDER WHICH ISSUANCE OF THE PERMIT IS PROPOSED, AS REVISED AND APPROVED, WILL HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.
5. FIND THAT THE ACTIVITIES AS PROPOSED ARE CONSISTENT WITH THE USE CLASSIFICATIONS DESIGNATED FOR THE LANDS PURSUANT TO P.R.C. 6370 ET. SEQ.
6. AUTHORIZE THE ISSUANCE OF LIMITED NON-EXCLUSIVE GEOPHYSICAL PERMITS IN THE FORM AS SHOWN IN EXHIBIT C, ATTACHED HERETO, TO THE APPLICANTS LISTED ON EXHIBIT A, SUCH PERMITS PROVIDING THAT THE PERMITTEE MAY OPERATE ONLY SUCH GEOPHYSICAL SURVEY EQUIPMENT IN STATE WATERS WHICH PRODUCES ACOUSTICAL ENERGY OF NO MORE THAN TWO KILOJOULES, AS DETERMINED BY MEMBERS OF THE COMMISSION STAFF.
7. DETERMINE THAT, BEFORE THE COMMISSION WILL CONSIDER THE USE OF GEOPHYSICAL SURVEY EQUIPMENT NOT PERMITTED UNDER THE PROPOSED PERMIT, AN ENVIRONMENTAL IMPACT REPORT MUST BE COMPLETED, IN COMPLIANCE WITH CEQA, CONCERNING THE POTENTIAL ENVIRONMENTAL EFFECTS OF THE USE OF SUCH GEOPHYSICAL EQUIPMENT.

8. DIRECT THAT ALL PERMITS HERE AUTHORIZED, PRESENTLY OUTSTANDING, OR HEREAFTER ISSUED, SUBJECT TO SUBSEQUENT MODIFICATION BY THE COMMISSION, TERMINATE ON OR BEFORE SEPTEMBER 30, 1990, UNLESS RENEWED AT THAT TIME.
9. DIRECT THAT, EFFECTIVE OCTOBER 23, 1987, THOSE PERMITS WHICH WILL NOT TERMINATE ON SEPTEMBER 28, 1987, WHICH ARE HELD BY THOSE NON-APPLICANT PARTIES LISTED ON EXHIBIT "A", SHALL BE MODIFIED, PURSUANT TO SECTION 14 OF SUCH PERMITS, SO THAT THEY CONFORM TO THE PERMITS HERE AUTHORIZED, IN THE FORM AS SHOWN IN EXHIBIT "C", ATTACHED HERETO.

EXHIBIT "X"

A. **APPLICANTS:** Those parties who have submitted applications for renewal of their permits.

| <u>PERMIT NUMBER</u> | <u>APPLICANT</u>                   |
|----------------------|------------------------------------|
| PRC 6623             | Phillips Petroleum                 |
| 6624                 | ARCO Oil and Gas                   |
| 6628                 | Cities Services, Inc.              |
| 6631                 | Chevron USA                        |
| 6634                 | Digicon Geophysical Corp.          |
| 6636                 | Meridian Ocean Systems             |
| 6637                 | Mobil Oil Corp.                    |
| 6639                 | Pelagos Corp.                      |
| 6647                 | Shell Western E & P, Inc.          |
| 6650                 | Union Oil Company of Cal.          |
| 6651                 | Western Geophysical Company of Am. |
| 6654                 | Texaco USA                         |
| 6661                 | Geophysical Service, Inc.          |
| 6663                 | Exxon Company USA                  |
| 6667                 | Harding Lawson Associates          |
| 6701                 | Ocean Surveys Inc.                 |
| 7039                 | Eco Systems Management Assoc.      |
| 7100                 | Geo 3, Inc.                        |
| 7101                 | Land and Sea Surveyors             |

B. **NON-APPLICANT PARTIES:** Those parties holding permits which expire after September 28, 1987.

| <u>PERMIT NUMBER</u> | <u>NON-APPLICANT PARTIES</u>      |
|----------------------|-----------------------------------|
| PRC 6626             | USGS                              |
| 6628                 | Criterion                         |
| 6887                 | Scientific Surveys                |
| 6922                 | University of Southern California |
| 6963                 | Sea Surveyor                      |



EXHIBIT "CN"

W. A. \_\_\_\_\_  
ERC \_\_\_\_\_

STATE LANDS COMMISSION  
STATE OF CALIFORNIA  
SURVEY PERMIT P.R.C.  
GENERAL PERMIT TO CONDUCT GEOPHYSICAL SURVEYS

Pursuant to Division 6 of the California Public Resources Code and Title 2 of the California Administrative Code, the State of California, acting by and through the State Lands Commission (State) hereby issues to

\_\_\_\_\_  
(Permittee) a non-exclusive geophysical survey permit subject to the following terms and conditions:

TERMS AND CONDITIONS

1. Permit Area: This permit covers offshore state waters, excluding inland waterways, known as Regions I, II, III and IV, as described below, and within state tide and submerged lands between the Mexican and Oregon borders out to three (3) nautical miles:

A. Region I - the area between the Mexican Border and the Los Angeles/Ventura County line;

B. Region II - the area between the Los Angeles/Ventura County line and the San Luis Obispo/Monterey County line;

C. Region III - the area between the San Luis Obispo/Monterey County line and Sonoma/Mendocino County line, excluding San Francisco, San Pablo, and Suisun Bays; and,

D. Region IV - the area between the Sonoma/Mendocino County line and the Oregon Border.

The above Regions are outlined on the map attached as Exhibit A.

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2. Term of Permit: This permit shall commence on the first day of the month following the month in which it is authorized by the State Lands Commission, and shall continue until September 30, 1990, unless terminated sooner as provided in this permit.

3. Scope of Activities: Permittee shall comply with the terms of this permit whenever the equipment specified in Section 4 is deployed or geophysical data are to be collected within the permit area. Geophysical surveys shall include seismic, gravity, magnetic, electrical and geochemical methods of measuring and recording physical properties of subsurface geologic structures.

4. Equipment/Survey Methods: Permittee is authorized under this permit to collect geophysical data utilizing such equipment as is set forth on Exhibit B.

5. Multiple Use: This permit is nonexclusive and is issued subject to all existing valid rights at the date of this permit. Such rights shall not be affected by the issuance of this permit. The State shall have the right to issue additional, non-exclusive survey permits and leases or other entitlements for uses which are not inconsistent with this permit.

6. Operations:

A. Permittee shall conduct all activities with due regard for the preservation of the property covered by this permit, potential environmental impacts, peak fishing seasons and with due caution to minimize damage to third parties.

B. Geophysical acoustic pulse-generating equipment shall not be started in State waters when whales are observed within two kilometers of Permittee's geophysical boat.

C. On the first day of each survey, the Permittee shall use a boat to scout the area to be covered within the first 24 hours of operations for the purpose of searching for and avoiding potential conflicts with commercial fishing activities or equipment.

D. Permittee shall have at least one person on board each vessel during survey operations that has attended a Fisheries and Environmental Training Program.

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7. Observers: The State may require the Permittee to furnish food, quarters, and marine transportation, if necessary, for a State representative on any vessel conducting operations authorized by this permit. The State representative may observe and inspect all operations conducted pursuant to this permit.

If the State representative notes permit violations or determines adverse effects are being caused or are imminent, the representative may recommend suspension of activities to the Executive Officer. Upon approval of the Executive Officer, the representative may carry out suspension of the activities allowed under this permit pursuant to Section 14.

8. Notification Procedure: The Permittee shall follow the complete notification procedure set forth in Exhibit B for all geophysical surveys where equipment is deployed "over-the-side" of the vessel. This notice shall include the information required under Exhibit C, Section B, Contents of Notice, and in the format displayed in Exhibit E.

For all other geophysical surveys covered by this permit, the Permittee shall notify the State a minimum of ten (10) days before commencing the survey.

9. Data Submission and Examination:

A. The Permittee shall submit a field operations report, in a form that is attached hereto as Exhibit D, to the State as soon as possible, but not more than thirty (30) days after the completion of any survey activities conducted under this permit. Information required includes:

(1) A narrative description of the work performed, the data obtained, and the logs produced from the operations;

(2) Charts, maps, or plats indicating the areas in which any exploration was conducted, specifically identifying the lines of geophysical traverses, (pre-plot map(s) may be used provided it accurately depicts the area and lines surveyed), accompanied by a reference sufficient to identify the data produced from each activity;

(3) The dates and times during which the actual exploration was performed;

(4) The nature and location of any environmental hazards;

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(5) A description of any accident, injury, damage to or loss of property which resulted from the reported activities; and,

(6) Such other information relative to the permitted activities as may be requested.

B. Permittee shall make available, upon request, and the Commission shall have the right to inspect and/or copy factual and physical survey results, logs, records, field acquired data, processed records or any other data/information resulting from operations under this permit. These data and information shall include, but are not limited to, geophysical data from:

(1) Deep seismic reflection ("Common Depth Point") and refraction;

(2) High resolution systems including but not limited to bathymetry, side-scan sonar, sub-bottom profiler, and electro-mechanical devices;

(3) Film negatives and/or blackline or blueline paper copies of final stacked sections and migrated sections. Paper copies and film negatives of sections chosen for State use shall be made at one-half scale, (2 1/2 inches per second);

(4) Post-plot maps at a reasonable and appropriate scale for the dimensions of the survey and whenever possible a scale of 1:48,000 (1 inch equals 4000 feet). A narrative summary of accuracy of shot points and ship tracks;

(5) Copies of navigation tapes and velocity tapes with narrative summary of accuracy of shot points and ship tracks;

(6) Gravity data reduced or compiled as Free-Air or Bouguer maps whenever possible or in profile form. Magnetometer data corrected for International Geomagnetic Reference Field in profiles or whenever possible in map form. Data to include how reductions and corrections were made; and

(7) Any other systems/devices used to detect or imply the presence of mineral resources including oil or natural gas. The State Lands Commission shall reimburse the Permittee for the reasonable costs of reproducing any data or information.

C. In the event that information or data obtained under this permit are transferred from the Permittee to a third party, or, subsequently, from a third party to another third party, the transferor shall notify the State and shall require the receiving third party, in writing, to expressly agree to

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abide by the obligations of the Permittee under Section 9 of this permit as a condition precedent to the transfer of the information or data.

D. The following definitions apply to words used in this section:

(1) Factual or physical survey results include all data and information gathered as the result of any and all operations conducted under this permit by whatever means.

(2) Data means all facts, statistics or samples.

(3) Processed Records mean data collected under a permit which have been processed. Processing involves changing the form of data so as to facilitate interpretation. Processing operations include, but are not limited to, applying corrections for known perturbing causes, rearranging or filtering data, and combining or transforming data elements.

E. The Commission reserves the right to disclose any data or information acquired from Permittee to an independent contractor or agent for the purpose of reproducing, processing, reprocessing, or interpreting such data or information for the use of the Commission. Such data and information, as well as products derived therefrom, shall be held confidential as required by Public Resources Code Section 6826(c).

10. Third Party Damage Claims:

A. Permittee shall make a good-faith effort to settle all claims brought by third-parties for damages resulting from Permittee's geophysical activities.

B. The State Lands Commission may consider and determine any claims for damage to commercial fishermen resulting from Permittee's geophysical activities where such claim is submitted to it in writing after 60 days following written demand and proof of claim to the Permittee. If the Commission determines that the Permittee owes the claimant damages, for the purposes of this permit, Permittee's obligation to pay the claimant shall also be considered an obligation to the Commission.

11. Bond: Permittee shall furnish, and maintain, until released by the State, a bond or letter of credit in the sum of twenty-five (25) thousand dollars, in favor of the State, for its exclusive use and benefit, to guarantee the faithful performance

by the Permittee of this Permit's terms and conditions and satisfaction of third-party damage claims. The bond or letter of credit shall be delivered to the State at the address specified in Section 16, prior to the effective date of this permit.

The bond or letter of credit shall be noncancellable and shall, by its own terms, remain in effect until at least ninety days after the termination date of this permit, unless earlier released by the State.

12. Insurance: At the option of the State, Permittee shall submit a certificate of self-insurance or procure and maintain liability property damage, or other insurance, for the benefit of the State in an amount satisfactory to the State.

13. Indemnity: Permittee agrees to indemnify, save harmless and, at the option of the State, defend the State of California, its officers, agents and employees against any and all claims, demands, causes of action, or liability of any kind which may be asserted against or imposed upon the State of California or any of its officers, agents or employees by any third person or entity arising out of or connected with Permittee's operations hereunder.

14. Modification, Revocation, or Suspension: The activities provided for in this permit may be suspended, in whole or in part, upon a finding by the Executive Officer of the State Lands Commission, or another person designated by the Executive Officer, that suspension of the activity authorized by this permit would be in the public interest. Such suspension shall be effective upon receipt by Permittee of a written or oral (to be confirmed in writing) notice thereof which shall indicate (1) the extent of the suspension (2) the reasons for this action, and (3) any corrective or preventive measures to be taken by Permittee deemed necessary by the Executive Officer, or designee, to meet the general public interest.

Permittee shall take immediate action to comply with the provisions of the suspension. Permittee may request a hearing before the State Lands Commission in order to present information relevant to a decision as to whether his permit should be reinstated, modified, or revoked.

This permit may be modified or revoked by the State Lands Commission upon thirty (30) days' notice. Any suspension, modification, or revocation of this permit shall not be a basis for any claim for damages against the State of California.

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Proper grounds for modification, revocation or suspension include, but are not limited to, a finding by the Commission, following a noticed public hearing, that the permittee(s) or their representatives are not cooperating adequately to ensure the timely planning and completion of the scientific and technical evaluations as required by the Commission.

15. Permits: Permittee shall obtain all necessary and applicable permits and obey all laws and regulations applicable to the conduct of operations under this permit.

16. Notices: All written notices to the State or Permittee which are not part of the notification procedure identified in Section 8 shall be deemed to have been fully given when made in writing, and deposited in the United States mail, with first class postage prepaid, addressed as follows:

To the State:

State Lands Commission  
245 West Broadway, Suite 425  
Long Beach, CA 90802-4471  
Attention: Geophysical Coordinator

To the Permittee:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attention: \_\_\_\_\_

The address to which notices shall be mailed may be changed by written notice, as is provided in this paragraph.

17. Assignment: Permittee may not assign, sublease or transfer this permit or any interest therein without prior Commission approval. However, Permittee may subcontract part or all of the work to be performed. Any such subcontractor shall be the agent of Permittee and Permittee shall remain responsible to the State under the terms of this permit.

18. Successors: If for any reason this permit is transferred by operation of law or otherwise, it shall apply to and bind the heirs, successors, executors, administrators and assigns of all of the parties to this permit. All parties to this permit shall be jointly and severally liable under the terms of this permit.

CALENDAR ITEM NO. 5 (CONT'D)

IN WITNESS WHEREOF, the parties hereto have executed this permit as of the date entered below.

STATE OF CALIFORNIA  
STATE LANDS COMMISSION

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chief, Extractive Development

PERMITTEE\*

\_\_\_\_\_  
Date

By: \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

City and State \_\_\_\_\_

\*In executing this document, the following is required:

Corporations: Certificate of Corporate Secretary providing that the Board of Directors authorized the execution of this permit specifically or authority to execute documents of this type generally. An example of the type of form required is attached as Exhibit E.

Individuals: Acknowledgment of signature is required.

EXHIBIT B

AUTHORIZED EQUIPMENT AND SURVEY METHODS

Under this permit, Permittee is authorized to collect geophysical data utilizing sniffers, energy receivers, and/or acoustic pulse-generating devices not utilizing chemical explosives.

Notwithstanding the above, the permittee is authorized to operate geophysical survey equipment in state waters only under the following conditions:

1. No more than 2 kilojoules of energy input may be used on any acoustic pulse generating equipment during a survey.
2. No survey equipment may be used other than the following and equipment necessary for use of the following:
  - a. Mini-sparkers;
  - b. Electro-mechanical devices;
  - c. Side scan sonar;
  - d. Fathometers;
  - e. Subbottom profilers; and,
  - f. Passive data collection devices, such as magnetometers and gravity meters.
3. Use of any air or water compression devices for generating acoustic pulses is expressly prohibited.

Any question or uncertainty as to whether particular survey equipment or methods are permitted or whether more than two kilojoules of energy input are being used shall be determined by the Staff of the State Lands Commission.

(NON-SUBSTANTIAL REVISION - 07/26/88)

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EXHIBIT C

NOTIFICATION PROCEDURES

The State may, upon 30-days' notice to Permittee, prescribe additional or different procedures to be followed by the Permittee.

A. General Requirements: Whenever surveys are to be commenced under this permit, Permittee shall give notice in the following manner:

1. At least 15 days, but no more than 21 days, in advance of any actual operations, written notice of the proposed operations must be received by the parties specified in Paragraph C. An exception may be made by the Executive Officer, or his/her designee, if the Permittee demonstrates the area to be surveyed is clear of commercial fishing activities and equipment. In this case, the Permittee shall use a boat to scout the area for the remainder of the above notification period unless the Executive Officer or designee is assured that all commercial fishermen have had adequate opportunity to work out conflicts with the Permittee.

2. One working day in advance of the actual operations, the Permittee shall inform the State's Geophysical Coordinator (213/590-5201), by telephone, to confirm the receipt of required notices by the parties listed in Paragraph C. The Permittee shall also advise what responses, if any, were received. The Permittee shall also send to the State's Geophysical Coordinator a copy of any final preplot of the survey, which shall reflect any changes made in the planned survey.

3. Permittee shall use its best efforts to notify the parties listed in Paragraph C and any other affected individuals of substantial addition, modification, deviation, delay, or cancellation, concerning the survey area or survey dates, in the original notice. Permittee shall notify the State Lands Commission of such modifications or delays prior to their occurrence.

4. Permittee shall notify the State's Geophysical Coordinator by telephone within one working day of completion of the survey activity.

|               |      |
|---------------|------|
| CALENDAR PAGE | 17   |
| MINUTE PAGE   | 3417 |

B. Contents of Notice: The written notification required shall include information in the format requested in Exhibit D and outlined below:

1. The name of the vessel, the name of the ship's captain/designee, the ship's call signs and the specific radio channel which will be monitored by the vessel at all times during operations authorized by this permit;

2. The exact dates through which the survey will be conducted within any given specific area of the general permit area and the daily hours of operation during such period;

3. A full-sized navigation chart (with Loran C notation, if available) showing the area to be affected by the survey, including turning area;

4. A listing of equipment to be used in the survey and length(s) of the tow(s);

5. The name and telephone number of a representative of the Permittee who can resolve multiple-use conflicts; and

6. The name and telephone number of the State Lands Commission Geophysical Coordinator.

The copy of the notice to the State Lands Commission must contain the above information, as well as the proposed tracklines, to be run and the proprietary owner of the data/information collected.

C. Parties to Receive Notice: The following parties are to receive the notice specified in Paragraph A.1. This list will be modified periodically by the Commission Staff upon 15 days notice by the State's Geophysical Coordinator.

REGION I: Notification must be sent, as specified in the notification format, to the following parties for operations in Region I:

GOVERNMENT OFFICES AND UNIVERSITIES

In addition to notification, permittee shall coordinate all activities to be conducted under this permit with the following agencies.

MMS Representative  
William F. Roberts  
Regional Supervisor  
1340 West Sixth Street  
Los Angeles, CA 90017  
(213) 894-2500

California Coastal Commission  
631 Howard St., 4th Floor  
Energy Division  
San Francisco, CA 94105  
Attn: Susan Hansch  
(415) 543-8555

California Department of Fish &  
Game  
245 West Broadway  
Long Beach, CA 90802  
Attn: Regional Manager,  
John L. Baxter  
(213) 590-5132

Environmental Protection Agency  
215 Fremont Street  
Mail Code W51  
San Francisco, CA 94105  
Attn: Patricia Ekland  
(415) 974-8283

National Marine Fisheries  
Service  
300 South Ferry Street,  
Room 2011  
Terminal Island, CA 90731  
Attn: Chief of Habitat &  
Environmental Branch,  
Jim Slawson  
(213) 548-2517

U.S. Air Force  
Western Space & Missile Center  
WSMC/SE  
Vandenberg Air Force Base, CA  
93437  
Attn: Offshore Manager  
(805) 866-3602

U.S. Coast Guard Commander  
11th Coast Guard District  
400 Ocean Gate  
Long Beach, CA 90822  
Attn: Aids to Navigation (oan)  
(213) 590-2222

U.S. Fish and Wildlife Service  
24000 Avila Road  
Laguna Niguel, CA 92677  
Attn: OCS Coordinator,  
John Wolfe  
(714) 831-4270

CALENDAR ITEM NO. 5 (CONT'D)

U.S. Navy  
Commander, FACSFAC  
Naval Air Station, North Island  
San Diego, CA 92135  
Attn: Oil Liaison Officer  
(619) 437-6850 or 6866

U.S. Navy Commander  
Pacific Missile Test Center  
Point Mugu, CA 93042  
Attn: Code 3204  
(805) 989-8731

University of California, San  
Diego  
Scripps Institute of  
Oceanography  
Mail Stop A-010  
La Jolla, CA 92093  
Attn: Associate Director,  
George G. Shor, Jr.  
(619) 534-2230

For operations south of the San Diego/Orange county line, a  
notification must also be sent to:

Area Marine Advisor  
5555 Overland Ave. - Bldg. 4  
San Diego, CA 92123  
(619) 694-2845

HARBORMASTER'S OFFICES

Notify only those Harbormaster's offices within 100 miles of the  
proposed survey. For geophysical surveys, the envelope shall be  
prominently labeled "SEISMIC SURVEY NOTICE - POST IMMEDIATELY"

Harbor Manager  
3900 Pelican Way  
Oxnard, CA 93030  
(805) 984-8695

Harbormaster's Office  
1603 Anchors Way Drive  
Ventura, CA 93001  
(805) 642-8618  
(805) 488-3677

Harbormaster's Office  
280 Marine Way  
Redondo Beach, Ca 90277  
(213) 372-1171

Harbormaster's Office  
Breakwater  
Santa Barbara, CA 93109  
(805) 963-1737

Harbormaster's Office  
Oxnard Harbor District  
P.O. Box 608  
Port Hueneme, CA 93041

Oceanside Harbor District  
1540 Harbor Drive  
North Oceanside, CA 92054  
Attn: Harbor Police  
(619) 722-1419

Port of San Diego  
Chief of Harbor Police  
P.O. Box 488  
San Diego, CA 92112  
(619) 291-3900

Orange County Harbor Department  
Dana Point Harbor  
Dana Point, CA 92629  
(714) 496-2242

COMMERCIAL FISHING ORGANIZATIONS

California Coastal Operators  
Group  
121 Gray Avenue, Suite 3  
Santa Barbara, CA 93101  
Attn: Carolyn Hubble  
(805) 966-7113

International Seafood Market  
3920 W. Channel Islands Blvd.  
Oxnard, CA 93030  
(805) 935-5374

California Gillnetter's  
Association  
1423 Silvius  
San Pedro, Ca 90731

North Harbor Landing  
4904 North Harbor Drive  
San Diego, CA 92106  
(619) 224-9671

Chesapeake Fish Co., Inc.  
535 Harbor Lane  
San Diego, CA 92101

Pacific Coast Federation of  
Fishermen's Associations, Inc.  
P.O. Box 1626  
Sausalito, CA 94965  
Attn: W.F. Grader, Jr.  
(415) 332-5080

Commercial Fisherman's  
Association of Santa Barbara  
c/o Fish Market  
119 Harbor Way  
Santa Barbara, Ca 93109  
Attn: Tom Dabney  
(805) 966-4494

Dana Point Fuel Dock  
34661 Puerto Place  
Dana Point, CA 92629

San Diego Fish Co., Inc.  
585 Harbor Lane  
San Diego, CA 92101  
(619) 232-2095

Fisherman's Cooperative Assoc.  
of San Pedro  
Berth 73  
San Pedro, CA 90731  
(213) 832-5377

Sportment's Sea Food  
1617 Quivira Road  
San Diego, CA 92109  
(619) 224-3551

Fishermen's Quay Corp.  
1449-F Spinnaker Drive  
Ventura, CA 93001  
(805) 644-8286

Union Oil Fuel Dock  
Breakwater  
Santa Barbara, CA 93109  
(805) 962-7186

Fishermen's Union of America  
Pacific and Caribbean Area  
640 State Street  
San Diego, CA 92101

Wayman Fish Co.  
1449-D Spinnaker Drive  
Ventura, Ca 93001  
(805) 644-0425

Harbor Fish Market  
282 S. Harbor Drive  
Oceanside, CA 92054  
(619) 722-8441

Western Enterprises  
1423 Silvius St.  
San Pedro, CA 90731  
Attn: Tony West  
(213) 832-8143

Pacific Fishery Management  
Council  
2000 S.W. 1st Ave., #420  
Portland, Oregon 97201  
Attn: Lawrence D. Six  
(503) 221-6352

San Diego Fishermen's  
Association  
1446 Front St.,  
Suite 306  
San Diego, CA 92101  
(619)234-3901

Southern California  
Lobstermen's Association  
356 Sunset Dr.  
Encinitas, CA 92024

Pacific Shellfish Co.  
6361 Yarrow Drive  
Carlsbad, CA 92008

G-Street Pier  
Attn: John Heying  
814 Daphne Ct.  
Carlsbad, CA 92008

Kelco  
2145 E. Belt St  
San Diego, CA 92113  
Attn: Dr. Ron McPeak

San Diego Sportfishing Assoc.  
4385 Capes May Ave.  
San Diego, CA 92107  
Attn: Gary Black

Six copies must be sent to University of Southern California  
Marine Advisory Services, 820 S. Seaside Avenue, Terminal Island,  
CA 90731, (213) 830-6328.

Notices will be posted at the following locations:

- a. General Fishermen's Service, Inc., Terminal Island, CA
- b. Hy-C-Tane Corp., San Pedro, CA
- c. Jankovich & Sons, San Pedro, CA
- d. Pioneer Fish co., San Pedro, CA
- e. State Fish Co., San Pedro, CA

REGION II: Notification must be sent, as specified in the notification format, to the following parties for operations in Region II.

GOVERNMENT OFFICES AND UNIVERSITIES:

In addition to notification, permittee shall coordinate all activities to be conducted under this permit with the following agencies.

MMS Representative  
William F. Roberts  
Regional Supervisor  
1340 West Sixth St.  
Los Angeles, CA 90017  
(213) 894-2500

California Coastal Commission  
631 Howard St., 4th Floor  
Energy Division  
San Francisco, CA 94105  
Attn: Susan Hansch  
(415) 543-8555

California Department of Fish  
& Game  
245 West Broadway  
Long Beach, CA 90802  
Attn: Regional Manager,  
John L. Baxter  
(213) 590-5132

Environmental Protection Agency  
215 Fremont Street  
Mail Code W51  
San Francisco, CA 94105  
Attn: Patricia Ekland  
(415) 974-8283

National Marine Fisheries  
Service  
300 South Ferry Street,  
Room 2011  
Terminal Island, CA 90731  
Attn: Chief of Habitat &  
Environmental Branch,  
Jim Slawson  
(213) 548-2517

U.S. Air Force  
Western Space & Missile Center  
WSMC/SE  
Vandenberg Air Force Base, CA  
93437  
Attn: Offshore Manager  
(805) 866-3602

U.S. Fish and Wildlife Service  
24000 Avila Road  
Laguna Niguel, CA 92677  
Attn: OCS Coordinator,  
John Wolfe  
(714) 831-4270

U.S. Navy  
Commander, FACSFAC  
Naval Air Station, North Island  
San Diego, CA 92135  
Attn: Oil Liaison Officer  
(619) 437-6850 or 6866

CALENDAR ITEM NO. 5 (CONT'D)

For operations in the areas listed below, a notification must also be sent to:

\* Los Angeles/Ventura County Line to the San Luis Obispo/Monterey County Line.

Area Marine Advisor  
377 Storke Road  
Goleta, CA 93117  
(805) 968-2149

\* Santa Barbara Channel

California Department of Fish and Game  
1350 Front Street, Room 6042  
San Diego, Ca 92101  
Attn: John Duffy  
(619) 237-7311

\* South of Point Conception

U.S. Navy  
Commander, Pacific Missile Test Center  
Point Mugu, CA 93042  
Attn: Code 3204  
(805) 989-8731

\* North of Point Conception

California Department of Fish and Game  
213 Beach Street  
Morro Bay, CA 93442  
Attn: Unit Manager  
(805) 772-3011

\* South of Point Arguello

University of California, San Diego  
Scripps Institute of Oceanography  
Mail Stop A-010  
La Jolla, CA 92093  
Attn: Associate Director,  
George C. Shor, Jr.  
(619) 534-2230

\* South of Santa Barbara/San Luis Obispo County Line

U.S. Coast Guard  
Commander, 11th Coast Guard District  
400 Oceangate  
Long Beach, CA 90822  
Attn: Aids to Navigation (oan)  
(213) 590-2220

\* North of Santa Barbara/San Luis Obispo County Line

Commander (oan)  
12th Coast Guard District  
Coast Guard Island  
Alameda, CA 94501-5100  
(415) 437-3506

\* Morro Bay and Vicinity

AT&T Communications  
412 Mt. Kemble Ave., Rm N420  
Morristown, NJ 07960  
Attn: Manager, Mr. Jeffrey Ewald  
(201) 644-6346

\* North of San Simeon

U.S. Navy, CPWP  
Naval Air Station, Moffett Field, Building 300  
Moffett Field, CA 94035  
Attn: Code 33  
(415) 966-5606

HARBORMASTER'S OFFICES

Notify only those Harbormaster's offices within 100 miles of the proposed survey. For geophysical surveys, the envelope shall be prominently labeled "SEISMIC SURVEY NOTICE - POST IMMEDIATELY"

Harbor Manager  
3900 Pelican Way  
Oxnard, CA 93030  
(805) 984-8695

Harbormaster's Office  
1603 Anchors Way Drive  
Ventura, CA 92001  
(805) 642-8618  
(805) 488-3677

Harbormaster's Office  
280 Marine Way  
Redondo Beach, Ca 90277  
(213) 372-1171

Harbormaster's Office  
Breakwater  
Santa Barbara, CA 93109  
(805) 963-1737

Harbormaster's Office  
Oxnard Harbor District  
P.O. Box 608  
Port Hueneme, CA 93041  
(805) 488-3677

Oceanside Harbor District  
540 Harbor Drive  
North Oceanside, CA 92054  
Attn: Harbor Police  
(619) 722-1419

Port of San Diego  
Chief of Harbor Police  
P.O. Box 488  
San Diego, CA 92112  
(619) 291-3900

Orange County Harbor Department  
Dana Point Harbor  
Dana Point, CA 92627  
(714) 496-2242

Harbor Office  
City of Monterey  
City Hall  
Monterey, CA 93940  
(408) 646-3950

Harbor Patrol  
1275 Embarcadero  
Morro Bay, Ca 93442

Harbormaster's Office  
P.O. Box 10  
Moss Landing, CA 95039  
(408) 633-2461

Three copies must be sent to the Harbormaster's Office, P.O. Box 249, Pier 3, Avila Beach, Ca 93424. Notices will be posted at the following locations:

- a. Old Port Fish Co., Avila Beach, CA
- b. Rusty's, Avila Beach, CA

COMMERCIAL FISHING ORGANIZATIONS

California Coastal Operators  
Group  
121 Gray Avenue, Suite 3  
Santa Barbara, CA 93101  
Attn: Carolyn Hubble  
(805) 966-7113

International Seafood Market  
3920 W. Channel Islands Blvd.  
Oxnard, CA 93030  
(805) 985-5374

CALENDAR ITEM NO. 5 (CONT'D)

California Gillnetter's  
Association  
1423 Silvius  
San Pedro, CA 90731

Chesapeake Fish Co., Inc.  
535 Harbor lane  
San Diego, CA 92101

Commercial Fisherman's  
Association of Santa Barbara  
c/o Fish Market  
119 Harbor Way  
Santa Barbara, Ca 93109  
(805) 966-4494

Fisherman's Cooperative Assoc.  
of San Pedro  
Berth 73  
San Pedro, CA 90731  
(213 832-5377

Fishermen's Quay Corp.  
1449-F Spinnaker Drive  
Ventura, CA 93001  
(805) 644-8286

Monterey Fish Co  
P.O. Box 1875  
Wharf #2  
Monterey, CA 93940

Monterey Marine State  
P.O. Box 1230  
Wharf #2  
Monterey, CA 93940

Morro Bay Marina Inc.  
699 Embarcadero  
Morro Bay, CA 93442

Santa Barbara Shellfish Co.  
2300 Stern's Wharf  
Santa Barbara, CA 93101

Central Coast Seafood  
P.O. Box 1076  
Morro Bay, CA 93442  
Attn: Kathy

Pacific Coast Federation of  
Fishermen's Associations, Inc.  
P.O. Box 1626  
Sausalito, CA 94965  
Attn: W.F. Grader, Jr.  
(415) 332-5080

Liaison Office  
121 Gray Ave, Suite 3  
Santa Barbara, CA 93101  
Attn: Dr. Craig Fusaro  
(805) 963-8819

Marine Service and Equipment  
1169 Market Street  
Morro Bay, CA 93442

Union Oil Fuel Dock  
Breakwater  
Santa Barbara, CA 93109  
(805) 962-7186

Wayman Fish Co.  
1449-D Spinnaker Drive  
Ventura, Ca 93001  
(805) 644-0425

Morro Bay Fuel Dock  
201 Main Street  
Morro Bay, Ca 93442

Moss Landing Commercial  
Fisherman's Association  
P.O. Box 44  
Moss Landing, CA 95039

Tom's Fisherman's Supply, Inc.  
2210 East Cliff Drive  
Santa Cruz, CA 95026

CALENDAR ITEM NO. <sup>5</sup> (CONT'D)

Woodward Marine  
P.O. Box 45A  
Moss Landing, CA 95039

Captain Vincent Yellusich  
Wharf #2  
P.O. Box 2046  
Monterey, CA 93940

Six copies must be sent to University of Southern California  
Marine Advisory Services, 820 S. Seaside Avenue, Terminal Island,  
CA 90731, (213) 830-6328.

Notices will be posted at the following locations:

- a. General Fishermen's Service, Inc., Terminal Island, Ca.
- b. Hy-C-Tane Corp., San Pedro, Ca.
- c. Jankovich & Sons, San Pedro, Ca.
- d. Pioneer Fish Co., San Pedro, Ca.
- e. State Fish Co., San Pedro, Ca.

REGION III: Notification must be sent, as specified in the notification format, to the following parties for operations in Region III:

GOVERNMENT OFFICES AND UNIVERSITIES

In addition to notification, permittee shall coordinate all activities to be conducted under this permit with the following agencies.

California Coastal Commission  
631 Howard St., 4th Floor  
Energy Division  
San Francisco, CA 94105  
Attn: Susan Hansch  
(415) 543-8555

California Department of Fish  
& Game  
245 West Broadway  
Long Beach, CA 90802  
Attn: John L. Baxter  
Regional Manager  
(213) 590-5132

Environmental Protection Agency  
215 Fremont Street  
Mail Code W51  
San Francisco, CA 94105  
Attn: Patricia Ekland  
(415) 974-8283

National Marine Fisheries  
Service  
300 South Ferry Street  
Room 2011  
Terminal Island, CA 90731  
Attn: Chief of Habitat &  
Environmental Branch,  
Jim Slawson  
(213) 548-2517

U.S. Air Force  
Western Space & Missile Center  
WSMC/SE  
Vandenberg Air Force Base, CA  
93437  
Attn: Offshore Manager  
(805) 866-3602

U.S. Fish and Wildlife Service  
24000 Avila Road  
Laguna Niguel, CA 92677  
Attn: OCS Coordinator,  
John Wolfe  
(714) 831-4270

Commander (oan)  
12th Coast Guard District  
Coast Guard Island  
Alameda, CA 94501-5100  
(415) 437-3465

U.S. Navy, CPWP  
Naval Air Station, Moffett  
Field, Building 300  
Moffett Field, CA 94035  
Attn: Code 33  
(415) 966-5606

CALENDAR ITEM NO. 5 (CONT'D)

MMS Representative  
William F. Roberts  
Regional Supervisor  
1340 West Sixth Street  
Los Angeles, CA 90017  
(213) 894-2500

For operations in the areas listed below, notification must also be sent to:

\* South of Santa Cruz/San Mateo County Line

Area Marine Advisor  
1432 Freedom Boulevard  
Watsonville, CA 95076  
(408) 724-4734

California Department of Fish and Game  
2201 Graden Road  
Monterey, CA 93940  
Attn: Unit Manager  
(408) 649-2870

\* Santa Cruz/San Mateo County Line to San Francisco/Marin County Line

Area Marine Advisor  
P.O. Box 34066  
San Francisco, CA 94134  
(415) 586-4115

\* North of Santa Cruz/San Mateo County Line

California Department of Fish and Game  
411 Burgess Drive  
Menlo Park, CA 94025  
Attn: Unit Manager  
(415) 326-0324

\* North of San Francisco/Marin County Line

Area Marine Advisor  
2604 Ventura Avenue, Room 100-P  
Santa Rosa, CA 95401  
(707) 527-2621

HARBORMASTER'S OFFICES

Notify only those Harbormaster's offices within 100 miles of the proposed survey. For geophysical surveys, the envelope shall be prominently labeled "SEISMIC SURVEY NOTICE - POST IMMEDIATELY"

Harbor Office  
City of Monterey  
City Hall  
Monterey, CA 93940  
(408) 846-3950

Harbor Patrol  
1275 Embarcadero  
Morro Bay, CA 93442

Harbormaster's Office  
P.O. Box 10  
Moss Landing, CA 95039  
(408) 633-2461

San Mateo County Harbor  
District  
Pillar Point Harbor, #1,  
Johnson Pier  
Half Moon Bay, CA 94019

Santa Cruz Port District  
136 5th Avenue  
Santa Cruz CA 95062  
(408) 475-6161

Harbormaster's Office  
Noyo Harbor  
19101 S. Harbor Drive  
Ft. Bragg, CA 95437

Three copies must be sent to the Harbormaster's Office, P.O. Box 249, Pier 3, Avila Beach, CA 93424. Notices will be posted at the following locations:

- a. Old Port Fish Co., Avila Beach, Ca.
- b. Rusty's, Avila Beach, Ca.

COMMERCIAL FISHING ORGANIZATIONS

Anchor Fish Co. & Fuel Dock  
Noyo Harbor  
780 N. Harbor Drive  
Fort Bragg, CA 95437

Central Coast Seafood  
P.O. Box 1076  
Morro Bay, CA 93442  
Attn: Kathy

Crab Boat Owner's Association  
2905 Jones Street  
San Francisco, CA 94133

Pacific Coast Federation of  
Fishermen's Associations, Inc.  
P.O. Box 1626  
Sausalito, CA 94965  
Attn: W.F. Grader, Jr.  
(415) 332-5080

Fort Bragg Marine  
Noyo Harbor  
P.O. Box 702  
Fort Bragg, CA 95437

Meridith Fish Co.  
Noyo Harbor  
Box 727  
Fort Bragg, CA 95437

Marine Service and Equipment  
1169 Market Street  
Morro Bay, CA 93442

Salmon Troller's Marketing  
Association  
P.O. Box 137  
Fort Bragg, CA 95437

Monterey Fish Co  
P.O. Box 1875  
Wharf #2  
Monterey, CA 93940

Moss Landing Commercial  
Fisherman's Association  
P.O. Box 44  
Moss Landing, CA 95039

Monterey Marine State  
P.O. Box 1230  
Wharf #2  
Monterey, CA 93940

Morro Bay Fuel Dock  
201 Main Street  
Morro Bay, CA 93442

Morro Bay Marina, Inc.  
699 Embarcadero  
Morro Bay, CA 93442

Tom's Fisherman's Supply, Inc.  
2210 East Cliff Drive  
Santa Cruz, CA 95026

Woodward Marine  
P.O. Box 45A  
Moss Landing, CA 95039

Captain Vincent Yellusich  
Wharf #2  
P.O. Box 2046  
Monterey, CA 93940

Six copies must be sent to Bodega Bay Fishermen's Marketing  
Association, P.O. Box 321, Bodega Bay, CA 94923. Notices will  
be posted at the following locations:

- a. Harbor Dock, Bodega Bay, Ca.
- b. Lucas Wharf, Bodega Bay, Ca.
- c. Mason Marina, Bodega Bay, Ca.
- d. Meridith Fish Co., Bodega Bay, Ca.
- e. The Tides, Bodega Bay, Ca.

REGION IV: Notification must be sent, as specified in the notification format, to the following parties for operations in Region IV:

GOVERNMENT OFFICES AND UNIVERSITIES

In addition to notification, permittee shall coordinate all activities to be conducted under this permit with the following agencies.

California Coastal Commission  
631 Howard St., 4th Floor  
Energy Division  
San Francisco, CA 94105  
Attn: Susan Hansch  
(415) 543-8555

California Department of Fish & Game  
245 West Broadway  
Long Beach, CA 90802  
Attn: Regional Manager,  
John L. Baxter  
(213) 590-5132

Environmental Protection Agency  
215 Fremont Street  
Mail Code W51  
San Francisco, CA 94105  
Attn: Patricia Eklund  
(415) 974-8283

National Marine Fisheries Service  
305 South Ferry Street  
Room 2011  
Terminal Island, CA 90731  
Attn: Chief of Habitat & Environmental Branch,  
Jim Slawson  
(213) 548-2517

U.S. Air Force  
Western Space & Missile Center  
WSMC/SE  
Vandenberg Air Force Base, CA  
93437  
Attn: Offshore Manager  
(805) 866-3602

U.S. Fish and Wildlife Service  
24000 Avila Road  
Laguna Niguel, CA 92677  
Attn: OCS Coordinator,  
John Wolfe  
(714) 831-4270

Commander (oan)  
12th Coast Guard District  
Coast Guard Island  
Alameda, CA 94501-5100  
(415) 437-3506

U.S. Navy, CPWP  
Naval Air Station, Moffett  
Field, Building 300  
Moffett Field, CA 94035  
Attn: Code 33  
(415) 966-5606

CALENDAR ITEM NO. 5 (CONT'D)

U.S. Coast Guard  
Commander, USCG Group Humboldt  
Bay  
McKinleyville, CA 95521  
(707) 839-3241

MMS Representative  
William F. Roberts  
Regional Supervisor  
1340 West Sixth Street  
Los Angeles, CA 90017  
(213) 894-2500

For operations in the areas listed below, notification must also be sent to:

\* South of Mendocino/Humboldt County Line

Area Marine Advisor  
2604 Ventura Ave., Room 100-P  
Santa Rosa, CA 95401  
(707) 527-2621

California Department of Fish and Game  
19160 South Harbor Drive  
Fort Bragg, CA 95437  
Attn: Unit Manager  
(707) 964-9978

\* Point Arena and Vicinity

AT&T Communications  
412 Mt. Kettle Ave., Rm. N420  
Morristown, NJ 07960  
Attn: Manager, Mr. Jeffrey Ewald  
(201) 644-6346

\* North of Mendocino/Humboldt County Line

California Department of Fish and Game  
619 Second Street  
Eureka, CA 95501  
Attn: Unit Manager  
(707) 442-1402

\* Mendocino/Humboldt County Line to Humboldt/Del Norte County Line

Area Marine Advisor  
West of Commercial Street  
Eureka, CA 95501  
(707) 443-8369

\* North of Humboldt/Del Norte County Line

Area Marine Advisory  
Courthouse Annex  
981 H Street  
Crescent City, CA 95531  
(707) 464-4711

HARBORMASTER'S OFFICES

Notify only those Harbormaster's offices within 100 miles of the proposed survey. For geophysical surveys, the envelope shall be prominently labeled "SEISMIC SURVEY NOTICE - POST IMMEDIATELY"

Humboldt Bay Harbor Recreation  
& Conservation District  
Woodley Island Marina & State  
Hwy. 256  
Eureka, CA 95501

San Mateo County Harbor  
District  
Pillar Point Harbor, #1,  
Johnson Pier  
Half Moon Bay, CA 94019

Santa Cruz Port District  
135 5th Avenue  
Santa Cruz CA 95062  
(408) 475-6161

Harbormaster's Office  
Noyo Harbor  
19101 S. Harbor Drive  
Fort Bragg, CA 95437

COMMERCIAL FISHING ORGANIZATIONS

Anchor Fish Co. & Fuel Dock  
Noyo Harbor  
780 N. Harbor Drive  
Fort Bragg, CA 95437

Davenport Marine Station  
Foot of Commercial St.  
Eureka, CA 95501

Crab Boat Owner's Association  
2905 Jones Street  
San Francisco, CA 94133

Pacific Coast Federation of  
Fishermen's Associations, Inc.  
P.O. Box 1625  
Sausalito, CA 94965  
Attn: W.F. Grader, Jr.  
(415) 332-5080

Caito Fisheries  
P.O. Box 402  
Eureka, CA 95501

Fort Bragg Marine  
Noyo Harbor  
P.O. Box 702  
Fort Bragg, CA 95437

Meridith Fish Co.  
Noyo Harbor  
P.O. Box 727  
Fort Bragg, CA 95437

CALENDAR ITEM NO. 5 (CONT'D)

Eureka Fisheries  
P.O. Box 217  
Fields Landing, CA 95537

Salmon Troller's Marketing  
Association  
P.O. Box 137  
Fort Bragg, CA 95437

Fishermen's Marketing Assn.  
320 Second St., Suite 2B  
Eureka, CA 95501

Humboldt Marine Services  
#1 Yard Road  
Fields Landing, CA 95537

Humboldt Seafoods  
P.O. Box 84  
Eureka, CA 95501

Katy's Smoke House  
P.O. Box 621  
Trinidad, CA 95570

Pacific Choice Seafoods  
#1 Commercial Street Wharf  
Eureka, CA 95501

Pacific Fishery Management  
Council  
2000 S.W. 1st Avenue, #420  
Portland, Oregon 97201  
Attn: Lawrence D. Six  
(603) 221-6352

Six copies must be sent to Bodega Bay Fishermen's Marketing Association, P.O. Box 321, Bodega Bay, CA 94923. Notices will be posted at the following locations:

- a. Harbor Dock, Bodega Bay, Ca.
- b. Lucas Wharf, Bodega Bay, Ca.
- c. Mason Marina, Bodega Bay, Ca.
- d. Meridith Fish Co., Bodega Bay, Ca.
- e. The Tides, Bodega Bay, Ca.

Four copies must be sent to Del Norte Fishermen's Marketing Association, P.O. Box 377, Crescent City, CA 95531, (707) 464-5414. Notices will be posted at the following locations:

- a. Bayside Marina, Crescent City, Ca.
- b. England Marina, Crescent City, Ca.
- c. Otter Distributing and Marine Service, Crescent City, Ca.

Nine copies must be sent to Humboldt Fisherman's Marketing Association, Inc., 216 "H" Street, Eureka, CA 95501. Notices will be posted at the following locations:

- a. Eureka Fisheries, Eureka, Ca.
- b. Humboldt Fisheries, Eureka, Ca.
- c. Nor'Cal Fisheries, Eureka, Ca.
- d. Woodley Island Marina, Eureka, Ca.
- e. Two bulletin boards at small boat basin

DATE: \_\_\_\_\_

PRC NO.: \_\_\_\_\_

REGION: \_\_\_\_\_

# Field Operation Report

COMPANY: \_\_\_\_\_

\*SURVEY LOCATION: \_\_\_\_\_

SURVEY TYPE: \_\_\_\_\_

NUMBER OF LINE MILES SURVEYED (MM): \_\_\_\_\_

SURVEY DATE(S): \_\_\_\_\_

EQUIPMENT USED: \_\_\_\_\_

TYPE(S) DATA:  
AVAILABLE \_\_\_\_\_

DATA AVAILABILITY: \_\_\_\_\_

LOCATION: \_\_\_\_\_

PERSON TO CONTACT: \_\_\_\_\_

FOR DATA (Name, Address,  
Telephone): \_\_\_\_\_

DESCRIPTION OF ACTIVITIES (Brief): \_\_\_\_\_

REMARKS (Use Additional Pages if Necessary): \_\_\_\_\_

\* Post-Plot Maps(s) or Modified Pre-Plot Map Attached

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EXHIBIT E

Applicant/Permittee's  
Mailing Address:

Date: \_\_\_\_\_  
Jurisdiction:      Federal      State      Both  
If State: Permit # PRC  
Region: \_\_\_\_\_  
Area: \_\_\_\_\_

SEISMIC SURVEY NOTICE

Check One:      new survey      time extension of a previous survey

**CHEVRON** (Applicant/Permittee) will conduct a geological/geophysical survey offshore California in the survey area outlined on the accompanying navigation chart segment. If you foresee potential interference with commercial fishing or other activities, please contact the person(s) listed below:

**FEDERAL WATERS** (outside 3 nautical miles)

- 1) Applicant's representative
- 2) MMS representative

**NOTE:** Any comments regarding potential conflicts in Federal waters must be received by the applicant's representative and MMS within 10 days of the receipt of this notice.

**STATE WATERS** (inside 3 nautical miles)

- 1) Permittee's representative
- 2) SLC representative

**NOTE:** Any comments regarding potential conflicts in State waters should be received as soon as possible by the permittee's representative, no more than 15 days after the receipt of this notice.

- 1. Expected Date of Operation \_\_\_\_\_
- 2. Hours of Operation \_\_\_\_\_
- 3. Vessel Name \_\_\_\_\_
- 4. Vessel Official Number \_\_\_\_\_
- 5. Vessel Radio Call Sign \_\_\_\_\_
- 6. Vessel Captain's Name \_\_\_\_\_
- 7. Vessel will monitor Radio Channel(s) \_\_\_\_\_ during operations.
- 8. Vessel Navigation System \_\_\_\_\_
- 9. Seismic Equipment to be used \_\_\_\_\_
- 10. Approximate length of cable tow \_\_\_\_\_

Applicant's  
Representative: (Call collect)

MMS  
Representative:  
William F. Roberts  
Regional Supervisor  
1340 West 6th Street  
Los Angeles, CA 90017  
(213) 894-2500

State Lands  
Representative:  
Susan Livenick  
Geophysical Coordinator  
245 W. Broadway, Suite 425  
Long Beach, CA 90802  
(213) 590-5201

**FEDERAL AND STATE AGENCIES AND AREA MARINE ADVISORS:** Please acknowledge receipt of this notice by returning a signed copy of this notice to the MMS if the survey is in Federal waters.

Recipient's Mailing  
Address: \_\_\_\_\_

\_\_\_\_\_  
(Recipient's Signature)

\_\_\_\_\_  
(Recipient's Title)

|               |      |
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EXHIBIT F

INSTRUCTIONS: CORPORATE APPROVAL

In order for a Non-Exclusive Geophysical Permit to be issued, the Commission requires proof that the Directors of the Corporation seeking the permit have given their approval to the terms of the permit. Attached is a Certificate of Corporation. Please complete the form and attach a copy of the resolution adopted by the Applicant's Board of Directors authorizing the Applicant to obtain the permit.

If the Applicant is not a corporation, please provide some explanation as to the authority of the person seeking this permit.

CERTIFICATE OF SECRETARY

I certify that:

I am the duly qualified and acting (Assistant) Secretary of

\_\_\_\_\_ (Name of Corporation)

a. \_\_\_\_\_ corporation authorized to do business  
(Name of State)  
in California.

The attached is a true copy of a resolution duly adopted by the Board of Directors of the corporation authorizing the corporation to obtain the Non-Exclusive Geophysical Permit, under the terms, conditions and regulations required by the State Lands Commission. The resolution was adopted at regular (or special) meeting of the Board duly held on \_\_\_\_\_, 19\_\_ and entered in the minutes of such meeting in the minute book of the corporation.

The resolution is in conformity with the articles of incorporation and bylaws of the corporation, has never been modified or repealed, and is now in full force and effect.

Dated: \_\_\_\_\_, 19\_\_.

(Corporate Seal)

\_\_\_\_\_  
(Signature)

|               |      |
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