In Reply Refer To: FO-2-1

Phillips Petroleum Company
Attention: Mr. Louis Hoover, III
Post: Office Box 51107
Lafayette, Louisiana 70505

Gentlemen:

Reference is made to your Initial Plan of Exploration and Environmental Report received July 6, 1967, for Lease OCS-G 8559, Block A-18, High Island Area. This plan includes the activities proposed for Wells A and B.

In accordance with 30 CFR 250.34, revised December 13, 1979, and our letter dated January 29, 1979, this plan is hereby determined to be complete and is now being considered for approval.

Your plan control number is N-2731 and should be referenced in your communication and correspondence concerning this plan.

Sincerely yours,

(Orig. Sgd.) A. Donald Giroir

D. J. Bourgeois
Regional Supervisor
Field Operations

bcc: Lease OCS-G 8559 (OPS-3-2) (FILE ROOM)
OPS-3-4 w/Public Info. Copy of the plan and ER (PUBLIC RECORDS)

ADGobert:ck:7/13/87:poecom

Office of Program Services

JUL 21 1987

Information Services Section
INITIAL PLAN

Plan of Exploration
Gulf of Mexico, Offshore Texas
High Island Area
Block 18, OCS-G 8559
Phillips Petroleum Company

July 6, 1987

Phillips Petroleum Company
Post Office Box 51107
Lafayette, Louisiana 70505-1107
Attention: Mr. Louis Hoover, III
(318) 261-4137
FILE: OCS-G-8559 Lease
High Island Block A-18 Area
Gulf of Mexico, Western
Offshore Cameron Parish
Louisiana

RE: Plan of Exploration
- Initial Plan -

U. S. Department of the Interior
Minerals Management Service
Exploration and Development Plans Unit FO-2-1
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Gentlemen:

Enclosed are eleven (11) copies of Phillips Petroleum Company's (Phillips) proposed Plan of Exploration for the captioned lease. Included in the Plan is Phillips' Coastal Zone Management Consistency Certification for the State of Louisiana. Since this lease will be operated from a shore base facility located in Louisiana, this document is required. Additionally, eleven (11) copies of the Environmental Report are enclosed for your distribution as required. Final well numbers, locations, and depths will be included on the U. S. Department of the Interior, Minerals Management Service Form 331C, Application for Permit to Drill, Deepen, or Plugback (APD). Other relevant information to be provided therein shall include casing, cement and mud programs, procedures to be followed throughout the drilling of the wells, including testing of cement jobs, installation of casing, blowout prevention equipment and lines, as well as other safety equipment, and other such data as the District Supervisor may require.

As indicated elsewhere in this Plan, Phillips proposes to use a self-elevating jackup type MODU to drill the proposed wells. The final decision to use any rig is contingent upon certain factors including rig commitments at the time this Plan is approved and the timely consummation of a contract with a drilling contractor. A complete rig description and inventory will be submitted with the Application for Permit to Drill.

Additionally, that information presented herein and determined to be exempt (by Phillips) from public disclosure under the Freedom of
Information Act (5 U.S.C. 552) and implementing regulations (43 CFR, Part 2) has been marked "CONFIDENTIAL" or deleted from those copies of this Plan marked "Public Information".

This letter is to be considered part of the Plan.

Phillips respectfully solicits your timely approval of this document and appreciates your consideration in this matter. Should you require additional information relevant to the Plan, please contact the undersigned.

Very truly yours,

PHILLIPS PETROLEUM COMPANY

Louis Hoover, III

LH,III/sd
Enclosures

cc: Minerals Management Service
Lake Jackson, Texas (w/enclosures)
Exploratory drilling on this block will be accomplished by drilling up to two (2) wells from a jackup (self-elevating) MODU. A typical MODU that might be used for the proposed operations is the Chiles Gulfstream MODU.

After drilling the required number of exploratory wells to effectively evaluate the lease, and if the wells are considered to be potentially productive, then a Development Operations Coordination Document (DOCD) would be submitted for approval. The DOCD would address pipelines, platforms, life of the project and other such relevant data required.

Should a well indicate the presence of hydrocarbon bearing sands in commercially paying quantities, the well may be temporarily abandoned according to the provisions of GOM-OCS Order No. 3 and any other such requirements as specified by the District Supervisor. Additionally, approved DOT, U. S. Coast Guard navigational aids will be installed where required following temporary abandonment.

Upon completion of exploratory drilling, a platform may be installed over that location most desirable for the development/production phases. A separate platform installation application with appropriate documentation would be submitted at that time.

Throughout the life of the proposed project, all available safeguards will be utilized in an effort to protect life and the surrounding ecosystem.

Drilling activities will be conducted from the Grand Chenier Shore Base Facility, Grand Chenier, Louisiana.

Phillips Petroleum Company is an active member of Clean Gulf Associates (CGA). Should an upset occur at the proposed project site, the nearest CGA base is located at Grand Isle, Louisiana. The anticipated response time from Grand Isle, Louisiana, including loadout of equipment, is approximately twenty-four (24) hours. Phillips will be operating under EPA Gulf of Mexico General Permit Number GMG280000, effective 2 July 1986.

The following exhibits are included for review as part of this proposed Plan of Exploration:

1. **EXHIBIT I** Louisiana CZM Consistency Certification.
2. **EXHIBIT II** Table of Proposed Locations with Timetable.
3. EXHIBIT III  Site specific location plat.
4. EXHIBIT IV  General Well Location Plat.
5. EXHIBIT V  Structure Map (Tex W Sand and Big H Sand).
6. EXHIBIT VI  Geopressure Map (9600' Top).
7. EXHIBIT VII  Geophysical Reports - John E. Chance and Associates. Three (3) copies, enclosed as separate reports.
8. EXHIBIT VIII  General Rig Inventory and Description.
9. EXHIBIT IX  Oil Spill Contingency Plan Brief.
10. EXHIBIT X  Typical Drilling Mud Component Listing.
11. EXHIBIT XI  Listing of typical equipment that would be used when doing seismic surveys on the block.
12. EXHIBIT XII  AQR.

NOTES:

Note 1: Phillips Petroleum Company is a member of Clean Gulf Associates.

Note 2: A Pollution Contingency Plan has been submitted and approved by the Minerals Management Service pursuant to the provisions of GOM-OCS Order No. 7.

Note 3: Phillips Petroleum Company representative:

Louis Hoover, III
(318) 261-4137
COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION

EXPLORATION
TYPE OF PLAN

HIGH AND BLOCK A-18
AREA AND BLOCK

OCS-G 8559
LEASE NUMBER

"THE PROPOSED ACTIVITIES DESCRIBED IN DETAIL IN THIS PLAN COMPLY WITH L OUISIAN A'S APPROVED COASTAL ZONE MANAGEMENT PROGRAM AND WILL BE COMPLETED IN A MANNER CONSISTENT WITH SUCH PROGRAM."

ARRANGEMENTS HAVE BEEN MADE WITH THE STATE TIMES IN BATON ROUGE, LOUISIANA, TO PUBLISH A PUBLIC NOTICE OF THE PROPOSED ACTIVITIES NO LATER THAN JULY 15, 1987.

PHILLIPS PETROLEUM COMPANY
LESSEE OR OPERATOR

CERTIFYING OFFICIAL

DATE

2 JULY 87
PHILLIPS PETROLEUM COMPANY

PLAN OF EXPLORATION

HIGH ISLAND BLOCK A-18, LEASE OCS-G-8559

1. WELL LOCATIONS

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Surface Location</th>
<th>Bottomhole Location</th>
<th>PTVD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4350' FSL &amp; 6400' FEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>2450' FSL &amp; 8250' FEL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. SHALLOW HAZARDS DISCUSSION AND CERTIFICATION

A-18 No. A: The "Archeological and Hazard Study" of Block A-18 produced by John E. Chance & Associates, Inc. shows no shallow drilling hazards within a 500 foot radius of the proposed drill site for High Island Block A-18 Well No. A. The water depth at this location is 63'.

A-18 No. B: The "Archeological and Hazard Study" of Block A-18 produced by John E. Chance & Associates, Inc. shows no shallow drilling hazards within a 500 foot radius of the proposed drill site for High Island Block A-18 Well No. B. The water depth at this location is 62'.

For the locations discussed hereinabove, no geologic, archeological or cultural hazards will be encountered, nor have any man-made structures or other magnetic hazards been identified. Regional geologic literature suggests that drilling or construction at these locations will not impact historic or pre-historic cultural resources.

CERTIFICATION

"Phillips Petroleum Company certifies that the proposed locations are free from any and all known shallow hazards."

3. PROPOSED TIMETABLE

Commencement of drilling activities are planned for September 1, 1987. Two (2) locations have been selected. These locations are based on current available data. The decision to drill any additional wells will be based on that data obtained from the first well. If operations do commence on September 1, 1987, the first well would be completed on or about October 15, 1987. Each well is
expected to require an average of 45 days to drill. Therefore, 90
days would be required to drill both wells consecutively. After
drilling the necessary number wells to effectively evaluate the
lease, the rig would be released.

The proposed timetable is contingent upon: (a) timely approval of
the Plan of Exploration; (b) actual retention of a suitable
drilling vessel, and (c) timely approval of the drilling permit(s).

Phillips reserves the right to terminate the exploratory activities
should the results of one or more wells indicate the lack of
sufficient reserves to warrant commencement of development
activities and further reserves the right to abandon the lease
without further activity.
PROPOSED MINERAL DEVELOPMENT
HIGH ISLAND AREA
GULF OF MEXICO
APPLICATION BY PHILLIPS PETROLEUM CO.
JUNE 26, 1986
LAFAYETTE, LA.
APPENDIX VI

I. TYPICAL INVENTORY OF A SELF-ELEVATING DRILLING UNIT

1) Drawworks: National 1320UE, 1 3/8" drilling line, driven by two (2) GE 752 DC electric motors.

2) Derrick: Pyramid, 147' x 30' x 30' cantilever mast. Nominal hook load capacity 1,330,000 lbs.

3) Substructure: 34' x 32' x 8'. Combination load capacity, hook and setback - 1,000,000 lbs.


5) Mud Pumps (4): National 12-P-160 triplex; driven by two (2) G.E. 752 DC electric motors.

6) Power Plant: Two (2) ENB 16-645-68 Diesel Engine, 1,550 hp Three (3) AC Generators, 1,500 kW each. Rose-Hill SCR System.

7) Blowout Preventers: One (1) 13 5/8" - 10000, Cameron; Type "U", Single Gate Ram Preventer.
One (1) 13 5/8" - 10000, Cameron, Type "U", Double Gate Ram Preventer.
One (1) 13 5/8" - 6000, Shaffer, Spherical, Annular Preventer.
One (1) 21 1/4" - 10000 Shaffer, Spherical, Annular Preventer.

8) Choke Manifold: Two (2) Adjustable choke, Cameron, Type H-2N.
One (1) Adjustable choke, Swaco, super.
One (1) Positive choke, Cameron.

All chokes triplex for H2S service.

9) Pumps, Mud Mixing: Two (2) Centrifugal, 6" x 8". Mission. Capacity 500 GPM each.

10) Mud Cleaning Equipment: One (1) Shale Shaker
One (1) Desilter, Danco, mod. MD416H, W/16-4" cones.
One (1) Desilter, Danco, mod. MD867, W/4-8" cones.
One (1) Degasser, Swaco.
Appendix VI

11) Cementing Unit:
   One (1) Halliburton, HT-120 Skid-Mounted Unit.

12) Logging Unit:
   One (1) Schlumberger Wireline Unit.

13) Cranes:
   Three (3) Le Tourneau PC-110-AS Cranes
   with 100' Booms. Rate 50 Ton at 20' Radius.

14) Lifeboats:
   Three (3) Capsules, 28 man, Brucker.
   One (1) Life Raft, 20 man, inflatable.

15) Heliport:
   Mounted on starboard side. Designed to
   fulfill Government requirements for
   worldwide operation of Sikorsky 561
   helicopters.

16) Quarters:
   Accommodations for ± 90 men, galley and
   messing facilities.

17) Crew:
   Toolpusher 2
   Drilling crew, 5 man 2
   Mechanic 1
   Electrician 1
   Welder 1
   Crane Operator/Roustabout
     Foreman 1
     Roustabouts 4
     Barge Master 1
     Storekeeper 1
     Commissary 1
TY 'ICAL THREE LEGGED SELF-ELEVATING MOBILE RIG

ELEV. + 120'

Helicopter Deck

ELEV. + 90'

ELEV. 0

M.W.L.

MUD LINE

SIDE ELEVATION
Scale in Feet

40

40
TYPICAL THREE LEGGED SELF-ELEVATING MOBILE RIG

PLAN VIEW

SCALE IN FEET
OIL SPILL CONTINGENCY PLAN

Pursuant to Section 7 (Pollution Control and Waste Disposal) Phillips Oil Company has an approved Oil Spill Contingency Plan on file with the MMS. This Plan provides specific information for notification and action procedures in the event an oil spill situation occurs in the Gulf of Mexico.

Action and notification procedures are specified in the Plan for varying degrees of response depending on the size and nature of the spill. Notification and reporting procedures include state and federal agency requirements and emergency notification telephone numbers. Action procedures are specified to include responsibility, spill containment and cleanup, equipment and material, operating personnel, communication, and Offshore Oil Spill Task Force.

Phillips Oil Company is a member of the CLEAN GULF ASSOCIATES, hereafter referred to as CGA. By reference, the CGA Operations Manual is incorporated into and made a part of Phillips Oil Company's Offshore Oil Spill Contingency Plan. Equipment stored and maintained by CGA is available should the need arise. In an emergency situation, Phillips Oil Company will call for as much assistance and additional equipment as necessary from a number of contractors who are located on the Gulf Coast that specialize in oil spill containment and cleanup. These contractors, with capabilities to include manpower, equipment and material, are listed in the Contingency Plan.

CGA equipment located at Grand Isle, Intracoastal City, Cameron, and Houma, Louisiana, can be utilized and deployed from the CGA base or the Phillips Oil Company onshore support base located at Grand Cheniere or Fourchon Docks, Louisiana. A Fast Response Open Sea Skimmer System will be used as the primary spill containment and cleanup equipment and is located at the above mentioned CGA base locations. This is a portable system designed for boat mounting. It consists in part of a floating oil boom, skimmer, outrigger, pump and storage tanks. The system is designed to provide equipment capable of fast response to emergency spill situations. Allowing 2 hours for loadout and 10 hours cruising at 10 knots results in a general capability of being 100 miles offshore 12 hours after notification of a spill. Maximum recovery with the system is 360 barrels of fluid. Trained operating personnel for the fast response skimmer and other CGA equipment will be obtained from a contractor.
### Drilling Mud Components That May Be Utilized Offshore

<table>
<thead>
<tr>
<th>Product Trade Name</th>
<th>Common Name</th>
<th>Chemical Trade Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Weight Materials and Viscosifiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIL-BAR®</td>
<td>barite</td>
<td>barium sulfate</td>
</tr>
<tr>
<td>MILCEL®</td>
<td>bentonite</td>
<td>bentonite</td>
</tr>
<tr>
<td>SALT WATER CEL®</td>
<td>attapulite</td>
<td>attapulite clay</td>
</tr>
<tr>
<td>FLOCAL®</td>
<td>asbestos fiber</td>
<td>chrysotile asbestos</td>
</tr>
<tr>
<td>II. Dispersants (Thickeners)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNI-CAL®</td>
<td>lignosulfonate</td>
<td>sodium lignosulfonate</td>
</tr>
<tr>
<td>DESCO®</td>
<td>modified tannin</td>
<td>sulfo methylated tannin +</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sodium di chromium</td>
</tr>
<tr>
<td>III. Filtration Control Additives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIGCON®</td>
<td>causticized lignite</td>
<td>k &amp; M treated lignite</td>
</tr>
<tr>
<td>CHEMTROL®-X</td>
<td>polymer-treated lignite</td>
<td>polymer-treated lignite</td>
</tr>
<tr>
<td>DRISCO®</td>
<td>CNC</td>
<td>sodium carboxy methyl cellulose</td>
</tr>
<tr>
<td>DRISPAC®</td>
<td>PAC</td>
<td>polyanionic cellulose derivative</td>
</tr>
<tr>
<td>IV. Chemicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caustic Soda</td>
<td>caustic</td>
<td>sodium hydroxide</td>
</tr>
<tr>
<td>Soda Ash</td>
<td>soda ash</td>
<td>sodium carbonate</td>
</tr>
<tr>
<td>Bicarb of Soda</td>
<td>bicarb</td>
<td>sodium bicarbonate</td>
</tr>
<tr>
<td>MIL-LIME</td>
<td>lime</td>
<td>calcium hydroxide</td>
</tr>
<tr>
<td>V. Specialty Additives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD-8®</td>
<td>defoamer</td>
<td>non-hydrocarbon defoamer</td>
</tr>
<tr>
<td>Aluminum Stearate</td>
<td>defoamer</td>
<td>aluminum stearate</td>
</tr>
<tr>
<td>HOKYGEN®</td>
<td>oxygen scavenger</td>
<td>catalyzed, sodium sulfite pad</td>
</tr>
<tr>
<td>OKYGEN®-L</td>
<td>oxygen scavenger</td>
<td>catalyzed ammonium bisulfite solution</td>
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<tr>
<td>Product Trade Name</td>
<td>Common Name</td>
<td>Chemical Trade Name</td>
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<tr>
<td>--------------------</td>
<td>-------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>LUBRI-SAL®</td>
<td>lubricant</td>
<td>Biodegradable, non-polluting vegetable oil</td>
</tr>
<tr>
<td>SUPER SHALE-TROL®</td>
<td>Shale-Trol</td>
<td>Aluminum organic acid complex</td>
</tr>
<tr>
<td>MILCHEM®</td>
<td>drilling detergent</td>
<td>drilling fluid detergent</td>
</tr>
<tr>
<td>SOLTEX®</td>
<td>shale control additive</td>
<td>modified hydrocarbon (non polluting)</td>
</tr>
</tbody>
</table>

VI. Loss of Circulation Additives

| MIL-PLUG®         | LCH         | ground nut shells |
| MILNICA®         | LCH         | flake mica |
| Kwik-Seal®       | LCH         | combination of granules, flakes, and fibers |
| DIASEAL-H®       | LCH         | non-hazardous diatomite blend |
|                   | high water loss | leased circulation squeeze mat. |
The seismic survey on this prospect will be as follows:

**Boat Information**

- **Crew Type**
- **Boat Length**
- **Boat Width**
- **Loaded Draft**
- **No. of Generators**
- **Size of Generators**
- **Type of Radios**
- **Number of Bunks**
- **Radar**
- **Gyro**
- **Auto-Pilot**
- **Pathometers**
- **Navigation**

<table>
<thead>
<tr>
<th>Crew Type</th>
<th>Marine-Streamer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Length</td>
<td>115' to 135'</td>
</tr>
<tr>
<td>Loaded Draft</td>
<td>25' to 30'</td>
</tr>
<tr>
<td>No. of Generators</td>
<td>2</td>
</tr>
<tr>
<td>Size of Generators</td>
<td>60 Kilowatts</td>
</tr>
<tr>
<td>Type of Radios</td>
<td>Single side band, VHF and CB</td>
</tr>
<tr>
<td>Number of Bunks</td>
<td>22 to 24</td>
</tr>
<tr>
<td>Radar</td>
<td>Decca (usually two)</td>
</tr>
<tr>
<td>Gyro</td>
<td>Sperry</td>
</tr>
<tr>
<td>Auto-Pilot</td>
<td>Sperry</td>
</tr>
<tr>
<td>Pathometers</td>
<td>Raytheon or Simrad (usually two)</td>
</tr>
<tr>
<td>Navigation</td>
<td>Lorac or Radiant with a Western Satellite Receiver for Lane Counts</td>
</tr>
</tbody>
</table>

**Cable Information**

- **MFG and Type**
- **Length**
- **No. of Groups**
- **Group Interval**
- **Group Array**
- **Sensitivity**
- **No. of Hydrophones**
- **No. of Depth Control Devices**
- **No. of Depth Detectors**
- **Towing Depth**

<table>
<thead>
<tr>
<th>MFG and Type</th>
<th>Western Streamer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>10,560' + 2-220' Elastic Sections + Leading</td>
</tr>
<tr>
<td>No. of Groups</td>
<td>48</td>
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<tr>
<td>Group Interval</td>
<td>220'</td>
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<tr>
<td>Group Array</td>
<td>210'</td>
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<tr>
<td>Sensitivity</td>
<td>4.2 mv/microbar</td>
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<tr>
<td>No. of Hydrophones</td>
<td>26 per group</td>
</tr>
<tr>
<td>No. of Depth Control Devices</td>
<td>10</td>
</tr>
<tr>
<td>No. of Depth Detectors</td>
<td>Condep</td>
</tr>
<tr>
<td>Towing Depth</td>
<td>30' to 35'</td>
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</table>

**Recording System**

- **Type**
- **No. of Amplifiers**
- **Type Amplifiers**
- **Normal Recording Filters**
- **Format**
- **Sample Rate**
- **Record Length**

<table>
<thead>
<tr>
<th>Type</th>
<th>Digital Data Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Amplifiers</td>
<td>48 data channels, 6 to 12 auxchan</td>
</tr>
<tr>
<td>Type Amplifiers</td>
<td>Binary Gain or Floating Point</td>
</tr>
<tr>
<td>Normal Recording Filters</td>
<td>Lo-cut-out, High-Cut 125 Hz</td>
</tr>
<tr>
<td>Format</td>
<td>Seg-A or Seg-C</td>
</tr>
<tr>
<td>Sample Rate</td>
<td>2 Millisecond</td>
</tr>
<tr>
<td>Record Length</td>
<td>6 Second</td>
</tr>
</tbody>
</table>

**Energy Source**

- **Type**
- **No. of Guns**
- **Towing Depth**
- **No. of shots per group interval**

<table>
<thead>
<tr>
<th>Type</th>
<th>Aquapulse (Sleeve exploder using oxygen and propane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Guns</td>
<td>6</td>
</tr>
<tr>
<td>Towing Depth</td>
<td>25' to 30'</td>
</tr>
<tr>
<td>No. of shots per group interval</td>
<td>2</td>
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</tbody>
</table>
Phillips Petroleum Company
High Island Block A-18

PROJECTED EMISSIONS FROM EXPLORATION OPERATIONS
FOR COMPLIANCE PURSUANT TO 30 CFR 250.57 AIR QUALITY
REGULATIONS

I. General Information

Operation Description: Exploration
Owner/Operator: Phillips Petroleum Company
Address: P.O. Box 51107, Lafayette, Louisiana 70505-1107
Contact Person: Louis Hoover, Supervisor Engineering Administration
Location of Project: High Island Block A-18 (OCS-G-8559)

Operation Schedule -
Begin: September 1, 1987
End: December 1, 1987
Distance to Shoreline (mean high water line):
Thirty Seven Statute Miles

II. Synopsis

The projected emissions derived as a result of this review represent a maximum (liberal) assessment for indicator pollutants. The findings of this assessment indicate that the proposed emissions herein are well below the exemption rates and pose no significant impact on the ambient air quality of the onshore environment. Based on this assessment, no further air quality review is required.

III. Projected Emissions

Rig/Platform Projected Emissions - High Island Block A-18

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>1987 tons/yr*</th>
<th>Exemption Rate</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>4.60</td>
<td>37752.6</td>
<td>Exempt</td>
</tr>
<tr>
<td>SO2</td>
<td>1.50</td>
<td>1232.1</td>
<td>Exempt</td>
</tr>
<tr>
<td>NOx</td>
<td>27.56</td>
<td>1232.1</td>
<td>Exempt</td>
</tr>
<tr>
<td>VOC</td>
<td>1.09</td>
<td>1232.1</td>
<td>Exempt</td>
</tr>
<tr>
<td>TSP</td>
<td>.02</td>
<td>1232.1</td>
<td>Exempt</td>
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*Based on 90 day period
### Service Base Projected Emissions

**1987**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Tons/yr*</th>
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<td>CO</td>
<td>1.32</td>
</tr>
<tr>
<td>SO2</td>
<td>0.51</td>
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<tr>
<td>NOx</td>
<td>5.72</td>
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<tr>
<td>VOC</td>
<td>0.35</td>
</tr>
<tr>
<td>TSP</td>
<td>0.02</td>
</tr>
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</table>

*Based on 90 day period

### IV. Exemption Formula

The projected emissions from operations are to be compared with "exemption rules" for the facility location. If the amount of these projected emissions is less than or equal to the emissions amount "E" for the air pollutant, the facility is exempt for that air pollutant from further air quality review.

The following formulas pursuant to 30 CFR Part 250 Sec. 250-57-1 (d) are used to determine exemption rates:

- For CO: \( E = 3400 D \exp \left( \frac{2}{3} \right) \)
- For TSP, SO2, NOx, VOC: \( E = 33.3D \)

\( D \) = distance of the facility in statute miles from the closest onshore area

Based upon these exemption formulas, the following emission rates were computed for High Island Block A-18:

Distance from nearest onshore area is thirty seven (37) statute miles.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Exemption Rate (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>37752.6</td>
</tr>
<tr>
<td>SO2</td>
<td>1232.1</td>
</tr>
<tr>
<td>NOx</td>
<td>1232.1</td>
</tr>
<tr>
<td>VOC</td>
<td>1232.1</td>
</tr>
<tr>
<td>TSP</td>
<td>1232.1</td>
</tr>
</tbody>
</table>
V. Methodology

Drilling: Horsepower/Hour Method (Power generation factor 60 HP-hr/ft, Reference #1 - pg. 86)
Transportation Modes:
Boats-Horsepower/Hour Method - Reference #2
Helicopters - Landing/Take Off (LTO) cycle method - Reference #2

VI. References

1. EPA-450/3-77-026 June 1977 - "Atmospheric Emissions from Offshore Oil and Gas Development and Production" pp.81-92

## EMISSION FACTORS USED IN CALCULATIONS

### Emission Factors for Drilling

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>lb/hp-hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>.0042</td>
</tr>
<tr>
<td>SO₂</td>
<td>.0019</td>
</tr>
<tr>
<td>NOₓ</td>
<td>.028</td>
</tr>
<tr>
<td>VOC</td>
<td>.00095</td>
</tr>
<tr>
<td>TSP</td>
<td>*</td>
</tr>
</tbody>
</table>

*Not available from EPA publication*

### Emission Factors in Transportation Modes

#### Helicopters

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>(lb/engine LTO cycle)</th>
<th>Boats (lb/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>5.7</td>
<td>.0598</td>
</tr>
<tr>
<td>SO₂</td>
<td>.18</td>
<td>*</td>
</tr>
<tr>
<td>NOₓ</td>
<td>.57</td>
<td>.4196</td>
</tr>
<tr>
<td>VOC</td>
<td>52</td>
<td>.0226</td>
</tr>
<tr>
<td>TSP</td>
<td>.25</td>
<td>*</td>
</tr>
</tbody>
</table>

*Not available from EPA publication*
EXHIBIT B

Miscellaneous Information

Drilling:
Total Well Footage to be Drilled - 26,000 ft.
Period - 90 days

Supply Boats:
3000 Hp
4 hours waiting time: 2/wk
Base: Grand Chenier, Louisiana

Crew Boats:
2500 Hp
1 Hour waiting Time: 2/wk
Base: Grand Chenier, Louisiana

Helicopters:
2 Engines
1 Trip Per Day:
Base: Grand Chenier, Louisiana
ENVIRONMENTAL REPORT
FOR COASTAL ZONE MANAGEMENT
CONSISTENCY DETERMINATION

PLAN OF EXPLORATION
ENVIRONMENTAL REPORT
HIGH ISLAND BLOCK A-18
PHILLIPS PETROLEUM COMPANY
LAFAYETTE, LOUISIANA

CONTACT PERSON:
MR. LOUIS HOOVER, III
SUPERVISOR ENGINEERING ADMINISTRATION
P.O. BOX 51107
LAFAYETTE, LOUISIANA 70505-1107
(318-261-4137)

JULY 1, 1987

Prepared by:
ENVIROMETRICS GEO-SERVICES
210 St. Nicholas St.
Lafayette, Louisiana 70506
(318) 994-5761
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Coastal Zone Management Consistency Certification
LIST OF MAPS

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MAP #2 .................................................. 2A
I. DESCRIPTION OF THE PROPOSED ACTIVITY

The Phillips Petroleum Company proposes to drill two (2) exploratory wells in the High Island Block A-18 area in the search for hydrocarbons. The approximate location of these activities is fifty (50) statute miles off the Louisiana Coast near Cameron Parish. (See Map # 1)

In order to indicate the surface locations of the proposed drilling the well sites are named A and B. The surface locations of these wells are shown below.

<table>
<thead>
<tr>
<th>Well Site (see Map # 2)</th>
<th>Surface Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4350'FNL &amp; 6400'FEL 12,500'TMD</td>
</tr>
<tr>
<td>B</td>
<td>2450'FSL &amp; 8250'FWL 13,500'TMD</td>
</tr>
</tbody>
</table>

The proposed activities will be carried out and completed with the guarantee of the following items:

1. The best available and safest technologies will be utilized throughout the project. This includes meeting all applicable requirements for equipment type, general project layout, safety systems, and equipment and monitoring systems.

2. All operations will be covered by a MMS-approved oil spill contingency plan.

3. All applicable Federal, State and local requirements regarding air emissions and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

A. Transportation Modes, Routes and Support Vessels

The proposed project will utilize the Grand Chenier Service Base for supplies and transportation. During the drilling operation support vessels include one crew boat and one supply vessel making two trips per week to the rig. Aviation support will require one helicopter making one trip per day.

Boat traffic to the rig/platform will depart Grand Chenier southward to the entrance to the Gulf of Mexico, thence following the most direct route to High Island Block A-18. Helicopter flight routes will include FAA specified clearance and most direct VFR, IFR flight paths to the rig/platform.
OCS Areas Adjacent To The States of Alabama, Louisiana and Mississippi
B. Support Base

The Phillips Petroleum Company maintains a support facility in Grand Chenier, Louisiana. This facility is designed to provide shore-base operations support for production, drilling and marine equipment operating in the Western Sector of the Gulf of Mexico. Subsequently, all necessary support functions for the proposed activity will be provided by this facility.

The Phillips Petroleum Company facility is currently manned at an adequate level to support the proposed activity. Therefore, no additional onshore employment will be generated as a result of this action.

C. New Support Facilities

It has been determined in the Plan of Exploration that the existing support facilities are adequate at this time to service the level of activity projected as a result of this project. Therefore, no new support facilities are required.

D. New Or Unusual Technologies

No new techniques or unusual technology will be utilized that may affect coastal waters.

E. Maps

Two maps are included in this report; Map #1 is a vicinity map showing the general location of the proposed project in relation to the affected State's coastal zone. Map #2 contains a location plat.

F. Transportation of Oil and Gas

The proposed activity is of an exploratory nature, should a discovery be made, adequate plans will then be prepared for the production and transportation of hydrocarbons. Therefore, no transportation of oil and gas will occur during this phase of the project.
II. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS

This section will address the effects of the proposed activity on the areas adjacent to the site and the affected State's coastal zone.

A. Physical and Environmental

1. Commercial Fishing

Louisiana ranks among the top five states in the nation with regard to the total value of its fishery. For the last several years, Louisiana has been the number one state in weight of fishery products landed.

The shrimp fishery is the most valuable fishery in Louisiana as well as the United States. The Gulf of Mexico region accounts for over half of the U.S. shrimp production. In terms of harvested weight, however, the Gulf Menhaden is by far the largest contributor to the total commercial landings in Louisiana.

The proposed project is located in the National Marine Service fishing zone 18; water depths in Block A-18 vary from -60 to -64 feet. In this grid zone, Menhaden account for 75% of the total commercial landings by weight. Shrimp account for approximately 15% of the total catch. The average catch based on 1977-1981 landings for grid zone 18 is 27,783,072 pounds worth over $36 million dollars.

The oyster landings along the Gulf region constitute approximately 15 million lbs/yr, valued at $13 million. Blue crab landings are worth $5-6 million to the regional economy. (Regional EIS, Gulf of Mexico)

The major potential impacts of the proposed activity on commercial fisheries are:

Loss of approximately two hectares of seafloor from use by trawlers. Installations like drilling rigs and platforms actually take up very little sea space; but to protect them, operators are permitted to establish a safety zone around them, generally one quarter nautical mile in radius.

The OCS Act Amendments provide for a Fisherman's Contingency Fund financed from oil revenues to compensate commercial fisherman for losses or damage to gear resulting from oil industry operations.

The impacts associated with the proposed activity are considered minimal. These impacts are otherwise offset by the beneficial increase in biomass near the platform/rig. These structures serve as artificial reefs for marine
communities by providing a substrate for epifauna to grow on. Pelagic fish then attracted to these areas to feed on the attached organism thereby resulting in greater fishery yields in these areas.

2. Shipping

The Port of Lake Charles is the nearest Louisiana port to the proposed activity. Hydrocarbons, fuels, chemicals, rice and lumber are the major commodities shipped from and to Lake Charles via the Lake Charles Deep Water Channel. Vessel traffic during 1981 totaled 42,301 vessels utilizing the channel.

The southwest corner of Block A-15 is part of a shipping fairway. The Phillips Petroleum Company is aware of the operational restrictions in these areas and will conduct their operations in accordance with all applicable restrictions. Thus, the proposed activity is not expected to adversely affect any shipping fairway, transit or anchorage area.

3. Recreation

Many fish and shell fish sought after for commercial value are also pursued for sport in coastal Louisiana. Saltwater sport species include spotted sea trout, red drum, red snapper, Florida pompano and tarpon. The offshore permanent structures provide highly productive artificial reefs that are favorable fishing areas for saltwater sport fisherman. Additionally, these offshore structures serve as navigational aids for small boat operators and occasionally provide shelter and refuge during storms and mechanical breakdowns. Thus, the implementation of this project is not expected to produce any adverse impacts on sport fishing and pleasure boating; in fact, recreational potential will be slightly increased due to this action.

4. Cultural Resources

The proposed project is within the high probability line for Cultural Resources, therefore, an underwater archeological survey is required. An archeological/cultural survey has been prepared by John E. Chance & Associates and is being submitted to the MMS for approval. Visual #4 for EIS Lease Sale 62 and 62A indicates that there are no shipwrecks located in Block A-18; no other cultural resources were determined as a result of this analysis.

The Phillips Petroleum Company is aware of operational restrictions with regard to cultural or archeological resource protection. Consequently, the activities associated with this project are not expected to produce any adverse
Impacts on these resources.

5. Ecologically Sensitive Features

The proposed project is located approximately 50 miles from the Cameron Parish coast. This coastal area is characterized by numerous acres of marsh which provide habitat for a variety of wildlife and also serve as primary nursery grounds for fish and shellfish.

The Rockefeller Wildlife Refuge, an 84,000 acre wildlife area, is approximately 90 miles northeast of the proposed site. This refuge serves many conservation and preservation functions in wildlife management. Duck and geese concentrations occur in and around the Refuge. Of special importance is the resident population of about 2,000 Canadian Geese whose presence in this area is due to changes in migratory patterns (Louisiana State Planning Office 1977).

The nearest recreational beach, Holly Beach, is approximately 70 miles northeast of the proposed activity.

The proposed project will not generate any new or expanded onshore facilities, therefore no adverse impacts on the coastal environment, Rockefeller Wildlife Refuge or the recreational potential of the coastal beaches is expected as a result of this action.

There are no known ecologically sensitive areas or areas of particular concern in or near High Island Block A-18 which would be adversely or otherwise affected by the proposed action.

6. Existing Pipelines and Cables

There are no pipelines or known cables in the Block A-18 which would obstruct or hinder the proposed project.

7. Other Mineral Uses

There are no known plans to produce other minerals other than those hydrocarbons associated with the proposed activity in High Island Block A-18.

8. Ocean Dumping Grounds

Ocean dumping is prohibited in High Island Block A-18. The nearest E.P.A. approved ocean dumping site is approximately 130 miles south of the activity site (USDI, Regional Env. Imp. Stmt. Visual #5).
The Phillips Petroleum Company will dispose of drill cuttings, sanitary and domestic waste in accordance with their NPDES permit.

9. Endangered or Threatened Species

The proposed project, located 50 miles off the Cameron Parish, Louisiana coast, is within the range of five endangered species of whales, three endangered turtle species and two species of turtle classified as threatened.

a. Whales (Endangered)

- Sei whale (*Balaenoptera borealis*) This species is a possible winter resident of the Gulf of Mexico.
- Fin whale (*Balaenoptera physalus*) This species is a possible winter resident of the Gulf of Mexico.
- Blue whale (*Balaenoptera musculus*) This species is uncommon to the Gulf of Mexico.
- Humpback whale (*Megaptera novaeangliae*) This species is a possible winter resident of the Gulf of Mexico.
- Sperm whale (*Physeter catodon*) The most common of the endangered whales to occur in the Gulf of Mexico.

Migratory patterns of the whales listed above are not directly known. It is presumed, however, that these species occur mainly in the deeper waters of the Gulf of Mexico. Therefore, the proposed project is not expected to adversely affect whale populations or migratory patterns.

b. Turtles (Endangered and Threatened)

- Kemps Atlantic Ridley (*Lepidochelys kempi*) The shrimping grounds of the northern Gulf of Mexico is a primary feeding area for this endangered species.

- Hawksbill Turtle (*Eretmochelys imbricata*) An endangered species that may occur in the coastal waters of Louisiana.

- Leatherback Turtle (*Dermochelys coriacea*) The range of this endangered species is usually the deeper waters of the Gulf of Mexico; however, observations have been made of large numbers of leatherbacks feeding on jellyfish in inshore waters during summer (USDI, EIS, OCS Sale 58A, pg. 62)

- Green Turtle (*Chelonia mydas*) and the Loggerhead Turtle (*Caretta caretta*) are listed as threatened and occur in the Gulf of Mexico waters.
c. Onshore Species (Endangered and Threatened)

- **American Alligator** (*Alligator mississippiensis*) This species currently classified as Threatened due to "Similarity of Appearance" on the federal list of endangered species in the coastal areas of Louisiana. Subsequently, twelve parishes currently are allowed to permit regulated harvests of alligators in their respective parishes; Cameron Parish is one of these. State laws govern the harvests and allow the taking of alligator hides and meat during harvest seasons.

The American Alligator is the only species currently on the federal list of endangered or threatened species that is commonly found in the coastal areas near the project.

- **Red Wolf** (*Canis rufus*) Meager numbers of this species are present in parts of southwestern Louisiana (Cameron and Calcasieu Parishes) and extreme southeastern Texas (Lowery, 1974).

The proposed project does not require any additional onshore facilities; therefore, there are no expected impacts on the habitat of these onshore endangered or threatened species as a result of this action.

B. Socio-economic: Not applicable at this time.
III. UNAVOIDABLE ADVERSE IMPACTS

The environmental consequences of the proposed project are expected to be minimal. Most impacts identified will be of a temporary nature and will occur in the immediate vicinity of the operation. Therefore, no long-term effect on the environment is expected.

Unavoidable adverse impacts include:

a. An increase in air pollutants is a result of power generation during drilling and transportation modes. However, an air quality review has been conducted pursuant to 30 CFR 250.57. The findings of this review indicate that the projected emissions are well below the exemption rates and pose no significant impact on the ambient air quality of the onshore environment.

b. A temporary reduction in water quality due to the disposal of drill cuttings, deck drainage and sanitary and domestic waste will occur as a result of this action. During the disposal of drill cuttings, an increase in turbidity will be evident as a result of drilling fluids adhering to these particles. Since the availability of sunlight is an important factor in photosynthesis, it has been found that increased turbidity reduces photosynthesis. However, this effect will be short-term and will return to normal once the drilling phase is completed. The additional sources of water pollutants are also expected to produce minimal and short-term effects on the water quality near the rig. These pollutants are regulated by the U.S. Environmental Protection Agency's effluent guidelines (40 CFR Part 435) for oil and gas extraction. Conformance to these guidelines will be carried out throughout the project period.

c. Burial of immobile benthic organisms will occur during the discharge of drill cuttings. Drill cuttings accumulate on the sea floor covering an area of approximately 150 feet in diameter; in the affected area the impact is localized and dissipates over time by currents. Mobile benthic organisms from the surrounding sea floor adjust rapidly to these changes and build homes on top of the cuttings. Within months the affected area is again flourishing with new benthic communities (Zingula et al, 1977). Thus, the impacts associated with this activity will be short-term and localized.

d. There will be a temporary loss of approximately five acres (2 hectares) of sea space that will be unavailable for commercial fishing. However, there are some positive externalities associated with the proposed activities that would, in the long-run, benefit commercial and recreation fishing; these are:

- An increase in biomass near the rig/platform, thus, resulting in higher productivity.
Offshore structures may serve as navigation aids and during mechanical breakdowns or inclement weather provide refuge for boat operators.
REFERENCES


Zingula, Richard P. and Larsen, Dana W. "Fate of Drill Cuttings in the Marine Environment" OTC 1977.
APPENDIX
COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATE
COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATION

Exploration
Type of Plan

High Island Block A-18

Area and Block

The proposed activities described in detail in this Plan comply with Louisiana's approved Coastal Zone Management Program and will be conducted in a manner consistent with such Program.

Arrangements have been made with the States-Item in Baton Rouge, Louisiana to publish notice of the proposed activities no later than 15 July 87.

Phillips Petroleum Company
Lessee or Operator

Certifying Official

Date 2 Jul 87
July 2, 1987

File: OCS-G-8559 Lease  
High Island Block A-18 Area  
Gulf of Mexico, Western  
Offshore, Texas  
AGENCY GENERAL 

Re: LADNR-LCMS  
Public Notice  
Federal Consistency Review 

The State Times  
Public Notice Department  
Post Office Box 588  
Baton Rouge, Louisiana 70821  

Attention: Ms. Heather Allen  

Gentlemen:  

Attached is a Public Notice that must appear in The State Times on July 15, 1987. Proof of publication is required.  

Please direct billing and any questions relevant to this notice to the undersigned.  

Yours very truly,  

PHILLIPS PETROLEUM COMPANY  

Louis Hoover, III  

LH,III/sd  

Attachment  

cc: Minerals Management Service FO-2-1 (w/attachment)  
Attention: Mr. Mike Joseph
Public Notice of Federal Consistency review of a Proposed Exploration Plan by the Coastal Management Section/Louisiana Department of Natural Resources for the Plan's consistency with the Louisiana Coastal Resources Program.

Applicant: Phillips Petroleum Company
Post Office Box 51107
Lafayette, Louisiana 70505-1107

Location: High Island Area Block A-18
Lease OCS-G-8559
Lease offering date 08/86, Sale No. 105

Description: Proposed exploration plans for the above area provide for the exploration for oil and gas. Exploration activities will include drilling from a drillship type rig and transport of drilling crews and equipment by helicopter and/or cargo vessel from an onshore base located at Grand Chenier, Louisiana. No ecologically sensitive species or habitats are expected to be located near or affected by these activities.

A copy of the Plan described above is available for inspection at the Coastal Management Section Office located on the 10th Floor of the State Lands and Natural Resources Building, 625 North 4th Street, Baton Rouge, Louisiana. Office hours: 8:00 a.m. to 4:30 p.m., Monday through Friday. The public is requested to submit comments to the Coastal Management Service, Attention: OCS Plans, Post Office Box 44396, Baton Rouge, Louisiana 70804. Comments must be received within 15 days of the date of this notice or 15 days after the Coastal Management Section obtains a copy of the Plan and it is available for public inspection. This notice is provided to meet the requirements of the NOAA Regulations on Federal Consistency with approved Coastal Management Programs.