

In Reply Refer To: RP-2-1

MAY 18 1984

Gulf Oil Exploration and  
Production Company  
Attention: Mr. R. L. Meinert  
Post Office Box 61590  
New Orleans, Louisiana 70161

Gentlemen:

Reference is made to your Initial Plan of Exploration and Environmental Report received May 4, 1984, for Lease OCS-G 5635, Block 267, South Timbalier Area. This plan includes the activities proposed for Wells A, B, C, and D.

In accordance with 30 CFR 250.34, revised December 13, 1979, and our letter dated January 29, 1979, this plan has been determined to be complete as of May 13, 1984, and is now being considered for approval.

Your plan control number is N-1664 and should be referenced in your communication and correspondence concerning this plan.

Sincerely yours,

Original Signed: Douglas J. McIntosh

D. W. Solanas  
Regional Supervisor  
Rules and Production

bcc: Lease OCS-G 5635 (OPS-4) (FILE ROOM)

~~OPS-4~~ w/Public Info. Copy of the plan and ER (PUBLIC RECORDS ROOM) (OPS-2-5)  
DO-6

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Office of  
Program Services

MAY 22 1984

Records Management  
Section

# Gulf Oil Exploration and Production Company

P. S. Horvath  
EXPLORATION MANAGER  
NEW ORLEANS AREA

May 1, 1984

P. O. Box 61590  
New Orleans, LA 70161

Regional Supervisor  
Rules and Production  
U. S. Department of the Interior  
Minerals Management Service  
Gulf of Mexico, OCS Region  
Post Office Box 7944  
Metairie, LA 70010-7944

MAY 4 1984

Dear Sir:

Plan of Exploration  
Block 267, OCS-G-5635  
South Timbalier Area  
Offshore, Louisiana

Gulf Oil Corporation plans to drill four (4) wildcat wells on the subject block. The wells are A, B, C and D. Gulf will act as the operator of the lease.

Well "A" will be a straight hole at a site 5150 feet from the north line and 5600 feet from the west line of the block. As a dry hole the operation should last about 105 days. As a producer about 135 days should be required.

Well "B" will be a straight hole at a site 5500 feet from the south line and 4600 feet from the west line of the block. As a dry hole the operation should last about 95 days. As a producer about 125 days should be required.

Well "C" will be a straight hole at a site 2000 feet from the north line and 4800 feet from the west line of the block. As a dry hole the operation should last about 125 days. As a producer about 155 days should be required.

Well "D" will be straight hole at a site 1300 feet from the south line and 1800 feet from the west line of the block. As a dry hole the operation should last about 105 days. As a producer about 135 days should be required.

We propose to begin work with the Vanguard I or a similar type jack-up rig between July and September, 1984. The rig will be equipped and operated in compliance with OCS Order Nos. 2, 5 and 7. A list of drilling mud components and additives is included among the enclosures to this letter. Other enclosures illustrate the location of this test relative to the block lines and shorelines.



05/01/84

Our sites will be about 69 miles from Leeville, La. Our operation will be serviced by boats and helicopters using existing facilities at Leeville and Morgan City. The helicopters will use the PHI heliports at Leeville and Morgan City. The boats will utilize existing dock facilities maintained by Gulf. Our oil spill contingency plan is on file with your office. Gulf is a member of Clean Gulf Associates (CGA). CGA maintains equipment at Grand Isle, La. about 72 miles from this location. The response time within a 100 mile radius is 12 hours.

If the test is successful, it will be left with a buoyed casing stub covered by a protective dome. The stub will facilitate the installation of a platform to accommodate surface producing equipment and possible additional drilling. Oil that may be discovered will be barged, at least initially. We will seek a pipeline connection for gas. If the well is not a success it will be abandoned according to the terms of OCS Order No. 3. Any additional drilling that is proposed subsequent to these tests will be described by a new plan.

Gulf has collected the data required by the Notice to Lessees and Operators No. 83-3 (drilling hazards.). These data are being forwarded under separate cover. An air emissions statement is also attached. We have evaluated the data and find no evidence of any shallow hazards to drilling. Please contact this office for any additional information you may require.

GULF OIL CORPORATION

By 

R. L. Meinert

Exploration Operations Manager

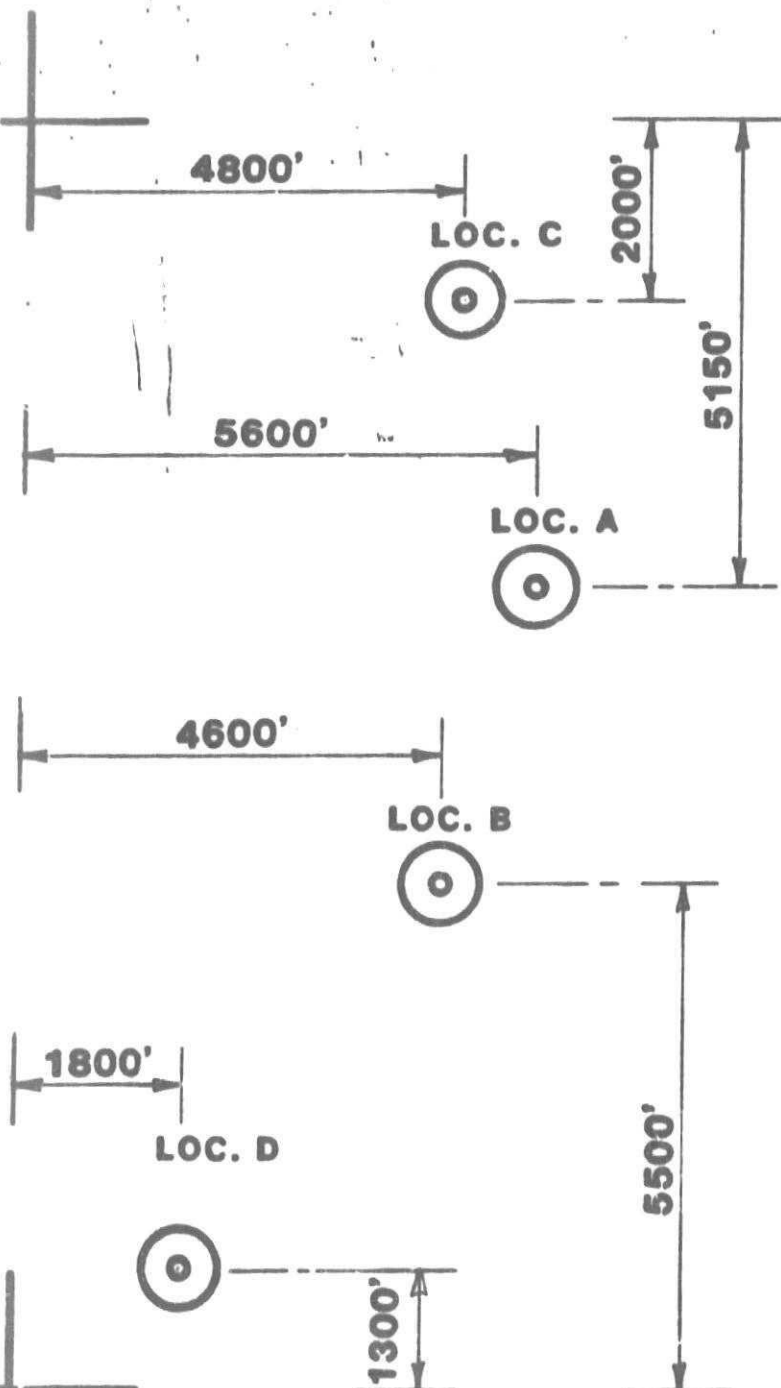
WG/RLM/cdc

## Enclosures:

Shoreline Vicinity Plat  
Location Plats  
List of Mud Additives  
Air Emission Data  
Rig Description  
Anomaly Plat  
Site Clearance Letter for Shallow  
Drilling Hazards  
Environmental Report  
Consistency Certification  
Public Notice Certification

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267



GULF  
OCS 5635

**SOUTH TIMBALIER BLK. 267  
LOCATION PLAT**



267

LOC. C



205'

LOC. A



LOC. B



210'

LOC. D



215'

**SOUTH TIMBALIER BLK. 267  
BATHYMETRY MAP**

0 6000



FEET

# Gulf Oil Exploration and Production Company

P. S. Horvath  
EXPLORATION MANAGER  
NEW ORLEANS AREA

April 27, 1984

P. O. Box 61590  
New Orleans, LA 70161

Mineral Management Service  
Office for Rules and Production  
P. O. Box 7944  
Metairie, Louisiana 70010  
Attention: Mr. D. W. Solanas

Re: Shallow Hazards Clearance  
from High Resolution Geophysical  
Data. South Timbalier Area,  
Block 267, OCS-G-5635  
Wells A, B, C and D, Gulf of  
Mexico.

Gentlemen:

We have examined the high resolution geophysical data in the vicinity of Gulf's four proposed wildcat locations on this lease and find that there are no shallow hazards at these locations.

<u>Well</u>	<u>Water Depth</u>	<u>Location</u>	<u>Proposed TD</u>
A	207.8 Ft.	5150'FNL, 5600'FWL	13,400 Ft.
B	214.6 Ft.	5500'FSL, 4600'FWL	12,500 Ft.
C	201.5 Ft.	2000'FNL, 4800'FWL	14,200 Ft.
D	224.5 Ft.	1300'FSL, 1800'FWL	13,000 Ft.

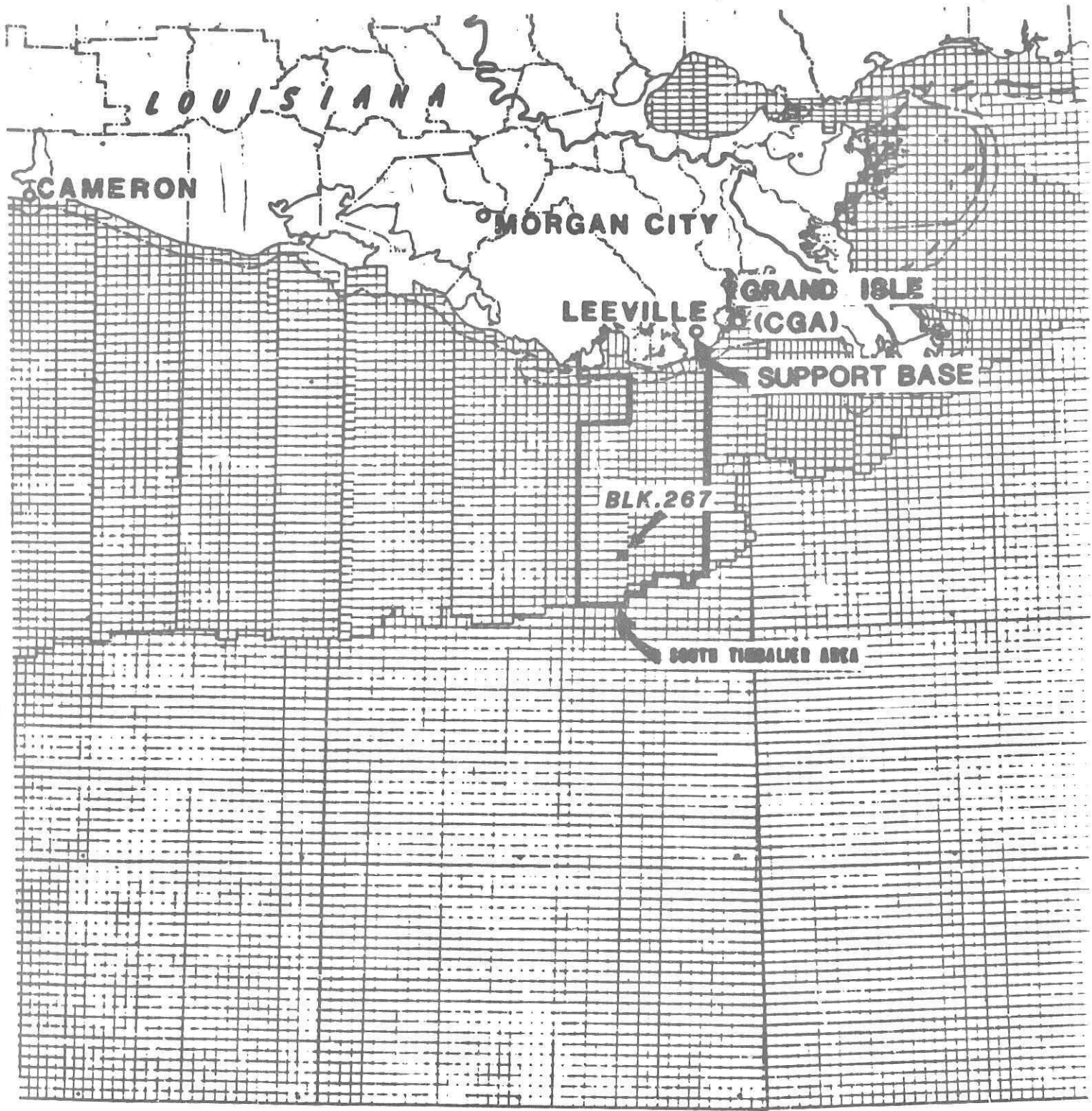
Very truly yours,

*W. H. Murphy*  
W. H. Murphy  
Manager-Technical

WHM:rm

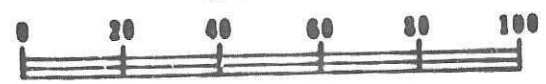


A DIVISION OF GULF OIL CORPORATION



**SHORELINE VICINITY PLAT**

**SCALE**



**MILES**

DRILLING MUD COMPONENTS AND ADDITIVES

bentonite

Ben-ex

starch

Drispac

barite

defoamer

Desco

Ligno Sulfonate

clay

flocculant and clay extender

non-fermenting

polyanionic cellulose

barium sulphate

alcohol base

organic thinner

dispersive agent



Projected Air EmissionsMajor Sources

	<u>Emissions in (lbs/day) tons per year</u>									
	<u>CO</u>		<u>VOC</u>		<u>NOx</u>		<u>SO<sub>2</sub></u>		<u>TSP</u>	
Power onboard drilling vessel (Total footage drilled - 35,505	(38.95)	7.11	(14.40)	2.63	(180.00)	32.85	(11.96)	2.18	(12.84)	2.34

(1) Based on 60 hp hr/ft from Table 4-3, "Atmospheric Emissions from Offshore Oil and Gas Development and Production", EPA No. 450/3-77-026, June 1977.

(2) Emission factors from Table 3.3.3-1, "Compilation of Air Pollutant Emission Factors", Third Edition, EPA Report AP-42, August, 1977.

Minor Sources

Includes helicopter landings and takeoff, one trip per day; supply and crew boats at dockside, one trip per day; fuel storage and transfer; loading and unloading operations; and incineration of waste paper (average 750 lbs/mo.) for duration of project of 550 days.

	<u>Emission in tons/year</u>				
	<u>CO</u>	<u>VOC</u>	<u>NOx</u>	<u>SO<sub>2</sub></u>	<u>TSP</u>
Minor Sources	5.60	1.20	2.90	0.70	0.50
Total all Sources	12.71	3.83	35.75	2.88	2.84

Emission Exemption (tons per year)

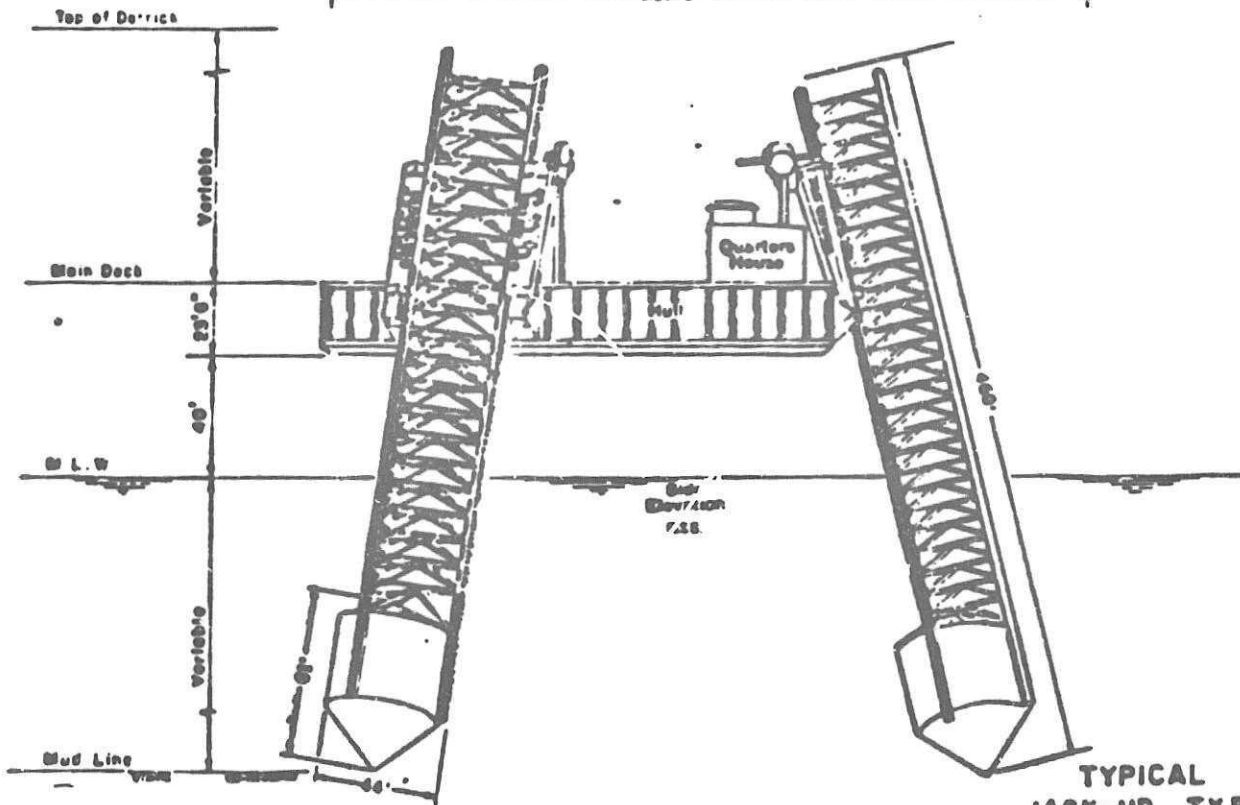
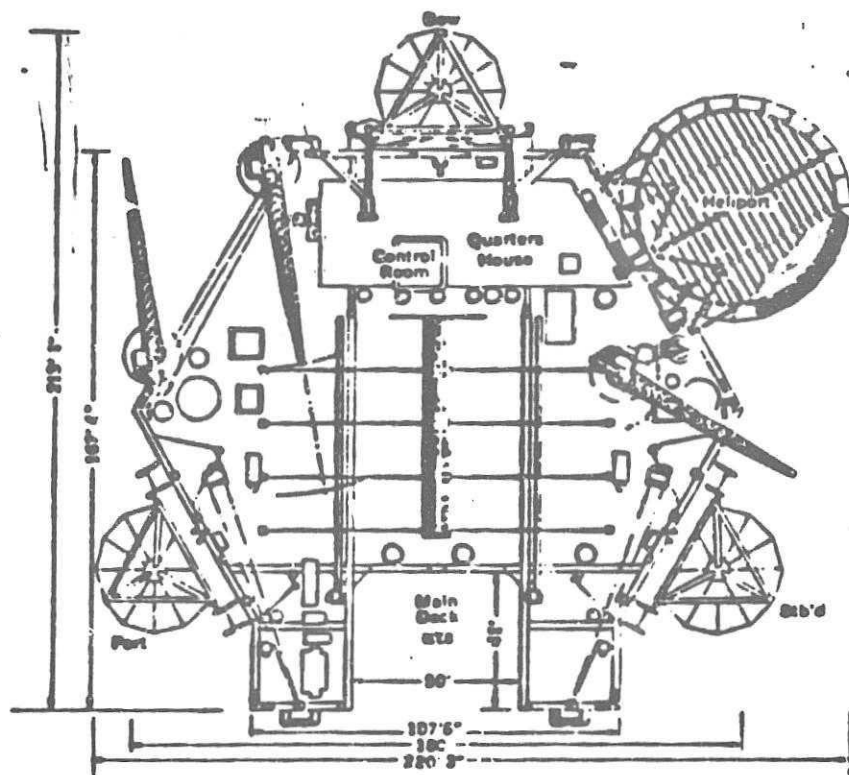
CO Exemption -  $E = 3400 D^{2/3}$ ; NOx, VOC, SO<sub>2</sub>, TSP Exemption -  $E = 33.3 D$

D - Distance from shore = 0.5 miles

CO E = 54,965 tons; NOx, VOC, SO<sub>2</sub>, TSP E = 2165 tons

The projected air emissions during the drilling of the four proposed wells are considered below the exemption levels for each of the pollutants; hence no further air quality reviews are indicated.

No new facilities will be installed at the onshore bases.



**TYPICAL  
JACK-UP TYPE  
MOBILE DRILLING PLATFORM**

South Timbalier Block 267

Rig Description

The specific mobile drilling rig that will drill the proposed wells in South Timbalier Block 268 has not been selected.

The rig will have B.O.P. equipment, sanitation facilities, curbs, drains, and all other equipment required for pollution prevention and personnel safety. Drilling activities will be conducted in compliance with all O.C.S. Orders.

When the rig is selected, all pertinent information will be presented for approval to the Geological Survey with Form 9-331 (Permit to Drill).

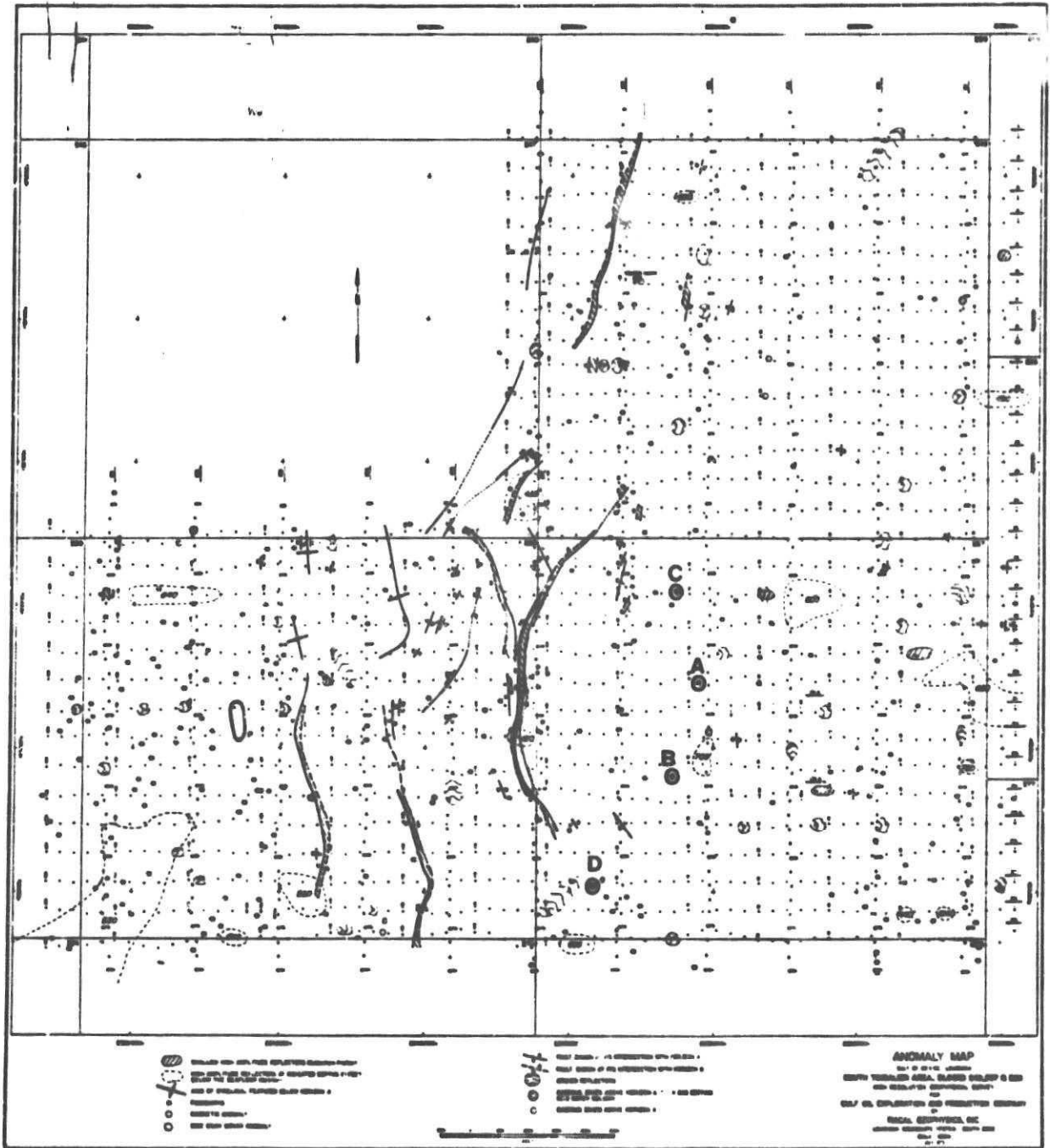


Figure 5

COASTAL ZONE MANAGEMENT  
CONSISTENCY CERTIFICATION

Exploration  
Type of Plan

South Timbalier Block 267  
Area and Block

OCS-G 5635  
Lease Number

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

Gulf Oil Exploration & Production Company  
Lessee or Operator

  
Certifying Official

May 2, 1984

Date

COASTAL ZONE MANAGEMENT  
CONSISTENCY CERTIFICATION

Exploration  
Type of Plan

South Timbalier Block 267  
Area and Block

OCS-G 5635  
Lease Number

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

Arrangements have been made with the State-Times in Baton Rouge, Louisiana to publish a public notice of the proposed activities no later than May 8, 1984.

Gulf Oil Exploration and Production Co.  
Lessee or Operator



\_\_\_\_\_  
Certifying Official

May 2, 1984  
Date

(1)

Environmental Report  
(Exploration)

for

Block 248, OCS-G-5628  
Block 267, OCS-G-5635  
Block 268, OCS-G-5636

Lessee

Gulf Oil Exploration and Production Company

Contact Person:

Mr. L. R. Henry  
P. O. Box 61590  
New Orleans, LA 70161  
(504) 569-3430

## (2) DESCRIPTION OF PROPOSED ACTION

### (a) TRAVEL MODES AND ROUTES

Transportation of material, supplies and personnel between South Timbalier Blocks 248, 267 and 268 and the bases at Leeville and Morgan City, Louisiana will be by boat and helicopter. Boats from Leeville terminal will travel to the drill site via Bayou Lafourche outlet through the Gulf of Mexico. Boats from the Morgan City terminal will travel to the drill site via the Atchafalaya River outlet through the Gulf of Mexico to the drill site. Helicopters will generally travel the most direct route from PHI bases at Leeville and Morgan City to the drill site, although weather conditions may sometimes alter this route. Helicopter flights transferring crew members to and from the drill site will be done weekly. If severe weather conditions prohibit these flights, the crews will be transferred by crew boats. Other service company and operator personnel travel may require approximately 10 round trip flights of the helicopter (Bell 206 and 212 models) per week. The supply boat will make daily runs from Leeville or Morgan City to the drill site.

### (b) SUPPORT BASE

The onshore support base for any proposed drilling operations on Block 248, 267 and 268 will be from the existing Gulf docks at Leeville and Morgan City, Louisiana. No enlargement or changes in these facilities will be needed to accommodate the proposed drilling activity. Approximately 40 rig crew members, and supervisory personnel will be required on each seven day tour. In addition, about 25 other service company people will be required during the course of the drilling operation.

Radio dispatchers working on 12 hour shifts will be located at the shore bases. Other personnel located at each shore base



include a shore base supervisor and three transportation supervisors to handle the loading and transfer of supplies and material onto workboats for use at the drill site. Workboats require a crew of five people normally working tours of 7 to 14 days.

(c) NEW SUPPORT FACILITY

It is not known if the proposed exploratory effort within the project area will be productive of oil and/or gas; however, it would not be expected that any additional expansion of the onshore bases would be needed in any event since the existing facilities are not being operated at full capacity.

(d) DESCRIPTION OF NEW TECHNIQUES OR UNUSUAL TECHNOLOGY

There will not be any new techniques or unusual technology required in carrying out the proposed drilling operation.

(e) MAP OF THE PROPOSED ACTIVITY WITH RESPECT TO STATE'S COASTAL ZONE

A shoreline vicinity plat showing the location of the project area with respect to the coastline of the State of Louisiana is attached. Also attached is a plat showing the location of the drill sites within Block 248, 267, or 268.

(f) FOR PLANS OF DEVELOPMENT/PRODUCTION, THE MEANS OF TRANSPORTATION OF OIL AND GAS

The proposed activity is to conduct an exploratory investigation for oil and gas. If hydrocarbons are discovered, a development/production plan will be submitted at that time describing the plans for transporting oil and gas to shore and to markets on the mainland.

(3) DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACT

(a) PHYSICAL AND ENVIRONMENTAL

(1) Commercial Fishing

The lease site is approximately 68 statute miles offshore Louisiana in water depths ranging 200 to 220 feet.

By far the most productive fishery region in the Gulf of Mexico in terms of pounds of catch is in Grid Zone 15 off Atchafalaya Bay. Grid Zones 16 and 17 to the west are the next most productive areas in the northern Gulf. These three zones make-up nearly 66% of all the poundage caught in the Gulf for the years 1968 - 1974. Commercial landings in the Gulf accounted for 36% of the total U.S. catch on a poundage basis and 26% of the dollar value of such catches during 1982 (USDC, NMFS, 1983).

The Gulf fishery is dominated by the shell fisheries; i.e., shrimp, crabs, and oysters with small amounts of clam and scallops. The dollar value is twice that of the finfish harvest although the finfish landings are much greater. The shrimp fishery in the Gulf includes brown, white and pink shrimp and are taken almost exclusively by trawl fishing in water depths from 6 to 250 feet. The catch in 1982 from Louisiana and Mississippi waters was 90.5 million pounds valued at \$188.2 million and 10.2 million pounds valued at \$21.2 million respectively (USDC, NMFS, 1983).

These species of shrimp spawn in the open ocean and undergo a series of larval phases in the plankton, followed by migration in the post-larval phase to an estuarine nursery area, then return to the ocean as adults.

The blue crab makes up 98% of the crab harvest for the Gulf Region (Riley, 1970). Its life cycle is similar to the shrimp in that it undergoes the planktonic, estuarine, and open ocean phases. Gravid females migrate to the open Gulf and release their eggs in the spring and summer months. The adult crabs are found in the estuaries and thus inland from the leased area.

South Timbalier Area is also an important commercial fishing ground for finfish. Among the more important species off Lafourche Parish coast include the red drum, black drum, sea trout, and flounder. These fish species are usually taken near shore. Sea trout, both silver and white, are bottom fish in the Northern Gulf and are usually taken by bottom trawls. Other important species include red snapper and grouper which are taken by hook and line in water depths from 5' to 1000'. The Atlantic croaker is an abundant fishery in Louisiana's estuarine water. The Florida pompano is an inshore fish taken in the surf or at passes and is seasonally abundant from January to April in shrimping areas.

Annual landings of commercial fisheries off the coasts of Lafourche, St. Mary, Terrebonne and Jefferson Parishes total 337.2 million pounds per year valued at 38.7 million dollars. The project area is outside the limits for the pink shrimp harvest area and the menhaden harvest area. However, it is within the outer limits for other important fishery areas such as the brown and white shrimp harvest area, the royal red shrimp harvest area, and the finfish harvest area. (U.S.D.I., FREIS, 1983, Visual No. 4)

The proposed drilling operation may degrade the water quality in the immediate vicinity of the drill site temporarily due to discharges of drill mud and cuttings. Such a change in water quality may cause some species to avoid the area surrounding the drill site during this period while active drilling operations are underway. Once drilling is completed the population should return to the area.

Some larvae and eggs of certain species could also be adversely affected in the immediate area of the drill site due to temporary degradation of water quality. This condition would be short

term and would not be expected to have any measurable effect on any fishery.

The impact from the discharge of drill cuttings would be to smother sessile benthic organisms in the area around the well. Studies have shown that these deposits are quickly re-colonized (Zingula, 1975). Also, heavy solids contained in drill mud discharges may also be deposited on the bottom as a light coating which may have some temporary adverse effect. These areas apparently are quickly repopulated indicating no persistent toxicity of the mud sediments. (Reigh et al, 1980; Gilbillae et al, 1980)

An oil spill could also cause water quality degradation due to the introduction of possible toxins into the water column. Most adult fish, however, would probably avoid such areas and no significant or persistent direct effect on fish population would be expected. Any spill would be subject to immediate containment and clean-up. Oil spills have a low probability of occurring during exploratory drilling. (Dannenberger, 1976)

## (2) Shipping

South Timbalier Blocks 248, 267 and 268 are not near any designated shipping safety fairway or anchorage area. (U.S.D.I., FREIS, 1983, Visual 11)

## (3) Small Craft Pleasure Boating, Sport Fishing, and Recreation

Studies have shown that fish which would normally be scattered throughout large areas are often concentrated in small areas surrounding petroleum platforms and are attracted by the food and shelter which the structure offers. Many of the fish species that congregate around petroleum structures are prime sport fishing targets including snapper, grouper, mackerels, cobia, etc. It is believed, too, the new artificial reefs have little, if any,

effect on the carrying capacity or the size distribution of fish on the natural reefs (Stone - 1979). It could, therefore, be assumed that the quality and quantity of offshore fishing would be further enhance by any increase in petroleum structures on the OCS. As a result, these structures provide both sport and commercial fishermen an area with an abundant fish population. The Gulf of Mexico Fishery Management Council (G.M.F.M.C) recently published data indicating that red snapper stocks were on the decline and this condition was possibly due to over fishing by the recreational fisher (1980 b). The GMFMC report suggested the possibility, too, that the apparent decline in snapper population may not be a real one but rather the population spread out over greater areas due to the increasing number of platforms being installed. According to the report, natural reef fishing habitat in the Gulf provides approximately 39,000 KM<sup>2</sup>. The habitat provided by 2,000 petroleum platforms, assuming an area of 50 meters by 50 meters each, would provide another 5,000 KM<sup>2</sup> of habitat.

#### (4) Cultural Resources

The leased area is outside the high probability lines for prehistoric and historic cultural resources (U.S.D.I., FREIS, 1983, Visual No. 11). A cultural resources survey as specified in Lease Stipulation No. 1 was not required to be run over the leased area (Letter to Lessee from MMS, July 1983). Most known historical cultural resources are located much closer to shore than the project area. Approximately 82% of known shipwrecks are located within 10 kilometers of shore, with only a small percentage occurring further out on the continental shelf (U.S.D.I., 1979, page 91). The possibility of prehistoric cultural resources would also be remote.

since the leased area is submerged at a much greater depth (more than 65 meters) than the - 45 meter sea level generally accepted as inhabitable by terrestrial flora and fauna, including prehistoric man, about 12,000 B.P.

(5) Ecologically Sensitive Features

There are no biologically sensitive features or area of particular concern in the project area. The Diaphus Bank, a designated biologically sensitive area, is located approximately fourteen statute miles south southwest of Block 267. The Ewing Bank, another designated biologically sensitive area, is located approximately twenty-six miles to the southwest of Block 267. The Diaphus Bank is one of four banks that has been categorized by Bright and Rizak (1981) as being somewhat less diverse and productive. A DOI funded study by the National Academy of Science is looking into the fate and effects of drilling muds and cuttings in marine waters and the results of this study may cause a re-evaluation of current drilling restrictions on not only these four banks but all other banks as well. (U.S.D.I., FREIS, pages 78 - 86)

The entire Louisiana coastal zone has been included in the state's coastal zone management area. As such, any proposed OCS activity must be reviewed by the state's CZM and, as provided by Federal law, such activity must be consistent with the state's management plan before a permit for the project can be issued by the responsible Federal agency.

(6) Existing Pipeline and Cables

There are no pipelines or no known cables crossing the project area. (U.S.D.I., FREIS, 1983, Visual No. 7)

(7) Other Mineral Uses

There are no known mineral resources in the leased area other than possible oil and gas deposits.

(8) Ocean Dumping Activities

The leased area is not located within any EPA designated ocean dumping site or any interim dumping site. (U.S.D.I., FREIS, 1983, Visual 11).

(9) Endangered or Threaten Species

Seven species of marine mammals that have been sighted in the Gulf of Mexico have been classified as endangered species (Federal Register, 1975). These are the sperm whale, right whale, humpback whale, sei whale, fin whale, blue whale, and the west indian manatee.

Five species of marine turtles that occur in the Gulf area are also on the endangered or threatened species list. These are the loggerhead, Atlantic Ridley, hawksbill, and the leatherback. According to Hildebrand, a major feeding area for the Atlantic Ridley may be off the Louisiana coast and reports have indicated that portunid crab comprises a large portion of the diet of the specimen examined.

The leatherback, also listed as an endangered species, ranges widely throughout the Gulf of Mexico and western North Atlantic as far north as Nova Scotia. The species has also been observed in inshore waters during certain periods of the year in areas where jellyfish are found in abundance, presumably which they follow and feed upon.

Any impact of the proposed activity on marine mammals and turtles cannot be accurately assessed but would appear to be somewhat dependent upon the probability of an oil spill, the population size and distribution of the species, as well as the size and location of the area impacted by the spilled oil.

(b) SOCIO-ECONOMIC

No new personnel or other significant changes that might otherwise affect the coastal communities are contemplated by the proposed exploration effort.

(4) UNAVOIDABLE ADVERSE IMPACT

Most of the unavoidable adverse impacts are of a temporary nature and the environment should be completely restored soon after drilling operations have ceased. Discharges of drill mud and cuttings may cause some water quality degradation while drilling. Similarly, the deposition of drill cuttings on the ocean floor could smother sessile benthic organisms but these, too, should quickly re-colonize. Air quality will be temporarily degraded due to emissions from the exhaust of diesel engines and possibly degraded due to emissions from the exhaust of diesel engines and possibly hydrocarbon vapors from diesel storage tanks. Any hydrocarbons vented to the atmosphere while testing the well may also cause some degradation of air quality. Any blowout of a well which caught fire may also introduce into the atmosphere large amounts of carbon particulates, and other pollutants such a condition would be dissipated rather quickly by climatic conditions and would not seriously impair air quality at the shoreline.



Because of the critical need to develop new energy reserves for the economy and security of the United States, the proposed activity should be implemented without delay. No new feasible technology that would tend to mitigate these minimal and temporary adverse impacts can be expected within the foreseeable future.

**(5) REFERENCES**

- al Geophysics, Incorporated, September, 1983, A High Resolution Geophysical Survey of South Timbalier Area, Blocks 248, 267 and 268, Houston, TX
- Dannenberger, E. P., 1976, Oil Spills, 1971 - 1975, Gulf of Mexico Outer Continental Shelf, Geological Survey
- United States Department of the Interior, Bureau of Land Management, and Minerals Management Service, Various, Final Environmental Impact Statement, Outer Continental Shelf Oil and Gas Lease Sale
- United States Department of Commerce, 1980, Final Environmental Impact Statement for Louisiana Coastal Resources Program, Office of Coastal Zone Management, Washington, D.C.
- United States Department of Commerce, April, 1983, Current Fishery Statistics No. 8300 Fisheries of the United States, 1982, National Marine Fisheries Services, Washington, D.C.

**(6) STATEMENT**

The proposed activity 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 types, general project layout, safety systems, and equipment and monitoring systems.
- (2) All operations will be covered by an 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.