UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region

Metairie, Louisiana

FINAL

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

No. N-2388

Exploratory Activity

Destin Dome Blocks 56, 57, and 99

Leases OCS-G 6406, 6407, and 6410

March 1986

Commodity Oil and Gas SEA No. N-2388

United States Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
Metairie, Louisiana

OCS SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

Date March 1986

Operator Conoco Inc. Plan Type Plan of Exploration

Area Destin Dome Blocks 56, 57, and 99 Leases OCS-G 6406, 6407, and 6410

Date Submitted January 28, 1986 Plan Commencement Date March 1986

Prepared by Richard T. Bennett

Related Environmental Documents

FEIS for OCS Lease Sale Nos. 72, 74, 79; 81, 84, 94, 98, 102
EA Nos. N-1626, N-1768, N-1863, N-1975, N-2015, N-2028, N-2041, N-2074

Areawide EA for Exploration Activities in the
Northwest Section of the Eastern Planning Area

In my opinion, approval of Conoco Inc's Plan of Exploration described in Site-Specific Environmental Assessment (SEA) No. N-2388 pursuant to the specific mitigation/special protective measures outlined therein, does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of The National Environmental Policy Act (NEPA), Section 102(2)(c). In rendering this opinion, I have given special consideration to 30 CFR 250.34-4 (compliance with NEPA).

L. Dauterive — 3/12/86

Chief, Environmental Operations Section — Date
Gulf of Mexico OCS Region

FINDING OF NO SIGNIFICANT IMPACT/ENVIRONMENTAL IMPACT STATEMENT DETERMINATION

"I have considered Conoco Inc.'s proposed Plan of Exploration in the context of SEA No. N-2388 and find based on the analysis of environmental considerations provided therein, no evidence to indicate that the proposed action will significantly (40 CFR 1508.27) impact the quality of the human environment."

Therefore, I determine that an environmental impact statement will not be prepared for this action.

[signature] — 3/12/86

Regional Supervisor for Leasing and Environment — Date
Gulf of Mexico OCS Region

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ABBREVIATIONS AND ACRONYMS

AEA	Areawide Environmental Assessment
AER	Areawide Environmental Report
BOP	Blowout Preventer
CGA	Clean Gulf Associates
CZM	Coastal Zone Management
FRU	Fast Response Unit
GOM	Gulf of Mexico
H_2S	Hydrogen Sulfide
MMS	Minerals Management Service
NCSC	Naval Coastal Systems Center
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NTL	Notice to Lessees and Operators
OCS	Outer Continental Shelf
POE	Plan of Exploration
SEA	Site-Specific Environmental Assessment
SER	Site-Specific Environmental Report
USEPA	U.S. Environmental Protection Agency

INTRODUCTION

This Site-Specific Environmental Assessment (SEA) submitted in support of an Areawide Environmental Assessment (AEA) is written for exploration activity proposed for Destin Dome Blocks 56, 57, and 99. The SEA contains site-specific and updated information for the proposed activities in Blocks 56, 57, and 99 that is not contained in the AEA. The SEA was prepared using the AEA dated May 1984, entitled "Area-Wide Environmental Assessment for Exploration Activities in the Northwest Section of the Eastern Planning Area" as a base document. This base document can be obtained through the Public Records Office of the Minerals Managements Service (MMS), Gulf of Mexico (GOM) Region, Outer Continental Shelf (OCS) Office. Those sections of the AEA that are referenced in the SEA are indicated throughout the text.

In compliance with the National Environmental Policy Act (NEPA), this AEA/SEA concept implements the tiering process outlined in 40 CFR 1502.20 which encourages agencies to tier environmental documents to eliminate repetitive discussions of the same issue. By use of reference to the AEA, the SEA concentrates on the issues specific to the proposed action. The SEA conforms to the guidelines for preparing environmental assessments in compliance with the requirements of 30 CFR 250.34 and NEPA using information presented in the AEA.

I. DESCRIPTION OF THE PROPOSED ACTION

A. GENERAL

Conoco Inc. filed a Plan of Exploration (POE), and Site-Specific Environmental Report (SER) on January 28, 1986, for Destin Dome Blocks 56, 57, and 99, Leases OCS-G 6406, 6407, and 6410. An Area Environmental Report (AER) previously prepared for a group of blocks in the Destin Dome Area by Continental Shelf Associates, Inc. (CSA, 1984) was referenced in Conoco Inc.'s SER. The area for which the exploration activities are planned is located approximately 41km (25.5 mi) due south of shore of Santa Rosa Island, Florida, and 144.8km (90 mi) west of the shorebase at Panama City, Florida (Figure I-1) in water depths at the proposed well sites of 58.5m (192 ft) in Block 56, 89.9m (295 ft) in Block 57, and 62.4m (205 ft) in Block 99 (Figure III-1). The designated operator is Conoco Inc.(Racal-Decca Survey, Inc., 1986c).

The objective of the proposed operation is to evaluate the hydrocarbon potential of Destin Dome Blocks 56, 57, and 99. A jack-up drilling rig, such as the "Chiles Yucatan" or similar equipment would be used to drill up to three exploratory wells. The specification for the actual drilling vessel and safety equipment to be used would be submitted along with the application for permit to drill. The surface locations for the three wells are shown in Figure I-2. The operator plans to commence drilling March 1986 with Well A (Block 56). The remaining two wells would be contingent upon the success of the first well (Racal-Decca Survey, Inc., 1986b). This action is considered routine for the Gulf of Mexico. For additional information concerning the proposed action, refer to Conoco Inc.'s POE.

B. EQUIPMENT AND SUPPORT SYSTEMS

The proposed three wells would be drilled with the jack-up drilling rig "Chiles Yucatan" or similar equipment, depending on the availability of rigs. The specification for the actual drilling vessel and safety equipment to be used would be submitted along with the application for permit to drill. During drilling operations, appropriate requirements of OCS Order No. 2 for gas detecting equipment to monitor mud returns and for Blowout Prevention (BOP) equipment to maintain well control would be met (Racal-Decca Survey, Inc., 1986b). Pollution spill prevention would be accomplished primarily by compliance with the design, equipment, and operation requirements of OCS Orders 2, 5, 7, and 8. Details of the safety and pollution prevention systems available on the "Chiles Yucatan" are contained in Conoco's POE (Ibid).

The onshore support and helicopter base both located in Panama City, Florida, would utilize existing facilities. No new construction, dredging, or filling would be required (Racal-Decca Survey, Inc., 1986c). Additional information on these facilities and the proposed activities expected to originate from them are included in Sections III.C.3 and IV.C.3 of this SEA.

C. SCHEDULE OF ACTIVITIES

Conoco Inc. proposes to drill three wells. The proposed drilling schedule is 154 days for each well with the first well (Well A, Block 56) commencing in March 1986. Drilling of the remaining two wells would be contingent upon the success of Well A (Racal-Decca Survey, Inc., 1986c).

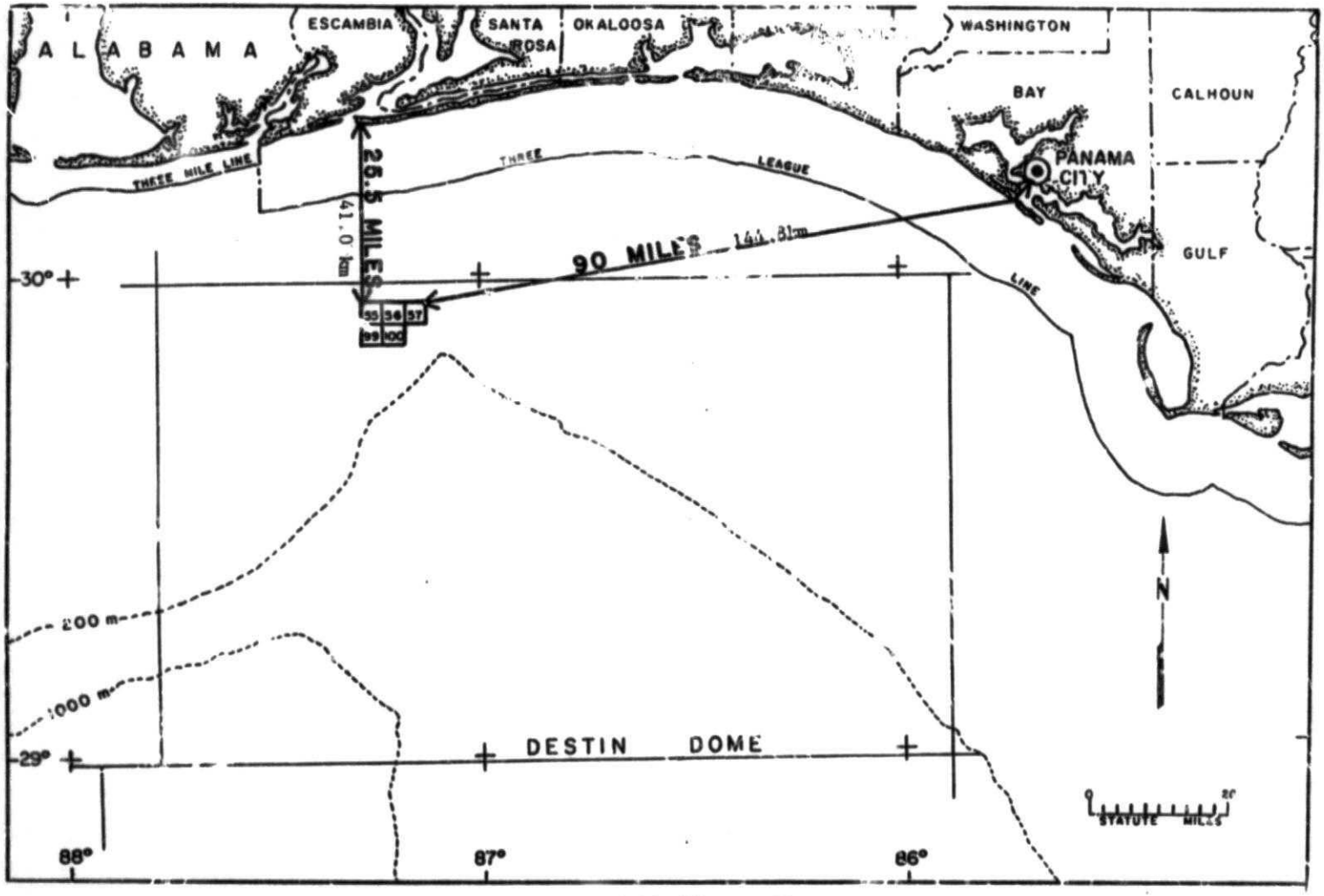

FIGURE I-1 GEOGRAPHIC LOCATION OF DESTIN DOME BLOCKS 56, 57, AND 99
SOURCE: RACAL-DECCA SURVEY, INC., 1986c.

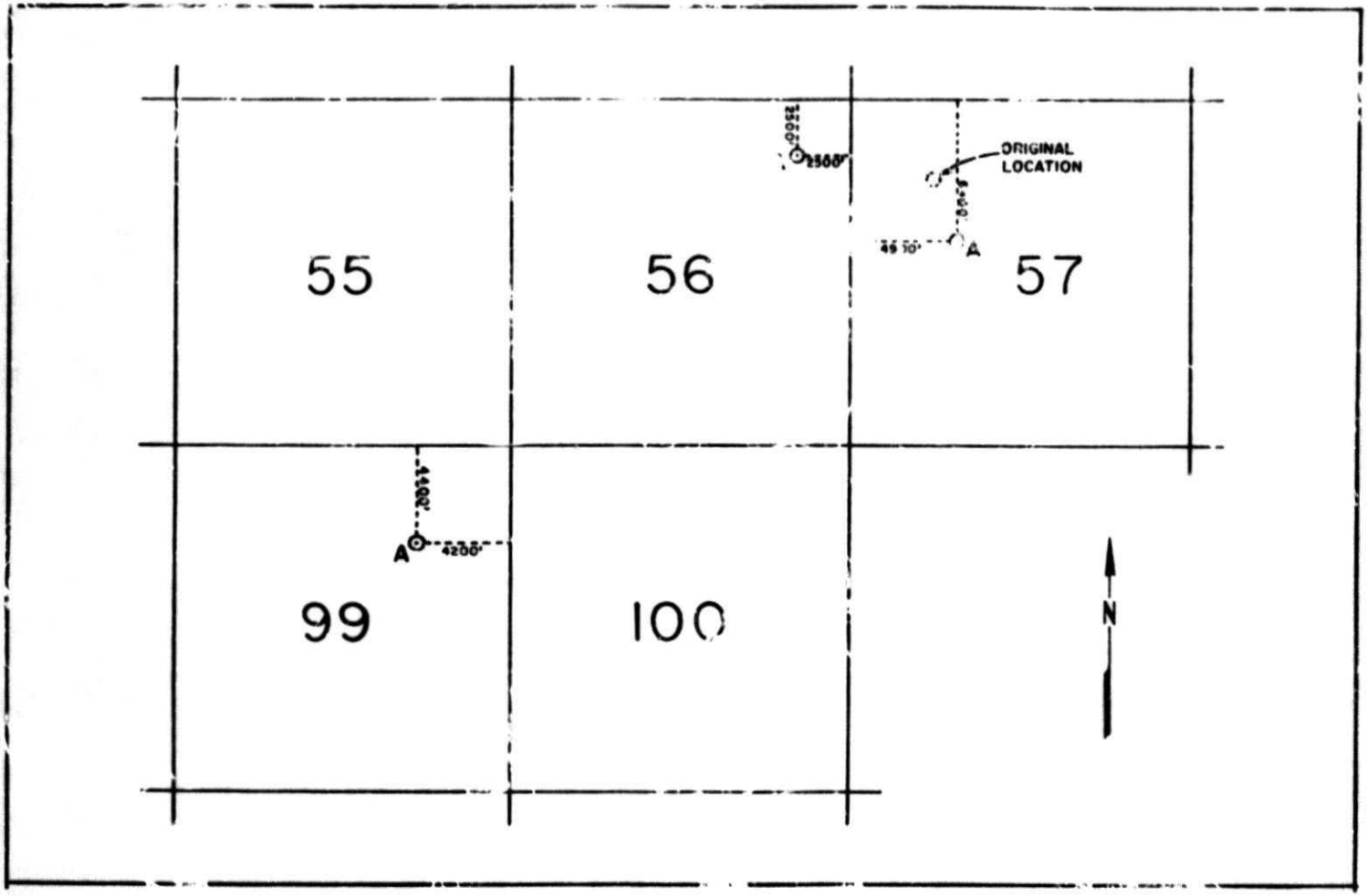

FIGURE I-2 PROPOSED LOCATION OF PROSPECTIVE EXPLORATORY WELLS IN DESTIN DOME BLOCKS 56, 57, AND 99
SOURCE: RACAL-DECCA SURVEY, INC., 1984

D. TRANSPORTATION ROUTES

Onshore facilities supporting the planned offshore activity include boat and aircraft operations. Three vessels would operate out of an existing dock facilities located in Panama City, Florida. Conoco Inc. would use one workboat (about 210 feet long), one crew boat (about 90 feet long) and one standby boat (about 90 feet long) in support of the drilling operation. It is anticipated that the workboat and crew boat each would make approximately one round trip per day from the dock to the rig site. The standby boat is expected to make one round trip per month to and from the rig. The route followed by all vessels from the dock site to Blocks 56, 57, and 99 would cover approximately 145 km (90 mi). Once the boats pass the end of the channel at the mouth of the bay, vessels would normally take the most direct route, weather and traffic conditions permitting (Racal-Decca Survey, Inc., 1986c).

Commercial airlines and other types of transportation would be used to carry drilling personnel from various locations on the Gulf coast to the Panama City - Bay County Airport. Rig personnel would be transported to the rig site by the crew boat. A helicopter would be used to transport small supplies, and on occasion, personnel to the drill site following the most direct route should weather and traffic conditions permit. Approximately two helicopter flights per day would originate from Panama City - Bay County Airport (Ibid).

E. PERSONNEL REQUIREMENTS

Rig personnel would total 100. Of these, about 50 would be on the rig at any given time. There would be two crews on the rig with a 12-hour on and 12-hour off schedule. A total of four crews would be needed and each crew would generally work a 7-days on and 7-days off schedule on a rotating basis. On occasion, there might be a Conoco safety specialist, geologist, engineer or drill supervisor on the rig depending on the specific operation (Racal-Decca Survey, Inc., 1986c).

Up to four contract dispatchers would man the onshore supply base at Panama City on an alternating basis. These personnel would work 12-hour shifts of a 7-days on and 7-days off schedule. In addition to the above employees at the onshore base, Conoco Inc. would contract a local crane service and unskilled labor as necessary. The number of locally hired laborers would probably not exceed four or five at a time (Ibid).

Twelve personnel would be required to operate the workboat, the crew boat and the standby boat at any one time during normal operations. Some deck hands may be hired from the local labor pool (Ibid).

Four pilots would operate the helicopter and a dispatcher and three mechanics would man the air terminal on a 7-days on/7-days-off basis. A total of 128 persons would be assigned to the drilling operation and related support activities (Ibid).

F. TECHNOLOGY

No new or unusual technology would be employed in the implementation of the proposed action (Racal-Decca Survey, Inc., 1986c).

G. CONTINGENCY PLANS

Pertinent information concerning contingency plans has been described in the AER (CSA, 1984, p. 3-6). An Oil Spill Contingency Plan with information

pertinent to drilling operations in the eastern Gulf of Mexico has been prepared by Conoco Inc. in accordance with OCS Order No. 7. Response to an accidental discharge of oil or other hydrocarbons would be in full accordance with laws and regulations (Racal-Decca Survey, Inc., 1986c).

Conoco Inc. is a member of Clean Gulf Associates (CGA) and appropriate CGA equipment has been located at the CGA bases in Venice and Grand Isle, Louisiana and Theodore, Alabama. Certain containment and cleanup resources have also been placed in Panama City, Florida, for supporting drilling operations in the eastern Gulf of Mexico (Ibid). Response time from the initial spill report to the deployment of CGA's Fast Response Unit (FRU) stockpiled in Panama City would be 12-14 hours if the vessel is in port at Panama City and 16-20 hours if the vessel is on site in the Destin Dome Area. However, Conoco Inc. would procure the earliest vessel of opportunity so as to keep the response time to a minimum. Response time from Louisiana would be expected to be 24-48 hours. The FRU is a self-contained oil recovery system that can be placed on the cargo deck of an offshore supply vessel and rapidly dispatched to the spill site. It has a maximum recovery capacity of over 8,500 barrels/12-hour working period and a storage capacity of 200 barrels which can be supplemented by mobilizing additional CGA tankage, chartered tank barges or vessels. Dispersants, subject to approval of the Federal On-Scene Coordinator and the State of Florida, would be used under proper environmental conditions for situations posing a threat to Florida's coastal resources or likely to impact the Florida coast. The initial decision on whether to use dispersants would be made based on weather conditions as well as the size and locale of the spilled oil. Dispersants would not be used near the projected time of the impact on land or other offshore environmentally sensitive areas (Racal-Decca Survey, Inc., 1986a). Additional information is contained in the site-specific oil spill trajectory and response plan for Destin Dome Blocks 55, 56, 57, 99 and 100 prepared by Racal-Decca Survey, Inc. (1986a).

The Hydrogen Sulfide (H_2S) Contingency Plan of Conoco Inc. includes the requirements for safe operations in areas of "unknown" potential for H_2S release in compliance with OCS Order No. 2, paragraph 8. The duties, responsibilities and training of rig personnel along with the logs and records of equipment calibration are outlined in this plan (Racal-Decca Survey, Inc., 1986c).

H. DISCHARGES AND EMISSIONS

1. General

Solid and liquid discharges and gaseous emissions would be generated by offshore and onshore activities and transportation operations resulting from the proposed plan of operation. At the drill sites, Destin Dome Blocks 56, 57, and 99 all discharges to the ocean would be under a National Pollutant Discharge Elimination System (NPDES) permit regulated by the U.S. Environmental Protection Agency (USEPA). The following description on discharges is based on the drilling of one exploratory well to a depth of 23,500 feet with a duration of 154 days. Should additional wells be drilled, discharges from each well would essentially be identical to those described for the first well since all wells are expected to be drilled to similar depth. Conoco Inc. would maintain full compliance with the NPDES Permit during all activities in the area (Racal-Decca Survey, Inc., 1986c).

2. Solid Wastes

Solid waste discharges from the rig would consist of drill cuttings and small amounts of other solids. The cuttings generated both at the bit and through erosion of the borehole walls, are brought to the surface by the drilling mud. Fluid returns are brought to the rig where cuttings are separated through the use of solids control equipment (i.e., shale shakers, centrifuges, etc). After separation, the cuttings are discharged overboard and most of the mud is retained. Cuttings discharge rates and volumes with respect to drill depth would vary during the duration of the well depending on hole size, rate of penetration and magnitude of the hole erosion, among other factors. No cuttings would be discharged while drilling the 21,000-23,500 foot interval since an oil-based drilling mud would be used. All cuttings discharge would be in compliance with approved NPDES permit. The rate of discharge of cuttings would be 1,663 gallons per day average. The total amount of discharge for one well would be 6,098 barrels (1,267 cu yd). This includes the calculated volume of the hole drilled plus an additional 50% for possible washout. These drill cuttings once separated from drilling mud that contained oil would be transported to an approved onshore disposal site in either Louisiana or Florida. Locations of commercial disposal sites in Florida are presented in the Appendix III of the SER, (Racal-Decca Survey, Inc., 1986c).

Other solid wastes would include combustibles (mud sacks, plastic containers, rages, miscellaneous timber and paper from the office and galley) and metals (casing protectors, used drill bits, cut drill line and metal scraps from the machine/welding shop). The combustibles, which average about 100 pounds per day, would be compacted and/or collected in metal trash containers and shipped to shore for disposal either by incineration or sanitary landfill. Some of the metal, such as casing protectors and used bits, may be reused or reworked. The remaining metal wastes, about 2000 pounds per week, would be sold as scrap (Ibid).

3. Liquid Wastes

Treatment of liquid waste effuents would be in compliance with the NPDES permit. The estimated daily quantity content and description of the discharges are as follows:

a. Sanitary Wastes

The rate of discharge would be approximately 2,000 gallons per day. However, peak usage of toilet facilities during early morning hours and in the evening would result in an instantaneous discharge rate of approximately 3,000 gallons per day. The total amount of discharge would be 308,000 gallons during the drilling of one well. The composition of the sanitary wastes would be human body wastes originated from commodes and urinals of the living quarters. Seawater would be supplied to the living quarters for sanitation. This water would be furnished to toilets and urinals and would be treated prior to discharge overboard. Wastes would be treated in a Omnipure U.S. Coast Guard Type II Marine Sanitation Device (Racal-Decca Survey, Inc., 1986c).

b. Domestic Wastes

The rate of discharge would be approximately 6,000 gallons per day depending on the size of the rig crew and the number of other company and service

personnel onboard. The total amount of discharge would be 924,000 gallons during the drilling of one well. The domestic waste water would originate from sinks, showers, washing machines, and the galley. Food scraps and other solids would be separated and not introduced into the domestic waste system. No floating solids would be discharged (Racal-Decca Survey, Inc., 1986c).

c. Drilling Fluids

Drilling mud is generally recycled. However, the drilling operation generates some native mud and the excess would be discharged to the sea. This discharge would also include occasional excess slurry generated while cementing casing strings. An oil-based drilling mud would be used for the interval 21,000-23,500 feet, therefore, no mud would be discharged during the drilling of this interval (Racal-Decca Survey, Inc., 1986c).

The rate of discharge would be approximately 55,740 gallons per day average. The rate at which drilling mud would be discharged would either be gradual and continuous or rapid and intermittent when jettisoned during a mud changeover, e.g., from a seawater spud mud to a lightly treated lignosulfonate freshwater/seawater mud. All mud discharge would be in compliance with an approved NPDES permit. The total amount of discharge for one well would be approximately 204,379 barrels (Ibid).

The composition of drilling muds used in a particular well program is determined by the condition encountered as the well is being drilled. The initial 1,700 feet to the conductor casing setting depth would be drilled with seawater. Periodic slugs of gel would be pumped to facilitate hole cleaning. From 1,700 feet to 5,000 feet, a freshwater mud would be used. It is planned that a non-dispersed freshwater mud system would be used from 5,000-12,000 feet, followed by a lignosulfonate freshwater mud system from 12,000-15,000 feet, and a dispersed freshwater mud system from 15,000-21,000 feet. Drilling mud constitutents in the proposed mud system include barite, bentonite, lignosulfonate (chrome or ferrochrome), lignite (untreated or chrome-treated), sodium hydroxide, sodium bicarbonate, sodium carbonate, and calcium hydroxide (Ibid). Additional information on the mud system components is contained in the operator's POE (Racal-Decca Survey, Inc., 1986a). From 21,000 to 23,000 feet, a weighted mineral oil-based mud system would be used and no mud discharge would occur during this time. When special hole problems occur it may be necessary to add small quantities of (1) lost circulation materials such as wood fibers, cotton seed hulls, plastic foil flakes or flake mica; (2) drilling detergents; (3) starch; (4) drilling surfactants; and (5) shale conditioners such as aluminum lignosulfonate. Effluents would contain no free oil, floating solids or visible foam. Should batches of drilling fluids containing oil have to be used (such as Pipe Lax that contains diesel) the contaminated mud would be circulated out of the hole, caught and contained to prevent disposal into the ocean. Such batches would only be used if permitted by the NPDES Permit and if required to free stuck pipes. Oil-based mud would be collected and either transported to commercial disposal sites in Louisiana or Florida for proper disposal or returned to supplier for reclamation (Ibid).

d. Other Water

(1) Freshwater Maker Blowdown

For each gallon of potable water produced, about 40 gallons of blowdown would be discharged overboard. The volume of potable water produced would range

up to 14,880 gallons per day, depending on the number of distillation units (up to 2) in operation, with a blowdown of about 591,840 gallons per day. The total amount of discharge would be 91,143,360 gallons during the drilling of one well. The composition would be partially concentrated seawater with an effluent temperature of approximately 20°F above ambient. The blowdown would be cooled with incoming seawater (Racal-Decca Survey, Inc., 1986c).

(2) Deck Drains

The rate of discharge would be approximately 6,622 gallons per day assuming an average rainfall of 61 inches per year in the area. The actual discharge rate and quantity would be dependent upon the actual rate of rainfall. The total amount of discharge would be 1,019,788 gallons during the drilling of one well. The composition would be rain water and wash water with no free oil or grease. All contaminated deck drains and machinery bilges are routed through the oil water separator system on the rig, which contains a gravity separator to separate any oil from water. The oil would be routed to a waste oil tank and subsequently transferred to shore where it would be sold to a used oil recycle operator. This quantity is expected to be about 100 gallons per month. The discharge from the gravity separator would not contain any free oil. Drains from clean deck areas are routed directly overboard (Racal-Decca Survey, Inc., 1986c).

(3) Non-Contact Cooling Water

The rate of discharge would be approximately 1,152,000 gallons per day. The total amount of discharge would be 177,408,000 gallons during the drilling of one well. Non-contact seawater would be used to provide cooling for the main engines, auxiliary engines, propulsion, thrusters, and various refrigeration and air conditioning units (Racal-Decca Survey Inc., 1986c).

(4) Produced Water

The rate of discharge of produced water would be 1,000 barrels per day. The total amount of discharge of produced water would be approximately 1,000 barrels during the drilling of one well. Produced water is subterranean water, or brine, that remains after oil is produced, separated, and processed. This would occur only in the instance that a production test is conducted on the completion of drilling. This test would typically last 24 hours and much of the produced water would be vaporized as the hydrocarbon is burned. The produced water would contain traces of oil (less than 72 mg/l) and would be a brine solution similar to seawater. The oil-water mixture would be processed in a gravity separator to treat the produced water to achieve essentially an oil free, water discharge (Racal-Decca Survey, Inc., 1986c).

(5) Fire Control System Test Water

The rate of discharge would be approximately 9,000 gallons per day. The total amount of discharge would be 1,386,000 gallons during the drilling of one well. The firewater system would use non-contact seawater for fire prevention. This discharge would result from checking the operation of the system on a daily basis (Racal-Decca Survey, Inc. 1986c).

4. Gaseous Wastes

Exploratory activities in Destin Dome Blocks 56, 57, and 99 would consist of drilling, testing, completion and/or abandonment operations. The distance to the nearest landfall is 41km (25.5 mi). Projected air emissions from offshore sources and exemption levels are presented in Table I.1 except for production testing. Production testing (should hydrocarbon be discovered) would result in the emissions of 9.86 tons of CO, 0.68 ton of VOC, 0.544 ton of SO_2, and negligible amounts of NO_x and particulates assuming a flow of 10,000 barrels of oil per day and 10M MCFD of gas, with the combustion products emitted from a 24-hour test. The estimated actual emissions for the project are less than the exemption levels, thus exempting these activities from further air quality reviews (Federal Register, 45(47), Friday March 7, 1980) (Racal-Decca Survey, Inc. 1986c).

Onshore emission levels should be minor and temporary during helicopter takeoffs and landings, as well as when the work boat and crew boat are in transit in the harbor or at the dock with generators running (Ibid).

I. STATE CERTIFICATION

The State of Florida has an approved Coastal Zone Management (CZM) Program; therefore, a Certificate of Coastal Zone Consistency is required for the State of Florida regarding the proposed activities. In accordance then, with the requirements outlined in 15 CFR 930, Conoco Inc. submitted their State of Florida Coastal Management Consistency Certification and Consistency Assessment to MMS on January 28, 1986. The operator's POE, SER, and AER were submitted to the Office of the Governor, State of Florida, and the Federal coordinator for Florida's CZM Program in accordance with 30 CFR 250.34. CZM and the State of Florida's Comments were not available prior to the plan approval date. Refer to Section V. Consultation and Coordination.

J. MEASURES FOR COMPLIANCE

No special monitoring programs, over and above those required by OCS Orders, Notices to Lessees and Operators (NTL), and applicable regulations, are required for the proposed action. These regulations provide for training of employees and the design, installation, operation, and maintenance of equipment in a manner which conserves and protects other resources or activities. Inspections are conducted regularly by MMS personnel to enforce all OCS Orders and Regulations, Notices to Lessees and Operators, etc. Monitoring programs for detection and control of oil and hazardous waste spills have been addressed in Section I.G. Action to be taken by Conoco Inc. to limit pollution effects are contained in the POE, SER, and Oil Spill Trajectory and Response Plan. The discharges from the drilling rig would be monitored as required by the USEPA NPDES Permit. The operator states that full compliance with the NPDES permit and Sale 79 Lease Stipulations Nos. 1; 2; 4; and 6 during all drilling activities in Blocks 56, 57, and 99 would be maintained (Racal-Decca Survey, Inc., 1986c).

K. NEARBY PENDING ACTIONS

Presently in the AEA area there are several proposed actions, however, there are none within the immediate vicinity of Destin Dome Blocks 56, 57, and 99. Amoco Production Company has an approved POE for exploration activities in Destin Dome Block 204 (N-2028), (R-1392) and Chevron has approved POE's for

Destin Dome Block 422 (N-1975) and Blocks 116, 158, and 159 (N-2015). Exxon Corporation has approved POE's in Destin Dome Area, Block 115 (N-2163), and Block 284 (N-1768). Sohio has an approved POE for Pensacola Area, Block 948 (N-1863). Texaco U.S.A. has an approved POE for Destin Dome Block 285 (N-2041). Conoco, Inc. has an approved POE for Destin Dome Blocks 375 and 419 (N-2074). Shell Offshore Inc. has an approved POE in Destin Dome Block 160 (N-1626).

Table I-1

PROJECTED EMISSIONS FROM OFFSHORE SOURCES AND EXEMPTION LEVELS IN TONS PER YEAR.

	Engines	Helicopter	Boats	Total
NO_x	52.92	0.21	349.06	402.19
CO	11.45	2.08	51.13	64.66
VOC	4.23	0.19	11.65	16.07
TSP	3.78	0.09	10.49	14.36
SO_2	3.52	0.07	23.54	27.13

Exemption Levels:

CO: $3400 (D)^{2/3} = 3400 (25.5)^{2/3} = 29456$

NO_x, VOC, TSP, SO_2: 33.3 (D) = 33.3 (25.5) = 849

D = distance to nearest landfall in statute miles

Calculations:

(1) All engines and boat emissions, except TSP, are based on U. S. Environmental Protection Agency (1977a, Table 4-4) using emission rates for oil-fired reciprocating engines. The TSP rate is approximated by assuming that TSP is equal to 90% of VOC, which is the ratio between TSP/VOC for diesel engines (U. S. Environmental Protection Agency, 1977b, Table 3.3.3-1).

(a) Total horsepower requirement for drilling is based on 60 hp-hr/ft (U. S. Environmental Protection Agency, 1977a, Table 4-3). The total drill footage for the 3 wells is estimated at 72,500 feet and the drilling duration is approximately 462 days (154 days per well average). This is equivalent to a drilling rate of 57,273 feet per year.

(b) Horsepower requirement for 1 work boat, 1 crew boat and 1 standby vessel is expected to be 24,569,411 hp-hr/yr based on 1 round trip per day for the work boat and crew boat respectively and 1 round trip per month for the standby boat. Such requirement is derived as follows:

Time requirement for 1 round trip:

$$2 \times \frac{90}{1.1508} \text{ nautical miles} \times \frac{\text{hr}}{10 \text{ kt}} = 15.64 \text{ hr}$$

(i) 210-foot Work Boat:

$$4160 \text{ hp} \times 0.8 \text{ load factor} \times \frac{15.64 \text{ hr}}{\text{trip}} \times \frac{365 \text{ trips}}{\text{year}}$$

$$= 18,998,221 \text{ hp-hr/yr}$$

(ii) 90-foot Crew Boat:

$$900 \text{ hp} \times 0.8 \text{ load factor} \times \frac{15.64 \text{ hr}}{\text{trip}} \times \frac{365 \text{ trips}}{\text{year}}$$

$$= 4,110,192 \text{ hp-hr/yr}$$

(iii) 90-foot Standby Boat:

$$165 \text{ hp} \times 0.8 \text{ load factor} \times \frac{23 \text{ hr}}{\text{day}} \times \frac{353 \text{ days}}{\text{year}}$$

$$= 1,071,708 \text{ hp-hr/yr}$$

$$900 \text{ hp} \times 0.8 \text{ load factor} \times \frac{1 \text{ hr}}{\text{day}} \times \frac{353 \text{ days}}{\text{year}}$$

$$= 254,160 \text{ hp-hr/yr}$$

$$900 \text{ hp} \times 0.8 \text{ load factor} \times \frac{15.64 \text{ hr}}{\text{trip}} \times \frac{12 \text{ trips}}{\text{year}}$$

$$= 135,130 \text{ hp-hr/yr}$$

(2) Helicopters are expected to make 2 flights per day. [illegible] takeoff cycle at the rig are [illegible] Agency (1977b, Table 3.2.1-3).

SOURCE: RACAL-DECCA SURVEY, INC., 1986c.

II. ALTERNATIVES TO PROPOSED ACTION

Alternatives to approval of the proposal as originally submitted are:

Nonapproval of the proposal - Conoco Inc. would not be allowed to undertake the proposed Plan of Exploration activities in Destin Dome Blocks 56, 57, and 99. This alternative could prevent discovery and development of much needed hydrocarbon resources and would result in loss of royalty income for the United States. Considering this aspect and the fact that minimal impacts are anticipated, this alternative was not deemed necessary.

Approval with additional mitigation - In the course of this evaluation process, the following protective measures were identified to further mitigate the environmental impacts associated with the proposal.

1. Due to the possibility of the presence of H_2S gas, sensors should be installed and operational at a depth of 1,524m (5,000 ft) subsea.

2. In compliance with the lease stipulation regarding control of electromagnetic emissions and operations of boat and/or aircraft traffic into the designated military warning area W-155, the operator must enter into an agreement with Naval Air Training Command, Training Wing Six, Naval Air Station, Attention: Lt. Commander J. J. Guardino, Pensacola, Florida 32508, Telephone: (904) 452-2305 or (904) 452-2735 (Scheduling).

3. Although the operator's lease is not within military warning area W-151 the plan indicates that boat and/or aircraft traffic would traverse this area. The operator has indicated that their onshore support base would be Panama City, Florida; therefore, in order to provide control of electromagnetic emissions and the operations of boat and/or aircraft traffic the operator should enter into an agreement with Commander, Armament Division, Attention: Howard Dimmig/CCN, Eglin AFB, Florida 32542, Telephone (904) 882-5558.

4. Although the operator's lease is not within the Naval Coastal Systems Center Area (NCSC), the plan indicates that boat and/or aircraft traffic would traverse this area. The operator has indicated that their onshore support base would be Panama City, Florida; therefore, in order to provide control of electromagnetic emissions and the operations of boat and/or aircraft traffic entering into the NCSC area, the operator should consult with the NCSC Center, Code 30, Attention: Commander Buckley or Mr. C. M. Callhan, Panama City, Florida 32407, Telephone (904) 234-4462.

In addition to these measures, appropriate OCS Orders, regulations, and procedures are believed sufficient to prevent significant adverse impacts. Measures which Conoco Inc. proposes to implement to limit pollution effects are discussed in the plan, SER, and AER. Outer Continental Shelf Orders, Notices to Lessees and Operators, and Sale 79 Lease Stipulations Nos. 1; 2; 4; and 6 were identified throughout this assessment as existing mitigation for potential environmental impacts associated with the proposed POE.

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. PHYSICAL ENVIRONMENT

1. Environmental Geology and Hazards

a. General Description of Geology

Water depth variations for Destin Dome Blocks 56, 57, and 99 are indicated on Figure III-1 Bathymetry Map. Greatest depth within the survey area [101m (330 ft)] occurs within the trough in Block 57. There are two topographic regimes in the survey area which includes Destin Dome Blocks 55 and 100, separated by an apparent fault which trends southwest-northeast from the northeast quarter of Block 99 to the northwest quarter of Block 57. North of the fault the seafloor slopes to the southeast from 31.4 to 55m (103 to 180 feet) a rather uniform gradient of approximately 30 feet per mile. South of the seafloor offset (the 190 feet isobath), the bottom is more irregular and consists of local topographic highs and lows and a broad depression. The seafloor is especially irregular in the south-central portion of Block 99 where local topographic highs coincide with hard bottom areas at the depths of approximately 61-64m (200 210 ft). A broad depression or trough is located south of the seafloor scarp and extends from the southeast corner of Block 56 and across the central section of Block 57. These blocks are located on the Santa Rosa Arch and is along a portion of the northwest border of De Soto Canyon. The sediment type in the vicinity of these blocks has been described as medium sand with a mean sand fraction of 89.99 percent (Marine Technical Services, Inc., 1985).

Additional information is included in this section of the AEA and the operator's hazard study.

b. Potential Geologic Hazards

The shallow hazard study over Blocks 56, 99, and a portion of Block 57 indicates, that the proposed well locations are free of geologic hazards such as sediment slump areas, fractures and possible biogenic gas deposits (Racal-Decca Survey, Inc. 1986c). No significant or major magnetic anomalies were recorded during the survey. Those potential magnetic anomalies given in the hazard study appear to be noise spikes and not true magnetic anomalies. Side scan records indicate the presence of irregular or hard bottom areas which include reef like structures. These areas occur in the southern half of Block 99 and along the major seafloor offset. Other side scan targets include a possible gas seep at Shot Point 416 on Line 151 and a drag or other low relief scar that crosses Lines 155 through 157 in the south-central portion of Block 57. The faults present in the survey area are of two types 1) those associated with the irregular and/or hard bottom anomalies- including reef-like structures and 2) those away from these features (Marine Technical Services, Inc., 1985).

2. Meteorological Conditions

Information in the following sections is included in the AEA.

. Temperature

b. Cloudiness and Visibility

c. Wind

d. Precipitation

e. Severe Weather

3. Physical Oceanography

Information in the following sections is included in the AEA.

a. Sea Temperature and Salinity

b. Currents

c. Tides and Sea State

B. BIOLOGICAL ENVIRONMENT

1. Coastal Habitats

Information in this section is included in the AEA.

2. Offshore Habitats

a. Pelagic Environment

Information in this section is included in the AEA.

b. Benthic Environment

A potential shallow geologic hazards survey of the area, conducted by Marine Technical Services Inc. (1985) revealed the presence of several potential hard/live bottoms in the survey area. The dominant bottom substrate encountered in Blocks 56, 57, and 99 during the photodocumentation survey consisted of sand and shell hash. This habitat supported an Inner and Middle Shelf Sand Bottom Assemblage. Commonly observed species of this assemblage included the black wing sea robin, pancake batfish, sand dollar, thorny seastar, galathied crab, and long-fin squid. The survey area appeared to be barren of demersal fishes during daylight hours, but after nightfall a diverse population would emerge. Almost no benthic macrophytes were sighted; only the red algae Gracilaria mamillaris was noted, and in very sparse distributions. Numerous small (2 to 4 feet in diameter), shallow (1 foot deep) depressions in the sand, typically filled with dense colonies of thin calcareous polychaete tubes, were noted. Biological assemblages inhabiting the seafloor trough in Block 57 are probably identical to the sand bottom assemblage described above. The turbidity of the water in this area reduced visibility thereby limiting the scope of seafloor observations in this area (John E. Chance and Associates, 1985).

The hard/live bottom areas of the survey area supports an Inner and Middle Shelf Live Bottom Assemblage II. These hard bottom areas support a very productive biological assemblage dominated by numerous fish species (Ibid).

The 27,000 foot long hard bank in Blocks 56, 57, and 99 was the most diverse and productive live bottom area encountered. No hermatypic (reef-building) corals were sighted, but several small, branching colonies of Madracis asperula were observed, as well as Cladocora sp. and the solitary coral

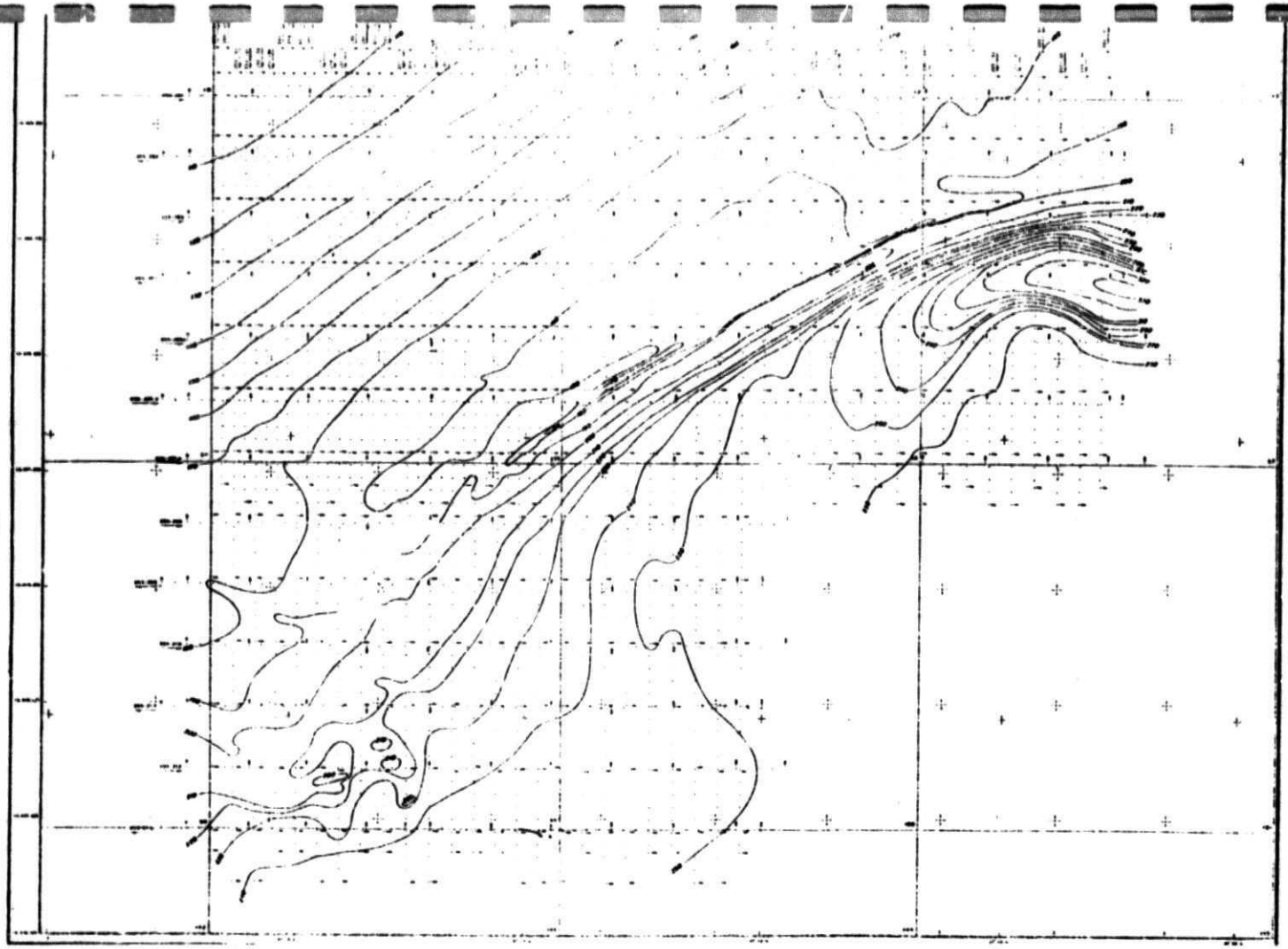

FIGURE III-1 BATHYMETRY MAP
SOURCE: RACAL-DECCA SURVEY, INC., 1986.

Paracyathus sp. These corals were very sparsely distributed and thus could not be adequately quantified (Ibid).

Biotic zonation of the bank was apparent. One such zone occupies the very top of the bank, which is essentially flat, approximately 31 to 46m (100 to 150 ft) wide, and is covered with a very thin veneer of sediment. This plateau-like area supports a dense assemblage of alcyonarian sea fans, mostly Bebryce sp. and Scleracis sp. Rarely, specimens of the vase sponge Ircinia campana were sighted but no other taxa, including fish, were observed in abundance in this area. The other biotic zone occupies the rugged slopes on both sides of the plateau. The numerous cracks and crevices on the bank and the sandy troughs situated between the jointed blocks are densely inhabited by reef fish such as yellowtail reeffish, creole fish, blue angelfish, spotfin hogfish, bank butterflyfish, and reef butterflyfish. The hard substrate here also provides a habitat for several sponge species, comatulid crinoids, Diadema antillarum, and ahermatypic corals. In contrast, only an occasional antipatharian and very few alcyonarian fans were observed here (Ibid).

The small, scattered, hard/live bottom areas within Block 99 are inhabited by a species assemblage similar to the bank, but do not harbor the density of organisms that the bank does. The majority of these live bottom areas supported such epifauna as sponges, alcyonarian fans, and antipatharians, but other areas, barely emergent from the seafloor and partially covered with sand, only supported such fouling organisms as hydroids, bryozoans, and small encrusting sponges. Fouling organisms covered 30.5 percent of these poorly developed areas. The typical live bottom areas in Block 99 were low relief [0.3 [illegible] (1 to 2 ft)], but occasional outcrops of 1 to 2m (4 to 6 ft) in [illegible] scattered throughout the area. These areas are more densely inhabi[illegible]ora's than the plateau of the hard bank, but the fans are much smalle[illegible] cover a significantly greater area (Ibid).

The smallest and least productive live bottom area w[illegible] the southwestern quadrant of Block 57, south of the seafloor trou[illegible] sea fans were present at a low density. The only fish species sighted was a small school of vermilion snapper (Ibid).

Live bottoms are further discussed in Section III.B.2.c.

c. Sensitive Underwater Features

As discussed in the AEA, live bottoms areas in the eastern GOM have been determined to be important enough for protection by MMS in the form of special lease stipulations. The shallow geologic hazards survey conducted over the area indicated the presence of several potential hard/live bottoms, therefore, as required, a photodocumentation survey was conducted by John E. Chance & Associates, Inc. (August, 1985). The most extensive live-bottom area is a reef structure that extends from the northeast quadrant of Block 99, runs diagonally through Block 56 and terminates in the northwest quadrant of Block 57. The present proposed location of Well A (Block 57) lies 762m (2,500 ft) southeast of a live bottom area associated with reef-like structures containing 10.9 percent coverage (density of 7.6) of Alcyonarians (Epifauna) and 1,066m (3,500 ft) northwest of the patchy low-relief hard/live bottom area. The proposed location of Well A (Block 56) lies 1,127m (3,700 ft) northwest of a live bottom area associated with reef-like structures containing 11.0 percent coverage (density of 5.4) of Alcyonarians and 35.8 percent coverage of sponges (Epifauna). The proposed location of Well A (Block 99) lies 610-701m (2,000-2,300 ft) west-northwest of three separate patchy low-relief hard/live bottom areas (John E. Chance and Associates, Inc., 1985). The biotic zonation and common inhabitants

of these live bottom areas found in the survey area are discussed in Section III.B.2.b above. Additional information on this is included in the SER; Photo-Documentation Survey by John E. Chance & Associates, Inc. 1985; and Appendix C of this SEA.

3. Endangered or Threatened Species

Information in this section is included in the AEA.

4. Breeding Habitats and Migration Routes

Information in this section is included in the AEA.

5. Protected Areas of Biological Concern

Information in this section is included in the AEA.

C. SOCIOECONOMIC CONDITIONS AND CONCERNS

1. Economic and Demographic Conditions

a. Related Employment and Unemployment

Onshore support facilities for the proposed plan would be located at Panama City, Florida (Racal-Decca Survey, Inc., 1986c). Average employment and unemployment data for northwest Florida is given in Section III.C.1.a. of the AEA.

b. Location and Size of Related Population Centers

Location and size of related population and industry centers in northwest Florida coastal region is described in the AER (CSA, 1984, p. 152). Also, population growth for the coastal counties within the surrounding area is given in Section III.C.1.b., Table III-10 of the AEA.

c. Location and Size of Related Industry Centers

Refer to the AER (CSA, 1984) for a discussion of the location and size of related industry centers. Additional information is included in this section of the AEA.

2. Land Use

a. Existing Community Services

Community services in major industry centers in northwest Florida are given in the AER (CSA, 1984, p. 152-154).

b. Existing Transportation Systems and Facilities

Transportation systems in northwest Florida, including highways, railroads, airports and harbors, are described in the AER (CSA, 1984, p. 115-156).

c. Supply and/or Existence of Coastal Resources

Coastal resources in northwest Florida, including ports and harbors, have been described in the AER (CSA, 1984, p. 156-158).

3. Onshore Support Facilities

Conoco Inc. would use an existing onshore support base operated by Baroid Drilling in Panama City for the coordination of offshore activities in Destin Dome Blocks 56, 57, and 99. Existing dock space would be leased from either Baroid or the Port of Panama City. Storage space with an approximate area of 6,000 sq. ft. would also be leased from the Port of Panama City. It would be used to store miscellaneous materials prior to transportation to the drilling rig. It is possible that a temporary structure (e.g., trailer) would be moved into the base area to serve as an office and temporary living quarters for onshore personnel. Any trailers brought in would be located in Barioid's existing leased area and hooked to municipal water and sewage. No new facilities would be required and no new land acquisition or construction of new support bases is anticipated as a result of the proposed activities in Destin Dome Blocks 56, 57, and 99. (Racal-Decca Survey, Inc., 1986c). Additional information is included in this section of the AEA.

4. Public Opinion

The public hearings of Sale 79 were held in Mobile, Alabama on October 6, 1982, where no one testified, and in Tampa, Florida on October 7, 1982, where 18 persons testified. A total of 89 letters were received by the MMS regarding Sales 79. Public comments concerning OCS activities off northwest Florida have been described in the AER (CSA, 1984, p. 152 and 155).

The State of Florida's concerns and potential issues discussed during the public hearing for Sale 79 were as follows: (a) coastal related tourist economy, (b) coastal recreation, (c) commercial fishing and related coastal and offshore ecosystems, (d) endangered and threatened wildlife (manatees and sea turtles), and (e) designated environmentally unique, sensitive, and/or important areas. The State of Florida comments related to several specific concerns: environmental studies, oil spills, and nearshore-onshore impacts. The State of Florida has requested that the Environmental Studies Program be timed to coincide with the occurrence of lease sales in the eastern Gulf of Mexico so that necessary data are available to make informed decisions. The State and local governments expressed particular concern about the possibility that an oil spill would damage the sensitive coastal environment and tourist associated industries in Florida. The State also expressed concern over the nearshore and onshore impacts that may result from OCS development (CSA, 1984).

5. Navigation

The fairway nearest to Blocks 56, 57, and 99 which runs north-south to the Florida coastline and transects the western edge of Block 99 is called the Pensacola Fairway (USDI, MMS, 1984b, Visual No. 11). Cargo and crew boats supporting this activity would utilize the nearshore portion of the shipping fairway leaving from Pensacola, Florida to Panama City, Florida. Additional information is included in this section of the AEA.

6. Military Warning/Use Areas

Destin Dome Blocks 56, 57, and 99 are located within Military Warning Area No. W-155 (USDI, MMS, 1984b, Visual No. 11). Therefore, in accordance with Lease Stipulation No. 4, regarding control of electromagnetic emissions and operations of boat and/or aircraft traffic into the designated military warning area(s) W - 155 the operator must enter into an agreement with Naval Air Training Command, Training Wing Six, Naval Air Station, Pensacola, Florida. Although the operator's lease is not located within Military Warning Area W-151, the plan indicates that boat and/or aircraft traffic would traverse this area. Therefore, prior to plan approval the operator should consult with the Commander, Armament Division, Eglin Air Force Base, Florida. In addition, although the operator's lease is not located within the Naval Coastal Systems Center Area (NCSC), the plan indicates that boat and/or aircraft traffic would also traverse this area. The NCSC conducts testing between April and October with peak operating months during the summer. During this period, oil companies may be requested to stand down from activity for 5- to 10-day periods (to a maximum of 15 days), as determined by the NCSC testing schedule. Companies would be able to operate essentially unrestricted during the November to March timeframe. Prior to plan approval, the operator should also consult with the Naval Coastal Systems Center. Additional information is included in this section of the AEA.

7. Commercial Fishing

Information in this section is included in the AEA.

8. Recreation

Information in this section is included in the AEA.

9. Cultural Resources

Blocks 56, 57, and 99 lie outside of both the Prehistoric and Historic Cultural Resources High Probability Lines. These lines are reflection of "high probability" limits based on a zonation map developed as a synthesis of the known archaeological record for the entire Gulf Coast; an interpretation of possible prehistoric settlement patterns based on the geomorphology of the Outer Continental Shelf, and data in the occurrence of known historic shipwrecks in the northern Gulf of Mexico from 1500 A.D. through 1945 A.D. (CEI, 1977). Based on the study by Coastal Environments, Inc., a Cultural Resource Survey for the proposed action is not required (Ibid.). Table III-18 of the Final Environmental Impact Statement (FEIS) for Lease Sales 94, 98, and 102 indicates that no historic shipwrecks are known within or adjacent to Blocks 56, 57, and 99. No evidence of known cultural resources exist within or adjacent to these blocks. Conoco Inc. would comply with Stipulation No. 1 governing the discovery of sites, structures and objects of historical or archaeological significance during operations in these leased blocks (Racal-Decca Survey, Inc., 1986c). Additional information is included in this section of the AEA.

10. Water Quality and Supply

Information in this section is included in the AEA.

11. Air Quality

Onshore - The onshore area affected by this operation includes a support terminal at Panama City, Florida in Bay County, Florida. Bay County is included in air quality control region Number 5. The area is a Class II attainment area. Because the supply base is an established base under use, no significant differences are expected in the concentration of pollutants due to storage or transfer of fuel. Additional information is included in this section of the AEA.

Offshore - Operations would be conducted on the OCS 41km (25.5 mi) from the nearest onshore area located in Santa Rosa County, Florida. The air quality of the offshore area is considered better than the national standards for all air pollutants; however, due to the lack of data the area is unclassified.

12. Other Commercial Uses

Information in this section is included in the AEA.

13. Other Mineral Uses

Information in this section is included in the AEA.

14. Pipelines and Cables

Since the proposed operations are exploratory, there would be no pipelines constructed as a result of this activity. Additional information is included in this section of the AEA.

15. Ocean Dumping

Information in this section is included in the SEA.

IV. ENVIRONMENTAL CONSEQUENCES

A. OIL SPILLS

1. Oil Spill Accidents

A complete discussion of the causes of both major and minor oil spills resulting from exploration activity in the Gulf of Mexico is included in Section IV.A.1 of the AEA.

2. Vulnerability of Coastal Land Segments to Oil Spills

A summary of the trajectory analysis (for 10 days) simulated as a part of the Oil Spill Risk Analysis is presented in Table IV.4 of the AEA. Refer to Section IV.A.2 of the AEA for background information concerning these hypothetical oil spill trajectories.

Destin Dome Blocks 56, 57, and 99 falls within the oil spill area 85, (see Figure IV-1 of the AEA). Impacts from an oil spill occurring in this oil spill area would be felt in the coastal land segments extending from Hancock, Harrison, and Jackson Counties in Mississippi, to Escambia & Santa Rosa Counties in Florida. Coastal land segment 23 (Baldwin County, Florida) would be the most vulnerable with a 20% chance that an oil spill occurring in oil spill area 85 would contact this area within 10 days. The percent chance that an oil spill occurring in oil spill area 85 would contact Hancock, Harrison, and Jackson County, Mississippi in this same time span is 1%; Mobile County, Alabama - 9%; Baldwin County, Florida 20%; and Escambia and Santa Rosa County, Florida - 13% (USDI, MMS, 1984a). Refer to Section IV.B.3.d of the Final Regional Impact Statement (USDI, MMS, 1983) for a discussion of the factors affecting the severity of an oil spill.

The prospect of there being an oil spill is guarded against through utilization of state-of-art drilling and blowout prevention equipment and through the use of best possible drilling practices by thoroughly trained personnel. These safeguards would be reinforced by operations curtailment programs enforced whenever sea state and weather conditions require. In the unexpected event than an accidental oil spill should occur, Conoco Inc. would conduct an emergency response to contain and cleanup the spilled oil. General resource mobilization and response plans are outlined in Conoco Inc.'s approved Oil Spill Contingency Plan for the Gulf of Mexico, along with Conoco Inc. Response Plan (Racal-Decca Survey, Inc., 1986a).

In summary, the risk due to the proposed activity appears small. Most spills would be naturally dispersed within 60 days. In addition, most spills would be subjected to containment and cleanup efforts. The operator is a member of CGA which has spill containment and cleaning equipment strategically located along the Gulf Coast (Racal-Decca Survey, Inc., 1986c). Details of Conoco's Inc. alert, reporting, and cleanup procedures are contained in the POE, SER, and Oil Spill Trajectory Analysis and Response Plan. In addition, MMS conducts reviews of the various applications for compliance with OCS Orders, notices to Lessees, etc., to insure safe drilling operations. A description of the BOP equipment and diverter system is contained in the SER.

3. Effects of Oil Spills on the Environment

Refer to Section IV.A.3. of the AEA for discussions to oil spill impacts to coastal habitats, benthic communities, endangered or threatened species, other

wildlife including migratory waterfowl, commercial fishing, recreation/tourism, cultural resources, water quality, and air quality.

Due to distance from shore 41km (25.5 mi) and the water depth approximately 58.5 to 89.9m (192 to 295 feet) at the well sites, existing measures, regulations, and cleanup procedures outlined in Section IV.A.2, should be sufficient to effectively mitigate any potential oil spill impact on the environment to an insignificant level.

B. ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTIVITY

1. Impacts Concerning Geology

In order to identify potential geological hazards, the available geological and geophysical data for Destin Dome Blocks 56, 57, and 99 was reviewed by the Metairie District staff which resulted in a recommendation of approval (Appendix B). Due to the possibility of the presence of H_2S gas, the Metairie District Supervisor recommended that H_2S sensors be operational when drilling at a depth of 1,524m (5,000 ft) subsurface. Possible fault cuts are indicated at approximately 266m (873 ft) and 1,139m (3,703 ft) subsurface for Well A (Block 56) and 236m (775 ft) subsurface for Well A (Block 99) (Appendix B, Hazards Review). Although Well A in Block 57 is located on the north wall of a sea trough, no problems are anticipated by the Metairie District Supervisor during the drilling of this well. All of the proposed well locations avoid the areas of irregular and/or hard bottom - including reef-like structures or areas of high reflectivity (Marine Technical Services Inc., 1985). Compliance with NTL 83-3 would be maintained throughout the drilling operations by Conoco Inc. (Racal-Decca Survey, Inc., 1986c).

2. Impacts Concerning Meteorology

Mitigation to be taken by Conoco Inc.during hurricanes, is discussed in Section IV.B.3 of this SEA. In conditions of high winds and reduced visibility due to fog or rain, helicopter traffic and/or boat traffic between the rig and shorebase would be temporarily suspended (CSA, 1984).

Interferences due to weather conditions are expected to be short-term and infrequent, producing only an insignificant effect on the movement of supplies and personnel to and from the facilities. The effect on offshore operations should be minimal. Additional information is included in this section of the AEA.

3. Impacts Concerning Physical Oceanography

Oceanographic conditions which could adversely affect the operation have been taken into consideration during the planning and designing of the proposed action. However, although drilling rigs are designed to operate in rough sea conditions, precautions would be taken by Conoco Inc. if a hurricane approached Blocks 56, 57, and 99. Activities would be halted, protective measures taken, and facilities secured. No significant impacts from normal physical oceanographic conditions would be expected during the implementation of this exploration plan.

4. Impacts on the Biological Environment

Due to Blocks 56, 57, and 99's distance from shore, 41km (25.5 mi), and the use of an established onshore support base requiring no new construction, dredging, or filling, impacts other than those from oil spills on the area's biological environment would be insignificant. Further site-specific discussion of potential impacts to the benthos and sensitive underwater features are included under their respective headings. Refer to Section IV.A of this SEA and the corresponding section of the AEA for a discussion of oil spill impacts to the biological environment.

a. Impacts on Coastal Habitats

Additional information is included in this section of the AEA.

b. Impacts on Offshore Habitats

(1) Impacts on the Pelagic Environment

Additional information is included in this section of the AEA.

(2) Impacts on the Benthic Environment

The impacts to the benthic environment are generally discussed in Section IV.B.4.b.2 and 3 of the AEA. No further impacts resulting from the proposed activity are expected except those which may result to the live bottom patches. Impacts to the live bottom of Blocks 56, 57, and 99 are discussed in the Impacts to Sensitive Underwater Features, Section IV.B.4.b.3 of this SEA.

(3) Impacts on Sensitive Underwater Features

Live bottom areas have been determined by the MMS to be worthy of protection by lease stipulation. Conoco Inc. has complied with the stipulation which requires identification of possible live bottom areas from geophysical data and further requires photodocumentation of the substrate around the proposed drill sites out to 1,820m (5,970 ft). The results of the survey are in Sections III.B.2.b and c.

The National Research Council (1983) concluded that effects on the benthos are limited to toxicity and smothering. Toxicity effects from the proposed operations in Blocks 56, 57, and 99 are not expected to be significant since toxic muds are regulated and since the muds are greatly diluted at the release of the effluent. Therefore, the primary concern is in regard to smothering. The severity of impacts from smothering resulting from the deposition of effluent on benthic organisms is determined by the extent the organisms are exposed to natural sediment flux. The National Research Council concluded that drilling discharge deposition is limited to within 1,000m (3,281 ft) of the drill site (National Research Council, 1983). Two of the proposed well locations fall within 1,000m (3,281 ft) of a live bottom patch. Although Well A in Block 57 is located within 800m (2,500 ft) southeast from a live bottom area, it is felt that this distance is sufficient to preclude impacts due to smothering. The original well location for Well A in Block 57 was moved at U.S. Fish and Wildlife's request to the present location (U.S. Fish and Wildlife comments, Appendix C). The proposed location of Well A in Block 99 lies 610-701m (2,000-2,300 ft) west-

northwest of hard/live bottom areas; however, these areas are considered patchy with low-relief.

Since the proposed well sites are located a sufficient distance from the hard bottom/live bottom areas discussed in Section III.B.2.(b and c) of the SEA and the proposed exploration activity is short-term (154 days/well), impacts to any live bottoms which may occur in the block are not expected to be significant. Should longer term production activities be planned in the future, these impacts would be reassessed. Due to these factors, additional mitigative measures for the protection of the live bottom in Blocks 56, 57, and 99 from the proposed activity are not warranted. The U.S. Fish and Wildlife Service and National Marine Fisheries Service have reviewed the proposal and do not recommend further protection measures (Appendix C).

c. Impacts on Endangered or Threatened Species

Additional information is included in this section of the AEA.

d. Impacts on Breeding Habitats and Migration Routes

Additional information is included in this section of the AEA.

e. Impacts on Protected Areas of Biological Concern

Additional information is included in this section of the AEA.

C. IMPACTS ON SOCIOECONOMIC CONDITIONS AND CONCERNS

1. Impacts to Economic and Demographic Conditions

a. Impacts on Local Employment

Most of the employees required for this exploration activity would be transported by Conoco Inc. from another area of the Gulf. In addition to the four contract dispatchers which would man the onshore supply base, Conoco Inc. would contract a local crane service and unskilled labor as necessary. The number of locally-hired laborers would probably not exceed four or five at any time. Some deck hands may also be hired from the local labor pool (Racal-Decca Survey, Inc. 1986c). Due to the low number of persons utilized in the drilling and related support activities that would be hired locally, impacts on local employment would be insignificant. Additional information is included in this section of the AEA.

b. Impacts on Local Population and Industry Centers

At the end of their respective tours of duty, the four contract dispatchers would return to their place of residence. While on location, these employees would be in temporary quarters either at the onshore base or in a local motel. Vessel crews, including any transient personnel, would not require local housing, as they would live on the vessels and would return to their residences upon completion of each tour of duty. The pilots, dispatchers, and mechanics would be housed in a local motel by the contract operator while on duty and would return to their residences during their days off. Normally, most of the employees would return to their homes in Louisiana, Texas, or other states when their tour of assignment is completed. Some, however, may remain in the local area during

their off-duty periods. No new families are expected to move into the vicinity of the shore base area located in Panama City, Florida (Racal-Decca Survey, Inc. 1986c).

Because most of the personnel are expected to return to their homes during off-duty shifts, no significant effects to population centers and industry are expected to result from the exploration activities. Expenditures for port requirements, supplies, fuel, and utility needs could contribute funds to the economy of the Panama City, Florida, area (Ibid). Expansion of existing facilities to support the offshore and onshore activities is not expected because there would be little incentive on the part of industry to establish extensive facilities prior to the proven existence of commercial quantities of hydrocarbons (Herbert and Lampl, 1983).

2. Impacts on Land Use

a. Impacts of Increased Demands on Community Services

Increased demands on community service would be insignificant. No new families are moving into the area and the occasional demands of transient employees per drilling operation on local services would be insignificant (Racal-Decca Survey, Inc., 1986c).

b. Impacts of Increased Boat and Air Traffic

Employees would be transported from the airport directly to the drill site by helicopter. Helicopters would also be used to transport specialty personnel such as casing crews, engineers, etc., and small supplies. The approximately two round-trip flights per day as a result of the proposed operations in Blocks 56, 57, and 99 would be insignificant compared to the total number of flights normally serving the area. The workboat and crew boat servicing these activities would follow the most direct route to the drill site. When in port these vessels would berth at reserved space. The additional vessel traffic (one round-trip/day) supporting the proposed activities would not significantly affect existing vessel traffic or available dock space (Racal-Decca Survey, Inc., 1986c).

c. Impacts of Competition for Scarce Coastal Resources and Demands for Goods and Services

Conoco Inc. would use an onshore support base located at Panama City, Florida, for activities in Destin Dome Area Blocks 56, 57, and 99. These facilities would consist of commercially available public or private dockage. No new land areas are expected to be occupied and no increased demands on existing dock space would be anticipated. Competition for coastal resources would be insignificant in northwest Florida (Racal-Decca Survey, Inc., 1986c).

(1) Supplies and Equipment

Significant amounts of commodities to be purchased would include materials specialized for well drilling, electricity, and groceries. Major supplies and equipment needed for the proposed drilling activities per well in Destin Dome Area Blocks 56, 57, and 99 include pipes for lining the hole (35,000 feet), cement for securing the pipes (12,000 sacks) and sacked drilling mud components (Racal-Decca Survey, Inc., 1986c).

The vendors and contractors who would provide these materials have not all been determined, but it is expected that the majority would be located away from the general vicinity of the shorebase. Specialized services and materials would only be used during exploratory operations. Many would be imported especially for the operations or exist in the area only for servicing exploratory operations. Their use would not affect community demands for goods and services (Ibid). Demands on typical local services and materials would be periodic and relatively small. These demands would not be expected to affect supplies in the area of the onshore base significantly.

(2) Water

Approximately 15,000 gal/day of freshwater would be required during the proposed activities in Blocks 56, 57, and 99. All freshwater required for the drilling rig would be supplied by the water-maker on the rig. The freshwater demand onshore would be very small during the proposed activities. Therefore, the percent increase in onshore use would not have a significant effect on the water supply in the Panama City, Florida, area (Racal-Decca Survey, Inc., 1986c).

(3) Aggregate Energy

Approximately 176,000 gallons of diesel and 6,000 gallons of jet fuel would be purchased each month from local distributors. Present supplies in the area are adequate to handle the demand. The only use of electricity anticipated is that for office space. The rate of consumption should not exceed 6,000kw per month. The impact on local supplies from this use would be negligible (Racal-Decca Survey, Inc., 1986c).

(4) Other Resources

Other services and materials that may be needed to support offshore exploratory drilling are listed in Table III-12 of the AEA. Additional details of the types of vendors/contractors and specific demands for goods and services which could be required to conduct the planned activities are discussed in the AER (CSA, 1984). Short-term demands for such specialized services and materials should not affect local supplies significantly.

3. Impacts from Construction of Onshore Support Facilities

Helicopter operations would originate from the Panama City-Bay County Airport. The onshore support facility for marine operations would be at an existing site in Panama City, Florida. Refer to Section III.C.3 of this SEA for a description of these facilities. The supply terminal and helicopter base, both in the Panama City locale, would utilize existing facilities. No new construction, dredging, or filling would be involved (Racal-Decca Survey, Inc., 1986c).

4. Impacts of Public Opinion

No significant public opposition to the planned operation has surfaced to date.

5. Impacts on Navigation

Exploratory activities in Blocks 56, 57, and 99 should have an insignificant effect on shipping although a portion of a major shipping lane (Pensacola Fairway) lies within Block 99 (USDI, MMS, 1984b, Visual No. 11). The proposed well location in Block 99 lies outside of the shipping fairway as required per MMS. Marine traffic in support of the proposed activities is not significantly affect shipping activities in the Panama City, Florida, area, in part, because of the established port facilities already in existence and the temporary nature of the proposed activities. The impacts of the drilling rig on marine transportation (fishing and pleasure boating) could be both adverse and beneficial, because stationary structures could represent obstacles to navigation, but they also could serve as navigational aids. The operator is required to comply with U.S. Coast Guard regulations related to the safety of personnel and the display of prescribed navigational lights and signals for the safety of navigation. Conoco Inc. is also required to obtain permits from the U.S. Army Corps of Engineers to prevent obstructions to navigation. Additional information is included in this section of the AEA.

6. Impacts Concerning Military Use

In compliance with the lease stipulation regarding control of electromagnetic emissions and operations of boat and/or aircraft traffic into the designated military warning area W-155, the operator must enter into an agreement with Naval Air Training Command, Training Wing Six, Naval Air Station, Attention: Lt. Commander J. J. Guardino, Pensacola, Florida 32508, Telephone: (904) 452-2305 or (904) 452-2735 (Scheduling). Although the operator's lease is not within military warning area W-151 the plan indicates that boat and/or aircraft traffic would traverse this area. The operator has indicated that their onshore support base would be in Panama City, Florida; therefore, in order to provide control of electromagnetic emissions and the operations of boat and/or aircraft traffic, the operator should enter into an agreement with Commander, Armament Division, Attention: Howard Dimmig/CCN, Eglin AFB, Florida 32542, Telephone (904) 882-5558. In addition, although the operator's lease is not within the NCSC, the plan indicates that boat and/or aircraft traffic would traverse this area. Therefore, in order to provide control of electromagnetic emissions and the operations of boat and/or aircraft traffic entering into the NCSC area, the operator should consult with the NCSC Center, Code 30, Attention: Commander Buckley or Mr. C. M. Callhan, Panama City, Florida 32407, Telephone: (904) 234-4462. Conducting the exploratory operations in accordance with existing Stipulation No. 4 and the mitigation regarding activity in the NCSC area is expected to reduce potential impacts to a minimal level.

7 Impacts on Commercial Fishing

Direct effects of exploratory operations on commercial fishing in Blocks 56, 57, and 99 would be the removal of a limited area of seafloor from use and the temporary degradation of water quality at the immediate area of each drill site. Although some commercial fishing would be likely to occur within the vicinity of Blocks 56, 57, and 99, no significant conflict of use is expected to develop in the area of the proposed action due to the distance from shore, 41km (25.5 mi). Refer to Section IV.A of this SEA and the corresponding section of the AEA for a discussion of oil spill impacts to commercial fishing. Additional information is included in this section of the AEA.

8. Impacts on Recreation/Tourism

Due to the distance offshore [41km (25.5 mi)] and the temporary nature of the proposed activities, impacts to the aesthetics and recreational resources of the coastal area would be insignificant. Refer to Section IV.A of this SEA and the corresponding section of the AEA for a discussion of oil spill impacts to recreation/tourism. Additional information is included in this section of the AEA.

9. Impacts on Cultural Resources

No evidences of known or potential cultural resources exist in Blocks 56, 57, and 99 (USDI, MMS, 1984b, Visual No. 11). Therefore, no impacts to offshore cultural resources are expected. The operator states that existing onshore support facilities would be utilized; therefore, no impacts to onshore cultural resources are anticipated. Stipulation No. 1 of Lease Sale 79 provides further safeguards for the protection of presently known cultural resources. The operator is required to report, upon discovery of any site, structure or object of historical or archaeological significant, to the Regional Director, MMS and make every reasonable effort to preserve and protect that cultural resource. Additional information is included in the AEA.

10. Impacts on Water Quality

According to Conoco Inc.'s SER, the total amount of drilling cuttings that would be discharged per well during the exploration activity is estimated at 6,098 bbls. Drilling mud discharges would total 204,379 bbls for each well (Racal-Decca Survey, Inc., 1986c).

Implementation of the proposed activity would alter the water quality by resuspension of bottom sediments during placement of the drilling rig and the discharge of drill cuttings and muds and other liquid wastes. Rig installation has the potential to disperse pollutants entrapped in the bottom sediments into the water column and create a trubidity plume. These activities would be of short duration and any pollutants would be rapidly dispersed over the blocks under consideration. At most depths typical of the continental shelf the majority of discharged fluids and cuttings are initially deposited on the seabed within 1,000m (3,281 ft) of the point of discharge. This material may persist as initially deposited or may undergo rapid or prolonged dispersion, depending on the energy of the bottom boundary layer (National Research Council, 1983).

Because water quality is expected to quickly return to normal in the area after drilling operations have been completed, no significant impacts to the water quality of the area are expected as a result of the proposed activities. As discussed in Section I.J, all discharges would adhere to the standards imposed by the NPDES Permit. Refer to Section IV.A of this SEA and the corresponding section of the AEA for a discussion of oil spill impacts to water quality. Additional information is included in this section of the AEA and the operator's AER (CSA, 1984).

11. Impacts on Air Quality

Onshore - The effects of the air emissions onshore would be negligible due to the distance of the drill sites to the northwest Florida coast. The percent increases in ambient concentrations contributed by the onshore secondary emissions from the proposed activities have not been calculated because of the

insignificance of these emissions. Additional information is included in this section of the AEA and in the operator's SER.

Offshore - Data presented in Table I-1 of this SEA and in the operator's SER indicate that the total emissions expected from the proposed activities in Blocks 56, 57, and 99 would be well below the calculated exemption levels, qualifying these activities for exemption from further air quality review. The site-specific air quality review conducted by MMS as a part of this environmental analysis concluded that there could be no significant effect on air quality from the proposed action. The emissions exemption calculations used in this analysis are given in the Air Quality Review (Appendix B). Additional information is included in this section of the AEA and in the operator's SER.

12. Impacts on Other Commercial Uses

There are no other commercial uses in Blocks 56, 57, and 99 to be affected by the exploration activity.

13. Impacts on Other Mineral Uses

There are no plans or proposals for mining other mineral resources other than oil and gas in Blocks 56, 57, and 99; therefore, no conflict of use is expected.

14. Impacts Concerning Pipelines and Cables

No conflict of use is expected because there are no known existing pipelines in the eastern Gulf and because pipelines cannot be proposed as a part of this exploration activity (Appendix B).

15. Impacts of Ocean Dumping

No conflict of use is expected because there are no existing ocean dumping areas designated in the eastern Gulf. The operator has stated that compliance with the USEPA NPDES permit would be maintained (Racal-Decca Survey, Inc., 1986c). Additionally, OCS Order No. 8 requires that the operator locate and retrieve any large debris lost overboard as a result of the proposed activities.

D. UNAVOIDABLE ADVERSE IMPACTS

Information in this section is included in the AEA.

V. CONSULTATION AND COORDINATION

In accordance with provisions of 30 CFR 250.34 and DM 655, and the Memorandum of Agreement (1983) between the Department of Defense and the Department of the Interior, copies of the plan were forwarded to the U.S. Fish and Wildlife Service, the State of Florida, and the Commander, Naval Air Training Command, Training Wing Six, Naval Air Station, Pensacola, Florida. A copy of the plan, etc., was also forwarded to the National Marine Fisheries Service (NOAA) for their review and comments. Copies of the comments of these agencies are included in Appendix C. Florida's CZM and the State of Florida's comments were not available prior to plan approval; therefore, if necessary, this SEA may subsequently be amended to reflect Florida's responses. No controversial issues were identified relative to Conoco Inc.'s proposed activity in Blocks 56, 57, and 99.

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VIII. APPENDICES

APPENDIX A - LEASE STIPULATIONS
APPENDIX B - REVIEWS FROM MMS
APPENDIX C - REVIEW FROM OTHER AGENCIES

APPENDIX A - LEASE STIPULATIONS

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

Outer Continental Shelf, Eastern Gulf of Mexico
Oil and Gas Lease Offering (January 1984)

MMS-G 6406

STIPULATION NO. 1 - CULTURAL RESOURCE

(a) "Cultural Resource" means any site, structure, or object of historic or prehistoric archaeological significance. "Operations" means any drilling, mining, or construction or placement of any structure for exploration, development, or production of the lease.

(b) If the Regional Manager (RM) believes a cultural resource may exist in the lease area, the RM will notify the lessee in writing. The lessee shall then comply with subparagraphs (1) through (3).

(1) Prior to commencing any operations, the lessee shall prepare a report, as specified by the RM, to determine the potential existence of any cultural resource that may be affected by operations. The report, prepared by an archaeologist and geophysicist, shall be based on an assessment of data from remote sensing surveys and other pertinent cultural and environmental information. The lessee shall submit this report to the RM for review.

(2) If the evidence suggests that a cultural resource may be present, the lessee shall either:

(i) Locate the site of any operation so as not to adversely affect the area where the cultural resource may be; or

(ii) Establish to the satisfaction of the RM that a cultural resource does not exist or will not be adversely affected by operations. This shall be done by further archaeological investigation, conducted by an archaeologist and a geophysicist, using survey equipment and techniques deemed necessary by the RM. A report on the investigation shall be submitted to the RM for review.

(3) If the RM determines that a cultural resource is likely to be present on the lease and may be adversely affected by operations, he will notify the lessee immediately. The lessee shall take no action that may adversely affect the cultural resource until the RM has told the lessee how to protect it.

(c) If the lessee discovers any cultural resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the RM. The lessee shall make every reasonable effort to preserve the cultural resource until the RM has told the lessee how to protect it.

STIPULATION NO. 2 - LIVE BOTTOMS

Prior to any drilling activity or the construction or placement of any structure for exploration or development on this lease, including, but not limited to, well drilling and pipeline and platform placement, the lessee will submit to the RM a bathymetry map prepared utilizing remote sensing and/or other survey techniques. This map will include interpretations for the presence of live bottom areas within a minimum of 1,820 meters radius of a proposed exploration or production activity site.

For the purpose of this stipulation, "live bottom areas" are defined as those areas which contain biological assemblages consisting of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, seagrasses, or corals living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; or whose lithotope favors the accumulation of turtles, fishes, and other fauna.

If it is determined that the remote sensing data indicate the presence of hard or live bottom areas, the lessee will also submit to the RM photo-documentation of the sea bottom near proposed exploratory drilling sites or proposed platform locations. For activities in water depths greater than 70 meters, this photo-documentation will be required regardless of the remote sensing data interpretation.

If it is determined that the live bottom areas might be adversely impacted by the proposed activities, then the RM will require the lessee to undertake any measure deemed economically, environmentally, and technically feasible to protect live bottom areas. These measures may include, but are not limited to, the following:

(a) the relocation of operations to avoid live bottom areas;
(b) the shunting of all drilling fluids and cuttings in such a manner as to avoid live bottom areas;
(c) the transportation of drilling fluids and cuttings to approved disposal sites; and
(d) the monitoring of live bottom areas to assess the adequacy of any mitigating measures taken and the impact of lessee-initiated activities.

Monitoring requirements in (d) above will be required for all blocks or portions of blocks located south of 26°N. latitude.

STIPULATION NO. 4 - MILITARY WARNING AREA

WARNING AREA W-155

(a) Hold Harmless

Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any persons or to any property of any person or persons who are agents, employees, or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Naval Air Training Command, Training Wing Six, Naval Air Station, Pensacola, Florida.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

(b) Electromagnetic Emissions

The lessee agrees to control his own electromagnetic emissions and those of its agents, employees, invitees, independent contractors or subcontractors emanating from individual designated defense warning areas in accordance with requirements specified by the commander of the command headquarters mentioned above to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing, or operational activities, conducted within individual designated warning areas. Necessary monitor control and coordination with the lessee, its agents, employees, invit independent contractors or subcontractors, will be effected by the com of the appropriate onshore military installation conducting operation particular warning area; provided, however, that control of such e netic emission shall in no instance prohibit all manner of electr communication during any period of time between a lessee, its age ployees, invitees, independent contractors or subcontractors and onshore facilities.

(c) Operational

The lessee, when operating or causing to be operated on its behalf, boat or aircraft traffic into the individual designated warning areas, shall enter into an agreement with the commander of the [illegible] command headquarters mentioned above prior to commencing such traffic. Such agreement will provide for positive control of boats and aircraft operations in the warning areas at all times.

STIPULATION NO. 4 - OIL AND GAS EXPLORATION

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipeline is technologically feasible and environmentally preferable, and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple-use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the Regional Technical Working Group with the participation of Federal, State, and local governments and the industry. All pipelines, including flow lines and gathering lines for oil and gas, shall be designed and constructed to provide for adequate protection from water currents, storm scouring, and other hazards as determined on a case-by-case basis.

(b) Following the development of sufficient pipeline capacity, no crude oil will be transported by surface vessel from offshore production sites except in the case of emergency. Determination of emergency conditions and appropriate responses to these conditions will be made by the Regional Manager.

(c) Where the three criteria set forth in paragraph (a) of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act, 33 U.S.C. 1221, et. seq., (1980).

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

Outer Continental Shelf, Eastern Gulf of Mexico
Oil and Gas Lease Offering (January 1984)

OCS-G 6407

STIPULATION NO. 1 - CULTURAL RESOURCE

(a) "Cultural Resource" means any site, structure, or object of historic or prehistoric archaeological significance. "Operations" means any drilling, mining, or construction or placement of any structure for exploration, development, or production of the lease.

(b) If the Regional Manager (RM) believes a cultural resource may exist in the lease area, the RM will notify the lessee in writing. The lessee shall then comply with subparagraphs (1) through (3).

(1) Prior to commencing any operations, the lessee shall prepare a report, as specified by the RM, to determine the potential existence of any cultural resource that may be affected by operations. The report, prepared by an archeologist and geophysicist, shall be based on an assessment of data from remote sensing surveys and other pertinent cultural and environmental information. The lessee shall submit this report to the RM for review.

(2) If the evidence suggests that a cultural resource may be present, the lessee shall either:

(i) Locate the site of any operation so as not to adversely affect the area where the cultural resource may be; or

(ii) Establish to the satisfaction of the RM that a cultural resource does not exist or will not be adversely affected by operations. This shall be done by further archaeological investigation, conducted by an archaeologist and a geophysicist, using survey equipment and techniques deemed necessary by the RM. A report on the investigation shall be submitted to the RM for review.

(3) If the RM determines that a cultural resource is likely to be present on the lease and may be adversely affected by operations, he will notify the lessee immediately. The lessee shall take no action that may adversely affect the cultural resource until the RM has told the lessee how to protect it.

(c) If the lessee discovers any cultural resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the RM. The lessee shall make every reasonable effort to preserve the cultural resource until the RM has told the lessee how to protect it.

STIPULATION NO. 2 - LIVE BOTTOMS

Prior to any drilling activity or the construction or placement of any structure for exploration or development on this lease, including, but not limited to, well drilling and pipeline and platform placement, the lessee will submit to the RM a bathymetry map prepared utilizing remote sensing and/or other survey techniques. This map will include interpretations for the presence of live bottom areas within a minimum of 1,820 meters radius of a proposed exploration or production activity site.

For the purpose of this stipulation, "live bottom areas" are defined as those areas which contain biological assemblages consisting of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, seagrasses, or corals living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; or whose lithotope favors the accumulation of turtles, fishes, and other fauna.

If it is determined that the remote sensing data indicate the presence of hard or live bottom areas, the lessee will also submit to the MM photo-documentation of the sea bottom near proposed exploratory drilling sites or proposed platform locations. For activities in water depths greater than 70 meters, this photo-documentation will be required regardless of the remote sensing data interpretation.

If it is determined that the live bottom areas might be adversely impacted by the proposed activities, then the MM will require the lessee to undertake any measure deemed economically, environmentally, and technically feasible to protect live bottom areas. These measures may include, but are not limited to, the following:

(a) the relocation of operations to avoid live bottom areas;
(b) the shunting of all drilling fluids and cuttings in such a manner as to avoid live bottom areas;
(c) the transportation of drilling fluids and cuttings to approved disposal sites; and
(d) the monitoring of live bottom areas to assess the adequacy of any mitigating measures taken and the impact of lessee-initiated activities.

Monitoring requirements in (d) above will be required for all blocks or portions of blocks located south of 26°N. latitude.

STIPULATION NO. 4 - MILITARY WARNING AREA

WARNING AREA W-155

(a) Hold Harmless

Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any persons or to any property of any person or persons who are agents, employees, or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Naval Air Training Command, Training Wing Six, Naval Air Station, Pensacola, Florida.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease, the lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

(b) Electromagnetic Emissions

The lessee agrees to control his own electromagnetic emissions and those of its agents, employees, invitees, independent contractors or subcontractors emanating from individual designated defense warning areas in accordance with requirements specified by the commander of the command headquarters mentioned above to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing, or operational activities, conducted within individual designated warning areas. Necessary monitoring control and coordination with the lessee, its agents, employees, invitees, independent contractors or subcontractors, will be effected by the commander of the appropriate onshore military installation conducting operations in the particular warning area; provided, however, that control of such electromagnetic emission shall in no instance prohibit all manner of electromagnetic communication during any period of time between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

(c) Operational

The lessee, when operating or causing to be operated on its behalf, boat or aircraft traffic into the individual designated warning areas, shall enter into an agreement with the commander of the individual command headquarters mentioned above prior to commencing such traffic. Such an agreement will provide for positive control of boats and aircraft operating into the warning areas at all times.

STIPULATION NO. 6 - OIL AND GAS TRANSPORTATION

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipeline is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple-use conflicts. The lessor specifically reserves the right to require that any pipeline used transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the Regional Technical Working Group with the participation of Federal, State, and local governments and the industry. All pipelines, including flow lines and gathering lines for oil and gas, shall be designed and constructed to provide for adequate protection from water currents, storm scouring, and other hazards as determined on a case-by-case basis.

(b) Following the development of sufficient pipeline capacity, no crude oil will be transported by surface vessel from offshore production sites except in the case of emergency. Determination of emergency conditions and appropriate responses to these conditions will be made by the Regional Manager.

(c) Where the three criteria set forth in paragraph (a) of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act, 33 U.S.C. 1221, et. seq., (1980).

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

Outer Continental Shelf, Eastern Gulf of Mexico
Oil and Gas Lease Offering (January 1984)

OCS-S 6410

STIPULATION NO. 1 - CULTURAL RESOURCE

(a) "Cultural Resource" means any site, structure, or object of historic or prehistoric archaeological significance. "Operations" means any drilling, mining, or construction or placement of any structure for exploration, development, or production of the lease.

(b) If the Regional Manager (RM) believes a cultural resource may exist in the lease area, the RM will notify the lessee in writing. The lessee shall then comply with subparagraphs (1) through (3).

(1) Prior to commencing any operations, the lessee shall prepare a report, as specified by the RM, to determine the potential existence of any cultural resource that may be affected by operations. The report, prepared by an archaeologist and geophysicist, shall be based on an assessment of data from remote sensing surveys and other pertinent cultural and environmental information. The lessee shall submit this report to the RM for review.

(2) If the evidence suggests that a cultural resource may be present, the lessee shall either:

(i) Locate the site of any operation so as not to adversely affect the area where the cultural resource may be; or

(ii) Establish to the satisfaction of the RM that a cultural resource does not exist or will not be adversely affected by operations. This shall be done by further archaeological investigation, conducted by an archaeologist and a geophysicist, using survey equipment and techniques deemed necessary by the RM. A report on the investigation shall be submitted to the RM for review.

(3) If the RM determines that a cultural resource is likely to be present on the lease and may be adversely affected by operations, he will notify the lessee immediately. The lessee shall take no action that may adversely affect the cultural resource until the RM has told the lessee how to protect it.

(c) If the lessee discovers any cultural resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the RM. The lessee shall make every reasonable effort to preserve the cultural resource until the RM has told the lessee how to protect it.

STIPULATION NO. 2 - LIVE BOTTOMS

Prior to any drilling activity or the construction or placement of any structure for exploration or development on this lease, including, but not limited to, well drilling and pipeline and platform placement, the lessee will submit to the RM a bathymetry map prepared utilizing remote sensing and/or other survey techniques. This map will include interpretations for the presence of live bottom areas within a minimum of 1,820 meters radius of a proposed exploration or production activity site.

For the purpose of this stipulation, "live bottom areas" are defined as those areas which contain biological assemblages consisting of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, seagrasses, or corals living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; or whose lithotope favors the accumulation of turtles, fishes, and other fauna.

If it is determined that the remote sensing data indicate the presence of hard or live bottom areas, the lessee will also submit to the RM photo-documentation of the sea bottom near proposed exploratory drilling sites or proposed platform locations. For activities in water depths greater than 70 meters, this photo-documentation will be required regardless of the remote sensing data interpretation.

If it is determined that the live bottom areas might be adversely impacted by the proposed activities, then the RM will require the lessee to undertake any measure deemed economically, environmentally, and technically feasible to protect live bottom areas. These measures may include, but are not limited to, the following:

(a) the relocation of operations to avoid live bottom areas;
(b) the shunting of all drilling fluids and cuttings in such a manner as to avoid live bottom areas;
(c) the transportation of drilling fluids and cuttings to approved disposal sites; and
(d) the monitoring of live bottom areas to assess the adequacy of any mitigating measures taken and the impact of lessee-initiated activities.

Monitoring requirements in (d) above will be required for all blocks or portions of blocks located south of 26°N. latitude.

STIPULATION NO. 4 - MILITARY WARNING AREA

WARNING AREA W-155

(a) Hold Harmless

Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any persons or to any property of any person or persons who are agents, employees, or invitees of the lessee, its agents, independent contractors or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the U.S. Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Naval Air Training Command, Training Wing Six, Naval Air Station, Pensacola, Florida.

Notwithstanding any limitations of the lessee's liability in section 14 of the lease the lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

(b) Electromagnetic Emissions

The lessee agrees to control his own electromagnetic emissions and those of its agents, employees, invitees, independent contractors or subcontractors emanating from individual designated defense warning areas in accordance with requirements specified by the commander of the command headquarters mentioned above to the degree necessary to prevent damage to, or unacceptable interference with, Department of Defense flight, testing, or operational activities conducted within individual designated warning areas. Necessary monitoring control and coordination with the lessee, its agents, employees, invitees, independent contractors or subcontractors, will be effected by the commander of the appropriate onshore military installation conducting operations in the particular warning area; provided, however, that control of such electromagnetic emission shall in no instance prohibit all manner of electromagnetic communication during any period of time between a lessee, its agents, employees, invitees, independent contractors or subcontractors and onshore facilities.

(c) Operational

The lessee, when operating or causing to be operated on its behalf, boat or aircraft traffic into the individual designated warning areas, shall enter into an agreement with the commander of the individual command headquarters mentioned above prior to commencing such traffic. Such an agreement will provide for positive control of boats and aircraft operating into the warning areas at all times.

STIPULATION NO. 6 - OIL AND GAS TRANSPORTATION

(a) Pipelines will be required: (1) if pipeline rights-of-way can be determined and obtained; (2) if laying of such pipeline is technologically feasible and environmentally preferable; and (3) if, in the opinion of the lessor, pipelines can be laid without net social loss, taking into account any incremental costs of pipelines over alternative methods of transportation and any incremental benefits in the form of increased environmental protection or reduced multiple-use conflicts. The lessor specifically reserves the right to require that any pipeline used for transporting production to shore be placed in certain designated management areas. In selecting the means of transportation, consideration will be given to any recommendation of the Regional Technical Working Group with the participation of Federal, State, and local governments and the industry. All pipelines, including flow lines and gathering lines for oil and gas, shall be designed and constructed to provide for adequate protection from water currents, storm scouring, and other hazards as determined on a case-by-case basis.

(b) Following the development of sufficient pipeline capacity, no crude oil will be transported by surface vessel from offshore production sites except in the case of emergency. Determination of emergency conditions and appropriate responses to these conditions will be made by the Regional Manager.

(c) Where the three criteria set forth in paragraph (a) of this stipulation are not met and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore from the leased area will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act, 33 U.S.C. 1221, et. seq., (1980).

APPENDIX B - REVIEWS FROM MMS

Live Bottom Review February 25, 1986

Destin Dome Blocks 56, 57, and 99
Leases OCS-G 6406, 6407, and 6410
Radial Survey
Geophysics: Marine Technical Services Inc. (1985)
Photodocumentation: John E. Chance and Associates, Inc. (1985)

Conoco proposes drilling three exploratory wells, each designated Well A in Blocks 56, 57, and 99. Marine Technical Services Inc. (1985) conducted the geophysical work for Blocks 55, 56, 57, and 99. John E. Chance and Associates, Inc., conducted the photodocumentation survey of the sea bottom at and in the areas contiguous to the three proposed exploratory drilling sites located in Destin Dome Area, Blocks 56 (OCS-G 6406), 57 (OCS-G 6407), and 99 (OCS-G 6410). John E. Chances and Associates, Inc., decided to conduct a site-specific well survey consisting of eight radials at 45 degree angles extended to a minimum of 1,820 meters from the proposed drill sites.

The survey conducted consisted of each radial extending a minimum of 2,275 meters from each proposed drill site. The rationale for extending the radials to 2,275 meters was formulated from a combination of the two MMS options for photodocumentation surveys. Extending the radials to 2,275 meters provides the 1,820 meter coverage required by option one and combined with the 100 meter regulatory coverage on either side of the radials provided by option two, permits the location of drilling operations anywhere within the shaded area (Figure 2, photodocumentation survey), while still meeting the stipulated requirements. A potential shallow geologic hazards survey of the area conducted by Marine Technical Services Inc. (1985), revealed the presence of several potential hard/live bottoms in the survey area and three additional lines were added to the photodocumentation survey design in order to provide photographic coverage of the potential hard/live bottom areas indicated by the geophysical data from the shallow hazard survey.

Good correlation was obtained when the location of the suspected live bottom areas inferred by geophysical data were overlain by the location of the live bottoms ground truthed during the photodocumentation survey. The most extensive hard/live bottom area begins in the northwest quadrant of Block 57, runs diagonally through Block 56 and terminates in the northeast quadrant of Block 99, covering an area of approximately 27,000 feet in length and 300 to 500 feet in width, with a relief ranging from 3 to 10 feet. Although geophysical data indicates that the bank extends well into the north central part of Block 57, video ground truthing with photos reveals that this extensive hard/live bottom area is exposed beginning at a point 900 feet east of the (original) well site in the northwest quadrant of Block 57. The remaining hard/live bottom areas are located in the southern and eastern portions of Block 99, and in the center of Block 57. These areas are small (30 to 50 feet in diameter), low-relief (1 to 2 feet), and display patchy distribution (50 to 200 foot spacing).

The original proposed location of Well A, Block 57 was 3,800 feet FWL and 3,700 feet FNL. Photodocumentation survey conducted around the original proposed location indicated the presence of live bottom areas in the vicinity. As a result, the present proposed well location was moved to 6,400 feet FNL and

4,900 feet FWL, which is situated on one of the photodocumentation survey transects (radials 4 and 8, Line 4), and is free of live bottom habitats. The other two proposed locations in Block 56 (2,500 feet FNL and 2,500 feet FEL) and Block 99 (4,400 feet FNL and 4,200 feet FEL) are also free of live bottom areas associated with reef-like structures as shown by the data collected and indicated in the photodocumentation survey. The present proposed location of Well A (Block 57) lies 2,500 feet southeast of a live bottom area associated with reef-like structures containing 10.9 percent coverage (density of 7.6) of Alcyonarians (Epifauna) and 3,500 feet northwest of the patchy low-relief hard/live bottom area. The proposed location of Well A (Block 56) lies 3,700 feet northwest of a live bottom area associated with reef-like structures containing 11.0 percent coverage (density of 5.4) of Alcyonarians and .8 percent coverage of sponges (Epifauna). The proposed location of Well A (Block 99) lies 2,000-2,300 feet west-northwest of three separate patchy low-relief hard/live bottom areas, one of which (location G) contains 11.3 percent coverage (density of 9.2) of Alcyonarians (Epifauna). Visual No. 6 for Sale 104 and 105 EIS indicates a general current pattern and direction near Blocks 56, 57, and 99 from a northerly to southernly direction. However, periodic wind changes would effect surface current pattern and direction. The proposed well locations lie a sufficient distance away from the hard/live bottom areas associated with reef-like structures as indicated by photos and the photodocumentation survey did not indicate the presence of other areas associated with reef-like structures. Therefore, further biological mitigative measures are not required for the proposed well locations.

Richard Bennett

Richard Ben[illegible]

AIR QUALITY REVIEW

CER/EA No. N-2388 Due Date 3-5-86 Lease(s) OCS-G 6406, 6407, 6410

Block(s) 56, 57, 99 Area Destin Dome

Onshore Emissions

Onshore Base: Panama City New or Revised: Yes __ No X

Onshore Emissions Calculations (If onshore base is new or revised): N/R

NO_x ____ tons/yr; CO ____ tons/yr; VOC ____ tons/yr;

TSP ____ tons/yr; SO_2 ____ tons/yr

Offshore Emissions

Major Sources - Offshore Emissions Calculations:

NO_x 52.92 tons/yr; CO 11.45 tons/yr; VOC 4.23 tons/yr;

TSP 3.78 tons/yr; SO_2 3.52 tons/yr

Minor Sources - Offshore Emissions Calculations:

NO_x 349.27 tons/yr; CO 53.21 tons/yr; VOC 11.84 tons/yr;

TSP 10.58 tons/yr; SO_2 23.61 tons/yr

Total Offshore Emissions:

NO_x 402.19 tons/yr; CO 64.66 tons/yr; VOC 16.07 tons/yr;

TSP 14.36 tons/yr; SO_2 27.13 tons/yr

Emissions Exemption Calculations

Distance to Nearest Land in Statute Miles: 25.5

Exemption: For CO; $E = 3400D^{2/3}$ = 29,456 tons/yr

For NO_x, VOC, TSP, SO_2; $E = 33.3D$ = 849 tons/yr

There will be significant effect on air quality from the proposed action:

Yes ____ No X

Information Source(s): Plan, ER, STAFF

Comments/Recommendations: Minor sources included all boat traffic emissions.

No recommendations

Elgin Langley 2-4-86

Meteorologist Date

UNITED STATES GOVERNMENT
MEMORANDUM

JAN 31, 1986

To: Supervisor, Exploration/Development Plans Unit, Plans, Platform and Pipeline Section, Rules and Production, Gulf of Mexico Region (RP-2-1)

From: Supervisor, Platform/Pipeline Unit, Plans, Platform and Pipeline Section, Rules and Production, Gulf of Mexico Region (RP-2-2)

Subject: Plan of Exploration for CONOCO,
Destin Dome Area, Block 56,57,99, Lease OCS-G 6410 6406,6407

30 CFR 250.34 Control No. N-2388

Proposed Well/Platform:

Identification and Location	Existing Pipelines Within 500 Feet
DD 56 Well A-2500'FNL+2500'FEL	None
DD 57 Well A-4400'FNL+4900'FWL	None
DD 99 Well A-4400'FNL+4200' FEL	None

MINERALS MANAGEMENT SERVICE
JAN 31 1986

Remarks:

Robert F. Kelly

FTorres:lv:Disk 5

UNITED STATES GOVERNMENT
MEMORANDUM

Date: 5-5-76

To: Supervisor, Exploration/Development Plans Unit (RP-2-1)

From: District Supervisor, METAIRIE District, (DO-S)

Subject: Hazards Review/Recommendations for Approval

Plan of Exploration (X) - Development/Production ( )

Area(s) DESTIN DOME

Block(s) 56, 57 & 99

Lease(s) OCS-G 6406, -07 & -10

Operator(s) SOHIO, INC.

The subject proposal includes — platforms, —

THERE wells, and — pipelines.

Seafloor Hazards: DD 57 "A" WELL LOCATED ON NORTH WALL OF SEA TROUGH. NOT EXPECTED TO BE A PROBLEM.

Subsurface Hazards: DD 56 "A" TO ENCOUNTER FAULTS @ -873'ss AND -3703'ss DD 99 "A" MAY ENCOUNTER SHALLOW FAULT @ -775'ss

Other Hazards (Pipeline, Sunken Ships, Cables, etc.) NONE

Other Known Mineral Resources (Sand, Gravel, Shell, etc.) NONE

Recommendation for approval: YES

for JACK HENDRICKS
District Supervisor

cc:

Preparer(s): R. Brinkman

APPENDIX C - REVIEW FROM OTHER AGENCIES

N-238

United States Department of the Interior
FISH AND WILDLIFE SERVICE

Division of Ecological Services
1612 June Avenue
Panama City, Florida 32405-3721

February 21, 1986

Memorandum

To: Acting Regional Director, Gulf of Mexico OCS Region, Minerals Management Service, Metairie, LA attn: RP-2-1

From: Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Panama City, Florida

Subject: Initial Plan of Exploration, Conoco Inc., Leases OCS-G 6406, 6407, and 6410, Blocks 56, 57, and 99, respectively, Destin Dome Area, DM 655-1769

The Fish and Wildlife Service has reviewed the subject document in accordance with 655 DM 1. The document covers the exploratory drilling of one well (A) in blocks 56, 57, 99, Destin Dome Area.

On November 26, 1985 a Service biologist attended a pre-permit application meeting with Conoco Inc. and the State of Florida. Both wells in blocks 56 and 99 are a minimum of 600 meters (2000 ft) away from any live/hard bottom areas. The original well location in block 57 was within 76 meters (250 ft) of a rocky outcrop reefal trend area. Per our recommendations at the meeting Conoco has relocated the well to a sand/shell hash area 800 meters (2500 ft) away from the outcrop area.

We are pleased to see see that Conoco addressed our concerns and modified their plans accordingly. Therefore, we have no objection to the proposed operations.

We appreciate the opportunity to provide comments.

Sincerely,

for James M. Barkuloo
Field Supervisor

cc:
NMFS, Panama City, FL

LAS/cb
37/K

N-2388

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, Florida 33702

February 20, 1986 F/SER113:EK

Regional Supervisor
Minerals Management Service
P. O. Box 7944
Metairie, Louisiana 70010

Dear Sir:

This is in response to your letter of February 4, 1986, in which you enclosed copies of Exploration Plans for Shell Offshore, Inc. (U-433) to drill wells in Charlotte Harbor blocks 622, 623, 667, and 711, and a plan for Conoco, Inc. to drill wells in Destin blocks 55, 56, 57, 99, and 100. The National Marine Fisheries Service has reviewed the supporting documents for the proposals and offer the following for your consideration.

The Shell Offshore Drilling locations are in areas of algae-covered bottoms. Little is known about the effect of the discharge of cuttings and fluids on this community. Since the area of algae bottom is extensive, it appears that moving the surface location of the well would do little to reduce possible adverse impacts to this community. Therefore, we recommend that a study of the fate and effects of the discharge of cuttings and fluids on this community be initiated.

The Conoco, Inc. sites appear far enough removed from the live bottom areas to preclude adverse impacts. Therefore, we have no comment.

We appreciate the opportunity to review the plans. Should you have any questions, please contact Dr. Ed Keppner of our Panama City Area Office at 904-234-5061.

Sincerely yours,

Edwin J. Keppner

for Richard J. Hoogland
Assistant Regional Director
Habitat Conservation Division

N-2388

STATE OF FLORIDA

Office of the Governor

THE CAPITOL

TALLAHASSEE 32301

BOB GRAHAM
GOVERNOR

RECEIVED

MAR 1 6 1986

Minerals Management Service
Leasing & Environment

MAR 13 1986

RULES AND PRODUCTION

March 11, 1986

Mr. A. Donald Giroir
Minerals Management Service
Gulf of Mexico Region
3301 North Causeway Boulevard
Metairie, Louisiana 70002

Dear Mr. Giroir:

In response to your letter of February 10, 1986, this office has reviewed and coordinated a review of the proposed Exploration Plan/Environmental Report and its accompanying Live Bottom Surveys for Leases OCS-G 6406, 6407, and 6410 in Blocks 56, 56 and 99, respectively (Control No. M-2388).

Conoco proposes drilling one to three wells with one well site in each block. Drilling will begin in Block 56. Subsequent drilling will depend on results obtained from drilling the first well. In general, we find these documents well written and adequately supply information necessary to address the stipulations for Conoco to drill in these blocks.

Photodocumentation of each well site showed the presence of extensive reefal live bottom areas and patchy low relief live bottom. With the movement of the drill site in Block 57, as described in the site-specific report, live bottom areas are of sufficient distance from proposed drilling to afford adequate protection. We appreciate Conoco taking the initiative to move the site and therefore help in protecting this important resource.

Although not critical to your action regarding approval/disapproval of this plan, we have several comments concerning these documents. These are attached for your information.

Additional written comments from the Departments of Environmental Regulation, Natural Resources, State, and the Governor's Energy Office are attached for your information.

This letter does not constitute a concurrence or objection to the consistency certification which accompanied the Exploration Plan. The proposed location of oil spill equipment and response times (as outlined in the State required response plan) are considered inadequate for response to a potential spill which could enter State waters. We will

therefore request discussions of this problem with Conoco before our objection or concurrance is made.

We appreciate the opportunity to review these documents and hope that our comments will be addressed in future documents.

Sincerely,

Paul G. Johnson
Governmental Analyst

PGJ/dwe

Enclosures

STATE OF FLORIDA

Office of the Governor

THE CAPITOL

TALLAHASSEE 32301

BOB GRAHAM
GOVERNOR

CONOCO - DESTIN DOME
BLOCKS 56, 57 and 99

PLAN OF EXPLORATION

Under Section D. - Onshore Support Base, page 2, Conoco indicates that Panama City, Florida will be used as the base of operations for the proposed activities. Distance from Panama City to the Conoco lease blocks is approximately 90 miles; versus 25.5 miles from Pensacola, Florida and 42 miles from Mobile, Alabama. The State questions the selection of the more distant site for a support base, especially in regards to oil spill response capabilities and at sea safety in the transport of materials and personnel. Additional comments and suggestions on this question follow under the Site-specific Environmental Report and the Oil Spill Analysis and Response Plan review.

Under section F. - Mud Program, page 3, Conoco states that, "If and when a oil based mud system is used, the cuttings and oil based mud will be collected for onshore disposal and will not be discharged into the ocean". Later in the Proposed Mud Program for a 23,500 - Foot Exploratory Well (Attachment IV, p.30) the operator states that the oil based mud system to be used at 21,000 - 23,500 feet will consist of mineral oil. This is the first Plan of Exploration where mineral oil has been specifically indicated in the mud program. As with other oil based drilling muds we encourage Conoco's plan for onshore removal versus offshore discharge of this material.

Under section G. Geological and Geophysical Information, page 3, Conoco includes the shallow hazards report with the seismic structure map data as proprietary and have deleted this from our copies of the Plan of Exploration. It is our understanding, according to MMS' rules and regulations, that this shallow hazard seismic data is not proprietary and should be included in the report.

Under section I. Oil Spill Prevention and Response, page 4, Conoco states that response time from Panama City, Florida, where the Clean Gulf Associates fast response unit is stockpiled, is expected to be about 12-14 hours if the boat is at the dock or approximately 16-20 hours if the boat is on location in the Destin Dome area. Because of the short

distance and time-frame it would take oil, if spilled, to reach shore (as detailed in the Oil Spill Trajectory Analysis) the state feels these response times are inadequate. Additional comments and suggestions on this issue will follow under the Oil Spill Analysis and Response Plan review.

SITE-SPECIFIC ENVIRONMENTAL REPORT

Under section C. - Objectives of the Proposed Activities, page 3, Conoco identifies three well locations, one each in Blocks 56, 57 and 99. Since the radial design photodocumentation covers only these three well sites, and no well locations have been identified in Blocks 55 and 100, the State's comments regarding this Plan of Exploration covers only these three well sites. Federal Consistency Certification consideration also will address only these three well sites.

PHOTO-DOCUMENTATION SURVEY

The Photo-documentation survey submitted by Conoco and their consultants was well prepared and received by the State. The use of the Remote-Controlled Vehicle (ROV) proved very effective in documenting the habitats and species assemblages surrounding the well sites and provided additional quantified data for comparison of density and coverage of live bottoms species and species groups. We encourage the use of this survey tool in future photo-documentation surveys in the eastern Gulf.

Enclosures 1, 2, and 3 show the proposed loations of the wells in Blocks 56, 57 and 99. Block 57 well location was identified as being within 200 feet of an important live bottom area. Based on discussions with the State, and as described in the Exploration Plan and the Site-Specific Environmental Report, the location of the well was moved along an existing photo-survey transect line 2,000 feet from the live bottom. It would be helpful in future documents if Conoco or their consultant would indicate the new location on the enclosures before sending to MMS for review.

OIL SPILL TRAJECTORY ANALYSIS AND RESPONSE PLAN

We applaud Conoco and their consultants in providing a well prepared document. The summation of the trajectories under various wind

conditions and density currents, as presented in Figures 2, 3, 4 and 5, has made the interpretation of the data easier for our reviewers, as many are not familiar with the physical oceanography of the area. Also of note is the presentation of wind conditions in Figures 7 and 8. We would encourage this approach in future plans.

This exploration plan is the first of many which we will receive, in which the blocks are very near to shore. In the past, the distance to shore has allowed adequate oil spill response times during onshore Loop Current intrusions and tropical depressions; that is, at least two days.

Blocks 56 and 57 are only 15.3 miles from Florida's territorial waters. According to the trajectory analysis an oil spill could enter these waters in less then a day and a half under a strong wind condition, passage of a storm front or onshore Loop Current (see Table 2). Response times for Panama City, where the Support Base and Fast Response Unit are located under this plan, would be 12 to 14 hours if the vessel is in port and 16 to 20 hours if the vessel is at the platform. Response times from Pensacola, a distance of only 25.5 miles, is estimated at six and a half hours. These times do not reflect mobilization and deployment of clean-up personnel and equipment, and in the state's opinion are not adequate to deal with an oil spill.

Since the Oil Spill Trajectory Analysis and Response Plan is a requirement of the State of Florida under our Coastal Zone Management Federal Consistency Program, we will contact Conoco to discuss means of correcting this situation prior to our concurrence or objection to the consistency certification.

PGJ/tle

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 10, 1986

Ms. Debby Tucker
Office of Planning and Budgeting
Office of the Governor
404 Carlton Building
Tallahassee, Florida 32301

Dear Debby:

Re: Plan of Exploration and Federal Consistency Certification, Destin Dome Blocks 56, 57 and 99, Conoco Inc.

Conoco proposes to drill up to three wells, one on each of the referenced blocks. The bottoms of these blocks are sand/shell hash interrupted by soft and hard live bottom communities. A prominent reef bank feature crosses Blocks 57 and 56.

The revised Area and Site-Specific Environmental Reports are well done and offer a more complete picture of area resources than was possible with the DeSoto Canyon AER and SERs. This is because a number of stations from previous scientific studies are in the Destin Dome AER area and because photodocumentation surveys were conducted.

This improved level of documentation has allowed Conoco to develop exploration plans with consideration for habitat protection. The decision to relocate the Block 57 wellsite to avoid hard bottom habitat is a superior example of genuine compliance with the biological stipulation. With this change, all three wellsites have been shown to be located in sand bottoms. The distance of the wells from live bottom areas is expected to afford sufficient protection such that monitoring or utilization of the EPA discharge rate limitation curve is not necessary. Consequently, we believe exploration wells can be drilled at the proposed locations with minimal disturbance to the marine resources of these blocks.

The oil spill response program is adequate overall. The projections of landfall times for the onshore loop scenarios would be the most problematic. Although this is a low probability occurrence, we believe it should be considered in response planning. An accidental spill under these conditions would require a swift shoreline response strategy. We recommend that the footnote on Table 4 (Response Plan, p. 26) be expanded specifying where shoreline protection equipment is located and the response times necessary to deploy it to the impacted shoreline. The referenced Racal

Survey, Inc. (1985, Appendix I) provides strategies for cleanup but does not evaluate the feasibility of the recommendations, i.e. is the necessary equipment available? is there access to the various shorelines? are the response times adequate? We recommend an FRU be based on board the drilling rig to maximize onsite response capabilities.

We believe these concerns should be discussed with Conoco prior to completion of the federal consistency review. We have no objections to exploration of these blocks under the OCS Lands Act.

Cordially,

Lynn

Lynn F. Griffin
Environmental Specialist
Intergovernmental Programs
Review Section

LFG/jb

cc: Dave Worley
Steve Fox

BOB GRAHAM
Governor
GEORGE FIRESTONE
Secretary of State
JIM SMITH
Attorney General
GERALD A. LEWIS
Comptroller
BILL GUNTER
Treasurer
DOYLE CONNER
Commissioner of Agriculture
RALPH D. TURLINGTON
Commissioner of Education

State of Florida
DEPARTMENT OF NATURAL RESOURCES

DR. ELTON J. GISSENDANNER
Executive Director
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard, Tallahassee, Florida 32303
Please Reply to: BUREAU OF GEOLOGY
903 WEST TENNESSEE STREET
(Corner of Tennessee and Woodward Streets)
TALLAHASSEE, FLORIDA 32304-7795

February 21, 1986

MEMORANDUM

TO: Debby Tucker and
Paul Johnson
Office of the Governor

FROM: Walt Schmidt, Chief
Bureau of Geology

SUBJECT: Review of the "Description of Proposed Action" regarding Destin Dome Blocks 56, 57, and 99

I have reviewed the section of this plan as requested and have no comment on Conoco's proposed drilling.

WS/sr

FLORIDA DEPARTMENT OF STATE
George Firestone
Secretary of State
DIVISION OF ARCHIVES,
HISTORY AND RECORDS MANAGEMENT
The Capitol, Tallahassee, Florida 32301-8020
(904) 488-1480

OFFICE OF THE GOVERNOR
... 11 1986
Natural Resources Policy Unit
Office of Planning & Budgeting

February 28, 1986

In Reply Refer to:

Mike Wisenbaker
Historic Sites Specialist
(904) 487-2333

Ms. Deborah Tucker
Intergovernmental Clearinghouse
Office of the Governor - The Capitol
Tallahassee, Florida 32301

RE: Your Memorandum and attachments of February 17, 1986
Cultural Resource Assessment Request
Exploration Plan/Environment Report, Destin Dome Blocks
55, 56, 57, 99 and 100 (SAI No. FL8602140808C) in the
Gulf of Mexico

Dear Mr. Tucker:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites or properties listed, or eligible for listing, in the National Register Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L.94-422, P.L. 94-458 and P.L. 96-515, and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

We have reviewed the Site-Specific Environmental Reports prepared by Racal-Decca Survey, Inc. for Conoco; Inc , regarding the above referenced projects. Based on the locations of the subject tracts, it is the opinion of this office that the proposed exploration activities are highly unlikely to affect any archaeological or historical sites or properties listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state or local significance. We find, therefore, these activities to be consistent with cultural resource management issues.

MINERALS MANAGEMENT SERVICE

MAR 13 1986

FLORIDA-State of the Arts

If you have any questions concerning our comments, please do not hesitate to contact us.

Your interest and cooperation in helping to protect Florida's archaeological and historical resources are appreciated.

Sincerely,

George W. Percy
State Historic Preservation Officer

GWP/efk

OFFICE OF THE GOVERNOR

The Capitol, Tallahassee, Florida 32301
Telephone: 904/488-1234

RECEIVED

MEMORANDUM

To: Debby Tucker, OCS Committee, Planning and Budgeting, Office of the Governor
From: W. W. Goode, Governor's Energy Office

Subject: Exploration Plan/Environmental Report Destin Dome Blocks 55, 56, 57, 99 and 100 (SAI# FL8602140808C)
Date: February 27, 1986

The "Description of the Proposed Action" taken from the Environmental Report/Exploration Plan for Destin Dome Blocks 56, 57, and 99 has been reviewed. The plan submitted by Conoco Inc., appears adequate and no other comments are made.

WWG/mm