UNITED STATES GOVERNMENT
MEMORANDUM

September 16, 2003

To: Public Information (MS 5034)

From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan

Control #	-	S-06267
Type	-	Supplemental Development Operations Coordinations Document
Lease(s)	-	OCS-G01984 Block - 225 Ship Shoal Area
Operator	-	PetroQuest Energy, L.L.C.
Description	-	Well E009
Rig Type	-	JACKUP

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.

Robert Stringfellow
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/E009	G01984/SS/225	2230 FNL, 2000 FWL	G01984/SS/225

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NOTED - SCHEXNAILDRE

PetroQuest
ENERGY, L.L.C.

September 9, 2003

U.S. Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Attention: Mr. Nick Wetzel
Plans Unit

RE: Supplemental Development Operations Coordination Document for Lease OCS-G 01984, Ship Shoal Block 225, OCS Federal Waters, Gulf of Mexico, Offshore, Louisiana

Gentlemen:

In accordance with the provisions of Title 30 CFR 250.203 and that certain Notice to Lessees (NTL 2003-G17), PetroQuest Energy, L.L.C. (PetroQuest) hereby submits for your review and approval eight (8) copies of a Supplemental Development Operations Coordination Document for Lease OCS-G 01984, Ship Shoal Block 225, Offshore, Louisiana. Five (5) copies are "Proprietary Information", and three (3) copies are "Public Information".

Excluded from the Public Information copies are certain geologic and geophysical discussions and attachments.

Contingent upon receiving regulatory approvals and based on equipment and personnel availability, PetroQuest anticipates operations under this Plan commencing as early as October 1, 2003.

Should additional information be required, please contact the undersigned, or our regulatory consultant, R.E.M. Solutions, Inc., Attention: Christine Groth at 281.492.8562.

Sincerely,

PETROQUEST ENERGY, L.L.C.

Art Mixon, III/CAG

Art Mixon, III
Senior Vice President-Operations

Public Information

AM:CAG
Attachments

PETROQUEST ENERGY, L.L.C.
400 East Kaliste Saloom Road, Suite 6000
Lafayette, Louisiana 70508

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

LEASE OCS-G 01984

SHIP SHOAL BLOCK 225

PREPARED BY:

Christine Groth
R.E.M. Solutions, Inc.
17171 Park Row, Suite 390
Houston, Texas 77084
281.492.8562 (Phone)
281.492.6117 (Fax)
christine@remsolutionsinc.com

DATED:

September 9, 2003

SECTION A
PLAN CONTENTS

A. Description, Objectives and Schedule

Lease OCS-G 01984, Ship Shoal Block 225 was acquired by Pennzoil Producing Company at the Central Gulf of Mexico Lease Sale No. 21. The lease was issued with an effective date of September 1, 1970 and a primary term ending date of August 31, 1975.

The current lease operatorship and ownership are as follows:

Area/Block Lease No.	Operator	Ownership
Ship Shoal Block 225 Lease OCS-G 01984	Energy Resource Technology	Energy Resource Technology Elysium Energy Fidelity Exploration & Production Company

PetroQuest is in the process of becoming the designated operator of an aliquot portion of the subject oil and gas lease.

PetroQuest proposes to drill, complete and produce additional Well Location E009 under this proposed Supplemental Development Operations Coordination Document (Plan). Included as *Attachment A-1* is a geological discussion of the trapping features.

PetroQuest proposes to conduct these operations as outlined in the following activity schedule:

Proposed Activity	*Start Up Date*	*Completion Date*
Drill and Complete Well Location E009	10/01/2003	11/01/2003
Commence Production of Well Location E009	11/02/2003	12/31/2012

B. Location

Included as *Attachments A-1 and A-2* are Form MMS-137 "OCS Plan Information Form" and the Bathymetry Map detailing the proposed well surface location disturbance areas.

PetroQuest proposes to utilize a typical jack-up drilling unit; therefore, no anchors are utilized.

SECTION A
Contents of Plan - Continued

C. Drilling Unit

PetroQuest will utilize a typical jack-up drilling rig for the proposed drilling and completion operations provided for in this Plan. Actual rig specifications will be included with the Application for Permit to Drill.

Safety of personnel and protection of the environment during the proposed operations is of primary concern with PetroQuest, and mandates regulatory compliance with the contractors and vendors associated with the proposed operations as follows:

Minerals Management Service regulations contained in Title 30 CFR Part 250, Subparts C, D, E, G and O mandate the operations comply with well control, pollution prevention, construction and welding procedures as described in Title 30 CFR Part 250, Subparts C, D, E, G and O; and as further clarified by MMS Notices to Lessees.

Minerals Management Service conducts periodic announced and unannounced onsite inspections of offshore facilities to confirm operators are complying with lease stipulations, operating regulations, approved plans, and other conditions; as well as to assure safety and pollution prevention requirements are being met. The National Potential Incident of Noncompliance (PINC) List serves as the baseline for these inspections.

U. S. Coast Guard regulations contained in Title 33 CFR mandate the appropriate life rafts, life jackets, ring buoys, etc., be maintained on the facility at all times.

U. S. Environmental Protection Agency regulations contained in the NPDES General Permit GMG290000 mandate that supervisory and certain designated personnel on-board the facility be familiar with the effluent limitations and guidelines for overboard discharges into the receiving waters.

D. Production Facility

The existing Platform E is a manned 2-deck, 9 slot platform which is bridge connected to Platform B. Produced hydrocarbons from Platform B are transported via existing lease pipelines to a subsea tie-in point in Ship Shoal Block 225.

Other than installing associated platform piping and a dedicated separator, there are no immediate plans to further modify the existing facility.

Geological Targets and Trapping Features

Attachment A-1
(Proprietary Information)

OCS Plan Information Form

Attachment A-2
(Public Information)

OMB Control No. 1010-0049
Expiration Date: September 30, 2003

OCS PLAN INFORMATION FORM
(USE SEPARATE FORM FOR EACH LEASE)

EXPLORATION PLAN		DEVELOPMENT OPERATIONS COORDINATION DOCUMENT	X	DEVELOPMENT & PRODUCTION PLAN	

OPERATOR:	PetroQuest Energy, L.L.C.	ADDRESS:	400 E. Kaliste Saloon Rd., Suite 6000, Lafayette, LA 70506
MMS OPERATOR NO.:	0222		
CONTACT PERSON:	Christine Groth at R.E.M. Solutions, Inc.	PHONE NO.	281.492.8562

PROPOSED START DATE: 10/01/2003	RIG TYPE: JU	DISTANCE TO CLOSEST LAND (IN MILES): 54

NEW OR UNUSUAL TECHNOLOGY	YES		NO	X	ONSHORE SUPPORT BASE:	Fourchon, Louisiana

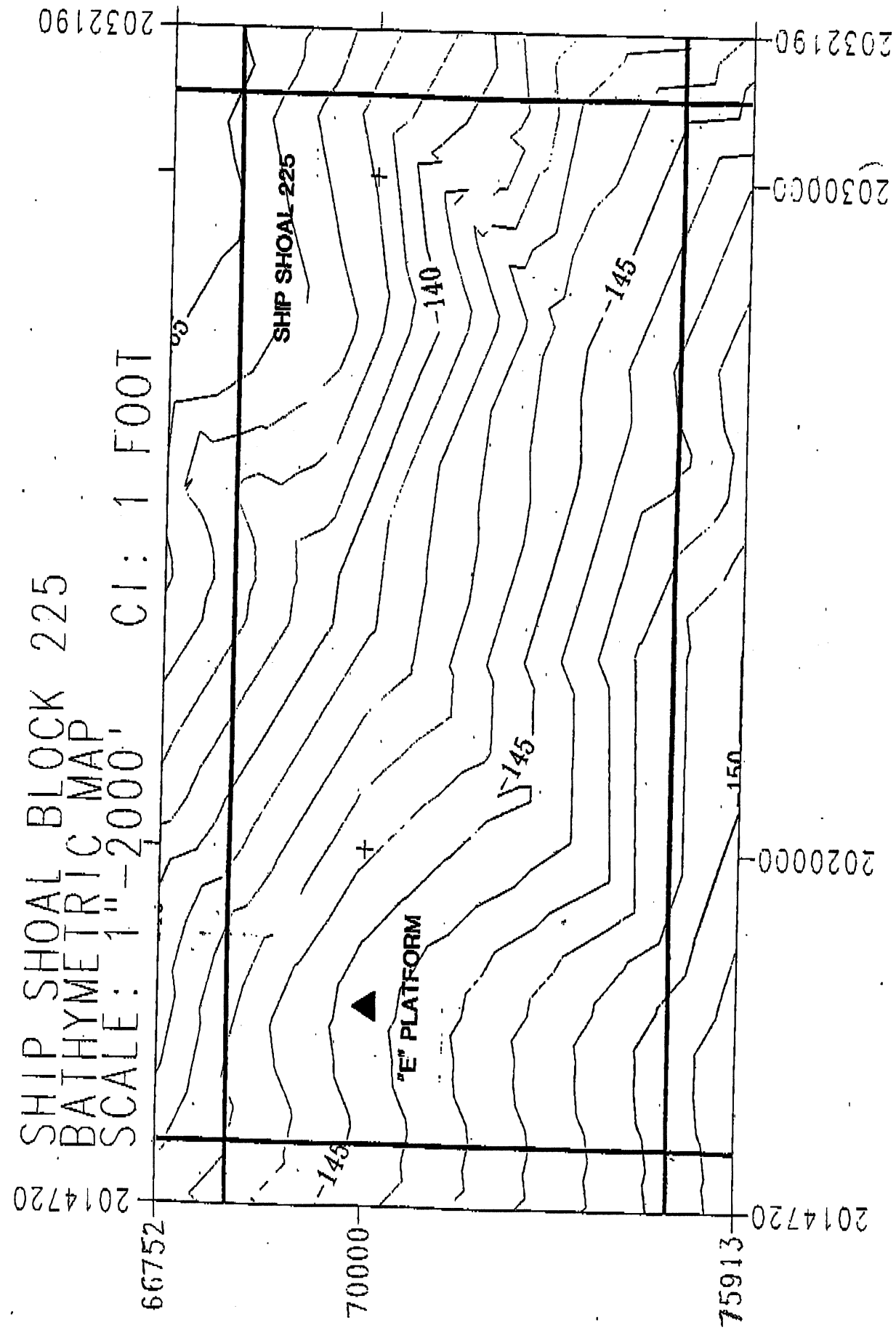
NARRATIVE DESCRIPTION PROPOSED ACTIVITIES:	Drill, complete and produce Well No. E009.
	PROJECT NAME, IF APPLICABLE: NA

PROPOSED WELL/STRUCTURE LOCATIONS

WELL / STRUCTURE NAME	SURFACE LOCATION	BOTTOM-HOLE LOCATION (FOR WELLS)
Well No. E009 Name:	CALLS: 2230' F N L and 2000' F W L OF LEASE OCS G 01984 , Ship Shoal AREA, BLOCK 225	CALLS: LEASE OCS G 01984 , Ship Shoal AREA, BLOCK 225
	X: 2,017,600 Y: -70,100	X: Y:
	LAT: 28°28'26.0599" LONG: 91°16'42.8510"	LAT: LONG:
	TVD (IN FEET):	MD (IN FEET):
		WATER DEPTH (IN FEET): 145'

Bathymetry Map

Attachment A-3
(Public Information)


SHIP SHOAL BLOCK 225
BATHYMETRIC MAP
SCALE: 1"=2000' CI: 1 FOOT
SHIP SHOAL 225
"E" PLATFORM
-135
-140
-145
-145
-145
-150
2032190
2030000
2020000
2014720
66752
70000
75913

SECTION B
General Information

A. Contact

Questions or requests for additional information should be made to PetroQuest's authorized representative for this project:

Christine Groth
R.E.M. Solutions, Inc.
17171 Park Row, Suite 390
Houston, Texas 77084
281.492.8562 (Phone)
281.492.6117 (Fax)
christine@remsolutionsinc.com

B. Project Name

PetroQuest does not typically provide project names to their development activity.

C. Production Rates and Life of Reserves

PetroQuest estimates the life of reserves for the proposed development activity to be nine (9) years, with the following estimated combined production rates:

Product	*Average Rates*	*Peak Rates*
Gas		
Condensate		

D. New or Unusual Technology

PetroQuest does not propose using any new and/or unusual technology for the operations proposed in this plan.

E. Bonding Information

In accordance with Title 30 CFR Part 256, Subpart I, PetroQuest Energy, L.L.C. has on file with the Minerals Management Service Gulf of Mexico Regional Office a $3,000,000 Areawide Development Bond.

As deemed warranted, Minerals Management Service will contact the designated operator in the event a supplemental bond is required for the proposed operations, as outlined in Notice to Lessees

(NTL) 2003-N06 to cover plugging liability of the wellbores, removal of associated well protector structures and site clearance.

PetroQuest is aware that such bonding may be imposed, and will submit accordingly upon notification from the Minerals Management Service.

F. Onshore Base and Support Vessels

The surface disturbances in Ship Shoal Block 225 are located approximately 54 miles from the nearest Louisiana shoreline, and approximately 70 miles from the onshore support base to be located in Fourchon, Louisiana.

PetroQuest will use an existing onshore base to accomplish the following routine operations, and does not anticipate the need for any expansion of the selected facilities as a result of the activities proposed in this Plan:

- Loading/Offloading point for equipment supporting the offshore operations,
- Dispatching personnel and equipment,
- Temporary storage for materials and equipment,
- 24-Hour Dispatcher

Personnel involved in the proposed operations will typically use their own vehicles as transportation to and from the selected onshore base; whereas the selected vendors will transport the equipment by a combination of trucks, boats and/or helicopters to the onshore base. The personnel and equipment will then be transported to the field via the transportation methods and frequencies shown below, taking the most direct route feasible as mandated by weather and traffic conditions:

Support Vessel	Drilling/Completion Trips Per Week
Crew Boat	7
Supply Boat	3
Helicopter	2

PetroQuest does not propose for an increase in production vessel activity for the additional well.

A Vicinity Plat showing the surface location in Ship Shoal Block 225 relative to the shoreline and onshore base is included as ***Attachment B-1.***

SECTION B
General Information - Continued

G. Lease Stipulations

Under the Outer Continental Shelf Lands Act, the Minerals Management Service is charged with the responsibility of managing and regulating the exploration and development on the OCS.

As part of the regulatory process, an Environmental Impact Statement (EIS) is prepared for each lease sale, at which time mitigation measures are addressed in the form of lease stipulations, which then become part of the oil and gas lease terms and are therefore enforceable as part of that lease.

As part of this process, the designated operator proposing to conduct related exploratory and development activities, must review the applicable lease stipulations, as well as other special conditions, which may be imposed by the Minerals Management Service, and other governing agencies.

Military Warning Area

The hold and save harmless section of the Military Areas Stipulation serves to protect the U.S. Government from liability in the event of an accident involving the designated oil and gas lease operator and military activities.

The electromagnetic emissions section of the stipulation requires the operator and its agents to reduce and curtail the use of radio or other equipment emitting electromagnetic energy within some areas.

This serves to reduce the impact of oil and gas activity on the communications of military missions and reduces the possible effects of electromagnetic energy transmissions on missile testing, tracking, and detonation.

The operational section requires notification to the military of oil and gas activity to take place within a military use area. This allows the base commander to plan military missions and maneuvers that may avoid the areas where oil and gas activities are taking place or to schedule around these activities. Prior notification helps reduce the potential impacts associated with vessels and helicopters traveling unannounced through areas where military activities are underway.

The Military Areas Stipulation reduces potential impacts, particularly in regards to safety, but does not reduce or eliminate the actual physical presence of oil and gas operations in areas where military operations are conducted.

SECTION B
General Information - Continued

The reduction in potential impacts resulting from this stipulation makes multiple-use conflicts most unlikely. Without the stipulation, some potential conflict is likely. The best indicator of the overall effectiveness of the stipulation may be that there has never been an accident involving a conflict between military operations and oil and gas activities.

The existing surface disturbance in Ship Shoal Block 225 is located within Military Warning Area W-59A. Therefore, in accordance with the requirements of the referenced stipulation, PetroQuest will contact the Naval Air Station – JRB in order to coordinate and control the electromagnetic emissions during the proposed operations.

Special Conditions

The proposed surface disturbance activity in Ship Shoal Block 225 will not be affected by any special conditions and/or multiple uses, such as designated shipping/anchorage areas, lightering zones, rigs-to-reef zone, or ordnance disposal zones.

I. Related OCS Facilities and Operations

As addressed earlier in this Plan, PetroQuest is proposing to drill, complete and produce an additional well from Platform E, which is bridge connected to Platform B. Production will be transported via existing 16-inch gas lease pipeline (Segment No. 3342) to subsea tie-in point in Block 222 and via existing 6-inch oil lease pipeline (Segment No. 3373) to a subsea tie-in point in Block 225.

The anticipated flow rates and shut-in times for the subject pipelines are as follows:

Origination Point	*Flow Rates*	*Shut In Time*
Platform B/E		

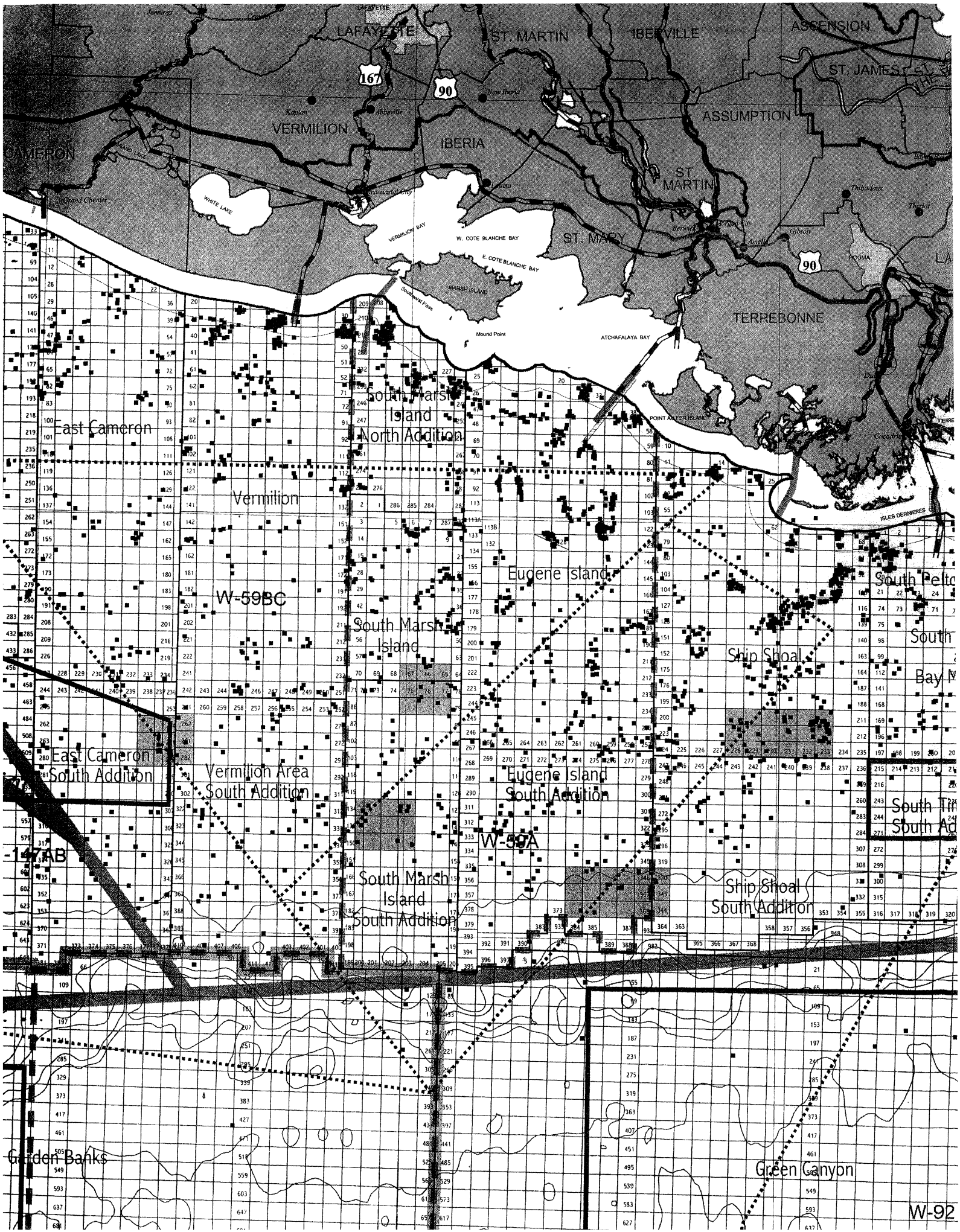
J. Transportation Information

Produced hydrocarbons from the respective structure addressed above will be further transported via existing lease pipelines (Segments No. 3342 and 3373).

PetroQuest does not anticipate installation of any new and/or modified onshore facilities to accommodate the production of Ship Shoal Block 225.

Vicinity Plat

Attachment B-1
(Public Information)


LAFAYETTE
ST. MARTIN
IBERVILLE
ASSENSION
ST. JAMES
ASSUMPTION
VERMILION
IBERIA
CAMERON
ST. MARTIN
ST. MARY
TERREBONNE
WHITE LAKE
VERMILION BAY
W. COTE BLANCHE BAY
E. COTE BLANCHE BAY
MARSH ISLAND
Mound Point
ATCHAFALAYA BAY
POINT AU FER ISLAND
ISLES DERNIERES
East Cameron
South Marsh Island North Addition
Vermilion
W-59BC
South Marsh Island
Eugene Island
Ship Shoal
East Cameron South Addition
Vermilion Area South Addition
Eugene Island South Addition
W-59A
South Marsh Island South Addition
Ship Shoal South Addition
-147AB
Garden Banks
Green Canyon
W-92

SECTION C
Geological, Geophysical & H2S Information

A. Structure Contour Maps

Included as *Attachment C-1* is a current structure map (depth base and expressed in feet subsea) depicting the entire lease coverage area; drawn on the top of each prospective hydrocarbon sand. The map depicts the bottom hole location for the respective well provided in this Plan.

B. Interpreted Deep Seismic Lines

Included as *Attachment C-2* (original copy only) is a page size copy of the migrated and annotated (shot point, time lines, well paths) of the deep seismic line within 500 feet of the surface location.

C. Geological Structure Cross Sections

An interpreted geological cross section depicting the proposed well location and depth of the proposed well is included as *Attachment C-3*. Such cross section corresponds to the seismic line being submitted.

D. Shallow Hazards Reports

Copies of these reports have been previously submitted to the Minerals Management Service under separate cover.

E. Shallow Hazards Assessment

The proposed operations will be conducted from an existing surface location under a previously approved Plan of Exploration; therefore a shallow hazards analysis is not required.

F. High Resolution Seismic Lines

The proposed operations will be conducted from an existing surface location under a previously approved Plan of Exploration; therefore high resolution survey data lines are not required.

G. Stratigraphic Column

A generalized biostratigraphic/lithostratigraphic column from the seafloor to the total depth of the proposed wells is not required for the proposed operations provided for in this Plan.

SECTION C
Geological, Geophysical & H2S Information-Continued

H. Hydrogen Sulfide Classification

In accordance with Title 30 CFR 250.417, PetroQuest requests that Ship Shoal Block 225 be classified by the Minerals Management Service as an area where the absence of hydrogen sulfide has been confirmed based on the following wells which were drilled to the stratigraphic equivalent of the wells proposed in this Plan:

Lease	*Area/Block*	*Well No.*	*Stratigraphic Equivalent*
G 1984	SS 225	G-3	"DV" - "EJ" Sands
		G-10	"DQ" - "DY" Sands

Structure Maps

Attachment C-1
(Proprietary Information)

Deep Seismic Lines

Attachment C-2
(Proprietary Information)

Cross Section Maps

Attachment C-3
(Proprietary Information)

SECTION D
Biological and Physical Information

A. Chemosynthetic Information

The proposed seafloor disturbing activities are in water depths less than 400 meters (1312 feet); therefore, this section of the Plan is not applicable.

B. Topographic Features Information

MMS and the National Marine Fisheries Service (NMFS) have entered into a programmatic consultation agreement for Essential Fish Habitat that requires that no bottom disturbing activities, including anchors or cables from a semi-submersible drilling rig, may occur within 500 feet of the no-activity zone of a topographic feature. If such proposed bottom disturbing activities are within 500 feet of a no activity zone, the MMS is required to consult with the NMFS.

The activities proposed in this Plan are not affected by a topographic feature.

C. Live Bottom (Pinnacle Trend) Information

Certain leases are located in areas characterized by the existence of live bottoms. Live bottom areas are defined as seagrass communities; those areas that contain biological assemblages consisting of sessile invertebrates living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; and areas where the lithotope favors the accumulation of turtles, fishes, or other fauna. These leases contain a Live Bottom Stipulation to ensure that impacts from nearby oil and gas activities on these live bottom areas are mitigated to the greatest extent possible.

For each affected lease, the Live Bottom Stipulation requires that you prepare a live bottom survey report containing a bathymetry map prepared by using remote sensing techniques. This report must be submitted to the Gulf of Mexico OCS Region (GOMR) before you may conduct any drilling activities or install any structure, including lease term pipelines in accordance with NTL 99-G16.

Ship Shoal Block 225 is not located within the vicinity of a proposed live bottom area.

D. Remotely Operated Vehicle (ROV Surveys)

Pursuant to NTL No. 2003-G03, operators my be required to conduct remote operated vehicle (ROV) surveys during pre-spudding and post-drilling operations for the purpose of biological and physical observations.

Ship Shoal Block 225 is not located within an area where ROV Surveys are required.

SECTION D
Biological and Physical Information-Continued

E. Archaeological Reports

In conjunction with this geophysical survey, an archaeological survey and report was also prepared to comply with the requirements of NTL 2002-G01, as Ship Shoal Block 225 is located within a high probability pre-historic area for potential archaeological resources.

This requirement provides protection of prehistoric and historic archaeological resources by requiring remote sensing surveys in areas designated to have a high probability for archaeological resources.

The archaeological report was included in the Shallow Hazards Report previously submitted to Minerals Management Service.

SECTION E
Wastes and Discharge/Disposal Information

The Minerals Management Service (MMS), U. S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (EPA) regulate the overboard discharge and/or disposal of operational waste associated with drilling, completing, testing and/or production operations from oil and gas exploration and production activities.

Minerals Management Service regulations contained in Title 30 CFR 250.300 require operators to "prevent the unauthorized discharge of pollutants into offshore waters". These same regulations prohibit the intentional disposal of "equipment, cables, chains, containers, or other materials" offshore. Small items must be stored and transported in clearly marked containers and large objects must be individually marked. Additionally, items lost overboard must be recorded in the facility's daily log and reported to MMS as appropriate.

U. S. Coast Guard regulations implement the Marine Pollution Research and Control Act (MARPOL) of 1987 requiring manned offshore rigs, platforms and associated vessels prohibit the dumping of all forms of solid waste at sea with the single exception of ground food wastes, which can be discharged if the facility is beyond 12 nautical miles from the nearest shore. This disposal ban covers all forms of solid waste including plastics, packing material, paper, glass, metal, and other refuse. These regulations also require preparation, monitoring and record keeping requirements for garbage generated on board these facilities. The drilling contractor must maintain a Waste Management Plan, in addition to preparation of a Daily Garbage Log for the handling of these types of waste. MODU's are equipped with bins for temporary storage of certain garbage. Other types of waste, such as food, may be discharged overboard if the discharge can pass through 25-millimeter type mesh screen. Prior to off loading and/or overboard disposal, an entry will be made in the Daily Garbage Log stating the approximate volume, the date of action, name of the vessel, and destination point.

U. S. Environmental Protection Agency regulations address the disposal of oil and gas operational wastes under three Federal Acts. The Resource Conservation and Recovery Act (RCRA), which provides a framework for the safe disposal of discarded materials, regulating the management of solid and hazardous wastes. The direct disposal of operational wastes into offshore waters is limited under the authority of the Clean Water Act. And, when injected underground, oil and gas operational wastes are regulated by the Underground Injection Control program. If any wastes are classified as hazardous, they are to be properly transported using a uniform hazardous waste manifest, documented, and disposed at an approved hazardous waste facility.

A National Pollutant Discharge Elimination System (NPDES) permit, based on effluent limitation guidelines, is required for any discharges into offshore waters. PetroQuest has requested coverage under the Region VI NPDES General Permit GMG290000 for discharges associated with exploration and development activities in Ship Shoal Block 225 and will take applicable steps to ensure all offshore discharges associated with the proposed operations will be conducted in accordance with the permit.

SECTION E
Wastes and Discharge/Disposal Information-Continued

A. Composition of Solid and Liquid Wastes

Associated solid and liquid wastes generated during the proposed activities addressed in this Plan are well treatment/completion/workover fluids, with associated wastes such as chemicals, cement wastes, sanitary and domestic waste, trash and debris, ballast water, storage displacement water, deck drainage, hydraulic fluids, used oil, oily water and filters, and other miscellaneous minor discharges.

The major operational solid waste in the largest quantities generated from the proposed operations will be the drill cuttings, drilling and/or completion fluids. Other associated wastes include waste chemicals, cement wastes, sanitary and domestic waste, trash and debris, ballast water, storage displacement water, rig wash and deck drainage, hydraulic fluids, used oil, oily water and filters, and other miscellaneous minor discharges.

These wastes are generated into categories, being solid waste (trash and debris), nonhazardous oilfield waste (drilling fluids, nonhazardous waste including cement and oil filters), and hazardous wastes (waste paint or thinners).

The type of discharges included in this permit application allow for the following effluents to be discharged overboard, subject to certain limitations, prohibitions and recordkeeping requirements.

B. Disposed Wastes

The wastes detailed in ***Attachment E-1*** are those wastes generated by our proposed activities that are disposed of by means of offsite release, injection, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

PetroQuest will manifest these wastes prior to being offloaded from the MODU, and transported to shore for disposal at approved sites regulated by the applicable State. Additionally, PetroQuest will comply with any approvals or reporting and recordkeeping requirements imposed by the State where ultimate disposal will occur.

Waste Disposal Table

Attachment E-1
(Public Information)

PetroQuest Energy, L.L.C.
Ship Shoal Block 225
Examples of Wastes and Discharges Information

Table 1. Disposal Table (Wastes to be disposed of, not discharged)

Type of Waste Approximate Composition	Amount*	Rate per day	Name/Location of Disposal Facility	Treatment and/or Storage, Transport and Disposal Method
Spent oil-based drilling fluids and cuttings	1,000 bbl/well	200 bbl/day	Newpark Environmental Fourchon, LA	Transport to shore in barge tanks to a land farm
Spent synthetic-based drilling fluids and cuttings	1,000 bbl/well	200 bbl/day	Newpark Environmental Fourchon, LA	Transport to shore base in cuttings boxes on crew boat then inject down hole at offshore waste disposal facility
Oil-contaminated produced sand	200 lb/yr	0.6 bbl/day	Newpark Environmental Fourchon, LA	Store in a cuttings box and transport to a land farm
Waste Oil	200 bbl/yr	0.5 bbl/yr	Newpark Environmental Fourchon, LA	Pack in drums and transported to an onshore Incineration site
Produced Water	250,000 bbl/yr	1,000 bbl/day	Ship Shoal Block 225	Transport by vessel and inject at Ship Shoal Block 225
Produced Water	250,000 bbl/yr	1,000 bbl/day	Ship Shoal Block 225	Pipe to a well on-lease, inject down hole
Norm – contaminated wastes	1 ton	Not applicable	Ship Shoal Block 225	Transport to a transfer station via dedicated barge
Trash and debris	1,000 ft^3	3 ft^3/day	Newpark Environmental Fourchon, LA	Transport in storage bins on crew boat to disposal facility
Chemical product wastes	50 bbl/yr	2 bbl/day	Newpark Environmental Fourchon, LA	Transport in containers to shore location
Chemical product wastes	100 bbl	2 bbl/day	Newpark Environmental Fourchon, LA	Transport in barrels on crew boat to shore location

*can be expressed as a volume, weight, or rate

SECTION F
Oil Spill Response and Chemical Information

A. Regional Oil Spill Response Plan (OSRP) Information

The Minerals Management Service approved PetroQuest Energy, L.L.C.'s annual update to their Regional Oil Spill Response Plan (OSRP) on October 15, 2002. PetroQuest Energy, L.L.C. and PetroQuest Energy, Inc. are the entities covered under this plan. Activities proposed in this Supplemental Development Operations Coordination Document will be covered by the Regional OSRP.

B. Oil Spill Removal Organizations (OSRO)

PetroQuest utilizes Clean Gulf Associates (CGA) as its primary provider for equipment, which is an industry cooperative owning an inventory of oil spill clean-up equipment. CGA is supported by the Marine Spill Response Corporation's (MSRC), which is responsible for storing, inspecting, maintaining and dispatching CGA's equipment. The MSRC STARS network provides for the closest available personnel, as well as an MSRC supervisor to operate the equipment.

C. Worst-Case Scenario Comparison (WCD)

Category	*Current Regional OSRP WCD*	*Proposed Development WCD*
Type of Activity	Production	Drilling/Completion/Production
Facility Surface Location	Vermilion Block 200	Ship Shoal Block 225
Facility Description	Platform A	Platform E
Distance to Nearest Shoreline (Miles)	53	54
Volume: Storage Tanks (total) Facility Piping (total) Lease Term Pipeline Uncontrolled Blowout (day) **Potential 24 Hour Volume (Bbls.)**	13,145	1,548
Type of Liquid Hydrocarbon	Crude Oil	Crude Oil
API Gravity	40°	33.4°

SECTION F
Oil Spill Response and Chemical Information (Continued)

Since PetroQuest has the capability to respond to the worst-case discharge (WCD) spill scenario included in its Regional OSRP approved on October 15, 2002, and since the worst-case scenario determined for our DOCD does not replace the worst-case scenario in our Regional OSRP, I hereby certify that PetroQuest has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our DOCD.

D. Facility Tanks, Production Vessels

The following table details the *tanks* (capacity greater than 25 bbls. or more) to be used to support the proposed activities (MODU and barges):

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil	MODU	250	2	500	38° (Diesel)

E. Spill Response Sites

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

F. Diesel Oil Supply Vessels

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

G. Support Vessel Fuel Tanks

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

H. Produced Liquid Hydrocarbon Transportation Vessels

Produced liquid hydrocarbons from the proposed operations will be transported via existing pipelines detailed in Section B of this Plan.

I. Oil and Synthetic-Based Drilling Fluids

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

SECTION F
Oil Spill Response and Chemical Information-Continued

J. Oil Characteristics

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

K. Blowout Scenario

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

L. Spill Discussion for NEPA Analysis

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

M. Pollution Prevention Measures

According to NTL 2003-G17, the section of the Plan is not applicable to the proposed operations.

N. FGBNMS Monitoring Plans

Ship Shoal Block 225 is not located within the designated area of the Flower Garden Banks National Marine Sanctuary.

SECTION G
Air Emissions Information

The primary air pollutants associated with OCS development activities are:

- Carbon Monoxide
- Particulate Matter
- Sulphur Oxides
- Nitrogen Oxides
- Volatile Organic Compounds

These offshore air emissions result mainly from the drilling rig operations, helicopters, and support vessels. These emissions occur mainly from combustion or burning of fuels and natural gas and from venting or evaporation of hydrocarbons. The combustion of fuels occurs primarily on diesel-powered generators, pumps or motors and from lighter fuel motors. Other air emissions can result from catastrophic events such as oil spills or blowouts.

A. Calculating Emissions

Included as *Attachment G-1* is the Projected Air Quality Emissions Report (Form MMS-138) addressing the proposed drilling, and completion operations utilizing a typical jack-up drilling unit, with related support vessels and construction barge information.

B. Screening Questions

As evidenced by *Attachment G-1*, the worksheets were completed based on the facility complex processing eight or more wells.

C. Emission Reduction Measures

The projected air emissions are within the exemption level; therefore, no emission reduction measures are being proposed.

D. Verification of Non-Default Emissions Factors

PetroQuest has elected to use the default emission factors as provided in *Attachment G-1.*

E. Non-Exempt Activities

The proposed activities are within the exemption amount as provided in *Attachment G-1.*

SECTION G
Air Emissions Information-Continued

F. Review of Activities with Emissions Below the Exemption Level

The proposed activities are below the exemption amount and should not affect the air quality of an onshore area, as provided in *Attachment G-1.*

G. Modeling Report

The proposed activities are below the exemption amount and should not affect the air quality of an onshore area.

Air Emissions Report

Attachment G-1
(Public Information)

DOCD AIR QUALITY SCREENING CHECKLIST

OMB Control No. 1010-0049
OMB Approval Expires: September 30, 2003

COMPANY	PetroQuest Energy, L.L.C.
AREA	Ship Shoal
BLOCK	225
LEASE	OCS-G 01984
PLATFORM	B/E
WELL	E009
COMPANY CONTACT	Christine Groth, R.E.M. Solutions, Inc.
TELEPHONE NO.	281.492.8562
REMARKS	Drill, complete and produce Well Location E009

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:		
YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		

Screening Questions for DOCD's	Yes	No
Is any calculated Complex Total (CT) Emission amount (in tons associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: CT = $3400D^{2/3}$ for CO, and CT = 33.3D for the other air pollutants (where D = distance to shore in miles)?		X
Does your emission calculations include any emission reduction measures or modified emission factors?		X
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells?	X	
Do you expect to encounter H_2S at concentrations greater than 20 parts per million (ppm)?		X
Do you propose to flare or vent natural gas in excess of the criteria set forth under 250.1105(a)(2) and (3)?		X
Do you propose to burn produced hydrocarbon liquids?		X
Are your proposed development and production activities located within 25 miles from shore?		X
Are your proposed development and production activities located within 200 kilometers of the Breton Wilderness Area?		X

Air Pollutant		Plan Emission Amounts[1] (tons)	Calculated Exemption Amounts[2] (tons)		Calculated Complex Total Emission Amounts[3] (tons)
Carbon monoxide (CO)		50.46	48574.47		NA
Particulate matter (PM)		6.49	1798.2		NA
Sulphur dioxide (SO_2)		29.69	1798.2		NA
Nitrogen oxides (NOx)		236.59	1798.2		NA
Volatile organic compounds (VOC)		8.36	1798.2		NA

[1] For activities proposed in your EP or DOCD, list the projected emissions calculated from the worksheets.
[2] List the exemption amounts in your proposed activities calculated using the formulas in 30 CFR 250.303(d).
[3] List the complex total emissions associated with your proposed activities calculated from the worksheets.

AIR EMISSION CALCULATIONS - FIRST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
etroQuest Energy, L.L.C	Ship Shoal	225	OCS-G 01984	B/E	E009		Christine Groth, R.E.M. Solutions	281.492.8562	#REF!

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	11400	550.62	13214.88	24	61	8.04	36.86	276.21	8.29	60.26	5.88	26.98	202.19	6.07	44.11
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	2065	99.7395	2393.75	8	61	1.46	6.68	50.03	1.50	10.92	0.36	1.63	12.21	0.37	2.66
	VESSELS>600hp diesel(supply)	2065	99.7395	2393.75	10	26	1.46	6.68	50.03	1.50	10.92	0.19	0.87	6.50	0.20	1.42
	VESSELS>600hp diesel(tugs)	4200	202.86	4868.64	12	2	2.96	13.58	101.76	3.05	22.20	0.04	0.16	1.22	0.04	0.27
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION Platform B/E	RECIP.<600hp diesel (Crane)	160	7.728	185.47	3	6	0.35	0.52	4.93	0.39	1.07	0.00	0.00	0.04	0.00	0.01
	RECIP.<600hp diesel (Generator)	350	16.905	405.72	3	24	0.77	1.13	10.79	0.86	2.34	0.03	0.04	0.39	0.03	0.08
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas (Compressor)	400	2857.2	68572.80	24	60		0.00	10.40	0.63	1.41		0.00	7.49	0.46	1.01
	RECIP.4 cycle lean nat gas (Generator)	350	2500.05	60001.20	24	60		0.00	9.10	0.56	1.23		0.00	6.55	0.40	0.89
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			2226.0		60				1.11					0.80	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2003 YEAR TOTAL							**15.03**	**65.45**	**513.26**	**17.90**	**110.35**	**6.49**	**29.69**	**236.59**	**8.36**	**50.46**
EXEMPTION CALCULATION	**DISTANCE FROM LAND IN MILES**											**1798.20**	**1798.20**	**1798.20**	**1798.20**	**48574.47**
	54.0															

AIR EMISSIONS CALCULATIONS - SECOND YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
PetroQuest Energy, L.L.C.	Ship Shoal	225	OCS-G 01984	B/E	E009		Christine Groth, R.E.M. Solutions	281.492.8562	#REF!

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(tugs)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION Platform B/E	RECIP.<600hp diesel (Crane)	160	7.728	185.47	3	36	0.35	0.52	4.93	0.39	1.07	0.02	0.03	0.27	0.02	0.06
	RECIP.<600hp diesel (Generator)	350	16.905	405.72	3	144	0.77	1.13	10.79	0.86	2.34	0.17	0.24	2.33	0.19	0.50
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas (Compressor)	400	2857.2	68572.80	24	366		0.00	10.40	0.63	1.41		0.01	45.66	2.79	6.19
	RECIP.4 cycle lean nat gas (Generator)	350	2500.05	60001.20	24	366		0.00	9.10	0.56	1.23		0.01	39.95	2.44	5.42
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			2226.0		366				1.11					4.89	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2004 YEAR TOTAL							1.12	1.65	35.22	3.56	6.05	0.19	0.29	88.21	10.32	12.17
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1798.20	1798.20	1798.20	1798.20	48574.47
	54.0															

AIR EMISSION CALCULATIONS

OMB Control No. xxxx-xxxx
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
PetroQuest Energy, L.L.C.	Ship Shoal	225	OCS-G 01984	B/E	E009

Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	6.49	29.69	236.59	8.36	50.46
2004	0.19	0.29	88.21	10.32	12.17
2005	0.19	0.29	88.21	10.32	12.17
2006	0.19	0.29	88.21	10.32	12.17
2007	0.19	0.29	88.21	10.32	12.17
2008	0.19	0.29	88.21	10.32	12.17
2009	0.19	0.29	88.21	10.32	12.17
2010	0.19	0.29	88.21	10.32	12.17
2011	0.19	0.29	88.21	10.32	12.17
2012	0.19	0.29	88.21	10.32	12.17
Allowable	1798.20	1798.20	1798.20	1798.20	48574.47

SECTION H
Environmental Impact Analysis

A. IMPACT PRODUCING FACTORS (IPF'S)

The following matrix is utilized to identify the environmental resources that could be impacted by these IPF's. An "x" has been marked for each IPF category that PetroQuest has determined may impact a particular environmental resource as a result of the proposed activities. For those cells which are footnoted, a statement is provided as to the applicability of the proposed activities, and where there may be an effect, an analysis of the effect is provided.

Environmental Resources	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor	Physical Disturbances To the seafloor (rig or anchor emplacement, etc.)	Wastes Sent to Shore for Treatment Or disposal	Accidents (e.g. oil spills, chemical spills, H2S releases)	Other IPF's identified
Site Specific at Offshore Location						
Designated topographic feature						
Pinnacle Trend area live bottoms						
Eastern Gulf live bottoms						
Chemosynthetic communities						
Water quality		X			X	
Fisheries		X			X	
Marine mammals	X	X			X	
Sea turtles	X	X			X	
Air quality						
Shipwreck sites (known or potential)						
Prehistoric archaeological sites						
Vicinity of Offshore Location						
Essential fish habitat					X	
Marine and pelagic birds					X	
Public health and safety						
Coastal and Onshore						
Beaches					X	
Wetlands					X	
Shorebirds and coastal nesting birds					X	
Coastal wildlife refuges					X	
Wilderness areas					X	
Other Resources						

SECTION H
Environmental Impact Analysis-Continued

B. VICINITY OF OFFSHORE LOCATION ANALYSES

1. Designated Topographic Features

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to topographic features. The existing surface disturbance within Ship Shoal Block 225 is located approximately 28 miles away from the closest designated topographic feature (Ewing Bank). The crests of designated topographic features in the northern Gulf are found below 10 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by the currents moving around the bank; thereby avoiding the sessile biota.

2. Pinnacle Trend Live Bottoms

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to a pinnacle trend area. The existing surface disturbance within Ship Shoal Block 225 is located a significant distance (> 100 miles) from the closest pinnacle trend live bottom stipulated block. The crests of the pinnacle trend area are much deeper than 20 m. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and thus not impacting the pinnacles.

3. Eastern Gulf Live Bottoms

There are no anticipated effluents, physical disturbances to the seafloor, and accidents from the proposed activities that could cause impacts to Eastern Gulf live bottoms. The existing surface disturbance within Ship Shoal Block 225 are located a significant distance (>100 miles) from the closest pinnacle Eastern Gulf live bottom stipulated block. In the event of an accidental oil spill from the proposed activities, the gravity of such oil (high gravity condensate and/or diesel fuel) would rise to the surface, quickly dissipate, and/or be swept clear by currents moving around the bank; and would not be expected to cause adverse impacts to Eastern Gulf live bottoms because of the depth of the features and dilutions of spills.

4. Chemosynthetic Communities

The water depth at Platform E in Ship Shoal Block 225 is approximately 146 feet. Therefore, the proposed activities are not located within the vicinity of any known chemosynthetic communities, which typically occur in water depths greater than 400 meters.

SECTION H
Environmental Impact Analysis-Continued

5. Water Quality

Accidental oil spill releases from the proposed activities, and cumulative similar discharge activity within the vicinity could potentially cause impacts to water quality. It is unlikely that an accidental oil spill release would occur from the proposed activities. In the event of such a release, the water quality would be temporarily affected by the dissolved components and small droplets. Currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. PetroQuest will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

6. Fisheries

Accidental oil spill releases from the proposed activities, and cumulative similar discharge activity within the vicinity may potentially cause some detrimental effects on fisheries. It is unlikely a spill would occur; however, such a release in open waters closed to mobile adult finfish or shellfish would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. PetroQuest will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality.

SECTION H
Environmental Impact Analysis-Continued

7. Marine Mammals

As a result of the proposed activities, marine mammals may be adversely impacted by traffic, noise, accidental oil spills, cumulative similar discharge activity, and loss of trash and debris. Chronic and sporadic sublethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from natural or anthropogenic sources. Few lethal effects are expected from accidental oil spill, chance collisions with service vessels and ingestion of plastic material.

The net results of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Collisions between cetaceans and ship could cause serious injury or death (Laist et al., 2001). Sperm whales are one of 11 whale species that are him commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. PetroQuest will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements. As such, it is not anticipated these discharges will cause significant adverse impacts to water quality. Additionally, PetroQuest and its contractors will conduct the proposed activities under the additional criteria addressed by MMS in Notice to Lessee's (NTL's) 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination".

8. Sea Turtles

As a result of the proposed activities, sea turtles may be adversely impacted by traffic, noise, accidental oil spills, cumulative similar discharges, and loss of trash and debris. Small numbers of turtles could be killed or injured by chance collision with service vessels or by eating indigestible trash, particularly plastic items accidentally lost from drilling rigs, production facilities and service vessels. Drilling rigs and project vessels (construction barges) produce noise that could disrupt normal behavior patterns and crease some stress to sea turtles, making them more susceptible to disease. Accidental oil spill releases are potential threats which could have lethal effects on turtles. Contact and/or consumption of this released material could seriously affect individual sea turtles. Most OCS related impacts

on sea turtles are expected to be sublethal. Chronic and/or avoidance of effected areas could cause declines in survival or productivity, resulting in gradual population declines.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill. PetroQuest will conduct the proposed activities under EPA's Region VI NPDES General Permit GMG290000 which authorizes the discharge of certain effluents, subject to certain limitations, prohibitions and recordkeeping requirements.

As such, it is not anticipated these discharges will cause significant adverse impacts to water quality. Additionally, PetroQuest and its contractors will conduct the proposed activities under the additional criteria addressed by MMS in Notice to Lessee's (NTL's) 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species" and NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination".

9. Air Quality

The proposed activities are located approximately 54 miles to the nearest shoreline. There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Air quality analyses of the proposed activities are below the MMS exemption level.

10. Shipwreck Site (Known or Potential)

There are no physical disturbances to the seafloor which could impact known or potential shipwreck sites, as the review of high resolution shallow hazards data indicate there are no known or potential shipwreck sites located within the surveyed area.

11. Prehistoric Archaeological Sites

There are no physical disturbances to the seafloor which could cause impacts to prehistoric archaeological sites, as the review of high resolution shallow hazards data and supporting studies did not reflect the occurrence of prehistoric archaeological sites.

SECTION H
Environmental Impact Analysis-Continued

Site Specific Offshore Location Analyses

1. Essential Fish Habitat

An accidental oil spill that may occur as a result of the proposed activities has potential to cause some detrimental effects on essential fish habitat. It is unlikely that an accidental oil spill release would occur; however, if a spill were to occur in close proximity to finfish or shellfish, the effects would likely be sublethal and the extent of damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

2. Marine and Pelagic Birds

An accidental oil spill that may occur as a result of the proposed activities has potential to impact marine and pelagic birds, by the birds coming into contact with the released oil. It is unlikely that an accidental oil spill release would occur.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

3. Public Health and Safety Due to Accidents

There are no anticipated IPF's from the proposed activities that could impact the public health and safety. PetroQuest has requested MMS approval to classify the proposed objective area as absent of hydrogen sulfide.

SECTION H
Environmental Impact Analysis-Continued

Coastal and Onshore Analyses

1. Beaches

An accidental oil spill release from the proposed activities could cause impacts to beaches. However, due to the distance from shore (approximately 54 miles), and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

2. Wetlands

An accidental oil spill release from the proposed activities could cause impacts to wetlands. However, due to the distance from shore (approximately 54 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

3. Shore Birds and Coastal Nesting Birds

An accidental oil spill release from the proposed activities could cause impacts to shore birds and coastal nesting birds. However, due to the distance from shore (approximately 54 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

4. Coastal Wildlife Refuges

An accidental oil spill release from the proposed activities could cause impacts to coastal wildlife refuges. However, due to the distance from shore (approximately 54 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

5. Wilderness Areas

An accidental oil spill release from the proposed activities could cause impacts to wilderness areas. However, due to the distance from shore (approximately 54 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. Both historical spill data and the combined trajectory/risk calculations referenced in the publication of OCS EIA /EA MMS 2202-052 indicate there is little risk of contact or impact to the coastline and associated environmental resources.

In the event of an unanticipated blowout resulting in an oil spill, it is unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of PetroQuest's Regional Oil Spill Response Plan which address available equipment and personnel, techniques for containment and recovery, and removal of the oil spill.

Other Identified Environmental Resources

PetroQuest has not identified any other environmental resources other than those addressed above.

SECTION H
Environmental Impact Analysis-Continued

Impacts on Proposed Activities

No impacts are expected on the proposed activities as a result of taking into consideration the site specific environmental conditions.

A High Resolution Shallow Hazards Survey was conducted, a report prepared in accordance with NTL 2003-G17 and NTL 98-20.

Based on the analysis of the referenced data, there are no surface or subsurface geological and manmade features and conditions that may adversely affect the proposed activities. PetroQuest will institute procedures to avoid pipelines and abandoned wells within the vicinity of the proposed operations.

Alternatives

PetroQuest did not consider any alternatives to reduce environmental impacts as a result of the proposed activities.

Mitigation Measures

PetroQuest will not implement any mitigation measures to avoid, diminish, or eliminate potential environmental resources, other than those required by regulation and policy.

Consultation

PetroQuest has not contacted any agencies or persons for consultation regarding potential impacts associated with the proposed activities. Therefore, a list of such entities is not being provided.

SECTION H
Environmental Impact Analysis-Continued

References

The following documents were utilized in preparing the Environmental Impact Assessment:

Document	*Author*	*Dated*
Shallow Hazards Survey		
MMS Environmental Impact Statement Report No. 2002-15	Minerals Management Service	2002
NTL 2003-N06 "Supplemental Bond Procedures"	Minerals Management Service	2003
NTL 2003-G10 "Vessel Strike Avoidance and Injured/Dead Protective Species"	Minerals Management Service	2003
NTL 2003-G11 "Marine Trash & Debris Awareness & Elimination"	Minerals Management Service	2003
NTL 2002-G09 "Regional and Subregional Oil Spill Response Plans"	Minerals Management Service	2002
NTL 2003-G17 "Guidance for Submitting Exploration Plans and Development Operations Coordination Documents"	Minerals Management Service	2003
NTL 2002-G01 "Archaeological Resource Surveys and Reports"	Minerals Management Service	2002
NTL 2000-G16 "Guidelines for General Lease Surety Bonds"	Minerals Management Service	2000
NTL 98-20 "Shallow Hazards Survey Requirements"	Minerals Management Service	1998
NTL 98-16 "Hydrogen Sulfide Requirements"	Minerals Management Service	1998
NPDES General Permit GMG290000	EPA – Region VI	1998
Regional Oil Spill Response Plan	PetroQuest Energy, L.L.C.	2002

SECTION I
CZM Consistency

Under direction of the Coastal Zone Management Act (CMZA), the States of Alabama, Florida, Louisiana, Mississippi and Texas developed Coastal Zone Management Programs (CZMP) to allow for the supervision of significant land and water use activities that take place within or that could significantly impact their respective coastal zones.

The proposed supplemental development operations do not require Coastal Zone Management Consistency.