ITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region

New Orleans, Louisiana

FINA NOTED — KRAMER

SITE-SPEC. IC ENVIRONMENTAL ASSESSMENT

ENDANGERED SPECIES/STRUCTURE REMOVAL

Nos. ES/SR 91-083 and 91-084

Structure-Removal Activities

East Cameron, Block 106

Lease OCS-G 8644

August, 1991

UNITED STATES DEPARTMENT OF THE INTERIOR

MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region

New Orleans, Louisiana

FINAL

NOTED -- KRAMER

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

ENDANGERED SPECIES/STRUCTURE REMOVAL

Nos. ES/SR 91-083 and 91-084

Assessment of the Environmental Impacts of the Proposed Removal of Platforms A and B in East Cameron, Block 106 (Lease OCS-G 8644) by Union Pacific Resources

Date Submitted: July 9, 1991

Commencement Date: August, 1990

Prepared by Ken Graham

FINDING OF NO SIGNIFICANT IMPACT

I have considered the structure removal application by Union Pacific Resources to remove Platforms A and B in East Cameron, Block 106 (OCS-G 8644), SEA Nos. ES/SR 91-083 and 91-084. Based on the environmental analysis and mitigative measures contained in the site-specific environmental assessment, there is no evidence to indicate that the proposed action(s) will significantly (40 CFR 1508.27) affect the quality of the human environment. Preparation of an environmental impact statement is not required.

Jerry Brashier for

Regional Supervisor
Leasing and Environment
Gulf of Mexico OCS Region

8/23/91
Date

TABLE OF CONTENTS

INTRODUCTION AND BACKGROUND

The purpose of this Site-Specific Environmental Assessment (SEA) is to assess the specific impacts associated with proposed structure-removal activities. The SEA is based on a Programmatic Environmental Assessment (PEA) (USDOI, MMS, 1987) which evaluates a broader spectrum of potential impacts resulting from the removal of structures, e.g., platforms/caissons across the Central and Western Planning Areas of the Gulf of Mexico Outer Continental Shelf. The PEA/SEA process is designed to simplify and reduce the size of environmental assessment documents by eliminating repetitive discussions of the same issues. This SEA conforms to MMS and other appropriate guidelines for preparing environmental assessments by utilizing data presented in the PEA to complete the assessment. It presents site-specific data regarding the proposed structure removal and evaluates the removal's potential impacts. Preparation of this SEA has allowed the determination of whether a Finding of No Significant Impact (FONSI) is appropriate or whether further assessment of the proposal is necessary.

I. DESCRIPTION OF THE PROPOSAL AND NEED FOR THE PROPOSAL

A. DESCRIPTION OF THE PROPOSED ACTION WITH MITIGATION

Union Pacific Resources, proposes to remove Platforms A and B in East Cameron, Block 106 (Lease OCS-G 8644). The structures are located at a water depth of 70 feet. Block 106 lies about 27 miles southwest of the nearest landfall in Cameron Parish, Louisiana. The operator plans to use mechanical cutting to sever the Platform A and B caissons as well as the support piles for Platform A. Platform B is a jackup drilling rig which was converted to a production platform by securing the jackup mat to the sea floor with pin piles. The pin piles will be mechanically pulled prior to jackdown of the rig. All structures will be cut at 16 feet below the mud line.

Since no explosives will be utilized during the proposed removal activities, MMS has determined that sea turtles and marine mammals will not be affected. A Section 7 Consultation under the Endangered Species Act will not be initiated.

Refer to Appendix A for structure specifications and additional information on the removal activities.

In the course of this evaluation process, the following protective measure (in addition to normal operating requirements) was identified to further mitigate the environmental impacts associated with the proposal:

Our analyses indicate that there are existing pipelines located within 150 meters (490 feet) of the proposed activities.

These pipelines may pose a hazard to the proposed operations. Precautions in accordance with NTL 83-3, Section IV.B, will be taken prior to performing the proposed operations.

B. NEED FOR THE PROPOSED ACTION

A discussion of the legal and regulatory mandates to remove abandoned oil and gas structures from Federal waters can be found in the PEA (USDOI, MMS, 1987). Platforms A and B are being removed because the wells have become depleted and no further need for the structures exists.

II. ALTERNATIVE TO THE PROPOSED ACTION

The alternative to the proposed structure removal as originally submitted is non-removal. Non-removal of the structure would represent a conflict with Federal legal and regulatory requirements, which mandate the timely removal of obsolete or abandoned structures within a period of one year after termination of the lease, or upon termination of a right of use or easement. Therefore, non-removal does not appear to be a valid alternative.

III. ENVIRONMENTAL EFFECTS, SOCIOECONOMIC CONCERNS, AND OTHER CONSIDERATIONS

A. PHYSICAL ENVIRONMENT

1. Environmental Geology and Geologic Hazards

A discussion of environmental geology and geologic hazards can be found in the PEA (USDOI, MMS, 1987). The proposed structure-removal activities are not in an area of sediment instability (mud flows, slumps, or slides). Therefore, geologic conditions are not expected to have an impact on the proposed structure-removal activities.

2. Meteorological Conditions

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Physical and Chemical Oceanography

a. Physical Oceanography

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

b. Chemical Oceanography

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

4. Water Quality

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

5. Air Quality

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

B. BIOLOGICAL ENVIRONMENT

1. Coastal Habitats

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

2. Protected, Endangered, and/or Threatened Species

a. Birds

The operator has indicated that they propose to use Cameron, Louisiana as the shore base to support the proposed structure-removal activities. The PEA (USDOI, MMS, 1987) delineates sensitive areas along the Texas coastline where whooping cranes and brown pelicans could be adversely impacted by structure-removal support activities.

The proposed work is not expected to impact threatened or endangered birds or their habitats.

b. Marine Mammals

A discussion of marine mammals occurring across the Gulf of Mexico (GOM) and an assessment of the potential impacts of structure-removal activities on marine mammals can be found in the PEA (USDOI, MMS, 1987). Fritts et al. (1983) conducted aerial surveys across a 9,514 square mile area of GOM waters. Results of these surveys indicate that the bottlenose dolphin is by far the most likely marine mammal to be encountered at the proposed structure removal. Since the proposed structure removal will not utilize explosives, no impacts are expected on marine mammals.

c. Sea Turtles

A discussion of sea turtles occurring across the central and western GOM and an assessment of the potential impacts of structure-removal activities on sea turtles can be found in the PEA (USDOI, MMS, 1987). Studies by Fritts et al. (1983) and Fuller and Tappan (1986) as well as stranding data from the Sea Turtle Stranding and Salvage Network (Teas and Martinez, 1990) indicate that sea turtles occur in the vicinity of the proposed activities. Definitive information on the probability of encountering sea turtles at the removal site during removal operations is scarce. Since the proposed structure removal will not utilize explosives, no impacts are expected on sea turtles.

3. Birds

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

4. Sensitive Marine Habitats

A discussion of sensitive marine habitats occurring in the central and western GOM and an assessment of the potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1987). The proposed activities are not near any sensitive marine habitats. Therefore, the subject structure removal will not impact any sensitive marine habitats or their resident biota.

5. Offshore Habitats and Biota

Impacts are expected to be low as a result of the activities. For analysis information, see the PEA r .n the Introduction.

C. SOCIOECONOMIC CONCERNS

1. Employment

Impacts are expected to be very low as a resu. of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

2. Economics

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Onshore Support Facilities, Land Use, and Coastal Communities and Services

The operator has indicated that Cameron, Louisiana would be the shore base for the proposed structure-removal activities. No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

D. OTHER CONSIDERATIONS

1. Commercial and Recreational Fisheries

a. Commercial Fisheries

For analysis information, see the PEA referenced in the Introduction. Since the PEA was originally written, new concerns have emerged concerning the impacts of explosive structure removals on reef fish populations. On May 9, 1991 the Gulf of Mexico Fishery Management Council expressed concern over the declining stocks of reef fish, especially red snapper. They referred to the anecdotal accounts of finfish kills associated with explosive removal of offshore structures in order to link these activities with their concerns about declining populations of reef fish. They further suggested that MMS should hold all explosive structure removals in abeyance until more information becomes available on the effects of these activities on fish stocks. See the PEA (Section on Offshore Habitats and Biota) for a discussion of fish kills in association with explosive structure removals.

MMS has declined to hold all explosive structure removals in abeyance citing the regulatory mandates for structure removals and problems with current non-explosive structure removal methods. MMS has stated a commitment to carry out studies to assess the impacts of oil and gas structure removals on Gulf fisheries resources and the results of these studies will be used to determine future policies with respect to these activities.

MMS continues to consider the overall impacts of structure removals on commercial fishing to be low. The MMS policy of encouraging an active rigs-to-reefs program will help to offset cumulative structure-removal impacts to fisheries resources.

b. Recreational Fisheries

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction. See the preceding section for a discussion of fish kills in association with explosive structure removals.

2. Archaeological Resources

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Military Use/Warning Areas and Explosive Dumping Areas

The proposed structure-removal activities will not take place in a military use/warning area or in an explosive dumping area. A description of these areas, their locations and potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1987). In addition, the shore base location chosen by the operator and/or his contractor(s), will not require support vessels or aircraft to traverse any of these areas. Therefore, the proposed activities will not impact or be impacted by any military use/warning areas or explosives dumping areas.

4. Navigation and Shipping

The structures to be removed are not located in a vessel safety fairway or in an anchorage area. Structures located nearshore may serve as "landmarks" to vessels or helicopters operating in the area on a regular basis. The overall impacts of the proposed work on navigation and shipping is expected to be very low. More information on the impacts of structure removals on navigation and shipping can be found in the PEA (USDOI, MMS, 1987).

5. Pipelines and Cables

The PEA (USDOI, MMS, 1987) contains a description of the impacts of structure-removal activities on pipelines and cables. There are existing pipelines within 150 meters (490 feet) of the proposed structure-removal activities. Precautions in accordance with NTL No. [illegible], Section IV.B., will be taken prior to conducting the removal activities; therefore, the proposed work will not pose a hazard to pipelines(s) and cable(s) in the area.

6. Other Mineral Resources

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

7. Human Health and Safety

The PEA (USDOI, MMS, 1987) describes the hazardous conditions for workers during structure-removal activities. The operator has proposed nonexplosive methods to remove the subject structure. Existing legal and regulatory safety requirements

will keep the impacts of the proposed work on human health and safety at a very low level.

F. UNAVOIDABLE ADVERSE IMPACTS

A discussion of unavoidable adverse impacts can be found in the PEA (USDOI, MMS, 1987). Two areas of ongoing concern have been the potential impact to protected, threatened, and/or endangered species and potential loss of habitat to the marine environment. Both topics are discussed in the PEA and previously in this document. A more recent issue of concern has surfaced regarding the impacts of explosive structure removals on reef fish stocks. This issue has been previously discussed in this document. Although the impacts to commercial and recreational fisheries is considered to be low, further studies information about this issue should be available in the future. Other unavoidable adverse impacts are considered to be minor

IV. PUBLIC OPINION

A discussion of public concerns regarding structure removals can be found in the PEA (USDOI, MMS, 1987).

In May 1991, the Gulf of Mexico Fishery Management Council requested that the MMS place a moratorium over the explosive removal of offshore structures with three or more supports. Nonremoval of these structures would conflict with current Federal legal and regulatory requirements which mandate the timely removal of abandoned or obsolete structures within a period of one year after termination of the lease, or upon termination of a right-of-use or easement.

The MMS believes that current data on the effects of explosive removals on fish mortality is insufficient to draw any conclusions, and a moratorium on all but single pile caissons at this time is unjustified. In order to quantify explosive effects, the MMS initiated an interagency study with the NMFS to determine fish mortalities from platform removal operations. In addition to the above study, MMS supports an active rigs-to-reef program and encourages industry to search for method that will minimize effects on fish from platform removal operations.

V. CONSULTATION AND COORDINATION

In accordance with the provisions of Section 7 of the Endangered Species Act, this proposed structure removal does not require coordination with the National Marine Fisheries Service (NMFS).

VI BIBLIOGRAPHY AND SPECIAL REFERENCE(S)

Fritts, T.H., A.B. Irvine, R.D. Jennings, L.A. Collum, W. Hoffman, and M.A. McGehee. 1983. Turtles, birds, and mammals in the northern Gulf of Mexico and nearby Atlantic waters. U.S. Fish and Wildlife Service, Division of Biological Services, Washington, D.C.

Fuller, D.A. and A.M. Tappan. 1986. The occurrence of sea turtles in Louisiana coastal waters. Coastal Fisheries Institute. Center for Wetland Resources. Louisiana State University. Baton Rouge, LA.

Teas, Wendy G. and Anthony Martinez. 1990. 1989 third-quarter report of the sea turtle stranding and salvage network. Atlantic and Gulf Coasts of the United States. January - September 1989. National Marine Fisheries Service. Southeast Fisheries Center, Miami Laboratory, 75 Virginia Beach Drive, Miami, FL.

U.S. Department of the Interior. Minerals Management Service. 1990. Final Environmental Impact Statement. Proposed OCS oil and gas lease sales 131, 135, and 137 (Central, Western, and Eastern Gulf of Mexico). OCS EIS/EA MMS No. 90-0042. Washington, D.C. Available from the Gulf of Mexico Region or from NTIS, Springfield VA: vol.1, PB90-273582; vol.2, PB90-273590.

U.S. Department of the Interior. Minerals Management Service. 1988. Final Environmental Impact Statement. Proposed OCS oil and gas lease sales 118 and 122 (Central and Western Gulf of Mexico). OCS EIS/MMS 880044. Washington, D.C. Available from NTIS, Springfield, VA: PB89-114193/AS.

U.S. Department of the Interior Minerals Management Service. 1987. Programmatic Environmental Assessment. Structure-removal activities Central and Western Gulf of Mexico Planning Areas. OCS/EA 87-0002. Gulf of Mexico OCS Region, New Orleans, LA.

VII. PREPARERS

Author:

Ken Graham - Biologist

Typist:

Sandra Y. Pavlas - Clerk Typist

VIII. APPENDIX

A. UNION PACIFIC RESOURCES CORRESPONDENCE

APPENDIX A

UNION PACIFIC RESOURCES CORRESPONDENCE

Nonexplosive

91-083

Graham

UNITED STATES GOVERNMENT
MEMORANDUM

7-11-91

To: Environmental Operations Section (LE-5)

From: Office of Structural and Technical Support, Field Operations, Gulf of Mexico OCS Region (OSTS)

Subject: Platform Removal

RECEIVED
JUL 11 1991
Minerals Management Service
Leasing & Environment

OPERATOR: UNION PACIFIC RESOURCES

Control No: ES/SR 524-91-083

Platform	Area/Block	Lease
PLATFORM A	EAST CAMERON 106	OCS G-8644

Shore Base: PROBABLY CAMERON, LA.

The attached application is forwarded to your office so that the Finding of No Significant Impact can be prepared. Since explosives will not be used in this removal operation, an Endangered Species Act Section 7 Consultation Documentation is not required. There are/~~are no~~ existing pipeline(s) within 500 feet of the proposed removal location. PLEASE ADVISE IF THIS LOCATION IS IN A BIOLOGICALLY SENSITIVE AREA.

Arvind Shah (OSTS)
Extension 2894

Attachment

cc:

AShah: :LEXITYPE:Disk 5

91-083

Union Pacific Resources

July 8, 1991

Mr. Daniel Bourgeois
Regional Supervisor
Office of Field Operations
U. S. Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

RECEIVED
JUL 09 1991
Office of Structural and Technical Support

Attention: Mr. Arvind Shah
Mail Stop 5210

RE: Proposed OCS Platform Removal Application
Lease OCS-G 8644, Platform A
East Cameron Block 106, Offshore, LA

Gentlemen:

In accordance with regulations contained in Title 30 CFR 250.143, Union Pacific Resources Company (Union Pacific) hereby submits in triplicate, an application with supporting documentation covering the proposed abandonment of Platform A, East Cameron Block 106, Offshore, Louisiana.

Platform A consists of a 48" braced caisson structure that accommodated one well. A procedure to plug and abandon this well has been approved by the District Office.

As stated in the application, Union Pacific anticipates commencing the proposed activities on July 12, 1991.

The proposed site clearance verification plans will be submitted under separate cover. We are currently waiting on bids for this work.

Should you have any questions or requests for additional information, please contact the undersigned or J. Connor Consulting, Inc., Attention: Susan Wilson at (713) 558-0607.

Very truly yours,

J. R. Carter, Jr.
Regulatory Manager

JRC,JR:SEW
Enclosures

PROPOSED OCS PLATFORM REMOVAL

I. Responsible Party

A. Lease Operator Name: Union Pacific Resources Company

B. Address: P. O. Box 7, MS 3407, Fort Worth, Texas 76101

C. Contact Person and Telephone Number: J. R. Carter, Jr.
(817) 877-7950

II. Identification of Structure to be Removed

A. Platform Name: Platform A

B. Location (Lease, Area, Block and Coordinates)

East Cameron Block 106, OCS-G 8644

Latitude: 29° 09'53.1"; Longitude: 92° 4503.1"

C. Date Installed (Year): 1988

D. Proposed Date of Removal (Month/Year): 7-91

E. Water Depth: 70'

III. Description of Structure to be Removed

A. Configuration: See attached

B. Size: Upper, Intermediate and Production Decks (Each has a 12' X 12' spacing)

C. Number of Legs/Casings/Pilings: 48" braced caisson with pile foundation

D. Diameter and Wall Thickness of Legs/Casings/Pilings:

48" x .75" x 1.00' x 1.25" x 1.50" x 1.75" Caisson
with (2) 42" x .75" x 1.00" x 1.375" Piles

E. Are Piles Grouted? N/A Inside or Outside? -----

F. Brief Description of Soil Composition and Condition:

N/A

IV. Purpose

Brief Description of the reason for removing the structure:

Well No. A-1 to be plugged and abandoned; reservoir is depleted

V. Removal Method

A. Brief description of the method to be used:

1) Remove Deck
2) Move in Jack-Up Drilling Rig
3) Plug and Abandon Well No.1
4) Jump Divers and Mechanically Cut 48" Caisson and 42" Piles to 16' Below Mud Line

B. If explosives are to be used, provide the following:

1. Kind of Explosives: N/A

2. Number and Sizes of Charges: N/A

a. Single Shot or Multiple Shots: N/A

b. If multiple shots, sequence and timing of detonations

N/A

3. Bulk or Shaped Charge: N/A

a. Depth of Detonation Below Mud Line: N/A

b. Inside or Outside Piling: N/A

C. Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed:

N/A

If yes, provide the following:

a. Number and Kind: N/A

b. Size of Charges: N/A

c. Brief description of how, where, and when scare charges or acoustic devices will be used: N/A

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals: N/A

If yes, briefly describe the proposed detection method:

Visual on surface prior to detonation as required

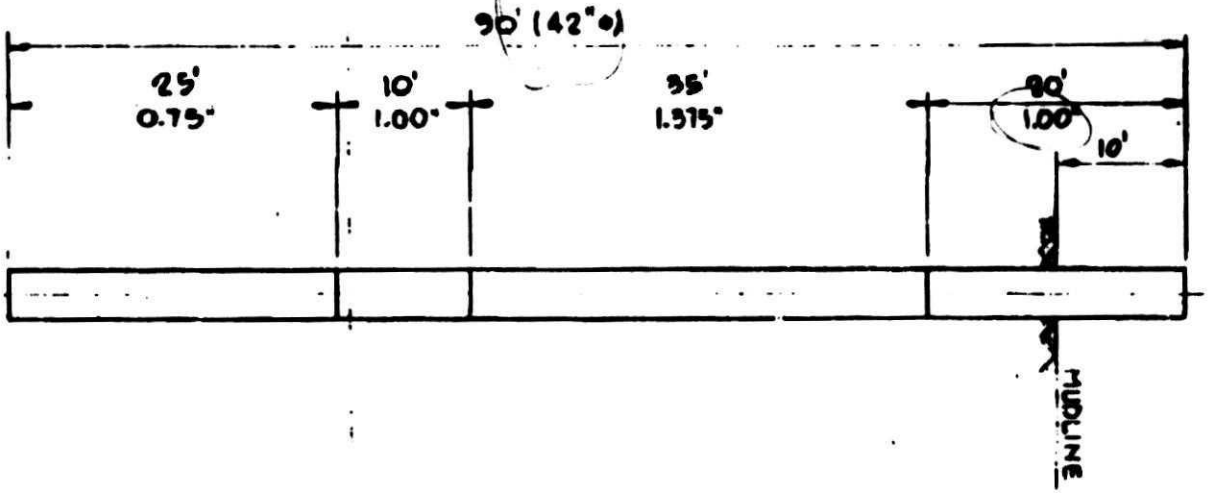
D. Post-Removal Monitoring Techniques

1. Will transducers be used to measure the pressure and impulse of the detonations: N/A

2. Will divers be used to survey the area after removal to determine any effects on marine life: N/A

VI. Biological Information

If available, provide the results of any recent biological surveys conducted in the vicinity of the structure. If available, describe any recent observations of turtles or marine mammals at the structure site.



PILE MAKE-UP

VAILABLE COPY

PACIFIC RESOURCES CO.

SIGNATURE

TITLE

LEASE NO. OCS-G-8644

BLOCK NO BLOCK 106 WELL # 1

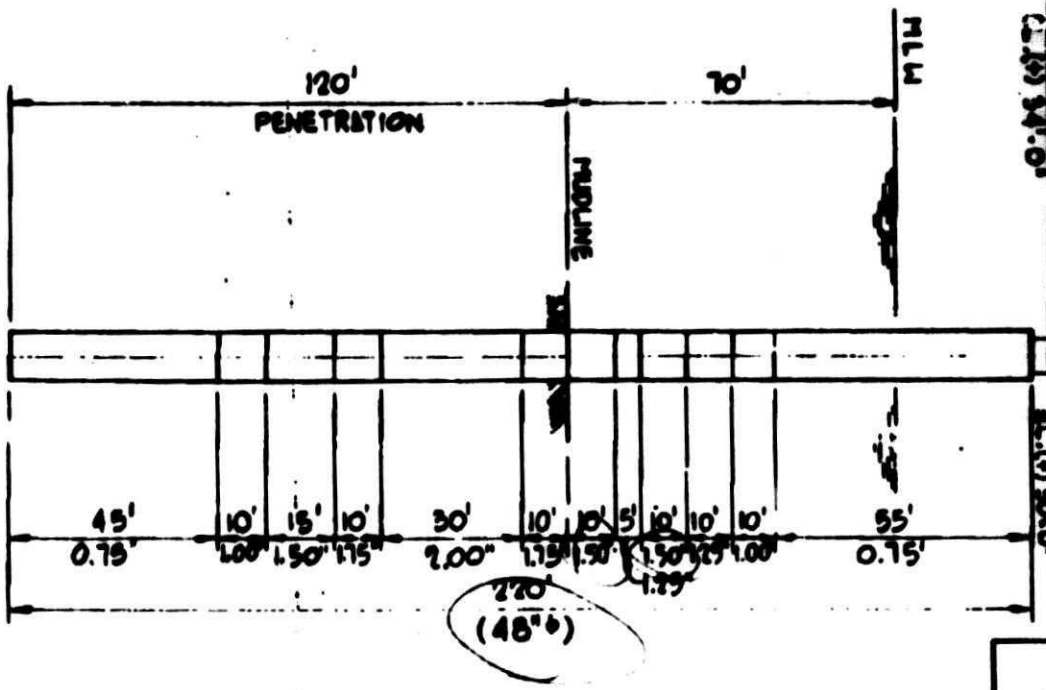
AREA EAST CAMERON

OPERATOR UNION PACIFIC RESOURCES CO.

SEAL

APPD

DATE



CAISSON MAKE-UP

RONNIE L. SMITH
6971
SEAL

APPLICATION BY:
COMPANY UNION PACIFIC RESOURCES CO.
SIGNATURE
TITLE

LEASE NO. OCS-G-9644
BLOCK NO. BLOCK 196 WELL # 1
AREA EAST CAMERON
OPERATOR UNION PACIFIC RESOURCES CO.

APP'D
DATE 10/1/

Nonexplosive

Graham

UNITED STATES GOVERNMENT
MEMORANDUM

9-11-91

To: Environmental Operations Section (LE-5)

From: Office of Structural and Technical Support, Field Operations, Gulf of Mexico Region (OSTS)

Subject: Platform Removal

OPERATOR: UNION PACIFIC RESOURCES

Control No: ES/SR 525-91-084

Platform	Area/Block	Lease
PLATFORM B	EAST CAMERON 106	OCS G-8644

Shore Base: PORT ARTHUR, LA.

The attached application is forwarded to your office so that the Finding of No Significant Impact can be prepared. Since explosives will not be used in this removal operation, an Endangered Species Act Section 7 Consultation Documentation is not required. There are/~~are not~~ existing pipeline(s) within 500 feet of the proposed removal location. PLEASE ADVISE IF THIS LOCATION IS IN A BIOLOGICALLY SENSITIVE AREA.

Arvind Shah (OSTS)
Extension 2894

Attachment

cc:

AShah: :LEXITYPE:Disk 5

91-084

Union Pacific Resources

July 8, 1991

RECEIVED
JUL 09 1991
Office of Structural and Technical Support

Mr. Daniel Bourgeois
Regional Supervisor
Office of Field Operations
U. S. Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Attention: Mr. Arvind Shah
Mail Stop 5210

RE: Proposed OCS Platform Removal Application
Lease OCS-G 8644, Platform B
East Cameron Block 106, Offshore, LA

Gentlemen:

In accordance with regulatic ...ed in Title 30 CFR 250.143, Union Pacific Resourc ...n Pacific) hereby submits in triplicate, an ...with supporting documentation covering the pro... of Platform B, East Cameron Block 106, Offshor...

Platform B consists of a mobile production unit (MOPU) which is a mat type jackup drilling rig that was converted to a production platform. The MOPU was secured on location with 10 pin piles driven through openings in MOPU's mat and into the ocean floor.

As stated in the application, Union Pacific anticipates commencing the proposed activities on July 12, 1991.

The proposed site clearance verification plans will be submitted under separate cover. We are currently waiting on bids for this work.

Should you have any questions or requests for additional information, please contact the undersigned or J. Connor Consulting, Inc., Attention: Susan Wilson at (713) 558-0607.

Very truly yours,

J. R. Carter, Jr.
Regulatory Manager

JRC,JR:SEW
Enclosures

PROPOSED OCS PLATFORM REMOVAL

I. Responsible Party

A Lease Operator Name: Union Pacific Resources Company

B Address: P. O. Box 7, MS 3407, Fort Worth, Texas 76101

C Contact Person and Telephone Number: J. R. Carter, Jr.
(817) 877-7950

II. Identification of Structure to be Removed

A Platform Name: Platform B

B Location (Lease, Area, Block and Coordinates)

East Cameron Block 106, OCS-G 5644

Latitude: 29° 09'53.1"; Longitude: 92° 45'03.1"

C Date Installed (Year): 1990

D Proposed Date of Removal (Month/Year): 7-91

E Water Depth: 70'

III. Description of Structure to be Removed

A Configuration: See attached

B Size: N/A

C Number of Legs/Casings/Pilings: N/A

D Diameter and Wall Thickness of Legs/Casings/Pilings:

N/A

E Are Piles Grouted? N/A Inside or Outside? -----

F. Brief Description of Soil Composition and Condition:

N/A

IV. Purpose

Brief Description of the reason for removing the structure:

Well No. A-1 to be plugged and abandoned; reservoir is depleted

V. Removal Method

A. Brief description of the method to be used:

1) Pull 10 Piles
2) Jack Down MOPU
3) Remove with the Aid of Tugs

B. If explosives are to be used, provide the following:

1. Kind of Explosives: N/A

2. Number and Sizes of Charges: N/A

a. Single Shot or Multiple Shots: N/A

b. If multiple shots, sequence and timing of detonations

N/A

3. Bulk or Shaped Charge: N/A

c. Depth of Detonation Below Mud Line: N/A

d. Inside or Outside Piling: N/A

C Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed:

N/A

If yes, provide the following:

a. Number and Kind: N/A

b. Size of Charges: N/A

c. Brief description of how, where, and when scare charges or acoustic devices will be used: N/A

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals: N/A

If yes, briefly describe the proposed detection method:

Visual on surface prior to detonation as required

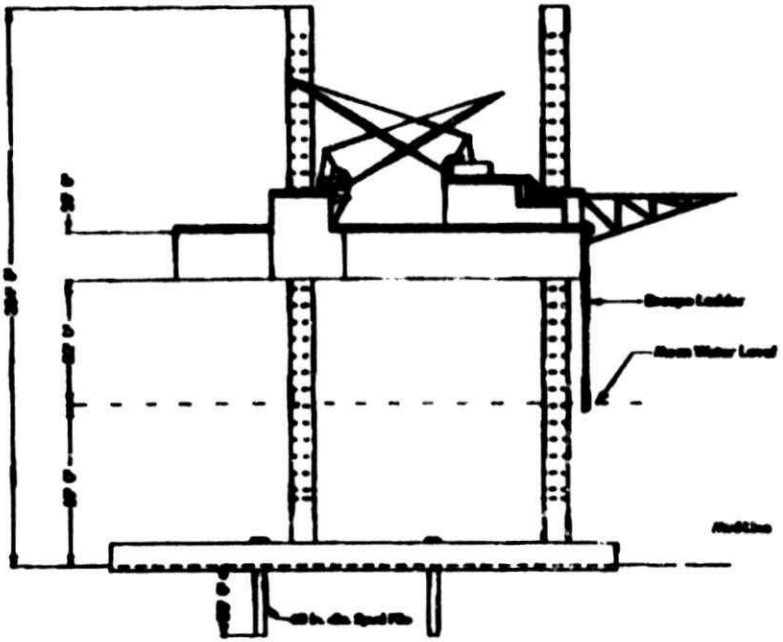
D Post-Removal Monitoring Techniques

1. Will transducers be used to measure the pressure and impulse of the detonations: N/A

2. Will divers be used to survey the area after removal determine any effects on marine life: N/A

VI Biological Information

If available, provide the results of any recent biological surveys conducted in the vicinity of the structure. If available, describe any recent observations of turtles or marine mammals at the structure site.



Cliffs
DRILLING COMPANY

MARLIN NO.4 PRODUCTION
PLATFORM ELEVATION
EAST CAMERON-BLOCK 105

file: profile4

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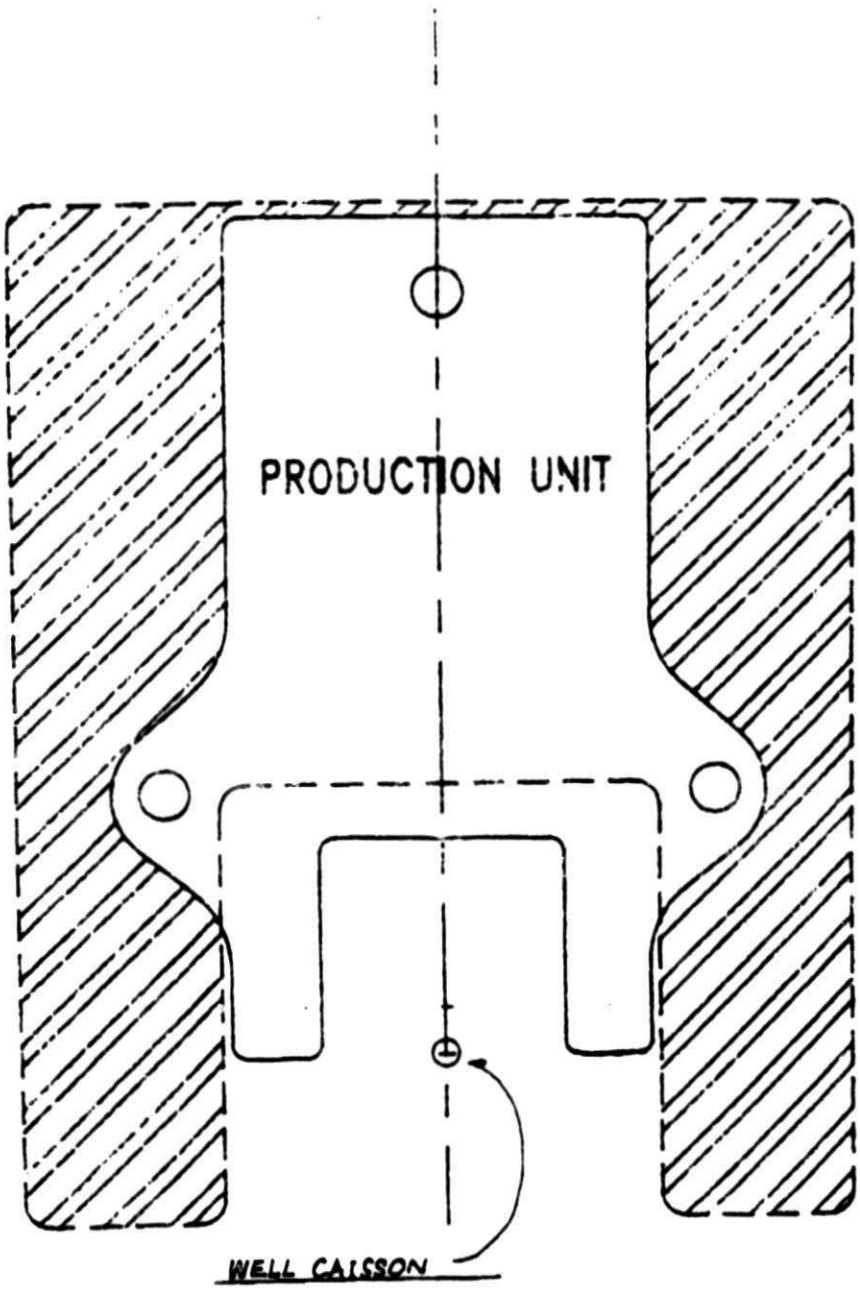
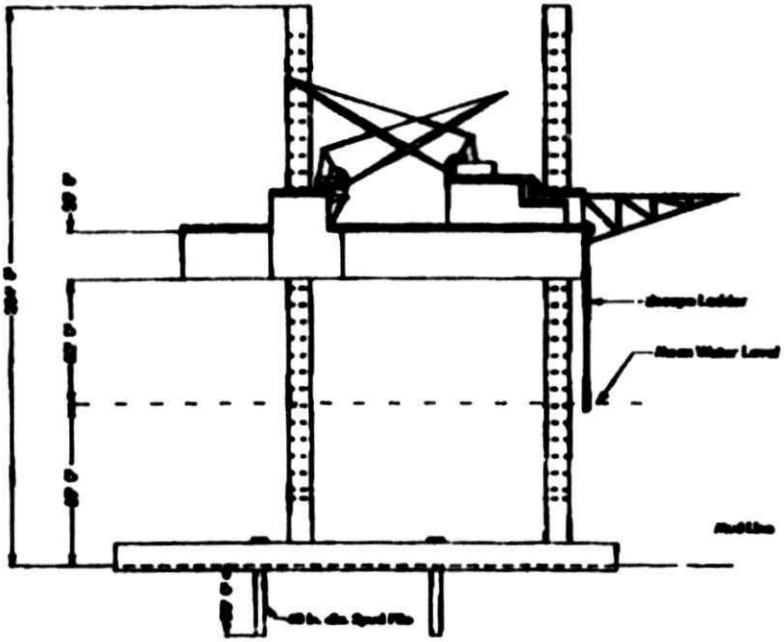
AUG 25 '89 08:39 ATTACHMENT A P.7

ATTACHMENT A





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Cliffs
DRILLING COMPANY

MARLIN NO.4 PRODUCTION
PLATFORM ELEVATION
EAST CAMERON-BLOCK 106

file: profile4

27

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