5. Pipelines and Cables

The PEA (USDI, 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. 83-3, Section IV.B., must 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 (USDI, MMS, 1987) describes the hazardous conditions for workers during structure-removal activities. The operator has proposed the use of explosives in conjunction with the structure removal activities. Existing legal and regulatory safety requirements will keep the impacts of the proposed work on human health and safety at a very low level.

E. UNAVOIDABLE ADVERSE IMPACTS

A discussion of unavoidable adverse impacts can be found in the PEA (USDI, MMS, 1987). Two areas of primary concern are 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. Other unavoidable adverse impacts are considered to be minor.

IV. PUBLIC OPINION

A discussion of public concerns regarding structure-removal activities can be found in the PEA (USDI, MMS, 1987). The proposed structure-removal activities have generated no comments from the public.

V. CONSULTATION AND COORDINATION

In accordance with the provisions of Section 7 of the Endangered Species Act, the proposed structure-removal operation has been coordinated with the NMFS. Their comments are included in Appendix C. The NMFS concluded that removal of the structures will not likely jeopardize the continued existence of any threatened or endangered species under their purview. Additionally, they concluded that the proposed removal may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill, and leatherback turtles. Therefore, they established a low level of incidental take and discussed various measures necessary to monitor and minimize this impact (see Appendix C). The NMFS noted that no incidental taking of marine mammals was authorized under Section 101(a)(5) of the Marine Mammal Protection Act of 1972 in connection with the proposed structure-removal activities. Therefore, taking of marine mammals by the operator would be prohibited unless they successfully apply for and obtain a permit or waiver to do so from 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 and Resources. Louisiana State University. Baton Rouge, LA.

Teas, Wendy G. and Anthony Martinez. 1988 annual report of the sea turtle stranding and salvage network. Atlantic and Gulf Coasts of the United States. January - December 1988. National Marine Fisheries Service. Southeast Fisneries Center, Miami Laboratory, 75 Virginia Beach Drive, Miami, FL.

U.S. Department of the Interior. Minrals Management Service. 1989. Final Environmental Impact Statement. Gulf of Mexico Sales 123 and 125: Central and Western Planning Areas. OCS EIS/EA MMS 89-0053. Washington, D.C. Available from NTIS, Springfield, VA: PB-89234900/AS.

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 88-0044. Washington, D.C. Available from NTIS, Springfield, VA: PB-114185/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

Bonnie LaBorde Johnson - Physical Scientist

Typist

Joan Boiteaux

III. APPENDICES

A. ARCO OIL AND GAS COMPANY CORRESPONDENCE

B. MMS SUMMARY EVALUATION

C. NMFS CORRESPONDENCE

APPENDIX A

ARCO OIL AND GAS COMPANY CORRESPONDENCE

ARCO Oil and Gas Company
South Texas District
Regulatory Compliance and
Environmental Department
Post Office Box 1346
Houston, Texas 77251
Telephone 713 584 6639

September 5, 1989

Mr. Dan B. Bourgeois
Regional Supervisor - Field Operations
GULF OF MEXICO OCS REGION
Minerals Management Service
U.S. Department of the Interior
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

ATTN: Mr. Arvind Shah

RE: Application for Use of Explosives for Structure Removal
West Cameron 205 and 238 Fields

Dear Mr. Shah:

ARCO Oil and Gas Company, a Division of Atlantic Richfield Company, hereby submits applications for use of explosives to remove five abandoned caisson wells in the West Cameron 205 and 238 fields. Wells WC 205 No. 5, WC 212 No. 2, WC 238 No. 4, and WC 239 No. 4 will require use of 75 lb charges due to the size of the caisson. WC 211 No. 1 will require use of a 50 lb charge. We plan to remove the caissons as soon as the attached applications are approved.

If you need any further information, please call me at (713) 584-6104.

Sincerely,

Belinda V. Breaux
Senior Regulatory Compliance
& Environmental Coordinator

cc: G.E. King - 3238 HMB
R.M. Royce - 3236 HMB
B.D. Richards - SOP
File - WC 205 #5 ADM.
- WC 211 #1 ADM.
- WC 212 #2 ADM.
- WC 238 #4 ADM.
- WC 239 #4 ADM.

312 - 89-104

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

I. Responsible Party

A. Lease Operator Name ARCO OIL & GAS COMPANY

B. Address 15375 Memorial Drive

Houston, TX 77079

C. Contact Person and Telephone Number Belinda Breaux

(713) 584-6104

II. Identification of Structure to be Removed

A. Platform Name West Cameron 205 #5 Caisson Well

B. Location (Lease, Area, Block, and Block Coordinates) WC 205

OCS-G 2832, X = 1,368,097 Y = 224,129

C. Date Installed (Year) 1984

D. Proposed Date of Removal (Month/Year) September 1989

E. Water Depth 60'

III. Description of Structure to be Removed

A. Configuration (Attach a Photograph or a Diagram)

B. Size 48" X 60" Caisson

C. Number of Legs/Casings/Pilings 48" X 60" Caisson with 3 strings of casing; 24" X 18-5/8" X 13-3/8"

D. Diameter and Wall Thickness of Legs/Casings/Pilings 60" - 2" wt; 24" - 1-1/2" wt' 18-5/8" - 0.435" wt; 13-3/8" - 0.480 wt

E. Are Piles Grouted? Yes Inside or Outside? Inside

60" X 24" is not cemented.

F. Brief description of soil composition and condition Surface soils are stiff moderately plastic gray clay.

IV. Purpose

Brief discussion of the reason for removing the structure Well is no longer productive and has been P&A'd.

V. Removal Method

A. Brief description of the method to be used A charge will be lowered into the 13-3/8" casing 16' BML, set off charge and pull up caisson.

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

1. Kind of Explosives OCTOL Focus with 50 grain detenonating cord
2. Number and Sizes of Charges 1 @ 75 lb.
   a. Single Shot or Multiple Shots: Single
   b. If multiple shots, sequence and timing of detonations

3. 'Bulk 'or Shaped Charge? Focused charge

a. Depth of Detonation Below Mud Line 16'

b. Inside or Outside Piling? Inside Caisson

C. Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed? No

If yes, provide the following:

a. Number and Kind

b. Size of Charges

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

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals? NO

If yes, briefly describe the proposed detection method

D. Post-Removal Monitoring Techniques

1. Will transducers be used to measure the pressure and impulse of the detonations? No

2. Will divers be used to survey the area after removal to determine any effects on marine life? Yes

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.

[illegible] Worksheet

WEST CAMERON [illegible] WELL No. 5

P[illegible]OSED [illegible] [illegible]DONMENT SCHEMATIC

KA[illegible] [illegible] RKB

ALL CASING STRINGS & CAISSON REMOVED TO 15' BML

CUT 3-1/2" TBG @ ±450' RKB

CIBP SET IN 7" CSG @ 411' RKB

TOC @ 246' RKB (40' BML)

OTIS 2.562" ID 'R' NIPPLES @ 476' RKB & 13,092' RKB.

ANNULAR FLUID:

8.5 PPG SEA WATER

300' BALANCED CEMENT PLUG IN TBG/TBG-CSG ANNULUS (12,843'-13,143' RKB)

CIBP SET IN 3-1/2" TBG @ 13,135' RKB

BAKER 'FB-1' PKR @ 13,143' RKB

OTIS 2.562" ID 'KA' SLEEVE @ 13,248' RKB

OTIS 2.562" ID 'R' NIPPLE @ 13,309' RKB

* CEMENT PLUG: 13,620'-13,856' RKB

BAKER 'FB-1' PKR @ 13,620' RKB

OTIS 2.562" ID 'R' [illegible] @ 13,643' RKB

WL RE-ENTRY GUIDE @ 13,654' RKB

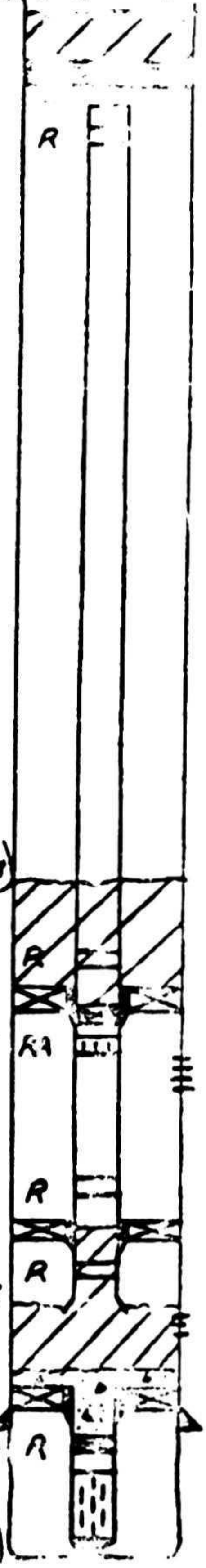
TO[illegible] [illegible] PBTD) - 13,856' RKB

[illegible] [illegible] @ 13,907' RKB

[illegible] [illegible] 'R' NIPPLE @ 13,949' RKB

([illegible] PLUG [illegible] W/ 93' CMT)

[illegible] LINER (13,9[illegible]- [illegible])



[illegible] 4" x 60" [illegible] CAISSON

24", 1-1/2" WT [illegible] PE @ 278' RKB

18-5/8", 87.5# K-55 BTC @ 964' RKB

13-3/8", 68# K-55 BTC @ 4516' RKB

[illegible]

9-5/8", 47 # S-95 LTC. @ 10,065' RKB

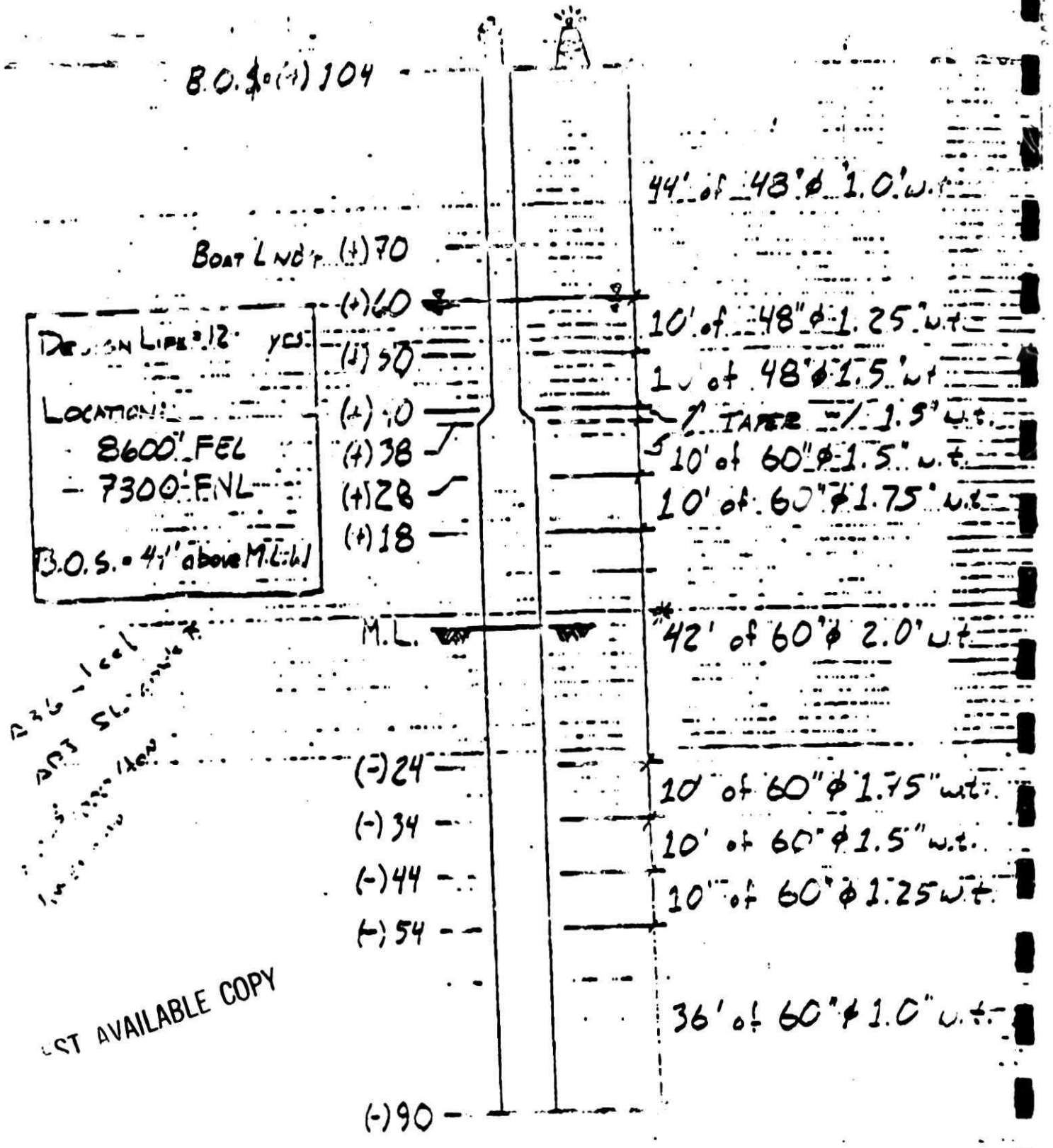
'MU' SAND PERFS: 13,254'-13,294' ISF/RKB

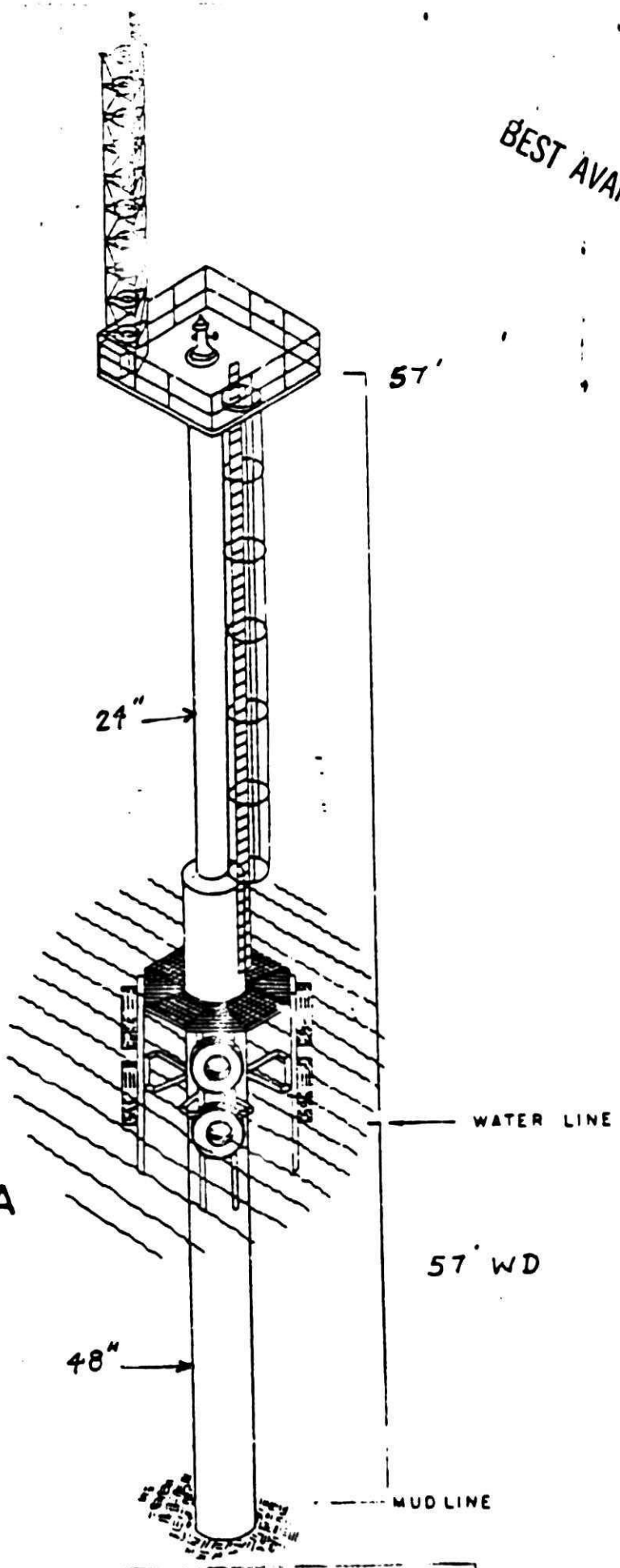
'NK' SAND PERFS: 13,817'-13,826' ISF/RKB

7", 35# P-110 LTC @ 13,970' RKB.

'NL' OPEN HOLE 14,000' - [illegible] RKB

CAISSON: WEST CAMEROON 205 #5





WELL. No. 5
BLOCK 205
W. CAMERON AREA
OCS G-2832

313-89-104

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

I. Responsible Party

A. Lease Operator Name ARCO OIL & GAS COMPANY

B. Address 15375 Memorial Drive

Houston, TX 77079

C. Contact Person and Telephone Number Belinda Breaux

(713) 584-6104

II. Identification of Structure to be Removed

A. Platform Name West Cameron 2 2 #2 Caisson Well

B. Location (Lease, Area, Block, and Block Coordinates) WC 212,

OCS-G 4758, X=1, 367, 052.46' Y=213, 586.47'

C. Date Installed (Year) 1985

D. Proposed Date of Removal (Month/Year) September, 1989

E. Water Depth 60'

III. Description of Structure to be Removed

A. Configuration (Attach a Photograph or a Diagram)

B. Size 60" X 48" Caisson

C. Number of Legs/Casings/Pilings 60" X 48" Caisson with 3 casing strings; 30" X 20" X 13-3/8"

D. Diameter and Wall Thickness of Legs/Casings/Pilings 60" - 1-1/2" wt 30" 1-1/2" wt; 20" - 0.438" wt; 13 3/8" - 0.48 wt

E. Are Piles Grouted? Yes Inside or Outside? Casing Annulus

F. Brief description of soil composition and condition Surface soils are stiff moderately plastic gray clay.

IV. Purpose

Brief discussion of the reason for removing the structure Zone is depleted; well is P&A'd.

V. Removal Method

A. Brief description of the method to be used Insert charge inside 13-3/8 casing, 16 ft below mud line, set charge off and pull up caisson.

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

1. Kind of Explosives Octol focus with 50 grain detonating cord.

2. Number and Sizes of Charges 1 @ 75 lb

a. Single Shot or Multiple Shots: Single shot

b. If multiple shots, sequence and timing of detonations

3. Bulk or Shaped Charge? Focused charge

a. Depth of Detonation Below Mud Line 16'

b. Inside or Outside Piling? Inside

C. Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed? No

If yes, provide the following:

a. Number and Kind

b. Size of Charges

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

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals? No

If yes, briefly describe the proposed detection method

D. Post-Removal Monitoring Techniques

1. Will transducers be used to measure the pressure and impulse of the detonations? No

2. Will divers be used to survey the area after removal to determine any effects on marine life? Yes

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.

General Purpose Worksheet

WEST CAMERON 212 #2

PROPOSED ABANDONMENT SCHEMATIC

Page No | Ct

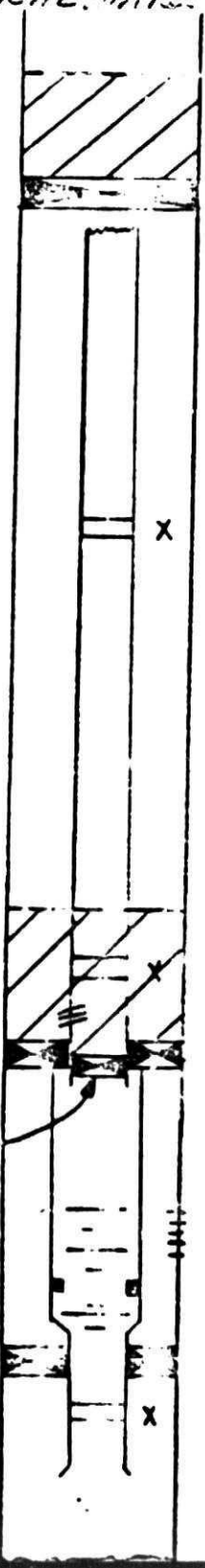
By KAA | Date 2/13/89

ALL CASING STRINGS REMOVED TO AT LEAST 15' BML.

TOC @ 244' RKB (90' BML)

CIBP SET IN 10-3/4" CSG. @ 409' RKB (255' BML)

CUT & PULL TBG FR/ ± 450'



36" x 43" x 60" CONDUCTOR Driven to 264' RKB (110' PENETRATION)

20", [illegible] 133 PPF (0-1014' RKB)

13-3/8", 68 & 72 PPF (0-4560' RKB)

TOC @ 8496' RKB

TBG PUNCH 8785'-90'

BAKER SC-1 PKR @ 8796' RKB

CIBP SET IN SEAL ASSY. 8800' RKB

'IP' Perforations: 8936-64' ISA/RK

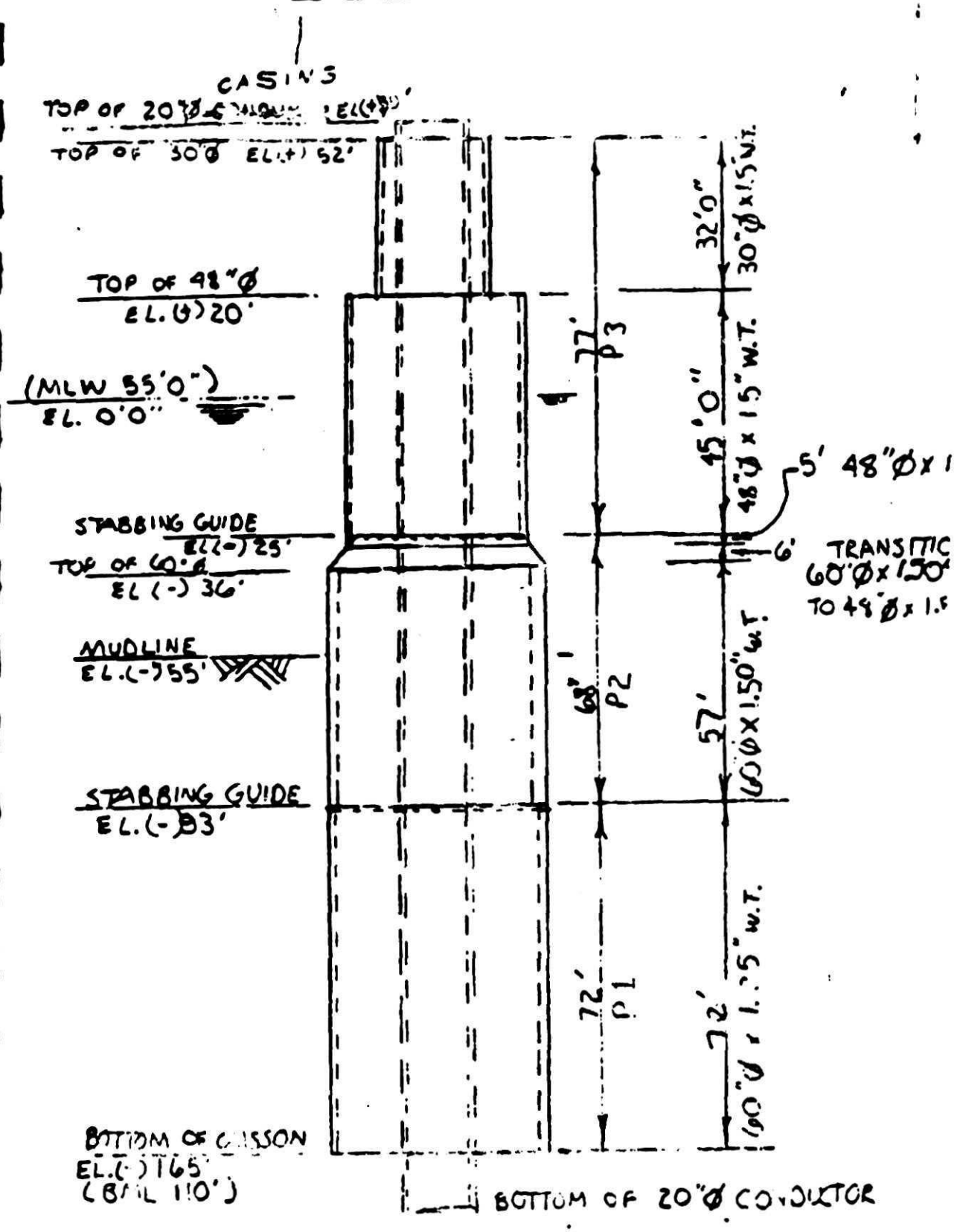
BAKER MODEL 'D' PKR @ 8981' RKB

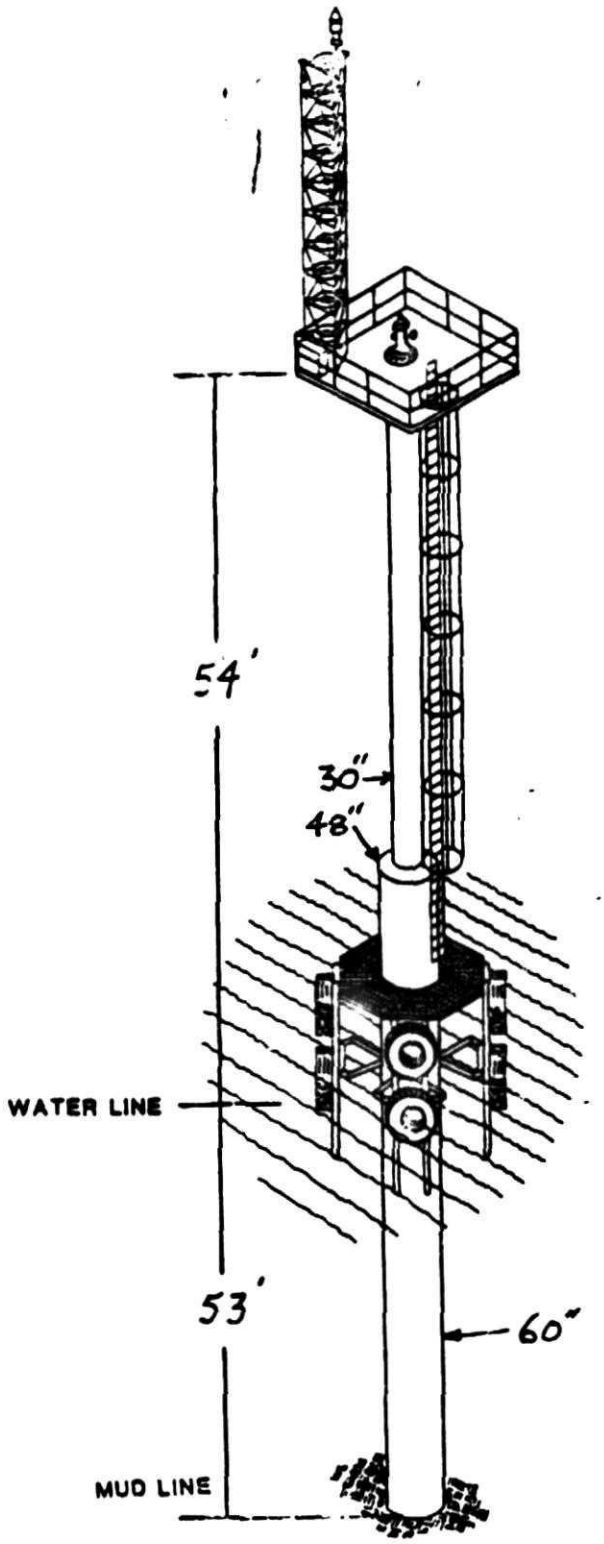
10-3/4", 55 5/60.7/9L PPF (0-4709' RKB)

OCS-G-4738

WEST CAMERON 212 #2

Caisson/Drlg Pile Schematic





ARCO Oil and Gas Company
Division of Atlantic Richfield Company

SOUTH TEXAS DISTRICT

Well No. 2

Block 212

Area WEST CAMERON

OCS G 4758

314-89-104

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

I. Responsible Party

A. Lease Operator Name ARCO OIL & GAS COMPANY

B. Address 15375 Memorial Drive

Houston, TX 77079

C. Contact Person and Telephone Number Belinda Breaux

(713) 584-6104

II. Identification of Structure to be Removed

A. Platform Name West Cameron 238 #4 Caisson Well

B. Location (Lease, Area, Block, and Block Coordinates) OCS-G 2834,

WC 238, X = 1,433,659.35' Y = 161,620.34'

C. Date Installed (Year) 1984

D. Proposed Date of Removal (Month/Year) September 1989

E. Water Depth 70'

III. Description of Structure to be Removed

A. Configuration (Attach a Photograph or a Diagram)

B. Size 60" X 48" Caisson

C. Number of Legs/Casings/Pilings 60" X 48" Caisson with 2 casing

strings: 30", 16"

D. Diameter and Wall Thickness of Legs/Casings/Pilings 60" - 1.5" wt

30" - 1.5" wt, 16" - 0.375" wt

E. Are Piles Grouted? NO Inside or Outside? _____

F. Brief description of soil composition and condition Surface

soils are stiff moderately plastic gray clay.

IV. Purpose

Brief discussion of the reason for removing the structure Well is no

longer productive and has been P&A'd.

V. Removal Method

A. Brief description of the method to be used Insert charge inside

16" casing 16' BML, set off charge and remove caisson.

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

1. Kind of Explosives OCTOL FOCUS with 50 grain detonating cord.

2. Number and Size[illegible]ges 1 - 75 lb.

a. Single Shot or [illegible]le Shots: Single

b. If multiple shots, [illegible]uence and timing of detonations _____

3. Bulk or Shaped Charge? Focused

a. Depth of Detonation Below Mud Line 16'

b. Inside or Outside Piling? Inside caisson

C. Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed? No

If yes, provide the following:

a. Number and Kind

b. Size of Charges

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

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals? No

If yes, briefly describe the proposed detection method

D. Post-Removal Monitoring Techniques

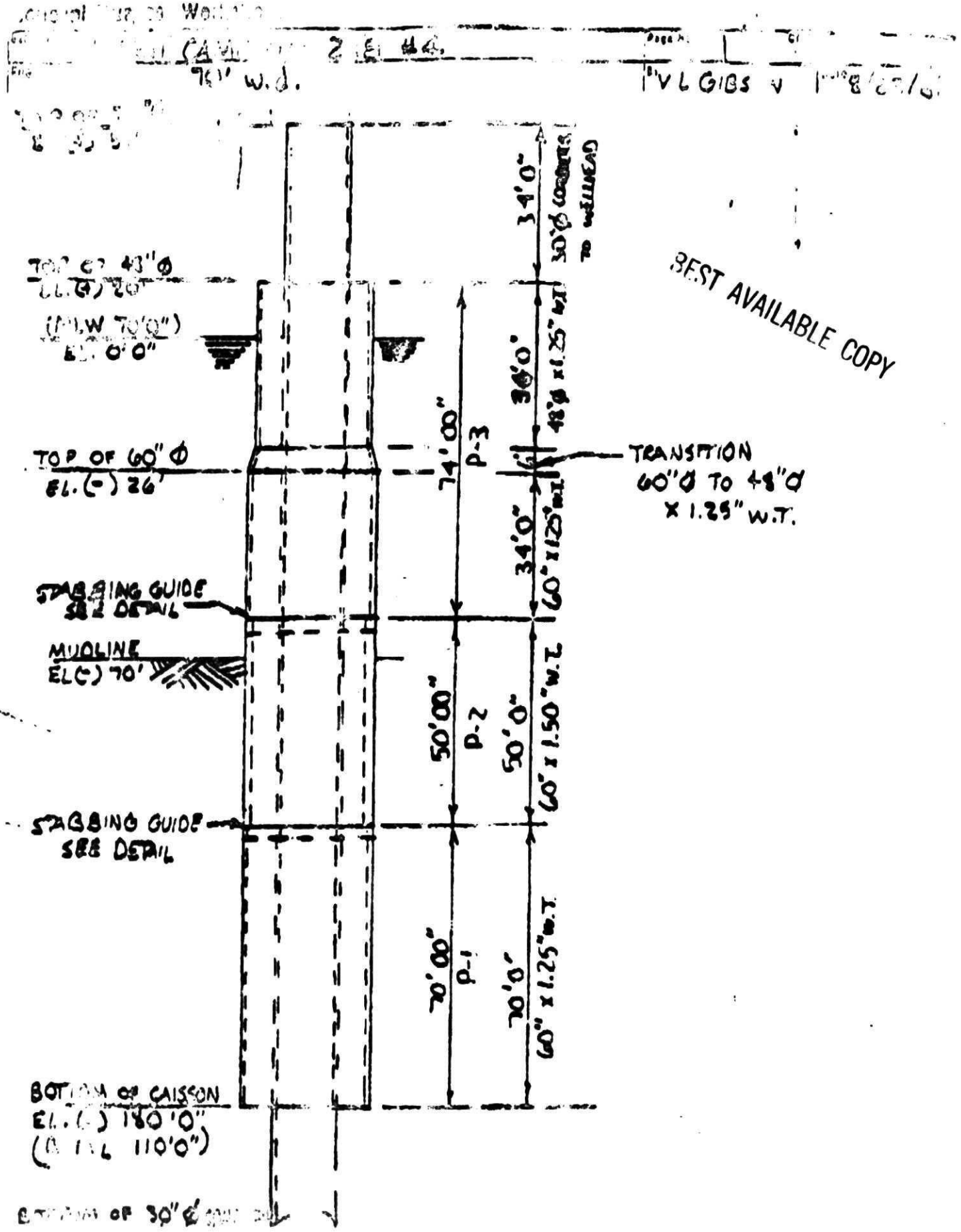
1. Will transducers be used to measure the pressure and impulse of the detonations? No

2. Will divers be used to survey the area after removal to determine any effects on marine life? Yes

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.

.(' x 6 "ϕ CAISSON (PROPOSED)



ns ! Purpose Worksheet

WEST CAMERON 238 No. 4

Page No. Of

By KAA Date 5/24/89

PROPOSED ABANDONMENT SCHEMATIC

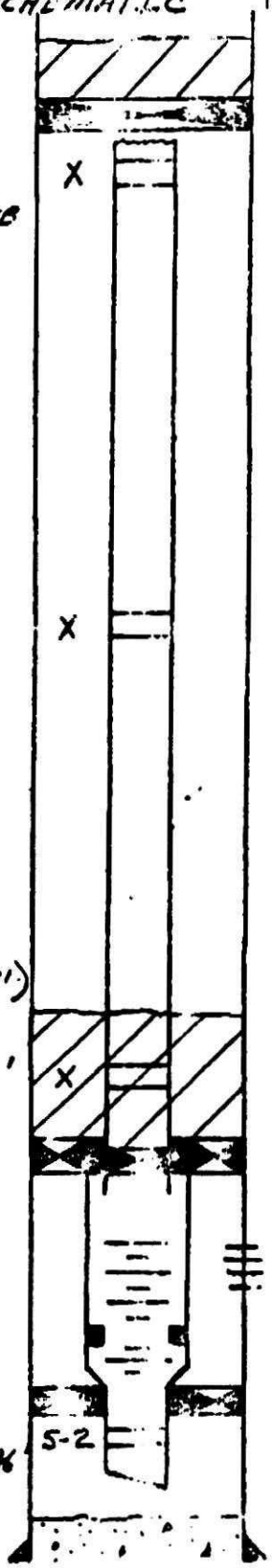
* ALL MEASUREMENTS ARE RKB

ALL CSG STRINGS & CAISSON REMOVED TO 15' BML.

CUT 2-7/8" TBG @ 500 'RKB

CIBP SET IN 7" CSG @ 423 'RKB

TOC @ 250 'RKB (90' BML)



42" x 60" CAISSON 61" @ 100' BML

20", 1" WT X-52 @ 341' RKB

16", 65 #, H-40 BTC @ 963' RKB

BEST AVAILABLE COPY

OTIS 2.313" ID 'X' NIPPLES @ 547' & 2570'

TBG/ANNULUS FLUID: 8.5 PPG SEAWATER

10-3/4", 45.5 #, K-55 BTC @ 3500' RKB

300' BALANCED CEMENT PLUG IN TBG/TBG/CSG ANNULUS (5345-5445')

CIBP SET IN 2-7/8" TBG @ 5440'

OTIS 2.313" ID 'X' NIPPLE @ 5400'

GEO-VANN SC-1 PKR @ 5445'

'ER' PERFORATIONS: 5576-86', 5590-600', 5604-08' ISF/RKB

GEO-VANN VS PKR @ 5633'

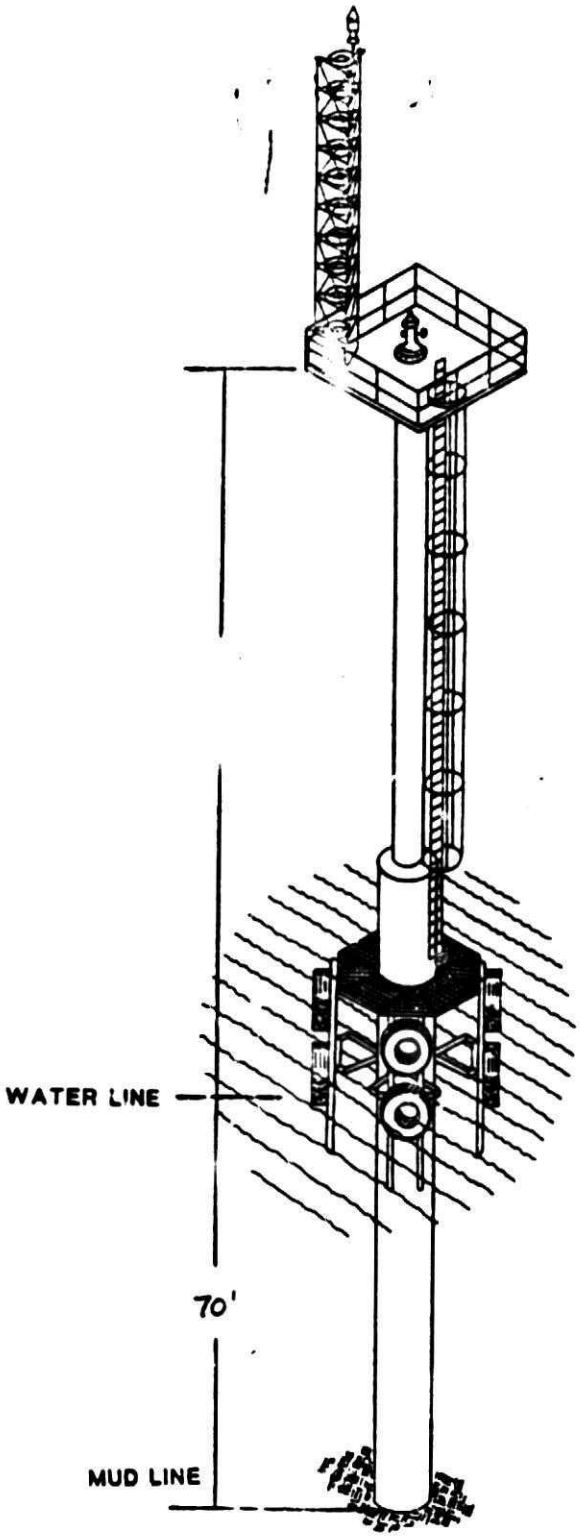
OTIS 2.313" ID 'S-2' NIPPLE @ 5646'

WL RE-ENTRY GUIDE @ 5658'

PBTD: 5735'

7-5/8", 29.7 #, P-110, LTC @ 5829' RKB

AP39 1473-D



60" x 1½" WT
DRIVEN TO 100' BML

ARCO Oil and Gas Company
Division of AtlanticRichfieldCompany

SOUTH TEXAS DISTRICT

Well No. 4

Block 238

Area WEST CAMERON

OCS G. 2834

315-89-104

PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

I. Responsible Party

A. Lease Operator Name ARCO OIL & GAS COMPANY

B. Address 15375 Memorial Drive

Houston, TX 77079

C. Contact Person and Telephone Number Belinda Breaux

(713) 584-6104

II. Identification of Structure to be Removed

A. Platform Name West Cameron 239 #4 Caisson well

B. Location (Lease, Area, Block, and Block Coordinates) OCS-G 3965

WC 239, X=1,408,985.090' Y = 166,293.00'

C. Date Installed (Year) 1983

D. Proposed Date of Removal (Month/Year) September 1989

E. Water Depth 50'

III. Description of Structure to be Removed

A. Configuration (Attach a Photograph or a Diagram)

B. Size 60' X 48" caisson

C. Number of Legs/Casings/Pilings 60" X 48" Caisson with 3 casing strings 30" X 20" X 13-3/8"

D. Diameter and Wall Thickness of Legs/Casings/Pilings 60" = 1.5 wt;
30" - 1" wt; 20" - 0.438" wt; 13-3/8" - [illegible] "wt;

E. Are Piles Grouted? Yes Inside or Outside Inside
60" X 30 is not cemented.

F. Brief description of soil composition and condition Surface
soils are stiff moderately plastic gray clay.

IV. Purpose

Brief discussion of the reason for removing the structure Well is no longer productive and has been P&A'd.

V. Removal Method

A. Brief description of the method to be used Place charge inside 13-3/8" casing 16' below mud line. Set off charge and pull up caisson.

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

1. Kind of Explosives OCTOL FOCUS with 50 grain detonating cord.
2. Number and Sizes of Charges 1 @ 75 lb.
   a. Single Shot or Multiple Shots: Single
   b. If multiple shots, sequence and timing of detonations

3. Bulk or Shaped Charge? Focused charge

a. Depth of Detonation Below Mud Line 16'

b. Inside or Outside Piling? Inside caisson

C. Pre-Removal Monitoring Techniques

1. Is the use of scare charges or acoustic devices proposed? NO

If yes, provide the following:

a. Number and Kind

b. Size of Charges

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

2. Will divers or acoustic devices be used to conduct a pre-removal survey to detect presence of turtles and marine mammals? NO

If yes, briefly describe the proposed detection method

D. Post-Removal Monitoring Techniques

1. Will transducers be used to measure the pressure and impulse of the detonations? NO

2. Will divers be used to survey the area after removal to determine any effects on marine life? Yes

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.

...ose Worksheet

WEST CAMERON 239 No. 4

PROPOSED ABANDONMENT SCHEMATIC

By KAA Date 6/22/89

*ALL MEASUREMENTS ARE RKB

ALL CSG STRINGS AND CAISSON REMOVED TO 15' BML

* CUT 2-7/8" TBG @ 500' RKB

CIBP SET IN 7" CSG @ 418' RKB

TOC @ 253' RKB (90' BML)

OTIS 2.313" ID 'X' NIPPLES @ 606', 3496', 7218'

TUBING / ANNULUS FLUID: 8.5 PPG SEAWATER

CIBP SET IN 2-7/8" TBG @ 7325'

[300' BALANCED CEMENT PLUG IN TBG - TBG/CSG ANNULUS (7035-7335')]

BAKER SC-1 PKR @ 7495'

OTIS 'XA' SLEEVE (1.875" ID) @ 7441'

OTIS 'X' NIPPLE (1.875" ID) @ 7473'

BAKER SC-1 PKR @ 7980'

*CEMENT PLUG: 7980' - 8148'

BAKER 'DB' PKR @ 8132'

'PS-2' PLUG SET IN S-2 NIPPLE @ 8148'

OTIS S-2 NIPPLE (1.875" ID) @ 8148'

PBTD: 7" EZSV @ 8350'

7" EZSV @ 8450' W/ 50' CMT

TOC @ 8700'

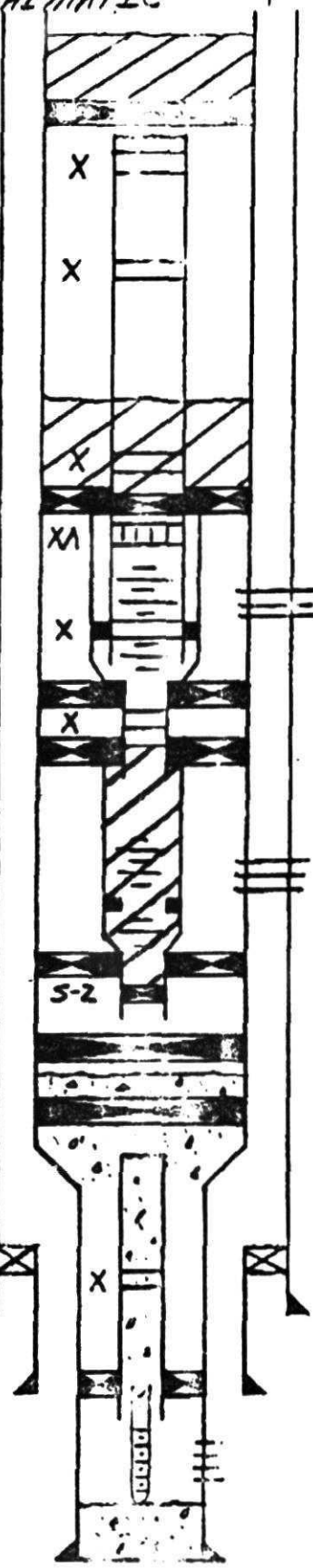
2-7/8" TBG CUT @ 9549'

OTIS 'X' NIPPLE (1.875" ID) @ 11,050'

BAKER 'DB' PKR @ 11,093'

DOWELL 1" GRAVEL PACK ASSY. FROM 'DB' PKR TO 11,200'

*FILLED W/ CEMENT



42" x 60" Caisson @ 100' BML

30", 1" WT X-52 PE @ 272' RKB

20", 94#, H-40 DQ-S @ 1015' RKB

13-3/8", 68#, K-55 BTC @ 4144' RKB

'FQ' PERFS: 7452-55', 7460-72' RKB (12 SPF)

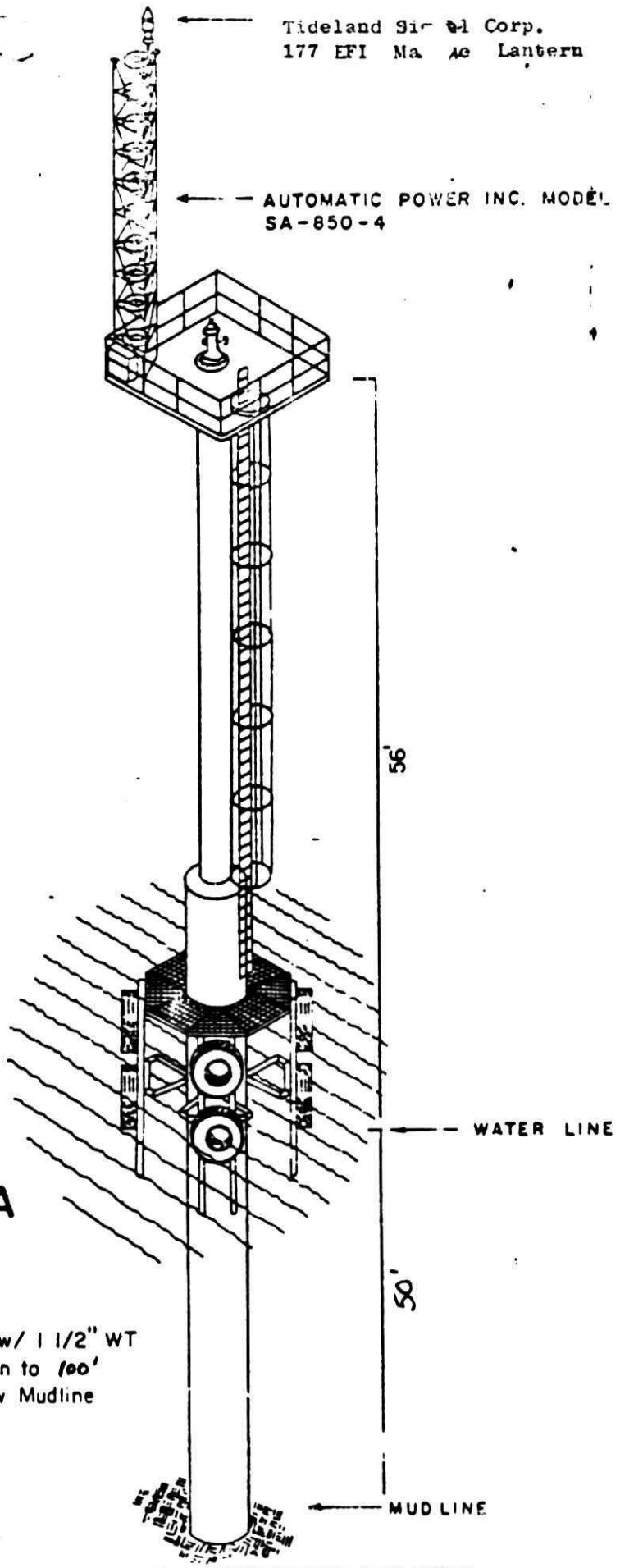
'GE' PERFS: 8093-97', 8101-8105', 8111-15' RKB (12 SPF)

PRODUCTION CASING: 7", 35# P-110 x 5", 23.2# P-110 / X-O @ 9549'

9-5/8", 47# S-95 LTC @ 10,327' RKB

7", 35# P-110 LINER 9826' - 11,154' RKB

'JK' PERFS: 11,174-79', 11,183-9[illegible]' RKB (16 SPF)



WELL No. 4
BLOCK 239
W. CAMERON AREA

60 x 48" w/ 1 1/2" WT
Driven to 100'
Below Mudline

ARCO Oil and Gas Company

APPENDIX B

MMS SUMMARY EVALUATION

ES/SR 89-104 Johnson JB 4/19

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
WASHINGTON, DC 20240

TAKE PRIDE IN AMERICA

JAN 25 1990

RECEIVED
JAN 30 1990
Minerals Management Service
Leasing & Environment

Dr. William Fox
Assistant Administrator for Fisheries
National Marine Fisheries Service
Department of Commerce
Washington, D.C. 20235

Dear Dr. Fox:

In November 1986, the Minerals Management Service (MMS) and the National Marine Fisheries Service (NMFS) agreed to procedures for expedited Endangered Species Act section 7 formal consultations on individual and groups of proposed oil and gas platform and structure removals in the Gulf of Mexico (GOM). This letter confirms telephone calls made by MMS to NMFS personnel in headquarters and the Southeast Regional Office on November 7, 1989, requesting an expedited consultation under these procedures. We have designated this Expedited Consultation 68 for reference and recordkeeping purposes.

This application for platform/structure removal was submitted by Arco Oil Gas Co. for removal of the following structures.

- Caisson No. 5, Block 205, West Cameron Lease Area
- Caisson No. 2, Block 212, West Cameron Lease Area
- Caisson No. 4, Block 238, West Cameron Lease Area
- Caisson No. 4, Block 239, West Cameron Lease Area

Consultation under the expedited procedures is needed because the company has requested permission to set explosive charges of greater than 50 pounds and, therefore, the activities cannot be considered for inclusion under the Standard Consultation issued on July 25, 1988. Information, procedure, and evaluation documents for this consultation are enclosed. These documents include correspondence from the operator (with attachments detailing specifics about the proposed removals) and a summary evaluation prepared by MMS GOM Region. To facilitate the consultation, MMS has provided a duplicate set of these documents directly to Dr. Tyrrell Henwood in the NMFS Southeast Regional office.

The enclosed documents specify that production efforts from these structures have been suspended and the structures are being removed under normal salvaging procedures. The structures represent potential navigation hazards and liability risks and the company requests to be allowed to remove the structures as is required to comply with MMS regulations under 30 CFR Part 250 and section 22 of standard MMS leases. Therefore, MMS requests an expedited completion of this formal consultation to enable the operator to remove the structures, as requested.

Appropriate steps will be taken to ensure that no marine mammals or endangered or threatened sea turtles are present or likely to be affected by the removal. Based upon previous monitoring of platform removals by NMFS, it is unlikely

RSLK GOM

that marine mammals or sea turtles will be affected by the removal activities. Therefore, MMS believes that these removals will be accomplished with minimal risk, if any, to these animals.

If you have any questions pertaining to the requested consultation, please address them to Dr. Robert W. Middleton, Minerals Management Service, Parkway Atrium Building, 381 Elden Street, Herndon, Virginia 22070 (703-787-1729; FTS: 393-1729), or Mr. Jake B. Lowenhaupt, Minerals Management Service, 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123-2394 (504-736-2594; FTS: 680-9594).

Sincerely,

(SGD) WILLIAM D. BETTENBERG

Associate Director for
Offshore Minerals Management

Enclosure

(all copies w/ enclosure)
cc: Mr. Robert Ziobro
National Marine Fisheries Service
1335 East-West Highway
Silver Spring, Maryland 20910

Dr. Tyrrell Henwood
National Marine Fisheries Service
9450 Koger Boulevard
St. Petersburg, Florida 33702

bcc: Official File (BEO)
AD/OMM
OEAD RF
RS/LE, Gulf of Mexico Region
Chief, BEO
Middleton/Turner/Stright
Hannon, BEE
BEE/BEM/BES
Offshore Chron (1)/(2)
BEO RF
LMS:OEAD:MS644:Middleton:mr:1/25/90:9-787-1727:Middleton:ec6Fox.ltr

312 thru 315 — 54-104

Enclosure

SUMMARY EVALUATION

Possible Effects on Endangered Species and Protected Marine Mammals from Proposed Structure Removal of Caisson Nos. 5, 2, 4 and 4 West Cameron Area, Blocks 205, 212, 238 and 239 (Leases OCS-G 2832, 4758, 2834, and 3965, respectively) ES/SR 89-104

Determination

ARCO Oil and Gas Company proposes to remove the subject caissons from their respective lease block locations. The Minerals Management Service (MMS) has determined that since the proposed operations will utilize explosives, sea turtles and marine mammals may be affected.

Background Information

The operator plans to remove West Cameron 205 Caisson No. 5 and three casing strings, West Cameron 212 Caisson No. 2 and three casing strings, West Cameron 238 Caisson No. 4 and two casing strings, and West Cameron 239 Caisson No. 4 and three casing strings with 75-lb. charges due to the size of the caissons. See Table 1 for specific data regarding the proposed explosive removal operations.

The proposed activity does not meet the requirements for consideration under the generic structure-removal criteria as stated in the July 25, 1988, Biological Opinion from the National Marine Fisheries Service.

Little information is available on the likelihood of encountering sea turtles or marine mammals during the proposed activities. However, both sea turtles and dolphins have been observed in the vicinity of other structure removals within the past year. Recent data indicate that sea turtles are distributed throughout offshore Louisiana waters. For this reason, it is possible that marine mammals and sea turtles may be present in the vicinity during the time of the proposed structure removal.

Mitigation

No mitigative measures were identified by the operator in the application to reduce the likelihood of death or injury to sea turtles and marine mammals.

The following mitigative measures were identified by MMS during the application evaluation to reduce the likelihood of death or injury to sea turtles and marine mammals:

1. Observers from MMS may be employed to look for sea turtles and marine mammals prior to and after detonation of the charges.

2. The MMS will encourage the operator to conduct structure removal operations during daylight hours. The actual determination should be made on all site-specific facts at the time of the removal.

Summary

Sea turtles and marine mammals may be present in the vicinity of the structures during proposed removal activities. If they are close enough, they may be hurt or killed by the detonation of explosives. Mitigative measures to be taken will, in our opinion, reduce the probability of harming sea turtles or marine mammals. However, the proposed structure removals may affect sea turtles and protected marine mammals.

FB

Regional Supervisor
Leasing and Environment
Gulf of Mexico OCS Region

10/18/89
Date

Johnson:ml:10-3/17-89:89-104.se

Table 1

Explosives Proposed by ARCO Oil and Gas Company
for the Structure Removals in
West Cameron Area, Blocks 205, 212, 238, 239
(OCS-G 2832, 4758, 2834, and 3965)

Type of Explosives

OCTOL Focus with 50 grain detonating cord

Number and Size of Charges

West Cameron 205 Caisson No. 5 - one 75-lb. charge
West Cameron 212 Caisson No. 2 - one 75-lb. charge
West Cameron 238 Caisson No. 4 - one 75-lb. charge
West Cameron 239 Caisson No. 4 - one 75-lb. charge

Employment of Charges

Inside casing, 16 feet below the mudline

Sequencing of Detonations

Single shots

APPENDIX C

NMFS CORRESPONDENCE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, Maryland 20910

314-MM-315-89-104

FEB 15 1990

Mr. Barry A. Williamson
Director
Minerals Management Service
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Williamson:

This is in response to your January 25, 1990, request for an Endangered Species Act (ESA) Section 7 consultation for proposed removals by ARCO Oil & Gas Co. of caisson Nos. 5, 2, 4 and 4, in West Cameron Area, Blocks 205, 217 238 and 239, respectively. This Expedited Consultation has been designated as number 68. The Summary Evaluation attached to your letter indicates that the proposed operation will utilize explosives, and that protected sea turtles and marine mammals may be affected.

The operator plans to remove West Cameron 205 Caisson No. 5 and three casing strings, West Cameron 217 Caisson No. 2 and three casing strings, West Cameron 238 Caisson No. 4 and two casing strings, and West Cameron 239 Caisson No. 4 and three casing strings with 75 lb. charges detonated 16 feet below the mudline. Minerals Management Service (MMS) has determined that the charges are appropriate for these removals.

The National Marine Fisheries Service (NMFS) issued a "standard" Biological Opinion on July 25, 1988, addressing removal of structures in the Gulf of Mexico. Accounts of endangered and threatened species which occur in the project area, contained in the "standard" opinion also apply to this consultation and are hereby incorporated by reference.

Based upon the best available information concerning the frequency of occurrence of sea turtles in proximity to oil platforms and related structures, we believe that it is unlikely that a significant number of turtles will occur in the project area during detonation of the charges. Although the shock and impulse forces released into the marine environment as a result of the proposed action may result in the loss of individual sea turtles, it is our opinion that removal of these structures is not likely to jeopardize the continued existence of threatened and endangered species that are the responsibility of NMFS. However, we have determined that the proposed activity may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill and leatherback turtles. Therefore, pursuant to Section 7(b)(4) of the ESA, we have established a low level of incidental take and terms and conditions necessary to minimize and monitor this impact. These terms and conditions are contained in the enclosed incidental take statement. Compliance with the specified terms and conditions is the responsibility of ARCO and MMS.

The proposed use of a 75 lb. OCTOL focus devices for these removals increases the lethal range of the blasts, and could significantly increase the risks to protected species in the vicinity of this structure. Therefore, as an additional precaution, diver surveys of the area beneath the structures are mandatory for those removals.

The incidental take statement applies only to endangered and threatened sea turtles. In order to allow an incidental take of a marine mammal species, the taking must be authorized under Section 101(a)(5) of the Marine Mammal Protection Act of 1972. Although interest has been expressed in obtaining an exception authorizing a limited take of dolphins incidental to abandonment activities, no marine mammal take is authorized until appropriate small take regulations are in place and related "Letters of Authorization" are issued.

Consultation must be reinitiated if: (1) the amount or extent of taking specified in the incidental take statement is exceeded; (2) new information reveals impacts of the project that may affect listed species in a manner or to an extent not considered thus far in our opinions; (3) the identified activities are modified in a manner that causes an adverse effect to listed species not previously considered; or (4) a new species is listed or critical habitat is designated that may be affected by the project.

I look forward to your continued cooperation in future consultations.

Sincerely,

James E. Douglas, Jr.

for William W. Fox, Jr.
Assistant Administrator
for Fisheries

Enclosure

Incidental Take Statement

Section 7(b)(4) of the Endangered Species Act (ESA) requires that when a proposed agency action is found to be consistent with Section 7(a)(2) of the Act and the proposed action may incidentally take individuals of listed species, the National Marine Fisheries Service (NMFS) will issue a statement that specifies the impact (amount or extent) of such incidental taking. Incidental taking by the Federal agency or applicant, that complies with the specified terms and conditions of this statement, is authorized and exempt from the taking prohibition of the ESA.

Based on stranding records, incidental captures aboard commercial shrimp vessels and historical data, five species of sea turtles are known to occur in northern Gulf of Mexico waters. Current available information on the relationship between sea turtle mortality and the use of high-velocity explosives to remove oil platforms indicates that injury and/or death of sea turtles may result from the proposed action. Therefore, pursuant to Section 7(b)(4) of the ESA, an incidental take (by injury or mortality) of one documented Kemp's ridley, green, hawksbill or leatherback turtle or two loggerhead turtles is set for these removals. If the incidental take meets or exceeds this level, Minerals Management Service (MMS) must reinitiate consultation. NMFS Southeast Region will cooperate with MMS in the review of the incident to determine the need for developing further mitigation measures.

The reasonable and prudent measures that NMFS believes are necessary to minimize the impact of incidental takings have been discussed with MMS and are incorporated in the platform removal design. The following terms and conditions are established for these removals to implement these measures and to document the incidental take should such take occur:

1. Qualified observer(s), as approved by NMFS, must be used to monitor the area around the site before, during and after detonation of the charges. Surface observations must be conducted for as long a time as possible before removal of the structure (48 hours is recommended).

2. On the day of blast, a 30-minute aerial survey must be conducted within one hour before and one hour after the detonation. This survey should encompass all waters within one mile of the structure. A qualified observer must be used to check for the presence of turtles and, if possible, to identify species. If weather conditions (fog, excessive winds, etc.) make it impossible to conduct the aerial survey, blasting activities may be allowed to proceed if approved by the designated NMFS and MMS representatives on site.

3. If sea turtles are observed in the vicinity of the platform (within 1000 yards of the site) prior to detonating the charge, blasting will be delayed until attempts are successful in removing them at least 1000 yards from the blast site. The aerial survey must be repeated prior to resuming detonation of charges.

4. Detonation of explosives will occur no sooner than one hour following sunrise and no later than one hour before sunset. However, if it is determined by the NMFS or MMS on-site representatives that special circumstances justify a modification of these time restrictions and that modification is not likely to adversely impact listed species, the blast may be allowed to proceed outside of this time frame.

5. Pre- and post- detonation diver surveys must be conducted to scan the areas surrounding the caisson for sea turtles. Mandatory diver surveys are required because of the large amount of explosives (75 pounds) proposed for this removal, and the increased risk to protected species associated with such a large detonation. During additional diving operations (working dives as required in the course of the removal), divers will be instructed to watch for turtles and marine mammals. Any sightings must be reported to the NMFS or MMS on-site personnel. Upon completion of blasting, divers must report and attempt to recover any sighted injured or dead sea turtles or marine mammals.

6. The use of scare charges should be avoided to minimize the "chumming effect." Use of scare charges may be allowed only if approved by the NMFS and/or MMS on-site personnel.

7. A report summarizing the results of the removal and mitigation measures must be submitted to the MMS Gulf of Mexico Region within 15 working days of the removal. This report should include an evaluation of the effectiveness of charge(s) used, and a determination as to whether this removal could have been accomplished using less explosives. A copy of the report must be forwarded to NMFS Southeast Region.