

UNITED STATES GOVERNMENT  
MEMORANDUM

October <sup>24</sup> 2002

To: Public Information (MS 5034)  
From: Plan Coordinator, FO, Plans Section (MS 5231)

Subject: Public Information copy of plan  
Control # - N-07575  
Type - Initial Development Operations Coordinations Document  
Lease(s) - OCS-G22587 Block - 194 East Cameron Area  
Operator - Union Oil Company of California  
Description - Well No. 1  
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.

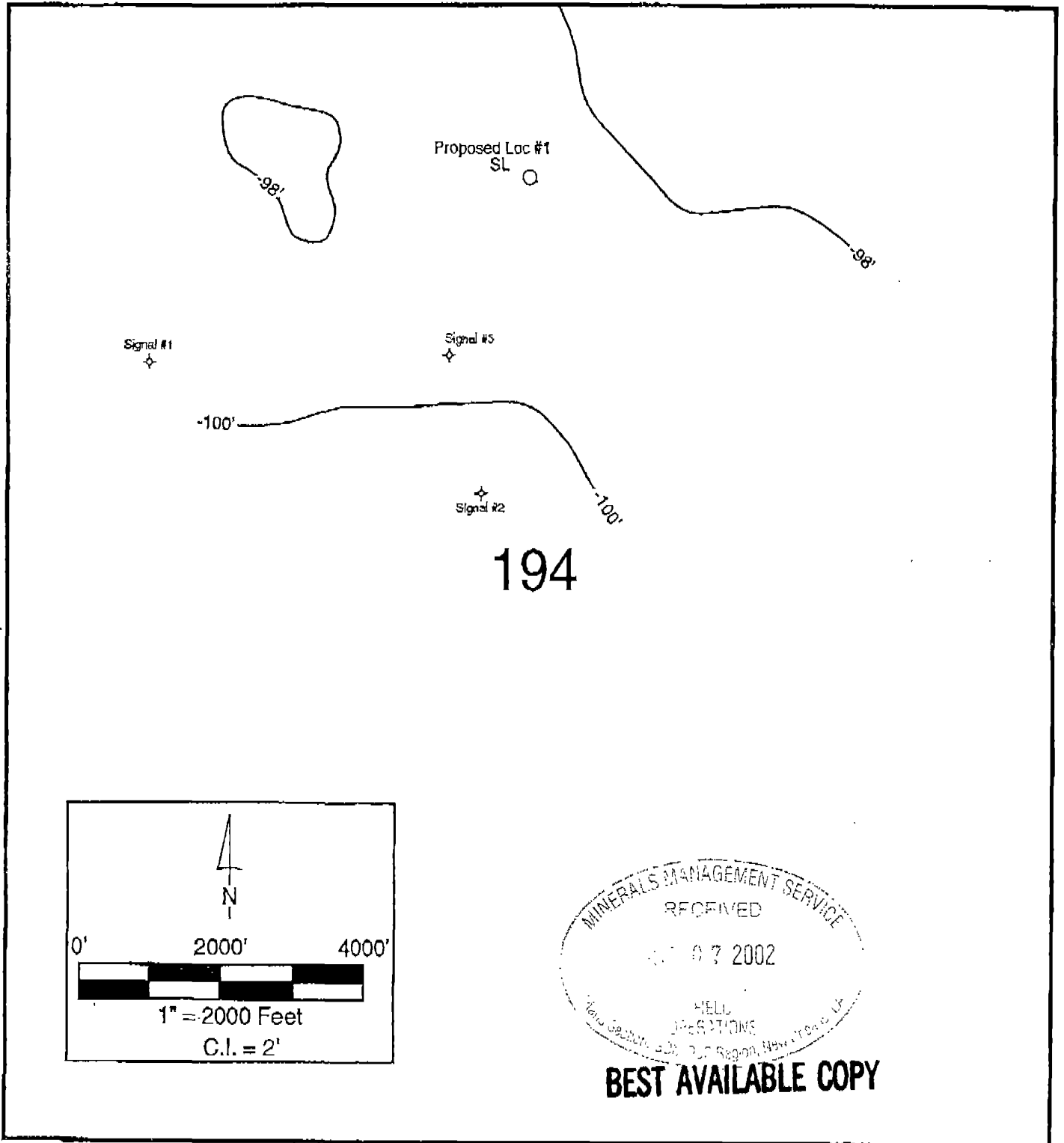
*Karen Dunlap*  
Karen Dunlap  
Plan Coordinator

| Site Type/Name | Botm Lse/Area/Blk | Surface Location   | Surf Lse/Area/Blk |
|----------------|-------------------|--------------------|-------------------|
| CAIS/NO. 1     |                   | 2200 FNL, 7300 FWL | G22587/EC/194     |
| WELL/NO. 1     | G22587/EC/194     | 2200 FNL, 7300 FWL | G22587/EC/194     |

*Noted/pc*

N-7575

# OCS-G 22587



Union Oil Company of California  
 Bathymetry Map  
 East Cameron  
 Block 194

Unocal North American  
Oil & Gas Division  
Unocal Corporation  
14141 Southwest Freeway  
Sugar Land, Texas 77478  
P.O. Box 4551  
Houston, Texas 77210-4551  
Telephone (713) 491-7600



September 30, 2002



U. S. Department of the Interior  
Minerals Management Service  
Gulf of Mexico OCS Region  
1201 Elmwood Park Boulevard  
New Orleans, Louisiana 70123

Attn: Plans Section, Office of Field Operations

Re: Initial Development Operations Coordination Document (DOCD), Block 194, OCS-G-22587,  
East Cameron Area

Dear Sir,

Attached are five proprietary and four public information copies of an Initial DOCD addressing our proposed activity in East Cameron Area Block 194. Should additional information be required, please contact Joe Morton, Tim Morton & Associates, Inc., 730 E. Kaliste Saloom Road, Lafayette, LA 70508, 337/234-5124.

Sincerely,

  
UNION OIL COMPANY OF CALIFORNIA

For Terry Cook

jm  
Attachments

CONTROL No. N-7595  
REVIEWER: Karen Dunlap  
PHONE: (504) 736-2535



PUBLIC  
INFORMATION

INITIAL

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

UNION OIL COMPANY OF CALIFORNIA

EAST CAMERON AREA BLOCK 194

OCS-G-22587

OFFSHORE LOUISIANA

September 26, 2002

LIST OF ATTACHMENTS

- A. Vicinity Plat and Location Plat
- B. Typical Caisson
- C. Shallow Hazard Report, Geologic Structure Maps, Cross-Section Map and Bathymetry Map
- D. Drilling Fluids List
- E. Coastal Zone Consistency Certification, Environmental Impact Analysis and Air Quality Screening Checklist

**BEST AVAILABLE COPY**

INITIAL  
 DEVELOPMENT OPERATIONS COORDINATION DOCUMENT  
 EAST CAMERON AREA BLOCK 194  
 OFFSHORE LOUISIANA

Pursuant to the requirements of 30 CFR 250 Subpart B, Union Oil Company of California (Unocal) submits the following Initial Development Operations Coordination Document for East Cameron Area Block 194.

I. DESCRIPTION OF ACTIVITIES

Unocal proposes to utilize a jack-up rig to drill one well in East Cameron Area Block 194. Specific information regarding the well location is as follows:

| Well Name | Surface Location       | Bottomhole Location | TVD/ MD        | Lambert Coordinates           | Water Depth |
|-----------|------------------------|---------------------|----------------|-------------------------------|-------------|
| 1         | 7300' FWL<br>2200' FNL | PROP.<br>INFO.      | PROP.<br>INFO. | X = 1,516,816'<br>Y = 47,881' | 98'         |

The anticipated spud date for Well No. 1 is November 21, 2002. It is expected to take 41 days to drill and complete the well. If the well is successful, Unocal proposes to install a single well caisson at the surface location of Well No. 1. A flowline will be installed from the proposed caisson to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. Hydrocarbons would be transported from that platform to shore via an existing pipeline gathering system.

Attachment A contains a vicinity map that depicts the relationship of East Cameron Area Block 194 to the Louisiana Coast and a location plat that depicts the proposed well location in relation to the lease lines. The estimated time to complete the proposed development and production activity is approximately 5 years.

II. SCHEDULE OF ACTIVITIES

The proposed schedule for the development is:

|                                       |                                    |
|---------------------------------------|------------------------------------|
| November 21, 2002 - December 15, 2002 | Drill Well No. 1                   |
| March 15, 2003 - March 31, 2003       | Complete Well No. 1                |
| April 1, 2003 - April 15, 2003        | Install caisson, deck and flowline |
| April 15, 2003                        | Produce Well No. 1                 |

**BEST AVAILABLE COPY**

Reserves are expected to be depleted in 5 years with maximum production anticipated at a daily rate of 12 MMCF of natural gas and 15 BPD of condensate.

### III. DRILLING RIG AND PLATFORM

Union Oil Company of California plans to use a jack-up rig to drill the proposed well. The actual rig specifications for the rig to be used will be submitted with the applications for Permit to Drill for the well.

Safety and pollution prevention will be accomplished during drilling operations through the use of adequately designed casing programs; blowout preventers, diverters, and other associated well equipment of adequate pressure rating to control anticipated pressures; mud monitoring equipment and sufficient mud volumes to ensure well control; and properly trained supervisory personnel. Pursuant to Coast Guard regulations, fire drills and abandon ship drills will be conducted, and navigational aids, lifesaving equipment, and all other shipboard safety equipment will be installed and maintained.

Unocal proposes to install a single well caisson at the surface location of Well No. 1. All production operations will be conducted in accordance with Minerals Management Service Operating Regulations and API RP 14C.

### IV. GEOLOGICAL AND GEOPHYSICAL DATA

Geologic structure maps, cross-section map and a bathymetry map are provided with the confidential copies of this document in Attachment C. As stated in the Shallow Hazard Report also included in Attachment C, there are no shallow drilling hazards expected in the drilling of the proposed well. The water depth at the surface location of proposed well 98 feet.

### V. OIL SPILL INFORMATION

Unocal is a member of Clean Gulf Associates (CGA), and would utilize CGA equipment in the event of an oil spill at East Cameron Area Blocks 266 and 270. CGA is an oil spill cooperative which owns a large inventory of oil spill clean-up equipment which is supported by Marine Spill Response Corporation (MSRC). MSRC is responsible for storing, inspecting, maintaining and dispatching CGA's equipment. An inventory of spill response equipment suitable for spills in the Gulf of Mexico is identified in Unocal's Oil Spill Response Plan (OSRP) which was approved on December 10, 2001. Unocal and Unocal Pipeline Company are the two entities covered under the OSRP. Unocal requests that the activities proposed in this DOCD be covered by the OSRP.

In the event of a spill, the primary location for the procurement of clean-up equipment would be the CGA stockpile at Lake Charles, Louisiana. Additional cleanup equipment could be mobilized from the Houma and Fort Jackson, Louisiana and the Galveston and Ingleside, Texas CGA stockpile areas. The Lake Charles, Louisiana stockpile area is located approximately 100 miles from the block.

In accordance with 30 CFR 254.47, the worst case discharge associated with this DOCD is calculated as the sum of the following:

Worst Case Discharge = Oil Storage Tanks + Flowlines + Leaking Pipeline + Daily Production Volume  
 Worst Case Discharge = 0 + 1 + 608 + 15 = 624 barrels

Following is a comparison of the worst case scenario from Unocal's approved regional Oil Spill Response Plan to the worst case scenario from the proposed activities in this DOCD.

| Category                                       | Regional OSRP                    | DOCD                     |
|--|----------------------------------|--------------------------|
| Type of Activity                               | Pipeline                         | Well, Caisson & Pipeline |
| Spill Location (area/block)                    | Ship Shoal Area 208              | East Cameron Block 194   |
| Facility Designation                           | SS 208 to SS 28,<br>Segment 1196 | Caisson                  |
| Distance to Nearest Shoreline (miles)          | 20 miles                         | 55 miles                 |
| Volume   | 24,200 barrels                   | 624 barrels              |
| Type of Oil(s) (crude oil, condensate, diesel) | Crude Oil                        | Condensate               |
| API° Gravity(s)                                |                                  |                          |

Since Union Oil Company of California has the capability to respond to the worst-case spill scenario included in its regional Oil Spill Response Plan approved on December 10,2001, and since the worst-case scenario determined for their DOCD does not replace the worst-case scenario in their regional OSRP, Union Oil Company of California hereby certifies that they have 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 their DOCD.

## VI. LEASE STIPULATIONS

### Military Areas Stipulation

In response to the Military Areas Stipulation being invoked in this block, Unocal will contact the command headquarters for Military Warning Area W-59BC (Naval Air Station, New Orleans, Louisiana, Telephone - 504/391-8696 or 8687) for the purpose of entering into an agreement concerning the control of electromagnetic emissions and the use of boats and aircraft in the warning area.

## VII. SOLID AND LIQUID WASTES AND POLLUTANTS

The discharges generated at the proposed well location by the drilling and production activities associated with this DOCD will be discharged upon successful bioassay test as per NPDES discharge guidelines. Discharge rates will not exceed permit specifications.

**BEST AVAILABLE COPY**



All drill cuttings will be brought to the surface by the mud system and will be separated from the drilling fluid by shaker screens and centrifugal separators prior to discharging overboard. This discharge is composed of the cuttings, shaker washwater, and adhered drilling fluids. The projected amounts of this discharge are based on the size of the hole at each drilling interval, and are computed at 25 percent over the gauge hole at that interval. Drill cuttings are assumed to comprise 50 percent of the discharge, washwater is assumed to comprise 42.5 percent, and adhered drilling fluids are assumed to comprise 7.5 percent. A list of drilling fluids to be utilized during the drilling operation is included as Attachment D.

Drilled solids and liquids discharge volumes for a typical well are listed below:

| Volumes/Well      |           |                |                  |                         |
|-------------------|-----------|----------------|------------------|-------------------------|
| Drilling Interval | Hole Size | Drilled Solids | Shaker Washwater | Adhered Drilling Fluids |
| 0 - 300'          | 30.00"    | 262 bbls       | 223 bbls         | NA                      |
| 300 - 650'        | 20.00"    | 170 bbls       | 144 bbls         | 26 bbls                 |
| 650 - 2500'       | 12.25"    | 337 bbls       | 287 bbls         | 51 bbls                 |
| 2500 - 11463'     | 9.875"    | 1061 bbls      | 902 bbls         | 159 bbls                |

Batch discharges of drilling fluids will be limited to 1000 barrels per hour. This limitation should only need to be imposed upon the completion of drilling operations.

Solids wastes; typically paper, plastic, cloth, and metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage, will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse.

Sanitary wastes will be treated in approved marine sanitation devices as required by the Clean Water Act. All biodegradable wastes, such as kitchen food scraps, will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78.

Hazardous wastes from the drilling rig, such as paint, or paint thinner, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines.

## VIII. H<sub>2</sub>S AREA CLASSIFICATION

Based on previous drilling, no H<sub>2</sub>S is known to occur in the project area. Union Oil Company of California, therefore, requests that East Cameron Area Block 194 be classified as a "Zone where the absence of H<sub>2</sub>S has been confirmed".

## IX. BIOLOGICAL INFORMATION

Activities proposed in this DOCD will not impact any deepwater chemosynthetic communities as the water depth at the surface location of the proposed well is 98 feet. All proposed bottom-disturbing

activities are outside the 3-mile zone of any identified topographic feature or within 100 feet of any pinnacle trend feature; therefore, no impacts to these features are anticipated.

#### X. NEW OR UNUSUAL TECHNOLOGY

Exploration and development activities in East Cameron Area Block 194 will not warrant utilizing any new or unusual technology that may affect coastal waters.

#### XI. CERTIFICATE OF COASTAL ZONE CONSISTENCY

A Certificate of Coastal Zone Consistency is included in Attachment E.

#### XII. ENVIRONMENTAL IMPACT ANALYSIS

An Environmental Impact Analysis has been prepared for the proposed activity and is included in Attachment E.

#### XIII. CALCULATION OF AIR EMISSIONS

An air quality screening checklist is included as Attachment E.

#### XIV. SUPPORT BASE

East Cameron Area Block 194 is located approximately 55 miles from the coast of Cameron Parish, Louisiana. An existing facility in Cameron, Louisiana will serve as the onshore support base for the East Cameron Area Block 194 development activities. This shore base is located approximately 100 miles from East Cameron Area Block 194. Unocal anticipates using one helicopter, one supply boat, and one crew boat to support the activities in this block. The helicopter will travel to the location on an as needed basis. The supply boat and crew boat will travel to location a total of three times per week and five times per week, respectively. The shore base will serve the following functions: loading point for tools, equipment and machinery to be delivered to the well site, transportation base, and temporary storage area for materials and equipment. The base is equipped with cranes and loading docks necessary for safe operations. The existing onshore facilities and support personnel are sufficient to support the proposed operations without modification or expansion.

#### XV. SURETY BOND REQUIREMENTS

In accordance with the amendment of 30 CFR Part 256 surety bond requirements applicable to OCS lessees and operators, Union Oil Company of California submitted an area-wide bond in the amount of \$3,000,000.00 to the Minerals Management Service, New Orleans, Louisiana.

## XVI. COMPANY CONTACT

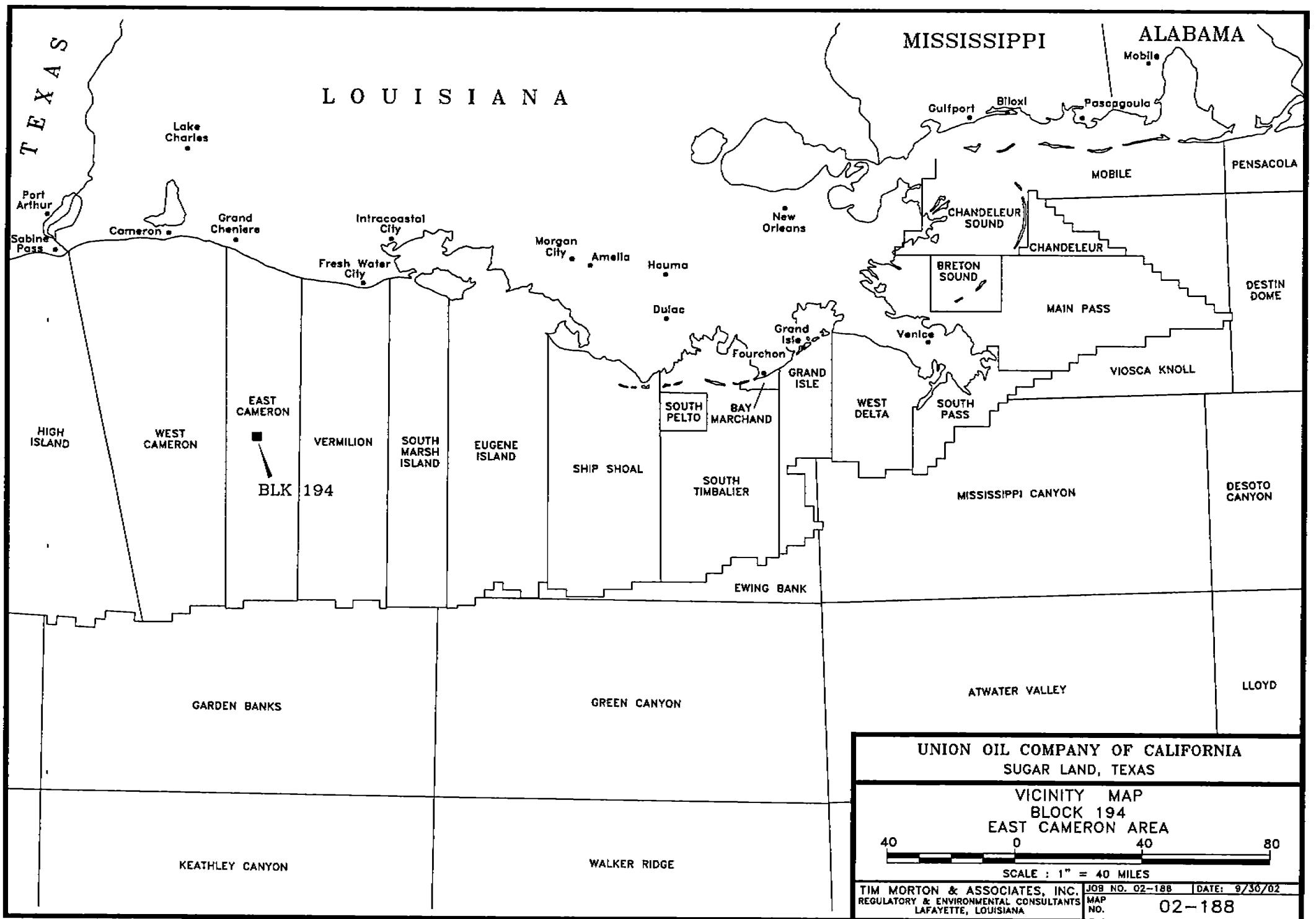
Any inquiries regarding this plan may be addressed to Mr. Terry Cook, 281/287-5538, Union Oil Company of California, 14141 Southwest Freeway, Sugar Land, Texas 77478.

**BEST AVAILABLE COPY**

ATTACHMENT A

VICINITY PLAT

LOCATION PLAT



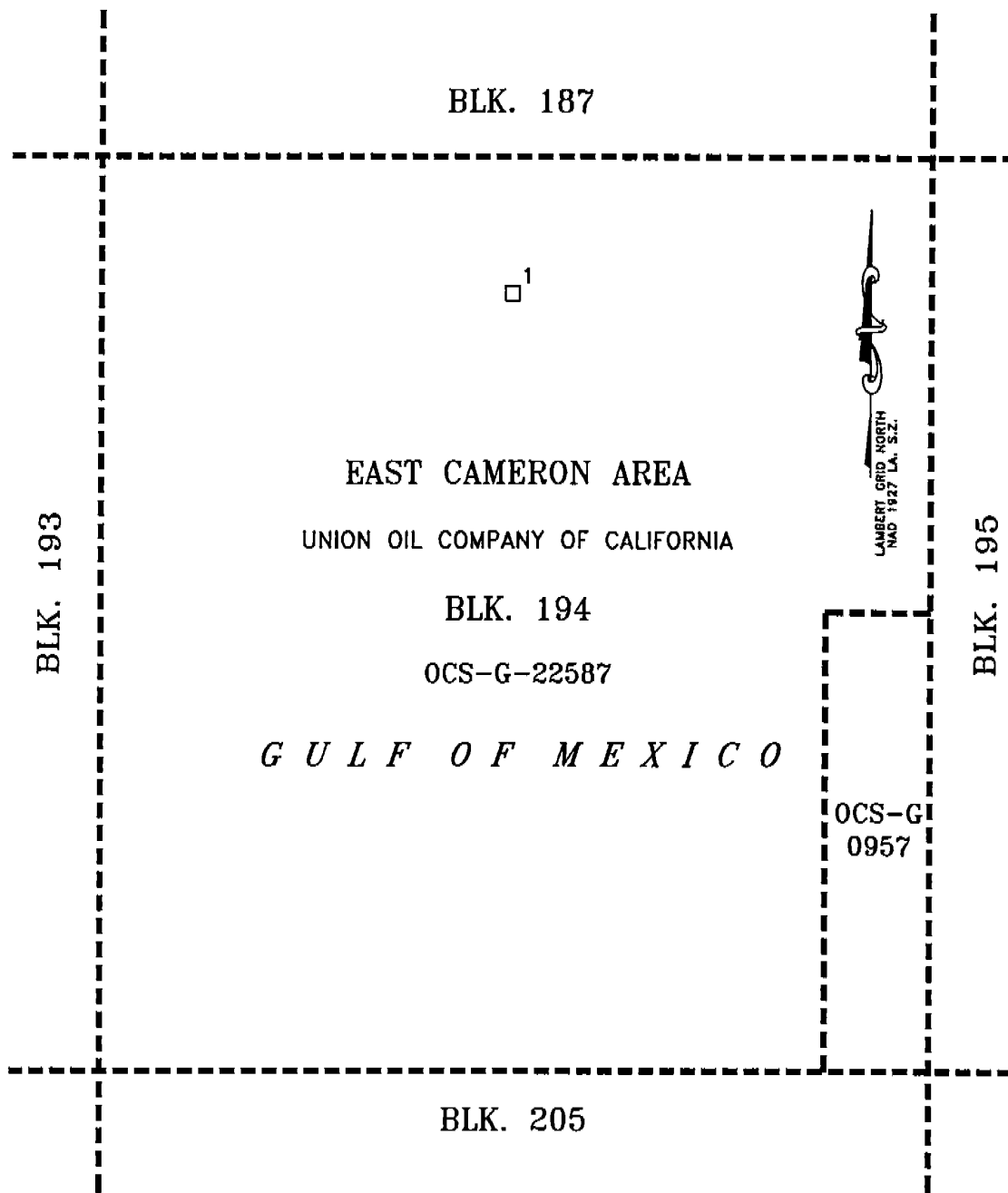
UNION OIL COMPANY OF CALIFORNIA  
 SUGAR LAND, TEXAS

VICINITY MAP  
 BLOCK 194  
 EAST CAMERON AREA

40 0 40 80

SCALE : 1" = 40 MILES

|   |                |               |
|---|----------------|---------------|
| TIM MORTON & ASSOCIATES, INC.<br>REGULATORY & ENVIRONMENTAL CONSULTANTS<br>LAFAYETTE, LOUISIANA | JOB NO. 02-188 | DATE: 9/30/02 |
| MAP NO.   | 02-188         |               |




EAST CAMERON AREA  
 UNION OIL COMPANY OF CALIFORNIA  
 BLK. 194  
 OCS-G-22587  
 G U L F O F M E X I C O

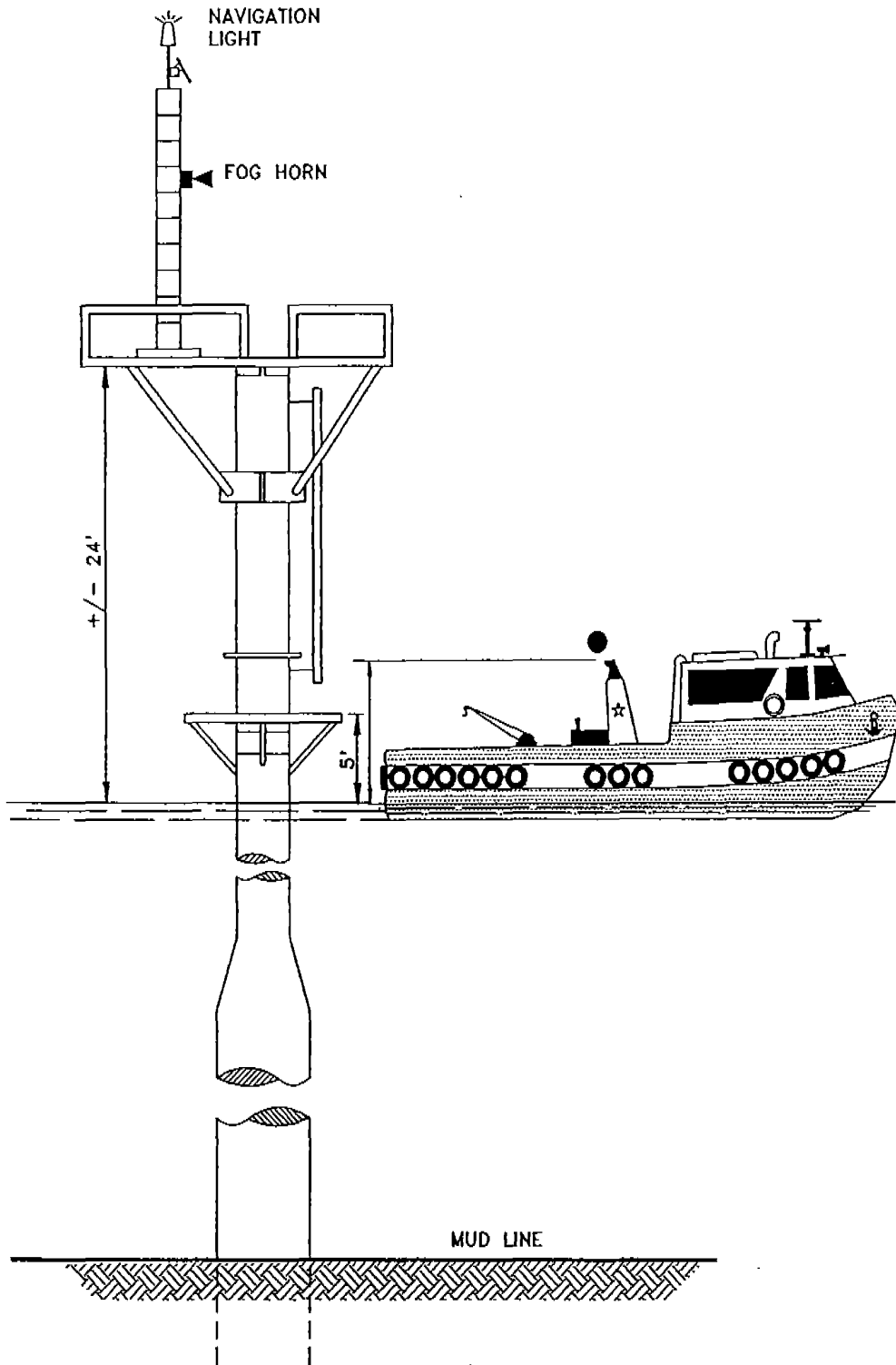
PROPOSED SURFACE LOCATION

| BLK. | WELL NO. | CALLS                 | X          | Y       | LATITUDE    | LONGITUDE   |
|------|----------|-----------------------|------------|---------|-------------|-------------|
| 194  | 1        | 7300' FWL   2200' FNL | 1,516,816' | 47,881' | 28°47'22.5" | 92°50'29.5" |

**BEST AVAILABLE COPY**

|   |  |         |         |         |      |         |       |  |         |
|---|--|---------|---------|---------|------|---------|-------|--|---------|
| UNION OIL COMPANY OF CALIFORNIA<br>14141 SOUTHWEST FREEWAY<br>SUGAR LAND, TEXAS 77478           | <i>INITIAL DOCD</i><br>EAST CAMERON AREA- BLOCK 194<br><br>SCALE IN FEET   |         |         |         |      |         |       |  |         |
| TIM MORTON & ASSOCIATES, INC.<br>REGULATORY & ENVIRONMENTAL CONSULTANTS<br>LAFAYETTE, LOUISIANA | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">JOB #</td> <td style="width: 25%;">02-188</td> <td style="width: 25%;">REVISED</td> <td style="width: 25%;">DATE</td> </tr> <tr> <td>MAP NO.</td> <td>EC194</td> <td></td> <td>9/30/02</td> </tr> </table> | JOB #   | 02-188  | REVISED | DATE | MAP NO. | EC194 |  | 9/30/02 |
| JOB #   | 02-188   | REVISED | DATE    |         |      |         |       |  |         |
| MAP NO.   | EC194  |         | 9/30/02 |         |      |         |       |  |         |

ATTACHMENT B  
TYPICAL CAISSON



TYPICAL CAISSON WELL PROTECTOR



ATTACHMENT C  
SHALLOW HAZARD REPORT  
GEOLOGIC STRUCTURE MAPS  
CROSS-SECTION MAP  
BATHYMETRY MAP

UNION OIL COMPANY OF CALIFORNIA  
OCS-G-22587  
EAST CAMERON BLOCK 194  
OFFSHORE LOUISIANA

SHALLOW HAZARD REPORT

East Cameron Block 194 Prospect

This memo was written in conclusion to my evaluation of East Cameron 194 for archaeological artifacts and subsurface geologic hazards at or near the proposed well locations.

East Cameron 194 7300' FWL and 2200' FNL

FURGO Geoservices and UNOCAL Corporation conducted a high resolution survey during August 2002 using the following equipment.

1. FURGO STARFIX DGPS
2. Marine Magnetics SeaSPY GSM-19MD Proton magnetometer.
3. EdgeTech SMS 260-TH 100 kHz side scan sonar.
4. Odom EchoTrac DF 3200 (200 kHz) echo sounder.
5. ORE model 140 3.5 kHz Pinger subbottom profiler.
6. OYO DAS-1 system 48 channel seismic recorder.
7. 90 cubic inch GI guns.
8. SeaBird Seacat SBE 19-01 velocimeter.
9. Sonar and Pinger data recorded with Sonar Wiz SSS/SBP recording system.

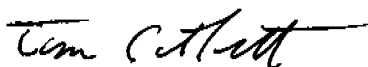
GEOPHYSICAL DISCUSSION

The seafloor of Block 194 is smooth with a seafloor gradient of about 2 feet/mile dipping towards the southwest. The seafloor is reported to be a mixture of sands and clayey sands. One fault downcutting from 0-5 feet below the surface lies about 250 feet from the proposed location. There are no indications of a shallow gas hazard at the proposed location. Water depths at the discussed location ranges between 98-99 feet. There are no magnetic anomalies within 600 feet of the proposed location.

CONCLUSION

In view of the above observations, we believe the proposed location can be drilled safely with minimum risk of disturbing any potential archaeological artifacts.

BY:



Tom Catlett  
Sr. Advising Geophysicist  
Sept. 12, 2002

**BEST AVAILABLE COPY.**

GEOLOGIC STRUCTURE MAPS  
PROPRIETARY INFORMATION

CROSS-SECTION MAP  
PROPRIETARY INFORMATION

BATHYMETRY MAP  
PROPRIETARY INFORMATION

ATTACHMENT D  
DRILLING FLUIDS LIST

## MUD SYSTEM COMPONENT LISTING

| <u>PRODUCT NAME</u>  | <u>APPLICATION</u>  | <u>DESCRIPTION</u>                                 |
|----------------------|---------------------|--|
| Aluminum Stearate    | Defoamer            | Aluminum Stearate                                  |
| Bac Ban              | Preservative        | $Al(C_{18}H_{35}O_2)_3$<br>Isothiazolin<br>mixture |
| Barabuf              | PH control          | Magnesium oxide                                    |
| Calcium Chloride     | Weighting Agent     | Calcium Chloride<br>$CaCl_2$                       |
| Cane Fiber           | Loss Circulation    | Sugar cane fiber<br>(bagasse)                      |
| Caustic Potash       | PH control          | Potassium<br>hydroxide (KOH)                       |
| Caustic Soda         | PH control          | Sodium hydroxide<br>(NaOH)                         |
| Caustilig            | Thinner             | Causticized<br>lignite                             |
| Cedar Fiber          | Loss Circulation    | Shredded cedar,<br>cellulose                       |
| Congor 101           | Corrosion Inhibitor | Blend of tall oil<br>and alcohol                   |
| Congor 202           | Corrosion Inhibitor | Blend of amines<br>and alcohol                     |
| Congor 303           | Corrosion Inhibitor | Blend of alkyl<br>diamines                         |
| Congor 404           | Corrosion Inhibitor | Salt of phosphate<br>ester                         |
| Cottonseed Hulls     | Loss Circulation    | Cotton seed hulls                                  |
| Defoam X             | Defoamer            | Blend of glycols<br>and stearate                   |
| Desco                | Thinner             | Sulfomethylated<br>tannin/dichromate               |
| Diaseal M            | Loss Circulation    | Diatomaceous earth                                 |
| Drillaid Selec Flocc | Flocculant          | Anionic polymer                                    |
| Drispac              | Fluid Loss Control  | Cellulose Gum                                      |
| Durogel              | Viscosifier         | Sepiolite clay                                     |
| Fer-Ox               | Weighting Agent     | Iron oxide; hematite<br>( $Fe_2 O_3$ )             |
| Flakes               | Loss Circulation    | Cellophane ( $C_6 H_{10} O_5$ ) <sub>n</sub>       |
| Floxit               | Flocculant          | Polyacrylamide<br>( $C_3 H_5 NO$ ) <sub>x</sub>    |
| Gelex                | Viscosifier         | Sodium polyacrylate                                |
| Gelite               | Viscosifier         | Saponite ( $Al_2 MgO_8 Si_2$ )                     |

|  |   |  |
|--|---|--|
| Gypsum   | Shale Control   | Calcium sulfate<br>(CaSO <sub>4</sub> .2H <sub>2</sub> O)  |
| Ironite Sponge<br>K-17                               | Corrosion Inhibitor<br>Thinner                                | Iron oxide (Fe <sub>2</sub> O <sub>4</sub> )<br>Metal salt of lignite<br>with potassium hydroxide          |
| Kleen Up<br>Kwik Seal                                | Surfactant<br>Loss Circulation                                | Blend of surfactants<br>Blend of nut shells,<br>cellophane and wood<br>fibers                              |
| Kwik-Thik  | Viscosifier   | Bentonite, polyacryl-<br>amide blend   |
| Lime   | PH Control  | Calcium hydroxide<br>[Ca(OH) <sub>2</sub> ]  |
| Liquid CaCl <sub>2</sub>                             | Weighting Agent   | Calcium chloride,<br>liquid (CaCl <sub>2</sub> )   |
| Lo-Wato  | Weighting Agent   | Calcium carbonate<br>(CaCO <sub>3</sub> )  |
| Lube-106   | Lubricant   | Blend of alcohol and<br>esters   |
| Lube-153<br>M-I Bar                                  | Lubricant<br>Weighting Agent                                  | Barium sulfate<br>(BaSO <sub>4</sub> )   |
| M-I CMC  | Fluid Loss Control  | Sodium carboxymethy-<br>cellulose  |
| M-I Cal  | Viscosifier   | Sodiummontmorillonite<br>(bentonite)   |
| M-I Mica<br>Melanex-T                                | Loss Circulation<br>Thinner                                   | Mica<br>Melanin polymer<br>derivative  |
| My-Lo-Jel<br>N-DRL HT                                | Fluid Loss Control<br>Viscosifier and<br>Fluid Loss Control   | Pregelatinized starch<br>Biopolymer  |
| N-VIS P<br>Nut Plug - All Grades<br>Oxygen Scavenger | Fluid Loss Control<br>Loss Circulation<br>Corrosion Inhibitor | Hyperproperlated starch<br>Ground nut shells<br>Ammonium bisulfite<br>solution                             |
| Pheno-seal<br>Phos<br>Pipelax                        | Loss Circulation<br>Thinner<br>Spotting Fluid                 | Chipped formica<br>Sodium tetrphosphate<br>Blend of surfactants<br>dispersed in an<br>aromatic process oil |
| Pipelax SF   | Spotting Fluid  | Blend of surfactants<br>and low toxicity<br>hydrocarbons   |
| Polypac  | Fluid Loss Control  | A high grade carboxy-<br>methyl cellulose  |



|                            |                                |  |
|----------------------------|--------------------------------|--|
| Poly-Plus (liquid)         | Polymer                        | A liquid anionic polyelectrolyte with mineral oil  |
| Polysal                    | Fluid Loss Control             | A modified potato starch   |
| Polyseal                   | Loss Circulation               | A blend of mixed fibers and cellophane   |
| Quebracho 60/40<br>Resinex | Thinner<br>Fluid Loss Control  | Tannin<br>Copolymer of a lignite and a sulfonated phenol, formaldehyde urea resin                |
| Safe Link                  | Viscosifier                    | A blend of salt, polymer and ligno-sulfonate   |
| Salt                       | Weighting Agent                | Sodium chloride (NaCl)   |
| Salt Gel<br>SAPP           | Viscosifier<br>Thinner         | Attapulgate clay<br>Sodium acid pyrophosphate ( $\text{Na}_2 \text{H}_2 \text{P}_2 \text{O}_7$ ) |
| Shale Chek                 | Shale Control                  | A blend of amines and glycol   |
| Soda Ash                   | PH Control                     | Sodium carbonate ( $\text{Na}_2 \text{CO}_3$ )   |
| Sodium Bicarbonate         | PH Control                     | Sodium bicarbonate ( $\text{NaHCO}_3$ )  |
| Soltex                     | Lubricant                      | Sodium asphalt sulfonate   |
| SP-101                     | Fluid Loss Control             | Sodium polyacrylate  |
| Spersene                   | Thinner                        | Chrome lignosulfonate  |
| Spersene CF                | Thinner                        | Chrome free lignosulfonate   |
| Sulf-X Plus<br>Tackle      | Corrosion Inhibitor<br>Thinner | Zinc oxide blend<br>A polyacrylamide blend   |
| Tannathin                  | Thinner                        | Oxidized lignite (naturally occurring)   |
| Thermpac UL                | Fluid Loss Control             | Sodium carboxymethyl starch  |
| XP-20                      | Thinner                        | Oxidized chrome lignite  |

NOTE:

The product names are from M-I Drilling Fluids. These product names may differ depending on the actual company selected to provide drilling fluid products.

ATTACHMENT E

COASTAL ZONE CONSISTENCY CERTIFICATION

ENVIRONMENTAL IMPACT ANALYSIS

AIR QUALITY SCREENING CHECKLIST

COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATE

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

GULF OF MEXICO

FOR

EAST CAMERON AREA BLOCK 194

OCS-G-22587

SUBMITTED TO:

MR. TERRY COOK

UNION OIL COMPANY OF CALIFORNIA

14141 SOUTHWEST FREEWAY

SUGAR LAND, TEXAS 77478

(281/287-5538)

SEPTEMBER 26, 2002

PREPARED BY:

TIM MORTON & ASSOCIATES, INC.

REGULATORY & ENVIRONMENTAL CONSULTANTS

PROJECT NO. 02-188

COASTAL ZONE MANAGEMENT  
CONSISTENCY CERTIFICATION

DEVELOPMENT/PRODUCTION

.....  
Type of Plan

EAST CAMERON AREA BLOCK 194

.....  
Area and Block

OCS-G-22587

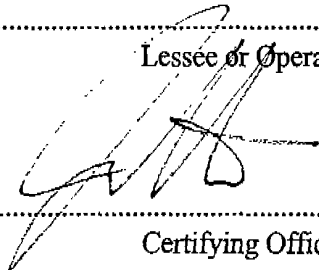
.....  
Lease Number

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

Arrangements have been made to publish Public Notices regarding the proposed activity no later than October 16, 2002 with THE ADVOCATE, the official journal of Louisiana, and with CAMERON PARISH PILOT, the official journal of Cameron Parish.

UNION OIL COMPANY OF CALIFORNIA

.....  
Lessee or Operator

  
.....  
Certifying Official

SEPTEMBER 30, 2002  
.....  
Date

Public Notice of Federal Consistency Review of a  
Proposed Development Operations Coordination Document (DOCD)  
by the Coastal Management Division/Louisiana  
Department of Natural Resources for the Plan's Consistency with  
the Louisiana Coastal Resources Program.

Applicant: Union Oil Company of California  
14141 Southwest Freeway  
Sugar Land, Texas 77478

Location: East Cameron Area, OCS-G-22587  
Block 194

Description: Proposed Initial DOCD for East Cameron Area Block 194 provides for the development and production of hydrocarbons. Support activities are to be conducted from an onshore base located at Cameron, Louisiana. No ecologically sensitive species or habitats are expected to be located near or affected by these activities.

A copy of the plan described above is available for inspection at the Coastal Management Division Office located on the 10th floor of the LaSalle Building, 617 North 3rd Street, Baton Rouge, Louisiana. Office hours: 8:00 a.m. to 5:00 p.m., Monday through Friday. The public is requested to submit comments to the Coastal Management Division, Attention: OCS Plans, P. O. Box 44487, Baton Rouge, La. 70804-4487. Comments must be received within 15 days of the date of this notice or 15 days after the Coastal Management Division obtains a copy of the plan and it is available for public inspection. This public notice is provided to meet the requirements of the NOAA Regulations on Federal Consistency with approved Coastal Management Programs.

**LOUISIANA COASTAL RESOURCES PROGRAM (LCRP)  
STATEMENT OF FINDINGS REGARDING RELEVANT ENFORCEABLE POLICIES**

**GUIDELINES APPLICABLE TO ALL USES**

**Guideline 1.2 - Conformance with applicable water and air quality laws, standards and regulations, and with those other laws, standards and regulations which have been incorporated into the coastal resources program shall be deemed in conformance with the program except to the extent that these guidelines would impose additional requirements.**

The discharges generated at the proposed well location by the drilling and production activities associated with this plan will be discharged upon successful bioassay test as per NPDES discharge guidelines. Solids wastes; typically paper, plastic, cloth, and metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage, will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse. Sanitary wastes will be treated in approved marine sanitation devices as required by the Clean Water Act. All biodegradable wastes, such as kitchen food scraps, will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78. Hazardous wastes from the drilling rig, such as paint, or paint thinner, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines. All operations will be covered by a Minerals Management Service approved Oil Spill Response Plan. All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

An Air Quality Screening Checklist was prepared and included in Attachment E of the Development Operations Coordination Document (DOCD). An Air Quality Report was not required for the proposed activities. Therefore, the ambient air quality of Louisiana's coastal zone will not be adversely affected.

**Guideline 1.6 - Information regarding the following general factors shall be utilized by the permitting authority in evaluating whether the proposed use is in compliance with the guidelines.**

**a. type, nature and location of use.**

*Activities proposed in the DOCD will occur in offshore waters.*

**b. elevation, soil and water conditions and flood and storm hazard characteristics of site.**

Not applicable.

**c. techniques and materials used in construction, operation and maintenance of use.**

Not applicable.

- d. existing drainage patterns and water regimes of surrounding area including flow, circulation, quality, quantity, and salinity; and impacts on them.**

Not applicable.

- e. availability of feasible alternative sites or methods for implementing the use.**

Not applicable.

- f. designation of the area for certain uses as part of a local program.**

Not applicable.

- g. economic need for use and extent of impacts of use on economy of locality.**

Not applicable.

- h. extent of resulting public and private benefits.**

Not applicable.

- i. extent of coastal water dependency of the use.**

Union Oil Company of California (Unocal) will operate out of their service base facilities established in Cameron, Louisiana. Transportation vessels will utilize the most direct route from the Cameron service base to the activity location.

- j. existence of necessary infrastructure to support the use and public costs resulting from use.**

Unocal will operate out of their service base facilities established in Cameron, Louisiana. There will be no public cost resulting from the proposed activity.

- k. extent of impacts on existing and traditional uses of the area and on future uses for which the area is suited.**

Not applicable.

- l. proximity to and extent of impacts on important natural features such as beaches, barrier islands, tidal passes, wildlife and aquatic habitats, and forest lands.**

The proposed activities will occur approximately 55 miles from the coast of Cameron Parish, Louisiana. The greatest threat to the natural environment including beaches, barrier islands, tidal passes, wildlife and aquatic habitats is caused by inadequate operational safeguards that may cause or contribute to an oil spill or well blowout. These accidents can be greatly reduced in number by utilizing trained operational personnel and employing all available safety and pollution control systems. These measures are standard operating procedure for Unocal. Unocal has an approved Oil Spill Response Plan. No impacts to important natural features are anticipated.

- m. the extent to which regional, state and national interests are served including the national interest in resources and the siting of facilities in the coastal zones as identified in the coastal resources program.**

Not applicable.

- n. proximity to, and extent of impacts on, special areas, particular areas, or other areas of particular concern of the state program or local programs.**

The proposed activities will occur approximately 55 miles from the coast of Cameron Parish, Louisiana. No impacts to special areas, particular areas, or other areas of particular concern of the state program or local programs are anticipated.

- o. likelihood of, and extent of impacts of, resulting secondary impacts and cumulative impacts.**

There are no secondary or cumulative impact anticipated as a result of the proposed activities.

- p. proximity to and extent of impacts on public lands or works, or historic, recreational or cultural resources.**

The proposed activities will occur approximately 55 miles from the coast of Cameron Parish, Louisiana. No impacts on public lands or works, or historic, recreational or cultural resources are anticipated.

- q. extent of impacts on navigation, fishing, public access, and recreational opportunities.**

Navigation, fishing, public access and recreational opportunities would be affected by OCS development, but primarily in terms of inconvenience and interference. Petroleum platforms provide recreation for fishermen and scuba divers because they act as artificial reefs attracting and establishing aquatic communities including highly sought after food and sport fishes. The reef effect created by petroleum platforms is well known and is evidenced by the numerous private boat owners who regularly fish at offshore facilities. Offshore rigs and platforms serve as navigation points for small commercial and recreational marine craft. Manned drilling rigs and platforms can also provide a haven for small craft operators forced to abandon their vessels during storms. The installation and use of navigational aids, lifesaving equipment, and other safety requirements pursuant to Coast Guard regulations are standard procedure for production platforms and marine vessels utilized by Unocal.

- r. extent of compatibility with natural and cultural setting.**

Not applicable.

- s. extent of long term benefits or adverse impacts.**

Not applicable.

**BEST AVAILABLE COPY**



**Guideline 1.7 - It is the policy of the coastal resources program to avoid the following adverse impacts. To this end, all uses and activities shall be planned, sited, designed, constructed, operated and maintained to avoid to the maximum extent practicable significant:**

- a. reductions in the natural supply of sediment and nutrients to the coastal system by alterations of freshwater flow.**

Not applicable.

- b. adverse economic impacts on the locality of the use and affected governmental bodies.**

Not applicable.

- c. detrimental discharges of inorganic nutrient compounds into coastal waters.**

Not applicable.

- d. alterations in the natural concentration of oxygen in coastal waters.**

The greatest threat to the natural concentration of oxygen in coastal waters is caused by inadequate operational safeguards that may cause or contribute to an oil spill or well blowout. These accidents can be greatly reduced in number by utilizing trained operational personnel and employing all available safety and pollution control systems. These measures are standard operating procedure for Unocal. Unocal has an approved Oil Spill Response Plan. No impacts to the natural concentration of oxygen in coastal waters are anticipated.

- e. destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and waterbottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features.**

No destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and waterbottoms, beaches, dunes, barrier islands, or other natural biologically valuable areas or protective coastal features are anticipated.

- f. adverse disruption of existing social patterns.**

Not applicable.

- g. alterations of the natural temperature regime of coastal waters.**

No alterations of the natural temperature regime of coastal waters are anticipated.

- h. detrimental changes in existing salinity regimes.**

No detrimental changes in existing salinity regimes are anticipated.

- i. detrimental changes in littoral and sediment transport processes.**

Not applicable

**j. adverse effects of cumulative impacts.**

No cumulative impacts are anticipated.

**k. detrimental discharges of suspended solids into coastal waters, including turbidity resulting from dredging.**

Not applicable.

**l. reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or a wetland forest.**

Not applicable.

**m. discharges of pathogens or toxic substances into coastal waters.**

No discharges of pathogens or toxic substances into coastal waters are anticipated.

**n. adverse alteration or destruction of archaeological, historical or biologically highly productive wetland areas.**

The area of proposed activities falls within the zone designated as an area with a high probability of pre-historic archeological resources. An Archeological and Shallow Hazards Report for a portion of East Cameron Area Block 194 was prepared by Fugro Geoservices, Inc. in September 2002, and the following was extracted from that report:

The following conclusions and recommendations should be considered during drilling and construction planning within the study area:

- Bathymetric contours indicate a smooth seafloor within the survey area.
- Caution should be used when working in the vicinity of the man-made features, the 8 unidentified magnetic anomalies, and two seafloor faults.
- The pinger data records buried channels that were interspersed with flood plain deposits and natural levees. The channel margins downcut from 0 to 5-feet below the seafloor. Due to the potential variance in geotechnical properties between the channel-fill material and surrounding sediments, bottom-supported structures utilizing independent jack-up legs should not straddle channel margins.
- There are no seismic amplitude anomalies (bright spots) observed on the analog digital air gun records. The interpretation of seismic amplitude anomalies is a subjective process. Therefore, the air gun data and any available relative amplitude processed seismic data collected in the vicinity of proposed well locations should be inspected for possible high pressure gas zones.
- Results of this shallow hazards assessment should be considered when selecting future well sites. A detailed hazards assessment should be prepared for each proposed well site to determine specific conditions for exploratory drilling.
- No high probability areas for prehistoric archeological sites were recorded in the near seafloor sediments in the pinger profiles.
- Late Pleistocene/early Holocene fluvial channel deposits were noted in the pinger profiles. The upper margins and tops of the channel fill deposits appear truncated by erosion, and in situ prehistoric archeological sites are unlikely to be present. While cultural remains may have been

incorporated into the alluvial fill, no specific high probability areas for prehistoric archeological sites were noted within the boundaries of the channels. There are no unidentified sonar targets. The eight unidentified magnetic anomalies are interpreted as probable modern debris from previous shipping, oil and gas development, or fishing activities.

- It is possible that historic shipwrecks materials may be obscured by modern debris and may not be detected by the geophysical instruments. If wooden planking or other evidence of shipwreck remains is encountered, the work should be halted and the archeologists contacted at the USDI MMS in New Orleans to determine the possible historic significance of these artifacts.

No adverse alteration or destruction of highly productive wetland areas are anticipated.

**o. fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas.**

No fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas are anticipated.

**p. adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forest lands.**

No adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forest lands are anticipated.

**a. adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern.**

No adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern are anticipated.

**b. adverse disruptions of coastal wildlife and fishery migratory patterns.**

No adverse disruptions of coastal wildlife and fishery migratory patterns are anticipated.

**c. land loss, erosion and subsidence.**

Not applicable.

**d. increases in the potential for flood, hurricane or other storm damage, or increases in the likelihood that damage will occur from such hazards.**

Not applicable.

**e. reductions in the long term biological productivity of the coastal ecosystem.**

No reductions in the long term biological productivity of the coastal ecosystem are anticipated.

**Guideline 1.9 - Uses shall to the maximum extent practicable be designed and carried out to permit multiple concurrent uses which are appropriate for the location and to avoid unnecessary conflicts with other uses of the vicinity.**

Not applicable.

## **GUIDELINES FOR LINEAR FACILITIES**

**Guideline 3.1 - Linear use alignments shall be planned to avoid adverse impacts on areas of high biological productivity or irreplaceable resource areas.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.2 - Linear facilities involving the use of dredging or filling shall be avoided in wetland and estuarine areas to the maximum extent practicable.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.3 - Linear facilities involving dredging shall be of the minimum practical size and length.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.4 - To the maximum extent practicable, pipelines shall be installed through the "push ditch" method and the ditch backfilled.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.5 - Existing corridors, rights-of-way, canals, and streams shall be utilized to the maximum extent practicable for linear facilities.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.6 - Linear facilities and alignments shall be, to the maximum extent practicable, designed and constructed to permit multiple uses consistent with the nature of the facility.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.7 - Linear facilities involving dredging shall not traverse or adversely affect any barrier island.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.8 - Linear facilities involving dredging shall not traverse beaches, tidal passes, protective reefs, or other natural gulf shoreline unless no other alternatives exists. If a beach, tidal pass, reef or other gulf shoreline must be traversed for a non-navigation canal, they shall be restored at least to their natural condition immediately upon completion of construction. Tidal passes shall not be permanently widened or deepened except when necessary to conduct the use. The best available restoration techniques which improve the traversed area's ability to serve as a shoreline shall be used.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.9 - Linear facilities shall be planned, designed, located and built using the best practical techniques to minimize disruption of natural hydrologic and sediment transport patterns, sheet flow, and water quality, and to minimize adverse impacts on wetlands.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.10 - Linear facilities shall be planned, designed, and built using the best practical techniques to prevent bank slumping and erosion, saltwater intrusion, and to minimize the potential for inland movement of storm-generated surges. Consideration shall be given to the use of locks in navigation canals and channels which connect more saline areas with fresher areas.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.11 - All non-navigation canals, channels and ditches which connect more saline areas with fresher areas shall be plugged at all waterway crossing and at intervals between crossings in order to compartmentalize them. The plugs shall be properly maintained.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.12 - The multiple use of existing canals, directional drilling and other practical techniques shall be utilized to the maximum extent practicable to minimize the number and size of access canals, to minimize changes of natural systems and to minimize adverse impacts on natural areas and wildlife and fisheries habitat.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.13 - All pipelines shall be constructed in accordance with parts 191, 192, and 195 of Title 49 of the Code of Federal Regulations, as amended, and in conformance with the Commissioner of Conservation's Pipeline Safety Rules and Regulations and those safety requirements established by La. R.S. 45:408, whichever would require higher standards.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.14 - Areas dredged for linear facilities shall be backfilled or otherwise restored to the pre-existing conditions upon cessation of use for navigation purposes to the maximum extent practicable.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.15 - The best practical techniques for site restoration and revegetation shall be utilized for all linear facilities.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

**Guideline 3.16 - Confined and dead end canals shall be avoided to the maximum extent practicable. Approved canals must be designed and constructed using the best practical techniques to avoid water stagnation and eutrophication.**

If the well is successful, Unocal proposes to install approximately 17,400 feet of six inch pipeline from the proposed caisson located in East Cameron Area Block 194 to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. No linear facilities will be installed in the Louisiana Coastal Zone.

#### **GUIDELINES FOR DREDGED SPOIL DEPOSITION**

**Guideline 4.1 - Spoil shall be deposited utilizing the best practical techniques to avoid disruption of water movement, flow, circulation and quality.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.2 - Spoil shall be used beneficially to the maximum extent practicable to improve productivity or create new habitat, reduce or compensate for environmental damage done by dredging activities, or prevent disposal shall be utilized to the maximum extent practicable rather than creating new disposal areas.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.3 - Spoil shall not be disposed of in a manner which could result in the impounding or draining of wetlands or the creation of development sites unless the spoil deposition is part of an approved levee or land surface alteration project.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.4 - Spoil shall not be disposed of on marsh, known oyster or clam reefs or in areas of submersed vegetation to the maximum extent practicable.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.5 - Spoil shall not be disposed of in such a manner as to create a hindrance to navigation or fishing, or hinder timber growth.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.6 - Spoil disposal areas shall be designed and constructed and maintained using the best practical techniques to retain the spoil at the site, reduce turbidity, and reduce shoreline erosion when appropriate.**

No dredging activities are proposed in the Louisiana Coastal Zone.

**Guideline 4.7 - The alienation of state-owned property shall not result from spoil deposition activities without the consent of the Department of Natural Resources.**

No dredging activities are proposed in the Louisiana Coastal Zone.

#### **GUIDELINES FOR SURFACE ALTERATIONS**

**Guideline 6.1 - Industrial, commercial, urban, residential, and recreational uses are necessary to provide adequate economic growth and development. To this end, such uses will be encouraged in those areas of the coastal zone that are suitable for development. Those uses shall be consistent with the other guidelines and shall, to the maximum extent practicable, take place only:**

- a. on lands five feet or more above sea level or within fast lands; or
- b. on lands which have foundation conditions sufficiently stable to support the use, and where flood and storm hazards are minimal or where protection from these hazards can be reasonably well achieved, and where the public safety would not be unreasonably endangered; and
  - 1) the land is already in high intensity of development use, or
  - 2) there is adequate supporting infrastructure, or
  - 3) the vicinity has a tradition of use for similar habitation or development

No surface alterations within the Louisiana Coastal Zone are proposed.

#### **GUIDELINES FOR HYDROLOGIC AND SEDIMENT TRANSPORT MODIFICATIONS**

**Guideline 7.1 - The controlled diversion of sediment-laden waters to initiate new cycles of marsh building and sediment nourishment shall be encouraged and utilized whenever such diversion will enhance the viability and productivity of the outfall area. Such diversions shall incorporate a plan for monitoring and reduction and/or amelioration of the effects of pollutants present in the freshwater source.**

Proposed activities will not result in the creation of sediment-laden waters.

**Guideline 7.3 - Undesirable deposition of sediments in sensitive habitat or navigation areas shall be avoided through the use of the best preventive techniques.**

Proposed activities will not result in deposition of sediments within the Louisiana Coastal Zone.

**Guideline 7.9 - Withdrawal of surface and ground water shall not result in saltwater intrusion or land subsidence to the maximum extent practicable.**

Proposed activities will not result in the withdrawal of surface and ground water.

**BEST AVAILABLE COPY**



## **GUIDELINES FOR DISPOSAL OF WASTES**

**Guideline 8.1** - The location and operation of waste storage, treatment, and disposal facilities shall be avoided in wetlands to the maximum extent practicable, and best practical techniques shall be used to minimize adverse impacts which may result from such use.

Waste disposal associated with the proposed activities will utilize existing facilities.

**Guideline 8.2** - The generation, transportation, treatment, storage and disposal of hazardous wastes shall be pursuant to the substantive requirements of the Department of Natural Resources adopted pursuant to Act 334 of 1978 and approved pursuant to the Resource Conservation and Recovery Act of 1978 P. L. 94-580, and of the Office of Conservation for injection below surface.

Any materials that may contain oil or other hazardous materials, and therefore would have a much greater adverse impact on the environment, will not be discharged intentionally. Any discharging will be done pursuant to all Department of Natural Resources, Department of Interior, Office of Conservation and Environmental Protection Agency regulations. The discharges to be disposed overboard as a result of the production activity will include produced water and domestic waste and sewage that is treated on the platform.

**Guideline 8.8** - Wastes shall be disposed of only at approved disposal sites.

Wastes associated with the proposed activities will be disposed of only at approved disposal sites.

**Guideline 8.9** - Radioactive wastes shall not be temporarily or permanently disposed of in the coastal zone.

No radioactive wastes associated with the proposed activities are anticipated.

## **GUIDELINES FOR USES THAT RESULT IN THE ALTERNATION OF WATERS DRAINING INTO COASTAL WATERS**

**Guideline 9.2** - Runoff from developed areas shall to the maximum extent practicable be managed to simulate natural water patterns, quantity, quality and rate of flow.

No runoff associated with the proposed activities is anticipated.

## **GUIDELINES FOR OIL, GAS, AND OTHER MINERAL ACTIVITIES**

**Guideline 10.3** - Exploration, production and refining activities shall, to the maximum extent practicable, be located away from critical wildlife areas and vegetation areas. Mineral operations in wildlife preserves and management areas shall be conducted in strict accordance with the requirements of the wildlife management body.

Proposed activities are located away from critical wildlife areas and vegetation areas.

**Guideline 10.5 - Access routes to mineral exploration, production and refining sites shall be designed and aligned so as to avoid adverse impacts on critical wildlife and vegetation areas to the maximum extent practicable.**

Transportation vessels will utilize existing waterways to access the location of proposed activities. No adverse impacts on critical wildlife and vegetation areas are anticipated.

**Guideline 10.6 - Drilling and production sites shall be prepared, constructed, and operated using the best practical techniques to prevent the release of pollutants or toxic substances into the environment.**

The discharges generated at the proposed well location by the drilling and production activities associated with this plan will be discharged upon successful bioassay test as per NPDES discharge guidelines. Solids wastes; typically paper, plastic, cloth, and metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage, will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse. Sanitary wastes will be treated in approved marine sanitation devices as required by the Clean Water Act. All biodegradable wastes, such as kitchen food scraps, will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78. Hazardous wastes from the drilling rig, such as paint, or paint thinner, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines. All operations will be covered by a Minerals Management Service approved Oil Spill Response Plan. All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

**Guideline 10.10 - Mineral exploration, production and refining facilities shall be designed and constructed using best practical techniques to minimize adverse environmental impacts.**

Exploration and production facilities associated with the proposed activities have been designed and constructed using industry standards that minimize adverse environmental impacts.

**Guideline 10.11 - Effective environmental protection and emergency or contingency plans shall be developed and complied with for all mineral operations.**

All operations will be covered by a Minerals Management Service approved Oil Spill Response Plan.

# **Environmental Impact Analysis**

*East Cameron Area  
Block 194  
OCS-G-22587*

September 26, 2002

Prepared for Union Oil Company of California  
by Tim Morton & Associates, Inc.

Filename: C:\MyFiles\WPmms\EIAEC194.uoc.wpd

# Table of Contents

|  |   |
|--|---|
| I. Description of the Proposed Activity .....  | 1 |
| II. Impact-Producing Factors .....             | 1 |
| A. Site-specific at Offshore Location .....    | 1 |
| 1. Designated Topographic Features .....       | 1 |
| 2. Pinnacle Trend Area Live Bottoms .....      | 1 |
| 3. Eastern Gulf Live Bottoms .....             | 1 |
| 4. Chemosynthetic Communities .....            | 1 |
| 5. Water Quality .....                         | 3 |
| 6. Fisheries .....                             | 3 |
| 7. Marine Mammals .....                        | 3 |
| 8. Sea Turtles .....                           | 3 |
| 9. Air Quality .....                           | 3 |
| 10. Shipwreck Sites (known or potential) ..... | 3 |
| 11. Prehistoric Archaeological Sites .....     | 4 |
| B. Vicinity of Offshore Location .....         | 5 |
| 1. Essential Fish Habitat .....                | 5 |
| 2. Marine and Pelagic Birds .....              | 5 |
| 3. Public Health and Safety .....              | 5 |
| C. Coastal and Onshore .....                   | 5 |
| 1. Beaches .....                               | 5 |
| 2. Wetlands .....                              | 5 |
| 3. Shore Birds and Coastal Nesting Birds ..... | 5 |
| 4. Wilderness Areas .....                      | 5 |
| III. Literature Cited .....                    | 6 |

# **I. Description of the Proposed Activity**

This environmental impact analysis addresses the activity proposed by Union Oil Company of California (Unocal) for East Cameron Area Block 194 (OCS-G-22587). The approximate location of the activity is presented on a general vicinity map of the Outer Continental Shelf (OCS) lease areas off the coast of Louisiana (Figure 1).

Unocal proposes utilize a jack-up rig to drill one well in East Cameron Area Block 194. If the well is successful, Unocal proposes to install a single well caisson at the surface location of the proposed well. A pipeline will be installed from the caisson to Forest Oil Corporation's existing platform located in East Cameron Area Block 195. Hydrocarbons will be transported from this platform to shore via an existing pipeline gathering system. More specific information can be found in the attached Development Operations Coordination Document (DOCD).

The proposed activities will be carried out by Unocal with a guarantee of the following:

- The best available and safest technologies will be utilized throughout the projects. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, equipment and monitoring systems.
- All operations will be covered by a Minerals Management Service (MMS) approved Oil Spill Response Plan.
- All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

# **II. Impact-Producing Factors**

## **A. Site-specific at Offshore Location**

### **1. Designated Topographic Features**

All proposed bottom-disturbing activities are outside the 3-mile zone of any identified topographic feature.

### **2. Pinnacle Trend Area Live Bottoms**

All proposed bottom-disturbing activities are outside 100 feet of any pinnacle trend

### **3. Eastern Gulf Live Bottoms**

Not Applicable

### **4. Chemosynthetic Communities**

Activities proposed in this DOCD will not impact any deepwater chemosynthetic communities as the water depth at the surface location of the proposed well is 98 feet.

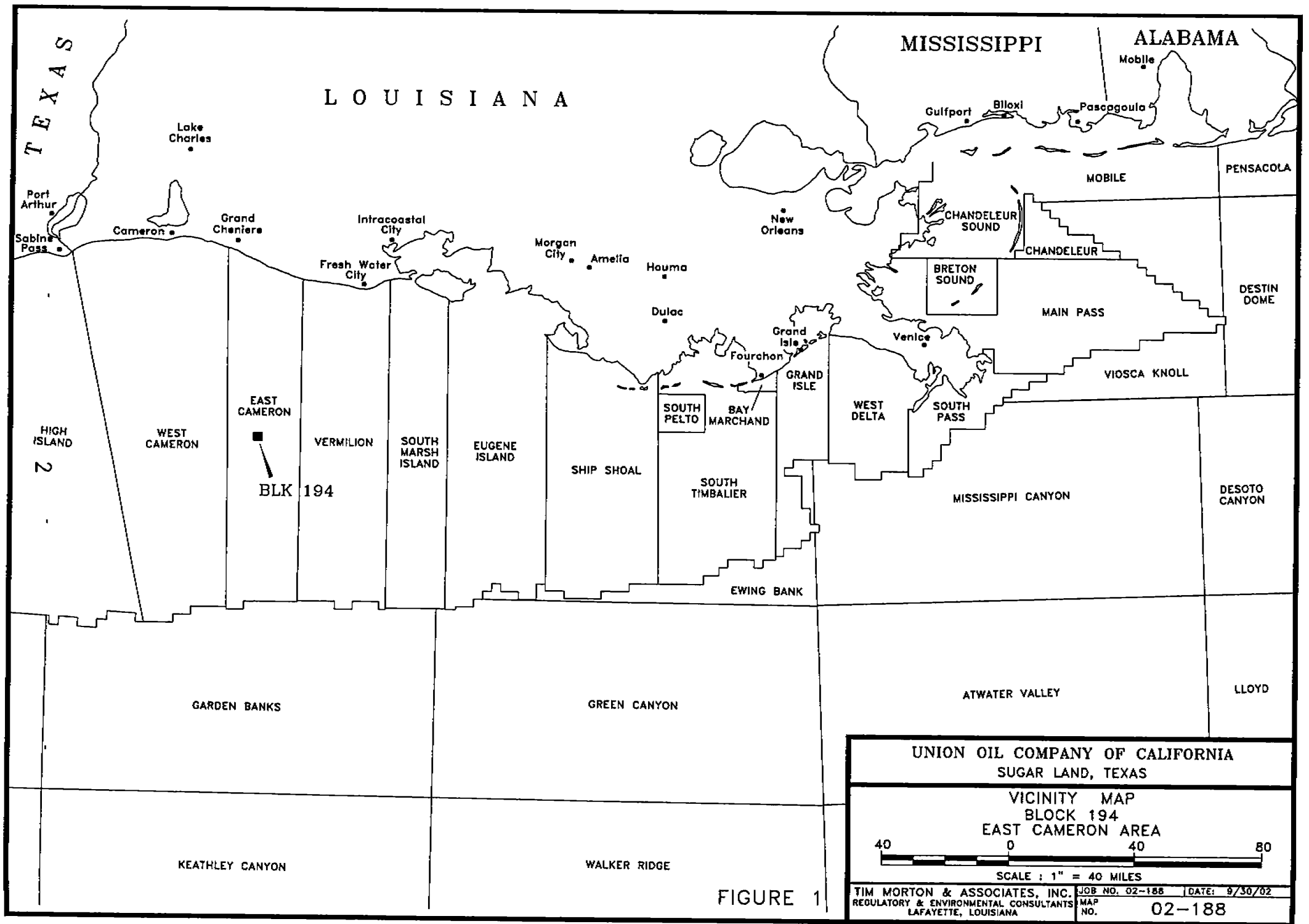


FIGURE 1

|   |                                |                |
|---|--------------------------------|----------------|
| <b>UNION OIL COMPANY OF CALIFORNIA</b><br>SUGAR LAND, TEXAS                                     |                                |                |
| VICINITY MAP<br>BLOCK 194<br>EAST CAMERON AREA  |                                |                |
|   |                                |                |
| SCALE : 1" = 40 MILES   |                                |                |
| TIM MORTON & ASSOCIATES, INC.<br>REGULATORY & ENVIRONMENTAL CONSULTANTS<br>LAFAYETTE, LOUISIANA | JOB NO. 02-188   DATE: 9/30/02 | MAP NO. 02-188 |

## **5. Water Quality**

The major sources of ocean dumping related to OCS petroleum exploration activity are drilling fluids, or "muds", and drill cuttings. After the drilling and completion activities in East Cameron Area Block 194 are completed, Unocal does anticipate dumping their excess water-based drilling fluids. If any oil-based mud is used in the drilling operations, it will be transported to shore for proper disposal.

Drill cuttings are brought up by the drilling mud and range in size from grains of sand to pebbles. These cuttings are separated and sifted and then disposed overboard. Treated domestic wastes and drill waters will also be disposed at the proposed drilling site.

The major sources of ocean dumping related to the proposed production activity will be the discharge of produced water and treated domestic wastes. There will be no intentional discharge of any oily or hazardous materials in violation of DOI or EPA regulations.

## **6. Fisheries**

No adverse impacts to fisheries are anticipated as a result of the proposed activities.

## **7. Marine Mammals**

Endangered or threatened marine mammal species which might occur in the Gulf of Mexico are West Indian manatee (*Trichechus manatus*), northern right whale (*Eubalaena glacialis*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), sei whale (*B. borealis*), sperm whale (*Physeter macrocephalus*), and blue whale (*B. musculus*) (USDOI, Region IV Endangered Species Notebook). No adverse impacts to endangered or threatened marine mammals are anticipated as a result of the proposed activities.

## **8. Sea Turtles**

Endangered or threatened sea turtle species which might occur in the Gulf of Mexico are Kemp's ridley turtle (*Lepidochelys kempii*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), leatherback turtle (*Dermochelys coriacea*), and loggerhead turtle (*Caretta caretta*) (USDOI, Region IV Endangered Species Notebook). No adverse impacts to endangered or threatened sea turtles are anticipated as a result of the proposed activities.

## **9. Air Quality**

An Air Quality Screening Checklist was prepared and included in Attachment E of the DOCD. An Air Quality Report was not required for the proposed activities.

## **10. Shipwreck Sites (known or potential)**

The area of proposed activities falls within the zone designated as an area with a high probability of pre-historic archeological resources. An Archeological and Shallow Hazards Report for a portion of East Cameron Area Block 194 was prepared by Fugro Geoservices, Inc. in September 2002, and the following was extracted from that report:

The following conclusions and recommendations should be considered during drilling and construction planning within the study area:

It is possible that historic shipwrecks materials may be obscured by modern debris and may not be detected by the geophysical instruments. If wooden planking or other evidence of shipwreck remains is encountered, the work should be halted and the archeologists contacted at the USDI MMS in New Orleans to determine the possible historic significance of these artifacts.

### **11. Prehistoric Archaeological Sites**

The area of proposed activities falls within the zone designated as an area with a high probability of pre-historic archeological resources. An Archeological and Shallow Hazards Report for a portion of East Cameron Area Block 194 was prepared by Fugro Geoservices, Inc. in September 2002, and the following was extracted from that report:

The following conclusions and recommendations should be considered during drilling and construction planning within the study area:

- Bathymetric contours indicate a smooth seafloor within the survey area.
- Caution should be used when working in the vicinity of the man-made features, the 8 unidentified magnetic anomalies, and two seafloor faults.
- The pinger data records buried channels that were interspersed with to flood plain deposits and natural levees. The channels margins downcut from 0 to 5-feet below the seafloor. Due to the potential variance in geotechnical properties between the channel-fill material and surrounding sediments, bottom-supported structures utilizing independent jack-up legs should not straddle channel margins.
- There are no seismic amplitude anomalies (bright spots) observed on the analog digital air gun records. The interpretation of seismic amplitude anomalies is a subjective process. Therefore, the air gun data and any available relative amplitude processed seismic data collected in the vicinity of proposed well locations should be inspected for possible high pressure gas zones.
- Results of this shallow hazards assessment should be considered when selecting future well sites. A detailed hazards assessment should be prepared for each proposed well site to determine specific conditions for exploratory drilling.
- No high probability areas for prehistoric archeological sites were recorded in the near seafloor sediments in the pinger profiles.
- Late Pleistocene/early Holocene fluvial channel deposits were noted in the pinger profiles. The upper margins and tops of the channel fill deposits appear truncated by erosion, and in situ prehistoric archeological sites are unlikely to be present. While cultural remains may have been incorporated into the alluvial fill, no specific high probability areas for prehistoric archeological sites were noted within the boundaries of the channels. There are no unidentified sonar targets. The eight unidentified magnetic anomalies are interpreted as probable modern debris from previous shipping, oil and gas development, or fishing activities.
- It is possible that historic shipwrecks materials may be obscured by modern debris



and may not be detected by the geophysical instruments. If wooden planking or other evidence of shipwreck remains is encountered, the work should be halted and the archeologists contacted at the USDI MMS in New Orleans to determine the possible historic significance of these artifacts.

## **B. Vicinity of Offshore Location**

### **1. Essential Fish Habitat**

No adverse impacts to essential fish habitat are anticipated as a result of the proposed activities.

### **2. Marine and Pelagic Birds**

No adverse impacts to marine and pelagic birds are anticipated as a result of the proposed activities.

### **3. Public Health and Safety**

Proposed activities will occur approximately 55 miles from the coast of Cameron Parish, Louisiana. No adverse impacts to public health and safety are anticipated.

## **C. Coastal and Onshore**

### **1. Beaches**

No adverse impacts to beaches are anticipated as a result of the proposed activities.

### **2. Wetlands**

No adverse impacts to wetlands are anticipated as a result of the proposed activities.

### **3. Shore Birds and Coastal Nesting Birds**

No adverse impacts to shore birds and coastal nesting birds are anticipated as a result of the proposed activities.

### **4. Wilderness Areas**

No adverse impacts to wilderness areas are anticipated as a result of the proposed activities.

### III. Literature Cited

*Fugro Geoservices, Inc.*

2002 Archeological and Shallow Hazards Report, 6,000 X 6,000 - Foot Portion of Block 194 (OCS-G-22587), East Cameron Area. Report No. 2402-1188.

*U. S. Department of the Interior, Fish and Wildlife Service*

1976 Endangered and threatened species of the southeastern United States. Region IV, Atlanta, Georgia (periodically updated).

**BEST AVAILABLE COPY**

**DOCD AIR QUALITY SCREENING CHECKLIST**

OMB Control No. xxxx-xxxx  
Expiration Date: Pending

|                        |                                 |
|------------------------|---------------------------------|
| <b>COMPANY</b>         | Union Oil Company of California |
| <b>AREA</b>            | East Cameron                    |
| <b>BLOCK</b>           | 194                             |
| <b>LEASE</b>           | OCS-G-22587                     |
| <b>PLATFORM</b>        | Caisson                         |
| <b>WELL</b>            | No. 1                           |
| <b>COMPANY CONTACT</b> | Terry Cook                      |
| <b>TELEPHONE NO.</b>   | 281/287-5538                    |
| <b>REMARKS</b>         |                                 |

| "Yes" | "No" | Air Quality Screening Questions   |
|-------|------|---|
|       | No   | 1. Is the concentration of H <sub>2</sub> S expected greater than 20 ppm?   |
|       | No   | 2. Is the burning of produced liquids proposed?   |
|       | No   | 3. Is gas flaring or venting which would require Regional Supervisor of Production and Development approval under Subpart K proposed? |
|       | No   | 4. Does the facility process production from 8 or more active wells?  |
|       | No   | 5. Is the facility within 200km of the Breton Area?   |
|       | No   | 6. Will the proposed activity be collocated at (same surface location), or bridge attached to, a previously approved facility?        |
|       | No   | 7. Is the proposed activity within 25 miles of shore?   |
|       | No   | 8. Are semi-submersible activities involved and is the facility within 75 miles of shore?   |
|       | No   | 9. Are drillship operations involved and is the facility within 145 miles of shore?   |

If ALL questions are answered "No":

Fill in the information below about your lease term pipelines and submit only this coversheet with your plan.

If ANY question is answered "Yes":

Prepare and submit a full set of spreadsheets with your plan.

| <b>LEASE TERM PIPELINE CONSTRUCTION INFORMATION:</b> |                     |                                   |
|--|---------------------|-----------------------------------|
| YEAR   | NUMBER OF PIPELINES | TOTAL NUMBER OF CONSTRUCTION DAYS |
| 2002   |                     |                                   |
| 2003   |                     |                                   |
| 2004   |                     |                                   |
| 2005   |                     |                                   |
| 2006   |                     |                                   |
| 2007   |                     |                                   |
| 2008   |                     |                                   |
| 2009   |                     |                                   |
| 2010   |                     |                                   |
| 2011   |                     |                                   |
| 2012   |                     |                                   |