APR 22 1982

TO: OMS-2-2

FROM: 05-7-1

Supplementa Plan of Control No. S-0849.

Development/Production, Lease, OCS 4 0244 0245 WC 71 372 Superior 0:100.

ME 424 23 A 4 31

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SUPPLEMENTAL PLAN OF DEVELOPMENT & PRODUCTION WEST CAMERON BLOCK 71, OCS-0244 WEST CAMERON BLOCK 72, OCS-0245

SUBMITTED BY:
OFFSHORE DIVISION
APRIL 16, 1982

1962 APR 23 A II: 57

# SUPERIOR OIL COMPANY SUPPLEMENTAL PLAN OF DEVELOPMENT & PRODUCTION WEST CAMERON BLOCK 71, OCS-0244 WEST CAMERON BLOCK 72, OCS-0245

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SUPERIOR OIL COMPANY SUPPLEMENTAL PLAN OF DEVELOPMENT & PRODUCTION WEST CAMERON BLOCK 71, OCS-0244 WEST CAMERON BLOCK 72, OCS-0245

Superior Oil as an operator of West Cameron Blocks 71 and 72, hereby submits this supplemental plan of Development and Production pursuant to requirements of 30 CFR 250.34. This supplemental plan will address the drilling of one (1) well in West Cameron Block 71 and one (1) well in West Cameron Block 72.

Drilling operations should commence on or about June 10, 1982, with the No. 24 well in West Cameron Block 71. Upon completion of drilling operations on the No. 24 well, the drilling rig will move to the No. 16 well in West Cameron Block 72 and commence drilling the No. 10 well on or about July 20, 1982. Drilling operations should be completed in September, 1982. The No. 10 well will be drilled from the existing No. 1 Structure with no simultaneous operations planned at this time during drilling operations. Existing facilities on the platform will be used for the No. 10 well with production to begin in October, 1982. The No. 24 well will require a two slot, four pile platform and one heater treater for oil production. A proposed 6" flowline will leave the No. 24 well platform and will tie into the existing No. 4 Structure in West Cameron Block 72. Production should begin by July, 1983, for the No. 24 well.

Superior Oil proposes to drill with a jack-up type mobile drilling unit.

A comprehensive description and major equipment list is included. Important features of the drilling unit include life rafts and life jackets for all personnel, fire extinguishers, and all necessary drilling equipment to safely control any well condition. The drilling unit will be equipped with typical pollution control equipment including, but not limited to, deck drains, pumps, drip pans and sewage treatment facilities.

Superior Oil's shallow hazards review for well No.24 in West Cameron Block 71 reflects a low probability of gas in 39 feet of water. Superior Oil's shallow hazards review for well No. 10 reflects a low probability of gas in 37.5 feet of water.

Listed below is a complete description of the depth, surface and bottom hole location of each well based on measurements from the boundary lines of West Cameron Block 71:

WELL NO.	DEPTH	SURFACE	LOCATION	BOTTOM HOLE LOCATION
24	12,100'MD	1600'	FSL	1600' FSL
		35001	FWL	3500' FWL

Listed below is a complete description of the depth, surface and bottom hole location of each well based on measurements from the boundary lines of West Cameron Block 72:

WELL NO.	DEPTH	SURFACE	LOCATION	BOTTOM HOLE LOCATION
10	11,300'MD	5650'	FNL	5500' FNL
	11,000'TVD	2650'	FEL	4350' FEL

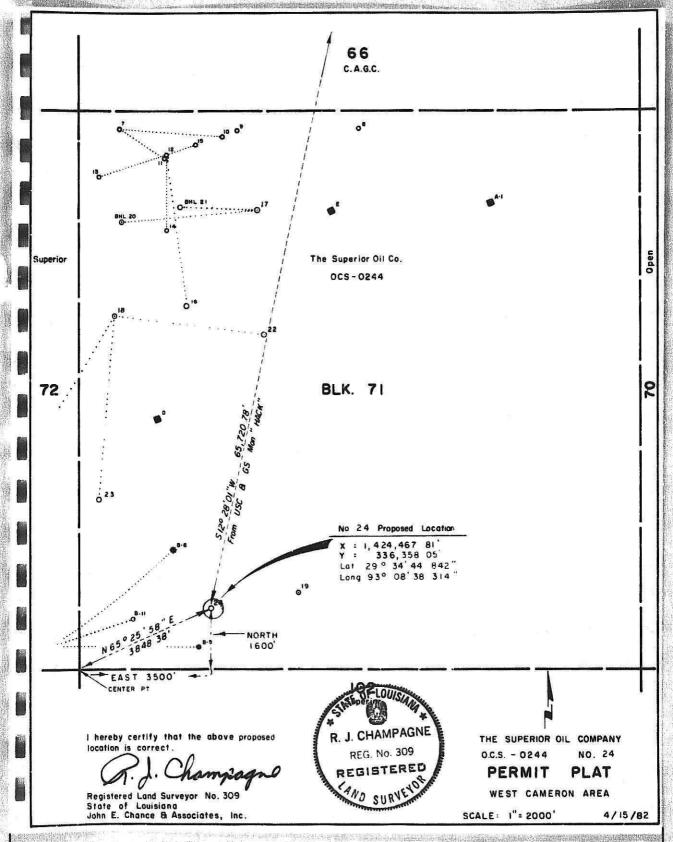
#### SUPPORT FACILITY

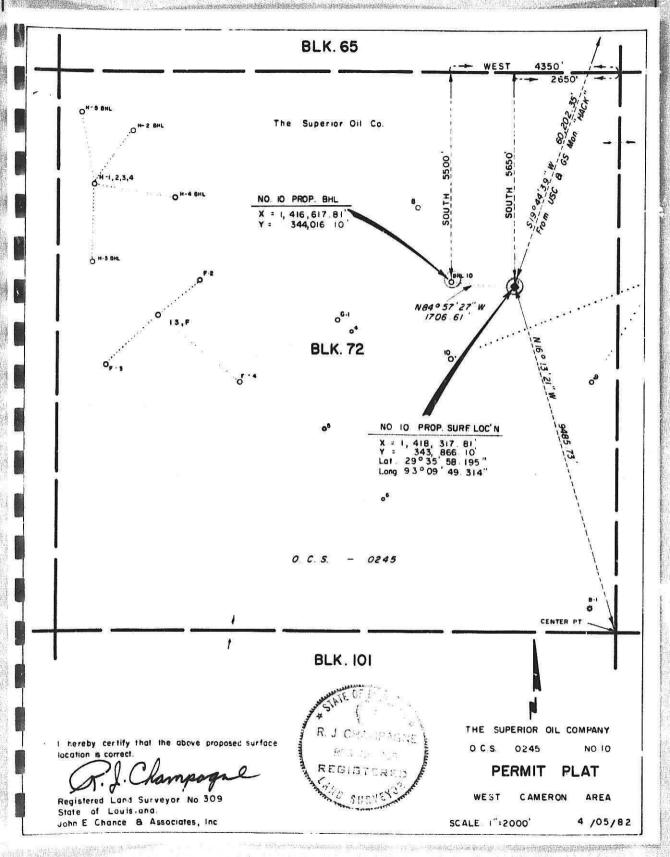
The Superior Oil Company maintains a 125,000 sq. ft. facility located between Louisiana Highway 27 and The Calcasieu River in the town of Cameron, Louisiana approximately one mile North of the Gulf of Mexico.

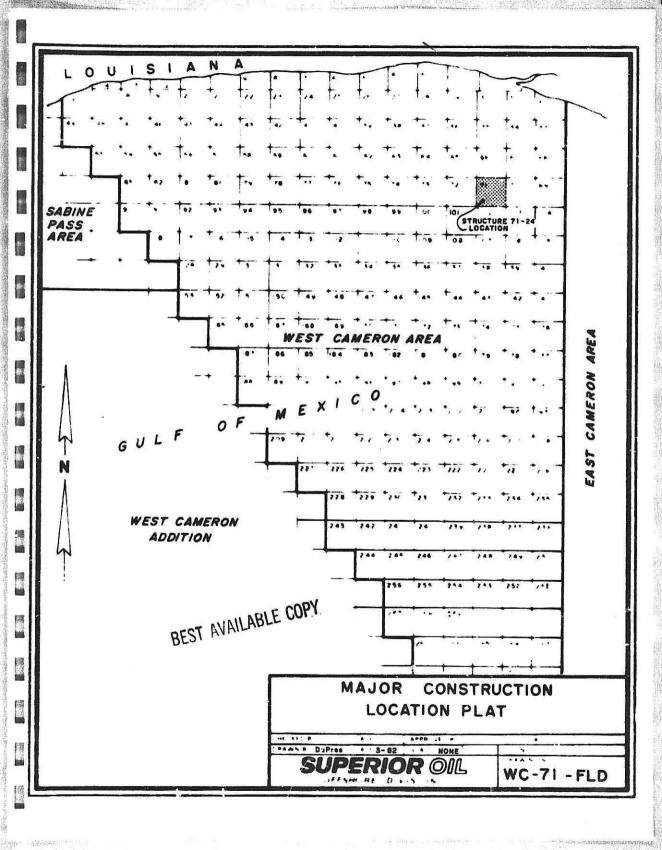
 $T^{\prime\prime}$  ; facility is designed to provide shore base operations, support to p. duction, drilling and marine equipment operating in The Western Sector of the Gulf of Mr  $_{\star\prime}$  .

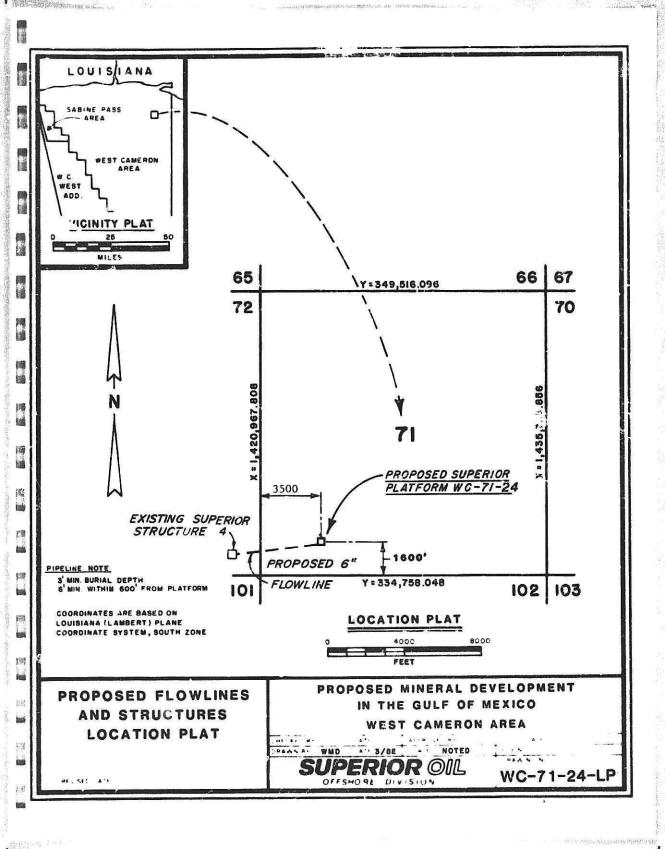
#### GENERAL FACILITY CHARA SIICS:

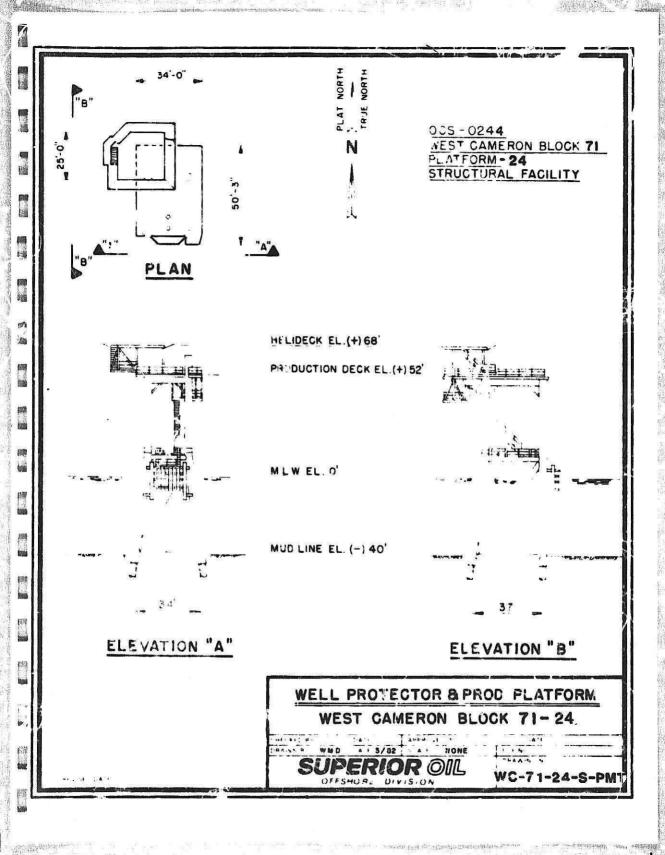
- American 10-T :iff Leg Crane for loading and unloading operations.
- b. A 1,000 bbl. diesel storage tank with two (2) United States Coast Guard approved dock side discharge facility.
- c. A 210 bbl. bulk Glycol storage tank with one (1) United States Coast Guard approved dockside discharge facility.
- d. A city water supply with 4" water line facility on dock side. Flows into two 1,000 bbl. storage tanks before discharging into vessels with 6" pump.
- e. Diesel storage tank area is enclosed with an earthen fire and containment wall, six feet wide at base, four feet high, with three feet, six inch crown.
- f. Approximately 400 feet of wooden creosote wharf and walkway along Channel side of lease, complete with steel dolphin piling, two (2) crewboat slips, electrical shore-power sites, and lighting.
- g. A 120 foot radio antenna tower, self supporting.
- h. A 60' x 40' Office Building staffed by dispatchers, dock men and production personnel.
- A 40' x 24' wooden frame building used as a warehouse completely furnished with toilet and kitchen facilities. Air conditioned. (Reconditioned July, 1976).
- Entire facility is completely surrounded with a 7' high hurricane fence.
- k. Yard surfaced area is completely shelled.
- Parking area for automobiles.











3-44 JACK - UP DRILL BARCE HULL 4915 BP.T.FM. MINIMUM SEPERATION 10-0 83 6" SKIRT 19.0 11-8 16-0 16'- 41° 78 BEST AVAILABLE COPY TO P. RACK EL. 27'-13'
ABOVE & PLTFM. + 94 RCM BETHLEHEM STEEL CORPORATION Date BEAUMONT, TEXAS BEAUMONT YARD

#### DRILLING CONTRACT - SFFSHORE DRILLING UNIT

#### "APACHE"

#### SCHEDULE "C"

#### EQUIL HENT, HATERIALS, SERVICES AND SUPPLIES

#### DRY DESIGNATION:

#### CONTRACTOR ITEMS:

- 1. Furnished by Contractor, paid by Contractor.
- Furnished by Contractor paid by Company, plus handling charges.

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#### :OMPANY ITEMS:

1. Furnished by Company, paid by Company.

#### ILLING UNIT DESIGN CRITERIA

1 Operating Range 10' to 45' max. hurricane U.S. Gulf to operate in 45' MLW in Hurricane Conditions 85'11"
3/3

#### Nominal Dimensions:

Platform: 1 0'x80':10

Slot: 36'm25' (AFT 19' Slot 42' wide)

Met: 160 x82'x8'9"

\$1:1. 38'6"x25' (AFT 19' \$15t 42' wide)

2 Minimum tow horsepower required for Contractors Drilling Unit 5000 33P Tug

#### CATEGORY

#### ILLING UNIT (Continued)

#### 3 Storage Capacities:

100.31	Sack Mud and Chemic. 1s, cubic feet	1500 sx
100.32	Bulk Storage, cubic seet	5000
100.33	Active Mud, Bbls.	1500
100.34	serve Mud, Bbls.	
د ( . 100	Fotable Water, Bbls.	950
100.36	Drilling Water, Bbls.	4450
100.37	Funl, Barrels	1450
100.38	Lubricating Oil, Gallons	200
100.39	Tubular Goods-Casing racks, tons	500
100.310	General Cargo, tons	1500

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- Heliport to Heet Operating Area ! pecifications for
  - Bell 212 or equivalent helicopters.
  - Living Quarters Accommodations for 48

    personnel, with separate two-man office/accommodations
  - personnel, with separate two-man office/accomodations for Company Drilling Supervisor, and Company Geologist.
- Main and Auxiliary Power Plants 4 GMC 16V1497 each

  v/1000KW G.E. Generators. Engines rated at 1515 Hp.
  - Water Distillation Units None
  - Air Compressors and Receivers 2 NL Controls #G75A2

    Rotary Screw Compressors each powered by 75 hp AC motors

    Vessel Pumps 2 OPECC Reswater pump driven by 75 hp motor.
- O Instrumentation M/D Type E Wt. Indicator, Pit level indicator, H-D 7 pen recorder.
- 1 Communications Systems Sound powered phone system throughout rig, marine radiotelephone & SSB radio.
- 2 Welding Machines 2-4:0 Amp Lincoln
- I Safety, Life Sering and Portable Fire Fighting Equipment Life rings, life Jackets and Portable Fire Extinguishers.
- . Erterists Panuling Equipment

#### ILLING MACHILLRY

- 1 Mast 'Derrick) and Accessories Branham "Universal" 142'
  Mast, 1,323,000@GNa
- ? Crast Stock Universal 600 Ton w/7-60" OD Sheaves
- 3 Travelling Block Oilwell 650T, 6-60", 14" w.l.
- Drawork: Oilwell E-1000 driven by 2-GE 752 Traction anters complete w/Lebus groove drum in 1½" line,
  Sandreel w/.9, 16" line, and Cat heads
- 5 Mud Pumps 2 Oilwell Al700 PT Triplexpumps, each povered by 2 GE 752 DC traction motors and each charged by a 6x8 centrifugal pump driven by 75 HP AC motor was ARC NOW 125 PS C/2 Linear; In Both Pacific. 5 Rotary Table Oilwell A 375 Rotary 6 Drive Unit power
  - ov one GE 752 DC electric motor
- Cementing Unit None (Hallibarea) B. J.
- 3 Hud Circulating System 2-6x8 musion mixing pumps powered by 75 la AC motors
- Mud & Ce. ont Storage & Transfe System Mud-J-820 to St. vertical "P" tanks. Cement: 3-820 to. ft. vertical "P" tanks, and a 77 cu.ft. surge tant.
- 0 3.0.P. Control Unit NL Controls "Koomey" 6 station
  230 gal. accumulator unit w/i remote unit
- I Inside 3.0.P.'s Gray -: fit contractor's D.P.
- 2 Reily Cocks 1 apper and 2 lower Omeco to fit Contractor's D.P.
- 3.Choke Manifold (Furnish Drawing) 3 1/16 bore valves x 10,000 PSI J.P.
- 4 s.O.P. Stacks (Furnish Drawings) 13 5/8" double and single each 10,000 psi w.p. 1-13 5/8" Annular Preventer 5000 psi w.p. 1-21% 2000 psi w.p. Bag Preventer
- 5 Well Testing Equipment None

#### ING AND RELATED EQUIPMENT

Kellys - one - 5%" Jange 2 Hex

Drill Pipe and Subs - 15,000" 5" Gra e G&E Range 2 4/4% IF

Drill Collars - 10-3" spiral-groove: zip lift 4/6 5/8

reg conn. 15-6%" spiral-grooved ziv lift 4/4% " "onn.

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Bumper S. s (Drilling) - none

Reamer (Near Bit) Stabilizers - none

Stabilizers - none

Breaker Places for Stabilizers and Bits - none

Bumper Subs (Fishing) - none

Overshots and all other Fishing Tools for Contractor's

Drill String and Bottom Hole Assembly - Furnished

Hole Opener/Underreamer - None

Miscellaneous Drilling Tools

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# ILLARY EQUIPMENT, SUPPLIES, AND SERVICES:

LLING INSTRUMENTS

Totco 0-8° drift indicator

503.1 Bits and Coreheads

Well Equipment and Tubulars: 501.1 Casing, tubing and hangers 501.2 Casing, cementing equipment and accessories 501.3 Tubing accessories and packers 501.4 Wellheads Special Equipment 502.1 Wire ropes, slings, baskets, lines, etc. for loading and unloading workboats at drilling unit 5GZ.2 All normally used hand tools 502.3 Drill string and handling tools other than listed hereinabove as Contractor's equipment 502.4 Fog horns and navigation lights 502.5 Sample sacks and core boxes 302.6 Two platform mounted 24-man survival If required by Coast Guard systems Regulations, appropriate change in Day Rate to be

SCHEDULE "C"

agreed upon by parties.

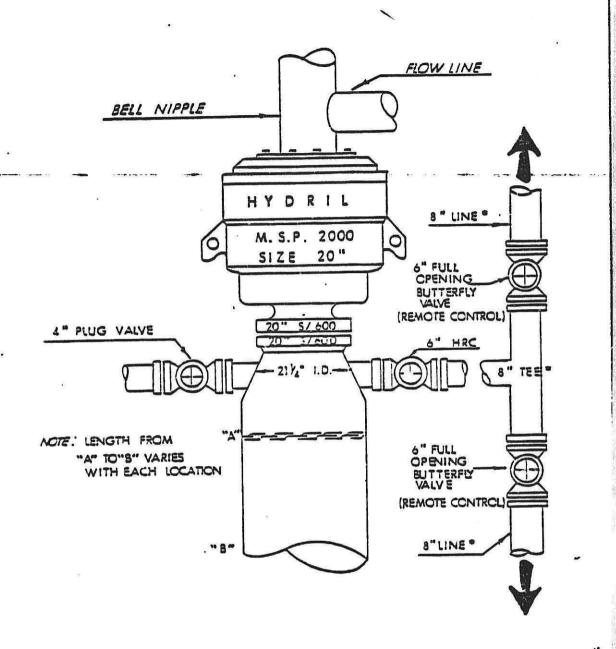
503.2 Pot the water in excess	of Di illation
capacity and drilling w	
503.3 Diesel Fuel	3
503.4 Normal greases, lubrica	nts, solvents,
paints and thread compo	
503.5 Special greases, lubric	
paints and thread compo	
casing dope	3
503.6 Gements and additives	3
503.7 Muds, chemicals and add	itives 3
503.8 Electric and oxymetyle	
materials and supplies	1
503.9 Catering supplies	i.
503.10 Rig maintenance, spare	, services and supplies
for Contractor's items	ţ
503.11 Supplies and parts for	maintaining
Company's items	3
503.12 Drill Pipe Casing Proc	ectors to protect
casing while working i	nside 13 3/8" casing
	<u>I</u>
503.13 Drill Pipe Casing Prot	
replacement to above	2
rvices	
504.1 Survey and Permits	3
504.11 Drilling Permit	s
504.12 Survey and Mark	
504.13 Soil Surveys as	
as required.	em sensor renovativ eras. •
504.2 Communications and Tra	nsportacion
504.21 Communication	
	as listed herein-
	ictor's Equipment 3
above as Contri 504.22 Barges, tugs as	
	insport the Drilling
Application Application of the Control of the Contr	
Unit to Compan	y's location and

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#### CATEGORY

504	Services	(Continued)	
	504.23	Supply vessels between Operating	
		Base and Drilling Unit for Con-	
		tractor's and Company's Items	3
	504.24	Standby Boat Services as required	3
	504.25	Other marine, Land and Air Trans-	
	•	port of all personnel, equipment,	
		materials and services between	
	.*!	Drilling Unit and Oversting Base	
		or other port designated by Compan	y
	***	B	3
62	504.26	Transfer at Operating Base to and	
		from vessels or aircraft of all	
		personnel, material, equipment and	
		services	3
	504.27	Transfer at Drilling Unit to and	
		from vessles and sircraft of all	
		personnel, material, equipment and	
		services.	1
5	04.3 Per	sonnel Services	
	504.31	Accomodations of Contractor Person	nel
		onshore (except as provided during	
		periods of evacuation)	1
	504.32	All medical services for Contracto	r
		Personnel onshore	1
<u>\$8</u>	504.33	First Aid Medical Attention for al	1
		personnel on Drilling Unic	1
	504.34	Work permits, minor releases, etc.	
		for Contractor Personnel	1

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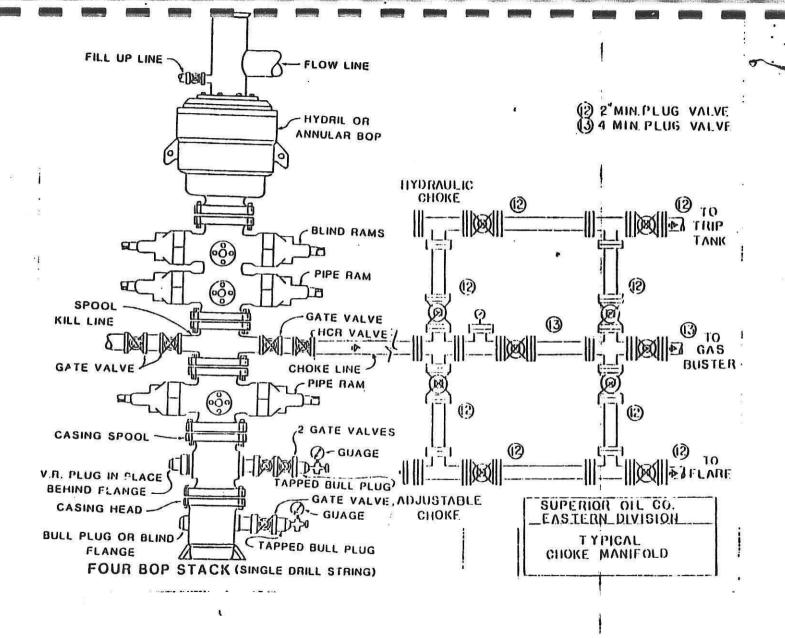
NOTE: HYDRAULIC PRESSURE WHICH CLOSE 20" HYDRIL OPENS 6" HRC DIVERTED (ALVE.

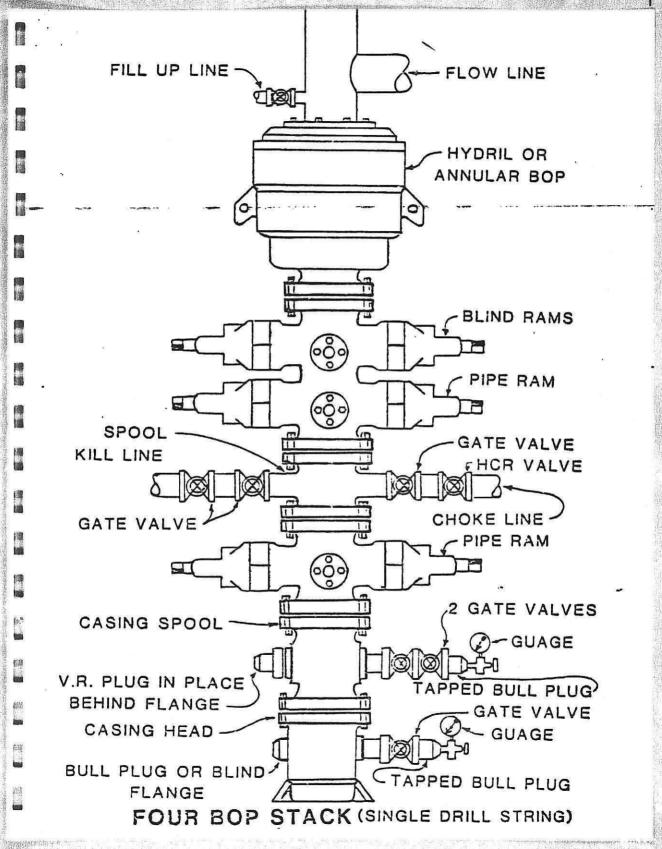
\* 6" LINES ARE ACCEPTABLE ON EQUIPMENT NOW IN USE UNTIL REPLACEMENT / MODIFICATIONS ARE MADE.

THE SUPERIOR OIL COMPANY

BLOWOUT PREVENTION &
WELL CONTROL EQUIPMENT
TO DRILL OUT OF 30"
DRIVE PIPE

CILL OF MEXICO





#### BASIC MUD COMPONENTS AND ADDITIVES

#### BASIC MUD COMPONENTS

The following components form the basic mud system:

Seawater Bentonite Barite Lignite Freshwater Lignosulfonate Caustic Soda Lime

#### COMMON CONDITIONERS

The following additives are routinely used to alter properties of the above basic system:

Sodium Bicarbonate Soda Ash Gypsum SAPP Polymer Beads Walnut Hulls Mica

#### SPECIAL PURPOSE ADDITIVES

The following additives are used occasionally and only as necessary to correct or prevent mud or hole problems:

Defoamer (such as Surflo W300) Surfactants (such as Surflube) Oil Spots (such as Imco Spot) Bacteriacides (such as Magna 434) Polymers (such as Imco Poly RX) Shale Stabilizers (such as Soltex)

Occasionally the water base system will be replaced by an oil base system when torque, drag or pipe sticking becomes a problem. When using oil base systems, the rig will be equipped with pollution containment equipment and cutting washers. After oil base mud operations are concluded, surplus materials will be transferred to storage or disposal sites onshore.

THE SUPERIOR OIL COMPANY



# United States Department of the Interior

washing of the specimen.

#### GEOLOGIC L SURVEY

IMPERIAL OFFICE BLDG 3301 N CAUSEWAY BLVD

P ) BOX 7944

METAIRIE LOUISIANA 70010

TEL 15041 837-4720

In Reply Refer To: OS-7-1

NOV 0 3 1981

The Superior Oil Company Attention: Mr. J. S. Buchanan Post office Box 51108, OCS Lafay. e, Louisiana 70505

#### Gentlemen:

By your letter of October 27, 1981, three copies of revisions to your "Oil Spill Contingency Plan" were filed with this office.

The revisions are hereby approved and will be incorporated into our copies of your plan.

In the next updating of your plan, submit certificates or records of training for your oil spill response coordinators and their alternates.

Please furnish this office with two copies of further revisions or modifications of your contingency plan.

Sincerely yours,

D.W. Solana

D. W. Solanas Deputy Conservation Manager Offshore Operations Support Gulf of Mexico OCS Region



OFFSHORT DIVINITY

SUPERIOR OIL COMPANY
OIL SPILL CONTINGENCY PLAN
WESTERN GULF OF MEXIC
OFFSHORE LOUISIANA & WEST CAMERON APEA

Superior 0il Company is a member of Clean Gulf Associates and has access to all equipment available from or through that organization.

In addition, Superior Oil Lompany maintains oil containment booms, sorbent pads and blankets at the following locations:

Four Isle Dome Field, Louisiana Dulac, Louisiana Cameron, Louisiana Lac Blanc Field, Louisiana Deep Lake Field, Louisiana

In the event of an emergency oil spill or slick occasioned by our production operations in the Guid of Mexico, the employee who discovers same will report immediately to the Lameron Office. If unable to contact famoron, the employee will contact the company dispatcher at Lake Arthur, Louisiana. The employee's report will complete ith the U.S. Geological Survey revised O.C.S. Order Number 7, Paragraph 2.3 and 2.3.1, effective January 1, 1980, which states:

- 2.3 Pollution Reports. All spills of oil and liquid pollution shall be reported orally to the District Supervisor and shall be confirmed in writing. All reports shall include the cause, location, volume of spill, and action taken. Reports of spills of more than 5.0 Lubic meters (31.5 barrels) shall include information on the sea state, meteorological conditions, size and appearance of slick. All spills of oil and liquid pollutants shall also be reported in accordance with the procedure contained in 33 CFR 153.203.
- 2.3 1 Spills. Spills shall be reported orally within the following time limits:
- a. Within 12 hours, if spills are 1.0 cubic meters (6.3 barrels) or less.
- b. Without delay, if spills are more than 1.0 cubic meters (6.3 barrels).

This information will be relayed to the following persons:

SU	PER	IOR OIL COM	MP/	ANY PERSONNEL		0	FFICE #	. <u>H</u>	OME #
C.	Ε.	Provost	-	Prod. Supervisor		(318)	775-5147	(318)	478-8362
				Prod. Foreran	-	(318)	775-5147	(318)	774-3527
C.	L.	McGuffee		Prod. Foreman		(318)	775-5147	(318)	649-5177
J.	W.	Broussard		Prod. Foreman	•	(318)	775-5147	(318)	583-2825
J.	5.	Buchanan	-	Prod. Superintendent	-	(318)	269-8203	(318)	981-1792
S.	Tri	uax	-	Offshore Oper, Manager		(318)	269-8265	(318)	984-9332

U.S. DEPARTMENT OF THE INTERIOR - Appropr	iate District to be notified
Area Office for Field Operations P.O. Box 7944 Metairie, LA 70010	(504) 837-4720
Jake Lowenhaupt, Oil and Gas Supervisor	(504) 888-2836
Texas District Office P.O. Box 2006 Freeport, TX 77541	(713) 233-2604
J. C. Sandridge, Dist. Supervisor E. L. Smith, Drilling Engineer D. Davis, Staff Engineer C. B. Kirkpatrick, Prod. Engineer	(713) 265-1708 (713) 849-4142 (713) 233-0028 (713) 849-9554
Lake Charles District Office 3727 Ryan Street Lake Charles, LA 70605	(318) 478-6440
R. H. Darrow, District Supervisor B. R. Stewart, Drilling Engineer M. Hebert, Staff Engineer J. Larsen, Production Engineer	(318) 477-0671 (318) 625-8057 (318) 625-8575 (318) 478-3419
Lafayette District Office 129 E. Cypress Street Lafayette, LA 70501	(318) 232-6037
E. G. Hubble, District Supervisor R. W. Meurer, Prod. Engineer C. E. DeLouche, Staff Engineer F. F. Hrachovy, Drilling Engineer	(318) 981-4965 (318) 981-1264 (318) 984-1365 (318) 585-2506
Houma District Office P.O. Box 1269 Houma, LA 70360	(504) 868-4033
J. D. Borne, District Supervisor C. L. Ratcliff, Geologist Larry Templet, Drilling Engineer E. K. Domingos, Prod. Engineer	(504) 876-9142 (504) 876-1036 (504) 872-6962 (504) 868-0493

# OTHER U.S. AGENCIES TO BE NOTIFIED:

U.S. Coast Guard

Sabine Pass Morgan City New Orleans	(713) 971-2261 (504) 385-2936 (504) 589-7171	(504) 589-6225
Environmental Protection Agency 1114 Commerce Street Dallas, TX	Information	(214) 749-2161
Richard Hill Wally Cooper David Curtis	(214) 749-3971	

# SUPERIOR OIL COMPANY OIL SPILL CONTINGENCY PLAN WESTERN GULF OF MEXICO OFFSHORE LOUISIAN A-EAST & WEST CAMERON AREA

In the event the oil spill threatens to reach state waters, the following state agencies are to be informed:

#### T. LOUISIANA

(a) Department of Conservation

Ed Buford or Mrs. Carolyn Laney P.O. Box 44276-Capitol Station Baton Rouge, Louisiana 70804

Office Phone: (504) 342-5595

(b) Stream Control Commission

Robert A. LaFleur P.O. Drawer FC, University Station Baton Rouge, Louisiana 7:803

Office Phone: (504) 342-6365 (504) 389-2176 (Weekends, Nights & Holidays)

(c) Oil and Hazardous Materials Reporting Services Baton Rouge, Louisiana

Office Phone: (504) 342-5595

#### 2. TEXAS

(a) Railroad Commission of Texas - District 3
Oil and Gas Division

R. A. Taylor
District Director
5200 Mitchelldale, Suite E-16
P.O. Box 10783
Houston, Texas 77018

Office Phone: (713) 688-3461 Home Phone : (713) 351-0354

(b) Railroad Commission of Texas - District 4 Oil and Gas Division

T. G. Post Wilson Building P.O. Box 1821 Corpus Christi, Texas 78403

Office Phone: (£12) 822-2539

# 2. TEXAS (Continued)

(c) Texas Parks and Wildlife Department 4455 South Padre Island Drive Suite 7 Corpus Christi, Texas 78411

Office Phone: (512) 822-2539

(d) Texas Water Quality Board 1108 Lavaca Street Corpus Christi, Texas 78403

Office Phone: (512) 822-2548

The Superior Oil Company oil discharge response co-ordinator for Offshore Louisiana. East and West Cameron Area will be:

J. E. Miller - Prod. Foreman Home Phone: (318) 774-3527 P.O. Box 228 Office Phone: (318) 775-5147 Lake Arthur, LA

The alternate oil discharge response co-ordinators will be:

C. E. Provost - Prod. Super. 1412 Westmoreland Lake Charles, LA	Home Phone: Office Phone:	(318) 478-8362 (318) 775-5147
C. L. McGuffee - Prod. Foreman Rt. 1 Box 32 AA Grayson, LA	Home Phone: Office Phone:	(318) 984-3970 (318) 775-5147
J. W. Broussard - Prod. Foreman Rt. 5 Box 395 AC Sulphur, LA	Home Phone: Office Phone:	(318) 583-2825 (318) 775-5147

The oil discharge response operations center will be Superior Oil Company, Cameron Office. This office is equipped with two radio base sets and seven (7) telephone lines. All company boats and platforms are equipped with mobile radio units all operating on our assigned frequency of 153.605 Megahertz. Additional mobile units and 5 portable units operating on the same frequency are available.

The Oil Discharge Response Co-ordinator will contact Peterson Maritime Services and one of the following persons for release of the Clean Gulf Associates equipment as required depending on the severity of the oil spill.

Frank S. Haines, Jr., Chairman Texaco, Inc. Clean Gulf Associates	Office Phone: Home Phone:	(504) 524-8511 (504) 643-3228
John Cook, Division Manager Halliburton Services New Orleans, Louisiana	Office Phone: Home Phone:	(504) 525-912° (504) 393-2799
F. X. DeBlanc Halliburton Services Harver Louisiana	Office Phone: Home Phone:	(504) 366-1735 (504) 366-2866
Caro Louviere Halliburton Services Morgan City, Louisiana	Office Phone: Home Phone:	(504) 384-9930 (504) 395-2404

In the event representatives of Clean Gulf Associates are unavailable, Halliburton Services can be contacted directly for release of CGA equipment.

In order to comply with the U.S. Geological Survey OCS Order Number 7, Paragraph 3.2.e.(4) which requires 3.2.c. (4) Provisions for disposal of recovered spill materials:

- recovered spill oil will be pumped back into the same system spilled from immediately after this system is repaired, when possible.
- If the spil! is cleaned up with absorbent pads or materials that cannot be put back into the system - these materials will be brought onshore and incinerated.
- If the spill is a major spill, we have access to portable oil tanks which can be used to transport recovered oil to shore. After the recovered spilled oil is transported to shore, the oil can be sold through the contractors.

On completion of the recovery operations of spilled oil, the volume of the recovered oil will be reported to the respective District Supervisor as provided in Paragraph 2.3 of the OCS Order Number 7.

In addition, to comply with the revised OCS Order Number 7, Paragraph 4.1 and 4.2, the Oil Discharge Response Operating Team will be supplied by Peterson Maritime Services, Inc. On hand in our area field offices are copies of Clean Gulf Assocates' "Protection of Biologically Sensitive Area" study manuals for ready reference in the event of an oil spill under OCS Order Number 7, Paragraph 3.2.c.

Very truly yours,

THE SUPERIOR OIL COMPANY

S. Puchanan

Production Superintendent

MLM/jlc/JSB

#### SUPERIOR OIL

#### INTER- FFICE CORRESPONDENCE

DATE

APRIL 15, 1982

TO

M. W. KRALL

LOCATION

LAFAYETTE

**FROM** 

R. L. ROY

LOCATION

LAFAYETTE

SUBJECT

DRILLING HAZARDS REVIEW WEST CAMERON BLOCK 71 FIELD SUPERIOR OIL OCS-0244 NO. 24 WEST CAMERON BLOCK 71

COPIES

M. L. MOUTON

OFFSHORE, LOUISIANA

Surface location: 1,600' FSL & 3,500' FWL of West Cameron Block 71.

Bottom Hole Location: Same

High resolution seismic data acquired by Decca Systems, Inc. in 1980 and 24 fold seismic data shot by Western Geophysical Company in 1977, 1978 and 1979 were analyzed for potential drilling hazards beneath the proposed location.

The No. 24 proposed well is located 150 feet south-southeast of a Superior 16" gas pipeline. It is suggested that the pipeline location be surveyed and marked with buoys before the platform be emplaced.

Water depth at the well location is 39 feet. The seafloor dips gently to the south-southwest at a rate of slightly over one foot per mile.

The area is free of channel cut and fill structures, near surface faulting and wipeout zones. Hazardous or abnormal shallow drilling conditions are not anticipated at the subject drilling location.

The following conditions are anticipated:

Subsea Depth	Probability of Gas	Comments
39' - 55'	low	silty and clayey sands
55' - 335'	low	very stiff to stiff clay
335' - 5000'	1cw	sand-shale sequence

Rov

Sr. Production Geophysicis+

RLR:sq

## SUPERIOR OIL

#### INTER-OFFICE CORRESPONDENCE

DATE

APRIL 15, 1982

TO

M. W. KRALL

LOCATION

LAFAYETTE

FROM

R. L. ROY

LOCATION

LAFAYETTE

SUBJECT

SHALLOW HAZARDS ASSESSMENT WEST CAMERON BLOCK 71 FIELD SUPERIOR OIL OCS-0245 NO. 10 WEST CAMERON BLOCK 72

COPIES

M. L. MOUTON

OFFSHORE, LOUISIANA

Surface Location: 5,650' FNL & 2,650' FEL of West Cameron

Block 72.

Bottom Hole Location: 5,500' FNL & 4,350' FEL of West Cameron

Block 72.

High resolution seismic data acquired by Decca Survey Systems, Inc. in 1980 and 24 fold seismic surveys shot by Western Geophysical Company in 1977, 1980 and 1981 were analyzed for potential drilling hazards beneath the proposed location.

The No. 10 well will be drilled directionally from the OCS-0245 No. 1 platform.

Hazardous or abnormal drilling conditions are not anticipated at the subject drilling location.

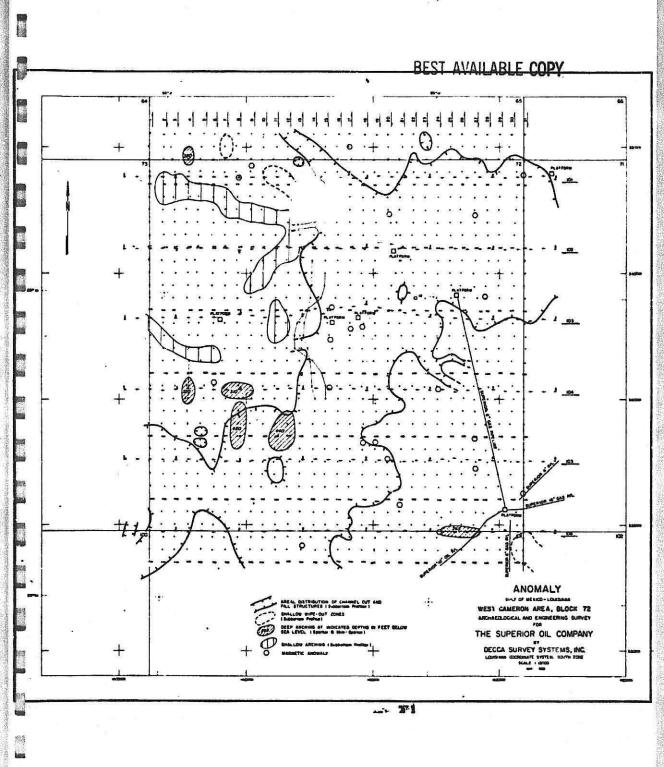
The following conditions are anticipated:

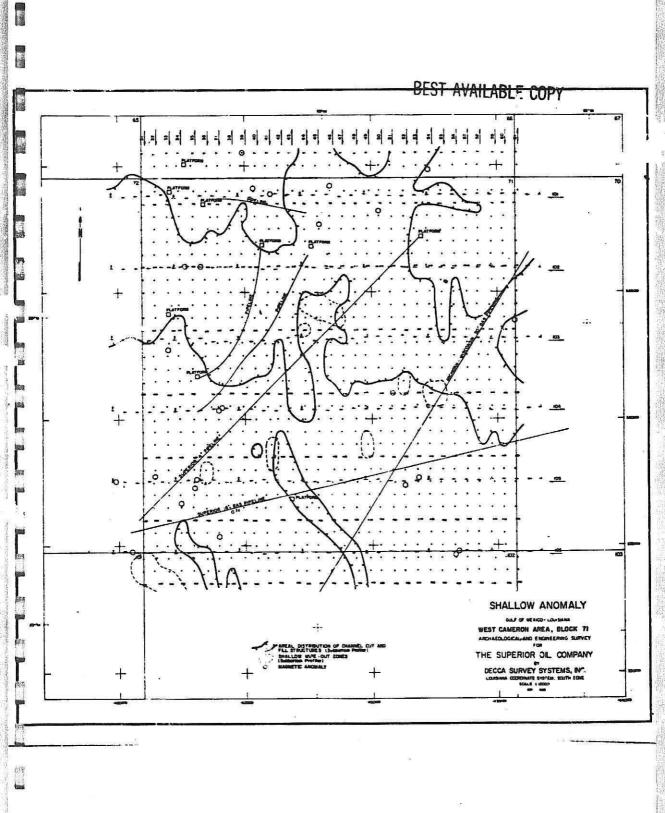
Subsea Depth	Probability of Gas	Comments
37.5'		water depth
37.5' - 52'	low	clayey and silty sand unit
52' - 327'	low	stiff clay unit
327' - 5000'	low	sand-shale sequence

R. L. Roy

RLR:sg

Sr. Production Geophysicist





# STRUCTURE MAPS & PRESSURE MAPS

This data is submitted with this plan but under a separate cover to maintain the proprietary status of geological data for exploratory prospects.

#### THE SUPERIOR OIL COMPANY

WEST CAMERON BLOCK 71 OCS-0244 WEST CAMERON BLOCK 72 OCS-0245

PROJECTED EMISSIONS FROM DEVELOPMENT/PRODUCTION OPERATIONS
FOR COMPLIANCE PURSUANT TO 30 CFR 250.57 AIR QUALITY REGULATIONS

#### I. General Information

Operation Description: Development/Production Owner/Operator: The Superior Oil Company

Address: Post Office Box 51108 OCS Lafayette, Louisiana 70505

Contact Person: Gail Abshire, Regulatory Representative

Eleven (11) Statue Miles

Operation Schedule

Block 71: <u>Drilling</u>
<u>Begin:</u> June 10, 1982
<u>End:</u> July 20, 1982

Production:

Begin: July 1983 End: Continuous Block 72: Drilling

Begin: July 20, End: September 1, 1982

Production:

Begin: September 1, 1982 End: Continuous

Distance to Shoreline (mean high water line):

# Synopsis

The projected emissions derived as a result of this review represent a liberal (maximum) assessment for indicator pollutants. The findings of this assessment indicate that the projected emissions herein are well below the exemption rates and pose no significant impact on the onshore environment. Based on this assement, no further air quality review is required.

## III. Projected Emissions

West Cameron Block 71 Rig/Platform Projected Emnissions (Drilling)

Pollutant	1982* tons/period	Exemption R tons/year	ate Exemption Status
CO	2.56	17,059.84	Exempt
SO 2	.70	366.30	Exempt
NO x	15.82	366.30	Exempt
voc`	.66	366.30	Exempt
TSP	.01	366.30	Exempt
*Only 1.3	month drilling	period (June 10,	1982-July 20, 1982)

# Service Base Projected Emissions (Drilling)

Pollutant	1982 tons/period
CO	1.04
SO 2	.01
NO X	5.66
VOC	.32
TSP	.01

# Platform Projected Emissions (Production)

Pollutant	Tons/Yea	Exemption * Tons/year	Rate	Exemption Status
CO	7.78	17,059.84		Exempt
SO 2	.91	366.30		Exempt
NO X	22.23	366.30		Exempt
·VOC	21.46	366.30		Exempt
TSP	.80	366.30		Exempt
*Continuous	production	through life of	field	(Beginning July 1983)

# Service Base Projected Emissions (Production)

Pollutant	Tons/year	
CO	2.36	
S02	.07	
NOX	2.15	
VOĈ	.30	
TSP	.09	

West Cameron Block 72 Rig/Platform Projected Emissions (Drilling)

Pollutant	1982* tons/period	Exemption Rate	Exemption Status		
CO	2.55	17,059.84	Exempt		
S02	.65	366.30	Exempt		
NOV	15.67	366.30	Exempt		
NO X VOC	.66	366.30	Exempt		
TSP	.01	366.30	Exempt		
*Only 1.3	month drilling	period (July 20,	1982-September	1,	1982)

Service Base Projected Emissions Drilling)

Pollutant	1982 tons/period
CO	1.13
SO <sub>2</sub>	.01
SO <sub>2</sub> NO <sub>X</sub>	6.18
voĉ	.34
TSP	.01

Platform Projected Emission (Production)

Pollutant	Tons/Yea	Exemption * Rate	Exemptic Status	on
CO	9.48	17,059.84	Exempt	
SO <sub>2</sub>	1.17	366.30	Exempt	
NOV	28.53	366.30	Exempt	
NO X VOC	2.93	366.30	Exempt	
TSP	.09	366.30	Exempt	
*Continuous	production	through life of	field (Beginning	September 1982)

Service Base Projected Emissions (Production)

Pollutant	Tons/year	
CO	2.36	
SO <sub>2</sub>	.07	
NO X	2.15	
voĉ	.30	
TSP	.09	

# IV. Exemption Formula

The projected emissions from operations are to be compared with "exemption rules" for the facility location. If the amount of these

#### IV. (continued)

emissions is ess than or equal to the emission amount "E" for the air pollutant, the facility is exempt for that air pollutant from further air quality rev: w.

The following formulas pursuant to 30 CFR Part 250 Sec. 250.57-1 (d) are used to determine exemption rates:

For CO: E= 3400 D 2/3 For TSP, SO NO , VOC:  $\dot{\epsilon}$ = 33.3D D= distance of the facility in statute miles from the closest onshore area.

Based on these exemption formulas, the fol! sion rates were computed for Superior Oil West Cameron Bloc. /. Distance from the nearest onshore area is 11 statute miles.

	Exension wave
Pollutant	(ons/year
CO 2	17,059.84
SO	<b>36</b> 6 30
NO x	366.30
VOC	збr
TSP	3660

#### V. Methodology

Drilling: Horsepower/Hour Method (Power generation factor

60 HP-hr/ft, Reference #1- pg. 86)

Production: Horsepower/Hour Method (Power generation factors

Table 4.7 Reference #1- pg. 94)

Transportation Modes: Boats-Horsepower/Hour Method-Reference #2

Helicopters-Landing/Take Off (LTO)

cycle method-Reference #2

## VI. References

- EPA-450/3-/7-026 June 1977- "Atmospheric Emissions from Offshore Oil and Gas Development and Production" pp. 81-92.
- EPA Report AP-42 "Compilation of Air Pollutant Emission Factors", 3rd Edition (August, 1977) pp. 116, 125, 127.
- Federal Register, 7 March 1980 pg. 15136.

#### **Other**

VOC emissions due to oil processing are estimated using 35 ft/bbl and .20 lb/ft. Methane and ethane are excluded from the term VOC (Federal Register 7 March, 1980, pg. 15136) and constitute approximately 90% of the vented gas volume, (Reference #1, pg. 126), thus 10% of the total gas volume vented was used to calculate VOC.

#### EXHIBIT A

# Emission Factors Used in Calculations

# Emission Factors for Drilling

Pollutant	1b/hp-hr	
CO	. 0042	
S02·	.0019	
NOx	.028	
VOC TSD	.00095	
ISF	0.00 APRIL	

\*Not available from EPA publication

## Emission Factors for Production

Pollutant	1b/hp-hr
CO	.00084
S02	.00013
NOx	.00311
· VOC	.00031
TSP	.00011

# Emission Factors for Heat Treating in Oil Processing

	ь	
Pollutant	1b/10 bb1	
CO	285	
S02	8.6	
NOx	1,426	
VOC	114	
TSP	143	

# Emission Factors in Transportation Modes

Pollutant	Helicopters (lb/engine LTO cycle)	Boats (1b/gal)
CO	5.7	.0598
S02	. 18	*
NOx	.57	.4196
VOC	.52	.0226
TSP	.25	*
411 1 11 11	THE PARTY OF THE P	

\*Not available from EPA publication

#### EXHIBIT B

#### Miscellaneous Information

#### Drilling:

Block 70: total well footage to be drilled-12,100 ft. Block 71: total well footage to be drilled-11,300

#### Supply Boats:

3000 HP

4 trips per week during drilling

4 hours waiting time

#### Crew Boats:

3500 HP

7 trips per week during drilling

1 hour waiting time 1 trip per week during production

1 hour waiting time

#### Helicopters:

2 Engines

Base Cameron

7 trips per week