

In Reply Refer To: MS 5231

January 16, 1996

Coastal Oil & Gas Corporation
Attention: Ms. Susan B. Becnel
Coastal Tower
Nine Greenway Plaza
Houston, Texas 77046-0995

Gentlemen:

Reference is made to the following plan received December 11, 1995:

Type Plan - Supplemental Development Operations Coordination Document
Lease - OCS-G 8418
Block - 189
Area - East Cameron
Activities Proposed - Wells A-5 and A-6

In accordance with 30 CFR 250.34, this plan is hereby deemed submitted and is now being considered for approval.

Your control number is S-3838 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

Mr. Kent E. Stouffer

Donald C. Howard
Regional Supervisor
Field Operations

bcc: Lease OCS-G 8418 POD File (MS 5032)
MS 5034 w/public info. copy of the plan
and accomp. info.

BNewton:cic:01/09/96:DOCDOM
INFORMATION SERVICES
OCS-G 8418

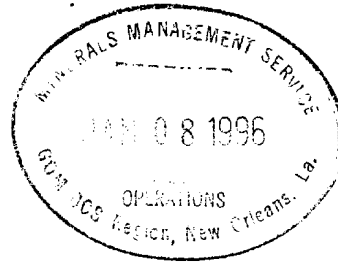
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Coastal
The Energy People

January 5, 1996



United States Department of Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Attention: Mr. Joe Hennessey, MS 5231
Plans Unit

Re: **EAST CAMERON 189**
OCS-G 8418
SUPPLEMENTAL DOCD

Gentlemen:

In accordance with our conversation of December 13, 1995, attached please find the following nine (9) copies of the following items as a supplement to our December 6, 1995 submittal:

1. Procurement and Deployment Times - location 55 miles from shore
2. Onshore Support Base - changed to Cameron, Louisiana location
3. Air Quality Review - location 55 miles from shore

Please be advised that Coastal plans to drill wells A-5 and A-6 from existing Platform "A", whose location has been previously cleared. Although Well A-5 was previously approved during July 1991, this supplemental DOCD has provided updated air emissions. Coastal Oil & Gas Corporation has a rig on location which shall commence sidetrack operations on or about January 8, 1996. Drilling of proposed wells A-5 and A-6 are anticipated to commence on or about February 22, 1996. We would greatly appreciate your review of the Supplemental DOCD at your earliest convenience.

Should you have any questions or require additional information, please contact me at 713/877-6288.

Sincerely,

Susan B. Becnel
Regulatory Coordinator

Enclosures

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
COASTAL TOWER • NINE GREENWAY PLAZA • HOUSTON TX 77046-0995 • 713 877-1100 • TLX 166008

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418



OIL SPILL TRAJECTORY ANALYSIS

In the event a spill occurs from EAST CAMERON BLOCK 189, the company has projected trajectory of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sale

The EIS contains oil spill trajectory simulations using seasonal surface currents coupled with wind data, adjusted every 3 hours for 30 days or until a target is contacted.

Hypothetical spill trajectories were simulated for each of the potential launch sites across the entire Gulf. These simulations presume 500 spills occurring in each of the four seasons of the year. The results in the EIS were presented as probabilities that an oil spill beginning from a particular launch site would contact a certain land segment within 3, 10, or 30 days. Utilizing the summary of the trajectory analysis (for 10 days), the probable projected land fall of an oil spill from EAST CAMERON BLOCK 189 is as follows. Also listed is the CGA Map Number corresponding to the land segment. This information will be utilized to determine environmentally sensitive areas that may be affected by a spill.

<u>AREA</u>	<u>LAND SEGMENT CONTACT</u>	<u>%</u>	<u>CGA MAP NO.</u>
EAST CAMERON 189	CAMERON, LA	2%	5

Section V, Volume II of the CGA Manual containing maps as listed above, also includes equipment containment/cleanup protection response modes for the sensitive areas. Pollution response equipment available from CGA and its stockpile base in Cameron, Louisiana, is listed in the CGA Manual Volume I, Section III.

Section VI, Volume II of the CGA Operations Manual depicts the protection response modes that are applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in area of environmental concern. Implementation of the suggested procedures assures the most effective use of the equipment and will result in reduced adverse impact of oil spills on the environment. Supervisory personnel

have the option to modify the deployment and operation of equipment to more effectively respond to site-specific circumstances.

COASTAL OIL AND GAS CORPORATION will make every effort to see that a spill from EAST CAMERON 189 will be responded to as quickly as possible. Response equipment and response times will be suitable for anticipated environmental conditions in the area. In good weather conditions fast response with oil boom, skimmers, pump and storage tanks would require approximately 9 hours, including preparation time as indicated below. A heavy equipment system response would require approximately 24-36 hours, including 6 hours preparation time. The Clean Gulf Base in CAMERON, LOUISIANA will be utilized for this operation.

PROCUREMENT AND DEPLOYMENT TIME

	<u>Hours</u>	
1)	Procurement of boat capable of handling Oil Spill Containment equipment and deployment to nearest CGA base in Cameron, LA	2.0
2)	Load out Fast Response Unit	1.5
3)	Travel to lease site from CGA Base (55 miles to lease site @ 10 mph)	5.5
	Estimated Total Time	9.0

All necessary precautions will be undertaken to protect the sensitive areas including deployment of booms, skimmers, pumps, scare guns, etc. In the event a spill is projected to hit near-shore sensitive areas, COASTAL OIL AND GAS CORPORATION will immediately procure truck(s) (as per our approved Oil Spill Contingency Plan) to transport containment equipment to the staging area. Helicopters may be utilized to transport near-shore booms, scare guns, hand skimming systems, and sorbent pads.

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

**ONSHORE SUPPORT BASE FACILITIES
VICINITY MAP**

The onshore support base facilities at Cameron , Louisiana will serve as the onshore support base facilities during the drilling and completion of wells A-5 and A-6, East Cameron Block 189. This will serve as port of debarkation for supplies and crews. Typical supply and crew boats will be utilized throughout the drilling, completion and hook-up operations. Boat and helicopter travel to and from the base will be over the most direct routes. No additional personnel will be required to conduct the proposed drilling, completion, and hook-up operations.

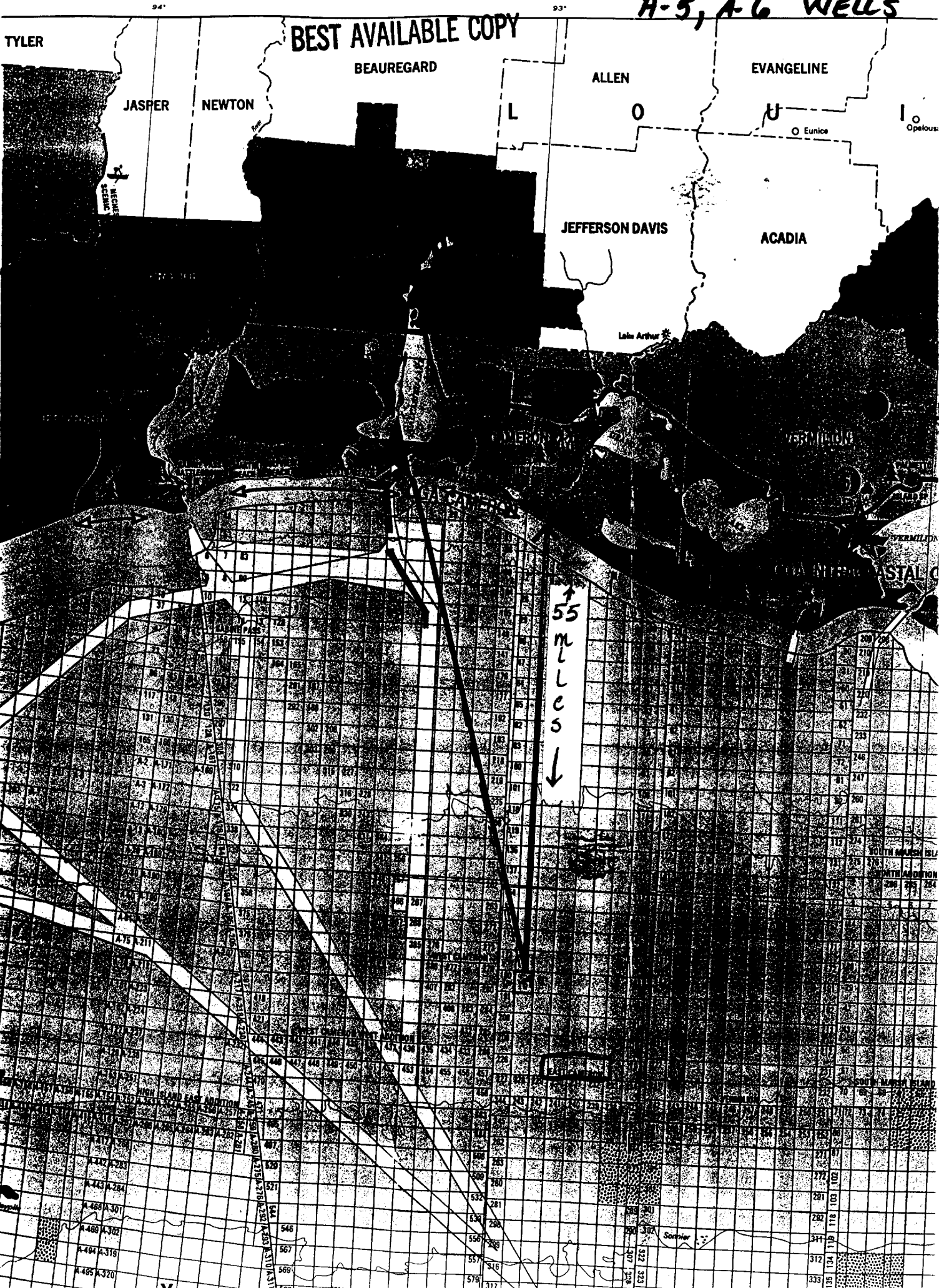
FREQUENCY OF TRAVEL

	<u>Drilling</u>	
Crew boats	-	four trips/week
Supply boats	-	seven trips/week
Helicopters	-	seven trips/week

	<u>Production</u>	
Supply boats	-	seven trips/week
Helicopters	-	seven trips/week

Coastal Oil & Gas Corp. EC 189, UCS-G 8418
 SUPPLEMENTAL DOCD
 A-5, A-6 WELLS

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**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

AIR QUALITY REVIEW

NOTE: There will be no changes to the existing facilities as a result of the anticipated production from Wells A-5 and A-6.

COMPANY	COASTAL OIL & GAS CORPORATION
AREA	EAST CAMERON
BLOCK	189
LEASE	8418
PLATFORM(S)	EC-189-A
WELL(S)	A-5 & A-6
LATITUDE	29 07' 14.12"
LONGITUDE	92 30' 09.02"
COMPANY CONTACT	SUSAN B. BECNEL
TELEPHONE NO.	713/877-6288
REMARKS	DRILL & COMPLETE 2 WELLS, COMMENCE PRODUCTION.

AIR EMISSION CALCULATIONS

Fuel Usage Conversion Factors	Natural Gas Turbines	Natural Gas Engines	Diesel Recip. Engine	REF.	DATE			
	SCF/hp-hr	SCF/hp-hr	GAL/hp-hr	AP42 3.2-1	4/76 & 8/84			
Equipment/Emission Factors	units	TSP	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-2	4/93
NG 2-cycle lean	gms/hp-hr		0.00185	11	0.43	1.5	AP42 3.2-2	4/93
NG 4-cycle lean	gms/hp-hr		0.00185	12	0.72	1.6	AP42 3.2-2	4/93
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-2	4/93
Diesel Recip. < 600 hp.	gms/hp-hr	1	0.931	14	1.12	3.03	AP42 3.3-1	4/93
Diesel Recip. > 600 hp.	gms/hp-hr	0.24	1.49	11	0.33	2.4	AP42 3.4-1	4/93
NG Heaters/Boilers/Burners	lbs/mmscf	5	0.6	140	2.8	35	AP42 1.4-1/2/3	4/93
NG Flares	lbs/mmscf		0.57	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.6	2.3	0.01	0.21	AP42 1.3-1	4/93
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.000025		API Study	12/93
Glycol Dehydrator Vent	lbs/mmscf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

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AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS						
COASTAL OIL & GAS CORP	EAST CAMERON	189	6418	EC-189-A	K-3 & A-8	28 07 14.17	92 30 09.02	SUSAN B. BECNET	713/877-5288	DRILL & COMPLETE 2WELLS, COMMENCE PRODUCTION.						
OPERATIONS	EQUIPMENT	HP	MAX FUEL GAL/HR	ACT FUEL GAL/D	RUN TIME			POUNDS PER HOUR		TONS PER YEAR						
	Diesel Engines	HP	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOG	CO	TSP	SOx	NOx	VOG	CO
	Nat. Gas Engines	HP	SCF/HR	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOG	CO	TSP	SOx	NOx	VOG	CO
DRILLING	PRIME MOVER->600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	0.91	6.61	0.56	1.12	25.44	0.76	5.55
	PRIME MOVER->600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	0.91	6.61	0.56	1.12	25.44	0.76	5.55
	PRIME MOVER->600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	0.91	6.61	0.56	1.12	25.44	0.76	5.55
	AUXILIARY EQUIP-<600hp diesel	600	28.98	695.52	2	70	2.75	1.33	38.55	3.08	8.34	0.19	0.09	2.70	0.22	0.58
	AUXILIARY EQUIP-<600hp diesel	600	60.375	1449.00	24	70	1.32	0.64	18.50	1.48	4.00	1.11	0.54	15.54	1.24	3.36
PIPELINE INSTALLATION	VESSELS->600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	0.91	6.61	0.56	1.12	25.44	0.76	5.55
	VESSELS->600hp diesel	2025	97.8075	2347.38	6	70	1.07	2.16	49.06	1.47	10.70	0.22	0.45	10.30	0.31	2.25
FACILITY INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DERRICK BARGE MATERIAL TUG diesel	RECIPI-<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIPI-<600hp diesel	85	4.1055	98.53	1	3	0.19	0.09	2.62	0.21	0.57	0.00	0.00	0.00	0.00	0.00
	RECIPI-<600hp diesel	2050	99.015	2376.36	24	277	4.52	2.19	63.22	5.06	13.68	15.01	7.27	210.13	16.81	45.48
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIPI: 4 cycle lean nat gas	90	642.87	15428.88	24	277	0.10	0.10	2.18	0.09	0.30	0.32	0.32	7.25	0.28	0.99
	RECIPI: 4 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIPI: 4 cycle rich nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIPI: 4 cycle rich nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TANK-FLARE-PROCESS VENT-FUGITIVES-GLYCOL STILL VENT-OIL BURN GAS FLARE	TANK-FLARE-PROCESS VENT-FUGITIVES-GLYCOL STILL VENT-OIL BURN GAS FLARE	0	300000	0	0	1	0	0.17	21.42	18.09	116.55	0.22	0.00	0.26	0.00	1.40
	TANK-FLARE-PROCESS VENT-FUGITIVES-GLYCOL STILL VENT-OIL BURN GAS FLARE	0	0	32.0	0	277	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TANK-FLARE-PROCESS VENT-FUGITIVES-GLYCOL STILL VENT-OIL BURN GAS FLARE	30	0	0	0	1	0.53	8.25	2.88	0.01	0.26	0.01	0.10	0.03	0.00	0.00
WELL TEST	GAS FLARE	0	0	0	24	0	0.53	8.25	2.88	0.01	0.00	0.00	0.00	0.00	0.00	0.00
1996 YEAR TOTAL							13.02	20.28	319.57	33.13	180.84	18.76	13.25	347.98	22.14	76.27
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES	55.0										1831.50	1831.50	1831.50	1831.50	49833.56

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COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS	TONS PER YEAR					
OPERATIONS	EQUIPMENT	189	6418	EC-189-A	A-5 & A-6	29 07 14.12°	92 30 09.02°	SUSAN B. BEGHEL	713/877-4238	DRILL & COMPLETE 2 WELLS, COMMENCE PRODUCTION	TSP	SOX	NOX	VOC	CO	
	Diesel Engines	HP	GAL/HR	ACT. FUEL	RUN TIME	DAYS		POUNDS PER HOUR								
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
		MMBTU/HR	SCF/HR	SCF/D	HRD	DAYS	TSP	SOX	NOX	VOC	CO	TSP	SOX	NOX	VOC	CO
DRILLING	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP-<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP-<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSEL(S)->600hp diesel (WORK)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSEL(S)->600hp diesel (CREW)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INSTALLATION	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP-<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP-<600hp diesel	85	4,1055	98.53	1	12	0.04	0.28	2.06	0.06	0.45	0.00	0.00	0.01	0.00	0.00
	RECIP-<600hp diesel	2050	99,015	2376.36	24	365	1.08	6.73	49.67	1.49	10.84	4.73	29.48	217.55	6.53	47.48
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP-2 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP-4 cycle lean nat gas	90	642.87	15428.98	24	365	0.00	0.06	2.38	0.14	0.32	0.00	0.26	10.42	0.63	1.39
	RECIP-4 cycle rich nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP-4 cycle rich nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TANK-	BPD	SCF/HR	COUNT												
	FLARE-	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PROCESS VENT-	0	0	32.0	0	365	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FUGITIVES-	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GLYCOL STILL VENT-	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	OIL BURNI	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997 YEAR TOTAL							1.12	7.07	64.11	1.89	11.61	4.73	29.74	227.99	7.16	48.87
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1831.50	1831.50	1831.50	1831.50	49833.56

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COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS	POUNDS PER HOUR						TONS PER YEAR					
OPERATIONS	EQUIPMENT	189	6418	EC-189-A	A-5 & A-6	29 07 14.17°	92 30 08.02°	SUSAN B. BECNEL	713/877-6288	DRILL & COMPLETE 2 WELLS. COMMENCE PRODUCTION.												
	Diesel Engines	HP	MAX. FUEL GAL/HR	ACT. FUEL GAL/D	HR/D	DAYS	TSP	SOX	NOX	VOC	CO	TSP	SOX	NOX	VOC	CO	TSP	SOX	NOX	VOC	CO	
	Nat. Gas Engines	HP	SCF/HR	SCF/D																		
DRILLING	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	AUXILIARY EQUIP-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	RECIP-600hp diesel	85	4,1055	98.53	1	12	0.00	0.28	2.06	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	2060	99,015	2376.36	24	365	1.08	6.73	49.67	1.49	10.84	4.75	29.47	217.55	6.53	47.47	0.00	0.00	0.00	0.00	0.00	
	TURBINE nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP-2 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP-4 cycle lean nat gas	90	642.87	15428.88	24	365	0.00	0.00	2.38	0.14	0.32	0.00	0.00	10.42	0.83	1.39	0.00	0.00	0.00	0.00	0.00	
	RECIP-4 cycle rich nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP-4 cycle rich nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MISC.	BPD	SCF/HR	COUNT																		
	TANK-FLARE	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PROCESS VENT-FLUGITIVES-	0	0	32.0	0	365	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	GLYCOL STILL VENT-	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	OIL BURN	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	GAS FLARE	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DRILLING WELL TEST																						
1998 YEAR TOTAL							1.13	7.01	64.11	1.70	11.60	4.75	29.47	227.96	7.16	48.86						
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES																					
	55.0																					
							1831.50	1831.50	1831.50	1831.50	1831.50	1831.50	1831.50	1831.50	1831.50	1831.50	49833.56					

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AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
COASTAL OIL &	EAST CAMERON	189	8418	EC-189-A	A-5 & A-6
Emitted					
Year	Substance				
	TSP	SOX	NOX	HC	CO
1996	18.76	13.25	347.98	22.14	76.27
1997	4.73	29.74	227.99	7.16	48.87
1998	4.75	29.47	227.98	7.16	48.86
1999	4.75	29.47	227.98	7.16	48.86
2000	4.75	29.47	227.98	7.16	48.86
2001	4.75	29.47	227.98	7.16	48.86
2002	4.75	29.47	227.98	7.16	48.86
2003	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00
Allowable	1831.50	1831.50	1831.50	1831.50	49833.56

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5-3232



Coastal
The Energy People



VIA FEDERAL EXPRESS

December 6, 1995

United States Department of Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Attention: Mr. Joe Hennessey, MS 5231
Plans Unit

Re: **EAST CAMERON 189**
OCS-G 8418
SUPPLEMENTAL DOCD

Gentlemen:

In accordance with the guidelines set forth in 30 CFR 250.34, Coastal Oil & Gas Corporation (Coastal) submits for your review and favorable approval a proposed Supplemental Development Operations Coordination Document (DOCD) for the above referenced block.

Enclosed you will find nine (9) copies of the subject plan; five (5) of which contain "Proprietary Data" that is exempt from disclosure under the privacy Act (5 U.S.C. 552a) and the implementing regulations (43 CFR Part 2 Subpart D). Four (4) copies are considered "Public Information."

In accordance with the requirements of Letter to Lessees and Operators (LTL) dated November 5, 1993, which amends Title 30 CFR 250 Part 256 Surety Bond requirements applicable to OCS lessees and operators, Coastal has obtained the \$3,000,000 Areawide Development Bond and the \$300,000 OCS Right-of-Way Grant Bond.

Please be advised that Coastal plans to drill wells A-5 and A-6 from existing Platform "A", whose location has been cleared. Drilling operations are anticipated to commence on or about January 19, 1996. We would greatly appreciate your review of the Supplemental DOCD at your earliest convenience.

Should you have any questions or require additional information, please contact me at 713/877-6288.

Sincerely,

Susan B. Becnel
Regulatory Coordinator

Enclosures

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
COASTAL TOWER • NINE GREENWAY PLAZA • HOUSTON, TX 77046-0995 • 713 877-1400 • TLX 166008



**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G 8418

OFFSHORE, LOUISIANA

DECEMBER 1995

PUBLIC INFORMATION

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

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* Contains Proprietary Data

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

PROPOSED DEVELOPMENT ACTIVITIES AND SCHEDULE

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

PROPOSED DEVELOPMENT ACTIVITIES AND SCHEDULE

COASTAL OIL AND GAS CORPORATION (COASTAL) plans to drill TWO (2) additional wells, the A-5 and A-6, from the existing Platform "A" location. Wells A-1, A-2, A-3, A-4 have been drilled under an approved DOCD for this block. The Initial DOCD was approved in 1991. A-5 and A-6 will be drilled under this SUPPLEMENTAL DOCD.

All separation, dehydration, testing and metering will take place on the EC 189 "A" platform. No modifications to the existing facilities will be necessary to accommodate anticipated production from the proposed wells. Production from the wells on the "A" Platform flows through an 8" pipeline which ties into Texas Eastern's pipeline in West Cameron 279. An initial combined production rate from wells A-1 through A-6 is expected to be:

> 10 MMCFPD

> 50 BCPD

> 150 BWPD

The estimated reserve life is approximately > 10 years.

No new technology will be utilized during this operation.

No new nearshore or onshore pipelines or facilities will be constructed.

All gas processing will take place on the "A" platform.

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G 8418

PROPOSED ACTIVITY SCHEDULE

Drill and complete Well A-5	January 1996
Drill and complete Well A-6	February 1996
Commence production	March 1996

SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

WELLS AND PLATFORM LOCATIONS

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

PROPOSED WELL LOCATIONS

<u>WELL</u>	<u>SL</u>	<u>WD</u>
A-5	821'FSL & 5858' FWL	90'
A-6	821' FSL & 5858' FWL	90'

PUBLIC INFORMATION

Y = 64,839.040'

COASTAL OIL & GAS CORPORATION

OCS-G-8418

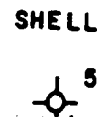
SHELL BEST AVAILABLE COPY

X = 1,480,000.000

X = 1,494,758.048'



189



EXISTING A-1, A-2, A-4
PROPOSED A-5 & A-6

SURF. LOC.

5858'
EAST

821'
NORTH



Y = 50,080.992'

Coastal Oil & Gas Corp.

SUPPLEMENTAL DOCD 12-95

EAST CAMERON 189

LOCATION PLAT
OCS-G-8418

1" = 2000'

PUBLIC INFORMATION

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

**GEOLOGICAL INTERPRETATION, SHALLOW HAZARDS AND
ARCHEOLOGICAL REPORT AND STRUCTURE MAP(S)**

PROPRIETARY DATA

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

**RIG DESCRIPTION AND SAFETY FEATURES, SAFETY AND
ENVIRONMENTAL SAFEGUARDS, MUD COMPONENTS AND
ADDITIVES**

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

RIG DESCRIPTION

The proposed wells, A-5 and A-6, will be drilled and completed with a jack-up rig. The specifications for the actual drilling vessel and safety equipment will be submitted with the application for Permit to Drill for the OCS-G-8418, Wells A-5 and A-6 wells. The drilling vessel used to drill the above-mentioned well will contain and maintain various safety equipment in accordance with 30 CFR 250.57 (Subpart D), such as diverter system, blowout preventers, auxiliary equipment, and mud testing and monitoring equipment. Drilling operations will be conducted in a manner so as to maximize pollution prevention in accordance with 30 CFR 250.40 (Subpart C). All other safety and control equipment will be utilized in accordance with 30 CFR 250 (Subparts C, D and H).

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

SAFETY AND ENVIRONMENTAL SAFEGUARDS

Safety features during drilling operations will include well control and blowout prevention equipment that meets or exceeds the requirements of 30 CFR Part 250 Subpart D.

Oil in any form shall not be disposed of into the waters of the Gulf of Mexico.

Liquid waste materials containing substances which may be harmful to aquatic life or wildlife, or injurious in any manner to life or property shall be treated to avoid disposal of harmful substances into the waters of the Gulf.

Drilling muds containing oil are not disposed of into the Gulf. This type of material is loaded and barged to shore for proper disposal. Drilling mud containing toxic substances are neutralized prior to disposal.

Drilling cuttings, and solids containing oil are not disposed of into the Gulf unless the oil has been removed.

The subject offshore mobile drilling unit is equipped with drip pans under the rig floor. All oil from diesel engines is pumped to a sump and then pumped into barrels for return to an approved onshore disposal site.

Operator personnel are instructed in the techniques and methods necessary to prevent pollution. Non-operator personnel are instructed and supervised to insure that non-pollution practices are adhered to. The facilities are inspected daily.

DRILLING MUD COMPONENTS

<u>COMMON CHEMICAL OR CHEMICAL TRADE NAME</u>	<u>DESCRIPTION OF MATERIAL</u>
Aluminum Stearate	Aluminum Stearate
"AKTAFLO-S"	Nonionic Surfactant
Barite	Barium Sulfate (BaSO ₄)
Calcium Carbonate	Aragonite (CaCO ₃)
Calcium Chloride	Hydrophilite (CaCl ₂)
Calcium Oxide	Lime (Quick)
Calcium Sulfate	Anhydrite (CaSO ₄)
Carboxymethyl Cellulose	Carboxymethyl Cellulose
Caustic Potash	Potassium Hydrate
Caustic Soda	Sodium Hydroxide (NaOH)
Chrome Lignite	Chrome Lignite
Chrome Lignosulfonate	Chrome Lignosulfonate
Drilling Detergent	Soap
"E-Pal"	No-toxic, biodegradable defoamer
Ferrochrome Lignosulfonate	Derived from wood pulp
Gel	Sodium montmorillonite, bentonite, attapulgite
Gypsum	CaSO ₄ .2H ₂ O
Lignite	Lignite
Lignosulfonate	Lignosulfonate
"Mud-Sweep"	Cement Pre-Flush
"MOR-REX"	Hydrolyzed Cereal Solid
"Shale-Trol"	Organo-aluminum complex
Sapp	Sodium Acid Pyrophosphate
Soda Ash	Sodium Carbonate
Sodium Bicarbonate	NaHCO ₃
Sodium Carboxymethyl Cellulose	Sodium Carboxymethyl Cellulose
Sodium Chloride	NaCl
Sodium Chromate	NaCrO ₄ .10H ₂ O
Starch	Corn Starch
"TX-9010"	Biodegradable drilling lubricant
"TORO-Trim"	Biodegradable drilling lubricant

MUD ADDITIVES

COMMON CHEMICAL OR CHEMICAL TRADE NAME

DESCRIPTION OF MATERIAL

"Black Magic"	Oil base mud conc.
"Black Magic Supermix"	Sacked concentrated oil base mud
Diesel	Used to mix certain loss-circulation
pills	
"Jelflake"	Plastic foil, shredded cellophane
MICA	Loss-circulation material
"Pipe-Lax"	Surfactant mixed with diesel
"Wall-nut"	Ground walnut shells
Wood fibers	Loss-circulation material

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION
DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

**QUANTITY, RATES OF DISCHARGE, AND COMPOSITION
OF WASTES, AND OIL SPILL TRAJECTORY ANALYSIS**

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

QUANTITY, RATES OF DISCHARGE, AND COMPOSITION OF WASTES

All discharges associated with the drilling and production of the proposed wells will be in accordance with the EPA NPDES General Permit GMG290000 for the Gulf of Mexico.

Cuttings discharges are based on the average hold size for each section of hole. Mud may be discharged for purposes of dilution or at end of well. The fluid used for drilling will be a typical lignosulfonate mud unless otherwise noted in the drilling program. Concentrations of the chemicals in the mud can be estimated from the daily fluids chemical inventory. Other surveillance of the fluid is accomplished by the monthly and end-of-well LC50 toxicity tests required by EPA. Any drilling fluid contaminated with oil will be transported to shore for proper disposal at an authorized disposal site.

Sewage will be treated on location with an approved U. S. G. S. marine sanitation device.

Solid domestic wastes will be transported to shore for proper disposal at an authorized disposal site.

Produced water discharges will be based on the actual produced waters from each well. Produced water samples will be grabbed at least once each month and analyzed for oil/grease content.

Deck drainage will be estimated by amount of rainfall and wash water used.

A discussion of the quantity, rates of discharge and composition of solid and liquid wastes are attached.

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

OIL SPILL TRAJECTORY ANALYSIS

In the event a spill occurs from EAST CAMERON BLOCK 189, the company has projected trajectory of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sale

The EIS contains oil spill trajectory simulations using seasonal surface currents coupled with wind data, adjusted every 3 hours for 30 days or until a target is contacted.

Hypothetical spill trajectories were simulated for each of the potential launch sites across the entire Gulf. These simulations presume 500 spills occurring in each of the four seasons of the year. The results in the EIS were presented as probabilities that an oil spill beginning from a particular launch site would contact a certain land segment within 3, 10, or 30 days. Utilizing the summary of the trajectory analysis (for 10 days), the probable projected land fall of an oil spill from EAST CAMERON BLOCK 189 is as follows. Also listed is the CGA Map Number corresponding to the land segment. This information will be utilized to determine environmentally sensitive areas that may be affected by a spill.

<u>AREA</u>	<u>LAND SEGMENT CONTACT</u>	<u>%</u>	<u>CGA MAP NO.</u>
EAST CAMERON 189	CAMERON, LA	2%	5

Section V, Volume II of the CGA Manual containing maps as listed above, also includes equipment containment/cleanup protection response modes for the sensitive areas. Pollution response equipment available from CGA and its stockpile base in Cameron, Louisiana, is listed in the CGA Manual Volume I, Section III.

Section VI, Volume II of the CGA Operations Manual depicts the protection response modes that are applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in area of environmental concern. Implementation of the suggested procedures assures the most effective use of the equipment and will result in reduced adverse impact of oil spills on the environment. Supervisory personnel

have the option to modify the deployment and operation of equipment to more effectively respond to site-specific circumstances.

COASTAL OIL AND GAS CORPORATION will make every effort to see that a spill from EAST CAMERON 189 will be responded to as quickly as possible. Response equipment and response times will be suitable for anticipated environmental conditions in the area. In good weather conditions fast response with oil boom, skimmers, pump and storage tanks would require approximately 12 to 13 hours, including preparation time as indicated below. A heavy equipment system response would require approximately 24-36 hours, including 6 hours preparation time. The Clean Gulf Base in CAMERON, LOUISIANA will be utilized for this operation.

PROCUREMENT AND DEPLOYMENT TIME

Hours

- | | | |
|----|---|-----|
| 1) | Procurement of boat capable of handling Oil Spill Containment equipment and deployment to nearest CGA base in Cameron, LA | 2.0 |
| 2) | Load out Fast Response Unit | 1.5 |
| 3) | Travel to lease site from CGA Base
(65 miles to lease site @ 10 mph) | 6.5 |

Estimated Total Time 10.0

All necessary precautions will be undertaken to protect the sensitive areas including deployment of booms, skimmers, pumps, scare guns, etc. In the event a spill is projected to hit near-shore sensitive areas, COASTAL OIL AND GAS CORPORATION will immediately procure truck(s) (as per our approved Oil Spill Contingency Plan) to transport containment equipment to the staging area. Helicopters may be utilized to transport near-shore booms, scare guns, hand skimming systems, and sorbent pads.

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

DISCHARGES

<u>WELL</u>	<u>DEPTHS</u>	<u>HOLE SIZES</u>	<u>QUANTITY (BBLs)</u>	<u>DISCHARGE RATE</u>
A-5	350'	24"	306	MAX. 1000 BPH
	3,000'	13-1/2"	469	MAX. 1000 BPH
	10,000'	9-7/8"	663	MAX. 1000 BPH
A-6	350'	26"	306	MAX. 1000 BPH
	3,000'	17-1/2"	789	MAX. 1000 BPH
	10,000'	12-1/4"	1020	MAX. 1000 BPH
	13,200'	8-1/2"	225	MAX. 1000 BPH

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

Request for Classification of Probability of Encountering H₂S
During Operations

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

Hydrogen Sulfide (H₂S)

In accordance with 30 CFR 250.67, COASTAL OIL AND GAS CORPORATION requests that EAST CAMERON 189, OCS-G-8418 be classified as being in a "Zone Where the Absence of H₂S has been Confirmed."

Hydrogen Sulfide was not encountered or detected in any of the wells drilled by Koch Exploration in East Cameron Block 189, 192, and 193.

<u>OPERATOR</u>	<u>BLOCK</u>	<u>LEASE</u>	<u>WELL</u>	<u>DEPTH</u>
Koch	189	G-8418	A-1	7323'
Koch	189	G-8418	A-2	12566'
Koch	189	G-8418	A-4	11100'
Koch	193	G-8651	B-1	6212'
Koch	192	G-8650	A-3	6415'

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

AIR QUALITY REVIEW

NOTE: There will be no changes to the existing facilities as a result of the anticipated production from Wells A-5 and A-6.

COMPANY	COASTAL OIL & GAS CORPORATION
AREA	EAST CAMERON
BLOCK	189
LEASE	8418
PLATFORM(S)	EC-189-A
WELL(S)	A-5 & A-6
LATITUDE	29 07' 14.12"
LONGITUDE	92 30' 09.02"
COMPANY CONTACT	SUSAN B. BECNEL
TELEPHONE NO.	713/877-6288
REMARKS	DRILL & COMPLETE 2 WELLS, COMMENCE PRODUCTION.

GULF OF MEXICO AIR EMISSION CALCULATIONS

General

This document (MMS.XLW) was prepared through the cooperative efforts of those professionals in the oil industry including the API/OOC Gulf of Mexico Air Quality Task Force, who deal with air emission issues. This document is intended to standardize the way we estimate an air emission inventory for Plans of Exploration (POE) and Development, Operations, Coordination Documents (DOCD) approved by the Minerals Management Service (MMS). It is intended to be thorough but flexible to meet the needs of different operators. This first file gives the basis for the emission factors used in the emission spreadsheet as well as some general instructions. The following files, Title Sheet, Factors Sheet, Emissions Spreadsheet, and Summary Sheet will describe and calculate emissions from an activity.

Title Sheet

The Title Sheet requires input of the company's name, area, block, OCS-G number, platform and/or well(s) in the necessary lines. This data will automatically be transferred to the spreadsheet and summary sheet.

Factor Sheet

The emission factors were compiled from the latest AP-42 references or from industry studies if no AP-42 reference was available. Factors can be revised as more data becomes available. A change to this Factor Sheet will be automatically changed in Emission Spreadsheet.

The basis for the factors is as follows:

1. NG Turbines Fuel usage scf/hr = HP X 9.524 (10,000 btu/HP-hr / 1050 btu/scf)
2. NG Engines Fuel usage scf/hr = HP X 7.143 (7,500 btu/HP-hr / 1050 btu/scf)
3. Diesel Fuel usage gals/hr = HP X 0.0483 (7,000 btu/HP-hr / 145,000 btu/gal)

Emission Factors

Natural Gas Prime Movers

1. TNMOC refers to total non-methane organic carbon emissions and these can be assumed equivalent to VOC emissions.
3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down.

Diesel-Fired Prime Movers

1. Diesel sulfur level 0.4% by wt
2. For boats use > 600 HP factors based on AP-42 Vol. II, Table II-3-3.
Those figures closely match the above values. Include only the emissions from the boats within 25 mile radius of the well/platform.
3. For diesel engines <600 HP VOC emissions equal total HC emissions; for diesel engines >600 HP VOC emissions equal non-methane HC emissions.

Heaters/Boilers/Firetubes/NG-Fired

1. NG Sulfur content is 2000 grains per million cu ft
2. VOCs emissions based on total non-methane HCs

Gas Flares

1. Flare is non-smoking
2. 1050 btu/cu. ft. for NG heating value
3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down or you may use the following formula:

$$\text{H}_2\text{S flared (lbs/hr)} = \text{Gas flared (cu ft/hr)} \times \text{ppm H}_2\text{S} \times 10\text{E-}06 \times 34/379$$

$$\text{SO}_x \text{ emis (lbs/hr)} = \text{H}_2\text{S flared (lbs/hr)} \times 64/34$$

Liquid Flares

1. Assume 1% by wt Sulfur maximum in the crude oil.
2. VOC equals non-methane HCs
3. Particulate emissions assumes Grade 5 oil.

Tanks

1. Tank emissions assumes uncontrolled fixed roof tank.

Fugitives

1. Fugitives are based on the 1993 Star Environmental Report. It requires that you count or estimate

your components.

Glycol Dehydrator Vent

1. The dehydrated gas rate in SCF/HR must be entered in the spreadsheet. The emission factor is from the compilation of the Louisiana Survey and an average emissions per gas rate.

Gas Venting

1. The emission factor is based on venting unburned natural gas of average weight.

Emissions Spreadsheet

The emissions from an operation should be presented for a calendar year (1994, 1995, etc.). The operation may include drilling only or drilling in conjunction with other activities such as pipeline installation or production operations. For additional years the Emissions Spreadsheet is renamed Emissions 2, 3, etc. The different operating parameters for each year should be entered to calculate revised emissions for that year. The spreadsheet will calculate maximum fuel usage (UNIT/HR) using the known horsepower. It will assume maximum fuel usage is equal to actual fuel (UNIT/DAY) usage unless the actual fuel usage is known. If so, insert actual fuel usage in appropriate column. The emissions will be calculated as follows:

$$\text{Emission rate (lb/hr)} = (\text{HP or fuel rate}) \times \text{Emission Factor} \quad (\text{Potential to emit})$$

$$\text{Emissions (tpy)} = \text{Emission rate (lb/hr)} \times \text{load factor} (\text{Act Fuel/Max Fuel}) \times \text{hrs} \times \text{days} \times \text{ton/2000 lbs} \\ (\text{Actual emissions})$$

To customize the spreadsheet for your application it is possible to delete lines for non-applicable equipment/activities or copy/insert an entire line if more than one similar type of equipment is present.

Also, the production equipment can be customized further by adding the use of the equipment behind each type of engine, i.e.,

Turbine

Turbine - Gas Compressor

Burner

Burner - Line Heater

Summary Sheet

The Summary Sheet is designed to show a proposed estimate of emissions from an activity over a future period of time. In this example ten years was chosen. The first line (Row 7-1994) of the summary sheet is linked to the yearly totals in the Emissions Spreadsheet. The second line (Row 8-1995) is referenced to Emissions2 Spreadsheet. The third line (Row 9- 1996) is referenced to Emissions3 Spreadsheet. If more years of calculations are necessary to reach a constant then the spreadsheet can be copied and linked to the summary sheet for years 1997, 1998 etc. Once emissions are constant the values are carried to the end of the ten year period.

AIR EMISSION CALCULATIONS

Fuel Usage Conversion Factors	Natural Gas Turbines	Diesel Recip. Engine	REF.	DATE
	SCF/hp-hr	GAL/hp-hr	AP42 3.2-1	4/76 & 8/84
	9.524	0.0483		
	Natural Gas Engines			
	SCF/hp-hr			
	7.143			

Equipment/Emission Factors	units	TSP	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-2	4/93
NG 2-cycle lean	gms/hp-hr		0.00185	11	0.43	1.5	AP42 3.2-2	4/93
NG 4-cycle lean	gms/hp-hr		0.00185	12	0.72	1.6	AP42 3.2-2	4/93
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-2	4/93
Diesel Recip. < 600 hp.	gms/hp-hr	1	0.931	14	1.12	3.03	AP42 3.3-1	4/93
Diesel Recip. > 600 hp.	gms/hp-hr	0.24	1.49	11	0.33	2.4	AP42 3.4-1	4/93
NG Heaters/Boilers/Burners	lbs/mmmscf	5	0.6	140	2.8	35	AP42 1.4-1/2/3	4/93
NG Flares	lbs/mmmscf		0.57	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.6	2.3	0.01	0.21	AP42 1.3-1	4/93
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.000025		API Study	12/93
Glycol Dehydrator Vent	lbs/mmmscf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

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AIR EMISSION CALCULATIONS

COMPANY COASTAL OIL & GAS CORP OPERATIONS	AREA EAST CAMERON	BLOCK 189	LEASE 6418	PLATFORM EC-188-A	WELL A-5 & A-6	LATITUDE 29 07 14.12"	LONGITUDE 92 30' 09.02"	CONTACT SUSAN B. BEGNET	PHONE 713/877-6288	REMARKS DRILL & COMPLETE 2 WELLS, COMMENCE PRODUCTION.	TONS PER YEAR						
											SOx	NOx	TSP	CO	VOC	SOx	NOx
POUNDS PER HOUR																	
RUN TIME																	
EQUIPMENT																	
Diesel Engines																	
Nat. Gas Engines																	
MISC.																	
1996 YEAR TOTAL																	
EXEMPTION CALCULATION																	
DISTANCE FROM LAND IN MILES																	
65.0																	
DRILLING	Prime Mover-600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	6.61	0.56	1.12	28.44	0.76	5.55		
	Prime Mover-600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	6.61	0.56	1.12	28.44	0.76	5.55		
	Prime Mover-600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	6.61	0.56	1.12	28.44	0.76	5.55		
	Auxiliary Equip-600hp diesel	600	28.98	695.52	24	70	1.32	0.64	18.50	4.00	1.11	0.54	15.54	1.24	3.36		
	Auxiliary Equip-600hp diesel	1250	60.375	1449.00	24	70	0.66	1.33	30.29	6.61	0.56	1.12	28.44	0.76	5.55		
	Vessels-600hp diesel	2025	97.8075	2347.38	6	70	1.07	2.16	49.06	10.70	0.22	0.45	10.30	0.31	2.25		
PIPELINE INSTALLATION	Pipeline Lay Barge diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Support Vessel diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Pipeline Bury Barge diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Support Vessel diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
FACILITY INSTALLATION	Derrick Barge diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Material Tug diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PRODUCTION	Recip-600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Recip-600hp diesel	85	4.1055	98.53	1	3	0.19	0.09	2.62	0.57	0.00	0.00	0.00	0.00	0.00		
	Recip-600hp diesel	2050	99.015	2376.36	24	277	4.52	2.19	63.22	13.68	15.01	7.27	210.13	16.81	45.48		
	Support Vessel diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Turbine nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Recip-4 cycle lean nat gas	90	642.87	15428.88	24	277	0.10	0.10	2.18	0.30	0.09	0.32	7.25	0.28	0.99		
	Recip-4 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Recip-4 cycle rich nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Recip-4 cycle rich nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	MISC.	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
DRILLING WELL TEST	TANK-FLARE	0	300000	0	0	1	0.00	0.17	21.42	116.55	0.00	0.00	0.26	0.00	1.40		
	Process Vent-Fugitives	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Glycol Still Vent	30	0	32.0	24	277	0.53	8.25	2.88	0.26	0.01	0.10	0.03	0.00	0.00		
	Oil Burn	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Gas Flare	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1996 YEAR TOTAL							13.02	20.26	319.57	33.13	180.84	18.76	347.98	22.14	78.27		
EXEMPTION CALCULATION							2184.50	2184.50	2184.50	2184.50	2184.50	2184.50	2184.50	2184.50	2184.50	55735.37	

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COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS	TONS PER YEAR											
											COASTAL OIL & GAS CO	EAST CAMERON	189	8418	EC-189-A	A-3 & A-8	28 07 14.12	92 30 09.02	SUSAN B. BECNEL	713/877-6285	DRILL & COMPLETE 2 WELLS, COMMENCE PRODUCTION	TSP
OPERATIONS		HP	MAX. FUEL	ACT. FUEL	HR/D	DAYS	HR/D	SCF/D	SCF/D	HR/D	DAYS	TSP	SOx	NOx	VOC	CO	TSP	SOx	NOx	VOC	CO	
DRILLING	Diesel Engines	0	0	0	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Nat Gas Engines	0	0	0	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER->600hp diesel	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER->600hp diesel	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	AUXILIARY EQUIP->600hp diesel	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	AUXILIARY EQUIP->600hp diesel	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS->600hp diesel (WORK)	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS->600hp diesel (CREW)	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE LAY BARGE diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PIPELINE BURY BARGE diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SUPPORT VESSEL diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MATERIAL TUG diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PRODUCTION	RECIP-<600hp diesel	85	4,1065	98.53	1	12	0	0.00	0.00	0	0	0.00	0.06	2.62	0.21	0.00	0.00	0.00	0.00	0.00		
RECIP-<600hp diesel	2050	99,0115	2376.36	24	365	0	0	0.00	0.00	0	0	4.52	1.37	63.22	5.06	13.68	19.78	5.98	22.15	59.93		
SUPPORT VESSEL diesel	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TURBINE nat gas	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
RECIP 12 cycle lean nat gas	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
RECIP 4 cycle lean nat gas	90	642.87	15428.88	24	365	0	0	0.00	0.00	0	0	0.00	0.06	2.38	0.14	0.32	10.42	0.26	0.63	1.39		
RECIP 4 cycle rich nat gas	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
MISC:	0	0.00	0.00	0	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TANK:	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
FLARE-	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PROCESS VENT-	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
FUGITIVES-	0	0	0.00	0.00	0	365	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
GLYCOL STILL VENT-	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
OIL BURN	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
GAS FLARE	0	0	0.00	0.00	0	0	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1997 YEAR TOTAL												4.70	1.48	68.22	6.41	14.57	19.78	6.26	287.32	22.78	61.32	
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											2164.50	2164.50	2164.50	2164.50	2164.50	2164.50	2164.50	2164.50	2164.50	2164.50	65735.37
																						65735.37

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AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
COASTAL OIL &	EAST CAMERON	189	8418	EC-189-A	A-5 & A-6
Emitted					
Year	Substance				CO
	TSP	SOx	NOx	HC	
1996	18.76	13.25	347.98	22.14	76.27
1997	19.78	6.25	287.32	22.78	61.32
1998	4.75	29.47	227.98	7.16	48.86
1999	4.75	29.47	227.98	7.16	48.86
2000	4.75	29.47	227.98	7.16	48.86
2001	4.75	29.47	227.98	7.16	48.86
2002	4.75	29.47	227.98	7.16	48.86
2003	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00
Allowable	2164.50	2164.50	2164.50	2164.50	55735.37

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**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

ONSHORE BASE FACILITIES, VICINITY MAP

**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

**ONSHORE SUPPORT BASE FACILITIES
VICINITY MAP**

The onshore support base facilities at Galveston, Texas will serve as the onshore support base facilities during the drilling and completion of wells A-5 and A-6, East Cameron Block 189. This will serve as port of debarkation for supplies and crews. Typical supply and crew boats will be utilized throughout the drilling, completion and hook-up operations. Boat and helicopter travel to and from the base will be over the most direct routes. No additional personnel will be required to conduct the proposed drilling, completion, and hook-up operations.

FREQUENCY OF TRAVEL

	<u>Drilling</u>	
Crew boats	-	four trips/week
Supply boats	-	seven trips/week
Helicopters	-	seven trips/week

	<u>Production</u>	
Supply boats	-	seven trips/week
Helicopters	-	seven trips/week

Coastal Oil & Gas Corp. - EC 189, UCS-G 8418 SUPPLEMENTAL DOCO

A-5, A-6 WELLS

94°

93°

TYLER

JASPER

NEWTON

BEAUREGARD

ALLEN

EVANGELINE

BEST AVAILABLE COPY

JEFFERSON DAVIS

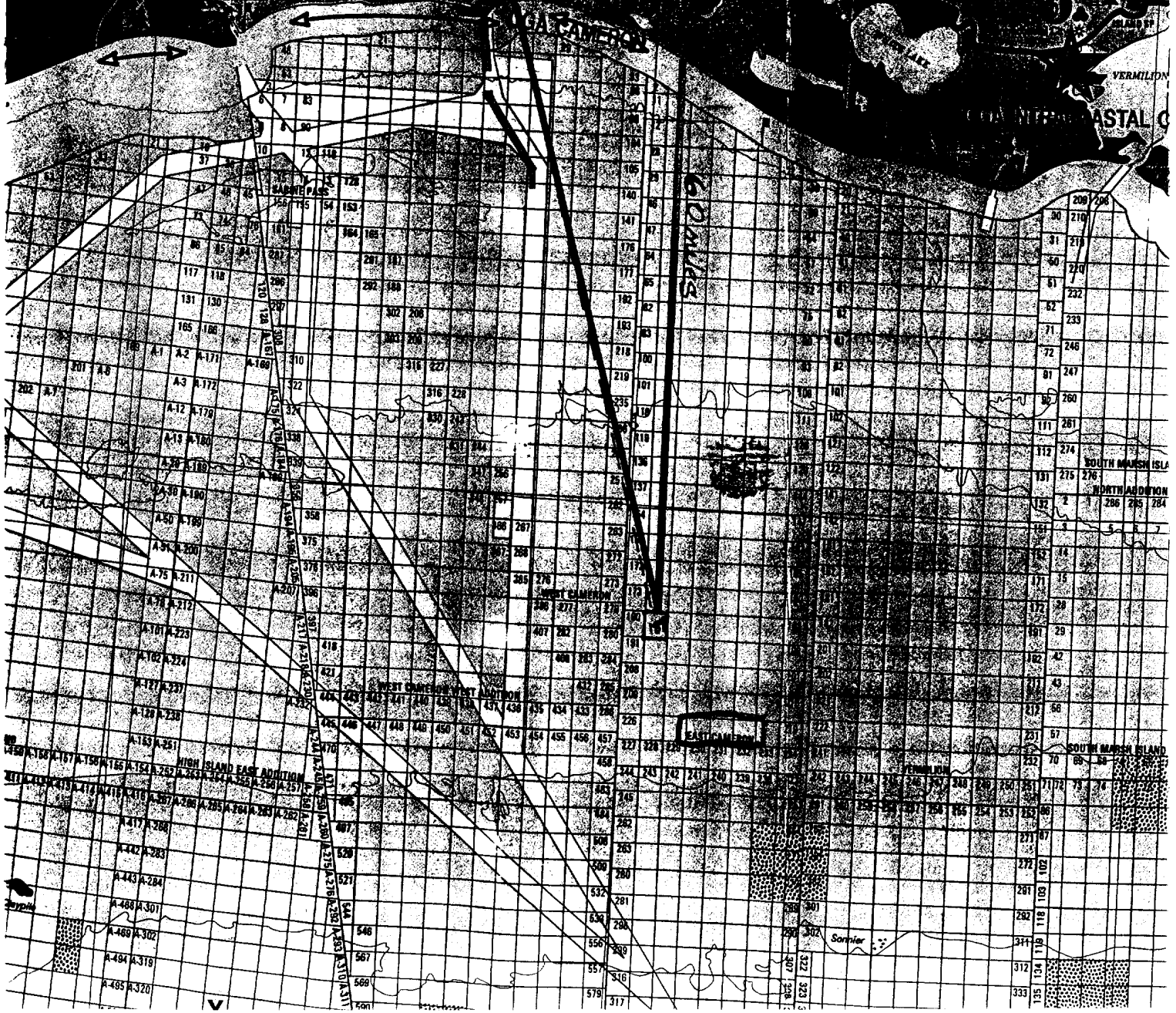
ACADIA

Lake Arthur

VERMILION

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**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EAST CAMERON AREA

BLOCK 189

OCS-G-8418

COMPANY CONTACT

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**SUPPLEMENTAL
DEVELOPMENT OPERATIONS COORDINATION DOCUMENT**

EUGENE ISLAND AREA

BLOCK 189

OCS-G 8418

COASTAL OIL AND GAS CORPORATION

COMPANY CONTACT:

**Susan B. Becnel
9 Greenway Plaza, S. 2763
Houston, Texas 77046**

713/877-6288