DATE 2-22-90

TO: OPS-3-4

FROM: FO-2-1

Unit Plan of Exploration/DOCD and Environmental Report

Lease(s) OCS -G 6347 & 6348 Control No. U- 0658

NOTED — KRAMER

Oryx Energy Company
14950 Heathrow Forest Parkway
PO Box 1501
Houston TX 77251-1501
713 985 2000

Gulf Coast
Production Region

February 9, 1990

Mr. Ralph J. Melancon
Regional Supervisor
Production and Development
Minerals Management Service
Gulf of Mexico, OCS Region Office
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

RE: Supplemental Plan of Exploration
Garden Banks Block 95 Field
Unit Agreement 754388030
Garden Banks Block 139/140
OCSG 6347/6348

Oryx Energy Company hereby submits 7 copies of a supplemental Plan of Exploration for the referenced leases for your review and approval. This plan was last amended by letter of November 6, 1989 and December 4, 1989. The plan was approved by your office on January 31, 1990.

Oryx has determined that six additional wells may be required in order to evaluate the hydrocarbon potential of Trimosina A sands. The new well coordinates are:

BLOCK	WELL LOCATION	SURFACE & BOTTOMHOLE	TVD/MD	WATER DEPTH	DAYS TO DRILL
GB 139	G			620'	35
GB 139	H			635	35
GB 139	I			635	35
GB 139	J			635	35
GB 140	K			665	35
GB 140	L			630	35

A shallow hazard statement, bathymetry map, surface location plat, and structure map are attached. A revised oil spill trajectory analysis, and oil spill response time for this area were submitted in the revised POE approved January 31, 1990. The GB 96 well No. 1 was determined to be in a zone where the absence of H_2S has been confirmed. Therefore, we request that this area also be classified as "zones where the absence of H_2S has been confirmed".

Since proposed well locations G through L are located outside the four (4) mile zone, ORYX proposes to not discharge drill cuttings

CD 3-27-90

PUBLIC INFORMATION

and fluids through a shunt unless a well location is revised to a point inside the four (4) mile zone.

We request that the additional data submitted with the GB 96 POE revised and approved January 31, 1990 be included as a part of this POE for GB139 and GB 140.

Everything else in the POE remains the same.

Sincerely,

Alfred B. Norwood
Conservation Manager

ABN:sl
Enclosures

Subject SHALLOW HAZARD SURVEY
GARDEN BANKS BLKS. 139, 140
OCS-G-6347, 6348

Interoffice Correspondence

Date February 5, 1990

Location Gulf of Mexico - West District

From W. Chris Krusz

To A. B. Norwood

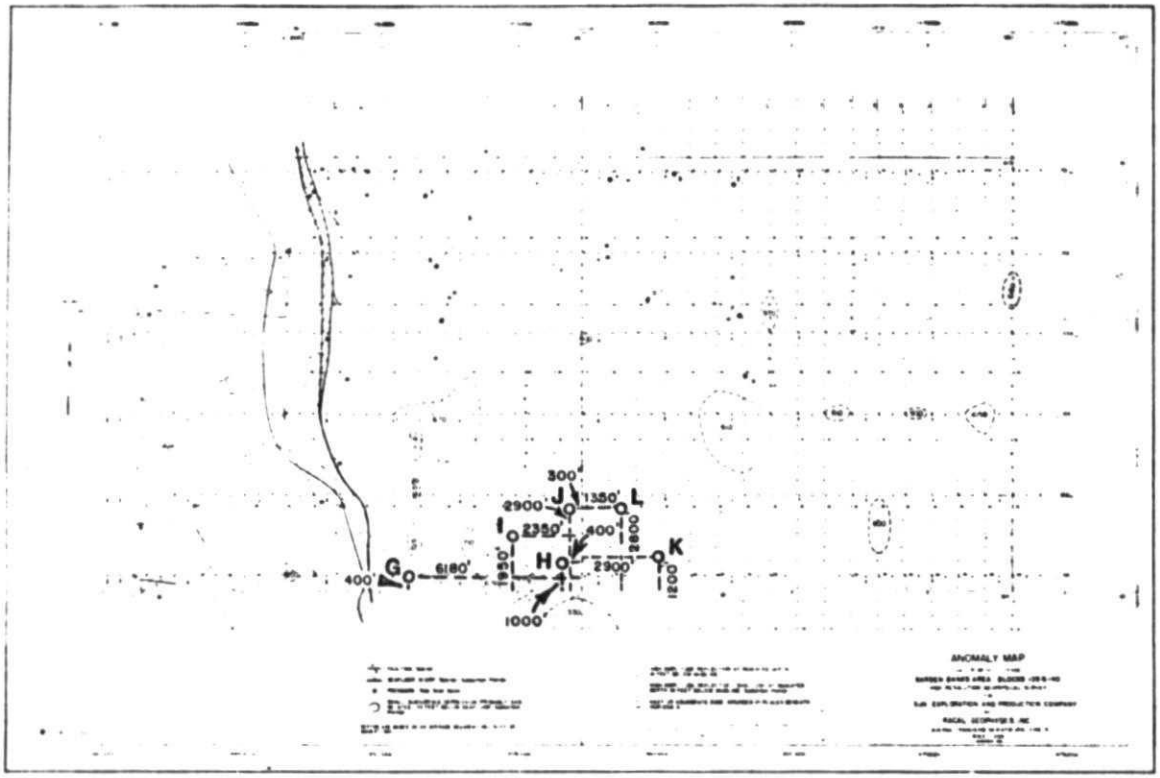
A high resolution geophysical survey was conducted over Garden Banks Blocks 139 and 140 and Blocks 95 and 96 during December of 1983 by Racal Geophysics, Inc. The survey disclosed a smooth seafloor with no indications of surface faulting or shallow gas pockets at the proposed locations.

LOCATION	BLOCK	COORDINATES
G	GB 139	6180' FEL, 400' FSL
H	GB 139	400' FEL, 1000' FSL
I	GB 139	2350' FEL, 1950' FSL
J	GB 139	300' FEL, 2900' FSL
K	GB 140	2900' FWL, 1200' FSL
L	GB 140	1350' FWL, 2800' FSL

W. Chris Krusz - for WC Krusz

WCK/sja

4D131/0290-06 - (1)



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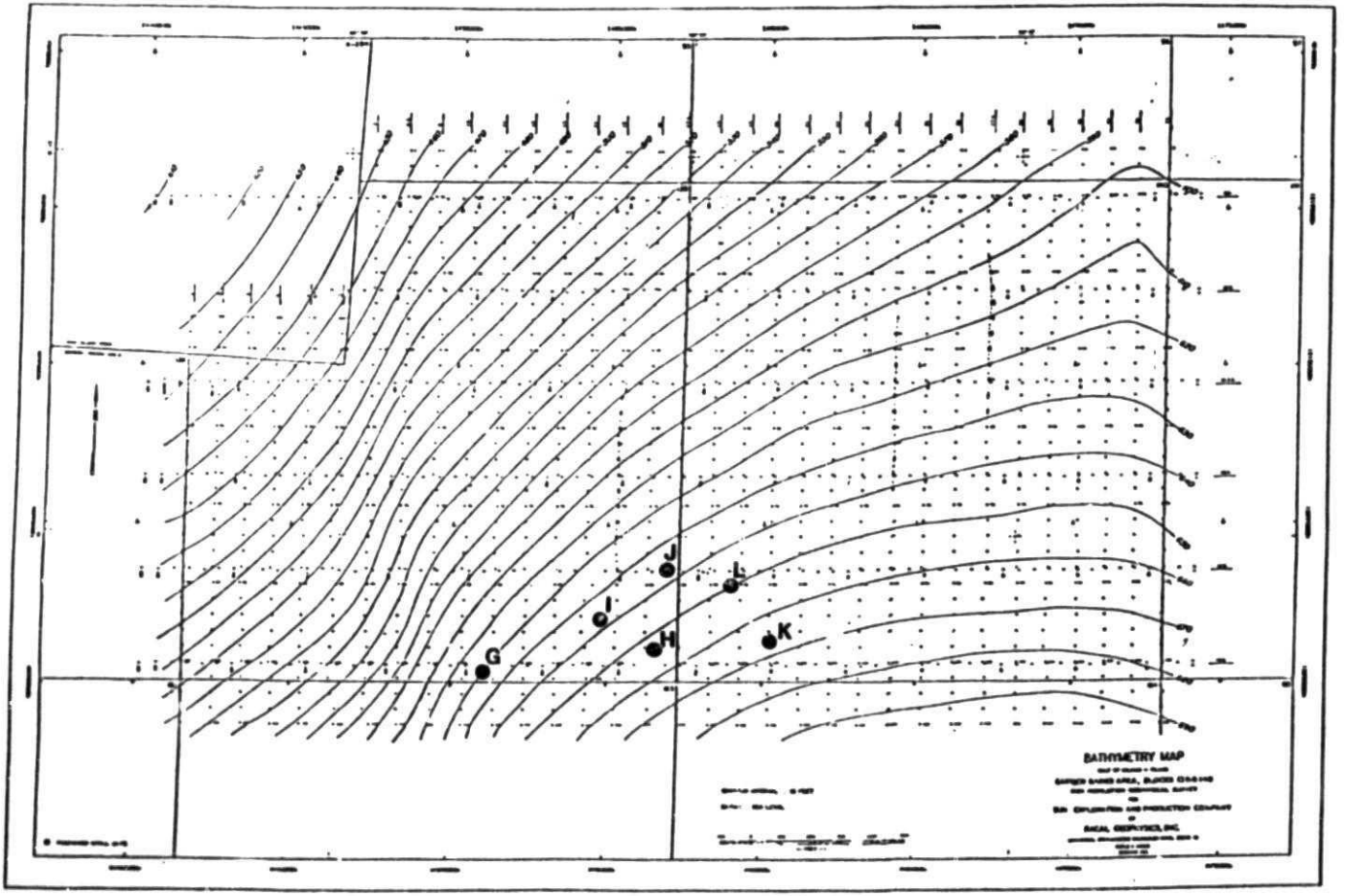
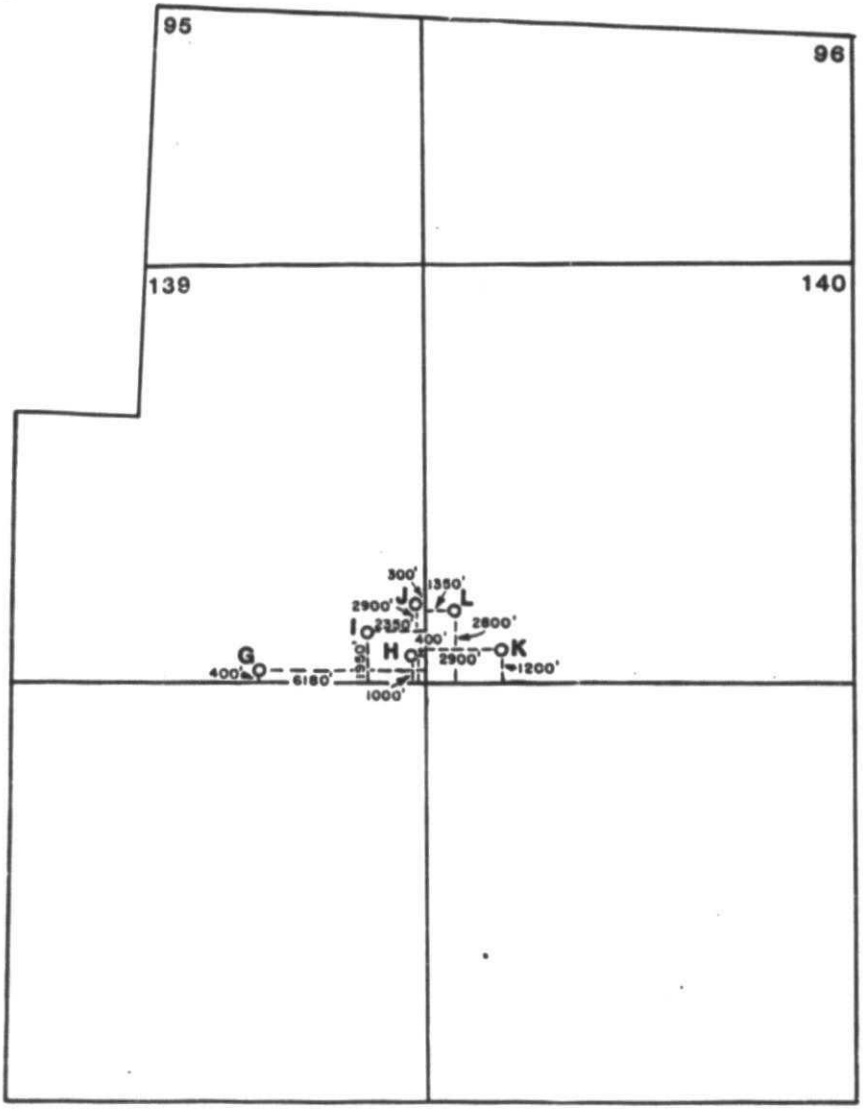
OCS-G-6347
OCS-G-6348
GARDEN BANKS 139, 140

2/2/90


G
H
I
J
K
L
BATHYMETRY MAP



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SCALE IN FEET

N

Oryx Energy Company

OCS-G-6347
OCS-G-6348

GARDEN BANKS 139, 140

2/2/90

"DATA AND INFORMATION CONSIDERED

EXEMPT FROM DISCLOSURE"

IN THE

EXPLORATION PLAN

OCS G 6333

GARDEN BANKS BLOCK 96

FEDERAL OFFSHORE, LOUISIANA

"DATA AND INFORMATION CONSIDERED

EXEMPT FROM DISCLOSURE"

IN THE

EXPLORATION PLAN

OCS G 6333

GARDEN BANKS BLOCK 96

FEDERAL OFFSHORE, LOUISIANA

Oryx Energy Company
14950 Heathrow Forest Parkway
PO Box 1501
Houston TX 77251-1501
713 985 2500

ORYX

February 19, 1990

Gulf Coast
Production Region

Mr. Ralph J. Melancon
Regional Supervisor
Minerals Management Service
Gulf of Mexico OCS Region Office
1201 Elmwood Park Blvd
New Orleans, LA 70123-2394

RE: Garden Banks Block 139/140 plan of Exploration

Dear Mr. Melancon:

Oryx Energy Company hereby submits additional information concerning the referenced leases as requested.

Air emissions data - attachment #1

Travel Routes - Boat and air traffic will be directly from Sabine Pass to the drill site. Boat and helicopter traffic will probably occur on a daily basis during drilling operations. A route map is attached.

There are no plans for construction or expansion of any onshore or offshore facilities for this activity.

No new or unusual technology is being utilized in this activity.

A description of the disposition of solid and liquid wastes are described in Attachments 3 and 4.

No diesel or mineral oils will be used on this project.

The maximum discharge rate for drilling fluids will not exceed the EPA permit limitation of 1000 barrels per hour. Should any fluids be encountered that would cause a sheen, or have excess hydrocarbons, that fluid will be hauled to shore for proper disposal.

Domestic food wastes will be ground up and discharged overboard.

Only wood and paper will be incinerated, all other wastes including plastics will be transported to shore for proper disposal.

Sincerely,

Alfred B. Norwood
Conservation Manager

90046VPB0045 - (1)

OIL SPILL TRAJECTORY ANALYSIS

In the event a spill occurs from Garden Banks 95 area including GB 95,96,139,140, our Company has projected trajectory of a spill utilizing information in the Environmental Impact Statement (EIS) for OCS Lease Sales 118 and 122, as well as the same information from the EIS for OCS Lease Sales 123 and 125.

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.

The trajectory analysis indicates that there is a negligible chance that a spill originating from these leases will contact land within ten days (see table IV-7 pp IV 44-53). However, the most likely land segments to be affected are indicated below. Also listed is the CGA map number corresponding to the land segment which will be utilized to determine environmentally sensitive areas that could be affected by a spill -

Area	Probability %	Land Segment Contact	CGA Map Number
Garden Banks 95, 96, 139, 140	less than 1/2	Chambers County, TX	TX Map # 4
	less than 1/2	Brazoria County, TX	TX Map # 3

Section V, Volume II of the CGA Manual containing maps as listed above, also includes containment/cleanup protection response modes for the sensitive areas.

Section VI, Volume II of the CGA Operations Manual depicts the protection response modes that are applicable for oil spill cleanup operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in areas 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.

In the event of an oil spill, a vessel would be dispatched from our base at Sabine Pass to the Galveston, Texas CGA location for oil spill cleanup equipment. The response times would be: 5 hours travel from Sabine Pass to Galveston, 2 hours loadout of equipment, 14 hours to GB 95 area and one hour to be in operation. Clean Gulf Associates personnel, Oryx supervisory personnel, and contractor cleanup personnel would be at the Galveston site in less than 5 hours. Every effort will be made to procure a vessel closer than Sabine Pass to Galveston or closer to Cameron, La. In that event the reaction time may be decreased.

AIR QUALITY CALCULATIONS
FOR DRILLING OPERATIONS
GARDEN BANKS BLOCK 96/139/140

Using the ODECO "Ocean Scout" as a typical semi-submersible drilling rig, equipment includes:

3	EMD S-16-645 rated 1950 BHP @ 900 RPM
1	Lister SR-2Z rated 12 BHP @ 1800 RPM
2	GM 6-71N rated 238 BHP @ 2100 RPM
1	GM 3-53 rated 68 BHP @ 2100 RPM
2	GM 8V-71 rated 318 BHP @ 2100 RPM

Fuel Consumption:

A.	Drilling Operations	5008 gal/day
B.	Non-drilling Operations	2454 gal/day
C.	Transportation	1250 gal/day
	Total Fuel Usage	8712 gal/day

Projected Emissions =
Particulates (TSP) $8712 \frac{\text{gal}}{\text{day}} \times \frac{(365 \text{ day-yr})}{\text{yr.}} \times \frac{(*33.5 \text{ lbs})}{1000 \text{ gal}} \frac{(\text{ton})}{2000 \text{ lbs}}$

$= 53.26 \frac{\text{tons}}{\text{yr.}}$

Sulphur Oxides (SOx):
$8712 \times 365 \times \frac{*31.2}{1000} \times \frac{1}{2000} = 49.6 \frac{\text{tons}}{\text{yr.}}$

Nitrous Oxides (NOx):
$8712 \times 365 \times \frac{*469}{1000} \times \frac{1}{2000} = 745.8 \frac{\text{tons}}{\text{yr.}}$

Hydrocarbons (HC):
$8712 \times 365 \times \frac{*37.5}{1000} \times \frac{1}{2000} = 59.62 \frac{\text{tons}}{\text{yr.}}$

Carbon Monoxide (CO):
$8712 \times 365 \times \frac{*102}{1000} \times \frac{1}{2000} = 162.17 \frac{\text{tons}}{\text{yr.}}$

*Air emission factors obtained from EPA AP-42 Appendix C, Supplement No. 9

Garden Banks Block 96 is 124 miles from Pt. Wall (nearest land)

SUMMARY OF EXEMPTION
CALCULATION INFORMATION

Pollutant	Formula	D(miles)	"E"(T/yr)	Projected Emissions(T/yr)	Emissions E
TSP	E=33.3D	124	4,129.2	53.26	Yes
SO_2	E=33.3D	124	4,129.2	49.6	Yes
NO_x	E=33.3D	124	4,129.2	745.68	Yes
HC	E=33.3D	124	4,129.2	59.62	Yes
CO	E=3400D	124	84,560	162.17	Yes

Sun Exploration and Production Company, as Operator, believes this information submitted separately from Exploration Plan for OCS G 6333/ 6347/6348 Garden Banks Blocks 96/139/140 to be exempt from disclosure. Sun requests that the data and information enclosed herewith be dispersed for use only by the United States Government.

Geological information provided includes:

1. Structural maps

2. Well plat

"DATA AND INFORMATION CONSIDERED

EXEMPT FROM DISCLOSURE"

IN THE EXPLORATION PLAN

OCS G 6333/6347/6348

GARDEN BANKS BLOCKS 96/139/140

FEDERAL OFFSHORE, TEXAS

LEASE STIPULATIONS

Garden Banks 139 and 140 are subject to Stipulations No. 1 and No. 2.

Stipulation No. 1 - Cultural Resource

A Cultural Resources Report assessing the potential existence of any cultural resource for the surface locations was submitted with the initial Plan of Exploration.

Stipulation No. 2 - Biological

These leases are within the "4 mile zone" of the East Flower Garden Bank. Therefore, Oryx will comply with: (b) Operations within the 4 mile zone shall be restricted by shunting all drill cuttings and drilling fluids to the bottom through a down pipe that terminates an appropriate distance, but no more than 10 meters from the bottom.

Since no part of these leases are within the one mile zone, and the water depth exceeds 500 feet, there is no possibility that drilling activities will cause direct impact with any identified coral and algae sponge communities in the vicinity.

Attachment #2

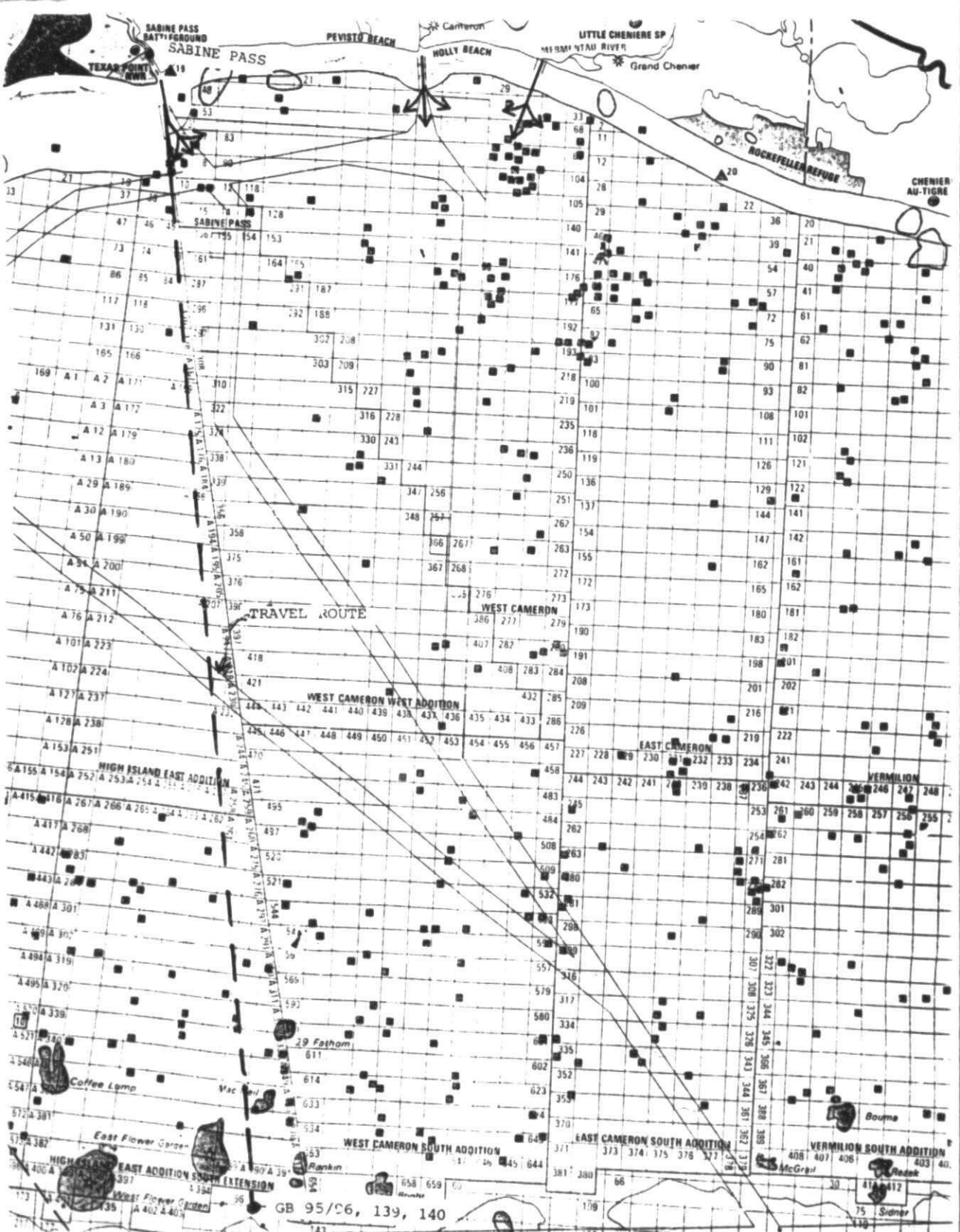
DISCHARGE	RATE/QUALITY	COMPOSITION	TREATMENT	DISPOSAL
Drill Mud	1000 bbl/hour	Drill mud & fresh water	None	Overboard
Drill Cuttings	2,057 gpd	Subsurface sediment	None	Overboard
Sewage	7,650 gpd	Treated waste	Aerobic digestion	Overboard
Domestic Waste	7,500 gpd	Shower, wash & galley qater	None	Overboard
Water Distillation Units	80,000 gpd	Salt water	None	Overboard
B.O.P. Solution	125 gpd	Non-polluting Soluble Solution	None	Overboard
Cooling Water	4,214,000 gpd	Sea water	None	Overboard
Ballast	None	Sea water	None	Overboard
Deck Drainage	600 gpd	Fresh water	Oil/water sep.	Overboard

Attachment #3

TYPICAL DRILL MUD AND CUTTINGS
DISCHARGE VOLUMES (PER WELL)

CSG SIZE	SETTING DEPTH	HOLE SIZE	EROSION FACTOR	CUTTINGS VOLUME (FT^3)	DRLG MUD VOLUME (BBL)
30"	750'	JETTED	0%	736	SEAWATER
20"	1,600'	26"	30%	4,074	3,627
13 3/8"	5,100'	17 1/2"	30%	7,172	6,386
9 5/8"	7,600'	12 1/4"	40%	2,865	2,551
7"	10,000'	8 1/2"	40%	1,561	1,391
TOTALS				16,502	13,955

Attachment #4


SABINE PASS BATTLEGROUND
SABINE PASS
TEXAS POINT RWR
PEVETO BEACH
Cameron
HOLLY BEACH
LITTLE CHENIERE SP
Grand Chenier
ROCKEFELLER REFUGE
CHENIER AU-TIGRE
SABINE PASS
TRAVEL ROUTE
WEST CAMERON
WEST CAMERON WEST ADDITION
EAST CAMERON
VERMILION
HIGH ISLAND EAST ADDITION
29 Fathom
Coffee Lump
East Flower Garden
West Flower Garden
WEST CAMERON SOUTH ADDITION
EAST CAMERON SOUTH ADDITION
VERMILION SOUTH ADDITION
Bouma
Rezak
Sidner
McGrail
Rankin
GB 95/96, 139, 140