OCS-G-2412
#S-2169

In Reply Refer To: MS-2-1 September 7, 1988

Phillips Petroleum Company
Attention: Mr. Louis Hoover, III
Post Office Box 51107
Lafayette, Louisiana 70505-1107

Gentlemen:

Reference is made to your Supplemental Development Operations Coordination Document (DOCD) and accompanying information received August 26, 1988, amended August 30, 1988, for Lease OCS-G 2412, Block A-317, High Island Area. This DOCD includes the activities proposed for Wells A through J, Platform B and Wells B-A, B-B, and B-C, and Platform C and Wells C-A, C-B, and C-C.

In accordance with 30 CFR 250.34(f), this DOCD is hereby deemed submitted and is now being considered for approval.

Your control number is S-2169 and should be referenced in your communication and correspondence concerning this DOCD.

Sincerely yours,

(Orig. Sgd.) A. Donald Giroir

For D. J. Bourgeois
Regional Supervisor
Field Operations

bcc: Lease OCS-G 2412 (OPS-3-2) (FILE ROOM)
OPS-3-4 w/Public info. Copy of the DOCD and accomp. info. (PUBLIC RECORDS)

MJTolbert:cck:09/07/88:doedcom

SUPPLEMENTAL PLAN

Development Operations Coordination Document
Gulf of Mexico, Offshore Texas
High Island Block A-317
Lease OCS-G 2412
Phillips Petroleum Company - Operator

August 18, 1988

Phillips Petroleum Company
Post Office Box 51107
Lafayette, Louisiana 70505-1107
Attention: Mr. Louis Hoover, III
(318) 261-4137

PHILLIPS PETROLEUM COMPANY

LAFAYETTE, LOUISIANA 70505-1107
P.O. BOX 51107 TELEPHONE: 318 261-4100

EXPLORATION AND PRODUCTION GROUP

August 19, 1988

FILE: Lease OCS-G 2412
High Island Block A-317
L E A S E
Gulf of Mexico, Western
Offshore Jefferson County
Texas
AGENCY REPORTS

RE: Development Operations
Coordination Document (DOCD)
S U P P L E M E N T A L

U. S. Department of the Interior
Minerals Management Service
Exploration and Plans Unit (FO-2-1)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

Gentlemen:

Enclosed are seven (7) copies of Phillips Petroleum Company's (Phillips) proposed Supplemental Development Operations Coordination Document (Document) for the captioned lease. An Air Quality Review is included with this Document. Final well numbers, locations, and depths will be included in the U. S. Department of the Interior, MMS Form 331C, Application for Permit to Drill, Deepen, or Plugback (APD). Other relevant information to be provided therein shall include casing, cement, and mud programs, procedures to be followed throughout the drilling of the well, including testing of cement jobs, installation of casing, blowout prevention equipment, lines, and other such data as the District Supervisor may require.

As specified in the Document, Phillips proposes to use a drilling vessel such as the Sonat D-F 84, a jack-up type drilling vessel or equivalent. However, it should be noted that the final decision to use any rig is contingent upon several factors, e.g., rig commitment(s) at the time this Document is approved and other conditions that may prevail at the time actual drilling operations do commence.

A complete rig description and inventory will be submitted with the APD to the District Supervisor.

Additionally, that information presented herein judged exempt (by Phillips) from public disclosure under the Freedom of Information Act (5 U.S.C. 552) and Implementing Regulations (43 CFR, Prt 2) has been marked "CONFIDENTIAL" or deleted from Public Information copies.

This letter is to be considered part of the Document.

Phillips respectfully solicits your timely approval of this document and appreciates your consideration in this matter. Should you require additional information relevant to this Document, please contact the undersigned.

Yours very truly,

PHILLIPS PETROLEUM COMPANY

Louis Hoover, III

LH,III:km
Enclosures

cc: Minerals Management Service
Lake Jackson District

PHILLIPS PETROLEUM COMPANY

S U P P L E M E N T A L

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

HIGH ISLAND BLOCK A-317

LEASE OCS-G 2412

Additional drilling activities on these blocks may be accomplished by drilling up to sixteen (16) wells with a jack-up type drilling MODU positioned over the existing Platform "A" as well as from two (2) simple four-pile structures. These additional wells are further defined elsewhere in this document. A typical rig that may be used for the proposed operations is the Sonat D-F 84. This rig will be positioned over the existing platform to drill the "A" wells.

Should a well indicate the presence of hydrocarbon bearing sands in commercially paying quantities, the well may be temporarily abandoned according to the provisions of 30CFR Part 250, Subpart G and any other requirements as specified by the District Supervisor. Additionally, approved DOT, United States Coast Guard Navigational Aids will be installed where required.

Throughout the life of this project, all available safeguards will be used in an effort to prevent any possible damage to the ecosystem.

Project activites will be conducted from Phillips Petroleum Company's permanent shore base facility located in Grand Chenier, Louisiana.

A geophysical report is not included in this Document since it was originally filed with the Plan of Exploration. Interpretations made at that time remain unchanged.

Phillips Petroleum Company is an active member of Clean Gulf Associates (CGA). Should an upset occur, trained personnel and equipment would be deployed from the nearest CGA Base. Phillips will be operating under EPA Gulf of Mexico General Permit Number GMG280000.

The following exhibits shall constitute the remainder of this proposed Development Operations Coordination Document:

1. EXHIBIT I — A table illustrating proposed well locations and depth. An outline of other relevant activities as well as a tentative timetable is also presented.
2. EXHIBIT II — Vicinity Map.
3. EXHIBIT III — General Well Location Plat.
4. EXHIBIT IV — Structure Maps (9).
5. EXHIBIT V — Typical Four-Pile Platform Drawing.
6. EXHIBIT VI — Typical MODU (3 legged jack-up).
7. EXHIBIT VII — Oil Spill Contingency Plan Brief.
8. EXHIBIT VIII — Typical Drilling Mud Component Listing.
9. EXHIBIT IX — Listing of typical field equipment that may be used when doing seismic surveys on the blocks.
10. EXHIBIT X — AQR.

NOTES

Note 1: Phillips is an active member of Clean Gulf Associates.

Note 2: A Pollution Contingency Plan has been submitted and approved by the Minerals Mangement Service.

Note 3: Phillips Petroleum Company representative:

Mr. Louis Hoover, III
(318) 261-4137

PHILLIPS PETROLEUM COMPANY

S U P P L E M E N T A L

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

HIGH ISLAND BLOCK A-317

LEASE OCS-G 2412

1. WELL LOCATIONS

PLATFORM "A" (EXISTING)

WELL NO.	SURFACE LOCATION	BHL	PTVD	WATER
A	5815' FNL & 6992' FEL			210'
B	5815' FNL & 6992' FEL			210'
C	5815' FNL & 6992' FEL			210'
D	5815' FNL & 6992' FEL			210'
E	5815' FNL & 6992' FEL			210'
F	5815' FNL & 6992' FEL			210'
G	5815' FNL & 6992' FEL			210'
H	5815' FNL & 6992' FEL			210'
I	5815' FNL & 6992' FEL			210'
J	5815' FNL & 6992' FEL			210'

PROPOSED PLATFORM "B" LOCATIONS

A	6250' FNL & 2100' FWL			230'
B	6250' FNL & 2100' FWL			230'
C	6250' FNL & 2100' FWL			230'

PROPOSED PLATFORM "C" LOCATIONS

A	4500' FSL & 500' FEL			230'
B	4500' FSL & 500' FEL			230'
C	4500' FSL & 500' FEL			230'

2. SHALLOW HAZARDS DISCUSSION AND CERTIFICATION

Surface locations were cleared under the Plan of Exploration and Development Operations Coordination Document previously submitted by Aminoil USA. Phillips Petroleum Company hereby certifies that all locations are free from any known shallow hazards. Additionally, it is further believed that drilling or construction activities at this location will not impact historic or pre-historic cultural resources.

3. PROPOSED TIMETABLE

Commencement of drilling activities are planned for October 1, 1988. While there are a total of sixteen well locations, not all wells may be drilled as proposed. Drilling activity will be based on the results of the first well as well as subsequent wells. It is anticipated to require forty-five (45) days to drill each well. The wells may not be drilled consecutively with one or more wells being drilled, completed and placed on production before additional wells are drilled.

4. MULTI-SENSOR SURVEY

This document was previously submitted with the initial Plan of Exploration and is therefore omitted from this submittal.

5. TRANSPORTATION OF OIL AND GAS

Flowlines would be layed from the proposed platforms "B" and "C" back to "A" Platform. Additional gas sales lines would not be required.

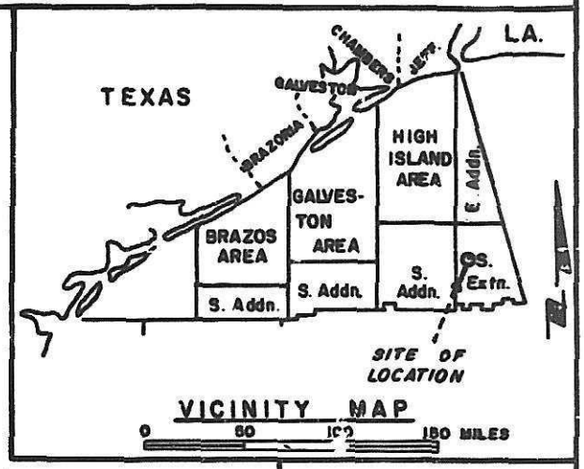
6. FACILITIES

Two four (4) pile production platforms may be installed with flowlines back to the "A" Platform. The production facilities on the "A" Platform are capable of handling up to 75 MMCFGPD, 1000 BCPD, and 3000 BWPD. An application would be submitted for any revisions that may be necessary to the production equipment.

7. PRODUCTION RATES

Gas	75 MMCFGPD (Anticipated peak)
Condensate	000 BPD
Water	000 BWPD

Production rates may vary according to each well completion. These rates illustrated are anticipated peak production rates. The anticipated life of the field is fifteen (15) years.



A-304

9.7 MILES TO SHORE

A

B

318

BLK. A-317

A-316

C

A-322

VICINITY PLAT

0 3000 6000 FT.

SCALE

PROPOSED MINERAL DEVELOPMENT

HIGH ISLAND AREA EAST ADD. SOUTH EXT.

GULF OF MEXICO

APPLICATION BY PHILLIPS PETROLEUM COMPANY
AUGUST 22, 1988 LAFAYETTE, LOUISIANA

A-304

A-318

A-316

A

B

C

BLK. A-317

PHILLIPS
OCS-G-2412

PROPOSED LOCATIONS

A SURF	5815' FNL	6992' FEL
B SURF	6250' FNL	2100' FWL
C SURF	4500' FSL	500' FEL

A-322

PUBLIC INFORMATION PLAT

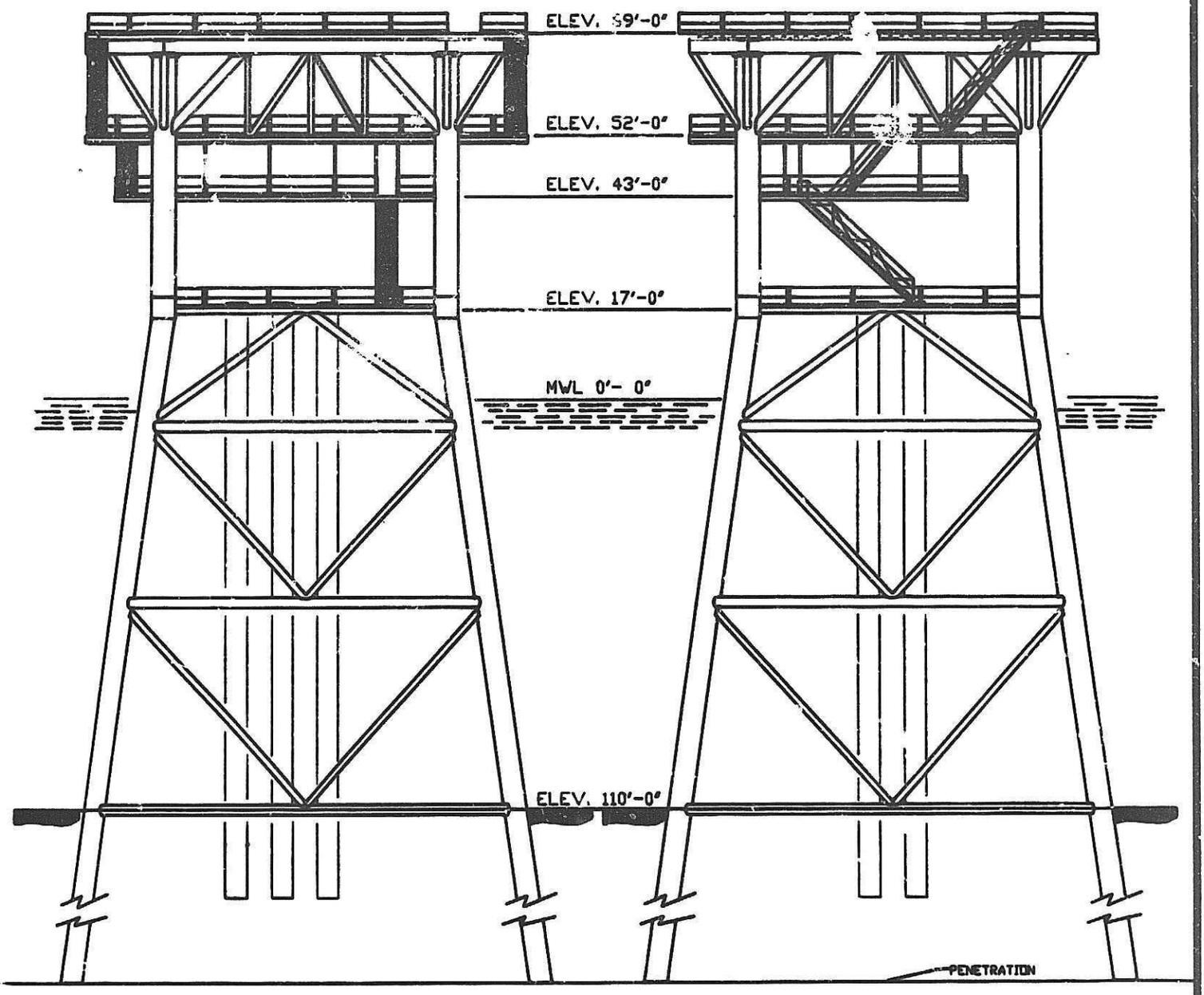
PHILLIPS PETROLEUM COMPANY

SUPPLEMENTAL DOCD
PROPOSED LOCATIONS

HIGH ISLAND AREA-EAST ADD.
SOUTH EXTENSION

SCALE: 1" = 2000' 8/22/88

Prepared By,
John E. Chance & Associates, Inc.



ELEVATION

FOR BIDS		PHILLIPS PETROLEUM COMPANY LAFAYETTE, LOUISIANA	AFE NO. / FILE CODE
FOR APPR			SCALE: NONE UNLESS OTHERWISE NOTED
FOR CONST		4 PILE DRILLING PLATFORM HIGH ISLAND-A BLOCK 317 "A" PROPOSED PLATFORMS "B" & "C" LEASE OCS-G 2412	DWG NO. LRL-H04
DRAWN F.SAM	08/25/88		SH NO. 1 of 1
CHECKED			
APP'D			

ATTACHMENT II [A]

EQUIPMENT LIST

SONAT D-F 84

DESCRIPTION: Mat-supported, Three Legged Jack-up

BUILDER: Dorman Long Vanderbijl Corporation, Durban, S. Africa

CLASSIFICATION: Self Elevating Mobile Drilling Unit +A-1

WATER DEPTH CAPABILITIES:

Maximum Non-hurricane Season	250'
Required Air Gap	25'
Maximum Hurricane Season	203'
Required Air Gap	42'
Minimum Operating Water Depth	24'

DRILLING DEPTH: 20,000'

DIMENSIONS

Length overall	166'
Width overall	109'
Depth of hull	16'
Number of legs	3
Length of legs	312'
Height of spud cans (footings)	N/A
Diameter of Spud Cans (footings)	N/A
Cantilever (from transom to maximum drilling position)	N/A
Standard Drilling Position	
Mat Overall Length	210'
Mat Overall Width	170'
Mat Depth	10' + (2' Scour (Skirt)
Caisson	No. N/A
	Diameter N/A

Columns		No. 3 Diameter 12' x 312'
Scour Skirt Depth		2'
Drilling Slot Dimensions		
Platform		Mat
Length	48'	Length 87'
Width	50'	Width 90'

Maximum length of leg and spud cans/mat available below drilling unit for bottom penetration, air gap and water depth 250'

Minimum draft (Light ship load including minimum draft of spud cans/mat.)	21' Including Mat
Bottom of barge to top of jack house	38'
Helideck Dimensions	60' x 70'
Maximum Helicopter Size & Type	Sikorsky S-61

TOWING

Minimum Towing Draft	21' - 0"

VARIABLE DECK LOAD

Drilling	4,400,000 lbs.
Transit	2,479,000 lbs.
Survival	3,380,000 lbs.
Jacking	2,350,000 lbs.

CAPACITIES:

Drill Water		4,484	bbls.
Potable Water		894	bbls.
Diesel Fuel		1,796	bbls.
Bulk Mud	2,880	cu ft.	
Bulk Cement	3,150	cu ft.	
Liquid Mud	1,500	bbls.	
Sack Storage		3,000	sacks
Pipe rack	No.	4	Dimension 26' x 40'
Load Capacity		350	lbs. per sq. ft.
Casing Storage		945	sq. ft.
Load Capacity		400	lbs per sq. ft.

Fork Lift: Make and Model

Distillation Units

Type: (2) Aqua-Chem S400-Spec-E

Capacity: 400 GPH Each

Sewage Treatment Unit:

Type: RF-4500-C-CRPX-S

Capacity: 4500 GPD

Quarters:

1. Operational:	54	Men
2. Hospital:	2	Beds
3. Number of Offices:	2	

Cranes

1. No.	Type	Capacity	Boom Length
1	PCM-120-AS	50 Tons @ 24'	100'
1	PCM-120-AS	30 Tons @ 24'	100'

2. Slings and bridles for loading or offloading cargo:

Yes X No

COMMUNICATIONS

To Ship/Shore: No. 1 Type VHS
1 SSB
1 FM

Intercom: Describe - Gai-Tronics page-party line system for voice communications between two or more locations.

MAIN POWER

Diesel Engines - Number: 4
Manufacturer: Caterpillar
Model No: D-399
Output HP Each: 1165 at 1200 RPM

Generators - Number: (AC) 4 (DC)
Manufacturer: General Electric
Output KW: 930 KW

Emergency Generator-
Manufacturer: General Electric
Type: AC
Output: 250 KW

DERRICK AND SUBSTRUCTURE

DERRICK:

Make: Skytop Dynamic Derrick

Gross Nominal Capacity: 1,333,00? lbs.

Dimensions: 147'

Height of rig floor wind break 10 feet.

Static hookload capacity with 12 lines is 1,000,000 lbs.

SUBSTRUCTURE

Make: Dorman Long (Bethlehem)

Longitudinal Movement: From maximum stowed position-66'

Transverse Movement: 15'

Floor Width: 30'

Length: 30'

Height from cellar deck to underside of rotary beams: ft.

Height from cellar deck to rotary kelly bushing: ft.

Maximum pipe setback capacity 500,000 lbs.

Maximum rotary table supporting capacity irrespective of setback load 750,000 lbs.

Wind break on substructure: Yes or No

HOISTING AND ROTARY EQUIPMENT

Drawworks:

Manufacturer: National
Model: 1320 UE
HP: 1600
Powered By: (2) General Electric 752 Motors
Load Rating: 750,000 lbs.

Sand Reel: N/A feet.

Auxiliary Brake: Model Dreadech 1025

Rotary Table:

Manufacturer: National
Model: C-375
Max. Bore: 37-1/2 inches.
Driven By: No: (1)
Model: G.E. 752 Motor
HP: 750
Rotary Bushing: Varco (Split)
Master Bushing: Varco 6600

Crown Block:

Manufacturer: National
Model: 750-F
Rated At: 500 Tons.
Sheaves: No. 7
Diameter 50 inches.
Drill Line: 1-3/8 inches.
EIPS grade.

Hook:

Manufacturer: National
Model: 650G500
Rated at: 500 Tons

Traveling Block:

Manufacturer: National
Model: 650G500
Rated At: 500 Tons.

Sheaves: No. 6
Diameter 50 inches.

Swivel:

Manufacturer: National
Model: P-500
Rated At: 500 Tons.

Crown-O-Matic:

Stewart & Stevenson Model 750 F

KELLY:

No: 1
Make: Drilco
Size: 5-1/4 inches by 54 feet.

Upper Kelly Valve: No. (1)
Make: Omsco KV-675
PSI Test: 10,000 lbs.

Lower Kelly Valve: No: (2)
Make: Omsco LK-675
PSI Test: 10,000 lbs.

Kelly Spinner:

Make: Varco
Model: 6500

DRILL STRING AND TOOLS

Drill Pipe

	Grade E	Grade G	H.W.
Size:	5 OD ID	5 OD ID	5 OD ID
Length of String	3,915 ft.	16,020 ft.	793 ft.
Nominal Weight	lb/ft.	lb/ft.	lb/ft.
Range	3	3	2
Connection			
Type of Hardbanding			

Drill Collars

Size	6-1/4 OD 2-13/16 ID	8 OD 2-13/16 ID
Number	9	12
Connection	4-1/2 XH	6-5/8 Reg.

Drill Pipe Spinners Type: Varco SSW-10
Size: 4-1/2 to 5"

MUD SYSTEM

Mud Pumps

	Make & Model	H.P.	Powered By
No. 1	National 12-P-160	1600	2 GE 752 Motors
No. 2	National 12-P-160	1600	2 GE 752 Motors

Centrifugal Mixing Mud Pumps: No: 3
Size: 6 x 8 1400 GPM
PSI:
Each Powered By: No: 1 / 75 H.P. Motors

Pulsation Dampner: Size: 120 c.f. cap charge
Type: Continental Emsco PD-S

Active Pit Capacity

Tank 1	550 bbls.
Tank 2	318 bbls.
Tank 3	472 bbls.
Tank 4	
Total	1,340 bbls. bbls.

Reserve Pit Capacity

Tank 1
Tank 2

Slugging Pit Capacity 30 bbls.
Sump Tank Capacity 80 bbls.

Trip Tank: Size: 50 bbls.
Pump Size: 3 x 4

Barite Hopper
No. 1
Capacity:

Chemical Hopper
No. 2
Capacity:

Barite Surge Tank
Capacity: 40 Sacks

Pit Agitators
No. 3
Location: 1, 2, & 3 Mud Pits
Powered by: 30 H.P. motors.

Mud Guns:
Number 8
Location 1, 2 & 3 Mud Pits
Powered By: 75 H.P. motors.

Shale Shaker
Make: (2) Milchem High Speed
Model RVS 64
Powered by: (2) 5 HP Electric Motors

Mud Cleaner:
Make: [illegible]rick
Model: [illegible]ual Flo Line
Powered by: Electric Vibrator
Cones No: N/A
Diameter: N/A inches.
GPM: N/A

Degasser:
Make: Welco
Model: 5200 Venturi
Powered By: 75 HP Electric Motor on 6x8 Centrifugal Pump

Desander: Make: Demco
Model: 86 V
Powered By: 75 HP Electric Motor on 6x8 Centrifugal Pump
6 Cones, 8 " Diameter, 900-1000 GPM

Desilter: Make: Demco
Model: 414H
Powered By: 75 HP Electric Motor on 6x8 Centrifual Pump
14 Cones, 4 " Diameter, 1120 - 1200 GPM

Mud Cleaner: Make:
Model:
Powered by:
Cones No:
Diameter inches.
GPM

Mud Gas Separator: On Rig - Dorman Long Drawing #450

PVT & Flo Sho: Description and Location of Readouts: WACO (Rented) Rig Floor and Toolpusher Office

Gas Detector: Location: Rig Floor

Standpipe: Size: 5 inches.
PSI WP 5,000

Rotary Hose: No. 2
Size 3-1/2 inch bore.
PSI Test 10,000
PSI W.P. 6,500

BLOWOUT PREVENTER & CONTROL EQUIPMENT

H_2S	Nominal Size	Bore ID	Series or Working Pressure	Make and Type	Connection
Yes	13-5/8"	13-5/8"	10,000 psi	Cameron Type U	Camlock Double
Yes	13-5/8"	13-5/8"	10,000 psi	Cameron Type U	Camlock Single
Yes	13-5/8"	13-5/8"	5,000 psi	Hydril GK Annular	Camlock

Control Stations - Rig Floor 1 Remote 1

Inside Preventers - Make: Flocon

Diverter System: Regan KFL-3, Nominal 30", bore 28", 1000 psi WP

Preventer Handling System:

Choke Manifold: 10,000 psi with two Cameron chokes

Accumulator:
Make: Cameron-Payne
Model: C-175-2-20
Gallons: 210
No. of Functions: 10
Precharge Pressure: 1100 psi.
Final Pressure: 3000 psi.

Is there an independent back up system capable of closing all preventers?
Yes

RIG INSTRUMENTATION

Drilling Console Recorder	Equipped with YES	NO
Weight Indicator	X	
Rate of Penetration Indicator	X	
Drill String Torque Indicator	X	
Rotary RPM Indicator	X	
Pump Stroke Speed Indicator	X	
Pump Pressure Indicator	X	
Pit Level Indicator	X	
Mud Return Line Flow Indicator	X	
Automatic Driller		X
Make-up Torque Indicator	X	

Reel and Measuring Line for Surveys

Size:	.092
Length:	20,000'
Depth Rating:	20,000'

HANDLING EQUIPMENT

Tongs Type:	BJ Type "DB"
Accessories:	
Type:	
Accessories:	
Elevators Type:	Web-Wilson
Capacity:	350 Tons
Accessories:	BJ Type GG
	250 Tons
Slips:	Varco

Miscellaneous Handling Tools

AUXILIARY EQUIPMENT

Cementing Unit Co: Dowell Schlumberger
Type:
Power Source:

Air Taggers

Number:	4	2
Type:	I.R.	I.R.
Size:	HU 40	K 6U
Location:	Substructure	Rig Floor

Welding Machines
No: 4
Type: DC Lincoln & Westinghouse

Air Compressors
No: 2
Type: Ingersall Rand PA100
Power Source: 100 HP Electric Motor
Total Rated Capacity: 418 each cfm at 115 psi.

Bulk Air Compressors
Type:

cfm at psi.

Air Dryer System
Ingersall Rand - Model 50T750

SAFETY

Fire Extingu

Type:		B	C	C	A
Size:	.1	V	I	II	II

Escape Capsules

Number	2
Make	Whittaker 5400
Capacity	54 Men Each

Inflatable Life Rafts

Make:	Dunlap and BF Goodrich
Number:	2
Capacity:	25 Men Each

Life Jackets

Make:	Safeguard Corporation
Type:	I
Number:	86

Fire Detection System & Location

Describe: Neal International - Upper Quarters Hall, Sack Storage Room, SCR Room, and Storeroom, Starboard Aft, UL Approved Smoke Alarms in all sleeping rooms

Ring Buoys: No. 8

Work Vests: No. 21

OIL SPILL CONTINGENCY PLAN BRIEF

Pursuant to MMS OCS Order No. 7 (Pollution Control and Waste Disposal), Phillips Petroleum Company has an approved Oil Spill Contingency Plan on file with the MMS. This Plan provides specific information for notificatrion and action procedures in the event a spill situation occurs in the Gulf of Mexico.

Action and notification procedures are specified in the Plan for varying degrees of response depending on the size and nature of the spill. Notification and reporting procedures include state and federal agency requirments and emergency notification telephone numbers. Action procedures are specified to include responsibility, spill containment and cleanup, equipment and material, operating personnel, communication, and Offshore Oil Spill Task Force.

Phillips Petroleum Company (Phillips) is a member of the CLEAN GULF ASSOCIATES, hereafter referred to as CGA. By reference, the CGA Operations Manual is incorporated into and made a part of Phillips Offshore Oil Spill Contingency Plan. Equipment stored and maintained by CGA is available should the need arise. In an emergency situation, Phillips will call for as much assistance and additional equipment as necessary from a number of contractors who are located on the Gulf Coast that specialize in oil spill containment and cleanup. These contractors, with capabilities to include manpower, equipment, and material, are listed in the Contingency Plan.

CGA equipment located at Grand Isle, Intracoastal City, Cameron, and Houma, Louisiana, can be utilized and deployed from the CGA base or the Phillips onshore support base located at Grand Cheniere or Fourchon Docks, Louisiana. A Fast Response Open Sea Skimmer System will be used as a primary spill containment and cleanup equipment and is located at the locations described hereinabove. This is a portable system designed for boat mounting. It consists in part of a floating oil boom, skimmer, outrigger, pump and storage tanks. The system is designed to provide equipment capable of fast response to emergency spill situations. Allowing 2 hours for loadout and 10 hours cruising at at 10 knots results in a general capability of being 100 miles offshore 12 hours after notification of a spill. Maximum recovery with the system is 360 barrels of fluid. Trained operating personnel for the fast response skimmer and other CGA equipment will be obtained by the contractor.

==========

Drilling Mud Components That May Be Utilized Offshore

Product Trade Name	Common Name	Chemical Trade Name
I. Weight Materials and Viscosifiers		
MIL-BAR®	barite	barium sulfate
MILGEL®	bentonite	bentonite
SALT WATER GEL®	attapulgite	attapulgite clay
FLOSAL®	asbestos fiber	chrysotile asbestos
II. Dispersants (Thinners)		
[illegible]®	lignosulfonate	sodium lignosulfonate
[illegible]	modified tannin	quebracho ethylated tannin + sodium di chromate
III. Filtration Control Additives		
LIGCON®	causticized lignite	NaOH treated lignite
[illegible]®	polymer-treated lignite	polymer-treated lignite
DRISCOSE®	CMC	sodium carboxy methyl cellulose
DRISPAC®	PAC	polyanionic cellulose derivative
IV. Chemicals		
Caustic Soda	caustic	sodium hydroxide
Soda Ash	soda ash	sodium carbonate
Bicarb of Soda	bicarb	sodium bicarbonate
MIL-LIME®	lime	calcium hydroxide
V. Specialty Additives		
L[illegible]®	defoamer	non-hydrocarbon defoamer
Aluminum Stearate	defoamer	aluminum stearate
[illegible]®	oxygen scavenger	catalyzed, sodium sulfi
[illegible]®	oxygen scavenger	catalyzed ammonium bisulfite solution

Product Trade Name	Common Name	Chemical Trade Name
LUBRI-SAL®	lubricant	Biodegradable, non-pollut: vegetable oil
SUPER SHALE-TROL®202	Shale-Trol	Aluminum organic acid comp
MILCHEM®MD	drilling detergent	drilling fluid detergent
SOLTEX®	shale control additive	modified hydrocarbon (non polluting)

VI. Loss of Circulation Additives

MIL-PLUG®	LCM	ground [illegible] shells
MILMICA®	LCM	flake mica
KWIK-SEAL	LCM	combination of granules, flakes, and fibers
DIACRAL-F®	high water loss lost circulation squeeze mtl.	non-hazardous diatomite blend

T Y P I C A L
SEISMIC EQUIPMENT DATA SHEET

Equipment that may be used when performing additional seismic surveys on this lease/block.

BOAT INFORMATION

Crew Type	Marine-Streamer
Boat Length	115 to 135'
Boat Width	25 to 30'
Loaded Draft	10'
No. of Generators	2
Size of Generators	60 Kilowatts
Type of Radios	Single Side Band VHF and CB
Number of Bunks	22 to 24
Radar	Decca (usually two)
Gyro	Sperry
Auto-Pilot	Sperry
Fathometers	Raytheon or Sinmad
Navigation	Loran C or Radist with a Western Sat. Rcvr for Lane Count

CABLE INFORMATION

Mfg and Type	Western Streamer
Length	10560' + 2 - 220' Elastic Sections + Leadin
Number of Groups	48
Group Interval	220'
Group Array	210'
Sensitivity	[illegible] mv/microbar
Number of Hydrophones	26 per Group
Number of Depth Control Devices	10
Type of Depth Control Devices	Condep
Number of Depth Detectors	6
Towing Depth	30 - 35'

RECORDING SYSTEM

Type	Digital Data Systems
Number of Amplifiers	48 Data channels, 6-12 aux.
Type of Amplifiers	Binary Gain or Floating Point.
Normal Recording Filters	Lo-cut-out, High cut 125 Hz.
Format	Seg-A or Seg-C
Sample Rate	2 Milliseconds
Record Length	6 Second

ENERGY SOURCE

Type	Aquapulse (sleeve exploder using oxy. and propane)
Number of Guns	6
Towing Depth	25 to 30'
No. of shots per group interval	2

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Phillips Petroleum Company
High Island Block A-317

PROJECTED EMISSIONS FOR DEVELOPMENT OPERATIONS COORDINATION DOCUMENT PURSUANT TO 30 CFR 250.57 AIR QUALITY REGULATIONS

I. General Information

Operation Description: Development/Production
Owner/Operator: Phillips Petroleum Company
Address:P.O. Box 51107, Lafayette,LA. 70505-1107
Contact Person: Louis Hoover, Supervisor Engineering Administration
Location of Project: High Island Block A-317 (OCS-2412)

Operations Schedule

Drilling	Production
Begin: October 1, 1988	Begin: January 1, 1989
End: March 1, 1990	End: Continuous

Distance to Shoreline (mean high water line): 98 Statute Miles

II. Synopsis

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

III. Projected Emissions

Rig/Platform Projected Emissions

Block A-317	1988* Total Block	1989 Total Block	1990 Total Block	1991** Total Block	Exempt. Rate	Status
Pollutant (tons/yr)						
CO	4.09	69.83	59.23	55.34	72270.8	Exempt
SO2	1.30	13.47	9.48	8.27	3263.4	Exempt
NOx	24.13	295.69	221.16	198.31	3263.4	Exempt
VOC	0.97	23.57	20.77	19.85	3263.4	Exempt
TSP	0.02	7.03	7.05	7.03	3263.4	Exempt

* Based on 90 day period
** Based on yearly production for life of field

Service Base Projected Emissions				
	Year			
Block A-317	1988*	1989	1990	1991**
Pollutant (tons/yr)				
CO	1.25	5.35	3.61	2.36
SO2	0.51	2.08	0.58	0.07
NOx	5.23	22.88	7.39	2.16
VOC	0.33	1.41	0.62	0.29
TSP	0.02	0.09	0.11	0.09

* Based on 90 day period
** Based on yearly production for life of field

IV. Exemption Formula

The projected emissions from operations are to be compared with "exemption rules" for the facility location. If the amount of these projected emissions is less than or equal to the emissions amount "E" for the air pollutant, the facility is exempt for that air pollutant from further air quality review.

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 EXP 2/3
For TSP, SO2, NOx, VOC: E=33.3D
D= distance of the facility in statute miles from the closest onshore area

Based upon these exemption formulas, the following emission rates were computed for High Island Block A-317. The distance from the nearest onshore area is 98 statute miles.

Pollutant	Exemption Rate (tons/year)
CO	7220.8
SO2	3263.4
NOx	3263.4
VOC	3263.4
TSP	3263.4

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

1. EPA-450/3-77-026 June 1977 - "Atmospheric Emissions from Offshore Oil and Gas Development and Production" pp.81-92

2. EPA Report AP-42 "Compilation of Air Pollutant Emission Factors", 3rd Edition (August, 1977) pp. 116,125,127.

EXHIBIT A

Emission Factors Used in Calculations

Emission Factors for Drilling

Pollutant	lb/hp-hr
CO	.0042
SO2	.0019
NOx	.028
VOC	.00095
TSP	*

*Not available from EPA publication

Emission Factors in Transportation Modes

Pollutant	Helicopters (lb/engine LTO cycle)	Boats (lb/gal)
CO	5.7	.0598
SO2	.18	*
NOx	.57	.4196
VOC	.52	.0226
TSP	.25	*

*Not available from EPA publication

Emission Factors for Production

Pollutant	lb/hp-hr
CO	.00084
SO2	.00013
NOX	.00311
VOC	.00031
TSP	.00011

EXHIBIT B

Miscellaneous Information

Drilling:
Total Well Footage to be Drilled - 134,725 ft.
Period - 550 days

Supply Boats:
3000 Hp
4 hours waiting time: 2/wk drilling 0/wk production
Base: Grand Chenier, Louisiana

Crew Boats:
2500 Hp
1 Hour Waiting Time: 1/wk drilling 1/wk production
Base: Grand Chenier, Louisiana

Helicopters:
2 Engines
1 Trip Per Day: 7/wk drilling 7/wk production
Base: Grand Chenier, Louisiana

ENVIRONMENTAL REPORT
FOR COASTAL ZONE MANAGEMENT
CONSISTENCY DETERMINATION

DEVELOPMENT OPERATIONS COORDINATION DOCUMENT/SUPPLEMENTAL ENVIRONMENTAL REPORT
HIGH ISLAND BLOCK A-317
PHILLIPS PETROLEUM COMPANY
LAFAYETTE, LOUISIANA

CONTACT PERSON:
MR. LOUIS HOOVER, III
SUPERVISOR ENGINEERING ADMINISTRATION
P.O. BOX 51107
LAFAYETTE, LOUISIANA 70505-1107
(318-261-4137)

AUGUST 28, 1988

Prepared by:
ENVIROMETRICS GEO-SERVICES
210 St. Nicholas St.
Lafayette, Louisiana 70506
(318) 984-5761

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LIST OF MAPS

I. DESCRIPTION OF THE PROPOSED ACTIVITY

The Phillips Petroleum Company proposes to drill sixteen (16) development wells in High Island Block A-317. The approximate location of these activities is ninety eight (98) statute miles off the Louisiana Coast near Camero Parish. (See Map # 1)

The wells will be drilled in three separate clusters; each cluster of wells will be drilled from three separate surface locations in the Block. In order to indicate the surface locations of the proposed drilling, the well clusters are named A, B, and C. At surface location A the individual wells are named AA-AJ. Surface location B wells are named BA-BC and surface location C wells are named CA-CC. It is highly possible that some of the wells indicated will not be drilled. The surface locations are indicated below.

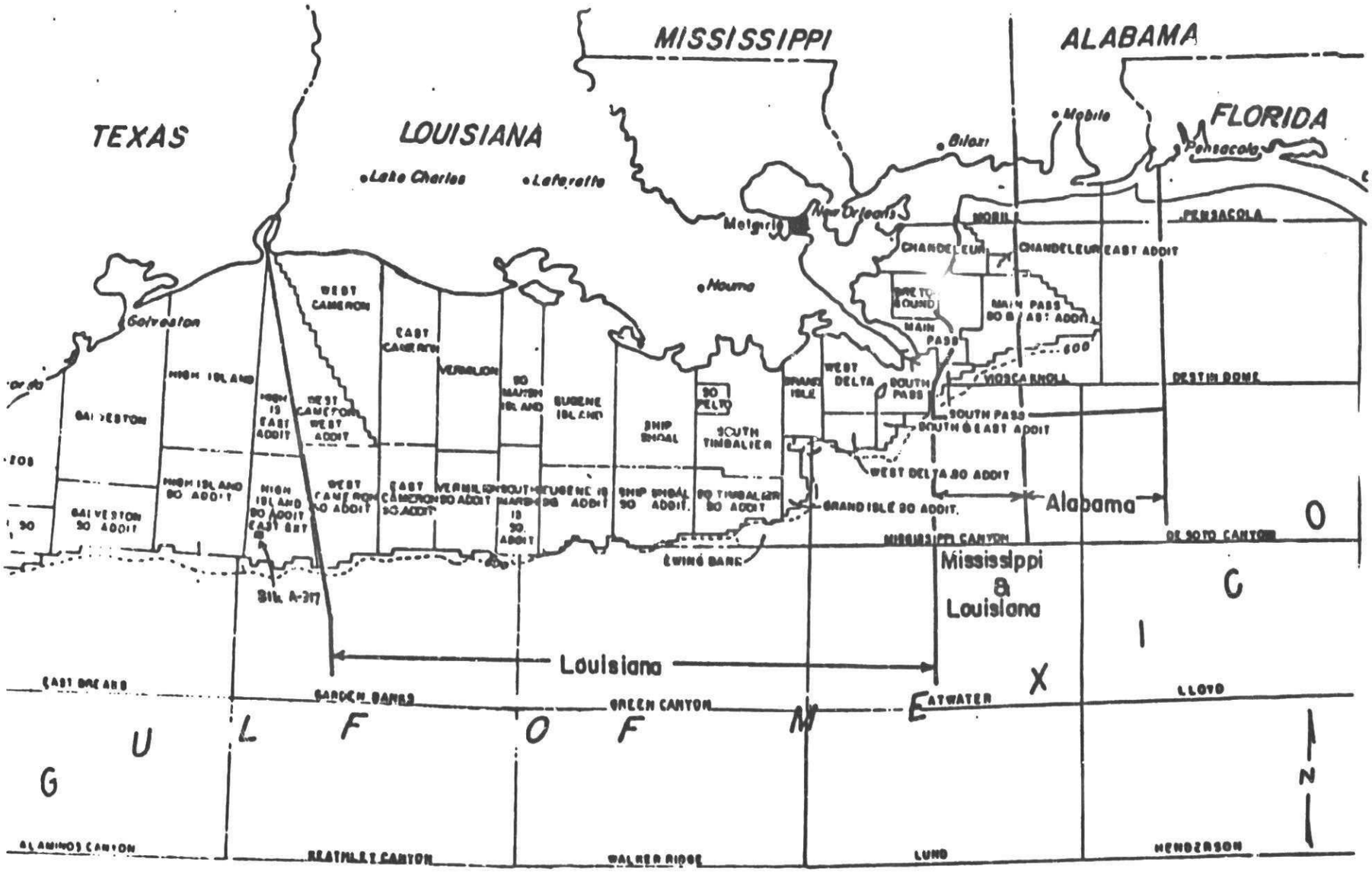
Well Site (see Map # 2) Block A-317	Surface Location	Depth
AA	5815'FNL & 6992' FEL	6075' TMD
AB	5815'FNL & 6992' FEL	13139' TMD
AC	5815'FNL & 6992' FEL	8710' TMD
AD	5815'FNL & 6992' FEL	9400' TMD
AE	5815'FNL & 6992' FEL	10440' TMD
AF	5815'FNL & 6992' FEL	8094' TMD
AG	5815'FNL & 6992' FEL	9791' TMD
AH	5815'FNL & 6992' FEL	8094' TMD
AI	5815'FNL & 6992' FEL	8094' TMD
AJ	5815'FNL & 6992' FEL	6135' TMD
BA	6250'FNL & 2100' FWL	9800' TMD
BB	6250'FNL & 2100' FWL	9800' TMD
BA	6250'FNL & 2100' FWL	9921' TMD
CA	4500'FSL & 500' FEL	5613' TMD
CB	4500'FSL & 500' FEL	5744' TMD
CC	4500'FSL & 500' FEL	5875' TMD

The proposed activities will be carried out and completed with the guarantee of the following items:

1. The best available and safest technologies will be utilized throughout the project. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, and equipment and monitoring systems.

2. All operations will be covered by a MMS-approved oil spill contingency plan.

3. All applicable Federal, State and local requirements regarding air emission and water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.



OCS Areas Adjacent To The States of Alabama, Louisiana and Mississippi

VICINITY MAP

MAP 2

A. Transportation Modes, Routes and Support Vessels

The proposed project will utilize the Grand Chenier, Louisiana Service Base for supplies and transportation. During the drilling operation support vessels include one crew boat making one trip per week and one supply vessel making two trips per week to the rig. Aviation support will require one helicopter making seven trips per week. Following drilling, the production operations will require one helicopter making seven trips per week and one crew boat making one trip per week.

Boat traffic to the rig/platform will depart Grand Chenier southward to the entrance to the Gulf of Mexico, thence following the most direct route to High Island Block A-317. Helicopter flight routes will include FAA specified clearance and most direct VFR, IFR flight paths to the rig/platform.

B. Support Base

The Phillips Petroleum Company maintains a support facility in Grand Chenier. This facility is designed to provide shore-base operations support to the production, drilling and marine equipment operating in the Western Sector of the Gulf of Mexico. Consequently, all necessary support functions for the proposed activity will be provided by this facility.

The Phillips facility is currently manned at an adequate level to support the proposed activity. Therefore, no additional onshore employment will be generated as a result of this action.

C. New Support Facilities

It has been determined in the Plan of Development that the existing support facilities are adequate at this time to service the level of activity projected as a result of this project. Therefore, no new support facilities are required.

D. New Or Unusual Technologies

No new techniques or unusual technology will be utilized that may affect coastal waters.

E. Maps

Two maps are included in this report; Map #1 is a vicinity map showing the general location of the proposed project in relation to the affected State's coastal zone. Map #2 contains a location plat.

Place Location Plat

F.

None ↓

bon
A-3

pxc

lrocar-
Block

ed

II. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS

This section will address the effects of the proposed activity on the areas adjacent to the site and the affected State's coastal zone.

A. Physical and Environmental

1. Commercial Fishing

Louisiana r nks among the top five states in the nation with regard to the total value of its fishery. For the last several years, Louisiana has been the number one state in weight of fishery products landed.

The shrimp fishery is the most valuable fishery in Louisiana as well as the United States. The Gulf of Mexico region accounts for over half of the U.S. shrimp production. In terms of harvested weight, however, the Gulf Menhaden is by far the largest contributor to the total commercial landings in Louisiana.

The proposed project is located in the National Marine Service fishing zone 17; water depths in this block vary from approximately 60 to 70 meters. In this grid zone, Menhaden account for 90% of the total commercial landings by weight. Shrimp account for approximately 8% of the total catch. The average catch based o 1977-1981 landings for grid zone 17 is 299,068,853 pounds worth over $38 million.

The oyster landings along the Gulf region constitute approximately 15 million lbs/yr,valued at $13 million. Blue crab landings are worth $5-6 million to the regional economy.(Regional EIS,Gulf of Mexico)

The major potential impacts of the proposed activity on commercial fisheries are:

a. Loss of approximately two hectares of seafloor from use by trawlers. Installations like drilling rigs and platforms actually take up very little sea space; but to protect them, operators are permitted to establish a safety zone around them, generally one quarter nautical mile in radius.

b. Underwater obstructions such as pipelines are potential sources of hindering bottom trawling due to net hanging. Current regulations require that a pipeline be trenched to a depth of three feet in water depths of less than 200 feet. With proper backfilling, the pipeline should present no problem for trawlers; however, the dynamics of local bottom sediments and tides must be recognized for inadvertent effects.

The OCS Act Amendments provide for a Fisherman's Contingency Fund financed from oil revenues to compensate commercial fisherman for losses or damage to gear resulting from

oil industry operations.

The impacts associated with the proposed activity are considered minimal. These impacts are otherwise offset by the beneficial increase in biomass near the platform/rig. These structures serve as artificial reefs for marine communities by providing a substrate for epifauna to grow on. Pelagic fish then are attracted to these areas to feed on the attached organisms thereby resulting in greater fishery yields in these areas.

2. Shipping

The Port of Lake Charles is the nearest port to the proposed activity. Hydrocarbons, fuels, chemicals, rice and lumber are the major commodities shipped from and to Lake Charles via the Lake Charles Deep Water Channel. Vessel traffic during 1981 totaled 42,301 vessels utilizing the channel.

The nearest shipping fairway is approximately 28 miles south of the activity site. The Phillips Petroleum Company is aware of the operational restrictions in these areas and will conduct their operations in accordance with all applicable restrictions. Thus, the proposed activity is not expected to adversely affect any shipping fairway, transit or anchorage area.

3. Recreation

Many fish and shell fish sought after for commercial value are also pursued for sport in coastal Louisiana. Saltwater sport species include spotted sea trout, red drum, red snapper, Florida pompano and tarpon. The offshore permanent structures provide highly productive artificial reefs that are favorable fishing areas for saltwater sport fisherman. Additionally, these offshore structures serve as navigational aids for small boat operators and occasionally provide shelter and refuge during storms and mechanical breakdowns. Thus, the implementation of this project is not expected to produce any adverse impacts on [illegible]t fishing and pleasure boating; in fact, recreational pc [illegible]al will be slightly increased due to this action.

4. Cultural Resources

An underwater archeological survey was not required due to the project site being located seaward of the high probability line for cultural resources. Visual #4 for EIS Lease Sale 62 and 62A indicates that there are no shipwrecks located in Block A-317. No other cultural resources were determined as a result of this analyis.

The Phillips Petroleum Company is aware of operational restrictions with regard to cultural or archeological resource protection. Consequently, the activities associated with this project are not expected to produce any adverse impacts on these resources.

5. Ecologically Sensitive Features

The proposed project is located approximately 98 miles from the Cameron Parish coast. This coastal area is characterized by numerous acres of marsh which provide habitat for a variety of wildlife and also serve as primary nursery grounds for fish and shellfish.

The Rockefeller Wildlife Refuge, an 84,000 acre wildlife area, is approximately 117 miles northeast of the proposed site. This refuge serves many conservation and preservation functions in wildlife management. Duck and geese concentrations occur in and around the Refuge. Of special importance is the resident population of about 2,000 Canadian Geese whose decline in this area is due to changes in migratory patterns (Louisiana State Planning Office 1977).

The nearest recreational beach, Holly Beach, is approximately 100 miles northeast of the proposed activity.

The proposed project will not generate any new or expanded onshore facilities, therefore no adverse impacts on the coastal environment, Rockefeller Wildlife Refuge or the recreational potential of the coastal beaches is expected as a result of this action.

There are no known ecologically sensitive areas or areas of particular concern in or near High Island Block A-317 which would be adversely or otherwise affected by the proposed action.

6. Existing Pipelines and Cables

A pipeline crosses the eastern section of Block A-317. Other minor pipelines are also present that tie-in the existing wells near the project site. Thus, Phillips Petroleum Company is aware of the pipeline locations and will conduct their operations without any adverse effects on these existing structures.

There are no known cables in Block A-317 which would obstruct or hinder the proposed project.

7. Other Mineral Uses

There are no known plans to produce other minerals

other than those hydrocarbons associated with the proposed activity in High Island Block A-317.

8. Ocean Dumping Grounds

Ocean dumping is prohibited in High Island Block A-317. The nearest E.P.A. approved ocean dumping site is approximately 75 miles south of the activity site (USDI, Regional Env. Imp. Stmt. Visual #5).

The Phillips Petroleum Company will dispose of drill cuttings, sanitary and domestic waste in accordance with their NPDES permit. Following drilling approximately 1000 bbls of water based muds will be disposed of at the project site.

9. Endangered or Threatened Species

The proposed project, located 98 miles off the Cameron Parish, Louisiana coast, is within the range of five endangered species of whales, three endangered turtle species and two species of turtles classified as threatened.

a. Whales (Endangered)

-Sei whale (Balaenoptera borealis) This species is a possible winter resident of the Gulf of Mexico.

-Fin whale (Balaenoptera physalus) This species is a possible winter resident of the Gulf of Mexico.

-Blue whale (Balaenoptera musculus) This species is uncommon to the Gulf of Mexico.

-Humpback whale (Megaptera novaeangliae) This species is a possible winter resident of the Gulf of Mexico.

-Sperm whale (Physeter catodon) The most common of the endangered whales to occur in the Gulf of Mexico.

Migratory patterns of the whales listed above are not directly known. It is presumed, however, that these species occur mainly in the deeper waters of the Gulf of Mexico. Therefore, the proposed project is not expected to adversely affect whale populations or migratory patterns.

b. Turtles (Endangered and Threatened)

-Kemps Atlantic ridley (Lepidochelys kempii) The shrimping grounds of the northern Gulf of Mexico is a primary feeding area for this endangered species.

-Hawksbill turtle (Eretmochelys imbricata) An endangered species that may occur in the coastal waters of Louisiana.

-Leatherback turtle (Dermochelys coriacea) The range of this endangered species is usually the deeper waters of the Gulf of Mexico; however, observations have been made of large numbers of leatherbacks feeding on jellyfish in inshore waters during summer (USDI, EIS, OCS Sale 58A, pg. 62)

-Green turtle (Chelonia mydas) and the Loggerhead turtle (Caretta caretta) are listed as threatened and occur in the Gulf of Mexico waters.

c. Onshore Species (Endangered and Threatened)

-American alligator (Alligator mississippiensis) This species currently classified as Threatened due to "Similarity of Appearance" on the federal list of endangered species in the coastal areas of Louisiana. Subsequently, twelve parishes currently are allowed to permit regulated harvests of alligators in their respective parishes; Cameron Parish is one of these. State laws govern the harvests and allow the taking of alligator hides and meat during harvest seasons.

The American Alligator is the only species currently on the federal list of endangered or threatened species that is commonly found in the coastal areas near the project.

-Red Wolf (Canis rufus) Meager numbers of this species are present in parts of southwestern Louisiana (Cameron and Calcasieu Parishes) and extreme southeastern Texas (Lowery, 1974).

The proposed project does not require any additional onshore facilities; therefore, there are no expected impacts on the habitat of these onshore endangered or threatened species as a result of this action.

B. Socio-economic: Not applicable at this time.

III. UNAVOIDABLE ADVERSE IMPACTS

The environmental consequences of the proposed project are expected to be minimal. Most impacts identified will be of a temporary nature and will occur in the immediate vicinity of the operation. Therefore, no long term effect on the environment is expected.

Unavoidable adverse impacts include:

a. An increase in air pollutants is a result of power generation during drilling and transportation modes. However, an air quality review has been conducted pursuant to 30 CFR 250.57. The findings of this review indicate that the projected emissions are well below the exemption rates and pose no significant impact on the ambient air quality of the onshore environment.

b. A temporary reduction in water quality due to the disposal of drill cuttings, deck drainage and sanitary and domestic waste will occur as a result of this action. During the disposal of drill cuttings an increase in turbidity will be evident as a result of drilling fluids adhering to these particles. Since the availability of sunlight is an important factor in photosynthesis, it has been found that increased turbidity reduces photosynthesis. However, this effect will be short-term and will return to normal once the drilling phase is completed. The additional sources of water pollutants are also expected to produce minimal and short-term effects on the water quality near the rig. These pollutants are regulated by the U.S. Environmental Protection Agency's effluent guidelines (40 CFR Part 435) for oil and gas extraction. Conformance to these guidelines will be carried out throughout the project period.

c. The effects of the mud dump are expected to be minimal and occur in the immediate vicinity of the platform. Sufficient research has been conducted in determining the effects of offshore drilling mud use and the marine ecosystem to determine that offshore discharge is an environmentally acceptable method of disposal. Although drilling mud and mud components can cause acute toxicity in static bioassay test, the relatively low volumes and rapid dilution make them harmless after discharge in the marine environment; the most damaging consequence is in the burial of benthic organisms.

d. Burial of immobile benthic organisms will occur during the discharge of drill cuttings. Drill cuttings accumulate on the sea floor covering an area of approximately 150 feet in diameter; in the affected area the impact is localized and dissipates over time by currents. Mobile benthic organisms from the surrounding sea floor adjust rather rapidly to these changes and build homes on top of the cuttings. Within months the affected area is again flourishing with new benthic communities (Zingula et al, 1977). Thus, the

impacts associated with this activity will be short-term and localized. An additional consequence of the proposed activity on the benthos will occur in the construction of the pipeline tie-in. Here again the burial of immobile benthic organisms will be localized along the direct route of the tie-in. These effects are unavoidable and are expected to be minimal due to the short distance to the connecting points.

d. There will be a temporary loss of approximately five acres (2 hectares) of sea space that will be unavailable for commercial fishing. However, there are some positive externalities associated with the proposed activities that would, in the long run, benefit commercial and recreation fishing; these are:

-An increase in biomass near the rig/platform, thus, resulting in higher productivity.

-Offshore structures may serve as navigation aids and during mechanical breakdowns or inclement weather provide refuge for boat operators.

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APPENDIX
COASTAL ZONE MANAGEMENT
CONSISTENCY CERTIFICATE

COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

Development Operations Coordination Document/Supplemental

Type of Plan

High Island Block A-317

Area and Block

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

Phillips Petroleum Company

Lessee or Operator

Certifying Official

Date