OCS G 3244
N-0725

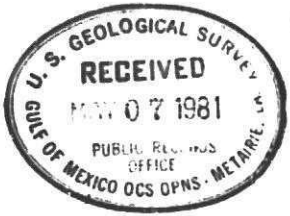
DATE 5/5/81

TO: OMS-2-2

FROM: OS-7-1

Plan of ~~Exploration~~ Development/Production, Lease OCS-G 3244
HI A-494
AMOCO PROD. CO.

Control No. N-0725.



NOTED - ALVARADO

-Plan of Development-

High Island Block A-494
OCS-G-3244
Offshore, Texas

Amoco Production Company
Lafayette, Louisiana

April 1981

250.34-2 - DEVELOPMENT & PRODUCTION PLAN

A DESCRIPTION OF THE SPECIFIC WORK TO BE PERFORMED AND ALL ACTIVITIES TO BE UNDERTAKEN UP TO AND INCLUDING THE COMMENCEMENT OF SUSTAINED PRODUCTION, TOGETHER WITH A PROPOSED SCHEDULE FOR DEVELOPMENT AND PRODUCTION ACTIVITY, INCLUDING PLAN COMMENCEMENT DATE, TIME TO COMPLETE EACH PHASE OF OPERATION, AND TOTAL TIME TO COMPLETE THE ENTIRE PLAN.

Amoco Production Company and its bidding partners acquired Lease OCS-G-3244, High Island Block A-494, in the May 1975 Federal Offshore Lease Sale at a gross cost of $1,110,000. Amoco is the operator and owns 33.3% of the lease, with Union Oil Company of California and Mobil Producing Texas & New Mexico, Inc. each owning 33.3%. Amoco Production Company was initially designated as operator of the lease and filed a Plan of Exploration on January 8, 1980. The exploration plan entailed drilling two wells.

Due to rig availability, Union Oil Company was redesignated as lease operator for purposes of drilling the No. 1 exploratory well. This well was spud on April 23, 1980.

The No. 1 well encountered hydrogen sulfide gas and was temporarily plugged

and abandoned in accordance with OCS Crder No. 3 on September 29, 1980 at a total cumulative cost of $8,703,711. The Union Well No. 1 in Lease OCS-G-3244, High Island Block A-494, was determined by the USGS on August 4, 1980 to be qualified under OCS Order No. 4 (2.2) as a well capable of producing gas in paying quantities. Accordingly, Lease OCS-G-3244 was placed in a minimum royalty status effective with the date of the determination.

Amoco Production Company has now been redesignated as lease operator. Amoco is currently initiating steps toward the design and fabrication of a 15-slot TAMPA (Tender Assisted Minimum Platform Arrangement) platform. The platform will be installed at a location 3,200' FNL and 4,200' FEL of Block A-494. Mobilization and installation should be completed by January 1, 1983. Estimated cost for design, fabrication and installation of the platform is $6,600,000. One month is the anticipated time required to move in and rig up the rig and prepare to drill.

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A DESCRIPTION OF THE DRILLING VESSEL(S), PLATFORM(S), PIPELINE(S), OR OTHER FACILITIES AND OPERATIONS LOCATED ON THE OCS WHICH ARE PROPOSED OR KNOWN BY THE LESSEE (WHETHER OR NOT OWNED OR OPERATED BY THE LESSEE) TO BE DIRECTLY RELATED TO THE PROPOSED DEVELOPMENT, INCLUDING THE LOCATION, SIZE, DESIGN, AND IMPORTANT FEATURES OF THE FACILITIES AND OPERATIONS (WITH SPECIAL ATTENTION TO SAFETY AND POLLUTION-PREVENTION AND CONTROL FEATURES INCLUDING OIL SPILL CONTAINMENT AND CLEANUP PLANS).

The High Island A-494 "A" Platform will be a 15-slot TAMPA (Tender Assisted Minimum Platform Arrangement). A TAMPA consists of a 4-pile drilling platform and a 4-pile production platform connected by a bridge (see Attachment No. 2). A drilling contract has not been finalized for a rig for the platform. It is anticipated that a minimum self-contained platform type rig similar to the Bokenkamp No. 1 will be used. The rig will be equipped with all safety and pollution prevention equipment required by the OCS Orders (see Attachment Nos. 3a, 3b and 3c).

A LOCATION MAP OF THE LEASE BLOCK(S) RELATIVE TO THE SHORELINE, INCLUDING A DESCRIPTION OF ONSHORE BASE FACILITIES, A LOCATION MAP OF ANY PROPOSED PLATFORMS INCLUDING PROJECTED BOTTOMHOLE LOCATIONS FOR ALL DIRECTIONALLY DRILLED WELLS, WATER DEPTH (BATHYMETRY), PROPOSED TRUE VERTICAL AND MEASURED DEPTHS OF EACH WELL.

Attachment No. 4a and 4b, Vicinity Maps, show the locations of Blocks A-469 and A-494 in reference to the shoreline. Operations will be conducted from Amoco's base facility in Freeport, Texas. The facility is located on the Texas Farm Road 332 East. The 5-acre facility is located on the Intercoastal Waterway in the Township of Surfside, Texas, west of the Surfside bridge. The facility is equipped with boat landing and heliport for easy access.

The water depth in the area is 215' (see Attachment No. 6, Bathymetry Map).

CURRENT INTERPRETATION OF ALL GEOLOGICAL AND GEOPHYSICAL DATA, INCLUDING STRUCTURE MAPS AND SCHEMATIC CROSS SECTIONS OF PRODUCTIVE FORMATIONS, IDENTIFICATION OF GEOLOGICAL HAZARDS AND/OR SUSPECTED ARCHAEOLOGICAL ANOMALIES RELATIVE TO PROPOSED PLATFORMS, A MAP IDENTIFYING ANY SUSPECTED ARCHAEOLOGICAL ANOMALIES RELATIVE TO PROPOSED PLATFORMS WHERE AN ARCHAEOLOGICAL SURVEY IS REQUIRED, AND A DESCRIPTION OF SURVEY EQUIPMENT UTILIZED.

NOTE: Amoco Production Company believes all geological information submitted under this section to be exempt from disclosure under the Freedom of Information Act and its implementing regulations.

Attachment No. 7 is a Subsurface Map at approximately showing the estimated top of abnormal pressure or the projected level at which protection pipe would be required. It depicts our interpretation of 0.650 psi pressure gradient which has implications as to structural relationships.

Attachment No. 8 is a Structure Map on the mapping horizon demonstrating structural relationships.

Attachment No. 9 is a Schematic Cross Section showing the geologic setting of the prospect and depicting structural relationships as determined by interpretation of proprietary data.

Attachment No. 10 is the required Shallow Hazards Report confirming that the area is free of surface faults or shallow gas accumulations.

Pursuant to the lease agreement for this tract, an archaeological survey was not required to be conducted and therefore has not be conducted. Please refcrence Attachment No. 11. Also, please reference Attachment No. 12, Anomaly Map.

Attachment No. 13 is the air quality data required by 30 CFR Part 250.57(a).

A BRIEF DESCRIPTION OF PROCEDURES, PERSONNEL AND EQUIPMENT INCLUDED IN YOUR OIL SPILL CONTINGENCY PLAN THAT ARE TO BE USED FOR PREVENTING REPORTING, AND CLEANING UP A POLLUTION SPILL, INCLUDING EQUIPMENT LOCATION AND TRAVEL AND DEPLOYMENT TIME.

In addition to those systems commonly utilized by industry to prevent pollution, Amoco is a member of Clean Gulf Associates which is a combine of companies formed to clean up oil spills if such occur. Existing oil spill cleanup equipment with beach protection and bird cleaning stations are all within a few hours call in case of a spill. This equipment is maintained on standby and in a ready state at locations such as Grand Isle, Louisiana; Houma, Louisiana; Intracoastal City, Louisiana; Cameron, Louisiana; Rockport, Texas and Galveston, Texas.

All applicable safety and pollution standards of the USGS, Coast Guard, OSHA, and EPA will be complied with. All personnel will be trained and will carry on drills and inspections to insure the proper maintenance and the ability to utilize all of the existing equipment to the fullest extent to ensure as safe an operation as possible.

A DETAILED LIST OF MUD COMPONENTS AND ADDITIVES, INCLUDING THE COMMON OR CHEMICAL TRADE NAME OF EACH.

Components of the drilling mud may include any or all of the following: barite, gel, caustic, soda, chrome lignosulfonate, lignite, sapp, aluminum stearate, soda ash, phosphate, gilsonite, surfactant (methanol), Quick Seal, and CMC. No bacteriacides will be used in the mud system. Any drilling mud, drill cuttings, sand or other solids will not be disposed of into the Gulf unless all of the free oil has been removed.

AN EXPECTED RATE OF DEVELOPMENT AND PRODUCTION AND A TIME SCHEDULE FOR THE PERFORMANCE OF ACTIVITIES FROM COMMENCEMENT TO COMPLETION OF BOTH.

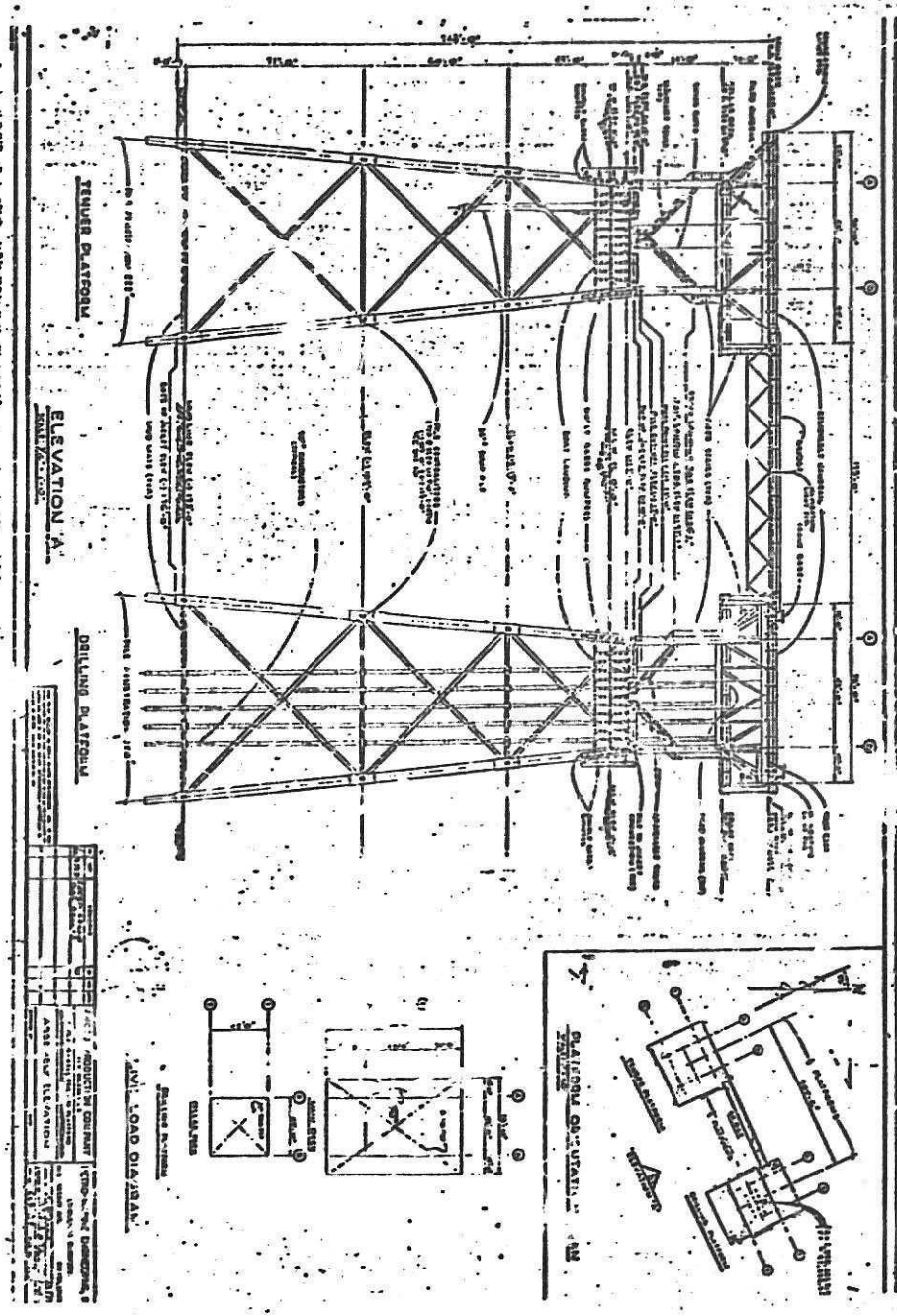
Please reference Attachment No. 14, Depletion Profile.

A DESCRIPTION OF THE SIZE, LENGTH, ROUTE, TIE-IN POINTS WITH EXISTING PIPELINE AND BURIAL DEPTH, IF APPLICABLE, OF ALL PROPOSED PIPELINES, ACCOMPANIED BY AN APPROPRIATE MAP.

Details of pipeline construction are tentative at this time; however, it is proposed to lay an 8" gas pipeline and connect the proposed HI A-494 "A" Platform and production equipment to the existing Amoco High Island A-469 "A" Platform which is connected to the Gas Pipeline System by a lateral flowline. Burial will not be required due to water depths in excess of 200 feet. Please reference Attachment No. 15, Proposed Pipeline Map.

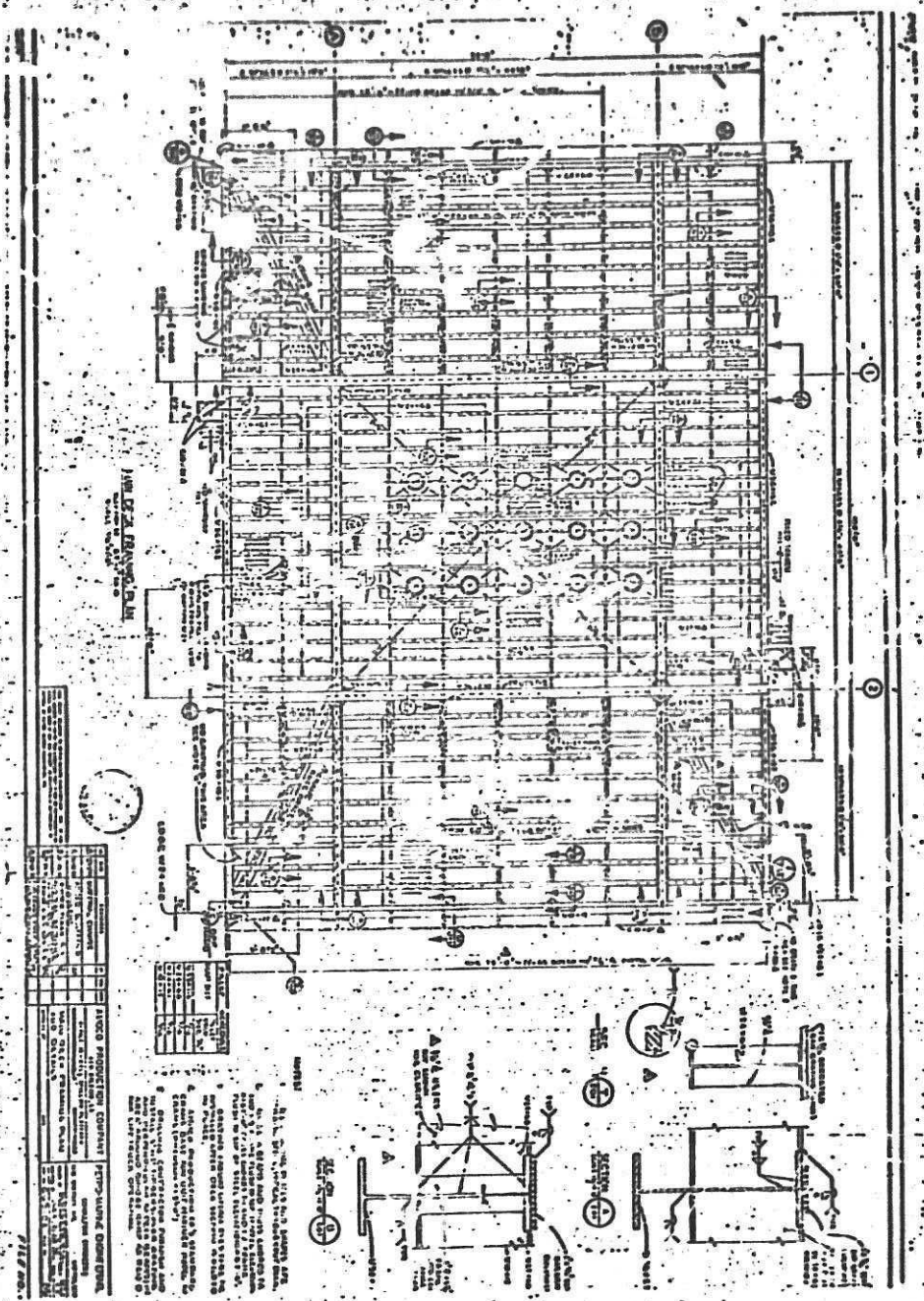
HV/jpb/1/53

4/6/81



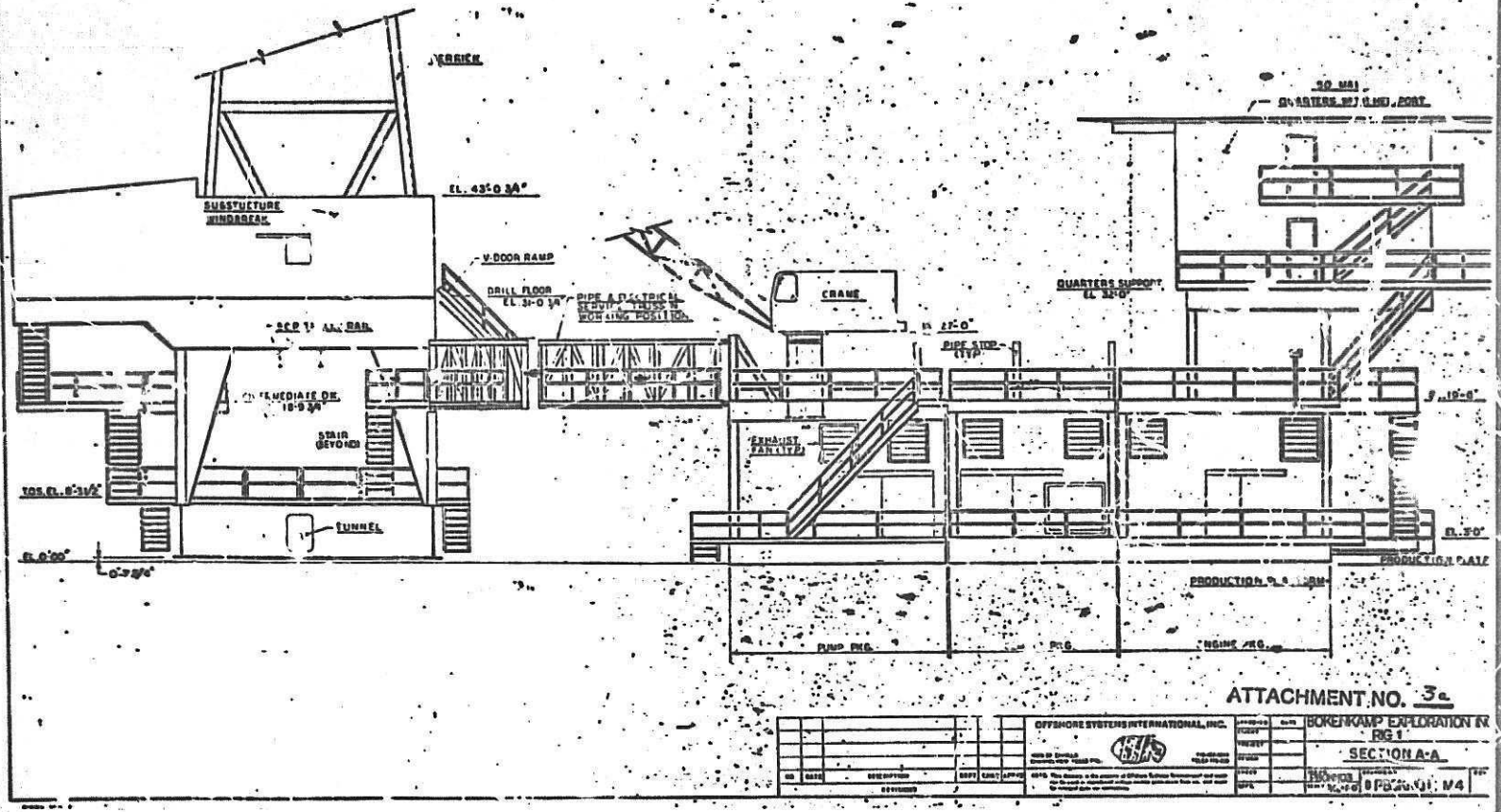
ATTACHMENT No. 2

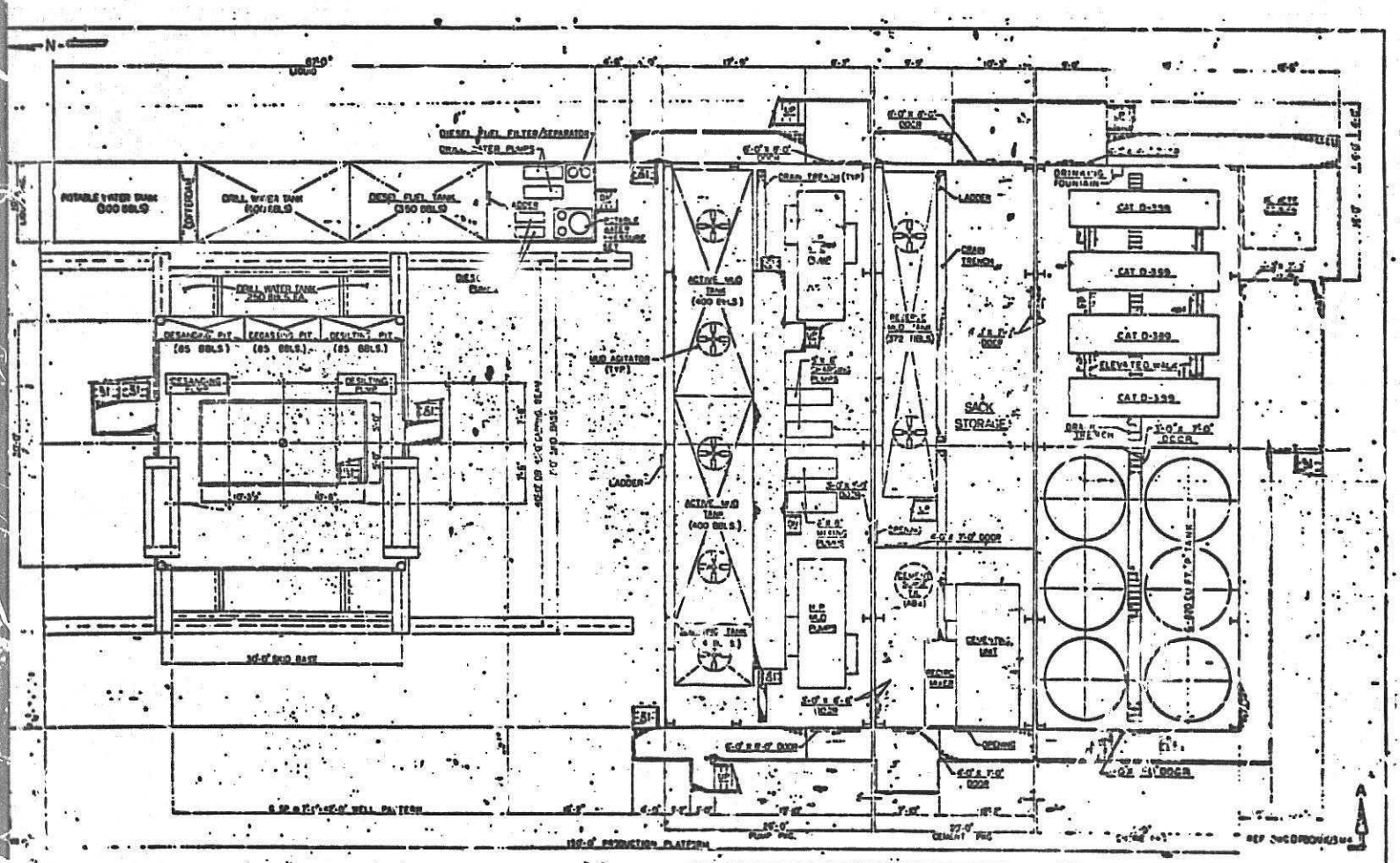
PAGE 1 of 2



ATTACHMENT No. 2

PAGE 2 OF 2

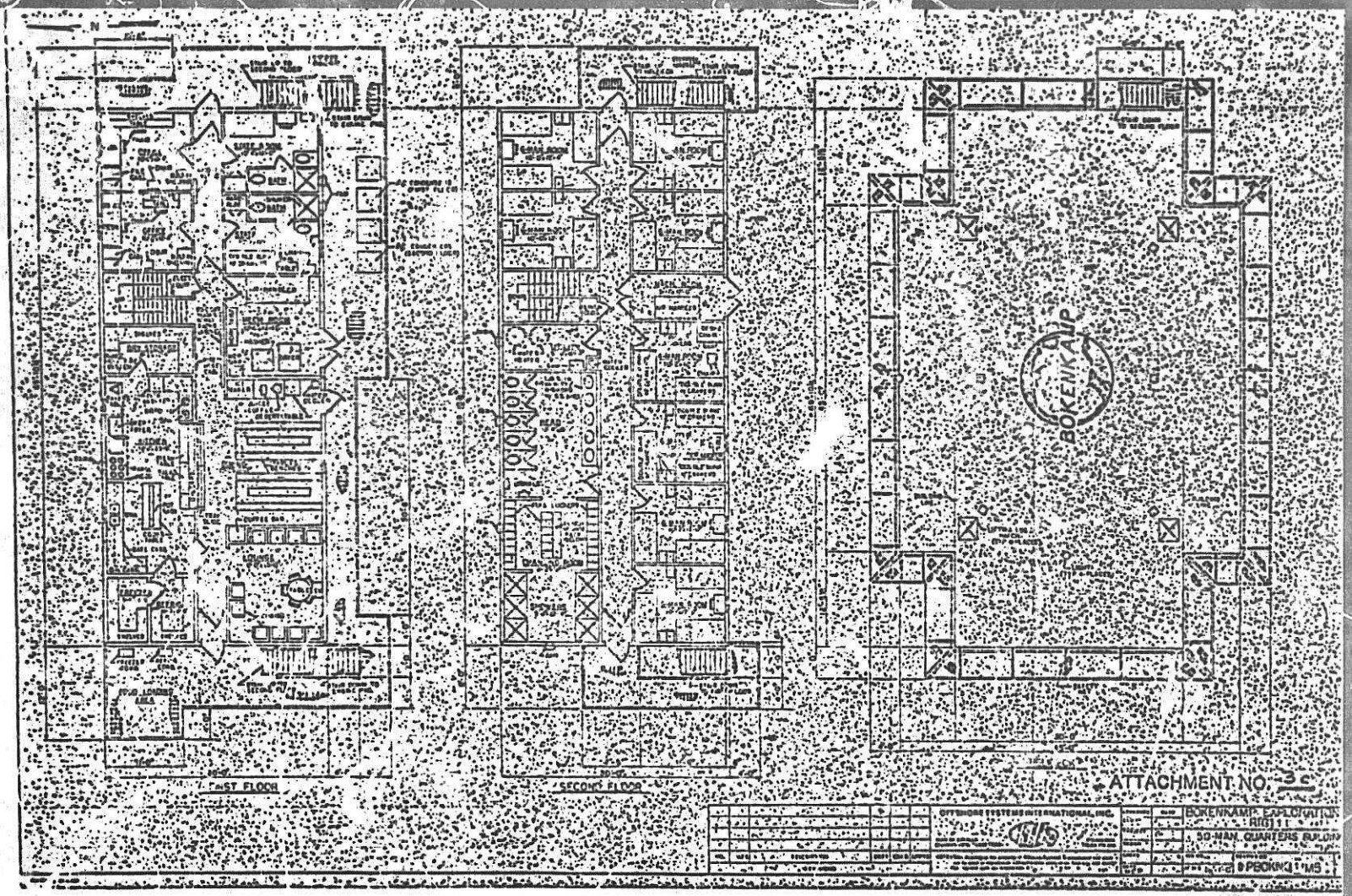




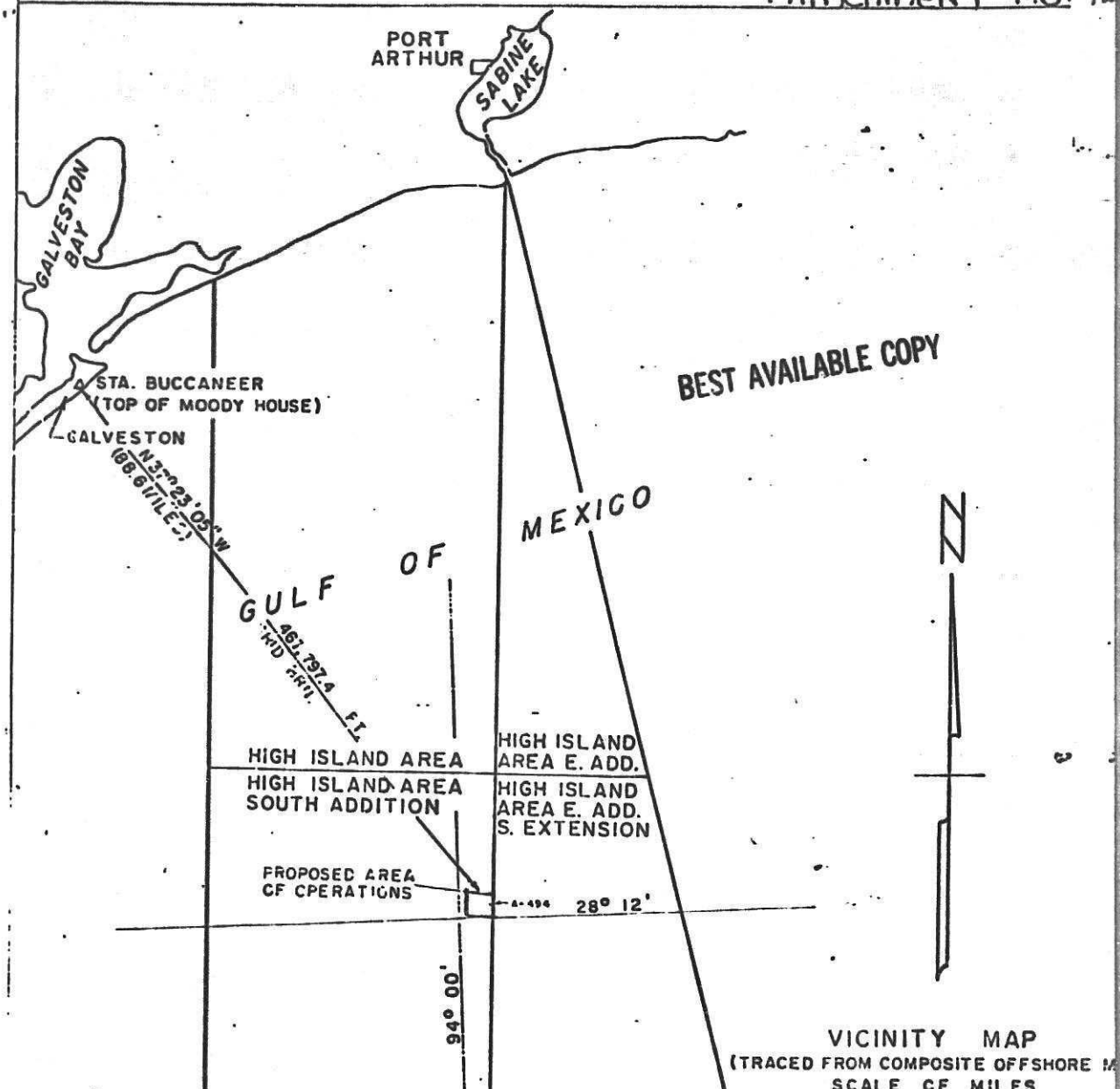
ATTACHMENT NO. 36

OFFSHORE SYSTEMS INTERNATIONAL, INC.

BOREKAPER EXPLORATION INC.
RIG 1
LOWER EQUIPMENT PLAN



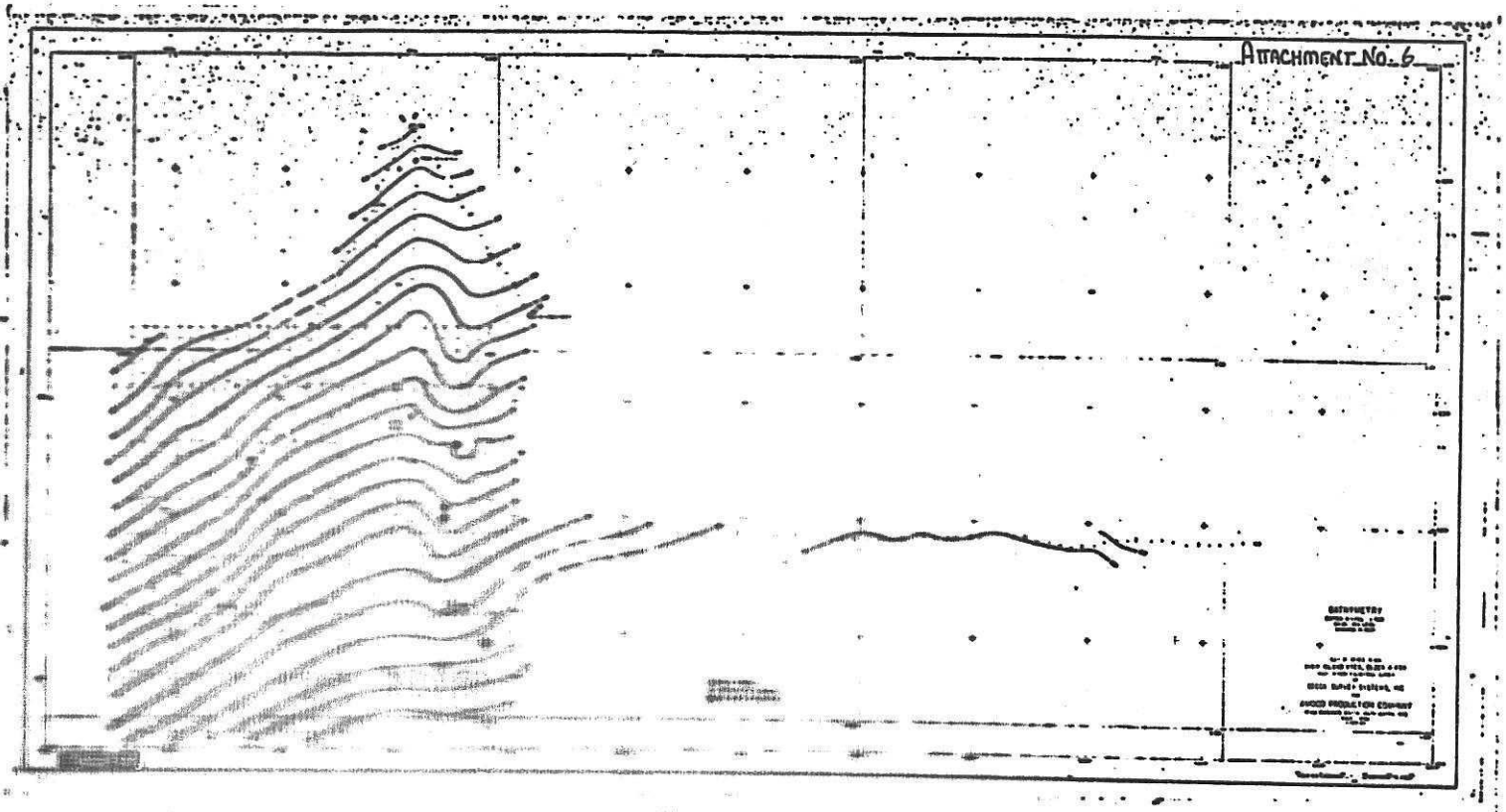
ATTACHMENT NO. 4a



SHEET 1 OF 6

PROPOSED MINERAL DEVELOPMENT
GULF OF MEXICO - HIGH ISLAND AREA, SOUTH ADDITION
JEFFERSON COUNTY, TEXAS
APPLICATION BY AMOCO PRODUCTION COMPANY

ATTACHMENT NO. 4a



Amoco Production Company
Amoco Building
P. O. Box 50879
New Orleans, Louisiana 70150

April 2, 1981

U.S. Geological Survey
Area Office for Operations Support
P. O. Box 7944
Metairie, LA 70010

Gentlemen:

Subject: Shallow Hazard Report
Plan of Development for High Island Block A-494

A multi-sensor, high resolution, engineering survey was conducted over the entire block. The results indicate a smooth seafloor, no surface faults or shallow gas accumulations at or in the vicinity of the below listed location for the "A" platform and the surface location for the A-1 through A-10 wells.

3200' FNL and 4200' FEL of High Island Block A-494

OCS-3244 No. 1, located approximately 1500' southwest of the proposed platform site, was successfully drilled and encountered no shallow hazards or unusual conditions.

W. A. Marshall
Offshore Division Geophysicist, Exploration

LGD/bjh/4/28

ATTACHMENT NO. 10

DECCA SURVEY SYSTEMS, INC.
MAILING ADDRESS: P.O. BOX 22397 • HOUSTON, TEXAS 77027 • (713) 783-0220 • CABLE ADDRESS: DECSURVEY, HOUSTON
STREET ADDRESS: 6204 WESTGLEN • HOUSTON, TEXAS 77042 TELEX: 077-5196

27 January 1976

Mr. Amil Bussemey
Amoco Production Company
P. O. Box 3092
Houston, Texas 77001

Dear Amil:

Regarding the engineering hazard survey we recently completed in High Island Block A-494, no archaeological report was necessary because the water depth was greater than 150 feet. The BLM uses this figure as a guideline in most cases.

This was further confirmed by a telephone conversation between myself and Mr. A. Melançon, of the BLM, in November 1975.

Should you need additional information, please contact me.

Very truly yours,

DECCA SURVEY SYSTEMS, INC.

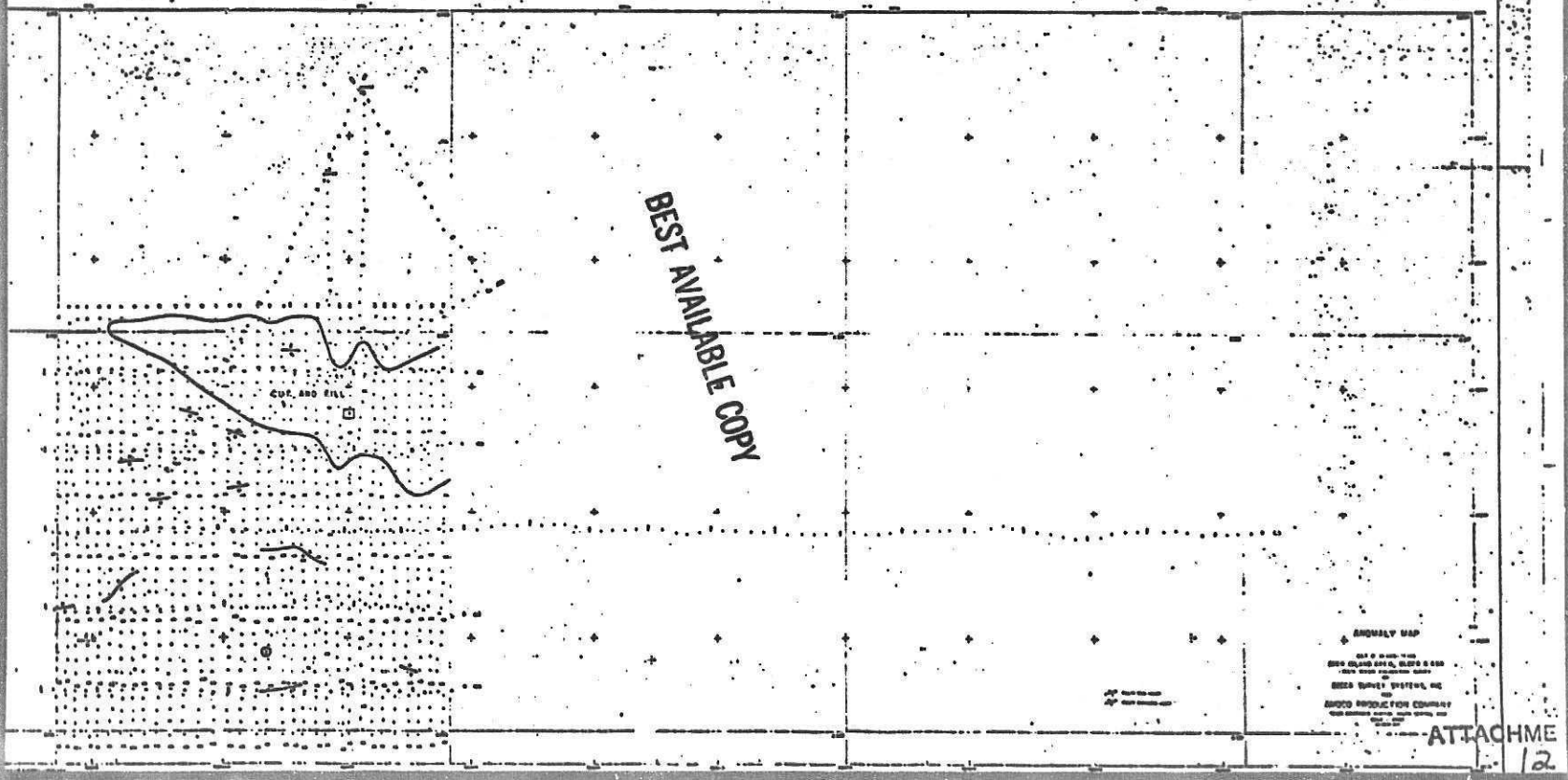
P. W. Mullins

PWM:kcw

BLM - New Orleans
539 - 4541

ATTACHMENT NO. 11

ATTACHMENT NO. 12



ATTACHME
12

Amoco Production Company
New Orleans Region
Amoco Building
Post Office Box 50879
New Orleans, Louisiana 70150
Offshore Division

F. E. Syfan
Division Operations
Superintendent

O. M. Moore
Division Drilling
Superintendent

April 3, 1981

File: FCE-986.1

United States Geological Survey
Deputy Conservation Manager for
Offshore Operations Support
P. O. Box 7944
Metairie, LA 70010

Attention: Mr. Dave Patz

Gentlemen:

Subject: Plan of Development
for High Island A-494
OCS-G-3244
Air Quality

This letter includes the information required under 30 CFR Part 250.57(a), to make the necessary findings under that section.

Exemption Formula

The distance of the proposed facility from the closest onshore area of a state is 88 statute miles. The proposed facility is at latitude 29° 13' 42.45" north and longitude 93° 56' 13.44" west. The closest onshore area of a state is in Galveston, Texas at latitude 29° 19' 37.42" north and longitude 94° 41' 22.86" west. This distance produces exemption amounts of 2,930 tons/year for particulates, sulfur dioxide, nitrogen oxides and volatile organic compounds and 67,266 tons/year for carbon monoxide.

Projected Emissions

A. Set Platform

Allowing one day for towing to the location the derrick barge and the material barge carrying the jacket, four days to set

ATTACHMENT NO. 13

the jacket, one day for towing to the location the material barge with the deck, four days to set the deck, and one day to tow the barges back to shore, the diesel fuel consumption will be 86,665 gallons. (See Attachment A.) For engine emissions resulting from consumption of 66,779 gallons of diesel fuel, we used the emission factors for diesel-powered industrial equipment found in Table 3.3.3-1. For boiler emissions resulting from consumption of 19,866 gallons of fuel oil, we used emission factors for fuel oil combustion found in Table 1.3-1. (Both tables are in EPA publication AP-42, Compilation of Air Pollutant Emission Factors.) The following emissions, in tons, result from setting the platform:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Engines	3.41	15.66	1.25	1.04	1.12
Boiler	.05	.22	.01	.72	.02
Subtotal	3.46	15.88	1.26	1.76	1.14

All of these emissions are planned to occur in 1982.

B. Drilling

drilled each year. Assuming 60 horsepower hours required to drill one foot[1] on an offshore oil and gas drilling rig, this plan will require 3,300,060 horsepower hours per year. Using the emission factors for diesel-powered industrial equipment from Table 3.3.3-1 of EPA publication AP-42, Compilation of Air Pollutant Emission Factors, the following annual emissions are expected from this plan:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Drilling Rig	11.02	50.93	4.07	3.39	3.64

We estimate to have two helicopter landing-takeoff cycles each day at the drilling location for the three year period of drilling activity. The emission factors per landing-takeoff cycle for helicopters from Table 3.2.1-3 of EPA Publication AP-42 produce the following helicopter emissions in tons per year:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Helicopters	2.08	.21	.19	.07	.09

We plan one 2,000 horsepower workboat landing with six hours of idling three times each week at the drilling location. The fuel consumption while idling at the drilling location is seven gallons per hour. The emission factors (7 gallons/hour x 6 hours/landing x 3 landing/week x 52 weeks of drilling = 6,552 gallons) for CO, VOC and NOx from diesel vessel emission factors by operating mode, Table 3.2.3-3, and the factors for SO_2 and particulates from Table 3.3.3-1 produce the following workboat emissions, in tons per year, at the drilling location:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Workboats	.96	.81	.31	.10	.11
Subtotal	14.06	51.95	4.57	3.56	3.84

These emissions are planned to occur in each of three years 1983, 1984 & 1985.

(1) Atmospheric emissions from offshore oil and gas development and production (EPA-450/3-77-206, June 1977).

C. Lay Pipeline

Allowing seven days of operation of the lay barge and the material barge, the pipe laying operation should require the consumption of 76,142 gallons of diesel fuel by the engines and 12,642 gallons of fuel by the boiler. Using the same table as in Part A above, the following emission estimates result.

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Engines	3.88	17.86	1.43	1.19	1.28
Boiler	.03	.14	1.44	.45	.01
Subtotal	3.91	18.00	1.44	1.64	1.29

All of these emissions are planned to occur in 1985.

D. Production Equipment

The natural gas fired production equipment consists of a 1.5 MMBTU/hour fired heater a 1.0 MMBTU/hour Glycol Reboiler, and a 10.0 MMBTU/hour Amine Reboiler. Using the emission factors for natural gas combustion from Table 1/4-1 of EPA publication AP-42, the following annual emissions from the gas fired equipment are expected:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Fired Heater	.11	1.51	.02	.08	.10
Glycol Reboiler	.07	1.00	.01	.06	.07
Amine Reboiler	.74	10.07	.13	.60	.66

The amine reactivator acid gas will be incinerated in a smokeless flame. We plan to sweeten 50 MMCF/day of 1,800 ppm H_2S content natural gas. The emission factors from Table 9.2-1 of EPA Publication AP-42 produce the following annual emissions in tons:

Acid gas incinerator	0	0	0	2,767.61	0

The diesel fired production equipment consists of a naturally aspirated, 143 HP GM 471 engine in generator service. The Table 3.3.3-1 emissions will be:

Generator Engine	4.18	19.33	1.55	1.29	1.38

We estimate one helicopter landing-takeoff cycle each day at the production location for a total of 365 cycles per year at the production platform. The emission factors per landing-takeoff cycle for helicopters from Table 3.2.1-3 of EPA Publication AP-42 produce the following helicopter emissions in tons:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarb	Sulfur Dioxide	Particulates
Helicopters	1.04	.10	.09	.03	.05

We plan one 1,000 horsepower workboat landing with two hours of idling time each day at the production platform. The fuel consumption at the production platform is seven gallons per hour. The emission factors (4 gallons/hour x 2 hours/day x 365 days/year = 2,920 gallons/year) for CO, VOC and NOx from diesel vessel emission factors by operating mode, Table 3.2.3-3 and the factors for SO_2 and particulates from Table 3.3.3-1 produce the following workboat emissions at the production platform:

	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
Workboat	.43	.36	.14	.05	.05
Subtotal	6.57	32.37	1.94	2,769.72	2.31

The emissions commence in January of 1986.

The annual emission totals, in tons, are as follows:

Activity	Carbon Monoxide	Nitrogen Oxide	Hydrocarbons	Sulfur Dioxide	Particulates
1982					
Set Platform	3.46	15.88	1.26	1.76	1.14
1983					
Drilling	14.06	51.95	4.57	3.56	3.84
1984					
Drilling	14.06	51.95	57	3.56	3.84
1985					
Drilling	14.06	51.95	4.57	3.56	3.84
Lay Pipeline	3.91	18.00	1.44	1.64	1.29
	17.97	69.95	6.01	5.20	5.13
1986 & All Years Therafter					
Production Equipment	6.57	32.37	1.94	2,769.72	2.31

Therefore since none of these amounts equal 2,930 tons (67,266 tons for carbon monoxide), we request that you determine under Section 250.57(d) that the facility be exempt from further air quality review.

Very truly yours,

F. E. Saffa

HLH/dla/4/35

ATTACHMENT A

Table A

Boiler 1806 gpd X 11 days = 19,866 gallons = 19.866 M gal.
X 7 days = 12,642 gallons = 12.642 M gal.

Table 1.3-1 (AP-42)
Emission Factors

	#/10^3 gal.	#/11 days	Tons/11 days	Tons/7 days
P	2	39.73	.020	.013
SO_2	142(.5)	1410.49	.705	.449
SO_3	2(.5)	19.87	.010	.006
CO	5	99.33	.050	.032
HC	1	19.87	.010	.006
NO_x as NO_2	22	437.05	.219	.139

Table B

Engines

	1224.0
	448.8
	676.8
	897.6
	224.4
	432.0
	304.8
	69.0
tug for derrick	4277.4
	+192.0 (idle)
	4469.4
tug for material barge	2400.0 (towing)
	6869.4

Table C

Lay Barge

Day	Gallons
1	10877.4
2	10877.4
3	10877.4
4	10877.4
5	10877.4
6	10877.4
7	10877.4
Total	76141.8

4277.4
+4200 (towing)
8477.4

2400.0 (towing)
10877.4

Table D

Derrick Barge

Day	Gallons
1	10877.4
2	6869.4
3	4469.4
4	4469.4
5	4469.4
6	6869.4
7	6869.4
8	4469.4
9	4469.4
10	4469.4
11	8477.4
Total	66779.4

ATTACHMENT B

J. RAY McDERMOTT DERRICK BARGE #12
NO. 2 DIESEL FUEL CONSUMPTION PER DAY

1 ea.	Johnson Boiler (2000 HP) average 6 hrs. per day & burns 301 gals. per hour.	TOTAL	1806.0 gpd
*1 ea.	Generator Waukesha L5790-900 HP at 900 rpm runs 24 hrs. per day; burns 51 gals. per hour.	TOTAL	1224.0 gpd
1 ea.	Boom Hoist V-12 GM 390 HP at 1800 rpm, runs 24 hrs. per day; burns 18.7 gals. per hour.	TOTAL	448.8 gpd
1 ea.	Main Hoist V-16 GM 525 HP at 2100 rpm, runs 24 hrs. per day; burns 28.2 gals. per hour.	TOTAL	676.8 gpd
2 ea.	Swing Engines V-12 GM 390 HP at 1800 rpm, runs 24 hrs. per day; burns 18.7 gals. per hour.	TOTAL	897.6 gpd
*4 ea.	Anchor Hoist V-12 GM 390 HP at 1800 rpm, runs 3 hrs. per day average, burns 18.7 gals. per hour.	TOTAL	224.4 gpd
*1 ea.	Crawler crane 855-31D Cummins 320 HP at 2100 rpm, runs 24 hrs. per day; burns 18.0 gals. per hour.	TOTAL	432.0 gpd
1 ea.	Air Compressor V-8 GM 236 HP at 2100 rpm, runs 24 hrs. per day; burns 12.7 gals. per hour.	TOTAL	304.8 gpd
1 ea.	Welding Machine 2-71 GM 52 HP at 1200 rpm, runs 23 hrs. per day; burns 3 gals. per hour.	TOTAL	69.0 gpd
1 ea.	Tug 4200 HP average 175 gals. per hour, towing	TOTAL	4200.0 gpd
	Idle with derrick barge, 8 gals. per hour.	TOTAL	192.0 gpd
1 ea.	Tug with Material Barge if required, 2400 HP, burns 8 gals. per hour when standing by with derrick barge.	TOTAL	192.0 gpd
	100 gals. per hour when towing	TOTAL	2400.0 gpd
	Total per day towing and without 2400 HP tub & m/b		10283.4 gpd
	Total per day on job with 2400 HP tub & m/b idle		6275.4 gpd
	Total per day on job without 2400 HP tub & m/b		6083.4 gpd

*Denotes equipment below deck - Elev. (+)30'
All other equipment above deck - Elev. (+)65'

HLH/dla/4/35b
4/6/81

Table E

Table 3.3.3-1 Emission Factors		Engine Tons/	Engine Tons/	Boiler Tons		Total Tons	
	#/10^3 gal.	11 days	7 days	/11 days	/7 days	/11 days	/7 days
P	33.5	1.12	1.28	.02	.01	1.14	1.29
SO_2	31.2	1.04	1.19	.72	.45	1.76	1.64
CO	102.0	3.41	3.88	.05	.03	3.46	3.91
HC	37.5	1.25	1.43	.01	.01	1.26	1.44
NO_x	469.0	15.66	17.86	.22	.14	15.88	18.00
M gallons		66.7794	76.1418				

HLH/dla/4/35c
4/6/81