MINUTE ITEM

This Calendar Item No. 21 was approved as Minute Item No. 21 by the State Lands Commission by a vote of 2 to 0 at its 10-30-80 meeting.

MINUTE ITEM

10/30/80
W 40214
Kuehn
PRC 1466.1

21. RESUMPTION OF DRILLING OPERATIONS FROM EXISTING FACILITIES AT RINCON ISLAND, VENTURA COUNTY; ARCO OIL AND GAS COMPANY

During consideration of Calendar Item 21 attached, the item was revised to reflect that the Lease PRC 1466.1 comply with the Commission's regulations effective on October 30, 1980.

The following revisions were made:

On page 2 of Calendar Item 21, Paragraph Numbered 4, the words "now or hereafter promulgated" were deleted and the following words were inserted "in force on October 30, 1980."

Upon motion duly made and carried, the following resolution was approved by a vote of 2-0:

THE COMMISSION:

1. DETERMINES THAT AN EIR HAS NOT BEEN PREPARED FOR THIS PROJECT, BUT THAT A NEGATIVE DECLARATION HAS BEEN PREPARED BY THE COMMISSION'S STAFF.

2. CERTIFIED THAT NEGATIVE DECLARATION NO. 227 HAS BEEN COMPLETED IN COMPLIANCE WITH THE CEQA OF 1970, AND THE STATE EIR GUIDELINES, AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

3. DETERMINES THAT THE PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

4. DETERMINES THAT THE PROJECT IS CONSISTENT WITH THE PROVISIONS OF ARTICLE 6.5 OF TITLE 2 OF THE CALIFORNIA ADMINISTRATIVE CODE.

5. AUTHORIZES AMENDMENT OF STATE OIL AND GAS LEASE PRC 1466.1 TO PROVIDE FOR COMPLIANCE WITH STATE LANDS COMMISSION REGULATIONS IN FORCE ON OCTOBER 30, 1980.

6. FINDS THAT THIS PROJECT IS SITUATED ON LAND IDENTIFIED AS POSSESSING ENVIRONMENTAL VALUES IN THAT THE STATE LANDS COMMISSION HAS FOUND ALL WATERWAYS UNDER THE

COMMISSION'S JURISDICTION HAVE ENVIRONMENTAL SIGNIFICANCE, BUT THAT THIS PROJECT IS COMPATIBLE WITH THAT FINDING AS IT APPLIES TO THE SUBJECT LAND.

7. APPROVES ARCO'S APPLICATION TO RESUME EXPLORATORY DRILLING OPERATIONS ON STATE OIL AND GAS LEASE PRC 1466 IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE LEASE AND THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION, SUBJECT TO THE FOLLOWING PROVISIONS:

A. ARCO OIL AND GAS COMPANY WILL FURNISH TO THE STATE LANDS COMMISSION A CERTIFICATE OF INSURANCE FROM A RECOGNIZED INSURANCE COMPANY, DOING BUSINESS IN CALIFORNIA, IN THE SUM OF $10 MILLION, INCLUDING THE STATE AS A NAMED INSURED AND EVIDENCING INSURANCE AGAINST LIABILITY FOR DAMAGES TO THIRD PERSONS ARISING OUT OF ANY AND ALL DRILLING AND PRODUCTION ACTIVITIES UNDER SAID LEASE--WHICH CERTIFICATE SHALL NOT BE CANCELABLE EXCEPT UPON 30 DAYS NOTICE, AND ARCO OIL AND GAS COMPANY SHALL AGREE TO KEEP A CERTIFICATE OF INSURANCE MEETING THE ABOVE REQUIREMENTS IN EFFECT AT ALL TIMES UNTIL ALL DRILLING FROM SAID LEASE SHALL HAVE TERMINATED AND ALL WELLS HAVE BEEN PROPERLY ABANDONED IN THE MANNER REQUIRED BY LAW;

B. SHOULD ANY EVENT OCCUR CAUSING A SUBSTANTIAL NUMBER OF CLAIMS FOR DAMAGES TO BE FILED AGAINST ARCO OIL AND GAS COMPANY AS A RESULT OF OPERATIONS UNDER SAID LEASE, ARCO OIL AND GAS COMPANY SHALL, WITHIN 10 DAYS AFTER SUCH EVENT, CAUSE TO BE OPENED, OR OPEN, A CLAIMS OFFICE WITHIN THE COUNTY OF SANTA BARBARA STAFFED WITH SUFFICIENT PERSONNEL AND AUTHORITY TO PROCESS ALL CLAIMS AND TO SETTLE ALL UNCONTESTED CLAIMS--BARRING UNUSUAL CIRCUMSTANCES, THE STAFFING OF SAID OFFICE SHALL BE SUFFICIENT TO PROCESS ALL CLAIMS AND SETTLE ALL UNCONTESTED CLAIMS WITHIN 60 DAYS OF THE ESTABLISHMENT OF SAID OFFICE;

C. ALL DRILLING AND PRODUCTION SHALL BE CONDUCTED UNDER SAID LEASE IN ACCORDANCE WITH APPLICABLE LAW, THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION AND THE DIVISION OF OIL AND GAS, AND AS REFERRED TO OR DESCRIBED IN THE NEGATIVE DECLARATION RELATING TO EXPLORATORY DRILLLING OPERATIONS BY ARCO OIL AND GAS COMPANY, STATE OIL AND GAS LEASE PRC 1466, ADOPTED BY THE STATE LANDS COMMISSION IN PART TWO OF THIS RESOLUTION;

D. ARCO OIL AND GAS COMPANY SHALL IMPLEMENT AND MAINTAIN PROPERLY AND EFFICIENTLY THE OIL SPILL

CALENDAR PAGE
MINUTE PAGE 2390

CONTINGENCY PLAN ON FILE IN THE OFFICE OF THE COMMISSION;

E. TO FACILITATE THE SUPPLEMENT OF CONTESTED CLAIMS BY THIRD PERSONS WITHOUT THE NECESSITY OF LITIGATION, ARCO OIL AND GAS COMPANY WILL AGREE TO MEDIATION PROCEDURES APPROVED BY THE EXECUTIVE OFFICER AFTER CONSULTATION WITH THE OFFICE OF THE ATTORNEY GENERAL.

F. ARCO SHALL AGREE TO AMEND LEASE PRC 1466.1 TO MAKE APPLICABLE TO SAID LEASE THE RULES AND REGULATIONS OF THE STATE OF CALIFORNIA IN FORCE ON OCTOBER 30, 1980.

CALENDAR PAGE
MINUTE PAGE 2391

CALENDAR ITEM

21.

10/80
W 40214
Kuehn
PRC 1466.1

RESUMPTION OF DRILLING OPERATIONS
FROM EXISTING FACILITIES AT RINCON ISLAND, VENTURA COUNTY

LESSEE: ARCO Oil and Gas Company
P.O. Box 147
Bakersfield, California 93302

LAND TYPE, AREA AND LOCATION:
The project site is offshore tide and submerged lands at the westerly end of Rincon Field within the 1,175 acres currently under State Lease (PRC 1466). Rincon Island is a man-made island approximately 3,000 feet from shore and is located approximately 11 miles north of the City of Ventura, Ventura County.

PROJECT DESCRIPTION:
The proposal is for the lessee to drill an exploratory well to the Repetto formation from Rincon Island, to evaluate potential recoverable oil and gas reserves from this formation, and to produce as much of the remaining recoverable oil from the subject area as is economically feasible. This drilling project is designed primarily to evaluate and develop zones known to be productive in the field. Should commercially recoverable reserves be proven, the proposed exploratory well would be placed on production and oil, gas, and water would be processed through ARCO's existing Rincon Island Facilities. No new facilities would be required. Produced oil and gas would be transported from Rincon Island via existing pipeline that connects with an existing distribution system.

OTHER PERTINENT INFORMATION:
1. A Negative Declaration was prepared by the Commission's staff pursuant to CEQA and the Statewide CEQA Guidelines.

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S 18

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2. This project is situated on land identified as possessing environmental values in that the State Lands Commission stated all waterways under the Commission's jurisdiction have environmental significance. Staff finds this project to be compatible with Commission policy.

3. The proposed project is consistent with the Coastal Act and the Commission's Coastal Regulations.

4. Approval of ARCO's application would include an amendment of Lease PRC 1466.1 to provide that the lessee comply with the Commission's regulations now or hereafter promulgated.

AGREEMENTS FOR THE PROTECTION OF THIRD PERSONS:

With assistance of the Office of the Attorney General, staff has prepared agreements, additional to present lease requirements and acceptable to the lessee, affording increased protection to third persons for any damages arising from operations conducted under the lease. These agreements provide:

1. ARCO Oil and Gas Company will furnish the State Lands Commission with a certificate of insurance in the amount of $10 Million, evidencing insurance against liability for damages to third persons.

2. Procedures would be established for the prompt processing of all claims, and the prompt payment of uncontested claims.

3. To facilitate the settlement of contested claims by third persons without the necessity of litigation, ARCO will agree to mediation procedures approved by the Executive Officer after consultation with the Office of the Attorney General.

EXHIBITS: A. Project Location Map.
B. Negative Declaration.

IT IS RECOMMENDED THAT THE COMMISSION:

1. DETERMINE THAT AN EIR HAS NOT BEEN PREPARED FOR THIS PROJECT, BUT THAT A NEGATIVE DECLARATION HAS BEEN PREPARED BY THE COMMISSION'S STAFF.

2. CERTIFY THAT NEGATIVE DECLARATION NO. 227 HAS BEEN COMPLETED IN COMPLIANCE WITH THE CEQA OF 1970, AND THE STATE EIR GUIDELINES, AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

3. DETERMINE THAT THE PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

4. DETERMINE THAT THE PROJECT IS CONSISTENT WITH THE PROVISIONS OF ARTICLE 6.5 OF TITLE 2 OF THE CALIFORNIA ADMINISTRATIVE CODE.

5. AUTHORIZE AMENDMENT OF STATE OIL AND GAS LEASE PRC 1466.1 TO PROVIDE FOR COMPLIANCE WITH STATE LANDS COMMISSION REGULATIONS IN FORCE ON OCTOBER 30, 1980.

6. FIND THAT THIS PROJECT IS SITUATED ON LAND IDENTIFIED AS POSSESSING ENVIRONMENTAL VALUES IN THAT THE STATE LANDS COMMISSION HAS FOUND ALL WATERWAYS UNDER THE COMMISSION'S JURISDICTION HAVE ENVIRONMENTAL SIGNIFICANCE, BUT THAT THIS PROJECT IS COMPATIBLE WITH THAT FINDING AS IT APPLIES TO THE SUBJECT LAND.

7. APPROVE ARCO'S APPLICATION TO RESUME EXPLORATORY DRILLING OPERATIONS ON STATE OIL AND GAS LEASE PRC 1466 IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE LEASE AND THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION, SUBJECT TO THE FOLLOWING PROVISIONS:

   A. ARCO OIL AND GAS COMPANY WILL FURNISH TO THE STATE LANDS COMMISSION A CERTIFICATE OF INSURANCE FROM A RECOGNIZED INSURANCE COMPANY, DOING BUSINESS IN CALIFORNIA, IN THE SUM OF $10 MILLION, INCLUDING THE STATE AS A NAMED INSURED AND EVIDENCING INSURANCE AGAINST LIABILITY FOR DAMAGES TO THIRD PERSONS ARISING OUT OF ANY AND ALL DRILLING AND PRODUCTION ACTIVITIES UNDER SAID LEASE--WHICH CERTIFICATE SHALL NOT BE CANCELABLE EXCEPT UPON 30 DAYS NOTICE,

AND ARCO OIL AND GAS COMPANY SHALL AGREE TO KEEP A CERTIFICATE OF INSURANCE MEETING THE ABOVE REQUIREMENTS IN EFFECT AT ALL TIMES UNTIL ALL DRILLING FROM SAID LEASE SHALL HAVE TERMINATED AND ALL WELLS HAVE BEEN PROPERLY ABANDONED IN THE MANNER REQUIRED BY LAW;

B. SHOULD ANY EVENT OCCUR CAUSING A SUBSTANTIAL NUMBER OF CLAIMS FOR DAMAGES TO BE FILED AGAINST ARCO OIL AND GAS COMPANY AS A RESULT OF OPERATIONS UNDER SAID LEASE, ARCO OIL AND GAS COMPANY SHALL, WITHIN 10 DAYS AFTER SUCH EVENT, CAUSE TO BE OPENED, OR OPEN, A CLAIMS OFFICE WITHIN THE COUNTY OF SANTA BARBARA STAFFED WITH SUFFICIENT PERSONNEL AND AUTHORITY TO PROCESS ALL CLAIMS AND TO SETTLE ALL UNCONTESTED CLAIMS--BARRING UNUSUAL CIRCUMSTANCES, THE STAFFING OF SAID OFFICE SHALL BE SUFFICIENT TO PROCESS ALL CLAIMS AND SETTLE ALL UNCONTESTED CLAIMS WITHIN 60 DAYS OF THE ESTABLISHMENT OF SAID OFFICE;

C. ALL DRILLING AND PRODUCTION SHALL BE CONDUCTED UNDER SAID LEASE IN ACCORDANCE WITH APPLICABLE LAW, THE RULES AND REGULATIONS OF THE STATE LANDS COMMISSION AND THE DIVISION OF OIL AND GAS, AND AS REFERRED TO OR DESCRIBED IN THE NEGATIVE DECLARATION RELATING TO EXPLORATORY DRILLING OPERATIONS BY ARCO OIL AND GAS COMPANY, STATE OIL AND GAS LEASE PRC 1466, ADOPTED BY THE STATE LANDS COMMISSION IN PART TWO OF THIS RESOLUTION;

D. ARCO OIL AND GAS COMPANY SHALL IMPLEMENT AND MAINTAIN PROPERLY AND EFFICIENTLY THE OIL SPILL CONTINGENCY PLAN ON FILE IN THE OFFICE OF THE COMMISSION;

E. TO FACILITATE THE SUPPLEMENT OF CONTESTED CLAIMS BY THIRD PERSONS WITHOUT THE NECESSITY OF LITIGATION, ARCO OIL AND GAS COMPANY WILL AGREE TO MEDIATION PROCEDURES APPROVED BY THE EXECUTIVE OFFICER AFTER CONSULTATION WITH THE OFFICE OF THE ATTORNEY GENERAL.

F. ARCO SHALL AGREE TO AMEND LEASE PRC 1466.1 TO MAKE APPLICABLE TO SAID LEASE THE RULES AND REGULATIONS OF THE STATE OF CALIFORNIA NOW OR HEREAFTER PROMULGATED.

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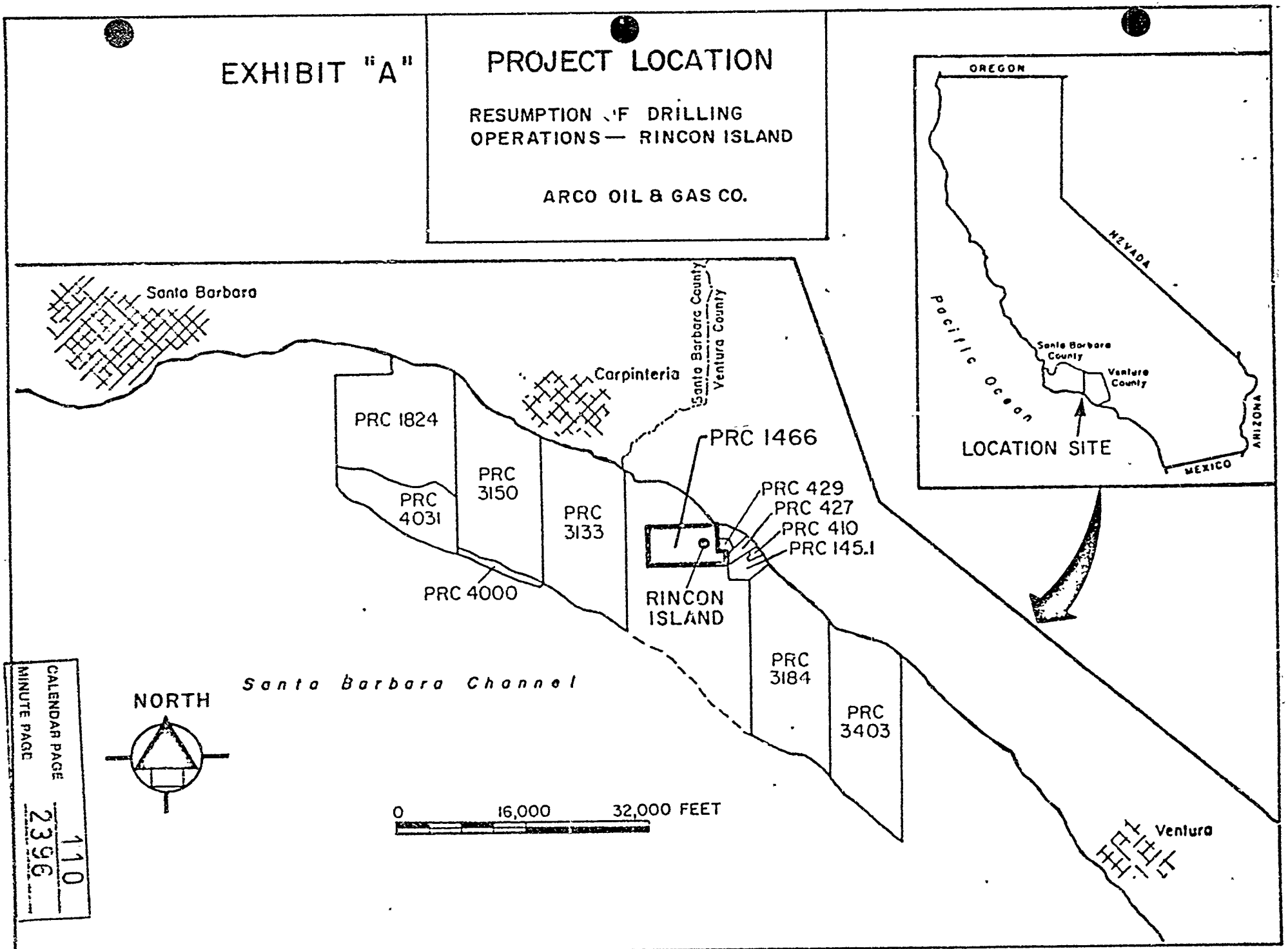
EXHIBIT "A"

PROJECT LOCATION

RESUMPTION OF DRILLING OPERATIONS — RINCON ISLAND

ARCO OIL & GAS CO.



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STATE OF CALIFORNIA — EDMUND G. BROWN JR., Governor

STATE LANDS COMMISSION

KENNETH CORY, *Controller*
MIKE CURB, *Lieutenant Governor*
MARY ANN GRAVES, *Director of Finance*

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814

WILLIAM F. NORTHROP
Executive Officer

EIR ND: 277

File Ref.: W 40214

SCH No.: 80092603

[X] Draft
[ ] Final

NEGATIVE DECLARATION

Project Title: Drilling of One Exploratory/Production Well.

Project Location: State Oil and Gas Lease PRC 1466 located on coastal tidelands near Mussel Shoals, Ventura County, approximately 11 miles northwest of the City of Ventura.

Project Description: Drilling of one exploratory/production well from existing facilities on Rincon Island, Rincon Oil Field.

This NEGATIVE DECLARATION is prepared pursuant to the requirements of the California Environmental Quality Act (Section 21000 et. seq. of the Public Resources Code), the State EIR Guidelines (Section 15000 et. seq., Title 14, of the California Administrative Code), and the State Lands Commission regulations (Section 2901 et. seq., Title 2, of the California Administrative Code).

Based upon the attached Initial Study, it has been found that:

[X] the project will not have a significant effect on the environment.

[ ] the attached mitigation measures will avoid potentially significant effects.

Contact Person: Ted T. Fukushima
1807-13th Street
Sacramento, CA 95814
(916)322-7813

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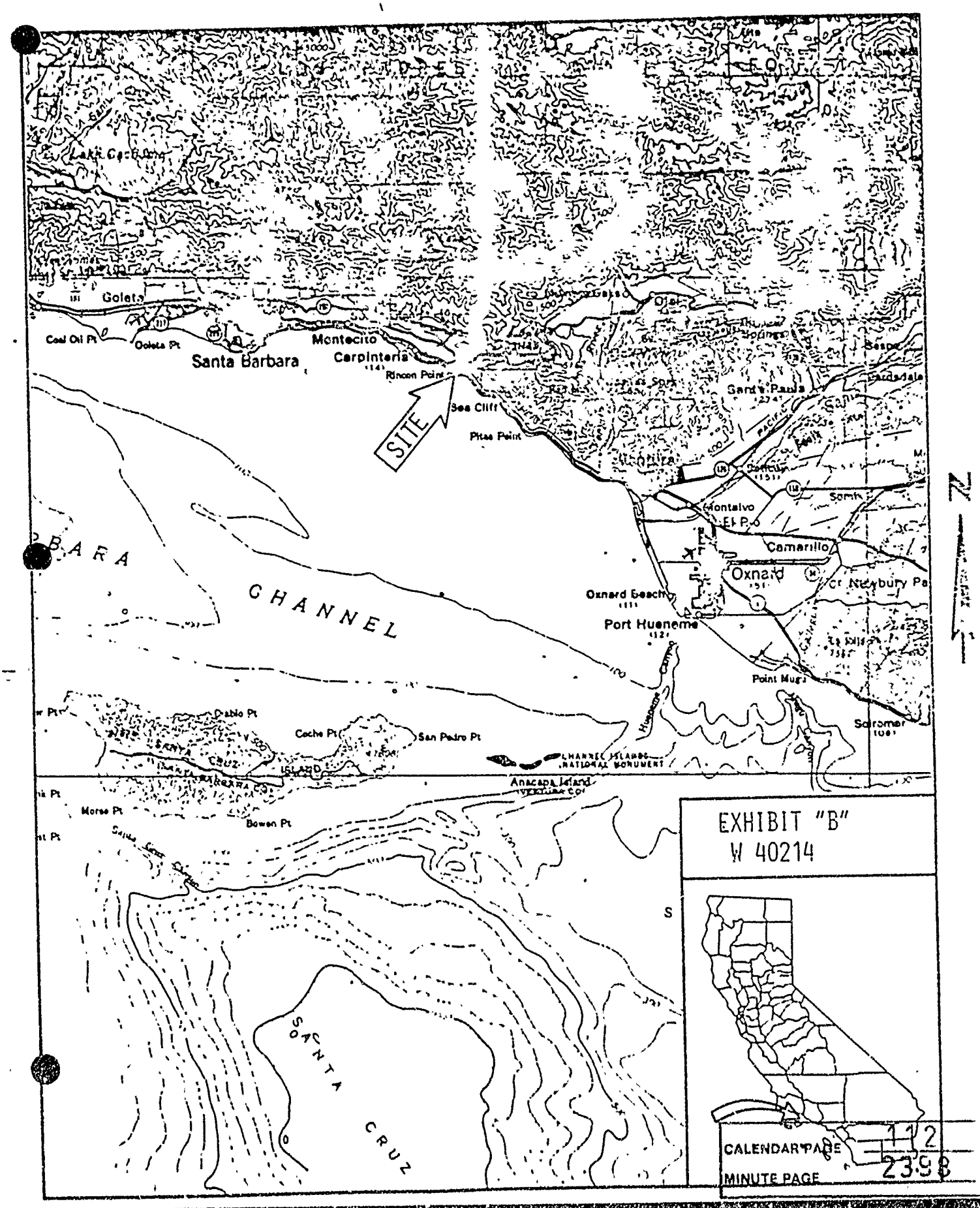
MINUTE PAGE 2397


Goleta
Coal Oil Pt
Goleta Pt
Santa Barbara
Montecito
Carpinteria
Rincon Point
Sea Cliff
Pitas Point
SITE
Santa Paula
Montalvo
El Rio
Camarillo
Oxnard
Oxnard Beach
Port Hueneme
Point Mugu
Solromar
CHANNEL
Diablo Pt
Coche Pt
San Pedro Pt
Anacapa Island
Morse Pt
Bowen Pt
SANTA CRUZ
EXHIBIT "B"
W 40214
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MINUTE PAGE 2398

RESOURCE MANAGEMENT AGENCY

County of Ventura

Victor R. Husbands
Agency Director

DATE AUG 2 6 1980
1 DJE ✓
CFE
2 ADW
RGP
3 RK RK
4 MH
Enc.
FILE:

August 21, 1980

State Lands Commission
100 Oceangate Suite 300
Long Beach, CA 90802

Dear Sirs:

Subject: Ventura County Comments on Initial Study for Exploratory well on State Oil and Gas Lease PRC 1466 - Rincon Island (File Ref: PRC 1466 W 40214).

The above referenced environmental document has been reviewed by appropriate Ventura County agencies. Specific reviewing Agency comments are attached. Please respond to the comments as required by the California Environmental Quality Act. All responses should be addressed to the commenting agency with a copy to the Subdivision and Environmental Review Section, Resource Management Agency.

RESOURCE MANAGEMENT AGENCY

Victor R. Husbands, Director

VRH:SE:bb

Attachments

CALENDAR PAGE 113
MINUTE PAGE 2399

800 South Victoria Avenue, Ventura, CA 93009

County of Ventura

RESOURCE MANAGEMENT AGENCY

MEMORANDUM

Date: AUGUST 5, 1980

To: SCOTT ELLISON

From: LYNNE KADA

Reference No.:

Subject: REVIEW AND COMMENT ON INITIAL STUDY FOR AN EXPLORATORY WELL STATE LEASE PRC 1466

The Initial Study should address cummulative impacts, including, but not limited to:

a. Scenarios of possible future production operations on this lease if the exploratory well is successful.

b. Secondary impacts on operations in Santa Barbara Channel.

c. Primary and secondary impacts from offshore operations in southern coastal counties.

d. Relationship to OCS Sale Number 48 and OCS Sale #68 projected activities.

e. Relationship to other proposed exploratory and production operations in the Santa Barbara Channel.

LK:lca

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MINUTE PAGE 2400

County of Ventura

RESOURCE MANAGEMENT AGENCY/APCD

MEMORANDUM

To: Scott Ellison, Planning

Date: 8/13/80

From: Janet Lyders, APCD JL

Reference No.:

Subject: Exploratory Well From State Oil and Gas Lease PRC 1466 (Rincon Island)

APCD staff has reviewed the initial study for the subject project and has no comments.

JL:lw

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PAOF-89A

STATE OF CALIFORNIA STATE LANDS COMMISSION

EDMUND G. BROWN III Governor

STATE LANDS COMMISSION
100 OCEANGATE – SUITE 300
LONG BEACH, CALIFORNIA 90802
TELEPHONE: (213) 590-5201

File Ref.: W 40214

September 17, 1980

County of Ventura
Resource Management Agency
800 South Victoria Ave.
Ventura, CA 93009

Attention: Lynne Kada

Gentlemen:

This is in response to your comments on the Initial Study prepared by the staff of the State Lands Commission for ARCO Oil and Gas Company's proposed resumption of exploratory drilling operations on State Oil and Gas Lease PRC 1466 on Rincon Island in Ventura County. Following are your comments and our responses to them:

a. Scenarios of possible future production operations on this lease if the exploratory well is successful.

ARCO has indicated that if the exploratory well proves successful, i.e., commercially recoverable hydrocarbon reserves are discovered, one to three additional wells could be drilled from Rincon Island in the future. Any such future development would require preparation of another environmental document prior to consideration by the State Lands Commission.

b. Secondary impacts on operations in Santa Barbara Channel.

This project should have little if any primary or secondary impact on operations in the Santa Barbara Channel. This project is the drilling of one well from an existing facility constructed for the purpose of extracting oil and gas, with any subsequent additional production handled by existing facilities and existing pipelines.

Primary and secondary impacts from offshore operations in southern coastal counties.

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As stated above, there should be little if any primary or secondary impact from offshore operations in southern coastal counties.

d. Relationship to OCS Sale Number 48 and OCS Sale #68 projected activities.

There appears to be little if any direct relationship between this project and any projected OCS sale activities. The most current source of information on projected OCS activities in the area is USGS Open File Report 80-645, "Outer Continental Shelf Oil and Gas Activities in the Pacific (Southern California) and their Onshore Impacts." Table 18 on p. 72 of this report's lists new onshore facilities required for planned OCS production.

e. Relationship to other proposed exploratory and production operations in the Santa Barbara Channel.

Other proposed exploratory (and possibly production) operations on State leases in the Santa Barbara Channel in the vicinity of PRC 1466 include a proposed resumption of exploratory drilling from existing onshore facilities by Energy Development Inc. on PRC 145 and a proposed resumption of exploratory drilling from Platform Heidi by Exxon on PRC 3133 at Carpinteria. Neither of these proposed projects have been considered by the State Lands Commission yet.

I hope this adequately answers your questions regarding the proposed project. If you have further questions please feel free to call Rob Auehn at (213) 590-5215.

Very truly yours,

for D. J. EVERITTS, Chief
Division of Energy and
Mineral Resources

RAK:sg
cc: Subdivision and Environmental Review Section
Resource Management Agency
County of Ventura
800 S. Victoria Ave.
Ventura, CA 93009

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MINUTE PAGE 2403

W 40214

July 21, 1980

LIST OF AGENCIES CONTACTED

Memos

California Energy Commission
Attn: Ted Rauh
1111 Howe Avenue
Sacramento, CA 95825

Health & Welfare Agency
915 Capitol Mall-Room 200
Sacramento, CA 95814

Office of Planning & Research
Attn: Anna Polvos
1400 Tenth Street
Sacramento, CA 95814

Letters

Arco Oil and Gas Company
Attn: Peter K. Bacon
P.O. Box 2540
Goleta, CA 93018

Ventura County Air Pollution Control District
Attn: Scott Johnson
800 South Victoria Avenue
Ventura, CA 93009

Ventura County Air Pollution Control District
Attn: Karl Krause
800 South Victoria Avenue
Ventura, CA 93009

Ventura County Environmental Resources Agency
Attn: M. L. Koester
800 South Victoria Avenue
Ventura, CA 93009

Ventura County Planning Division
Attn: Bruce Smith
800 South Victoria Avenue
Ventura, CA 93009

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MINUTE PAGE 2404

W 40214

July 21, 1980

LIST OF AGENCIES CONTACTED

Memos

Resources Agency
Projects Coordinator
1416 Ninth Street 13th Floor
Sacramento, CA 95814

Air Resources Board
Attn: Harmon Wong-Woo
Post Office Box 2815
Sacramento, CA 95812

Division of Oil & Gas
Attn: M. G. Mefferd
1416 Ninth Street-Room 1316
Sacramento, CA 95814

Division of Oil & Gas
Attn: Murray Dosch
Post Office Box 67
Santa Paula, CA 93060

Department of Fish and Game
Attn: Don Lollock
1416 Ninth Street, 12th Floor
Sacramento, CA 95814

Department of Fish and Game
Attn: Bruce Eliason
Environmental Services Division
350 Golden Shore
Long Beach, CA 90802

State Water Resources Control Board
Attn: John Huddleson
Division of Planning & Research
Post Office Box 100
Sacramento, CA 95801

The Reclamation Board
Attn: Mel Schwartz
1416 Ninth Street-Room 204-5
Sacramento, CA 95814

Solid Waste Management Board
Attn: John Hagerty
1020 Ninth Street, Suite 300
Sacramento, CA 95814

Department of Parks & Recreation
Post Office Box 2390
Sacramento, CA 95811

Office of Historic Preservation
Attn: Dr. Knox Mellon
1220 "K" Street-3rd Floor
Sacramento, CA 95814

Resources Preservation
& Interpretation Division
Attn: James P. Tryner
1220 "K" Street
Sacramento, CA 95814

South Central Regional
California Coastal Commission
Attn: Carl Hetrick
735 State Street
Balboa Building, Suite 612
Santa Barbara, CA 93101

California Coastal Commission
Attn: William Ahern
Energy Coordinator
631 Howard Street, 4th Floor
San Francisco, CA 94105

California Regional Water
Quality Control Board
Attn: Kenneth R. Jones
1102 A Laurel Lane
San Luis Obispo, CA 93401

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File Ref.: PRC 1466
W 40214

July, 1980

STATE OF CALIFORNIA
STATE LANDS COMMISSION

INITIAL STUDY FOR AN EXPLORATORY WELL STATE OIL AND GAS LEASE PRC 1466

ARCO OIL AND GAS COMPANY
Rincon Island, Ventura County

1. Project and Its Location

ARCO Oil and Gas Company, lessee of State Oil and Gas Lease PRC 1466, is planning to drill an exploratory well to a vertical depth of 10,000 feet (measured depth: 12,075 feet), penetrating the Repetto Formation. This well would be drilled from Rincon Island, an artificial structure built previously to accommodate facilities for the extraction of oil and gas from shallower formations.

State Lease PRC 1466 comprises 1,175 acres at the westerly end of Rincon Field. Rincon Island is located approximately 10 miles north of the City of Ventura, about 3,000 feet from shore in 45 feet of water. Immediately east of State Lease PRC 1466 lie State Leases PRC 410, 427, 429, and 345. State Lease PRC 3133 is west of State Lease PRC 1466 (see Exhibit A, Project Location).

Drilling would be conducted using a drilling rig, which would temporarily replace the existing well servicing rig on Rincon Island. The mobilization phase would be a 12- to 24-hour per day operation lasting approximately 30 days. The drilling phase would be a continuous operation for approximately 120 days. The estimated duration of the exploratory program is 3 to 4 months. If commercially recoverable hydrocarbon reserves are proven, the exploratory well would be put on production. Existing facilities on the island would be used to treat the produced fluids and transport oil and gas to an existing pipeline distribution system.

Construction of Rincon Island was completed in 1958. Total production from the island through March 1980 was approximately 7,625,752 barrels of oil and 6,140,993 MCF of gas. The maximum production rate of 2,250 barrels of oil per day (BOPD) was achieved in 1961. The historical maximum number of producing wells on State Lease PRC 1466 is 47. There currently are 29 wells producing oil and gas. The current production rate is 270 BOPD, 700 barrels of water per day (BSPD) and 65 MCF of gas per day.

2. Purpose of the Project

The purpose of this project is to evaluate potential recoverable oil and gas reserves from the Repetto Formation and to increase production from State

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Lease 1466. Should the exploratory program indicate that commercially recoverable reserves are present, the exploratory well would be put on production. It is estimated that about 2 million barrels of oil and 800 MCF of gas might be produced from the Repetto Formation.

3. Description of the Proposed Work

ARCO is planning to drill an exploratory well to the Repetto Formation. This is a deeper horizon underlying the present producing zones at the island but from which commercial reserves have been extracted at other locations in the area. At the well location, the existing production rig and rig substructure would be removed and replaced by a temporary rig capable of drilling to the proposed depth. The drilling rig would be moved in over the existing cross-way and set up on the island foundation over an existing well slot in the well bay. The drilling rig would have a mast height of 150 feet and would occupy an approximately 100- x 150-foot surface area. This is only slightly larger than the production rig. Drilling directions and depths and casing and cementing plans are described in the Procedure Summary and Preliminary Well Plan (Appendix I). Drilling rig equipment includes drawworks, rotary table, mud pumps, and generators driven by diesel engines using No. 2 diesel fuel oil. The total operating brake horsepower (hp) would be less than 2,500 hp and below 1,500 hp more than 90 percent of the time. The drilling mud used would be a high quality lignosulfate mixture.

Drill cuttings would be contained in sand bins after removal from the mud mixture and then hauled to an approved Class II-1 or Class I dumpsite. Drilling muds would be contained in the mud pits (interconnected steel tanks) while in use and hauled in a vacuum truck to an approved Class II-1 or Class I dumpsite upon completion of the well. Approximately 10,000 to 15,000 barrels of drill cuttings and waste muds are expected to be generated. After completion of the well, the drilling rig would be removed from the island and the production rig returned.

Should commercially recoverable reserves be proven, the exploratory well would be placed on production and oil, gas, and water would be processed through ARCO's existing Rincon Island facilities (see Exhibit B, Existing Facilities). No new facilities would be constructed. Produced oil and gas would be transported from Rincon Island via existing pipelines that connect to an existing distribution system. The estimated production lifetime is 15 years.

4. Present Environment

The surrounding environment in the area of State Lease PRC 1466 consists of the Pacific Ocean, coastal mountains, other petroleum production facilities, several beach homes, a restaurant, and Highway 101. Rincon Island is essentially a man-made sand-fill core surrounded by protective outer rock; its construction was completed in September 1958. The island covers approximately 6 acres on the ocean floor, 2.5 acres at water level, and has a useful work area of approximately 1 acre. In addition to petroleum production facilities on the island, a corner of the wharf at the northeast corner of the island is equipped with facilities for the study of marine biology. These facilities are used by students from Moorpark and Cal Lutheran colleges and by students of the Ventura County Marine Biology Institute.

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The nearest residences are several beach homes at Punta Corda, approximately 3,500 feet north of Rincon Island. The island and the trestle connecting the island to shore are visible to residents of these homes, motorists traveling on Highway 101, and vantage points along the local coastline. The trestle is the structure that initially attracts viewer attention because of the long distance (about 3,500 feet) it extends across the relatively featureless ocean surface. The trestle directs viewer attention toward the island, which appears as a relatively small rocky structure visually dominated by tall, scattered palm trees. These palm trees provide additional visual screening for the oil production facilities, which are situated within the depressed interior portion of the island. The existing production rig with the mast down is partially visible through the palm trees; when the mast is elevated (during occasional maintenance, well workovers, or redrilling activities), it extends above the height of the palm trees and is clearly visible from all onshore vantage points.

Geologic Environment

Rincon Island is located on the modern wave-cut bench which extends inland past U.S. Highway 101 to the base of the coastal bluff. The face of the bluff is about 500 feet in height, and an elevated coastal terrace extends inland beyond its edge.

Surficial sediments in the area include scattered Recent alluvial, colluvial, and beach material and Pleistocene terrace deposits which cap the elevated coastal terrace. These surficial deposits are unconformably underlain by tilted beds of the Pliocene Pico Formation which are well exposed in the face of the bluff. These beds are chiefly composed of siltstone and conglomerate. Underlying the Pico Formation are the Pliocene Repetto Formation (conglomerate, sandstone, and silty shale), the upper Miocene Santa Margarita Formation (massive diatomaceous mudstone), and the middle Miocene Monterey Formation (siliceous shale). Beneath the Monterey Formation is a thick sequence of lower Miocene, Oligocene, Eocene, and pre-Tertiary sedimentary rocks which rest on a basement of crystalline or Franciscan sedimentary rocks.

Rincon Island is located slightly north of the axis of the Rincon anticline, part of the trend that includes the Rincon, Carpinteria offshore, and Dos Cuadras oil fields. In the vicinity of the island, the Rincon anticline is cut by several subsurface faults, including the Rincon field fault. Most of these faults do not extend to the surface. Several east-west trending surface, or near-surface faults have been mapped in the general area (Yerkes and Lee, 1979). Important among these are the Red Mountain and Pitas Point faults which pass within 1 mile northeast and 2.1 miles south of the island, respectively.

5. Environmental Impact of the Proposed Project

A. Earth

Rincon Island is a man-made structure that was built specifically to accommodate facilities for well drilling activities and oil and gas production. The proposed project involves drilling and, potentially, production within the area of these existing facilities. There would

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be no changes to the island other than the introduction of temporary drilling equipment within the production area. Consequently, there would be no changes in existing topography, soils, wind or water erosion, unique geologic features, siltation/deposition, or beach sand transport processes.

The proposed well and associated facilities would be subject to potential adverse effects of various geologic phenomena, including earthquake ground motion, fault rupture, subsidence, and tsunami. These are briefly discussed below.

Earthquake Ground Motion: Rincon Island is located in the northeastern Santa Barbara Channel, an area which experiences frequent seismic activity. Should the proposed well be put on production, it is likely that it would experience some level of earthquake ground shaking during its 15-year lifetime. Proper adherence to applicable State Lands Commission (SLC) and Division of Oil and Gas (DOG) regulations pertaining to drilling, casing, blowout prevention, and completion procedures would minimize the potential for significant environmental effects to occur as a result of the occurrence of ground shaking.

Fault Rupture: The proposed well bore might penetrate the plane of the Rincon field fault or other of the subsurface faults which cut the Rincon anticline. Although it is considered unlikely, should the well bore penetrate the plane of one of these faults and should that particular fault experience movement during the lifetime of the well, the well casing could be damaged. Proper adherence to applicable SLC and DOG regulations would minimize the potential for significant environmental effects to occur as a result.

Subsidence: Should the proposed well be put on production, removal of fluids could potentially result in ground surface subsidence. Based on field history, occurrence of subsidence is considered unlikely. However, should it occur, SLC and DOG would be notified so that any appropriate mitigative measure could be instituted. Such mitigation typically consists of a program of controlled fluid injection.

Tsunami: It is highly unlikely that Rincon Island would experience a tsunami during the lifetime of the proposed well. Adherence to applicable SLC and DOG regulations should ensure against significant damage occurring in the event of a tsunami.

B. Air

Atmospheric emissions during the drilling phase primarily would result from the use of various diesel-powered equipment such as the drawworks, rotary table, mud pumps, and generators. The total operating combined horsepower of this equipment would be less than 2,500 hp. The total operating horsepower would be less than 1,500 hp approximately 90 percent of the time. The use of this equipment would result in the following atmospheric emissions (see Appendix II for emissions calculations):

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Operating Horsepower	Pollutant Emission Rate (lb/hr)				
	SO_2	NO_x (as NO_2)	THC	PM	CO
1,500	3.1	46.2	3.7	3.3	10.0
2,500	5.1	77.1	6.2	5.5	16.7

Note: SO_2 = Sulfur Dioxide
NO_x = Nitrogen Oxides
NO_2 = Nitrogen Dioxide
THC = Total Hydrocarbons
PM = Particulate Matter
CO = Carbon Monoxide

Additional minor emissions would be associated with truck and commuter vehicle movements. Because these emissions would occur over a relatively short period of time, they would not result in any significant adverse impacts on air quality.

Atmospheric emissions from equipment at Rincon Island are regulated by the Ventura County Air Pollution Control District (VCAPCD) through application of their Regulation II (Permits). Based on discussions with the VCAPCD, internal combustion engines used on oil drilling or workover rigs for electrical generation and for driving pumps are exempt from review under this regulation (Rule 23.D.5).

If commercially recoverable reserves are proven, the exploratory well would be put into production. Produced fluids would be commingled with existing Rincon Island production. Fluids would be processed using existing treating facilities on the island; no new facilities would be added. Produced crude oil and natural gas would be transported from the island via existing pipeline distribution systems. The existing production facilities and process flow are described in Appendix II.

The principal sources of possible emissions increases during the potential production phase would be the steam generator, hydrocarbon tankage, and equipment seals (see Appendix II). Production from the new well is not expected to increase emissions from the steam generator because no additional steam would be required to treat the potential new production. Fugitive hydrocarbon emissions from tankage are not anticipated because all hydrocarbon vapors from tankage are collected and used onsite as fuel or sold offsite. Existing fugitive hydrocarbon emissions from equipment seals would not change as a result of additional production. In summary, potential production from the Repetto Formation is not expected to increase existing emission rates from production facilities on Rincon Island.

C. Water

Surface water runoff on Rincon Island is contained and handled by an existing drainage system. The drainage system is connected to

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existing tankage where runoff water can be accumulated. The fluid is treated to separate out any oil and the water is then disposed of through a system of existing injection wells. The proposed project would not alter this system or cause an increase in the rate and amount of surface water runoff. It is possible that ground water aquifers may be penetrated during the well drilling operation. Contamination of ground water would be prevented by the proposed casing program (see Appendix I, Procedure Summary). During the drilling phase, demand for fresh water would be met through the existing municipal hook-up to Rincon Island. This additional water demand (about 6,000 gallons per day) would represent a small, temporary increase in total water demand for the region and is not expected to have a significant impact on available water supplies.

If a production phase is initiated, produced water would be reinjected into a producing formation, rather than discharged to the ocean, through a system of existing injection wells. This system is not currently in use but had an historic peak injection rate of 8,300 BWPD. The rate of reinjection for the proposed project is not known at this time; however, it would be significantly less than the historic peak injection rate. Fresh water requirements for the production phase would be minimal and would be met through the existing municipal system.

In summary, implementation of the proposed project would not result in significant effects on hydrologic resources. There would be no alteration in the drainage pattern, quantity, or quality of existing surface water flow. No significant impacts on ground water aquifers are anticipated. The proposed project would not result in a significant long-term increase in fresh water use. Drilling and potential production activities would not involve discharges to the ocean or cause changes in the existing character of marine waters. There would be no increase in risk of exposure to potential hydrologic hazards.

D. Plant Life

Vegetation on Rincon Island primarily consists of introduced palm trees, planted to shield onshore views of oil production facilities. These palms are situated on the perimeter of the island in planters and do not occur within the existing production facilities area. Because no new facilities would be constructed, no existing plant life would be disturbed or eliminated if the proposed project were implemented. No new species of plants would be introduced to the island and the existing limited plant diversity would remain unchanged.

E. Animal Life

Rincon Island is a man-made feature separated from shore by a trestle. There is no significant use of the island by terrestrial reptile, amphibian, or mammal species. The island is used by avifauna (marine and shore associated birds) for resting; feeding generally occurs in the adjacent ocean waters or near shore. The island potentially could

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be used for resting by the endangered California brown pelican (Pelecanus occidentalis californicus). It may feed in the adjacent offshore waters. Although California brown pelicans breed on the Channel Islands, it is expected that many of the birds present within the region were hatched at colonies located along the Mexican coastline. The primary threat to this species is food chain contamination with pesticides.

Neither the exploratory program nor potential production are expected to have any significant effect on the activities described above. Existing habitats used by animals would not be disturbed. No new animal species would be introduced to the island.

Construction of Rincon Island resulted in the creation of hard substrate habitat in a marine environment predominantly characterized by sandy bottom habitat. As a consequence, there was an associated increase in the diversity and abundance of marine biota at and near the island. The proposed project would involve activities on the terrestrial portion of the island only. Therefore, there would be no impacts on marine habitats or diversity/numbers of marine biota at or near Rincon Island.

F. Noise

As a worst case, the maximum increase in noise levels at the drilling rig would be approximately 90 dB, the maximum allowable under OSHA standards. These noise levels are expected to decrease to ambient levels by the time the sound reaches onshore residential receptor locations. The increase in noise levels would be temporary (during drilling only) and would not represent a significant impact. Noise levels are not expected to change significantly during the production phase.

G. Light and Glare

Some additional lighting may be required during the drilling phase; however, this would represent only a short-term, minor impact on offsite receptors. During the production phase, the amount of lighting at Rincon Island would be the same as currently exists.

H. Land Use

Rincon Island was built specifically for the purpose of petroleum production. The proposed project would, therefore, be consistent with this existing, approved land use. Within a broader context, the proposed project would be compatible with the surrounding land uses which include other petroleum production operations. If economically recoverable reserves are proven, the production lifetime of Rincon Island would be extended by approximately 8 years. This is not expected to significantly affect future land use options at the project location.

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I. Natural Resources

During the exploratory program, total consumption of No. 2 diesel fuel oil would be approximately 4,800 barrels. Should commercially recoverable reserves be proven, it is estimated that approximately 2 million barrels of oil and 820 MCF of gas could be extracted over the 15-year project lifetime. These relatively small volumes would not represent substantial depletion of natural resources.

J. Risk of Upset

The potential for an accidental release of drilling mud or crude oil exists. The quantity of mud that could be released would be small; the amount of crude oil that could be released would depend on the nature of the accident. The following are measures planned to ensure the control and containment of spilled substances:

- The drilling operation would employ state-of-the art blow-out prevention technology and mud monitoring equipment.

- The well bay can contain small volumes of fluid (mud or oil).

- Design of the island is such that spilled mud drains into the well bay trough. There are cellars on either end of this trough from which the mud can be pumped to a steel separation tank to separate out any oily wastes. This mud can then be transferred to a vacuum truck for disposal at an approved dumpsite. Berms around the active areas of the island would help contain any runoff.

- Rincon Island is constructed such that, physically, it is somewhat analogous to a bowl. The sides of the island are generally elevated at least 30 feet above the level of the production facilities area. Where the island opens toward the trestle, the ground surface slopes down to the production facilities area. Consequently, if an oil spill occurred that exceeded the capacity of individual containment structures, Rincon Island itself would serve as a further containment structure to prevent flow of oil into the marine environment and potential shoreline contamination.

ARCO has an Oil Spill Contingency Plan on file with the State Lands Commission which addresses specific spill control measures for Rincon Island.

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K. Population and Housing

During the mobilization phase, approximately 20 workers would be involved in daily activities. Thirty workers would be required during the drilling phase of the exploratory program. This work force primarily would come from the local Ventura-Ojai area. Should commercially recoverable reserves be proven, the production phase would involve the existing work force at Rincon Island; no new permanent jobs would be produced. Because of the small size and local and temporary nature of the exploratory phase work force, implementation of the proposed project would not result in any population changes nor would it affect housing demand in the region.

L. Transportation/Circulation

The mobilization phase of the exploratory program would involve a maximum of 10 truck and 30 commuter vehicle trips per day. During the drilling phase, there would be approximately 5 truck and 15 commuter vehicle trips per day. All vehicles would enter the causeway to Rincon Island from Highway 101. In 1979, daily traffic on Highway 101 averaged approximately 36,000 vehicles in the area. The maximum traffic generated during the exploratory program (40 trips per day) would represent a 0.1 percent increase over this level. Thus, additional traffic generated during the exploratory phase of the proposed project would not significantly affect the existing transportation system. In addition, all parking will be provided on Rincon Island. Because only the existing work force on the island would be involved in the production phase (should commercially recoverable reserves be proven), traffic levels in the area would not change and the existing transportation system would not be affected.

M. Public Services/Utilities

During the mobilization phase, fresh water needed for personnel requirements would be provided through the existing municipal water system. Approximately 6,000 gallons per day of fresh water would be needed during the drilling phase for mixing drilling mud and for personnel requirements; this water also would be supplied via the existing municipal water system. The existing fire water system would be used to provide sea water for mud make up water.

The existing sanitation system would be used during all phases of the proposed project. During the drilling phase, all electrical power consumed by project-related operations would be generated by equipment associated with the temporary drilling rig. There would be a negligible increase in the level of electrical power requirements during the production phase.

Approximately 10,000 to 15,000 bbls of drill cuttings and waste mud would be generated during the exploratory phase. These wastes would be disposed of at an approved Class II-1 or Class I dumpsite.

The work force during the exploratory phase would be small and local in nature and the production phase would involve only the existing

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Rincon Island work force. In addition, existing facilities would provide sanitation, fresh water, mud make up water, and other requirements during exploratory and production phases. Therefore, it is anticipated that no significant new demand for public services (e.g., fire and police protection, schools) or utilities would occur as a result of the proposed project.

N. Energy

During the exploratory phase, energy consumption would be relatively minimal. Approximately 4,800 bbls of No. 2 diesel fuel oil would be required to operate the drilling equipment. Energy use during the production phase would be minimal. Because of the limited scope of the proposed project, substantial amounts of fuel or energy would not be required. In addition, the proposed project would not substantially increase demand on existing energy sources, nor would it require development of new energy sources.

O. Human Health

Because of its limited scope and location within existing petroleum production facilities, the proposed project is not expected to create any new health hazard or increase public exposure to any potential health hazard.

P. Aesthetics

During the drilling phase, a drilling rig would be installed at the project location to temporarily replace the existing production rig. This drilling rig would be approximately 150 feet in height and would be similar in appearance to the existing production rig, but slightly larger. Therefore, there would be a slight, temporary change in the visual environment of Rincon Island during the exploratory phase. Activities visible from shore during this phase would appear similar to periodic operations (such as redrilling and maintenance) which presently occur on the island. The drilling rig would be removed and the production rig re-installed upon completion of the exploratory phase. Given the temporary nature of the drilling phase, no significant visual effect on offsite viewers is anticipated.

Should commercially recoverable reserves be proven, the new well and existing facilities would be used for oil and gas production. The new well head would not be visible to offsite viewers. Therefore, there would be no change in the existing visual character of Rincon Island.

Q. Recreation

No existing recreational facilities would be affected should the proposed project be implemented. Because of the small size and local nature of the work force involved in the proposed project (see Section K), there would be no additional demand on local recreational facilities.

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R. Archaeological/Historical

All drilling and, potentially, production activities would be conducted from Rincon Island. Because this island is an existing man-made structure, no archaeological or historical resources are expected to be present. Therefore, no effects on such resources are anticipated during exploration or production project phases.

6. Any Adverse Effects that Cannot be Avoided if the Proposed Project is Implemented

Potential environmental impacts of the proposed project are discussed in Section 5. These impacts would be localized, temporary, and of minor significance. Therefore, it is expected that no unavoidable significant adverse environmental impacts would result from implementation of the proposed project.

7. Mitigating Measures Proposed to Minimize the Impact

ARCO would comply with State Lands Commission, Division of Oil and Gas, and other appropriate regulations and requirements concerning exploratory (drilling) and production activities.

Rincon Island is constructed such that the sides of the island function as dike walls. Where the island opens toward the trestle, the ground surface slopes to the production facilities area. Therefore, if an oil spill were to occur that exceeded the capacity of other containment structures (e.g., the well bay), the island itself would serve as a means for containing spilled oil to prevent possible flow of oil into the marine environment and potential shoreline contamination. Other measures planned for control and containment of spilled oil, as well as potential spills of drilling mud, include the following:

- The drilling operation would employ state-of-the-art blow-out prevention technology and mud monitoring equipment.
- The well bay can contain small volumes of fluid (mud or oil).
- Design of the island is such that spilled mud drains into the well bay trough. There are cellars on either end of this trough from which the mud can be pumped to a steel separation tank to separate out any oily wastes. This mud can then be transferred to a vacuum truck for disposal at an approved dumpsite. Berms around the active areas of the island would help contain any runoff.

Containment measures and clean-up procedures related to potential accidental oil leakage or spills are discussed in ARCO's Oil Spill Contingency Plan on file with the State Lands Commission.

Drilling wastes (cuttings, mud) would be disposed of at an approved Class II-1 or Class I dumpsite, in accordance with appropriate regulatory requirements.

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It has been ARCO's recent experience during drilling programs at Rincon Island that workers carpool. ARCO will encourage continuation of this practice.

8. Alternatives to the Proposed Action

No Project

None of the impacts discussed in Section 5 would occur should the proposed project not be implemented. The result of this alternative would be that potential crude oil and natural gas reserves would not be recovered. This situation would be inconsistent with current national energy policies directed toward increasing the domestic crude oil supply to reduce dependence on foreign imports.

Other Well Locations

Alternative locations (off Rincon Island) for the proposed project would involve substantially greater environmental impacts because new drilling and production facilities would have to be constructed. Given the total estimated recoverable reserves (about 2 million barrels of oil and 820 MCF of gas), construction of new facilities would make recovery uneconomical. Rincon Island was built for the extraction and treating of petroleum resources from State Lease PRC 1466. All necessary production equipment and product distribution facilities exist on the island. From an environmental and economic viewpoint, the use of existing oil production facilities is preferable to the development of new facilities elsewhere.

9. Relationship Between Local Short-term Uses of the Environment and the Maintenance of Long-term Productivity

Implementation of the proposed project would involve the short-term use of the environment for drilling and, potentially, production over a period of approximately 15 years (should recoverable reserves be proven). Potential environmental impacts during exploration and production were discussed in previous sections. These impacts would be minimized through the mitigative measures included in the project design. All impacts are expected to be temporary and of minor significance. The proposed project would be conducted on Rincon Island, a man-made structure specifically constructed to accommodate petroleum drilling and production activities. It would represent a continuation of similar activities that have occurred on the island since 1958 when the island was built. Such activities are compatible with nearby petroleum production operations that currently exist. At a future date, when petroleum production activities on Rincon Island are terminated, the island would be available for other land use options. The proposed project would not result in the loss of potential future beneficial uses of the island. Therefore, the short-term use of the environment necessary for the proposed project would not result in significant long-term adverse impacts on the productivity of the environment.

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10. Irreversible Environmental Changes That Would be Involved if the Proposed Action Should be Implemented

Irreversible environmental changes resulting from the proposed project would be limited to use of minor amounts of energy and materials and depletion of a relatively small quantity of oil and gas reserves.

11. Growth-Inducing Impact of the Proposed Project

Growth-inducing aspects refer to those characteristics of a project which have the potential to encourage population or economic growth in the area surrounding the project. The exploratory phase of the proposed project would involve a maximum of 50 workers drawn from the local (Ventura-Ojai) area, a short time period (3 to 4 months), and demand for minor amounts of materials and supplies. All necessary equipment would be obtained from existing sources. Should economically recoverable reserves be proven, the production phase would involve only the existing Rincon Island work force. There would be no increase in the demand for community services, such as fire and police protection. Fresh water and electrical power would be supplied by existing facilities. Therefore, implementation of the proposed project would not be expected to encourage direct or indirect growth of the population or economy of the surrounding area.

12. Water Quality Aspects

ARCO will comply with all rules and regulations pertaining to the prevention of degradation of water quality. By implementing the proposed casing and cementing plan (see Appendix I), it is expected that no fluids would be lost to either ground or surface waters. Drilling and other wastes would be disposed of at an approved dumpsite. Should an accidental leakage or spill occur, it is expected that the mitigation measures included in the project design and ARCO's Oil Spill Contingency Plan would prevent or minimize contamination of ocean or ground water. Produced water would be reinjected into an oil producing formation through existing injection wells.

13. Economic and Social Factors

As discussed in Section 5, the proposed project would be expected to have minor to negligible effects on the socioeconomic environment. The mobilization and drilling phase work forces would be relatively small and from the local area. If a production phase is implemented, the existing work force and existing facilities on Rincon Island would be used. Thus, population size and demand for public services would not be expected to increase as a result of the project. The proposed project would be a continuation of current petroleum production activities on Rincon Island and would be consistent with present land use. In addition, no growth-inducing impacts would be expected to occur as a result of the project. Therefore, no significant adverse impacts on the socioeconomic environment would be expected to result from implementation of the proposed project.

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14. Organizations and Persons Consulted

Organizations

ARCO Oil and Gas Company, California District
State Lands Commission
Ventura County Air Pollution Control District

References

Yerkes, R.F. and W.H.K. Lee, 1979. Faults and epicenters of earthquakes, 1970-1975. U.S. Geological Survey Miscellaneous Field Studies Map MF-1032.

U.S. Environmental Protection Agency (EPA), 1979. AP-42, Table 3.3.3-1.

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PROJECT LOCATION

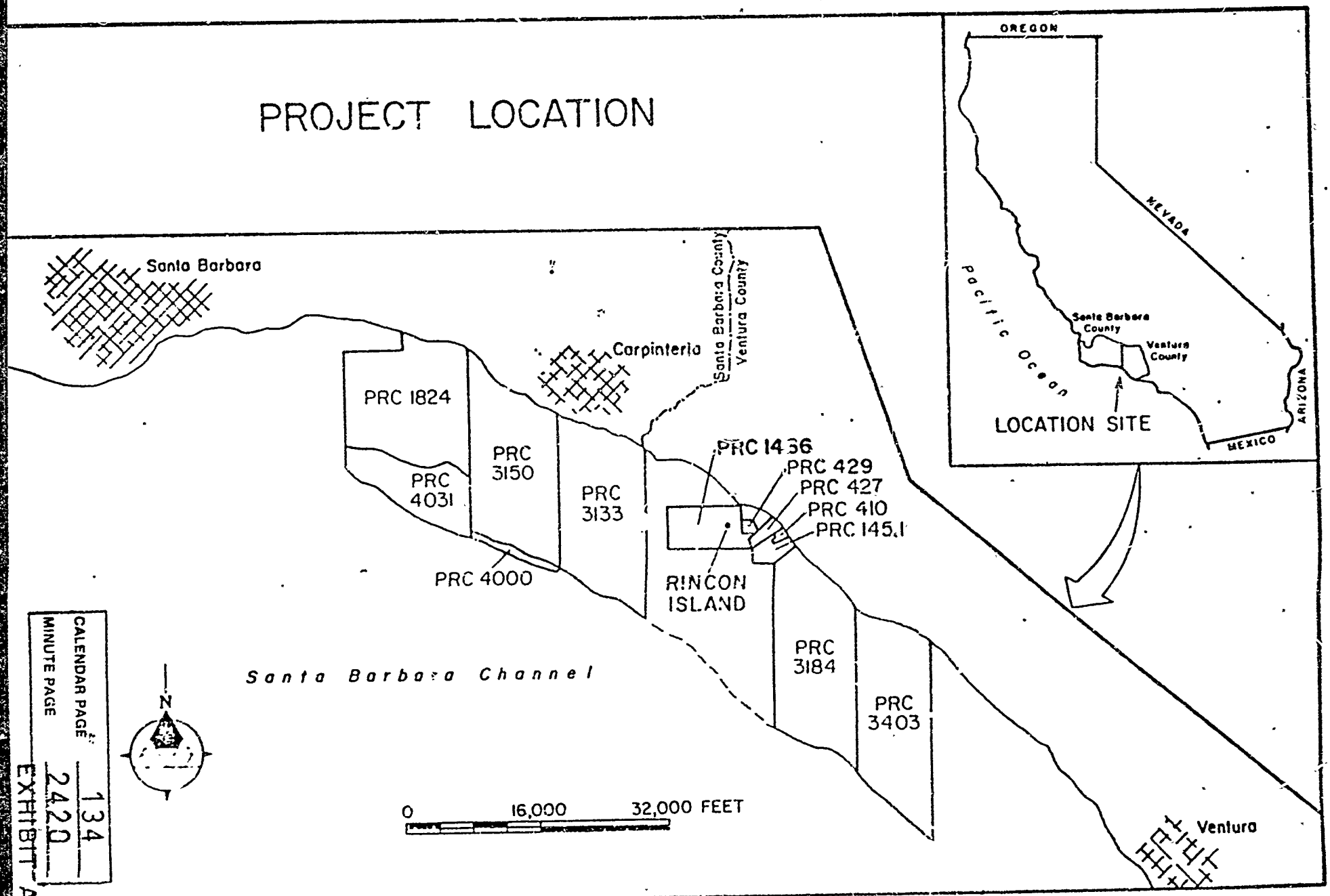

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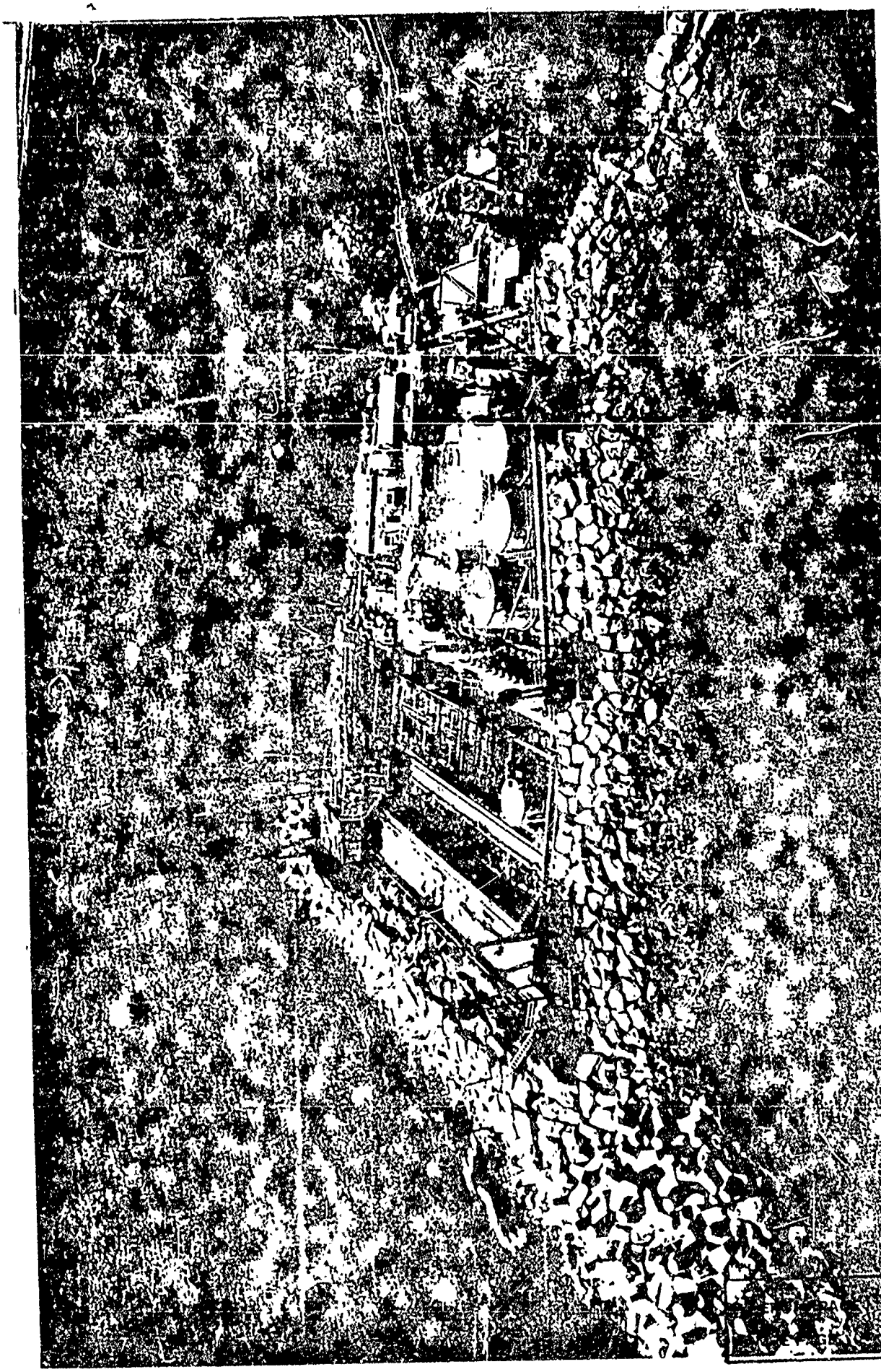
EXHIBIT A



APPENDIX I

PROCEDURE SUMMARY AND PRELIMINARY WELL PLAN

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PROPOSED T.D. 12134
WATER DEPTH ____ R.B. ELEV. 40'
DRILLING STRUCTURE Rincon Island

NEW WELL [X] REDRILL [ ] SIDETRACK [ ]
RECOMPLETION [ ] REMEDIAL [ ] ABANDONMENT [ ]
TYPE: OIL [ ], GAS [ ], W.I. [ ], G.I. [ ] GEOTH. [ ]

OPERATOR ARCO Oil & Gas Co.
FIELD Prospect
P.R.C. NO. 1466 WELL NO. ____
DATE 12-4-79

CASING STRINGS	SETTING DEPTHS Measured	SETTING DEPTHS Vertical	HOLE SIZE	CASING SPECIFICATIONS * O.D.	CASING SPECIFICATIONS * Wt	CASING SPECIFICATIONS * Grade	CASING SPECIFICATIONS * Joint	CASING SPECIFICATIONS * Type	CEMENTING C.P. Depth	CEMENTING Slurry Vol-cf	CEMENTING Fill-up Depth	CEMENTING W.O. Depth	MUD WT AT CSG. POINT	B.O.P.E. A.P.I. Class
CONDUCTOR	40	40	--	30	[illegible]				40		40		68	II
Penetration Below Mud Line														
FIRST SURFACE	500	499	26	20	94	K-55	BUTT	SMLS	500		Surface		70	II
SECOND SURFACE	2900	2496	17½	13 3/8	54.5	K-55	BUTT	SMLS	2496		Surface		70	IV
WATER or PROTECTIVE														
OIL or PRODUCTION	9518	7500	12¼	9 5/8	43.5 40	N-80 S0095	LTC	SMLS	9518		2000		80	IV
FIRST LINER - Top	9215	7296												
Bottom	12075	10000	8½	7	26	S0095	FL4S	SMLS	12075		2860		90	IV
SECOND LINER - Top														
Bottom														

* COMBINATION CASING STRING DESIGNS

Length	From	To	Size	Wt	Gr	Jt	Type
3358	0	3358	9 5/8	40	K55	LTC	S-1
1160	3358	4518	9 5/8	40	[illegible]	LTC	S-1
2080	4518	6598	9 5/8	40	[illegible]	LTC	S-1
2920	6598	9518	9 5/8	43.5	[illegible]	LTC	S-1

MINIMUM CALCULATED SAFETY FACTORS

STRING SIZE	TENSION Jt.	TENSION Body	COLL.	BURST Top	BURST Bottom
13-3/8	1.8	1.5	1.0	1.1	1.1
9-5/8	1.8	1.5	1.0	1.1	1.1
7	1.8	1.5	1.0	1.1	1.1

ZONES	DEPTHS Measured	DEPTHS Vertical	Production Perforation Interval Top Measured	Top Vertical	Bottom Measured	Bottom Vertical	ESTIMATED MAXIMUM ZONE PRESSURE		PROPOSED MIN. MUD WEIGHTS
							PRESSURE	VERT. DEPTH	
Base of First Competent Strata									
Base of Fresh Water Sands									
First Productive OIL Sands	7422'	5500'	7422'	5500'	9823'	7800'	3300#	7000'	75
Other Productive OIL Sands									
NAME FAULT BLOCK									
Subthrust "J" Sands	9823'	7800'	9823'	7800'	11563'	9500'	5250#	9500'	85
TOTAL DEPTH	12035	10000					5550#	10000	85

ACCESSORY B.O.P.E.

MUD MONITORING EQUIPMENT:

FOR STATE LANDS USE ONLY

Mud Column Pressure	Over Balance Pressure

REMARKS:

Engineering Review ____ Date ____
Geological Review ____ Date ____
Approval ____ Date ____

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APPENDIX I

PROCEDURE SUMMARY AND PRELIMINARY WELL PLAN

PROCEDURE SUMMARY

1. Install Class II BOE on previously installed 30" condustor casing. Directionally drill 26" hole to 499' TVD (500'MD). Set 20" casing and cement to surface.

2. Test BOE. Directionally drill 17-1/2" hole to 1900' TVD (2496' MD). Log open hole. Set 13-3/8" casing and cement to surface.

3. Install Class IV BOE. Directionally drill 12-1/4" hole to 7500' TVD (9518' MD). Log open hole. Set 9-5/8" casing and cement to 2000'.

4. Test BOE. Directionally drill 8-1/2" hole to 10,000' TVD (12075' MD). Log open hole. Run and cement 7" liner 12,075' - 9215'.

5. Log cased hole.

6. Complete, perforate and acidize as per production program.

PRELIMINARY WELL PLAN

WELL: Rincon Deep Test

Location: Surface: 76.3'S & 31.5'E of Rincon Island Reference Point
Target : Approximately 4430'W & 2070'S of surface location at 10,000'TVD.

Estimated Spud: July 15, 1980

Directional Plan: KOP is 50'. Build 4°/100' to 50° along S77°W course and hold to 3940' TVD. Drop angle at 4°/100' to 12° at 4750' TVD. Maintain 12° and turn well course from S77°W to Due South at 5500' TVD. Maintain 12° and hold Due South course to T.D. at 10,000' TVD.

Depth/Casing/Mud/Weight:

ITEM	S.S.	M.D.	MUD WT.
30" casing		40'	68
20" casing	- 499	400'	70
13-3/8" casing	-1900	2496'	70
"A" sands	-5500	7472'	80
9-5/8" casing	-7500	9518'	80
Subthrust "J" sands	-7800	9825'	90
T.D.	-10,000	12075'	90

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APPENDIX II

ATMOSPHERIC EMISSIONS ANALYSIS

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APPENDIX II

ATMOSPHERIC EMISSIONS ANALYSIS

A. DRILLING PHASE EMISSIONS CALCULATIONS

A.1 Emission Source Parameters

- Total operating brake horsepower = 2500
- 90 percent of the time operating brake horsepower is less than 1500

A.2 Assumptions

- 0.2 weight percent sulfur in diesel fuel oil
- All reciprocating engines

A.3 Calculations

Pollutant	Emission Factors	
	lb/1000 gal	g/hphr
SO_2	28.8	0.93
NO_x	469	14.0
THC	37.5	1.12
PM	33.5	1.00
CO	102.0	3.03

Source: EPA, AP-42, Table 3.3.3-1

Pollutant	Emission Rates (lb/hr)	
	2500 hp	1500 hp
SO_2	5.1	3.1
NO_x	77.1	46.2
THC	6.2	3.7
PM	5.5	3.3
CO	16.7	10.0

B. PRODUCTION PHASE EMISSIONS ANALYSIS

The following sections provide a brief description of existing production facilities and production process flow on Rincon Island. Atmospheric emissions associated with potential production from the Repetto Formation are then discussed.

B.1 Existing Production Facilities

The existing production facilities on Rincon Island are used to separate produced fluid from the wells into crude oil, water, and natural gas streams. The separated crude oil is sold to Mobil Oil and is transported by pipeline to Mobil's facilities north of Rincon Island. The separated natural gas is burned in the steam generator on the island.

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Excess natural gas is sold to the Southern California Gas Company and is transported by pipeline to their existing distribution system. Separated water is reinjected into the producing formation.

B.2 Process Flow

A process flow diagram showing the production facilities is provided on Exhibit II-A. The crude oil/water/natural gas stream flows from the producing wells to the master trap. The first oil/water/gas separation occurs in this vessel. The stream containing primarily oil flows from the master trap to the heater treater where this stream is heated using steam to enhance the oil/water/gas separation.

The streams containing primarily water from the master trap and heater treater flow to the induced gas flotation unit. This unit removes the residual quantities of oil present in the water. The water leaving this unit flows to a water tank before it is reinjected into the producing formation.

The crude oil leaving the heater treater flows through the wash tank and then the shipping tank before it is pumped via pipeline to Mobil's facilities north of Rincon Island.

All natural gas separated at the master trap, heater treater, wash tank, shipping tank, and the induced gas flotation unit is collected and processed on the island. The natural gas processing consists of natural gas liquids (NGL) removal, dehydration, and possible sulfur removal. The NGL removal is accomplished using a gas scrubber and the dehydration is accomplished using a glycol unit. Separated NGL is sold with the product oil and separated water is sent back into the treatment process.

Sulfur removal from the natural gas is necessary if hydrogen sulfide (H_2S) is detected in the produced gas. If detected, the gas is treated using the Chemsweet process. The Chemsweet process was developed by Nalco and uses a zinc powder solution to remove the H_2S present as zinc sulfide. The solution is drained from the Chemsweet reactors and disposed of in a Class I waste disposal site when all of the zinc solution has been depleted.

B.3 Atmospheric Emissions

The major source of atmospheric emissions during production operations is the steam generator. This unit burns natural gas and produces the steam used for heating the various vessels at the facility. The steam generator currently consumes approximately 50,000 cubic feet/day of natural gas. Production from the new well is not anticipated to result in additional gas being consumed because of the excess separating capacity in the master trap, heater treater and wash tank.

The only other source of atmospheric emissions during production operations is fugitive hydrocarbons. The major possible source of this type of emission is hydrocarbon tankage. However, these emissions are eliminated since all hydrocarbon vapors from tankage on Rincon Island are

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collected and either used as fuel or sold to the Southern California Gas Company. There is some fugitive hydrocaron leakage from various equipment seals. These emissions should not change as a result of the addition of the new producing well.

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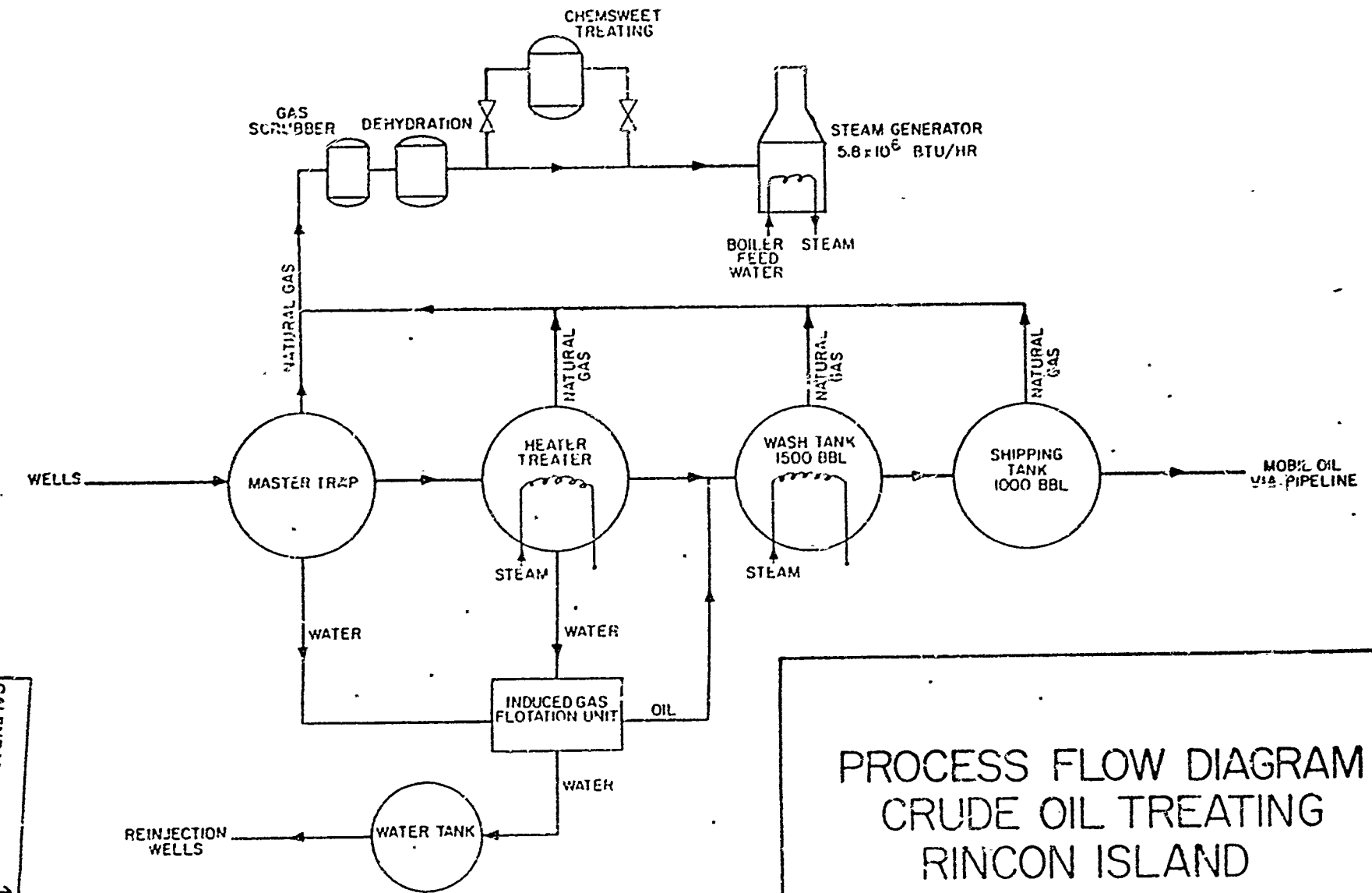

PROCESS FLOW DIAGRAM
CRUDE OIL TREATING
RINCON ISLAND

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EXHIBIT II-A