MINUTE ITEM
This Calendar Item No. 56
was approved as Minute Item
No. 56 by the State Lands
Commission by a vote of 3
to 0 at its 2/6/89
meeting.

CALENDAR ITEM

A 35

S 18

56

02/06/89
W 40214
PRC 1466
Gonzalez

APPROVAL OF PROPOSAL TO
DRILL AND PRODUCE AN OIL AND GAS WELL
RINCON ISLAND, STATE OIL AND GAS LEASE PRC 1466
VENTURA COUNTY OFFSHORE

LESSEE:

Bush Oil Company
Attn.: R. L. Klarc
5750 West Pacific Coast Highway
Ventura, California 93001

AREA, TYPE LAND AND LOCATION

State Oil and Gas Lease PRC 1466, issued on August 29, 1955, comprises 1,175 acres of submerged land at the westerly end of Rincon Field, Ventura County, located approximately ten miles north of the City of Ventura. A drilling and production island, Rincon Island, was constructed in 1958 by the original State lessee and is located approximately 3,000 feet from shore in 45 feet of water. The island is connected to the mainland by a causeway.

PROPOSED PROJECT:

Bush Oil Company, lessee of State oil and gas lease PRC 1466, proposes to drill an exploratory well to a vertical depth of 12,000 feet (measured depth: 14,000 feet), penetrating the Repetto Formation. This well would be drilled from Rincon Island.

In October 1987, the leases operated by Bush in the Rincon area were amended to require certain well development and abandonment operations. This well will meet requirements of the amendment regarding a Deep Zone Test Well on PRC 1466.

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The purpose of this project is to evaluate potential recoverable oil and gas reserves from the Repetto Formation and to increase production from State lease PRC 1466. Should the exploratory program indicate that commercially recoverable reserves are present, the exploratory well would be put on production.

Drilling would be conducted using an all electric, utility-supplied drilling rig. The mobilization phase would be a 12-to 24-hour-per-day operation lasting approximately ten days. The drilling phase would be a continuous operation for approximately 120 days. The estimated duration of the exploratory program is three to four 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.

AB 884: 10/15/89.

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Code Regs. 15025), the staff has prepared a Negative Declaration EIR ND 448. State Clearinghouse #88101910. Such Negative Declaration was prepared and circulated for public review pursuant to the provision of the CEQA. A copy of this environmental document is attached as Exhibit "B".

   Based upon the initial study, the Negative Declaration, and the comments received in response thereto, there is no substantial evidence that the project will have a significant effect on the environment (14 Cal. Code Regs. 15074(b)).

2. This activity involves lands identified as possessing significant environmental values

pursuant to P.R.C. 6370 et. seq. Based upon staff's consultation through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with the use classification.

3. Local agencies and jurisdictions in Ventura County which have been notified of the project through the CEQA review process include the County Planning Department, Resource Management Agency, County Air Pollution Control District, County Association of Governments and the cities of Oxnard, Port Hueneme and Ventura. None of the above has commented adversely on the proposed project.

4. The local agency with permit authority over this project, the Ventura County Air Pollution Control District, has issued to Bush Oil Company authority to construct #0003-3 for 3 oil wells on the Rincon area leases. A well has been drilled on oil and gas lease PRC 410 (#15). The proposed well will be the second authorized well.

EXHIBITS:

A. Location Map.

B. Negative Declaration ND 448.

C. County of Ventura Air Pollution Control District authority to construct #0003-3 and emission reductions certification.

IT IS RECOMMENDED THAT THE COMMISSION:

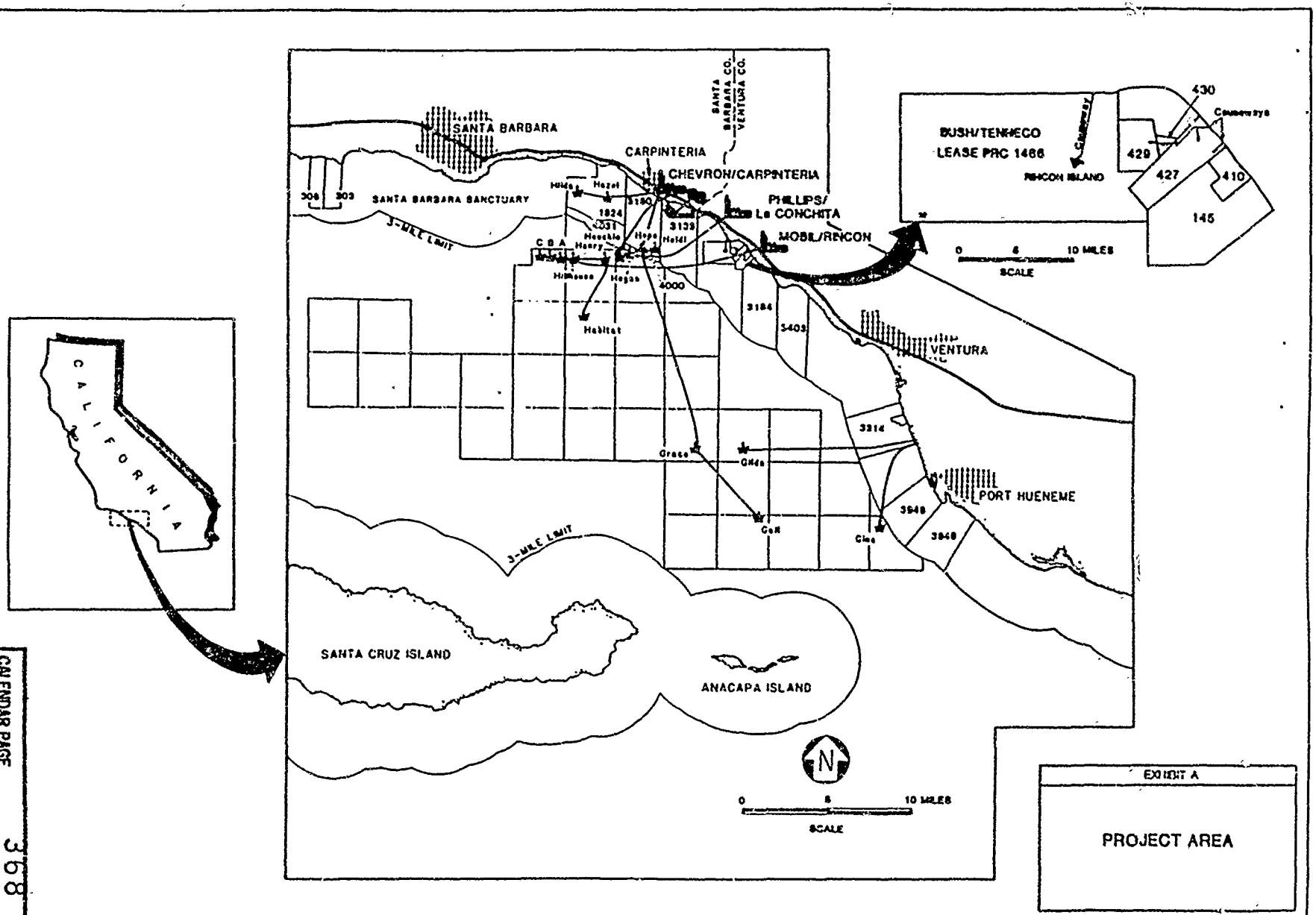
1. CERTIFIED THAT A NEGATIVE DECLARATION EIR ND 448. STATE CLEARINGHOUSE #88101910, WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF THE CEQA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

2. DETERMINE THAT THE PROJECT, AS PROPOSED, WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

3. FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE

CLASSIFICATION DESIGNATED FOR THE LAND PURSUANT TO P.R.C. 6383 ET. SEQ.

4. APPROVE THE PROPOSAL BY BUSH OIL COMPANY TO DRILL AN EXPLORATORY OIL AND GAS WELL FROM RINCON ISLAND AND TO PRODUCE THE WELL IF COMMERCIAL QUANTITIES OF HYDROCARBONS ARE DISCOVERED.



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STATE OF CALIFORNIA-STATE LANDS COMMISSION EXHIBIT "B" GEORGE DEUKMEJIAN, Governor

STATE LANDS COMMISSION
1807 13TH STREET
SACRAMENTO, CALIFORNIA 95814

PROPOSED NEGATIVE DECLARATION

EIR ND 448

File Ref.: W 40214

SCH#: 88101910

Project Title: Exploration and Development of Oil and Gas Resources

Project Proponent: Bush Oil Company

Project Location: Rincon Island, State Oil and Gas Lease PRC 1466, Offshore Ventura County

Project Description: Bush Oil proposes to drill a single well on Rincon Island to determine whether new oil and gas resources can be produced. If such resources are found, the well will be produced by connecting it to existing production facilities ~~which exist~~ on the Island. ~~and have underutilized capacity~~.

Contact Person: Randall L. Moory Telephone: (916) 322-7828

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

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

☐ the project will not have a significant effect on the environment.

☒ mitigation measures included in the project will avoid potentially significant effects.

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Form 13.17 (2/88)

Mail to: State Clearinghouse, 1400 Tenth St., Rm 121, Sacramento, CA 95814—916/445-0613

NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT TRANSMITTAL FORM

SCH #

1. Project Title: Oil and Gas Exploration and Development

2. Lead Agency: State Lands Commission 3. Contact Person: Randall L. Moory

3a. Street Address: 1807 - 13th Street 3b. City: Sacramento

3c. County: Sacramento 3d. Zip: 95814 3e. Phone: 322-7828

PROJECT LOCATION 4. County: Ventura 4a. City/Community: State Tidelands offshore

4b. Assessor's Parcel No. _____ 4c. Section _____ Twp. _____ Range _____

5a. Cross Streets: _____ 5b. For Rural, Nearest Community: Ventura

6. Within 2 miles: a. State Hwy # 101 b. Airports _____ c. Railways So. Pac. d. Waterways Pacific Ocean

7. DOCUMENT TYPE

CEQA

01. ___ NOP
02. ___ Early Cons
03. X Neg Dec
04. ___ Draft EIR
05. ___ Supplement/Subsequent EIR (Prior SCH No.: _____)

06. ___ MOE
07. ___ NOC
08. ___ NOD

NEPA

09. ___ NOI
10. ___ FONSI
11. ___ Draft EIS
12. ___ EA

OTHER

13. ___ Joint Document
14. ___ Final Document
15. ___ Other _____

8. LOCAL ACTION TYPE

01. ___ General Plan Update
02. ___ New Element
03. ___ General Plan Amendment
04. ___ Master Plan
05. ___ Annexation
06. ___ Specific Plan
07. ___ Community Plan
08. ___ Redevelopment
09. ___ Rezone
10. ___ Land Division (Subdivision, Parcel Map, Tract Map, etc.)
11. ___ Use Permit
12. ___ Waste Mgmt Plan
13. ___ Cancel Ag Preserve
14. ___ Other _____

9. DEVELOPMENT TYPE

01. ___ Residential: Units _____ Acres _____
02. ___ Office: Sq. Ft. _____ Acres _____ Employees _____
03. ___ Shopping/Commercial: Sq. Ft. _____ Acres _____ Employees _____
04. ___ Industrial: Sq. Ft. _____ Acres _____ Employees _____
05. ___ Water Facilities: MGD _____
06. ___ Transportation: Type _____
07. ___ Mining: Mineral _____
08. ___ Power: Type _____ Watts _____
09. ___ Waste Treatment: Type _____
10. X OCS Related
11. ___ Other: _____

10. TOTAL ACRES: _____ 11. TOTAL JOBS CREATED: _____

12. PROJECT ISSUES DISCUSSED IN DOCUMENT

01. X Aesthetic/Visual
02. ___ Agricultural Land
03. X Air Quality
04. ___ Archaeological/Historical
05. X Coastal Zone
06. ___ Economic
07. ___ Fire Hazard
08. ___ Flooding/Drainage
09. ___ Geologic/Seismic
10. ___ Jobs/Housing Balance
11. X Minerals
12. X Noise
13. ___ Public Services
14. ___ Schools
15. ___ Septic Systems
16. ___ Sewer Capacity
17. ___ Social
18. ___ Soil Erosion
19. ___ Solid Waste
20. X Toxic/Hazardous
21. ___ Traffic/Circulation
22. ___ Vegetation
23. X Water Quality
24. ___ Water Supply
25. ___ Wetland/Riparian
26. ___ Wildlife
27. ___ Growth Inducing
28. ___ Incompatible Landuse
29. ___ Cumulative Effects
30. ___ Other _____

13. FUNDING (approx) Federal $ _____ State $ _____ Total $ _____

14. PRESENT LAND USE AND ZONING:

15. PROJECT DESCRIPTION: The drilling of single exploration well and subsequent connection of that well to existing production facilities if the well successfully discovers oil and gas resources.

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16. SIGNATURE OF LEAD AGENCY REPRESENTATIVE: Randall L Moory DATE: 10/12/88

NOTE: Clearinghouse will assign identification numbers for all new projects. If a project has been assigned a number, please use that number in all future correspondence regarding the project.

STATE LANDS COMMISSION

PRC 1466
W 40214

ENVIRONMENTAL IMPACT ASSESSMENT CHECKLIST – PART II

Form 13.20 (7/82)

File Ref.: W 6005.11

I. BACKGROUND INFORMATION

A. Applicant: Bush Oil Company
5750 Pacific Coast Highway
Ventura, CA 93001

B. Checklist Date: 09 / 12 / 88

C. Contact Person: Randall Moory

Telephone: (916) 322-7828

D. Purpose: Exploration and development of oil and gas resources on State Oil and Gas Lease PRC 1466.

E. Location: Offshore Ventura County on Rincon Island

F. Description: The drilling of a single exploratory well and subsequent connection to existing production facilities if the well proves successful.

G. Persons Contacted:
Brian Baird, California Coastal Commission
James Johnson, California Coastal Commission
William Flynn, Ventura County APCD
Paul Porter, Ventura County Planning
Capt. Hal Moore, Ventura County Fire Department

II. ENVIRONMENTAL IMPACTS. *(Explain all "yes" and "maybe" answers)*

A. *Earth.* Will the proposal result in:	Yes	Maybe	No
1. Unstable earth conditions or changes in geologic substructures?	☐	☐	☒
2. Disruptions, displacements, compaction, or overcovering of the soil?	☐	☐	☒
3. Change in topography or ground surface relief features?	☐	☐	☒
4. The destruction, covering, or modification of any unique geologic or physical features?	☐	☐	☒
5. Any increase in wind or water erosion of soils, either on or off the site?	☐	☐	☒
6. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake?	☐	☐	☒
7. Exposure of all people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	☐	☐	☒

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	Yes	Maybe	No
B. *Air.* Will the proposal result in:			
1. Substantial air emmissions or deterioration of ambient air quality?	[ ]	[X]	[ ]
2. The creation of objectionable odors?	[ ]	[ ]	[X]
3. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	[ ]	[ ]	[X]
C. *Water.* Will the proposal result in:			
1. Changes in the currents, or the course or direction of water movements, in either marine or fresh waters?	[ ]	[ ]	[X]
2. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	[ ]	[ ]	[X]
3. Alterations to the course or flow of flood waters?	[ ]	[ ]	[X]
4. Change in the amount of surface water in any water body?	[ ]	[ ]	[X]
5. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	[ ]	[ ]	[X]
6. Alteration of the direction or rate of flow of ground waters?	[ ]	[ ]	[X]
7. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	[ ]	[ ]	[X]
8. Substantial reduction in the amount of water otherwise available for public water supplies?	[ ]	[ ]	[X]
9. Exposure of people or property to water-related hazards such as flooding or tidal waves?	[ ]	[ ]	[X]
10. Significant changes in the temperature, flow or chemical content of surface thermal springs?	[ ]	[ ]	[X]
D. *Plant Life.* Will the proposal result in:			
1. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	[ ]	[ ]	[X]
2. Reduction of the numbers of any unique, rare or endangered species of plants?	[ ]	[ ]	[X]
3. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	[ ]	[ ]	[X]
4. Reduction in acreage of any agricultural crop?	[ ]	[ ]	[X]
E. *Animal Life.* Will the proposal result in:			
1. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)?	[ ]	[ ]	[X]
2. Reduction of the numbers of any unique, rare or endangered species of animals?	[ ]	[ ]	[X]
3. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	[ ]	[ ]	[X]
4. Deterioration to existing fish or wildlife habitat?	[ ]	[ ]	[X]
F. *Noise.* Will the proposal result in:			
1. Increase in existing noise levels?	[ ]	[ ]	[X]
2. Exposure of people to severe noise levels?	[ ]	[ ]	[X]
G. *Light and Glare.* Will the proposal result in:			
1. The production of new light or glare?	[ ]	[X]	[ ]
H. *Land Use.* Will the proposal result in:			
1. A substantial alteration of the present or planned land use of an area?	[ ]	[ ]	[X]
I. *Natural Resources.* Will the proposal result in:			
1. Increase in the rate of use of any natural resources?	[X]	[ ]	[ ]
2. Substantial depletion of any nonrenewable resources?	[ ]	[X]	[ ]

	Yes	Maybe	No
J. *Risk of Upset.* Does the proposal result in:			
1. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	☐	☒	☐
2. Possible interference with emergency response plan or an emergency evacuation plan?	☐	☐	☒
K. *Population.* Will the proposal result in:			
1. The alteration, distribution, density, or growth rate of the human population of the area?	☐	☐	☒
L. *Housing.* Will the proposal result in:			
1. Affecting existing housing, or create a demand for additional housing?	☐	☐	☒
M. *Transportation/Circulation.* Will the proposal result in:			
1. Generation of substantial additional vehicular movement?	☐	☐	☒
2. Affecting existing parking facilities, or create a demand for new parking?	☐	☐	☒
3. Substantial impact upon existing transportation systems?	☐	☐	☒
4. Alterations to present patterns of circulation or movement of people and/or goods?	☐	☐	☒
5. Alterations to waterborne, rail, or air traffic?	☐	☐	☒
6. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	☐	☐	☒
N. *Public Services.* Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
1. Fire protection?	☐	☐	☒
2. Police protection?	☐	☐	☒
3. Schools?	☐	☐	☒
4. Parks and other recreational facilities?	☐	☐	☒
5. Maintenance of public facilities, including roads?	☐	☐	☒
6. Other governmental services?	☐	☐	☒
O. *Energy.* Will the proposal result in:			
1. Use of substantial amounts of fuel or energy?	☐	☐	☒
2. Substantial increase in demand upon existing sources of energy, or require the development of new sources?	☐	☐	☒
P. *Utilities.* Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
1. Power or natural gas?	☐	☐	☒
2. Communication systems?	☐	☐	☒
3. Water?	☐	☐	☒
4. Sewer or septic tanks?	☐	☐	☒
5. Storm water drainage?	☐	☐	☒
6. Solid waste and disposal?	☐	☐	☒
Q. *Human Health.* Will the proposal result in:			
1. Creation of any health hazard or potential health hazard (excluding mental health)?	☐	☐	☒
2. Exposure of people to potential health hazards?	☐	☐	☒
R. *Aesthetics.* Will the proposal result in:			
1. The obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	☐	☐	☒
S. *Recreation.* Will the proposal result in:			
1. An impact upon the quality or quantity of existing recreational opportunities?	☐	☐	☒

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T. *Cultural Resources.*

	Yes	Maybe	No
1. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archeological site?	☐	☐	☒
2. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	☐	☐	☒
3. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☒
4. Will the proposal restrict existing religious or sacred uses within the potential impact area?	☐	☐	☒

U. *Mandatory Findings of Significance.*

1. Does the project have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☒
3. Does the project have impacts which are individually limited, but cumulatively considerable?	☐	☐	☒
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒

III. DISCUSSION OF ENVIRONMENTAL EVALUATION *(See Comments Attached)*

See Attached

IV. PRELIMINARY DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is requied.

Date: 09 / 19 / 88

For the State Lands Commission

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B.1 The proposed project may involve the development of oil and gas resources. The proposed project involves no new facilities. Any new production will be processed through existing facilities. These facilities are under the jurisdiction of the Ventura County Air Pollution Control District and have approved emission offsets.

G.1 During the period of drilling, night time lighting will be provided in and around the well site. This will add to the normal island lighting which exists.

Impacts to the public will be mitigated substantially by the use of shielding and directive lighting techniques which will direct the light to where it will be used and reduce public exposure.

Further, the additional lighting will only be used for the drilling phase which will last only 3 to 4 months.

I.1 The purpose of the proposed project is the development of nonrenewable hydrocarbon resources. In addition, the project will consume electrical power from a utility which produces some of that power by the consumption of nonrenewable resources.

J.1 The proposed project could result in the release of drilling muds or crude oil in the event of an accident. Such release could pose significant environmental impact.

The likelihood of such accidents are small and decreased substantially by compliance with the drilling regulations enforced by the State Lands Commission. In addition, such a spill would be confined to Rincon Island since the island is surrounded by 30 foot hight berms.

2559S

STATE OF CALIFORNIA
STATE LANDS COMMISSION

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

BUSH OIL COMPANY
Rincon Island, Ventura County

1. Project and Its Location

Bush Oil Company, lessee of State Oil and Gas Lease PRC 1466, is planning to drill an exploratory well to a vertical depth of 12,000 feet (measured depth: 14,000 feet), penetrating the Repetto Formation. This well would be drilled from Rincon Island, an artifical 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 145. State Lease PRC 3133 is west of State Lease PRC 1466 (see Exhibit A, Project Location).

Drilling would be conducted using an all electric, utility-supplied drilling rig. The mobilization phase would be 12- to 24-hour per day operation lasting approximately 10 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. Cumulative production from the island through 1987 exceeded 8 million barrels of oil and 6 billion cubic feet 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 9 wells producing oil and gas. The current production rate is 100 BOPD, 250 barrels of water per day (BWPD) and 35 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 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 1000 MMCF of gas might be produced from the Repetto Formation.

3. Description of the Proposed Work

Bush is planning to drill an exploratory well through 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 drilling rig would be moved in over the existing crossway 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 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, and mud pumps. The total operating brake horsepower (hp) would be less than 5,000 hp, all from D.C. electric motors with power supplied by Southern California Edison Company. The drilling mud used would be a high quality water based 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 as non-hazardous waste. 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 1,400 cubic yards of drill cuttings are expected to be generated. After completion of the well, the drilling rig would be removed from the island.

Should commercially recoverable reserves be proven, the exploratory well would be placed on production, and oil, gas, and water would be processed through Bush's existing Rincon Island 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 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 wash tank, and then to the shipping tank. It is then sold to Mobil Oil and is transported by an existing pipeline to Mobil's facilities north of Rincon Island, where it is separated further into Pipeline Quality Oil.

Water from the master trap flows to a water tank before it is reinjected into the producing formation. All natural gas separated at the master trap, wash tank, and the shipping tank is collected and sold to Southern California Gas Company through an existing 6" pipeline that transports it ashore.

No new facilities would be constructed on the island. 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 30 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, the town of La Conchita, several beach homes, a hotel, and U.S. 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.

The nearest residences are the beach homes and hotel located at Punta Gorda, approximatley 3,000 to 3,500 feet north of Rincon Island. The island and the trestle connecting the island to shore are visible to residents of the beach homes and hotel, some residents of La Conchita, motorists traveling on Highway 101, and from vantage points along the local coastline. The trestle is the structure that initially attracts viewer attention because of the long distance (about 3,000 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 partial visual screening for the oil production facilities, which are situated within the depressed interior portion of the island. The existing production rig, when the mast is elevated, extends above the height of the palm trees and is visible from most local 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 Plieocene 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 Foramtion (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 immediate 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. These are discussed in the following section.

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 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: The major faults in the vicinity of Rincon Island are predominantly east-west trending reverse faults (Exhibit B). The principal faults or fault zones (thought to be seismically active) identified in the Rincon Island area are the Arroyo Parida - Santa Ana, the Red Mountain, the Pitas Point, and the Oak Ridge faults. The Arroyo Parida - Santa Ana and the Red Mountain faults are located approximately 4½ and 1 mile northeast of the island, respectively. The Pitas Point and the Oak Ridge faults are located approximately 3 and 7½ miles south of the island, respectively.

Instrumentally recorded seismicity in the Rincon Island region from 1902 to 1985 is shown on Exhibit C. It can be seen from this exhibit that seismic activity has occurred in a diffuse pattern throughout the region as well as in a few distinct clusters.

Historically, the eastern Santa Barbara Channel has experienced a moderate level of seismicity. Much of this seismicity occurred as an earthquake swarm in 1968. Other moderate to large events occurred in the offshore Santa Barbara area in 1925 (M 6.3), 1941 (M 5.9), and 1978 (M 5.1). Several other moderate magnitude events have occurred in the vicinity of the northern Channel Islands. Studies of earthquake focal mechanisms reveals that most events within the channel can be associated with the east-west trending reverse or left-slip faults.

Should the proposed well be put on production, it is likely that it would experience some level of earthquake ground shaking during its 30-year lifetime. Proper adherence to applicable State Lands Commission (SLC) and Division of Oil and Gas (DOG) regulations as described in Section 7, 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 particulate fault experience movement during the lifetime of the well, the well casing could be damaged. Proper adherence to applicable SLC and DOG regulations, as described in Section 7, 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, as described in Section 7, should ensure against significant damage occurring in the event of a tsunami.

B. Air

The proposed project is located in Ventura County's Ojai Valley Airshed. The airshed is in the south zone of Ventura County which is considered to be a non-attainment area for ozone (O_3). The area is considered in attainment with respect to other pollutants. This airshed is currently designated as a non-growth area for Ventura County Air Pollution Control District (VCAPCD) planning purposes. The proposed project area is located near the southern portion of the South Coast region of Santa Barbara County (Region 1). This region, known as the Air Quality Management Area (AQMA) for Santa Barbara County, is currently classified as a non-attainment area for ozone (O_3). The South Coast Region is in attainment with National Ambient Air Quality Standards (NAAQS) for all other criteria pollutants.

The air quality monitoring network in the Rincon Island region consists of six monitoring stations located in Ventura and Santa Barbara Counties (Exhibit D). The sites are located at: (1) Ventura Main Street, 14 miles southeast of the project site; (2) Emma Wood State Beach, 13 miles southeast of the project site; (3) West Casitas Pass, 4½ miles northeast of the project site; (4) Chevron Carpenteria, 4½ miles northwest of the project site; (5) Santa Barbara Canon Perdido Street, 14 miles northwest of the project site; and, (6) Goleta, 22 miles northwest of the project site. Maximum concentrations of pollutants measured in the project region at these monitoring stations are presented in Table 1. For comparison, NAAQS and California Ambient Air Quality Standards (CAAQS) are also shown in Table 1.

During the exploratory phase, an all electric drilling rig would be used, and no measurable emissions would be generated by this rig during drilling operations. Minor emissions would be associated with a small amount of truck and commuter vehicle movements (see Section L); however, these emissions would occur over a relatively short period of time (3 to 4 months) and would not result in any significant adverse impacts on air quality.

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 principal sources of possible emissions increases during the potential production phase would be hydrocarbon tankage and equipment seals. 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 emissions from production facilities on Rincon Island, and therefore would not result in any significant impacts on air quality.

Atmospheric emissions from equipment at Rincon Island are regulated by the Ventura County Air Pollution Control District (VCAPCD). Bush Oil Company has certified emissions for offsetting the production operations from the well as required by VCAPCD.

C. Water

Surface water runoff on Rincon Island is contained and handled by an existing drainage system. The drainage system is connected to 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 as described in Section 7. 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. No native vegetation types occur. The 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 connected to shore by a 3,000 foot causeway. There is no native terrestrial wildlife habitat present, and consequently no use of the island by native terrestrial amphibian, reptile, or mammal species. The island may potentially be used by terrestrial and marine birds for resting. Shorebirds do occur there regularly, primarily during resting periods. Some foraging by these shorebirds may occur on the rocky, outer portions of the island. No breeding by any native terrestrial wildlife species is expected to occur on the island.

Construction of Rincon Island resulted in the creation of a hard substrate intertidal and subtidal habitat in a marine environment predominantly characterized by soft bottom subtidal habitat. As a consequence, there was an associated increase in the abundance and diversity of marine biota at and around the island, as species colonized the newly available substrate. This colonization is commonly observed at man-made structures in the marine environment.

Sensitive species that may potentially occur near the island include the state and federal listed endangered California brown pelican (Pelecanus occidentalis californicus), and the protected marine mammals-California sea lion (Zalophus californianus) and bottlenose dolphin (Tursiops truncatus). California brown pelicans may occasionally feed in the waters adjacent to the island, but are not expected to regularly occur near the island. Small numbers of California sea lions may occasionally occur near the island, but if present, these animals have become acclamated to the oil production activities occurring on the island. Since the 1983 El Nino Southern Oscillation event, between 30 and 50 bottlenose dolphins have been recorded during each month on a yearly basis in the small bay immediately north of Rincon Island. These dolphins apparently feed in nearshore waters, and are not expected to regularly occur near the island.

Neither the proposed exploratory phase nor potential production phase are expected to have significant impacts on the biological resources of the Rincon Island area. No new animal species would be introduced to the island. Existing marine habitats currently used by wildlife would not be disturbed, since the proposed project would involve activities on the terrestrial portion of the island only.

F. Noise

Ambient noise measurements were taken within a 2.5 mile radius of Rincon Island. The results of the measurements are presented in Table 2, and the locations of the measurement sites are shown on Exhibit E. Ambient noise within the 2.5 mile radius is primarily composed of truck and automobile traffic from U.S. Highway 101, and ocean surf. Additional noise is generated by passing trains and occassional air traffic. The nearest noise sensitive receptors to Rincon Island are:

- Rincon Point Homes - 2.5 miles N.W. of Rincon Island;
- La Conchita - 1.0 miles N.N.W. of Rincon Island;
- Punta Gorda Point (Mussel Shoals) - 0.5 miles N. of Rincon Island;
- Residential - 1.5 miles E.S.E. of Rincon Island, and;
- Campground (Hobson's Beach) - 2.0 miles E.S.E. of Rincon Island.

The receptor locations are also shown on Exhibit E.

During the exploratory phase, an all electric drilling rig would be used, and some increase in traffic would occur. Since the electric powered drill rig is relatively quiet as compared with diesel, and since the increase in truck traffic (see Section L) would only be short term and minor (most of this increase would occur during the 10 day mobilization period), the incremental increase in noise is not expected to be significant. Any noise levels generated by the electric rig are expected to substantially attenuate due to the distance between the island and the receptors. It is not anticipated that any sound generated by the exploratory activities would be percieved above existing ambient traffic, train and surf noise levels, and would therefore not be significant. Since no new equipment is required for the potential production facilities, no incremental noise increases are expected.

G. Light and Glare

Existing sources of light and glare in the Rincon Island area are for the most part minor and consist of existing island lighting, lights on Highway U.S. 101, and street and residence lights in La Conchita, the beach residences, and the hotel at Punta Gorda.

During the drilling phase, nighttime lighting would be necessary around the well pads. Other sources of light would be from trucks delivering supplies at night, and crew vehicles. The nearest light sensitive receptors would be the residences and hotel located at Punta Gorda (3,000 to 3,500 feet north of the site). Due to the relatively short time period that the drilling rig would be running (3 to 4 months), the similarity of this activity to existing island operations, and the substantial distance of light sensitive receptors to the project area, impacts resulting from nighttime lighting due to drilling activities are expected to be insignificant. Mitigation measures to further reduce the impacts of nighttime lighting are described in Section 7. During the potential production phase, the amount of lighting would not increase from what 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 25 years. This is nopt expected to significantly affect future land use options at the project location.

I. Natural Resources

A utility generated electric drilling rig will be use during the exploratory program. Should commercially recoverable reserves be proven, it is estimated that approximately 2 million barrels of oil and 1000 MMCF of gas could be extracted from the Repetto Formation over the 25-year project lifetime.

J. Risk of Upset

Although very unlikely, the potential of 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 measures used to mitigate an accidental release of mud or oil are described in Section 7.

K. Population and Housing

Population. The civilian labor force in Ventura County averaged 270,400 persons in 1983. Total employed population was approximately 244,000, resulting in an unemployment rate of about 9.7 percent in 1983 (27,500 persons). Population centers in Ventura County include the cities of Oxnard, Ventura, and Port Hueneme. Ventura and Port Hueneme serve as major offshore and onshore petroleum industry centers. Port Hueneme functions as the principal supply port for offshore Santa Barbara and Ventura counties. Petroleum-related services in Ventura include oil field maintenance, oil well completion and pumping equipment, and oil well servicing. Exploration and production offices of several major oil companies are also located in Ventura. Oxnard, because of its substantial population base, provides a labor pool for petroleum-related industries in Ventura County.

Santa Barbara County's civilian labor force averaged 167,600 in 1983. Of this labor force, approximately 155,100 were employed, resulting in an unemployment rate of about 7.5 percent (12,500 persons). Principal population centers in Santa Barbara County include the cities of Carpinteria, Guadalupe, Lompoc, Santa Barbara, and Santa Maria and the unincorporated Goleta Valley. Within the southern portion of Santa Barbara County, several oil companies, including Chevron, have had increased activities due to the construction of offshore platforms and onshore processing and terminal facilities. In northern Santa Barbara County, particularly near Santa Maria, several companies operate oil field servicing and maintenance services for onshore petroleum production operations; little or none of their activity is related to offshore development.

Housing. As of 1985, Ventura County reported a total housing inventory of 200,729 units (State of California, Dept. of Finance, 1985). Housing unit growth is projected to be 234,648 units in 1990, 258,492 units in 1995, and 283,322 units in 2000 (VCERA, 1980).

Santa Barbara County reported a total housing inventory of 123,118 units in 1985 (State of California, Dept. of Finance, 1985). Households in the county are projected to increase about 1% per year compounded annually from 1980 to 1990 and about 5% per year compounded annually from 1990 to 2000. The increase in housing units is projected to be 133,534 units in 1990, 140,280 units in 1995, and 146,201 units in 2000 (Santa Barbara County-Cities Area Planning Council, 1982).

Impacts. During the mobilization phase of the proposed project, 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 form the Ventura-Ojai area, or the Santa Barbara area. 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. 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 and housing demand would not be affected.

L. Transportation Circulation

U.S. Highway 101 1985 traffic volumes are presented in Table 3 for the Rincon Island area. The annual average daily traffic is the total traffic volume for the year divided by 365 days. The peak month average daily traffic volume is the average daily traffic for the month of heaviest flow. Locations of the interchanges where the traffic volumes were measured are shown on Exhibit F.

The mobilization phase of the exploratory program would involve a total of 20 trips per day (5 truck and 15 commuter vehicle). During the drilling phase, there would be approximately 30 trips per day (10 truck and 20 commuter vehicles). All vehicles would use the causeway from U.S. Highway 101 to access or exit Rincon Island. The maximum traffic generated during the exploratory program (30 trips per day) would represent less than 0.1 percent of the existing 1985 daily traffic and would be short term. Thus, the additional traffic generated during the exploration phase of the proposed project would not have a significant impact on the existing transportation system. Since 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 be increased and the existing transportation system would not be affected. Measures to further reduce impact on the existing transportation system are described in Section 7.

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 and production phases, all electrical power consumed by project-related operations would be supplied by So. Cal. Edision (see Section N). There would be a negligible increase in the level of electrical power requirements during the production phase.

Approximately 1,400 cubic yards of drill cuttings and waste mud would be geuerated during the exploratory phase. These wastes would be disposed of at an approved Class II-1 or Class I dumpsite as a non-hazardous waste.

The work force during the exploratory phase would be small and local in nature and production phase would involve only the existing 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, an all electric drill rig would be used; electricity would be supplied by Southern California Edison. A similar rig was recently operated in the immediate vicinity of Rincon Island that was also supplied with electricity by this utility. Since there were no difficulties in obtaining an adequate supply of power from Southern California Edison, and since technical problems with power cycles were resolved, the short term (3 to 4 months) rig operation associated with the proposed project is not expected to have a significant impact on local electricl energy use and supply. The electric rig for the proposed project will not be operating concurrently with the rig recently used by Bush at a nearby onshore location.

Since no new facilities would be constructed for the production phase, no significant increase in energy use would occur. Because of the limited scope of the proposed project, substantial use of fuel or energy would not be required. The proposed project would not substantially increase demand on existing energy sources, nor would it require the 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

The oil exploration and production facilities would be situated within the depressed interior of the island and therefore partially hidden from view. Further visual screening would be provided by palm trees. However, both the drilling rig and production rig would be visible when their masts are raised.

The 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 upon completion of the exploratory phase. Given the temporary nature of the drilling phase (3 to 4 months), and the visual similarity to present operations, no significant visual impact 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 and therefore would not change the existing offsite visual character of Rincon Island.

Q. Recreation

Recreational areas in the vicinity of Rincon Island are shown on Exhibit G. Recreational activities include surfing, camping, sport fishing, diving, and general beach day use. The exploratory phase of the project is not expected to: (1) significantly increase the existing traffic conditions, (2) significantly decrease the offsite visual character of the island, (3) significantly contribute to an increase in ambient noise levels, and (4) import a significant number of new workers that would be using the available recreational facilities. Therefore, the exploratory phase of the proposed project is not expected to have a significant impact on existing recreation use in the area. The production phase of the project would require no new personnel, and no new equipment would be constructed. Therefore, no changes from existing conditions would be anticipated and no impact is expected on existing recreational use in the area. Due to the separation of the island from existing recreation facilities, it is not expected that recreation activities would have a significant impact on the project activities.

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

Where appropriate, mitigation measures are proposed to further reduce environmental impacts. The measures suggested for each environmental category are presented below:

A. Earth

Bush would comply with applicable State Lands Commission, the California Division of Oil and Gas, and other appropriate regulations and requirements pertaining to drilling, casing blowout prevention, and completion, in order to minimize the potential for significant environmental impacts due to ground motion, fault rupture, subsidence and tsunamis.

B. Air

An all electric drilling rig will be used to accomplish the proposed exploratory drilling operations.

C. Water

i. Bush 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. Should an accidental leakage or spill occur, the mitigation measures included in the project design and Bush's Oil Spill Contingency Plan (currently being updated) would prevent or minimize contamination of ocean or ground water.

ii. Drilling wastes (cuttings, mud) would be disposed of at an approved Class II-1 or Class I dumpsite as a non-hazardous waste in accordance appropriate regulatory requirements. No ocean discharge of drilling muds or cuttings would be conducted.

D. Plant Life

No mitigation measures are proposed.

E. Animal Life

No mitigation measures are proposed.

F. Noise

Noise generated by the proposed activity will be minimized by the use of an all electric drilling rig.

G. Lighting and Glare

The illumination of the drilling activities at night will be limited by appropriate shielding and directing techniques to reduce reflection and glare.

H. Land Use

No mitigation measures are proposed.

I. Natural Resources

No mitigation measures are proposed.

J. Risk of Upset

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

ii. All supervisory personnel will be blowout and well control certified.

iii. The well bay can contain a small volume of fluid (mud or oil).

iv. 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.

v. 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.

vi. Bush has an Oil Spill Contingency Plan (currently being updated) on file with the State Lands Commission which addresses specific spill control measures for Rincon Island. This plan would be implemented in the event of a spill.

K. Population and Housing

No mitigation measures are proposed.

L. Transportation/Circulation

i. In order to reduce the impact to the existing transportation system, left hand turns across traffic would be eliminated during the exploration phase of the project. All vehicles requiring to go north after exiting Rincon Island would make a right turn onto U.S. Highway 101 and drive south, exiting at the Sea Cliff interchange, located about 1½ miles south of Rincon Island. The vehicles would then cross U.S. 101 and re-access it via the northbound Sea Cliff onramp. All vehicles approaching Rincon Island from the south would exit U.S. 101 at the Bates Road interchange, located about 2.5 miles north of Rincon Island. The vehicles would then cross U.S. 101 and re-access it via the southbound Bates onramp. Rincon Island may then be accessed by a right turn off of U.S. 101. The interchanges discussed above are shown on Exhibit F.

ii. It has been Bush's recent experience during drilling programs at Rincon Island that workers will carpool. Bush will require continuation of this practice, and will shuttle workers from Bush's Rincon Field office to Rincon Island to minimize traffic on the Rincon Island causeway.

M. Public Services/Utilities

No mitigation measures are proposed.

N. Energy

No mitigation measures are proposed.

O. Human Health

No mitigation measures are proposed.

P. Aesthetics

No mitigation measures are proposed.

Q. Recreation

No mitigation measures are proposed.

R. Archaeological/Historical

No mitigation measures are proposed.

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. Rincon Island was built for the extraction and treating of petroleum resources from State Lease PRC 1466. All necessary production equipment and production distribution facilities exist on the island. From an environmental and economic viepwoint, 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 30 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.

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 (20 during mobilization and 30 during drilling) drawn from the local (Ventura-Ojai or Santa Barbara) 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. Therefore, implementation of the propsed project would not be expected to encourage direct or indirect growth of the population or economy of the surrounding area.

12. Water Quality Aspects

Bush 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 Bush'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 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.

14. Organizations and Persons Consulted

Organizations

Bush Oil Company, California District
State Lands Commission
Ventura County Air Pollution Control District

References

Caltrans, 1985. 1985 Traffic Volumes on California State Highways.

Clark, M.N., and Keller, E.A., 1979. Newly identified zone of potentially active reverse faulting, western Transverse Ranges, California Geological Society of America Abstracts with Programs, v. 11, no. 7, p. 402-403.

Grigsby, F.B., 1986. Quaternary tectonics of the Rincon and San Miguelito oil fields area, western Ventura basin, California: unpublished M.S. thesis, Oregon State University, 110 p.

Jackson, P.A., and Yeats, R.S., 1982. Structural evolution of Carpinteria basin, Western Transverse Ranges, California: American Association of Petroleum Geologists Bulletin, v. 66, no. 7, p. 805-829.

Rockwell, T.K., Keller, E.A., Johnson, D.L., and Dembroff, G.R., 1983. Late Pleistocene-Holocene chronology, tectonic geomorphology and earthquake hazard: north flank central Ventura basin, California: Final Technical Report for U.S. Geological Survey contract no. 14-08-0001-19781, 81 p.

Santa Barbara County-Cities Area Planning Council (APC), 1982. Forecast 82: Santa Barbara County 1980-2000. Santa Barbara, California. Endorsed February 1983.

State of California Department of Finance, 1985. Santa Barbara controlled county population estimates for 1/1/85. Population Research Unit, Sacramento, California.

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

Ventura County Environmental Resources Agency (VCERA), 1980. Population monitor.

Yeats, R.S., 1983, Large-scale Quaternary detachments in Ventura basin, southern California: Journal of Geophysical Research, v. 88, p. 569-583.

APPENDIX I

PROCEDURE SUMMARY AND PRELIMINARY WELL PLAN

PROCEDURE SUMMARY

1. Install Class II BOE on previously installed 30" conductor casing. Drill 26" hole to 500'. Set 20" casing and cement to surface.

2. Test BOE. Drill 17-1/2" hole to 2500'. Log open hole. Set 13-3/8" casing and cement to surface.

3. Install Class IV BOE. Drill 12-1/4" hole to 7500'. Log open hole. Set 9-5/8" casing and cement to 2000'.

4. Test BOE. Drill 8-1/2" hole to 12,000'. Log open hole. Run and cement 7" liner 12,000± ~ 9200±.

5. Log cased hole.

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

PRELIMINARY WELL PLAN

Well: Rincon Deep Test

Location: Rincon Island

Estimated Spud: January 1, 1990

Casing/Depth/Mud Weight:

Item	Depth	Mud Weight
30" casing		68
20" casing	-500	70
13-3/8"	-1900	70
"CA" sands	-5500	80
9-5/8" casing	-7500	80
Subthrust "J" sands	-7800	90
T.D.	-12000	90

TABLE 1

MAXIMUM MEASURED POLLUTANT CONCENTRATIONS DURING 1983-86 IN THE SOUTHERN HALF OF THE SANTA BARBARA COUNTY SOUTH COAST AREA AND THE SOUTH ZONE OF VENTURA COUNTY

Pollutant/Averaging Time	Southern Half of Santa Barbara County South Coast Area			South Zone of Ventura County		Ambient Air Quality Standards (ppm)	
	Goleta	Santa Barbara	Carpinteria[a]	West Casitas Pass	Emma Wood State Beach	National	California
O_3(ppm)							
1-hour	0.23	0.22	0.156	0.18	(0.19)[b]	0.12	0.09[c]
Annual	0.029	0.025	0.041	0.048	0.031	N/A	N/A
NO_2(ppm)							
1-hour	0.13	0.17	0.127	0.08	0.13	N/A	0.25
Annual	0.019	0.031	0.015	0.017	(0.037)	0.05	N/A
CO(ppm)							
1-hour	7	18	--[d]	--	--	35	20
Annual	0.83	1.79	--	--	--	N/A	N/A
SO_2(ppm)							
1-hour	0.01	0.04	--	--	--	N/A	0.25
24-hour	0.01	0.04	--	--	--	0.14	0.05
Annual	0.000	(0.008)	--	--	--	0.03	N/A
TSP(ug/m^3)							
24-hour	151	256	--	458	391[e]	260	100
Annual	45.9	(76.5)	--	(45.1)	(63.5)[e]	75	N/A
PM_{10}(ug/m^3)							
24-hour	47	--	--	--	--	150	50
Annual	(25.1)	--	--	--	--	50	30
Pb(ug/m^3)							
30-day	--	(0.76)	--	--	--	N/A	1.5
Quarterly	--	(0.60)	--	--	--	1.5 ug/m^3	25

TABLE 1 (concluded)

Pollutant/Averaging Time	Southern Half of SBC South Coast Area			South Zone of Ventura County		Ambient Air Quality Standards (ppm)	
	Goleta	Santa Barbara	Carpinteria[a]	West Casitas Pass	Emma Wood State Beach	National	California
SO_4 (ug/m^3)							
24-hour	--	20.9	--	--	--	N/A	25 ug/m^3
Annual	--	(8.00)	--	--	--	N/A	N/A
NO_3 (ug/m^3)							
24-hour	--	20.2	--	--	--	N/A	N/A
Annual	--	(7.86)	--	--	--	N/A	N/A

(a) These data are compiled from a monitoring site operated by Dames & Moore for Chevron. Data reflects the time period for September 1985 to March 1988.

(b) Values in parentheses are valid, but data set is incomplete in that insufficient number of data points were collected to meet EPA and/or ARB criteria for representatives.

(c) On August 1, 1988, California Air Resources Board lowered the standard to 0.09 ppm. The previous standard was 0.10 ppm.

(d) Dashes indicate that pollutant is not measured at that particular site.

(e) Data obtained from the Ventura - Main Street station as Emma Wood does not measure TSP concentrations.

TABLE 2

AMBIENT NOISE MEASUREMENTS

Location	Representative Noise Levels*			
	Morning	Afternoon	Evening	Night
Site 1 - Rincon Point	71	73	66	65
Site 2 - Punta Gorda	64	66	64	64
Site 3 - Punta Gorda	72	71	73	67
Site 4 - Oil Piers	73	72	72	67

* measurements given in dB A

Typical noise ranges during each site sampling period are as follows:

Location	Observed Noise Level Range*			
	Morning	Afternoon	Evening	Night
Site 1 - Rincon Point	63-77	61-77	62-76	60-70
Site 2 - Punta Gorda	53-69	55-71	61-76	60-76
Site 3 - Punta Gorda	60-76	58-74	62-76	61-71
Site 4 - Oil Piers	60-78	59-75	60-76	59-71

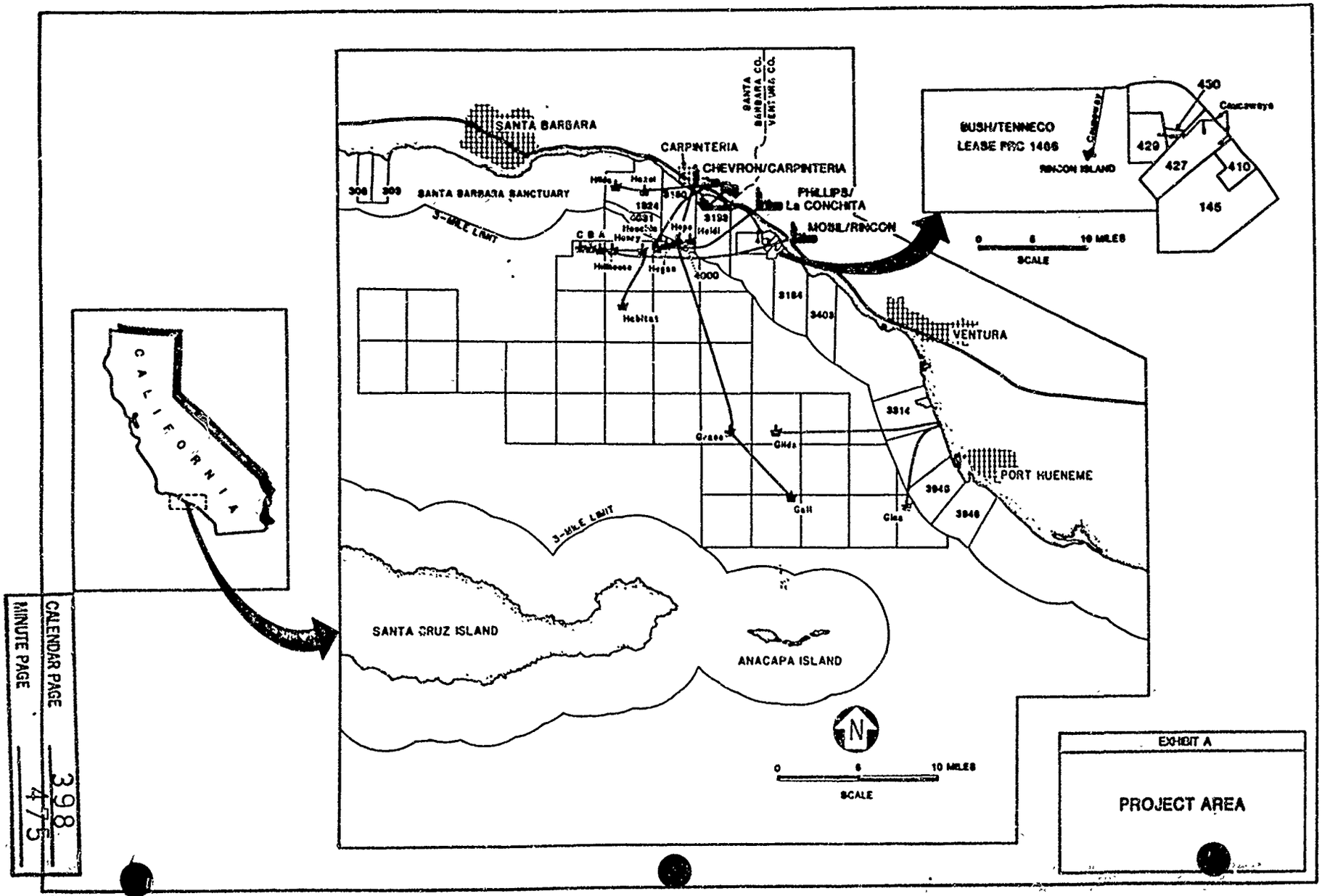
* measurements given in dB A

TABLE 3

1985 TRAFFIC VOLUMES

Location	Peak Hour	Average Daily Traffic	
		Peak Month	Annual
1. Jct. Rte. 244 Interchange	7,000	66,000	48,500
2. El Rincon Interchange	7,800	59,000	49,500
3. Jct. Rte. 150 Interchange	7,000	62,000	45,000
4. Bates Road Interchange	9,000	60,000	45,000
5. Sea Cliff Interchange	7,200	60,000	48,000
6. Solimar Interchange	7,200	66,000	48,000
7. Jct. Rte. 33 Interchange	7,800	65,000	52,000

* Source: Caltrans, 1985.



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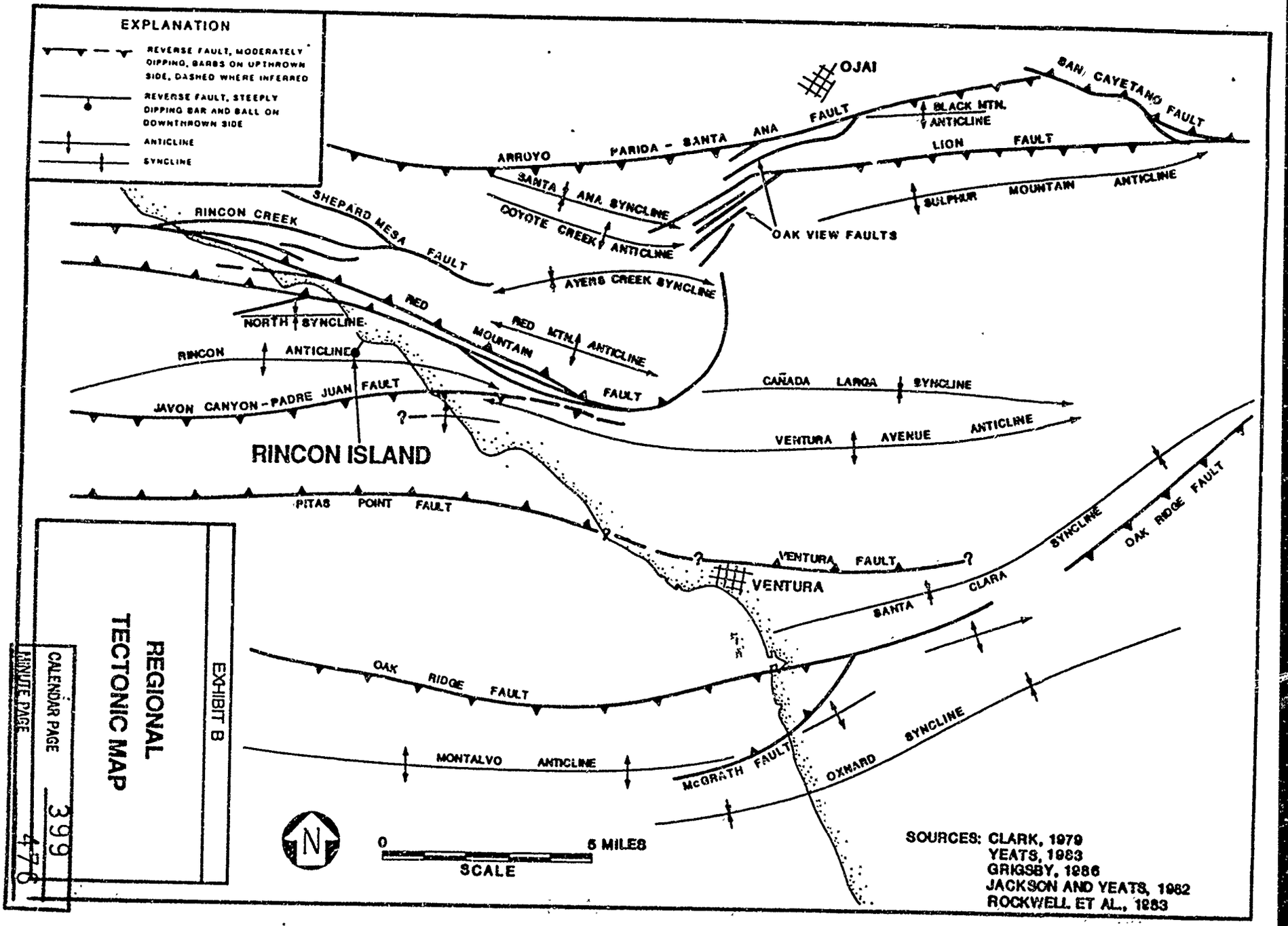
0.536



REGIONAL TECTONIC MAP

EXHIBIT B

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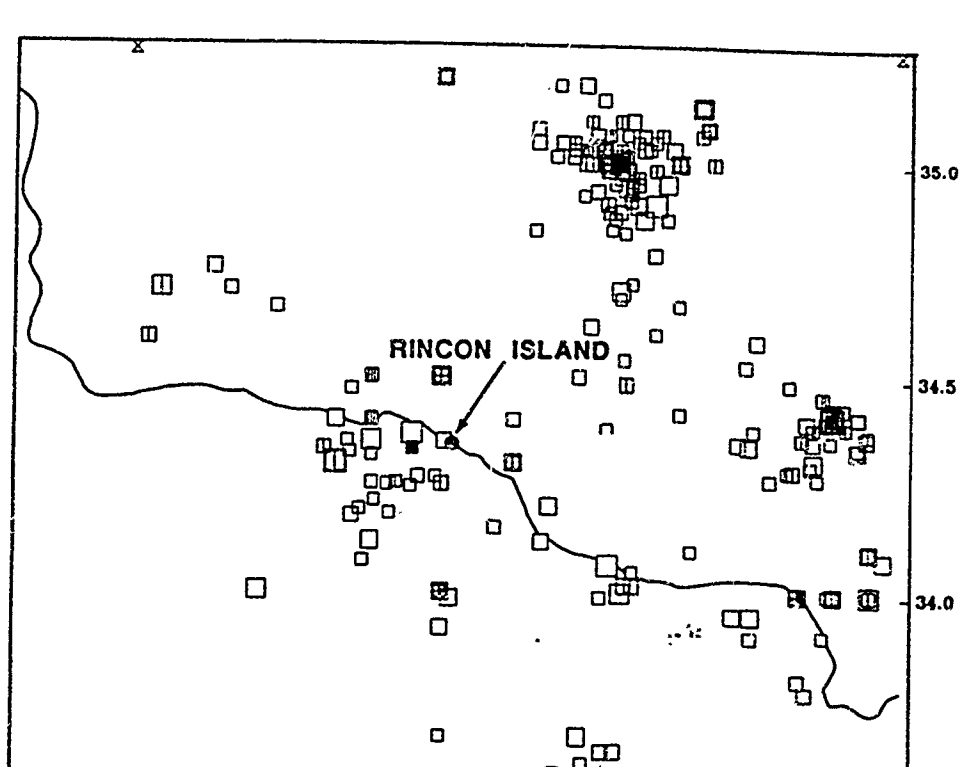
CALENDAR PAGE 399

476

0 537



EXPLANATION:

MAGNITUDE

- 4
- 5
- 6
- 7
- 8

MULTIPLE EVENTS OF SAME MAGNITUDE AT SAME LOCATION

EXHIBIT C

HISTORIC SEISMICITY OF SITE REGION JULY 1902-APRIL1985

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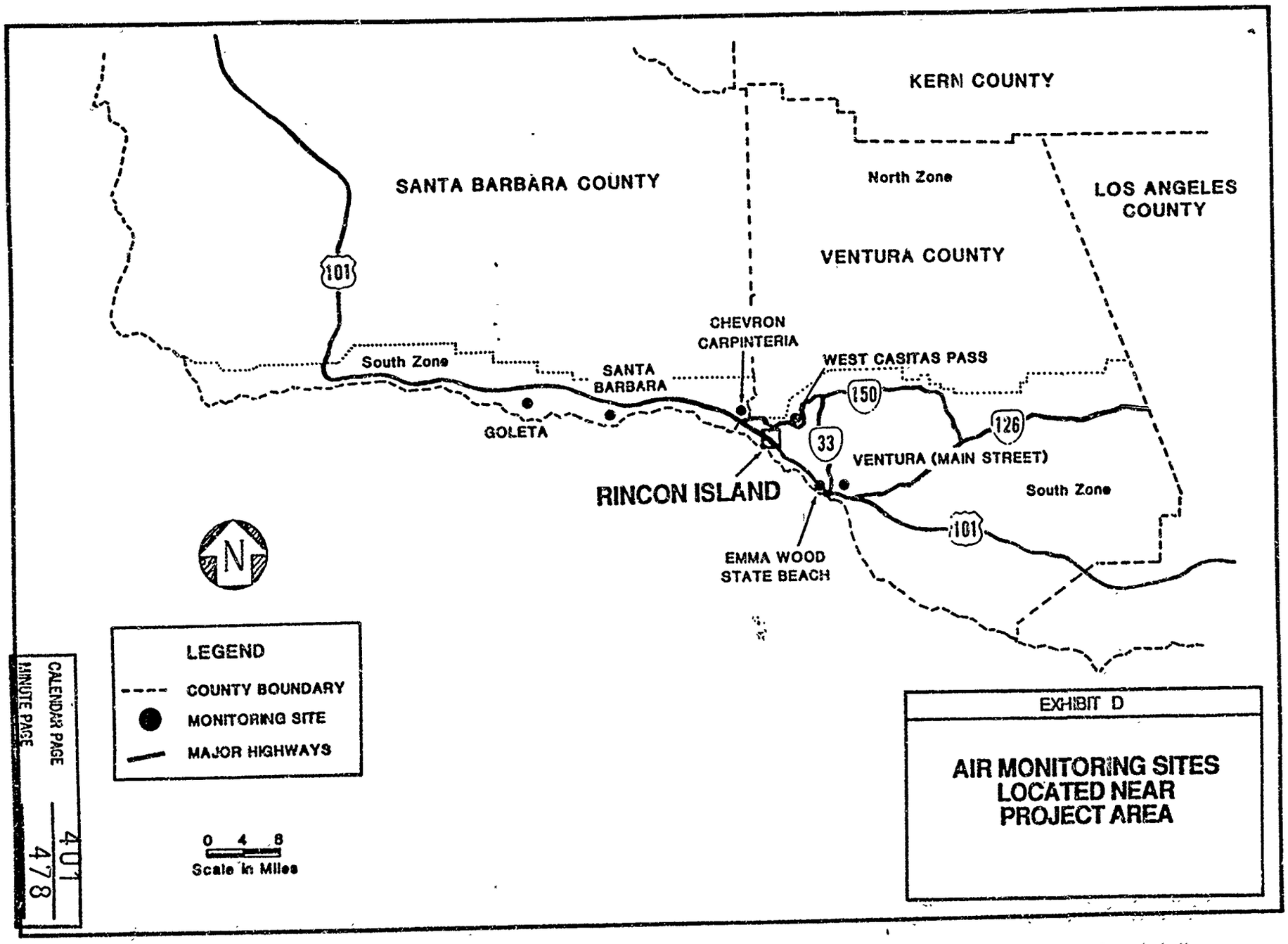
0.538



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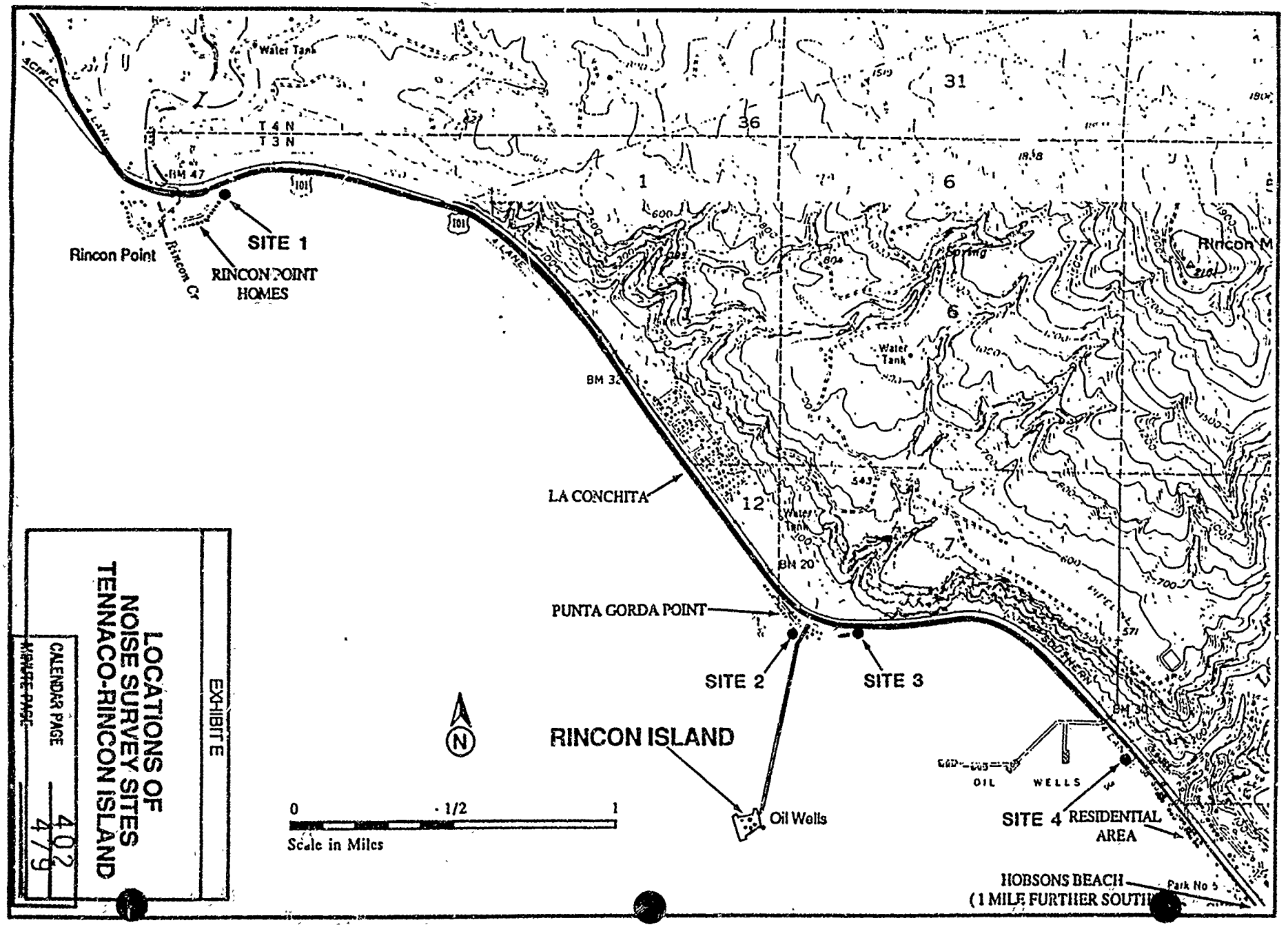
0.539


Water Tank
T 4 N
T 3 N
BM 47
SITE 1
Rincon Point
Rincon Cr
RINCON POINT
HOMES
Rincon M
BM 32
LA CONCHITA
Water Tank
BM 20
PUNTA GORDA POINT
SITE 2
SITE 3
RINCON ISLAND
Oil Wells
OIL WELLS
SITE 4 RESIDENTIAL
AREA
BM 30
HOBSONS BEACH
(1 MILE FURTHER SOUTH
Park No 5
0 1/2 1
Scale in Miles
LOCATIONS OF
NOISE SURVEY SITES
TENNACO-RINCON ISLAND
EXHIBIT E
CALENDAR PAGE
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0.540

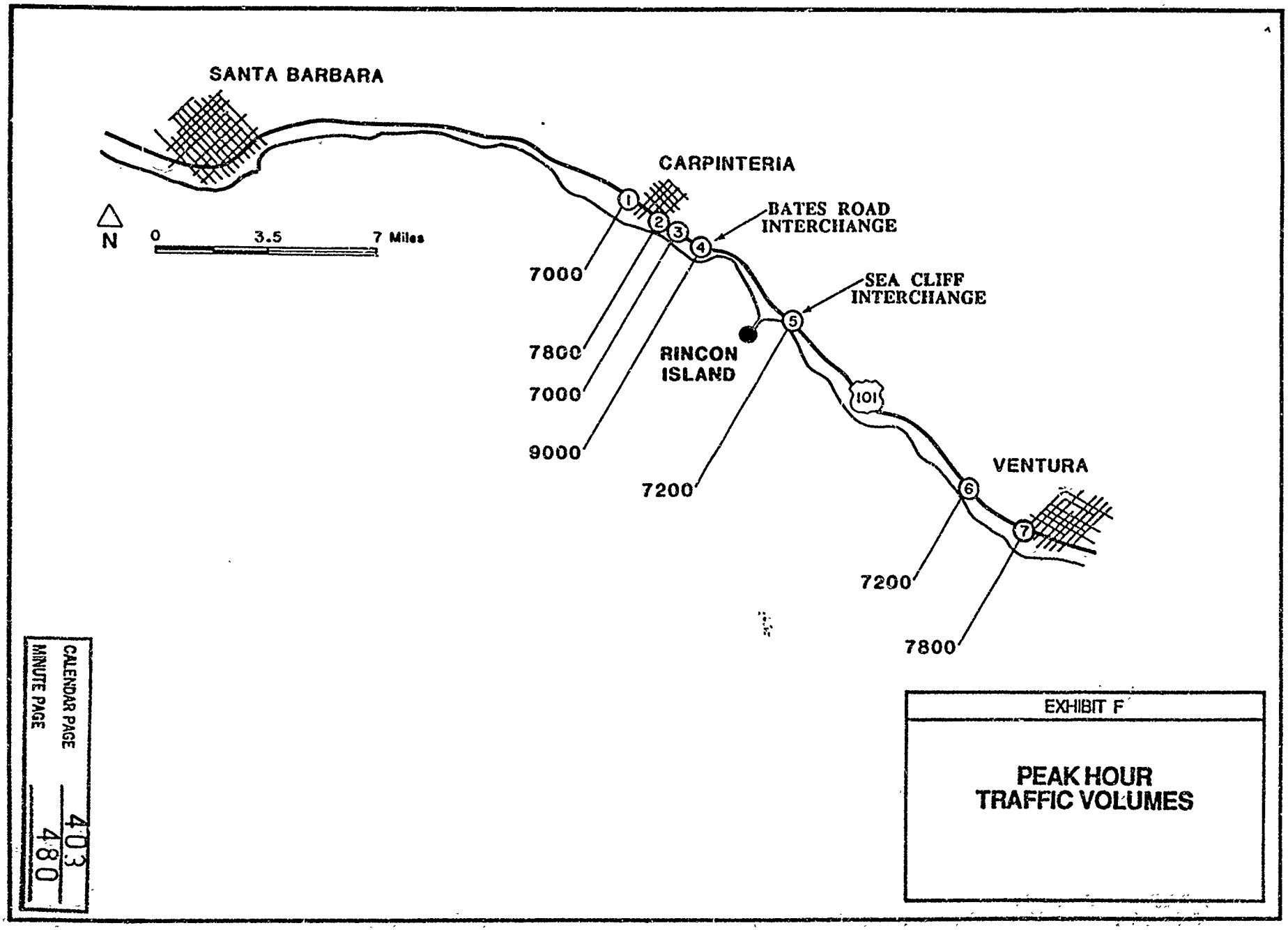

EXHIBIT F

PEAK HOUR TRAFFIC VOLUMES

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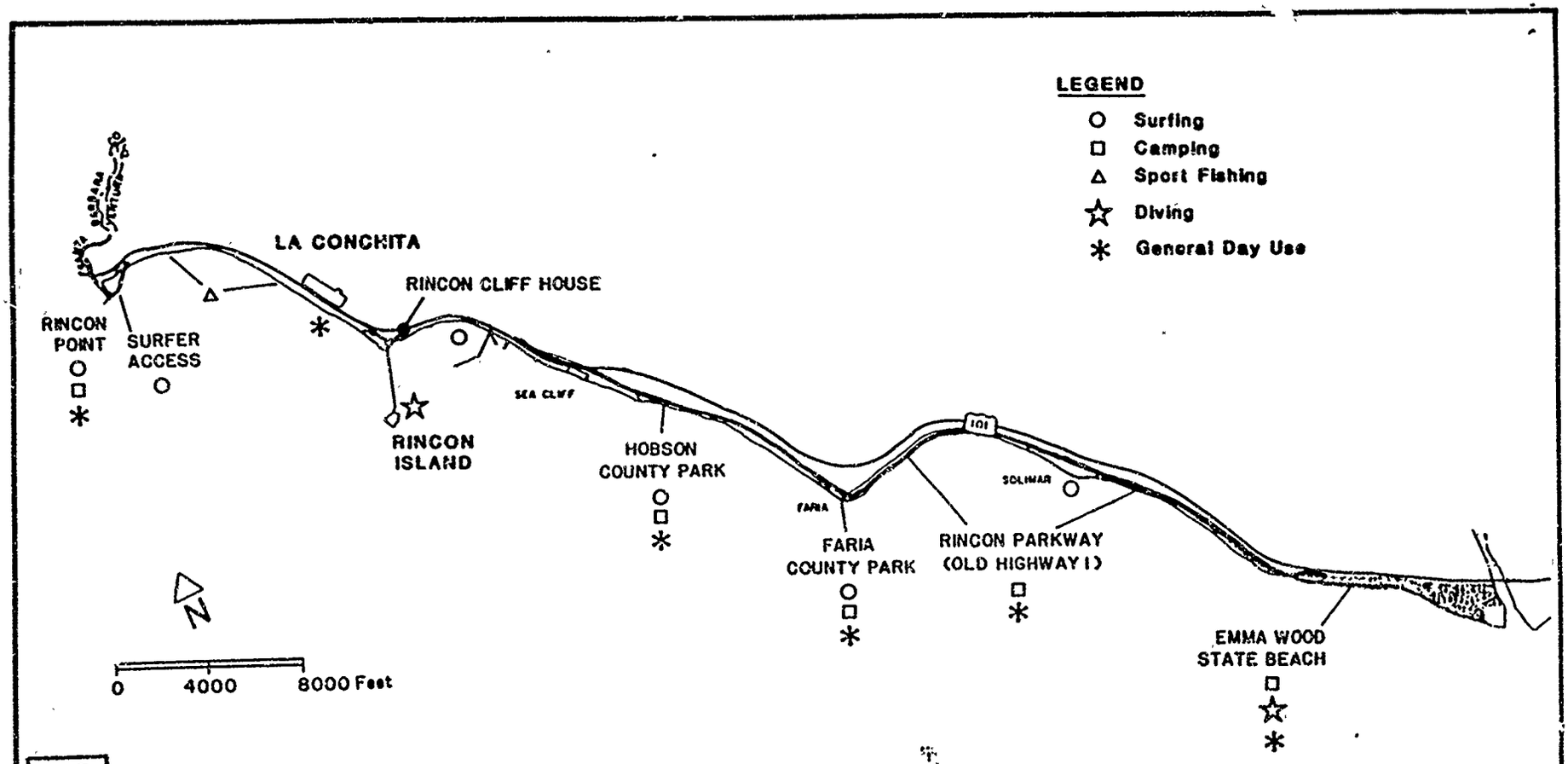

NOTE: Channel Islands National Park is located approximately 20 to 30 miles offshore.

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EXHIBIT G

RECREATIONAL AREAS

RESOURCE MANAGEMENT AGENCY EXHIBIT "C"

county of ventura

Air Pollution Control District

Richard H. Baldwin
Air Pollution Control Officer

DEC 10 1987

S.W. Webb, V.P. Operations
Bush Oil Company
374 Poli Street, Suite 202
Ventura, CA 93001

RE: Authority to Construct #0003-3

Dear Mr. Webb:

This is Ventura County Air Pollution Control District Authority to Construct #0003-3, effective on the above date. You are hereby authorized to construct the following items on the Hobson State Lease:

3 - Oil Wells, electric rod pump or free flowing

Subject to the Following Conditions:

1. Apply for a Permit to Operate within 90 days of initial production.

2. Within 90 days of initial oil or gas production from any of the wells authorized herein, existing well "Hobson State #12", located on the Hobson State Lease, shall be removed from service. Such removal from service shall be accomplished either by disconnection of the flow line or by formal abandonement pursuant to California Division of Oil and Gas provisions.

3. Within 90 days of initial oil or gas production from any of the wells authorized herein, the Ajax DPl15 engine identified as engine #1 and located on the Rincon Island shall be removed from service. Such removal from service shall be accomplished by physical removal.

The emissions reduction resulting from the removal of the well and engine described in Conditions 2 and 3, respectively, allow this Authority to Construct to be issued without causing either an increase in permitted emissions or a net emissions increase since June 19, 1979 equal to, or greater than, 25 tons per year. The Reactive Organic Compounds (ROC) emission increase resulting from these three wells is 1.10 tons per year. The ROC emission decrease resulting from removal of well #12 and from removal of Ajax engine #1 is 36.28 tons per year. This results in a net

Government Center, Hall of Administration, L #1
800 South Victoria Avenue, Ventura, CA 93009, (805) 654-2...

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DEC 10 1987

emission reduction of 35.18 tons per year. The District hereby considers these emission reductions to be certified pursuant to APCD Rule 26.1.B.2.

If any of the three wells, authorized by this A/C, are for any reason not drilled, the unused portion of the ROC offsets will be added to the certified emissions reductions balance for Permit to Operate #0003.

Your application for an Authority to Construct (dated October 12, 1987) was received by this office on October 15, 1987 and was considered complete on December 1, 1987.

The granting of this permit signifies that the above emissions have been evaluated based on the information provided with your application. It does not, however, either grant or imply an APCD endorsement of the equipment; nor does it guarantee compliance with APCD Rules and Regulations. Prior to construction completion, application for an APCD Permit to Operate must be filed. Compliance of the source will be verified through a visual inspection.

Please post this Authority to Construct reasonably close to the construction site and accessible to inspection personnel, in accordance with Rule 19. This Authority to Construct will become void if construction has not begun within one year.

Contact Bill Flynn of the Engineering Section at (805) 654-2664 if you have any questions.

Sincerely,

Richard H. Baldwin
AIR POLLUTION CONTROL OFFICER

by:

Richard G. Johnson, Manager
Engineering Section

AC3 3;EGAC

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0.545

RESOURCE MANAGEMENT AGENCY
county of ventura

Air Pollution
Control District

Richard H. Baldwin
Air Pollution Control Officer

February 10, 1988

R.L. Hatch, Manager of Engineering
Bush Oil Company
P.O. Box 1538
Taft, CA 93268

Re: P/O 0003

Dear Mr. Hatch:

In reponse to your letters dated October 20, 1987 and February 2, 1988, and confirming earlier conversations with Mr. Ron Klarc of Bush Oil Company, the Ventura County Air Pollution Control District hereby certifies the following emission reductions for Permit to Operate #0003:

	Pollutant				
	ROC	NOx	PM	SOx	CO
Tons per Year	48.01	7.88	0.15	0.01	32.17

(The derivation of these emission reductions is shown on the attached sheet.)

These reductions were the result of replacing 2 115 hp Ajax pump engines and 2 M & M pump engines (1 at 113 hp and 1 at 97 hp) with electric motors. The ROC, NOx and CO certified reductions for the Ajax engines were determined using results from the source test performed by BTC Labs on October 30, 1987 for Ajax engine # 1, added to the engineering test data for Ajax engine # 2 (see attachment to Bush Oil Company letter dated January 12, 1988). The ROC, NOx and CO certified reductions for the 2 M & M pump engines were obtained from the BTC test report for engine testing performed on December 22, 1987. The ROC certified emission reductions were reduced to reflect the offsets required for the 3 wells on A/C 0003-3. The certified reductions for SOx and PM were determined using AP-42 (EPA) emission factors and District fuel use assumptions. All emission reductions were based on engine use factors supplied by Bush Oil Company.

Future modifications, changes, or permitted emissions increases on P/O 0003 may be offset using these certified emission reductions (see District Rule 26 for details). These reductions may only be used to offset emission increases on P/O 0003 and may not be sold, granted or leased for use as offsets at or for any other stationary source.

If you have any questions please call Bill Flynn at (805)654-2664.

Sincerely,

R.H. Baldwin
Air Pollution Control Officer

wfboc

P/O 0003 2-10-88

Emission Reduction Calculations

Ajax Engines

ROC = $(8.63^{a} + 3.04^{b})$ x 24 x 365 x 0.95 / 2000 = 48.56 TPY

NOx = $(0.06^{a} + 1.80^{b})$ x 24 x 365 x 0.95 / 2000 = 7.74 TPY

CO = $(0.46^{a} + 1.98^{b})$ x 24 x 365 x 0.95 / 2000 = 10.15 TPY

a - pph from BTC source test report dated 11-09-87
b - pph from BTC engineering test, attachment to Bush Oil Co. letter dated 1-12-88
Use rate factor of 0.95 from Bush Oil Co.

M & M Engines

ROC_{east} = 0.04 x 24 x 365 x 0.6 / 2000 = 0.14 TPY
ROC_{west} = 0.04 x 24 x 365 x 0.4 / 2000 = 0.07 TPY

NOx_{east} = 0.01 x 24 x 365 x 0.6 / 2000 = 0.03 TPY
NOx_{west} = 0.06 x 24 x 365 x 0.4 / 2000 = 0.11 TPY

CO_{east} = 7.29 x 24 x 365 x 0.6 / 2000 = 19.16 TPY
CO_{west} = 1.63 x 24 x 365 x 0.4 / 2000 = 2.86 TPY

1 - pph from BTC test report dated 1-14-88. NOx pph reduced for Rule 74.9 compliance.
2 - East engine use rate of 0.6 and west engine use rate of 0.4 from Bush Oil Co.

TOTAL EMISSION REDUCTIONS

ROC = 48.56 + 0.11 + 0.07 - 0.73^{a} = 48.01 TPY

NOx = 7.74 + 0.03 + 0.11 = 7.88 TPY

CO = 10.15 + 19.16 + 2.86 = 32.17 TPY

a - amount of ROC offsets needed for A/C 0003-3 (granted 12-10-87) for three oil wells