

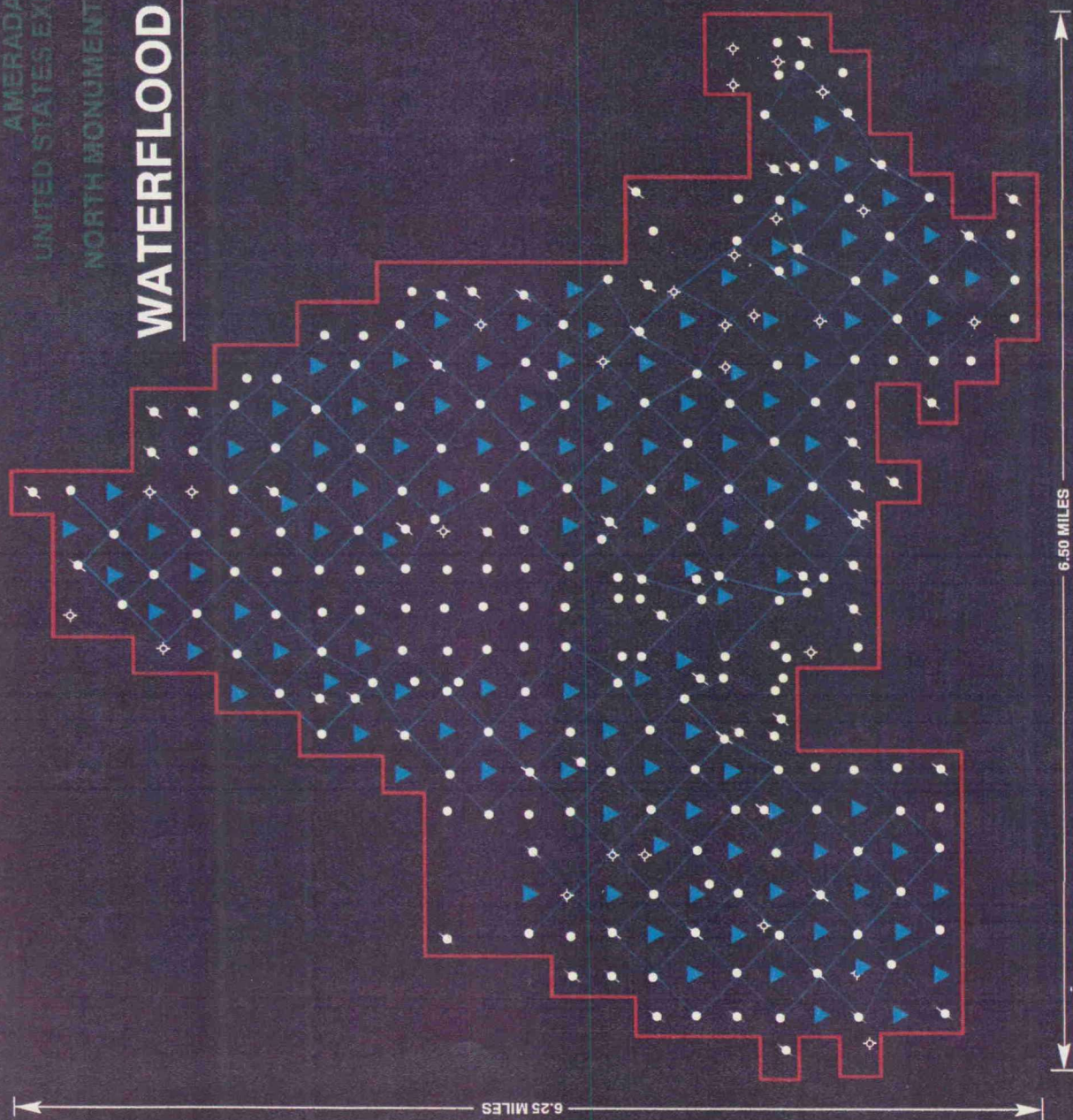
**AMERADH HESS CORPORATION
UNITED STATES EXPLORATION AND PRODUCTION**

**NORTH MONUMENT GRAYBURG/SAN ANDRES UNIT
PLAN OF DEVELOPMENT**

AUGUST 1, 1991

AMERADA HESS CORPORATION
UNITED STATES EXPLORATION AND PRODUCTION
NORTH MONUMENT GRAYBURG/SAN ANDRES UNIT

WATERFLOOD DEVELOPMENT PLAN



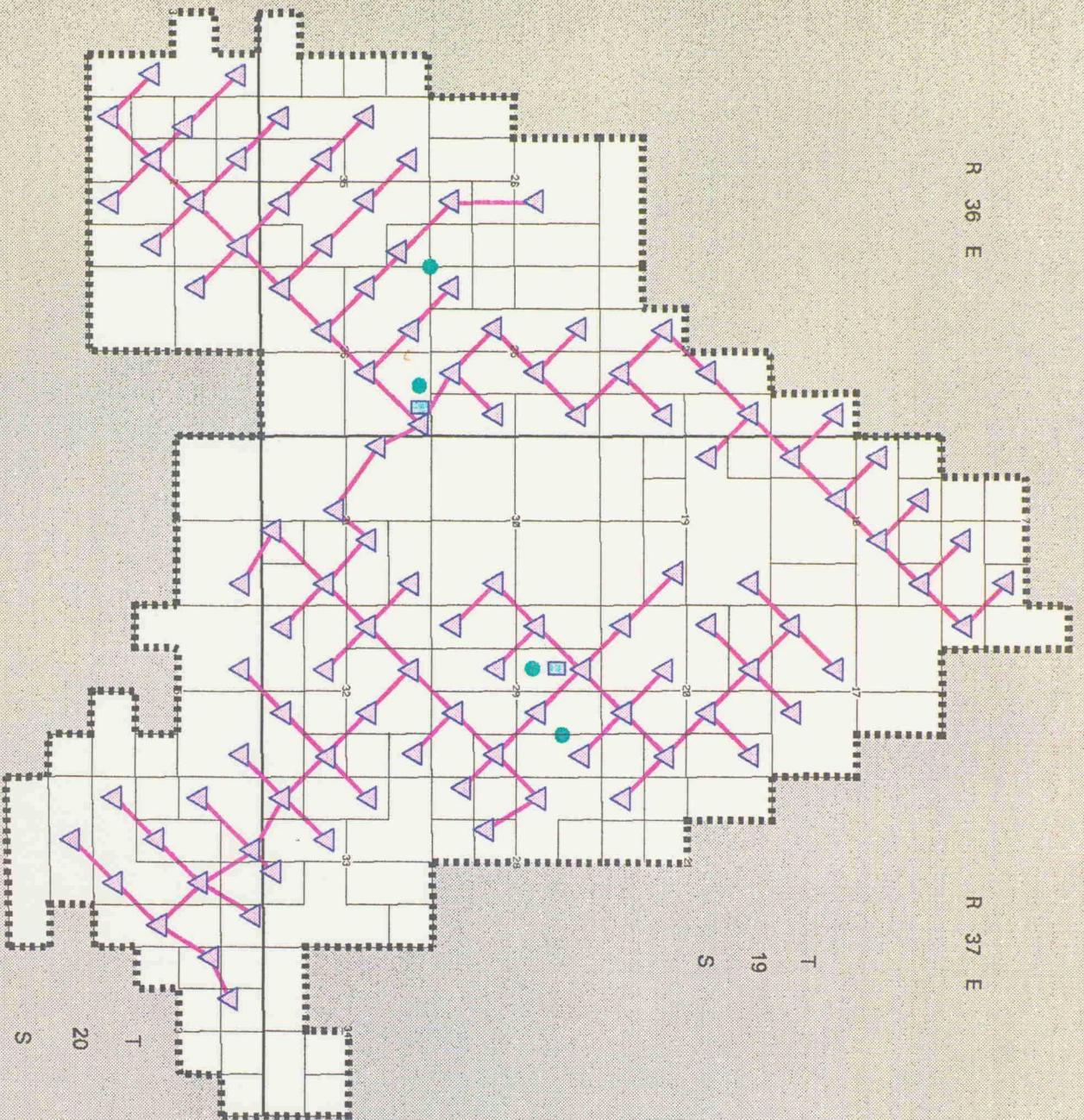
BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

~~ALBERTA 1153~~ EXHIBIT NO. 5

CASE NO. 10252

**NORTH MONUMENT GRAYBURG/SAN ANDRES UNIT
WATERFLOOD DEVELOPMENT PLAN**

- THE WATERFLOOD WILL BE DEVELOPED ON AN 80 ACRE 5-SPOT PATTERN UTILIZING 108 INJECTION AND 187 PRODUCING WELLS ON 40 ACRE SPACING.
- ALL UNIT WELLS WILL BE SINGLE ZONE COMPLETIONS.
- IMPLEMENTATION OF THE WATERFLOOD PLAN WILL REQUIRE THE DRILLING OF 24 PRODUCING WELLS AND 15 INJECTION WELLS AND THE CONVERSION OF 93 OIL WELLS TO WATER INJECTION. A RESERVOIR DATA ACQUISITION PROGRAM WILL BE IMPLEMENTED AS EARLY AS POSSIBLE TO OBTAIN MODERN CORE, LOG AND PRESSURE DATA FROM ALL PARTS OF THE FIELD.
- THE DEVELOPMENT PLAN MAINTAINS CONSISTENCY WITH THE INJECTION PATTERN OF THE ADJACENT EUNICE MONUMENT SOUTH UNIT.
- THE EXISTING 288 WELLS WILL BE SUBJECTED TO MECHANICAL INTEGRITY TESTS BEFORE BEING ACCEPTED BY THE UNIT AND DEPLOYED IN THE WATERFLOOD PROGRAM.
- ABANDONED WELLS WITHOUT SUFFICIENT CEMENT FOR ZONE SEPARATION WILL BE ENTERED AND CEMENTED.
- FULL IMPLEMENTATION OF THE WATERFLOOD DEVELOPMENT PLAN IS EXPECTED TO TAKE UP TO FOUR YEARS.



LEGEND

▲ INJECTION WELL

● WATER SUPPLY WELL

■ INJECTION PLANT

---- UNIT OUTLINE

SCALE
0 1/4 1/2 1
MILE

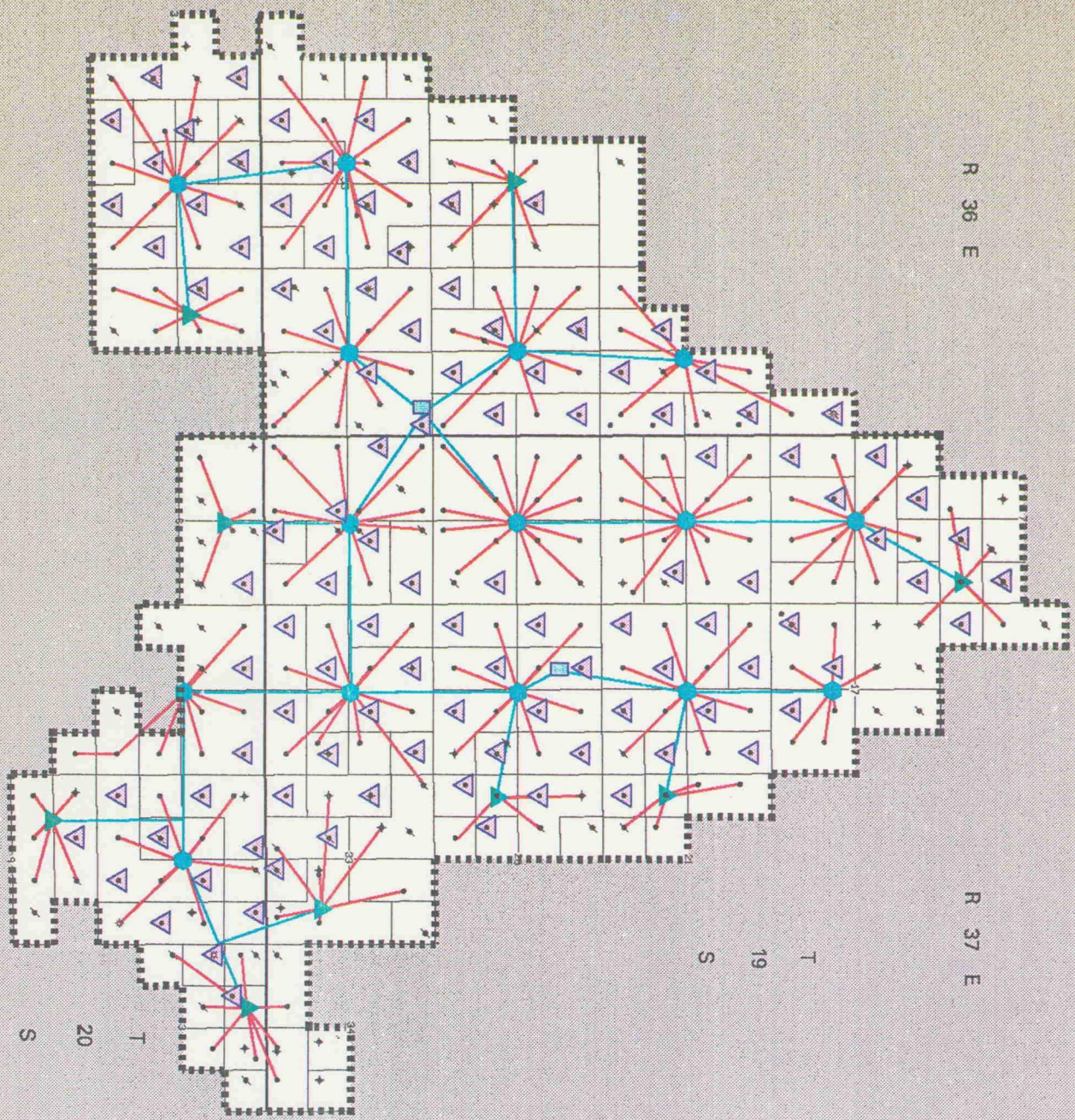
AMERADRA HESS CORPORATION

NORTH MONUMENT GRAYBURG/
SAN ANDRES UNIT

LEA COUNTY, NEW MEXICO
PLANNED INJECTION FACILITIES

**NORTH MONUMENT GRAYBURG/SAN ANDRES UNIT
WATER INJECTION FACILITIES**

- THE WATER SUPPLY WILL BE PROVIDED BY FOUR WELLS TO BE DRILLED AND COMPLETED IN THE LOWER SAN ANDRES FORMATION.
- WATER SUPPLY WELLS WILL BE EQUIPPED WITH HIGH VOLUME SUBMERSIBLE PUMPS.
- TWO WATER INJECTION PLANTS WILL BE CONSTRUCTED WITH A THROUGHPUT CAPACITY OF 40,000 BWPD EACH.
- INITIAL INJECTION PRESSURE WILL BE LIMITED TO 710 PSIG.
- MAXIMUM DAILY WATER INJECTION RATES WILL BE LIMITED TO 1,000 BARRELS PER WELL.
- ALL PRODUCED WATER WILL BE TREATED AND REINJECTED.



LEGEND

- INJECTION WELL
- OIL TREATING AND SALES FACILITIES
- TEST FACILITIES
- PRODUCTION HEADERS
- FLOW LINES
- EMULSION LINES
- UNIT OUTLINE

SCALE
0 1/4 1/2 1
MILE

FIMERADA HESS CORPORATION
NORTH MONUMENT GRAYBURG/
SAN ANDRES UNIT
LEA COUNTY, NEW MEXICO
PLANNED PRODUCTION FACILITIES

**NORTH MONUMENT GRAYBURG/SAN ANDRES UNIT
OIL PRODUCTION FACILITIES**

- OIL PRODUCTION WILL BE GATHERED AND SOLD FROM TWO CENTRAL OIL TREATING AND LEASE AUTOMATIC CUSTOMER TRANSFER FACILITIES.
- CASINGHEAD GAS WILL BE GATHERED AND SOLD FROM TEST AND OIL TREATING FACILITIES.
- THE EXISTING (103) OIL TANK BATTERIES WILL BE ELIMINATED.
- WELL SURVEILLANCE WILL BE AUTOMATED WITH WELL TESTS PERFORMED AT FIFTEEN TEST FACILITIES.