11.

NATURAL RESOURCES GROUP Exploration and Production

July 2, 1982

Order No. R-5897, Rule 9
Request for Expansion - Form C-108
"Application for Authorization to Inject"
East Vacuum Grayburg-San Andres Unit
Lea County, New Mexico

New Mexico Dept. of Energy and Minerals (3) Oil Conservation Division P. O. Box 2088 State Land Office Building Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey

Division Director

Gentlemen:

Enclosed for processing and administration approval is subject application for expansion of waterflood injection well pattern in captioned unit. Propsoed wells for conversion are:

- 1. East Vacuum Grayburg-San Andres Unit Track No. 3229 Well No. 007
- 2. East Vacuum Grayburg-San Andres Unit Track No. 3202 Well No. 011

The following data is submitted in support of the request:

- 1. Form C-108
- 2. Well data information
- 3. Map identifying wells and leases within two (2) miles and with one-half $\binom{1}{2}$ mile radius circle drawn aroung each proposed injection well
- 4. List of data on the proposed operation
- 5. Certified copy of Public Notice by newspaper
- 6. List of offset operators (Surface ownership on all tracts is held by the State of New Mexico)
- 7. Notice has been given by certified mail to those entities in Item 6 (Copies of certified receipts are attached)

East Vacuum Grayburg-San Andres Unit Request for Expansion July 2, 1982 Page 2

Your consideration and early advice will be appreciated

Very truly yours,
Husel Meterone

T. Harold McLemore

Regulation and Proration Supervisor

THM:1s

cc: Oil Conservation Division P. O. Box 1980 Hobbs, New Mexico 88240

> Office of Land Commission State of New Mexico P. O. Box 1148 Santa Fe, New Mexico 87501

Shell Oil Company P.O. Box 576 Houston, Texas 77001

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 8/501 FORM. C-108 Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT pose: Secondary Recovery Pressure Maintenance Disposal Application qualifies for administrative approval? Purpose: Storage on the East Vacuum Grayburg-San Andres Unit, Lea County, New Mexico. II. Room 401 4001 Penbrook Odessa, Texas 79761 Contact party: Mr. E. E. Clark Phone: 367-1257 (McLemore) III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary. Is this an expansion of an existing project? IV. X ves If yes, give the Division order number authorizing the project Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. Attach a tabulation of data on all wells of public record within the area of review which ٧I. penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. VII. Attach data on the proposed operation, including: (See Attached proposed operation sheet.) 1. Proposed average and maximum daily rate and volume of fluids to be injected; 2. Whether the system is open or closed: Proposed average and maximum injection pressure;
 Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well. attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). Attach appropriate geological data on the injection zone including appropriate lithologic *VIII. detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval. TX. Describe the proposed stimulation program, if any. NONE. Attach appropriate logging and test data on the well. (If well logs have been filed х. with the Division they need not be resubmitted.) Attach a chemical analysis of fresh water from two or more fresh water wells (if XI. available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. Applicants for disposal wells must make an affirmative statement that they have XII. examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Applicants must complete the "Proof of Notice" section on the reverse side of this form. XIII. XIV. Certification I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief. Name: W. J. Mueller ______ Title Senior Engineering Specialist Signature: Roph J. Roper __ Date: <u>July</u> 2, 1982 * If the information required under Sections VI, VIII, X, and XI above has been previously

of the earlier submittal.

submitted, it need not be duplicated and resubmitted. Please show the date and circumstance

Examiner Hearing, October 25, 1978, Case No. 6367, R-5897

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application.

 The data must be both in tabular and schematic form and shall include:

 --- See attachedWell Data Sheet---
 - (1) Lease name; Well No.: location by Section. Township, and Range: and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells:
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

WELL DATA SHEET EAST VACUUM GRAYBURG-SAN ANDRES UNIT

III. Well Data.

- A. (1) East Vacuum Grayburg-San Andres Tract 3229 Well No. 007, Sec. 32, T-17-S, R-35-E, 2600 FSL and 2500 FWL.
 - (2) Casing.

Surface: 9-5/8" O. D. set at 365'. Cemented with 400 sacks, in a 12-1/4" hole, circulated to the surface. Production: 7", 23#/ft., k-55 set at 4800'. Cemented with 1600 sacks, in a 8-7/8" hole, cement circulated to surface.

- (3) Tubing: 2-7/8", 6.5#/ft., J-55 set at 4270', plastic lined.
- (4) Packer: Baker Loc-Set, Nickel Plated set at 4270'.
- B. (1) Formation: San Andres Field: Vacuum
 - (2) Injection interval: 4345' to 4600', perforated.
 - (3) Well drilled originally for production.
 - (4) N/A
 - (5) N/A in this wellbore.

III. Well Data.

- A. (1) East Vacuum Grayburg-San Andres Tract 3202 Well No. 011, Sec. 32, T-17-S, R-35-E, 2600 FSL and 200 FEL.
 - (2) Casing:

Surface: 9-5/8" O. D. set at 359', cemented with 400 sacks, in a 12-1/4" hole, circulated to the surface. Production: 7", 23#/ft., K-55 set at 4775', cemented with 1450 sacks, in a 8-7/8" hole, circulated to the surface.

- (3) Tubing: 2-7/8", 6.5#/ft., J-55, set at 4280', plastic lined
- (4) Packer: Baker Loc-Set, Nickel Plated set at 4280'.
- B. (1) Formation: San Andres Field: Vacuum
 - (2) Injection interval: 4353' to 4453', perforated.
 - (3) Well drilled originally for production.
 - (4) Perforations at 4576' to 4584' shut off by cast iron bridge plug set at 4550' and capped with 2 sacks cement. Top of cement at 4539'.
 - (5) N/A in this wellbore.