

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Standard Oil Production Company
Address: 10 Desta Drive, Suite 600 West, Midland Texas
Contact party: Pat McCelvey Phone: 915-688-9200
- 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.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____
- V. 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.
- VI. Attach a tabulation of data on all wells of public record within the area of review which 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:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. 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.).
- VIII. Attach appropriate geological data on the injection zone including appropriate lithologic 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.
- IX. Describe the proposed stimulation program, if any.
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have 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.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- 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: Stephen E. Gurley Title: Reservoir Engineer
Signature: Stephen E. Gurley Date: October 20, 1987
- If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

BEFORE ENGINEER DATTANACH
OIL CONSERVATION DIVISION
~~STANDARD~~ EXHIBIT NO. 1
CASE NO. 9260

PHILLIPS LEA WATERFLOOD PERMIT

- VII.
1. Average daily injection rate 250 BWPD per injection well. For 5 injection wells total average injection rate is 1250 BWPD. With a 15 year life total injection volume should be approximately 6.8 MMBW. Maximum injection rate should not exceed 300 BWPD.
 2. System will be a closed system.
 3. Maximum injection pressure will be 925 psi. The average to be determined by a step-rate test after start-up.
 4. Fresh water supply line (Carlsbad's Crown Central Station) analysis enclosed. The water was sampled at a Pennzoil injection facility.

- VIII.
- The San Andres Formation consists of gray to tan cryptocrystalline to medium crystalline, variably fractured dolomite, with locally abundant anhydrite. An approximately 10 foot thick tighter interval separates the 9.5% average porosity average 40 foot thick main pay and 45 thick second pay at an average depth of 4,650 feet below the surface.

Water Bearing Formations	Approximate Depth to Base
Allevium	20'
Ogalla	250'
(TDS 10,000 mg/L)	

- IX.
- Acidize all wells with approximately 3,000 gal. 15% HCl. Frac all wells with approximately 7,500 gal. of GEL and 10,000# of sand.
- XII.
- SOPC states that it has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

NAME: Stephen E. Gurley

TITLE: RESERVOIR ENGINEER

SIGNATURE: Stephen E. Gurley

DATE: Oct. 26, 1981

