STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 8982

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Frostman Oil Corporation

Address: P. O. Drawer W, Artesia, New Mexico 88210

Contact party: Clarence Forister Phone: 746-3344

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: FROSTMAN OIL CORPORATION Title President

Signature: Clarence Forister Date: 7/28/86

Clarence Forister

* 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

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:

(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.

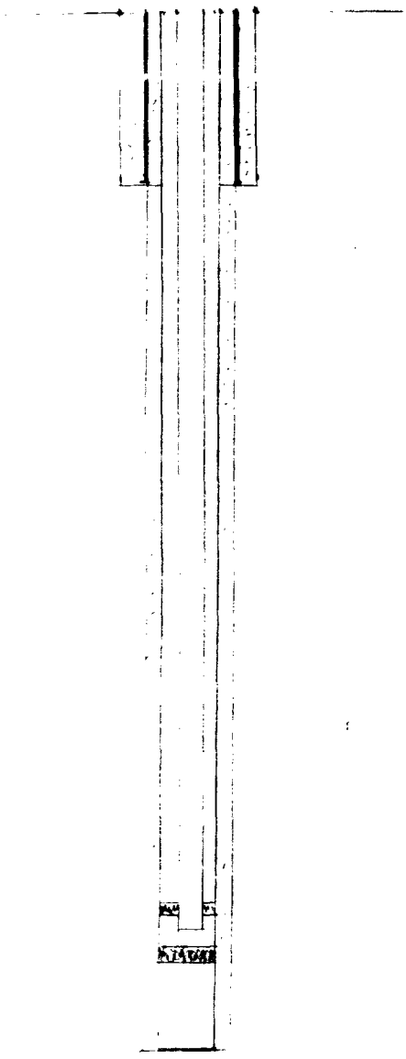
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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.

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
Frostman Oil Corporation	Red Twelve State			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
4	990 FSL 2310 FEL	5	17S	29E

Schematic



Tabular Data

Surface Casing

Size 8 5/8" Cemented with 250 sx.

TOC surface feet determined by circulated

Hole size 12 1/4"

Intermediate Casing

Size N/A" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with 950 sx.

TOC surface feet determined by cement circulated

Hole size 7 7/8"

Total depth 3,550

Injection interval

3,004 feet to 3,434 feet

(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with plastic coating (material) set in a

5 1/2" Giberson Uni VI (brand and model) packer at 2,900 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Cave Grayburg San Andres

3. Is this a new well drilled for injection? /7 Yes X/7 No

If no, for what purpose was the well originally drilled? Oil & Gas production

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No other zones have been perforated.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying pools are the Seven Rivers Queen Grayburg to approximately 2,380'.

Presently there are no known underlying oil or gas zone.

WELL DATA-WELLS IN AREA OF REVIEW

Attached as Exhibit "A" and "B" are copies of the well files for the Red Twelve State No. 3 and the Red Twelve State No. 4. These wells appear to be the only wells which fall within the area of review and penetrate the proposed injection zone.

Attachment C-108 VI

DATA SHEET

(Section VII, Form C-108)

1. Proposed Rate of Injection
   A. Average daily rate of injection: 700 barrels
   B. Maximum daily rate of injection: 900 barrels

2. Type of System
   System will be open

3. Anticipated Injection Pressure
   It is anticipated that the injection pressure will be nominal but in no event would the pressure exceed 0.2 psi per foot of dpeth to the top of the injection zone at 3,004 feet, or 600 psi.

4. Source of Injection Water
   Source of disposal water is Grayburg wells located in Section 4, 5, 7, 8, and 9 of Township 17 South, Range 29 East. See Attachment VII(a) for analysis of disposal water.

5. Disposal Zone Water Analysis
   Disposal is to be into a zone productive of oil and gas by only Frostman Oil Corporation within the area of reveiw. See Attachment VII(a) for analysis of receiving formation water.

Attachment C-108 VII

1343-A

DISPOSAL WATER ANALYSIS

Attachment C-108 VII(a)

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

ARTESIA, NEW MEXICO 88210

LABORATORY WATER ANALYSIS No. W316 & W317-86

To Mr. Clarence Forister

Frostman Oil Company

P. O. Drawer W

Artesia, NM 88210

Date July 23, 1986

Submitted by Steve Forister Date Rec. July 22, 1986

Well No. Depth Formation

County Eddy Field Source

	C.P.U. Premier	Red 12 St. #2, S.A.		
Resistivity	0.081 @ 71°	0.053 @ 71°		
Specific Gravity	1.07	1.129		
pH	8.2	6.9		
Calcium (Ca)	4,829	2,498		*MPL
Magnesium (Mg)	1,719	640		
Chlorides (Cl)	60,000	114,000		
Sulfates (SO_4)	Heavy	Heavy		
Bicarbonates (HCO_3)	488	763		
Soluble Iron (Fe)	Nil	Nil		

Remarks:

*Milligrams per liter

Rocky Chambers

Respectfully submitted,

Analyst: Rocky Chambers - Field Engineer

HALLIBURTON COMPANY

cc:

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

STIMULATION PROGRAM

The proposed disposal well was originally drilled in September, 1984 to test the San Andres formation. The well is currently open in that formation.

Existing perforations will be utilized. Treatment of the interval would consist of 1,000 gallons of 15% NE acid.

Attachment Form C-108 IX

LOGGING DATA

(Section X, Form C-108)

The Dresser Atlas Compensated Nuetron Log run on the subject well on September 21, 1984 is included here as Exhibit "C" to this Data Sheet, with the proposed disposal interval marked in red thereon.

Attachment C-108 X

FRESH WATER ANALYSIS

There are no fresh water wells within 1 mile of the proposed injection well.

Attachment C-108 XI

AFFIRMATIVE STATEMENT

Applicant hereby affirms that he has examined the available geologic and engineering data and finds no evidence of open faults or other hydrologic connections between the disposal zone and any underground source of drinking water.

Attachment C-108 XII