

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE\*  
(Other instructions re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

LC-065151

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Bilbrey "51"

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Sawyer (San Andres)

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

Sec. 23, T9S, R37E

12. COUNTY OR PARISH

Lea

13. STATE

New Mexico

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)1. OIL WELL ☐ GAS WELL ☒ OTHER Salt Water Disposal Well

2. NAME OF OPERATOR

Flag-Redfern Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 23, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)

At surface

Unit Letter A, 660' FNL & 660' FEL, Sec. 23,  
T-9-S, R-37-E, Lea County, New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

GL - 3981'

## 16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

Convert to disposal

X

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any  
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-  
nent to this work.)\*

Flag-Redfern Oil Company desires to convert the above oil well to a salt water disposal well. Plans call for disposing of an estimated 225 BWPD through the current San Andres perforations 4941-5022'. Disposal will be through 2-3/8" internally coated tubing with a packer set at 4900', and the casing-tubing annulus will be filled with an inert fluid. A pressure gauge will be installed on the annulus to determine any leakage in the well bore. The injection system will be equipped with a pop-off valve, which will limit the wellhead injection pressure to a maximum of 1138 psig.

Attached is Order No. R-5539 from the New Mexico Oil Conservation Commission, approving this well for salt water disposal purposes.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

18. I hereby certify that the foregoing is true and correct

SIGNED

*Steve Rousler*

TITLE Petroleum Engineer

DATE 11-10-77

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED  
AS AMENDED  
JAN 20 1978  
ARTHUR R. BROWN  
DISTRICT ENGINEER

\*See Instructions on Reverse Side

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 6034  
Order No. R-5539

APPLICATION OF FLAG-REDFERN OIL  
COMPANY FOR SALT WATER DISPOSAL,  
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 14, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 18th day of October, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Flag-Redfern Oil Company, is the owner and operator of the Bilbrey "51" Well No. 1, located in Unit A of Section 23, Township 9 South, Range 37 East, NMPM, Sawyer-San Andres Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the perforated interval from approximately 4941 feet to 5022 feet.

(4) That the injection should be accomplished through 2 3/8-inch internally coated tubing installed in a packer set at approximately 4900 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1138 psi.

(6) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Flag-Redfern Oil Company, is hereby authorized to utilize its Bilbrey "51" Well No. 1, located in Unit A of Section 23, Township 9 South, Range 37 East, NMPM, Sawyer-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4900 feet, with injection into the perforated interval from approximately 4941 feet to 5022 feet;

PROVIDED HOWEVER, that the tubing shall be internally coated; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 1138 psi.

(3) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Phil R. Lucero*

PHIL R. LUCERO, Chairman

*Emery C. Arnold*

EMERY C. ARNOLD, Member

*Joe D. Ramey*

JOE D. RAMEY, Member & Secretary

S E A L



# Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5184

July 22, 1977

Mailing address:  
P. O. Box 23  
Midland, Texas 79702

File:

United States Department of the Interior  
Geological Survey  
P. O. Box 1157  
Hobbs, New Mexico 88240

Attention: Mr. Arthur R. Brown

Re: Application for Salt Water  
Disposal Permit  
Bilbrey "51" Well No. 1  
Lease No. LC-065151  
Sawyer (San Andres) Field  
Lea County, New Mexico

Dear Mr. Brown:

Flag-Redfern Oil Company hereby requests a permit for salt water disposal for the above captioned well. As per your requirements listed in Bulletin NTL-2B, the following information is provided:

1. Proposed disposal well - Bilbrey "51" No. 1  
660' FNL & 660' FEL of Section 23, T-9-S, R-37-E  
Lea County, New Mexico  
Lease No. LC-065151
2. The daily quantity of disposed water will be 225 barrels, which will be San Andres produced water from the following leases:

<u>Lease</u>	<u>Lease No.</u>	<u>San Andres Water Prod.</u>
Bilbrey "23"	LC065151	82 BWPD
Bilbrey "51"	LC065151	24 BWPD
Yates "69" Fed.	NM16369	20 BWPD
Brown "93"	NM0103893-A	21 BWPD
Allied "93"	NM0103893	78 BWPD
Total Water to be Disposed -		225 BWPD

A water analysis for the Bilbrey "51" No. 1 is attached.

3. The proposed disposal interval is the San Andres formation through the perforated interval 4941-5022'.

U.S.G.S.  
July 22, 1977

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4. The quality of the fluids in the injection interval is the exact same as the water to be disposed of.
5. There are no useable water aquifers in the area.
6. Casing strings:
  - a. Surface Casing: 8-5/8", 24#/ft, J-55 casing set at 415' in 12 1/4" hole and cemented with 250 sacks of Class "C" w/2% CaCl. Cement was circulated to the surface.
  - b. Production Casing: 4-1/2", 9.50#/ft, J-55 casing set at 5070' in 7-7/8" hole and cemented with 250 sacks of Class "C" w/2% gel, 0.75% CFR-2 and 8 lb/sk of salt. Calculated top of cement behind this casing string is 3827'.
7. The total depth of this well is 5070' and the plug back depth is 5044'.
8. The proposed method of completing the Bilbrey "51" Well No. 1 for disposal provides for running a 2-3/8" X 4-1/2" internally coated Baker Model "R" retrievable packer on 2-3/8", 4.70#/ft, J-55 internally coated tubing and setting the packer at 4900'. Anticipated disposal pressure will be 2000 psig. The corrosion inhibitor that will be placed in the tubing-casing annulus will consist of fresh water with 1% of Tretolite KW-37 corrosion inhibitor and 10 lbs of K-4-70 oxygen scavenger.
9. The disposal well will be monitored daily as to the disposal rates and pressures. On the basis of radical changes in rates and pressures, a radioactive tracer survey will be run to confirm that disposal is confined to the San Andres interval. Upon the necessity of having to shut down this disposal system, all produced water will be hauled off lease and disposed of into approved New Mexico Salt Water Disposal Company systems, as it is currently being disposed of.

Flag-Redfern Oil Company will be pleased to provide any additional information that you might deem necessary for the approval of this salt water disposal permit.

Sincerely,

Steve Rossler  
Petroleum Engineer

SR:ss

Attachment



Date 1-12-73

Report No. \_\_\_\_\_

Company Flag Redform

County Lea

Lease Bilbrey

Address \_\_\_\_\_

Field \_\_\_\_\_

Well No. 51 #1

Attention Mr. Graves

Formation San Andres

Depth \_\_\_\_\_

Recent Treatments \_\_\_\_\_

Date 1-11-73  
Sampled Evening

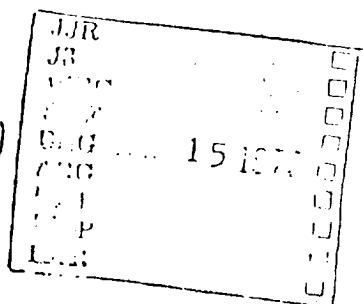
Sample Well-head  
Source \_\_\_\_\_

### WATER ANALYSIS

(Reported as mg per Liter)

Specific Gravity	1.160	pH	4.5
Chloride	144,000	Calcium	28,000
Bicarbonate	1269	Magnesium	2160
Sulfate	230	Total Iron	Nil
Sulfide	Strong	Sodium (Calc.)	57,569
Total Hardness (as Ca CO <sub>3</sub> )	79,000	Total Dissolved Solids (Calc.)	203,378
Resistivity	Ohm Meters @ _____		

Remarks:



Analyst John A. Sims

Cardinal Representative \_\_\_\_\_

U. S. Geological Survey  
P. O. Box 1157  
Hobbs, New Mexico 88240

HOBBS DISTRICT

CONDITIONS OF APPROVAL:

1. The Hobbs office (telephone (505) 393-3612) is to be notified when workover operations are to be commenced.
2. Blowout prevention equipment is required.
3. Surface injection pressure must be limited to no more than 1138 psi.
4. A monthly report must be filed with this office showing injected volume and average injection pressure.
5. If water produced on leases other than L.C. 065151 is to be disposed of in this well, the Bureau of Land Management should be contacted for an appropriate permit.