

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
HOBBS, NEW MEXICO 88240

Form approved
Budget Bureau No. 1004-
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 15677

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 11050 Midland, TX 79702

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

1980' FSL and 1980' FWL of Section 27

14. PERMIT NO.

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

4386 GL

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hahn Federal

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

Tom Tom San Andres

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

Sec. 27, T-7-, R-31-E

12. COUNTY OR PARISH 13. STATE

Chaves

New Mexico

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

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Convert to SWD well

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 pertinent to this work.) *

10-11-88 TIH 4½" Baker Model AD-1 tension packer, seating nipple and 128 jts 2 3/8" 4.7 lb/ft J-55 EUE 8rd internally coated tubing. Loaded annulus with inhibited fluid. Set packer at 3891'.

10-12-88 Ran casing integrity test. Pressure tested tubing-casing annulus to 300 psig for 15 minutes.

11-15-88 Started injection.



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

SIGNED

TITLE Engineer

DATE 11-18-88

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
DATE
PETER W. CHESTER

DEC 1 1988

BUREAU OF LAND MANAGEMENT
RESERVE AREA

*See Instructions on Reverse Side

Flag-Redfern Oil Company

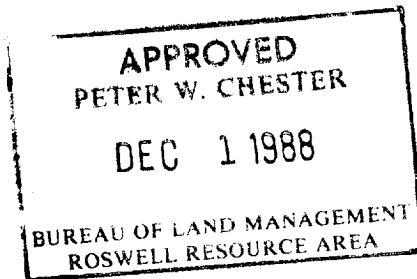
1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5154

November 29, 1988

Mailing address:
P. O. Box 11050
Midland, Texas 79702

United States Department of the Interior
Bureau of Land Management
Roswell Resource Area
P. O. Drawer 1857
Roswell, New Mexico 88201

Attention: Peter W. Chester



RE: Application for Approval
of Water Disposal Methods
Federal Leases
Tom-Tom (San Andres) Field
Chaves Co, New Mexico

Gentlemen:

Attached is a list of Federal wells Flag-Redfern Oil Company operates in the Tom-Tom (San Andres) Field. Disposal of produced water from each lease was previously approved by the BLM to be transported via trucks by The Permian Corporation and disposed at the White Lake Salt Water Disposal System.

Flag-Redfern recently converted the Hahn Federal No. 5 from a producing well to a water disposal well. Water disposal into this well was approved by the New Mexico Oil Conservation under Order No. SWD-341 dated May 25, 1988. Approval to convert the well to SWD was approved by the BLM on July 8, 1988.

The following information is provided:

- A. Wells: SEE ATTACHED LIST
- B. Producing Formation: San Andres
- C. Water Analysis: See attached analysis which is typical of all Flag-Redfern Oil Company leases in the Tom-Tom Field.
- D. Water is collected at the central battery facility for each lease and transferred by pipeline to a 300 bbl fiberglass tank located at the Hahn Federal battery. Water is pressured and injected into the following well:

Hahn Federal No. 5
Sec. 27, T7S, R31E
1980' FSL & 1980' FWL
Chaves County, New Mexico

E. SWD Pits: None

Based on the data submitted, it is respectfully requested this method of disposal be approved.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Kelly Jamerson".

Kelly Jamerson
Engineer

KJ/srb
attachment

Flag-Redfern Oil Company
Federal Leases
Tom-Tom (San Andres) Field

<u>Lease</u>	<u>Well</u>	<u>Unit</u>	<u>Sec</u>	<u>Township</u>	<u>Range</u>
Hahn Federal	1	N	27	7S	31E
	2	O	27	7S	31E
	3	I	27	7S	31E
NM 15677	4	J	27	7S	31E
	6	P	27	7S	31E
	7	M	27	7S	31E
Hahn Federal "A"	1	H	27	7S	31E
NM 16637	2	P	28	7S	31E
Amoco Federal	1	N	23	7S	31E
	2	K	23	7S	31E
	3	M	26	7S	31E
	4	L	26	7S	31E
NM-13418	6	K	26	7S	31E
	7	J	26	7S	31E
	8	I	26	7S	31E
	9	O	26	7S	31E
	10	P	26	7S	31E

all on
private
surface,
Fed minerals
P.W.C.

KOD

WATER ANALYSIS REPORT
furnished by TRETOLITE CHEMICALS

COMPANY: FLAG REDFERN OIL CO.
LEASE: HAHN FED.
SAMPLE POINT: HEATER TREATER
SAMPLE DATE: 4-15-88
SAMPLE TEMP.: NA

pH: 4.9
H₂S: 110
SPECIFIC GRAVITY: 1.19

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO ₃	61.00	1.00
Cl	170400.00	4800.00
SO ₄	125.00	2.60
Ca	36000.00	1800.00
Mg	10449.00	856.48
Na	49383.96	2147.13

IONIC STRENGTH = 6.13
TOTAL HARDNESS = 133000.0 mg/ltr.
TOTAL DISSOLVED SOLIDS = 266264.8 mg/ltr.
TOTAL IRON (Fe) = 2.0 ppm

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca(HCO ₃) ₂	1.00	81.04
CaSO ₄	2.60	177.27
CaCl ₂	1796.40	99699.96
Mg(HCO ₃) ₂	0.00	0.00
MgSO ₄	0.00	0.00
MgCl ₂	856.48	40785.36
NaHCO ₃	0.00	0.00
Na ₂ SO ₄	0.00	0.00
NaCl	2147.13	125521.10

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO₃ @ 80 DEG F. = -0.3
CaCO₃ @ 120 DEG F. = 0.4

SATURATION POINT

CaSO₄ @ 70 DEG F. = 289.0 MG/LTR.
CaSO₄ @ 110 DEG F. = 309.5 MG/LTR.

(THIS SAMPLE CONTAINED 177.3 MG/LTR. CaSO₄)

