



UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

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FEB 25 1980

O. C. D.
ARTESIA, OFFICE

February 22, 1980

Flag-Redfern Oil Company
P. O. Box 2280
Midland, Texas 79702

Gentlemen:

FLAG-REDFERN OIL COMPANY
Amoco Fed No. 8
2173 FSL 853 FEL Sec. 26 T.7S R.31E
Chaves County Lease No. NM 13418

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 4,150 feet to test the San Andres formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the SURFACE USE PLAN and this approval including the GENERAL REQUIREMENTS.
3. Submit a Daily Report of Operations from spud date until the Well Completion Report (form 9-330) is filed. The progress report should be not less than 8" x 5" in size and each page should identify the well.
4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Requirements. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).
5. Cement behind the 8-5/8" casing must be circulated.
6. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

(Original Sgd.) GEORGE H. STEWART

George H. Stewart
Acting District Engineer



WILSON COUNTY
BIL CONSERVATION DIV.

FEB 26 '80

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-005-20732

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Flag-Redfern Oil Company

3. ADDRESS OF OPERATOR

P.O. Box 2280

Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

2173' FSL & 853' FEL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

17 miles East of Elkins, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

467'

16. NO. OF ACRES IN LEASE

480

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1127'

19. PROPOSED DEPTH

4150'

20. ROTARY OR CABLE TOOLS

Rotary

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

22. APPROX. DATE WORK WILL START*

March 1, 1980

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24# J-55	1650'	700 sx.
7-7/8"	4-1/2"	9.50# K-55	4100'	250 sx.

Drill 11" hole to 1650' or into the Rustler Anhydrite formation. Run 8-5/8" casing and circulate cement using 600 sx. of Halliburton light weight with 1/4 lb/sx. flocele and 8 lb/sx. of salt followed by 200 sx. of Class "C" w/2% CaCl. Wait on cement 12 hrs. and test casing to 600 PSIG. Drill 7-7/8" hole to approximately 4100'. Run Sidewall Neutron Porosity log. Run 4-1/2" casing to TD and cement with 250 sx. of 50-50 Pozmix "A" - Class "H" w/2% gel, 0.75% CFR-2 and 8 lb/sx. of salt. Wait on cement a minimum of 12 hrs. Test 4-1/2" casing to 1500 PSIG. Run correlation logs and perforate the San Andres formation. Treat with acid. Swab to test. Potential test well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

John H. Hardy

TITLE

Drlg. Superintendent

DATE

1-21-80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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OIL CONSERVATION DIV.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-128
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator FLAG-REDFERN OIL COMPANY		Lease AMOCO-FEDERAL		Well No. 3
Unit Letter I	Section 26	Township 2-7-S	Range 31-E	County CHAPARRAL
Actual Footage Location of Well: 853 feet from the EAST line and 2175 feet from the SOUTH line				
Ground Level Elev. 4375	Underlying Formation San Andres	Foot Tom-Tom (San Andres)	Dedicated Acreage 40	

1. Outline the acreage dedicated to the subject well by colored pencil or hachures on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

SECTION 26, T. 7-S, R. 31-E			
		853	
		2175	

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name

Position **John H. Swendig**
Drilling Superintendent

Company
Flag-Redfern Oil Company

Date
January 25, 1980

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

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WILSON
OIL CONSERVATION DIV.

APPLICATION TO DRILL
AMOCO FEDERAL WELL 8

In response to questions asked under Section II B of Bulletin NTL-6, the following answers are provided for your consideration:

1. Location: 2173' FSL & 853' FEL of Section 26, T-7-S, R-31-E, Chaves County, New Mexico.
2. Elevation above Sea Level:
3. Geologic Name of Surface Formation: San Andres
4. Drilling Tools and Associated Equipment: Conventional Rotary rig using mud for the circulation medium.
5. Proposed Drilling Depth: 4150'
6. Estimated Geological Marker Tops: Rustler Anhydrite - 1650', Top of Salt - 1710', Base of Salt - 2065', Yates - 2075', San Andres - 3195', Pi Zone - 3745', San Andres Porosity - 3975'.
7. Mineral Bearing Formations: Water Bearing - none, Gas Bearing - none, Oil Bearing - San Andres Porosity @ 3975'.
8. Casing Program: a. Surface casing - 8-5/8" - 24#/ft. J-55 new casing,
b. Production casing - 4-1/2" - 9.50#/ft. K-55 new casing.
9. Setting Depth of Casing and Cement for Same: a. 8-5/8" casing set at 1650'. Cement will be circulated to the surface using 500 sx. of Halliburton Light Weight w/1/4#/sx. Flocele and 8# salt per sx. followed by 200 sx. Class C w/2% CaCl.
b. 4-1/2" casing set at 4100' and will be cemented w/250 sx. of 50-50 Pozmix "A" - Class "H" w/2% gel, 0.75% CFR-2, and 8# salt per sx.
10. Pressure Control Equipment: Blowout preventers will be installed on the surface casing. They will be 10" API Series 900 dual preventers adapted for the drilling contractor's 4-1/2" drill pipe. They will be capable of closing off on all open areas. The blowout preventers will be hydraulically actuated by an 80 gal. Payne accumulator. The blowout preventers will be tested to 2000 psig after they are installed on the surface casing, prior to drilling out, and each time they are removed or rearranged on the wellhead.

11. Proposed Circulating Medium: Mud will be used for the circulating medium for all depths in this well. The following mud properties will be maintained:
0-1650' Fresh water based native mud, mud weight 8.6 to 10.0 lb/gal, viscosity 32 to 34 seconds.
1650' - 4100' (TD) Fresh water based native mud with oil, mud weight 10.0 lb/gal. Viscosity 32 to 42 seconds.
12. Testing, Logging, and Coring Programs: a. Testing - All testing will be commenced after the well is drilled and casing has been set and cemented. b. Logging - At total depth the following log will be run:
0-4100' Sidewall neutron porosity with gamma ray and caliper. c. Coring - none anticipated.
13. Potential Hazards: No abnormal pressure or temperature zones are anticipated. Hydrogen sulfide gas is not expected to be a problem; however, the drilling rig will be so situated as to allow all gas vapors to be expelled away from all personnel gathering sites and engine exhausts.
14. Anticipated Starting Date and Duration of Operations: Road and location to be constructed February 25, 1980. Drilling rig to spud well March 1, 1980. Pulling Unit to complete well March 20, 1980. Well to be potentialied.
15. Other Facets of Operations: After running 4-1/2" casing, cased hole gamma ray collar correlation logs will be run from 4050' to 2550'. The San Andres Porosity zone will be perforated and acidized. The well will then be swabbed tested and a pumping unit will be installed to potential and produce the well.

Surface Use and Operation Plan

Flag-Redfern Oil Company
Amoco-Federal No. 8
Section 26, T-7-S, R-31-E
Chaves County, New Mexico

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ARTESIA, NEW MEXICO

1. Existing Roads

- A. Attached is a portion of a U.S.G.S. Topographic map showing existing roads in the vicinity of the proposed location.
- B. Attached is a plat showing existing roads in the area of the proposed location.
- C. There are no plans for improving the existing roads.

2. Access Roads

- A. Planned access roads are shown on the attached plat.
- B. The road will be constructed of caliche and will be 12' wide.

3. Location of Existing Wells

- A. Existing wells are shown on the attached plat.

4. Location of Tank Batteries, etc.

- A. A tank battery and production facility consisting of two 210 bbl. stock tanks and a heater treater is located on the well site of well No. 3.
- B. In the event the proposed well is productive, a 2" flowline will be laid, alongside the access road, to the above mentioned production facility.
- C. The reserve pits will be back filled and leveled and the surface returned to its original contours.

5. Location and Type of Water Supply

- A. There is no known surface water in the area.
- B. A windmill is located approximately 3000' north of the proposed location.
- C. All water used in drilling operations will be trucked to the drillsite from commercial sources.

6. Source of Construction Materials

- A. Construction material will be caliche, which will be purchased by the dirt contractor.
- B. Caliche will be obtained from a private pit location in Section 33.
- C. The road and location will require 876 cubic yards of caliche.

7. Methods for Handling Waste Disposal

- A. Well cuttings will be disposed in the reserve pit. All waste and trash will either be burned or buried in a separate pit.
- B. After completion any produced water will be collected in tanks and trucked to an approved disposal system.
- C. During testing operations, all produced fluids will be collected in tanks and trucked from the well site.

8. Auxiliary Facilities

- A. None anticipated.

9. Well Site Layout

- A. Attached is a plat of the well site and rig layout.

10. Plans for Restoration of the Surface

- A. As soon as practical upon completion of the well, the pits will be back filled and leveled and the surface returned to its original contours.

11. Other Information

- A. See attached topographic map for the general area which consists of an undulating plain covered by sandy soils of alluvian and aeolian origin.
- B. Characteristic soils belong to the typic haplargids paleargids associations.
- C. Vegetation consists of yucca glauca, rhus tripebata, gutierrezia sarothrae, eurotia, lanata, and lycurus phleoides.
- D. Fauna consists of crotales and sistrurus, canis latrans, lepus alleni, mephitis mephitis and antelopeus.
- E. The surface of this land is being utilized to a limited extent, as grazing land for cattle.

- F. The surface is private owned.
- G. No cultural resources or archeological sites are present.
- H. There are no steep hillsides, no deep gullies, no streams and no occupied dwellings on this lease.

12. Operator's Representative

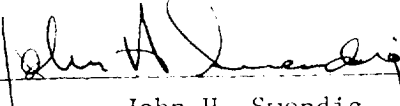
John H. Swendig
P. O. Box 23
Midland, Texas 79702

Office Phone: 915/683-5184
Home Phone: 915/697-1628

13. Certification

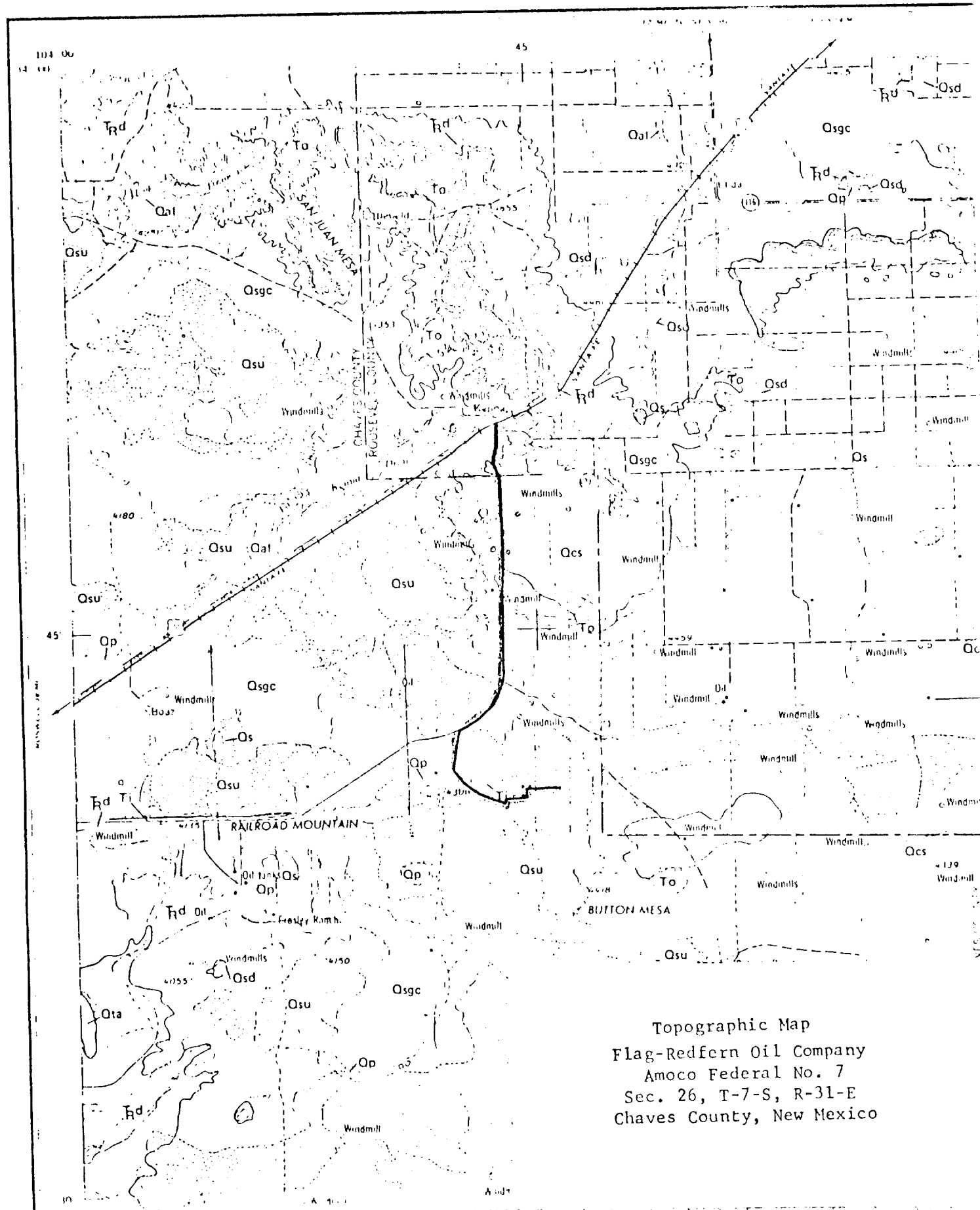
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist, that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Flag-Redfern Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date January 21, 1980



John H. Swendig

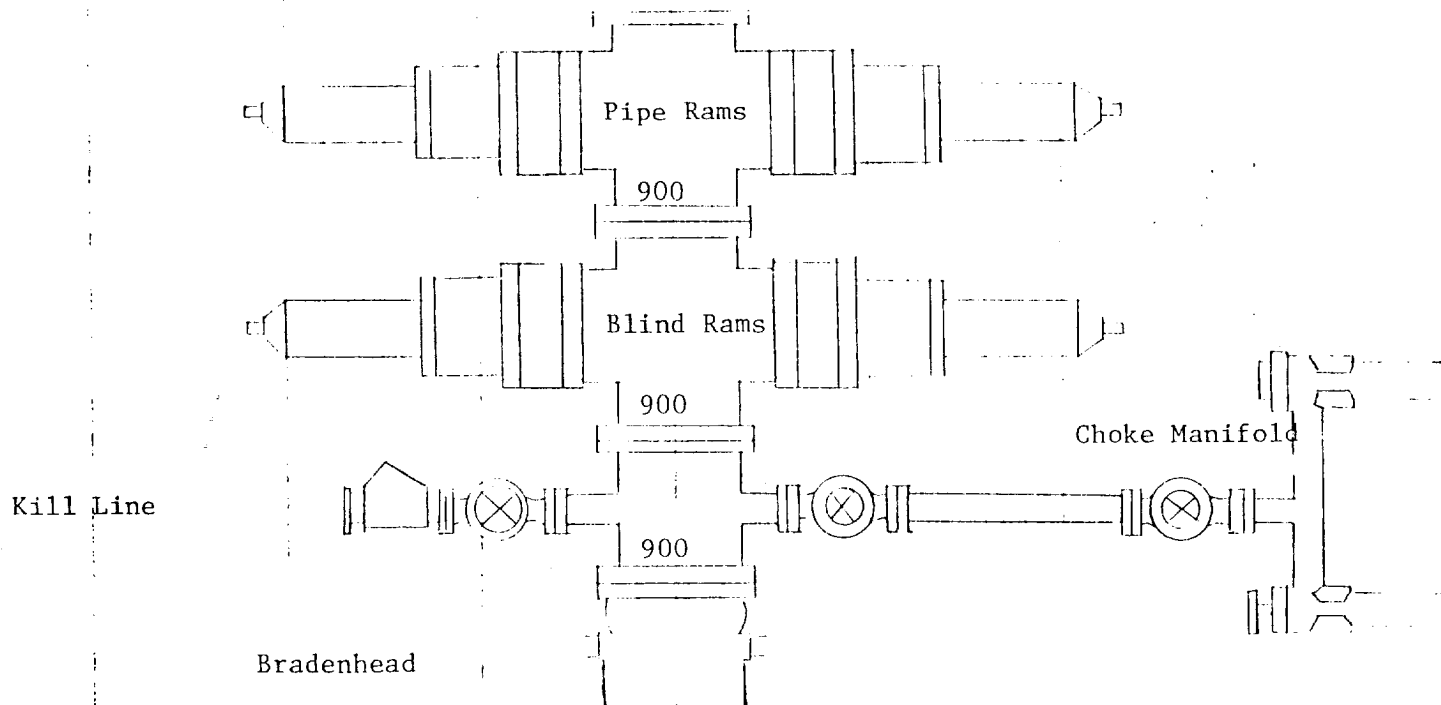
THE UNIVERSITY OF TEXAS AT AUSTIN
BUREAU OF ECONOMIC GEOLOGY
W. L. FISHER, DIRECTOR



Topographic Map
Flag-Redfern Oil Company
Amoco Federal No. 7
Sec. 26, T-7-S, R-31-E
Chaves County, New Mexico

BLOWOUT PREVENTER ASSEMBLY

Shaffer 10" Series 900
Hydraulically Operated BOP



1. All preventers to be hydraulically operated with secondary manual controls installed prior to drilling out from under casing.
2. The preventers will be Type "E" 10" 900 Series Double Shaffer.
3. The preventers will be capable of closing off all open areas.
4. The preventers will be tested to 2000 psig after they are installed on the surface casing prior to drilling out, and each time they are removed or rearranged on the well head.
5. Operating controls will be located a safe distance from the rig floor.

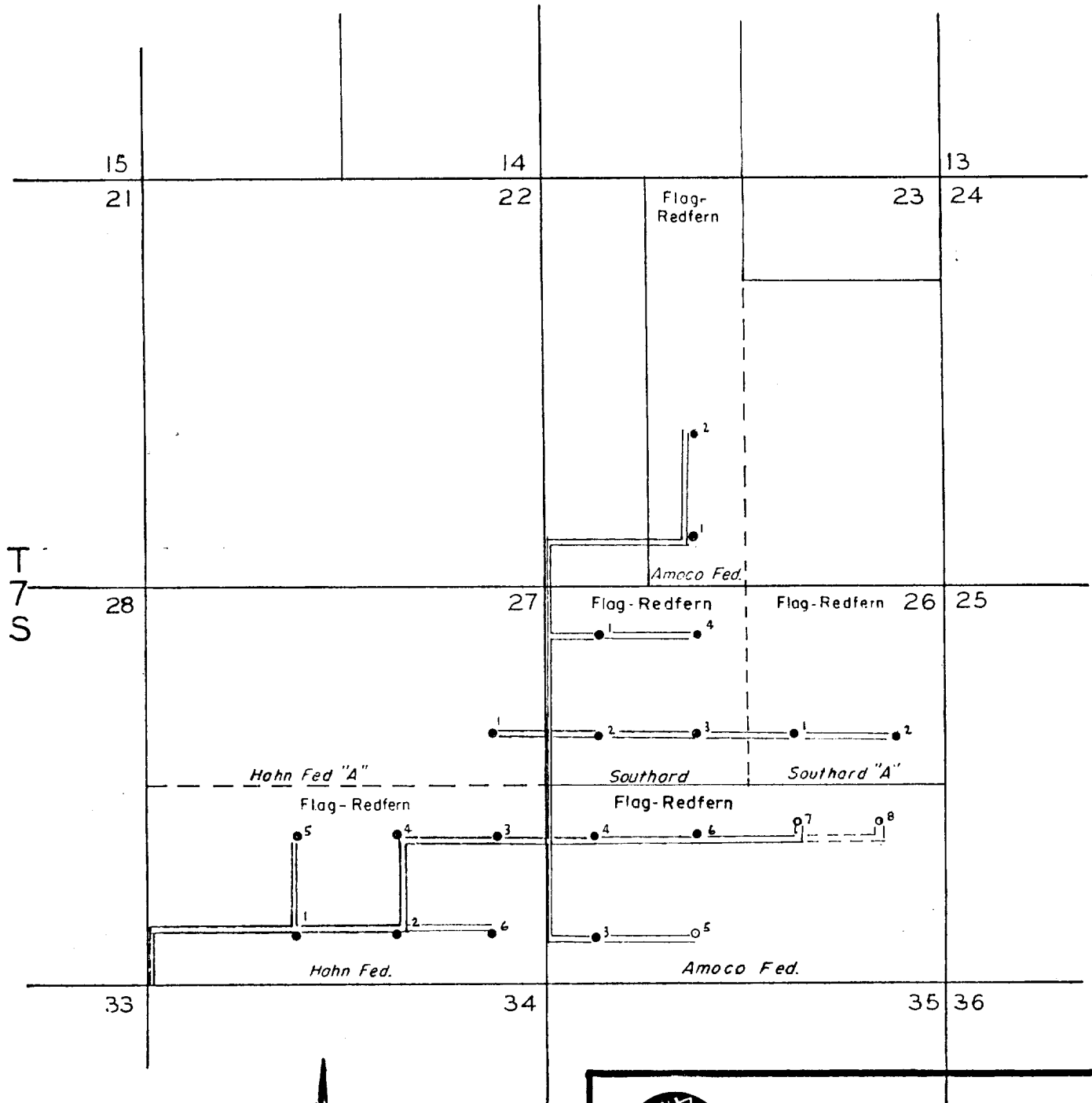
DIRECTIONS TO:

Amoco Federal Well #8
Tom-Tom San Andres Field
Chaves County, New Mexico

From Downtown Kenna, New Mexico

1. Go south on caliche road (only south road out of Kenna) for 10 miles to Amoco and Flag-Redfern Oil Company lease signs.
2. Turn left at sign and go 1 mile east to "Y" in road, take the left side of the fork and continue to 2-1/2 miles.
3. Cross 3 cattleguards, cross the 3rd cattleguard and turn left. (You are now on Flag-Redfern Oil Company's Hahn Federal lease Section 27).
4. Go 1-1/2 miles on main travelled road to caliche intersection.
5. Continue east for 3767' to the Amoco-Federal Well #8.

R-31-E

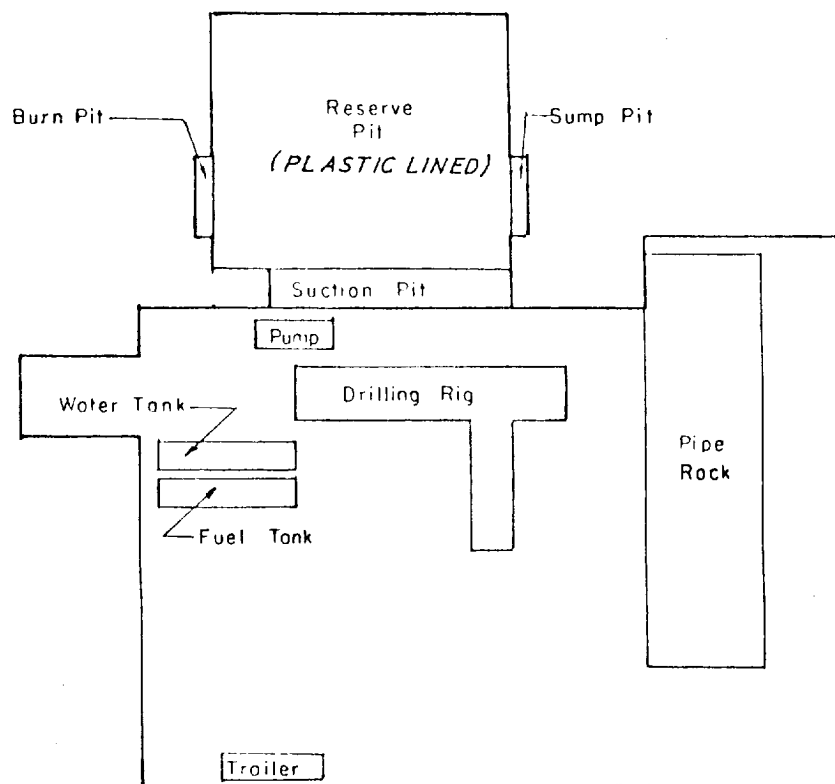


Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701

P. O. BOX 23 • PHONE (815) 683-6184

AREA PLAT
SOUTHARD AREA
Well No 8, Amoco Fed. Lse.
 853' FEL & 2173 FSL
 Sec. 26, T-7-S, R-31-E
 Chaves County, New Mexico



Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79702

P. O. BOX 73 • PHONE (817) 675-1184

WELL SITE LAYOUT

Well No. 8 - Amoco Fed. Lse.
2173' FSL & 853' FEL, Sec. 26, T-7-S, R-31-E
Chaves County, New Mexico

Scale: 1" = 50'

1-25-81
8-15-81



Flag-Redfern Oil Company

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

Mailing address:
P. O. Box 2280
Midland, Texas 79702

January 21, 1980

File:

U. S. Department of the Interior
Geological Survey
P. O. Drawer U
Artesia, New Mexico 88210

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Dear Sir:

Flag-Redfern Oil Company is making application to drill the Amoco-Federal Well #8 in Section 26, T-7-S, R-31-E, Chaves County, New Mexico. This is a federal lease with private surface ownership. An agreement with the surface owner has been reached for drilling the well. Restoration will include closing and levelling of the pits after they are no longer necessary. Upon abandonment, the road and location will be left intact.

Yours very truly,

John H. Swendig

CORPORATION ACKNOWLEDGMENT

STATE OF TEXAS
COUNTY OF Midland

The foregoing instrument was acknowledged before me this 21st day of January, 1980, by John H. Swendig Engineer for Flag-Redfern Oil Company a Delaware corporation on behalf of said corporation.

Angie Lloyd
Notary Public

My Commission expires July 10, 1980.



OH. CONSERVATION DIV.

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