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DEC 3 1992

O. C. D.
OFFICE

3160(067)
NM-69369

CCC-11-9-92

Rem 11/12/92

A.G. Lopez 11/13/92

T.R. Kuehn

11/17/92

NOV 24 1992

CERTIFIED--RETURN RECEIPT REQUESTED
P 864 872 914

Bettis, Boyle & Stovall
Attention: Steve Gray
P.O. Box 1240
Graham, TX 76450

RE: Sotol Federal Well No. 4
NM-69369
660' FNL & 660' FWL, Sec. 1, T24S, R31E
Eddy County, New Mexico

Dear Mr. Gray:

On October 8, 1992, Bettis, Boyle & Stovall filed an Application for Permit to Drill (APD) at the above referenced location. I am pleased to approve your APD at the present location. Your copy of the APD, with attached stipulations, is enclosed.

Through our analysis of the APD, we have determined that the well site is located a sufficient distance from the ore zones that potash resources should not be impacted.

If you need any additional information, please contact Tony Herrell in the Carlsbad Resource Area at (505) 887-6544.

Sincerely,

Larry L. Woodard

Larry L. Woodard
State Director

1 Enclosure

bcc:

NM (910, L. Woodard)
NM (920, R. Smith)
NM (060, A. Lopez)
NM (060, L. Cone)
NM (067, T. Herrell)

067:Jolsen:rh:11/4/92:A:\Sotol-4.REC

NO OIL
Branched
Antenna

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMITTED DATE
(Other instructions on
reverse side)

DEC 3 1992

30-015-27227
Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Bettis, Boyle & Stovall

3. ADDRESS AND TELEPHONE NO.

P. O. Box 1240, Graham, TX 76450 817-549-0780

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

At surface

At proposed prod. zone 660' FNL & 660' FWL

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

25 Mi. SE of Loving

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drilg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

640

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.

1300'

19. PROPOSED DEPTH

8500'

20. ROTARY OR CABLE TOOLS

Rotary

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

3530.5 G.L.

22. APPROX. DATE WORK WILL START*

February 1993

23.

PROPOSED CASING AND CEMENTING PROGRAM

Secretary's Potash

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13-3/8"	54.5#	600'	1000 sx CIRCULATE
11"	8-5/8"	32#	4400'	1200 sx CIRCULATE
7-7/8"	5-1/2"	15.5# 417#	8500'	500 sx (tie back)

Attachments include:

mud program
BOP program
surface use plan
location plats

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

Steve Gray

Steve Gray

TITLE

Petroleum Engr.

DATE

9/22/92

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

DATE

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BETTIS, BOYLE & STOVALL			Lease SOTOL FEDERAL		Well No. 4
Unit Letter D	Section 1	Township 24 SOUTH	Range 31 EAST	NMPM	County EDDY
Actual Footage Location of Well: 660 feet from the NORTH line and 660 feet from the WEST line					
Ground Level Elev. 3530.5'		Producing Formation Delaware Brushy Canyon		Pool Delaware Wildcat	Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

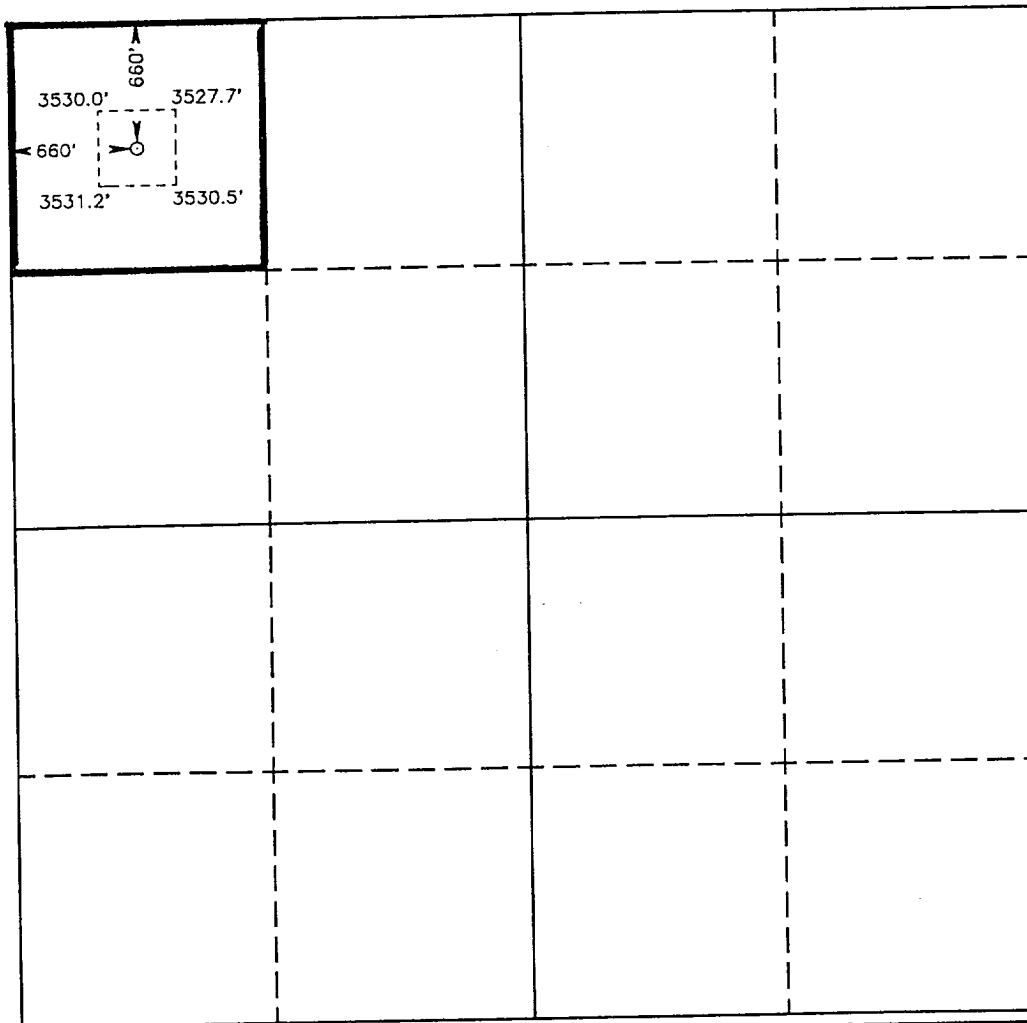
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest 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 of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)

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



OPERATOR CERTIFICATION

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

Signature
Steve Gray

Printed Name
Petroleum Engineer

Position
Bettis, Boyle & Stovall

Company
9/23/92
Date

SURVEYOR CERTIFICATION

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
SEPTEMBER 15, 1992

Signature & Seal of
Professional Surveyor

Certificate No. 7977
JOHN W. WEST 876
RONALD J. EIDSON 3239
GARY L. JONES 7977

SOTOL FEDERAL #4

The following information is furnished with the Application to Drill (Re-enter), Form 3160-3, in compliance with NTL-6, effective July 1, 1976.

1. The geologic surface formation is Permian.
2. The estimated tops of important geologic markers are as follows:

Rustler	790'
T/Delaware LS	4,500'
T/Delaware SS	4,550'
Bone Springs	8,500'
3. The depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Fresh Water:	Less than 500'
Top Salt:	975'
Base Salt:	4275'
4. For proposed casing program, please see Form 3160-3.
5. Pressure control will be effected with a dual ram, 3000 psi WP blowout preventer with 3000 psi annular preventer. (See Exhibit A).
6. Proposed Mud Program is attached. (See Exhibit B).
7. A drilling rig with normal auxillary equipment, mud tanks, pumps, generator and 4-1/2" drill pipe will be used to drill this well.
8. Drill stem tests may be performed on any valid oil or gas shows in the Delaware. Resistivity and porosity logs will be run as required to evaluate the productive potential of the well.
9. No abnormal pressures are anticipated.
10. The anticipated starting date for this well is February 1993.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
BETTIS, BOYLE & STOVALL
SOTOL FEDERAL #4
660' FNL & 660' FWL
SEC 1, T24S, R31E
EDDY COUNTY, NEW MEXICO

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

- A. The proposed well to be located as stated below.
- B. Exhibit "C" is a portion of a USGS Topographic map of the area. Directions to the location are as follows:

Travel east from Loving on State Rd. 31 and 128 for 25 mi. Turn left onto location road and follow 100 ft. to location.
- C. See Exhibits attached.
- D. Road to be maintained by grader when required.

2. PLANNED ACCESS ROADS

Exhibits "C" and "D" are maps showing access roads in the area.

- 1. The width of access road will be 12 feet.
- 2. The maximum grade will be nominal.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

PAGE 2

3. No turnouts will be constructed.
 4. A turnoff from Hiway 128 will be built and culverts will be installed per Highway department requirements.
 5. A cattleguard will be installed at Hiway 128.
3. LOCATION OF EXISTING WELLS.
1. There are no water wells.
 2. There are 2 dry holes 1/4 mile southeast of this location in north half of Section 1 approximately 1/4 mile away that are 382' and 347' deep.
 3. No temporarily abandoned wells.
 4. No disposal wells.
 5. No drilling wells.
 6. The Sotol #2 produces in Section 1 approximately 1/4 mile South.
 7. No shut-in wells.
 8. No injection wells.
 9. No monitoring, observation, or resource wells known.
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.
- A. Existing facilities are present on the Sotol #2 location.. If production is established a line will be run under Hiway 128 to the facilities. Locking devices will be placed on all production equipment. No unattended open pits or reservoirs to be left at the well site.
 - B. The land will be restored as much as possible to the original condition.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
PAGE 3

5. LOCATION AND TYPE OF WATER SUPPLY.

- A. Drilling water is to be purchased and hauled to the proposed drilling site.
- B. Water to be hauled by trucks.
- C. No well is to be drilled.

6. SOURCE OF CONSTRUCTION MATERIALS.

- A. Caliche will be used for construction material. Caliche will be purchased and hauled from an approved Caliche pit.

7. METHODS OF HANDLING WASTE DISPOSAL.

- 1. Drill cuttings will be disposed of in the drilling pits.
- 2. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- 3. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- 4. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- 5. Trash, waste paper, garbage, and junk will be hauled to proper disposal site.
- 6. All trash and debris will be ~~removed~~ ^{SJS} removed from the well site within 30 days after finishing drilling and/or completion operations.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
PAGE 4

8. ANCILLARY FACILITIES. None required.

9. WELL SITE LAYOUT.

A. Exhibit "E" shows the well site layout with general dimensions for the location and reserve pit.

1. The reserve pit will be lined.

10. PLAN FOR RESTORATION OF THE SURFACE.

1. All pits will be back filled and all waste material removed. Land adjacent to drilling pad will be levelled.

2. Re-vegetation and rehabilitation to be completed as per BLM recommendations.

3. Prior to rig release, pits will be fenced and maintained until clean up.

4. Any oil in pit will be transferred to steel stock tank and separated and sold.

5. All clean up should be completed within 6 months of well completion.

11. OTHER INFORMATION.

1. The proposed well location and access road is situated entirely in Section 1, which is Federally owned. The access road shall be constructed as shown on Exhibit E.

2. No ponds, lakes, streams, water wells, or occupied dwellings exist in the area.

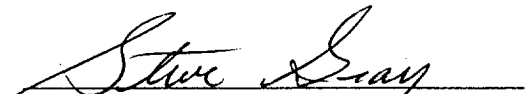
12. LESSEE'S OR OPERATOR'S REPRESENTATIVE:

Steve Gray, P.O. Box 1240, Graham, TX 76450
Phone: (817)549-0780

13. CERTIFICATION.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site 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 Successful Bidder and its contractors in conformity with this plan and the terms and conditions under which it is approved.

9-23-92
DATE


Steve Gray
Petroleum Engineer

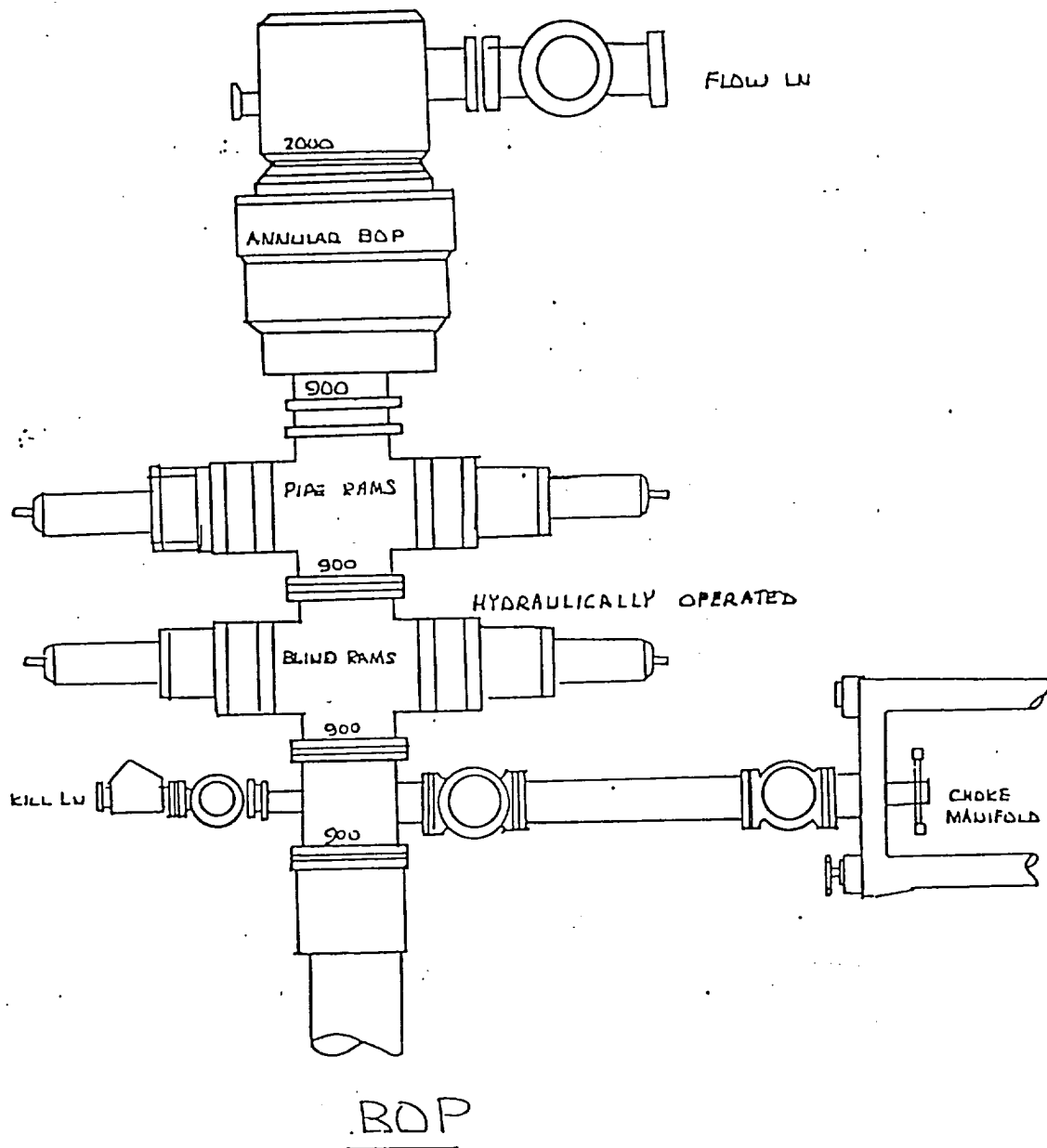


EXHIBIT "A"
BETTIS, BOYLE & STOVALL
SOTOL FEDERAL #4
SEC. 1, T24S-R31E
EDDY COUNTY, NEW MEXICO

EXHIBIT "B"

Sotol Federal #4 Proposed Drilling Fluids Program

1. Surface to 600': Use fresh water, native mud to clean out surface hole.
2. 600-4400': mud weight 10-10.2, Viscosity 32-34.
Use commercial brine, paper, and caustic for PH control.
3. 4400-8400': mud weight 8.5-8.6, Viscosity 32-36.
Use fresh water and gel for viscosity as needed. Use paper to control lost circulation. Lime or caustic for PH control.

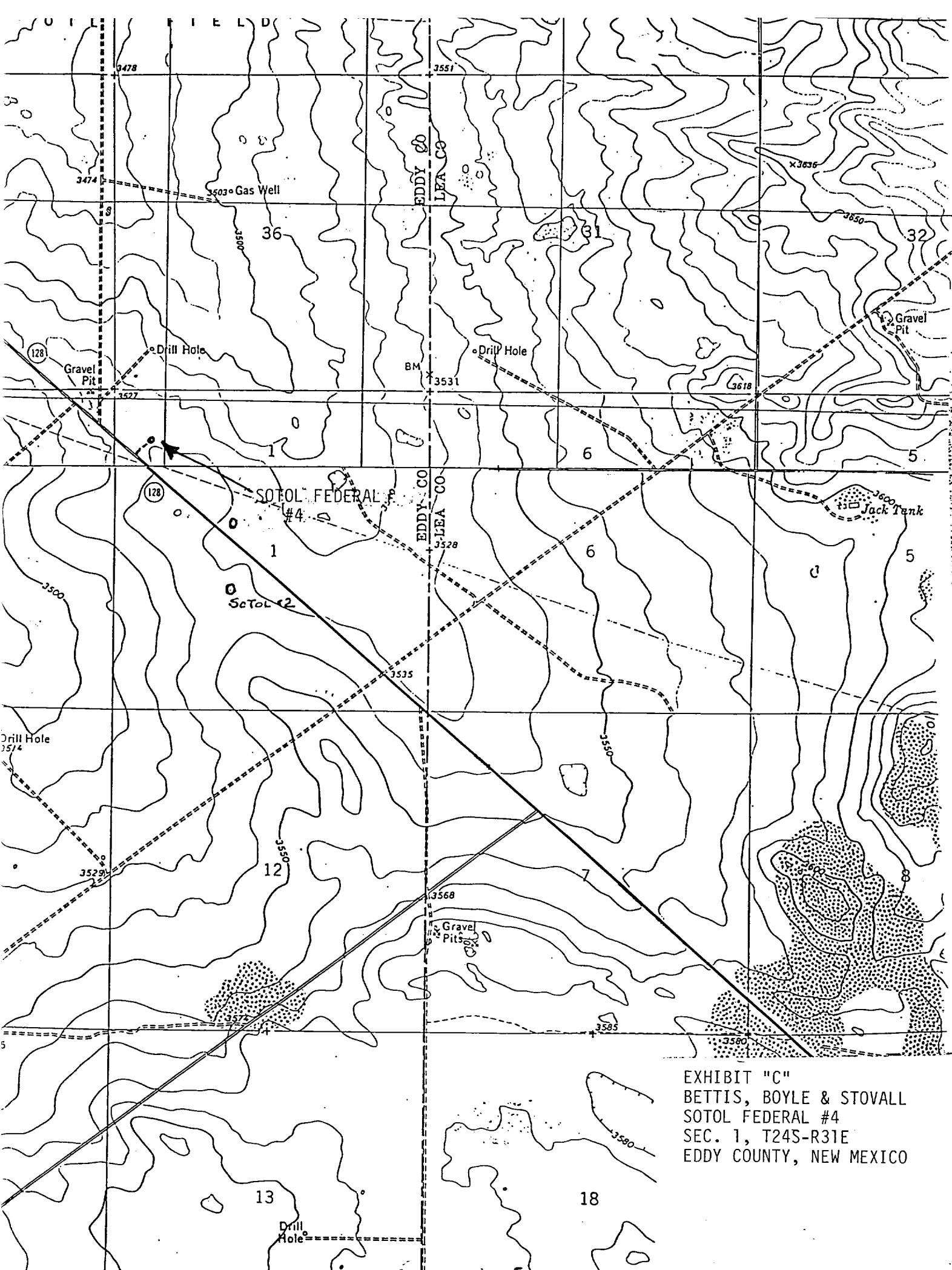


EXHIBIT "E"
BETTIS, BOYLE & STOVALL
SOTOL FEDERAL #4
SEC. 1, T24S-R31E
EDDY COUNTY, NEW MEXICO

