

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Southern Union Exploration

3. ADDRESS OF OPERATOR

P.O. Box 2179 Farmington, NM 87499

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

At surface

990' FNL & 1980' FWL

At proposed prod. zone

Same

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

26 miles south of Farmington

15. DISTANCE FROM PROPOSED*

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

660'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

660'

16. NO. OF ACRES IN LEASE

240

19. PROPOSED DEPTH

5000'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

E 80

20. ROTARY OR CABLE TOOLS

Rotary

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

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

22. APPROX. DATE WORK WILL START*

August 10, 1983

23. PROPOSED CASING AND CEMENTING PROGRAM

This action is subject to administrative
appeal pursuant to 30 CFR 290.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	32#	300'	Cir to surface 250 cu/ft C1 B 650 cu/ft 50/50 Poz C1 B
7 7/8"	4 1/2"	10.5#	5000'	

1. Drill 12 1/4" hole to 300' & set 8 5/8" csg. Cement to circulate to surface.
2. Pressure test BOP & log daily tests while drilling 7 7/8" hole to 5000'.
3. Log w/induction & density, set 5 1/2" csg @ 5000' if warranted.
4. Cement bond log, perforate & stimulate.

EXHIBITS ATTACHED:

- A. Location & elevation plat.
- B. Access & road map to location & radius map.
- C. Blow out preventer schematic.
- D. Multi point requirements for APD.
- E. 10 point compliance.
- F. Production facilities layout.
- G. Drillpad layout & cut/fill crosssection.

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

TITLE Drlg. & Prod. Manager

DATE

(This space for Federal or State office use)

PERMIT NO.

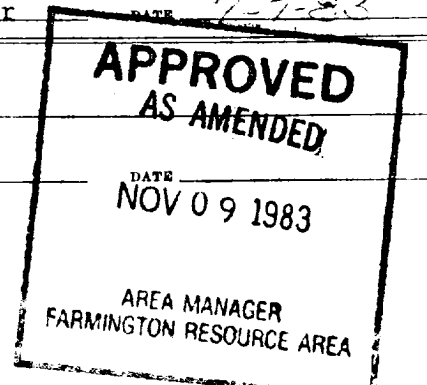
APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

NMOCC



All distances must be from the outer boundaries of the Section.

Operator: SOUTHERN UNION EXPLORATION COMPANY			Lease: BERRY-FEDERAL		Well No. 1
Unit Letter C	Section 11	Township 25N	Range 13W	County San Juan	
Actual Footage Location of Well: 990 feet from the North line and 1980 feet from the West line					
Ground Level Elev: 6284	Producing Formation Gallup	Pool Bisti Lower Gallup		Dedicated Acreage: 80 Acres	

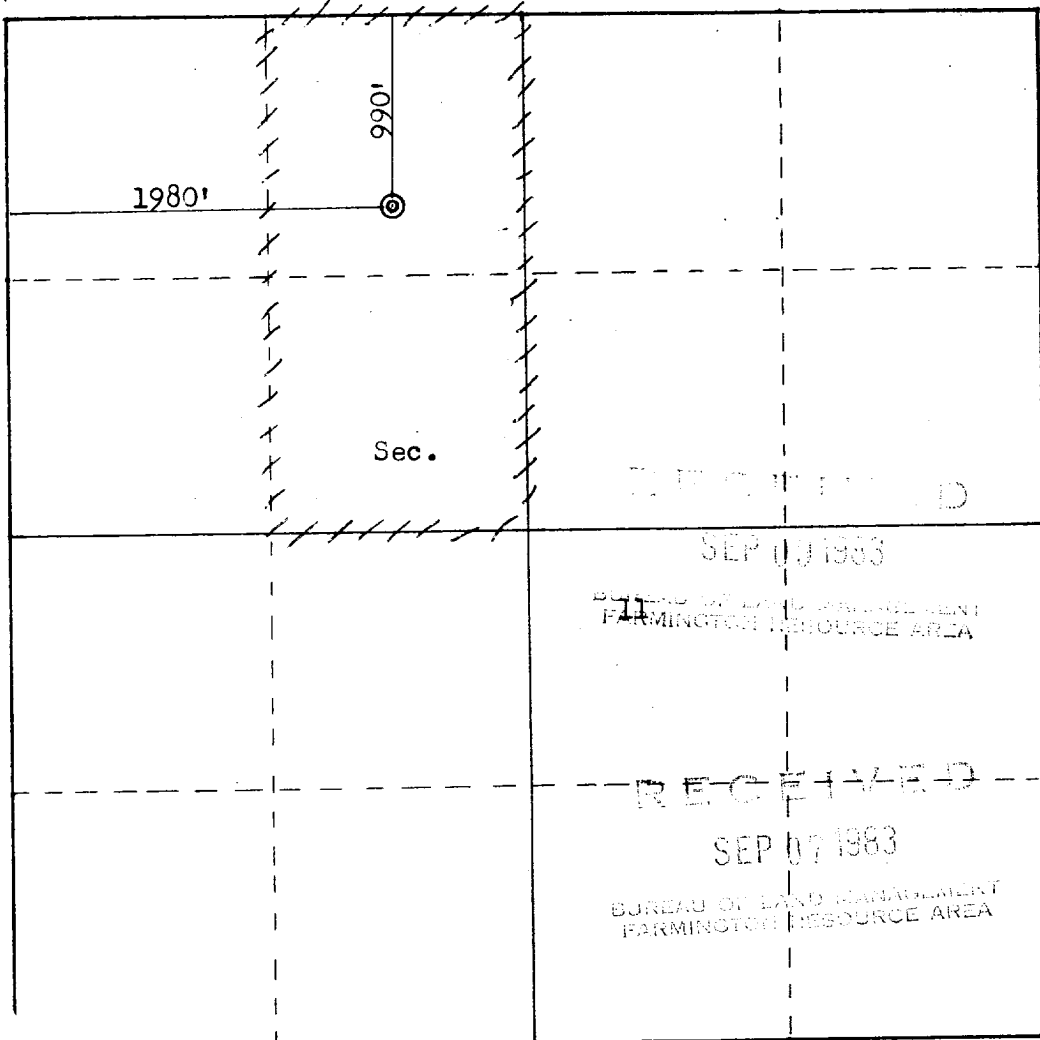
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease¹ different ownership is dedicated 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.) _____

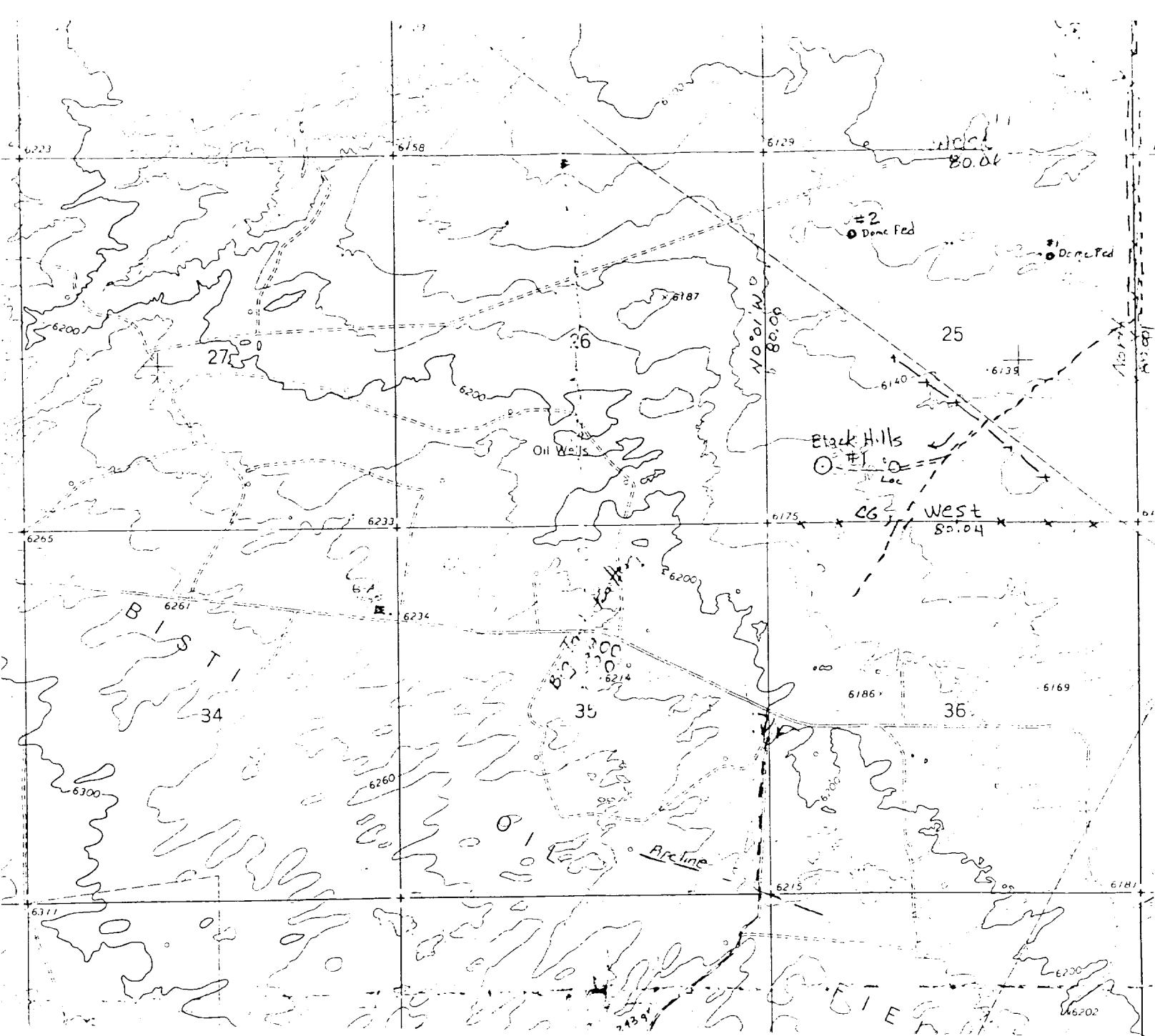
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

RECEIVED
NOV 9 1983
OIL CON. DIV.
DIST. 3



Scale: 1"=1000'

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
 Name Jeffrey J. Bollschweiler	
Position Drilling & Production Supt.	
Company Southern Union Exploration	
Date 7-15-83	
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 July 7, 1983	
Registered Professional Engineer and Land Surveyor Fred B. Kerr Jr.	
Certificate No. 2, AERO. No. 3950	





Southern Union Exploration Company
P. O. Box 2179
Farmington, New Mexico 87499
(505) 327 4481

CASING PROGRAM for BERRY FEDERAL # 1

<u>Hole Size</u>	<u>Csg Size</u>	<u>Weight</u>	<u>Set Depth</u>	<u>Cement</u>
14 3/4"	10 3/4"	40.5#	270'	325 cu.ft. Class B
9 7/8"	7 5/8"	29.7#	1550'	510 cu.ft. 65/35 poz & Cl. B
6 3/4"	4 1/2"	10.5#	5025'	1st stage: 142 cu.ft. 50/50 poz 2nd stage: 539 cu.ft. 65/35 poz & Class B

- A. Drill 14 3/4" hole to 270'. Run 6 jts. 10 3/4", 40.5#, J-55 casing and set @ 270'. Cement with 275 sk. Class B cement with 2% CaCl₂. (100% excess for circulation).
- B. Pressure test BOP and casing to 800 psi. Drill out cement with 9 7/8" bit and 9 7/8" hole to 1550' (Lewis Shale). Run 7 5/8", 29.7#, J-55 casing and land at 1550'. Cement with 255 sk. 65/35 poz 6% gel followed by 100 sk. Class B. (50% excess to circulate to surface casing).
- C. Pressure test BOP and casing to 1000 psi. Drill out cement with 6 3/4" bit and 6 3/4" hole to 5025'.
- D. Run CNL- FDC and GR- IND logs, 5025' to 1550'.
- E. Run 4 1/2", 10.5#, J-55 casing to 5025'. Cement in two stages.
1st: 115 sk. 50/50 poz, 2% gel, 7# salt
2nd: 300 sk. 65/35 poz, 6% gel, 6 1/4#/sk. gilsonite followed by 50 sk. Class B. (25% excess to circulate to intermediate).
- F. Cement Bond Log and perforate to Lower Gallup (Tocito).

RECEIVED
NOV 9 - 1983
CON. DIV.