

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒JUN 2 DE 1980 ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

U.S. GEOLOGICAL SURVEY

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Amoco Production Company

3. ADDRESS OF OPERATOR

P.O. Box 68, Hobbs, NM 88240

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

At surface

2310' FNL & 735' FEL, Sec. 8

At proposed prod. zone

(Unit H, SE/4 NE/4)

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

15. DISTANCE FROM PROPOSED*

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

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

8350'

20. ROTARY OR CABLE TOOLS

Rotary

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

4468.2 GR

22. APPROX. DATE WORK WILL START*

6-15-80

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	500'	Circ. to surf.
11" or 12 1/4"	8 5/8"	24#	3350'	Circ. to surf.
7 7/8"	5 1/2"	15.5#, 17#, 20#	8350'	Tie back to 8 5/8"

Propose to drill and equip well in the Morrow formation. After reaching TD logs will be run and evaluated; perforate and/or stimulate as necessary in attempting commercial production.

Mud Program: 0' - 500' Native mud and fresh water.
500' - 3350' Native mud and brine water.
3350' - TD Commercial mud and brine with minimum properties for safe hole conditions. At 7700' raise viscosity and reduce water loss for Morrow penetration.

BOP Program Attached, Archaeological
Survey Attached, Gas is Not Dedicated

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 sub-surface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Bob Davis

TITLE

Admin. Analyst

JUN 6/2/80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

80

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

0 + 5 USGS-A 1-Hou 1-Susp 1-BD

*See Instructions On Reverse Side

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JUN 6 1980

O. C. D.

ARTESIA, OFFICE

NL MEXICO OIL CONSERVATION COMMISS
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator AMOCO Production Co.		Lease Federal BH		Well No. 1
Unit Letter H	Section 8	Township 26 South	Range 23 East	County Eddy
Actual Footage Location of Well: 2310 feet from the North line and 735 feet from the East line				
Ground Level Elev. 4468.2	Producing Formation Morrow	Pool Wildcat Morrow	Dedicated Acreage: 320 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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

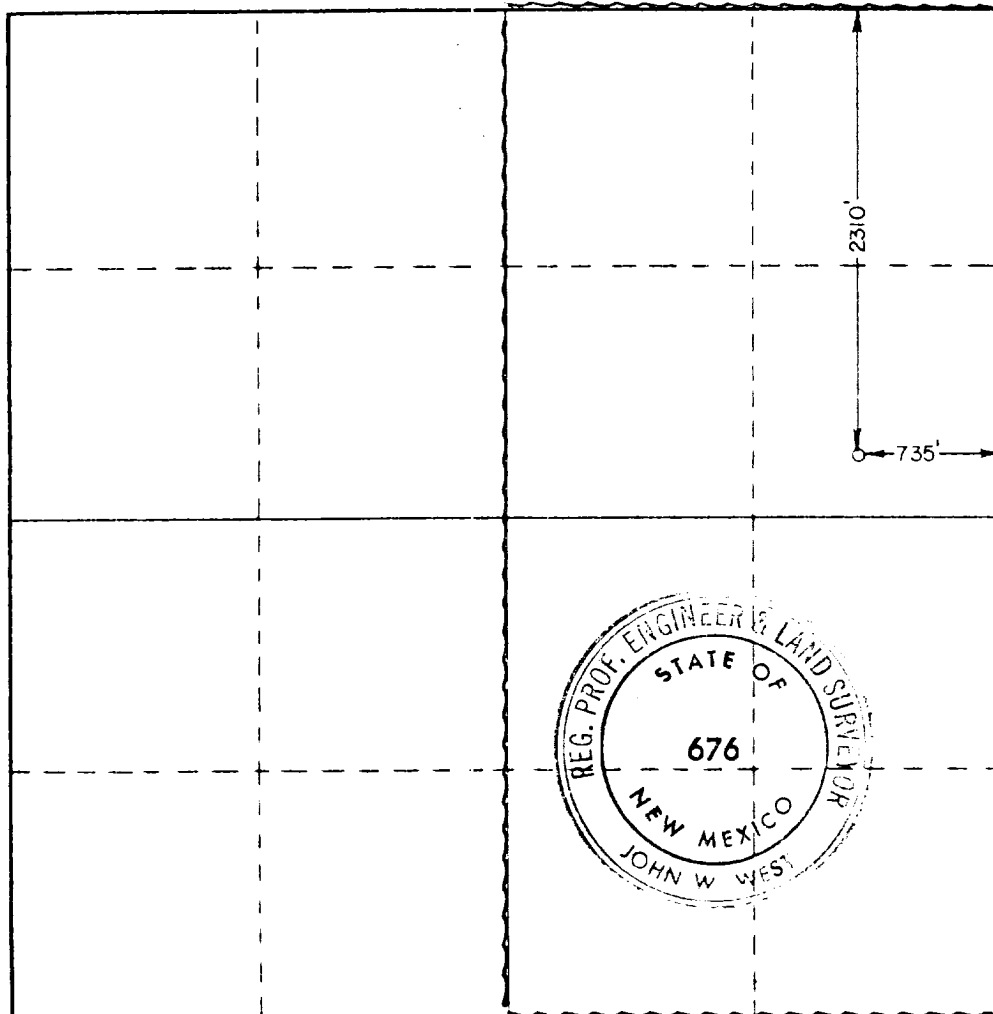
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**U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO**

If answer is "no," list the owners and tract descriptions which have not 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.



CERTIFICATION

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

Bob Davis

Name
Admin. Analyst
Position
Amoco Production Company
Company
6-2-80
Date

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
May 24, 1980
Registered Professional Engineer
and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6663
Ronald J. Eidson 3239

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



N.M.O.C.D. COPY

United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

RECEIVED

JUN 6 1980

O. C. D.
ARTESIA, OFFICE

Amoco Production Company
P. O. Box 68
Hobbs, New Mexico 88240

Gentlemen:

AMOCO PRODUCTION COMPANY
Federal BH No. 1
2310 FNL 735 FEL Sec. 8 T.26S R.23E
Eddy County Lease No. NM-11952

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 8,350 feet to test the Morrow 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 attached 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 these Conditions of Approval including the attached General Requirements.
3. All access roads will be limited to a 12 foot wide driving surface, excluding turnarounds. Surface disturbance associated with road construction will be limited to 20 feet in width.
4. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should not be less than 8" x 5" in size and each page should identify the well.
5. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).
6. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.
7. A kelly cock will be installed and maintained in operable condition.

8. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.
9. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:
 - (1) A recording pit level indicator to determine pit volume gains and losses.
 - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
10. Notify the Survey by telephone 24 hours prior to spudding well.
11. Notify the Survey in sufficient time to witness the cementing of the 8-5/8" casing.
12. Cement behind the 13-3/8" and 8-5/8" casing must be circulated.
13. 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,

AD-10-100 GEORGE H. STEWART

George H. Stewart
Acting District Engineer

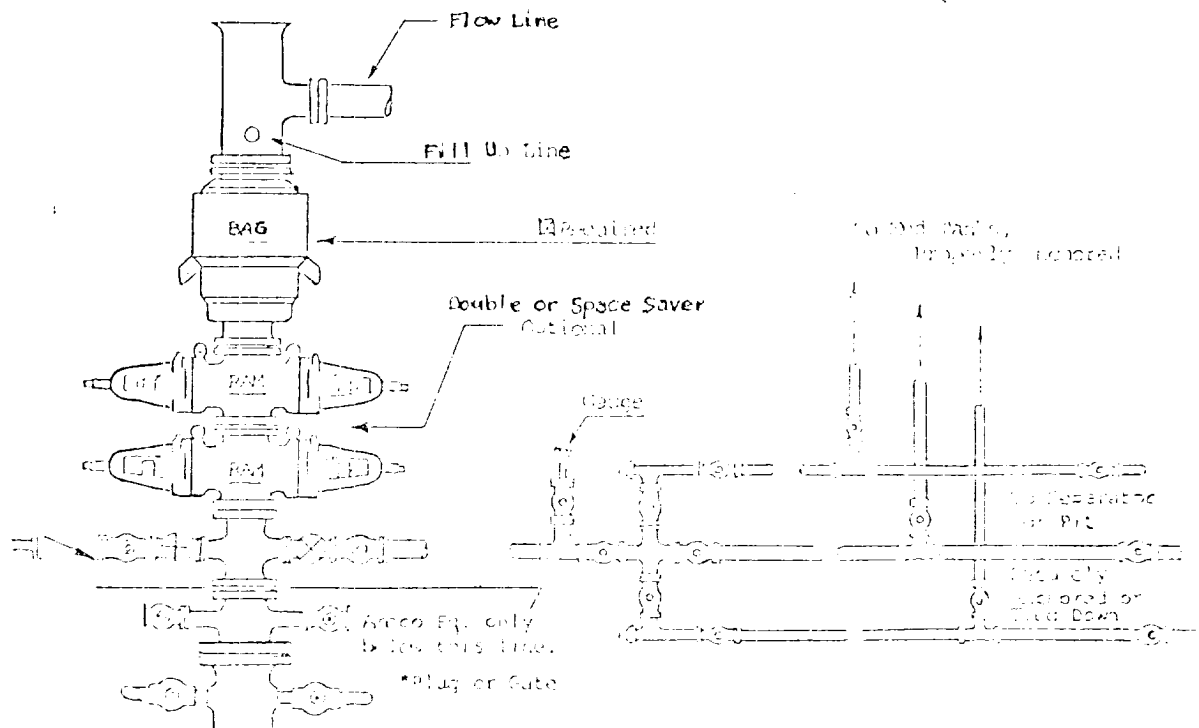
1. BOP'S TO BE FLUID OPERATED.
2. BOP'S AND ALL FITTINGS MUST BE IN GOOD CONDITION AND RATED AT 3000 PSI W.P. MINIMUM.
3. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AT LEAST AS LARGE AS CASING SIZE BEING DRILLED THROUGH.
4. NIPPLE ABOVE BOP'S SHALL BE SAME SIZE AS LAST CASING SET.
5. UPPER KELLY COCK IS REQUIRED AND SHALL BE 3000# W.P. MINIMUM.
6. T. I. W. OR COMPARABLE SAFETY VALVE SHALL BE AVAILABLE ON RIG FLOOR WITH CONNECTION OR SUBS TO FIT ANY TOOL JOINT IN THE STRING. VALVE TO BE FULL BORE 5000# MIN.
7. VALVE NEXT TO SPOOL SHALL BE 4". OTHER EQUIPMENT MAY BE 3" OR 4". ALL CHOKE MANIFOLD EQUIPMENT SHALL BE FLANGED. FLOW LINE FROM MANIFOLD TO BE MINIMUM OF 3" AND STRAIGHT AS POSSIBLE WITH MINIMUM BENDS.
8. FLUID LINES FROM ACCUMULATOR TO BOP'S AND ALL REMOTE CONTROL FLUID LINES SHALL BE STEEL, AND RATED AT OR ABOVE MAXIMUM ACCUMULATOR PRESSURE. LINES SHALL BE ROUTED IN BUNDLES AND ADEQUATELY PROTECTED FROM DAMAGE.
9. USE RAMS IN FOLLOWING POSITIONS:*

	<u>DRILLING</u>	<u>RUNNING CASING</u>
UPPER RAM	DRILL PIPE	CASING
LOWER RAM	BLIND	BLIND

*AMOCO AREA SUPT. MAY REVERSE LOCATION OF RAMS.

10. CHOKE MANIFOLD, BEYOND SECOND VALVE FROM CROSS MAY BE OPTIONALLY POSITIONED OUTSIDE OF SUBSTRUCTURE.
11. EXTENSIONS AND HAND WHEELS TO BE INSTALLED AND BRACED AT ALL TIMES.
12. TWO INCH (2") LINES AND VALVES ARE PERMITTED ON THE KILL LINE.

NOTE: ALL UNMARKED VALVES MAY BE PLUG OR GATE VALVE, METAL TO METAL SEAL.



Attachment to "Application for Permit to Drill", Form 9-331 C

Federal BH #1
2310' FNL & 735' FEL, Sec. 8, T-26-S, R-23-E
Lea County, NM

1. Location

See attached Form C-102

2. Elevation

See attached Form C-102

3. Geologic name of surface formation.

Quaternary

4. Type of drilling tools and associated equipment to be utilized.

See Form 9-331 C

5. Proposed drilling depth.

See Form 9-331 C

6. Estimated tops of important geologic markers.

Deleware	675'	Atoka	7045'
Bone Springs	3345'	Mid Morrow	7855'
Wolfcamp	5915'	Barnett	8305'
Strawn	6700'		

7. Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected to be encountered.

Wolfcamp	5915'	Mid Morrow	7855'
Strawn	6700'		

8. Proposed casing program, including size, grade, and weight of each string and whether it is new or used.

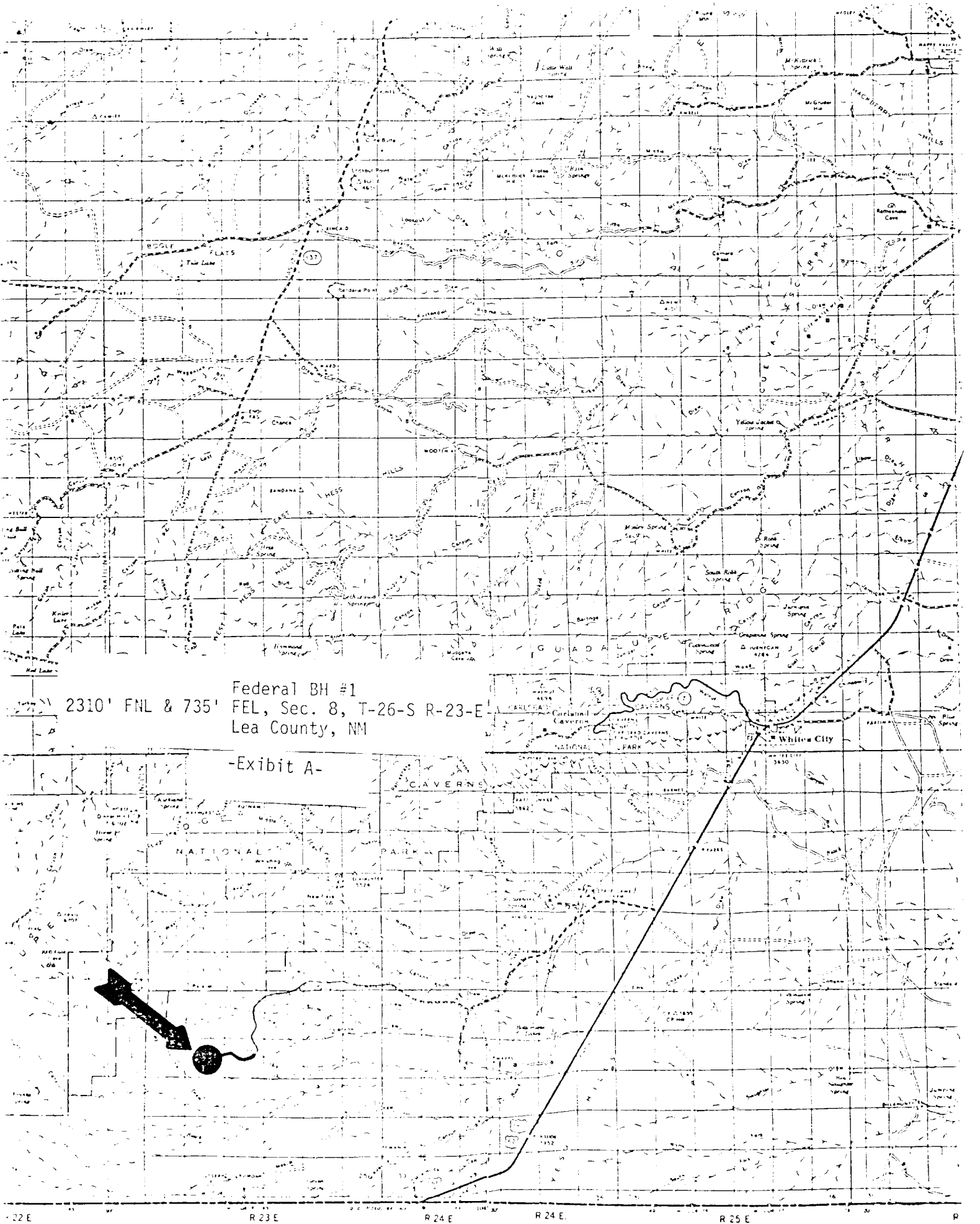
Depth	Size	Weight	Grade	New or Used
500'	13 3/8"	48 #	H-40	New
3350'	3 5/8"	24#, 32#	K-55	New
8350'	5 1/2"	15.5#	K-55	New

9. Proposed cementing program.

13 3/8"	-	Circulate to Surface.
8 5/8"	-	Circulate to Surface.
5 1/2"	-	Tie back to 8 5/8".

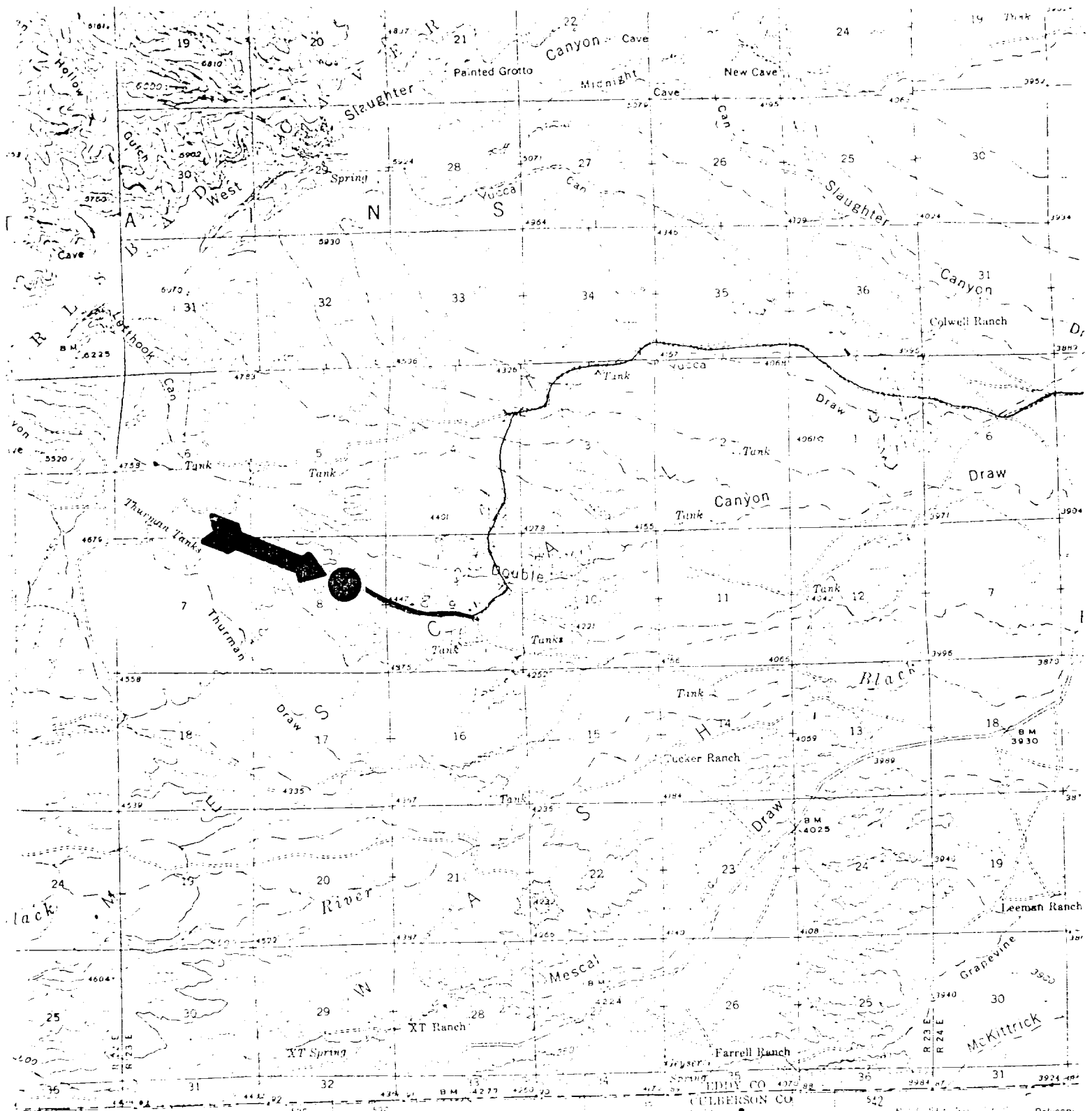
10. Blowout Preventer Program is attached.
11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling, and the quantities and types of mud and weighting material to be maintained.
 - 0 - 500' Native mud and fresh water.
 - 500' - 3350' Native mud and brine water.
 - 3350' - TD Commercial mud and brine with minimum properties for safe hole conditions
12. Testing, logging and coring programs to be followed with provisions made for required flexibility.
 - 500' - TD Compensated Neutron Formation Density
 - 500' - TD Dual Laterolog Micro SFL
13. Any anticipated abnormal pressure or temperatures expected to be encountered or potential hazards, such as hydrogen sulfide gas, along with plans for mitigating such hazards.
 - None anticipated
14. Anticipated starting date and duration of operation.
 - 6-15-80 8-8-80
15. Other facets of the proposed operation operator wishes to point out for the Geological Survey's consideration of the application.

Request exemptions from the painting stipulations of Sec. 102 (a) (8) of the "Federal Land Policy and Management Act of 1976" to paint any tanks, separators, and treaters required for the production of this well, Amoco's standard gray color. If a pumping unit is required for the continued production of this well, it will be painted black with orange safety color coding which conforms with your current painting guidelines.



2310' FNL & 735' FEL, Sec. 8, T-26-S R-23-E
Lea County, NM

-Exhibit A-



POLYCONIC
 5000' x 10000'
 rectangular
 Land in
 R. 23 E.
 S. 26 N.
 T. 26 S.
 R. 23 E.
 S. 26 N.
 T. 26 S.

Contour interval 50 feet
 Datum is mean sea level

CARLSBAD CAVERNS
 1.5.

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR A
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE

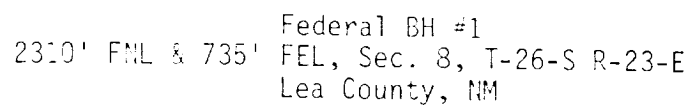
2310' FNL & 735'

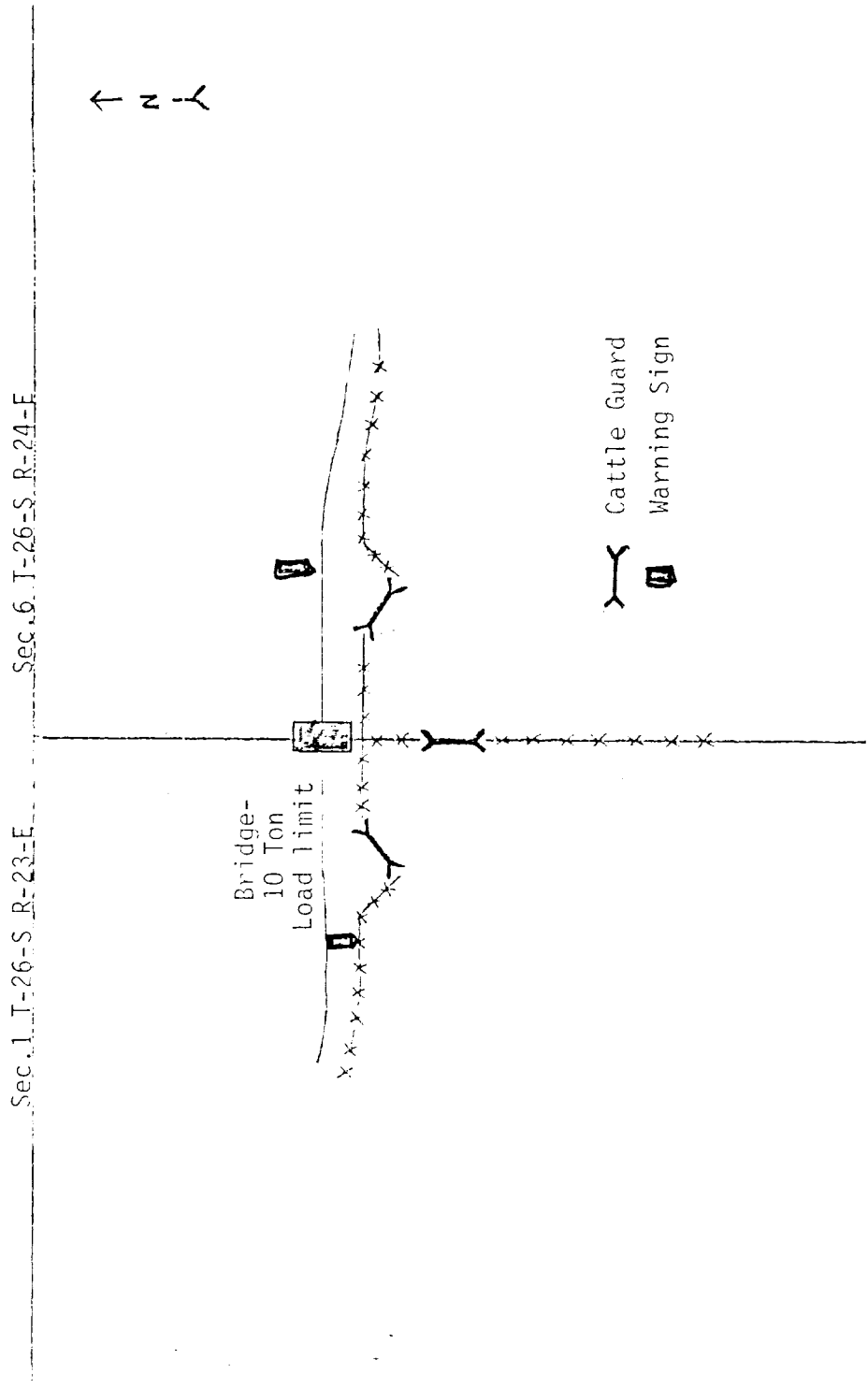
Federal BH #1
 FEL, Sec. 8, T-26-S R-23-E
 Lea County, NM

AMS 5-1

-Exhibit B-

8000' TO 14000'





2310' FNL & 735' FEL, Sec. 8, T-26-S R-23-E
 Federal BH #1
 Lea County, NM

Exhibit- E