

OIL CONS. COMMISS
ARTESIA, NM 88210
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIP
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 42-R1425.

30-015-23949

5. LEASE DESIGNATION AND SERIAL NO.

LC-064833

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal R

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

X Shugart(Y-SR-Q-G)

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREAU1-I
Sec. 3 T-19-S-R31E

12. COUNTY OR PARISH

Eddy

13. STATE

New Mexico

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

RECEIVED

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

CITIES SERVICE COMPANY ✓

OCT - 1 1981

3. ADDRESS OF OPERATOR

P. O. Box 1919 Midland, Texas 79702 O. C. D.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 2080' FSL 660' FEL of Sec. 3-T19S-R31E, Eddy County,

New Mexico

At proposed prod. zone

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

12 miles SE from Loco Hills

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

560' North

16. NO. OF ACRES IN LEASE

120

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.

19. PROPOSED DEPTH

4250'

20. ROTARY OR CABLE TOOLS

Rotary

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

3598.7' GR

22. APPROX. DATE WORK WILL START*

September 1, 1981

23.

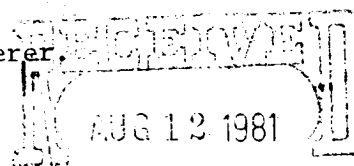
PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8-5/8"	24#	850'	circulated
7-7/8"	5-1/2"	14#	4250'	825

It is proposed to drill to a total depth of 4250' to test the Grayburg formation. The blow out prevention program is as follows:

1. One set of blind rams.
2. One set of drill pipe rams.

The acreage allotted to this well is not dedicated to any gas gathering.



OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

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 Reg. Oper. Mgr.-Prod.

DATE 8-6-81

(This space for Federal or State office use)

PERMIT NO. (Orig. Sgd.) GEORGE H. STEWART

APPROVAL DATE

APPROVED BY

SEP 20 1981

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**NEW MEXICO OIL CONSERVATION COMMISSION
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

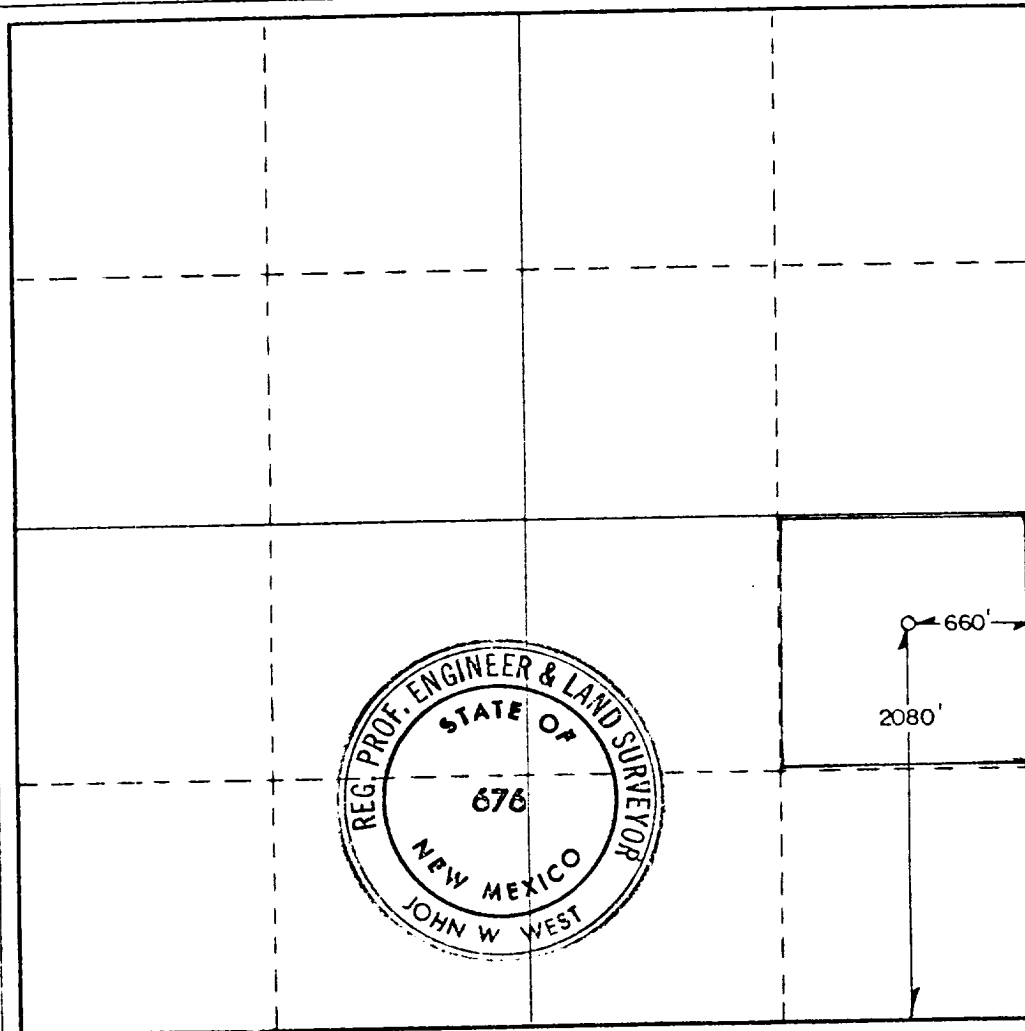
Operator CITIES SERVICE COMPANY			Lease FEDERAL R		Well No. 1
Unit Letter I	Section 3	Township 19 South	Range 31 East	County Eddy	
Actual Footage Location of Well: 2080 feet from the South line and 660 feet from the East line					
Ground Level Elev. 3598.7	Producing Formation Grayburg	Pool Shugart (Y-SR-Q-G)		Dedicated Acreage: 40 Acres	

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



CERTIFICATION

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

E. Spindler

Name _____
 Reg. Oper. Mgr.-Prod. _____
 Position _____
Cities Service Company
 Company _____
August 6, 1981
 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.

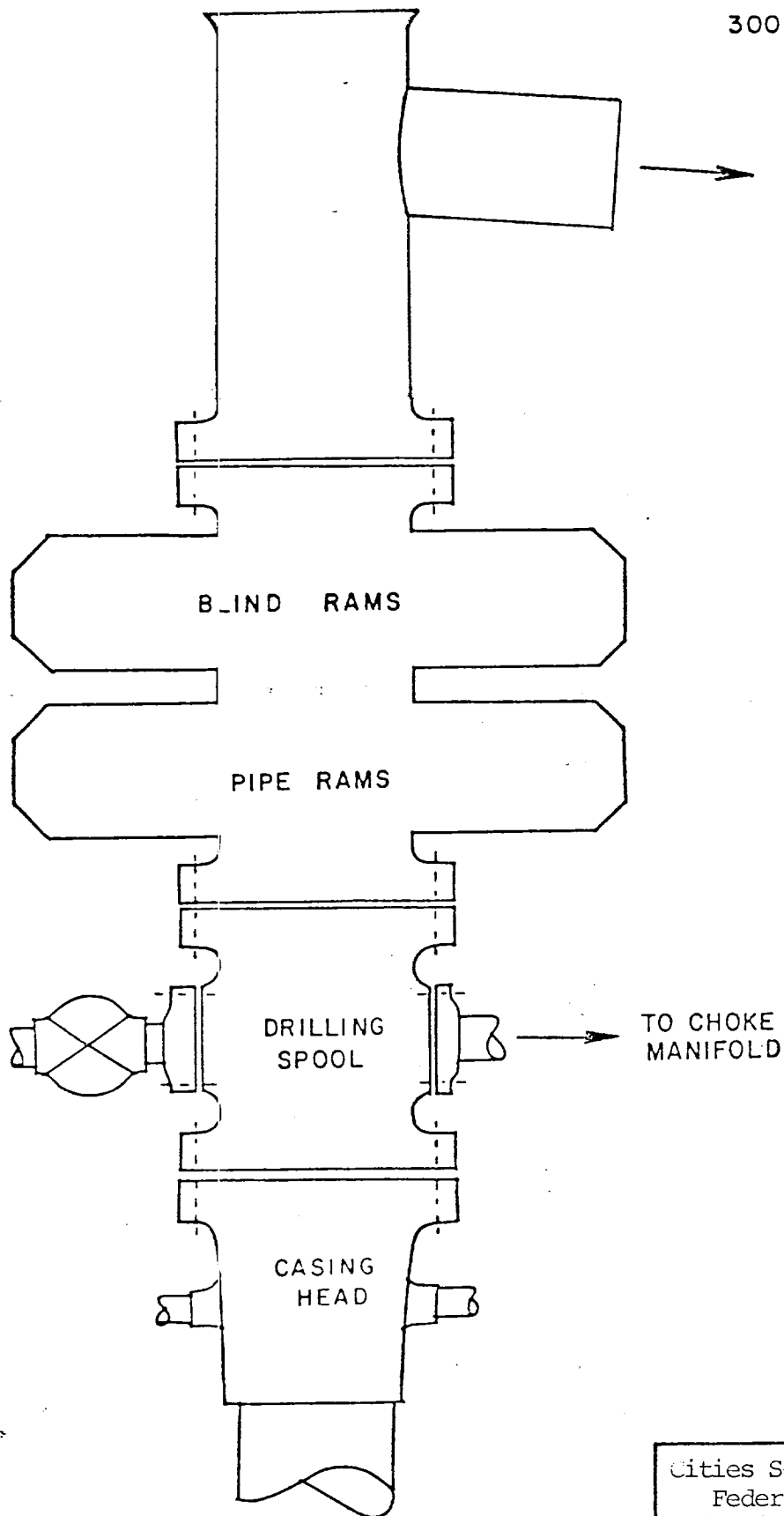
Date Surveyed **7/31/81**

Registered Professional Engineer and/or Land Surveyor

John W. West
 Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6868
Ronald J. Eidson 3239

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

BLOWOUT PREVENTER DIAGRAM
3000# W.P.



Cities Service Company's
Federal "R" No. 1
2080' FSL & 660' FEL
Section 3-19S-31E
Eddy County, New Mexico

Exhibit "B"

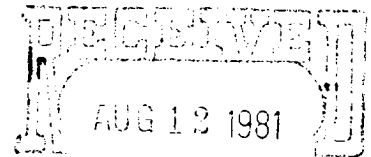


CITIES SERVICE COMPANY
ENERGY RESOURCES GROUP

Box 1919
Midland, Texas 79702
(915) 685-5600

August 11, 1981

United States Department of the Interior
Geological Survey
South Central Region, Roswell District
P.O. Box 1857
Roswell, New Mexico 88201



Re: Cities Service Company
Federal "R" No. 1
Eddy County, New Mexico
Lease No. LC-064833

OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

Gentlemen:

Cities Service Company is the owner of U.S. Oil and Gas Lease No. LC-064833 and proposes to drill a well on the leased premises to test for oil and gas at a location 2080' FSL and 660' FEL, Section 3-19S-31E, NMPM, Eddy County, New Mexico.

The location, work area and access road have been staked. It is approximately twelve (12) miles southeast of Loco Hills, New Mexico in the Shugart area.

In accordance with the requirements stated in NTL-6 of the National Environmental Protection Act, our Application for Permit to Drill and supporting evidence are hereby submitted:

1. Form 9-331C, Application for Permit to Drill.
2. Form C-102, Well Location and Acreage Dedication Plat certified by John W. West, Registered Land Surveyor #676 in the State of New Mexico.
3. The elevation of the unprepared ground is 3598.7 feet above sea level.
4. The geologic name of the surface formation is Tertiary Alluvium (Red Bed, Gravel, Caliche).
5. Rotary drilling equipment will be utilized to drill the well to total depth and run casing. That equipment will then be rigged down and the well will be completed with a pulling unit.
6. Projected total depth is 4250'.

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7. Estimated tops of important geologic markers:

Rustler	740'
Salt	880'
Base/Salt	2325'
Yates	2540'
Seven Rivers	2775'
Queen	3345'
Grayburg	3800'
Premier	4010'
Total Depth	4250'

8. Estimated depths of anticipated water, oil/gas or minerals:

Queen	3345'	Oil/Gas
Grayburg	3800'	Oil/Gas
Premier	4010'	Oil/Gas

9. The proposed casing program is as follows:

<u>Casing</u> <u>String</u>	<u>Hole</u> <u>Size</u>	<u>Interval</u>	<u>Section</u> <u>Length</u>	<u>Size</u> <u>(OD)</u>	<u>Weight, Grade</u> <u>And Joint</u>	<u>New or</u> <u>Used</u>
Surface	12-1/4"	0-850'	850'	8-5/8"	24#-K55-ST&C	New
Production	7-7/8"	0-4250'	4250'	5-1/2"	14#-K55-ST&C	New

10. Cementing Program

- A. Surface (8-5/8" OD) - Circulate cement with 530 sax Class C with 2% CaCl_2 and 1/4# Flocele per sack.

Yield: 1.32 cubic feet
Water: 6.3 gallons per sack
Weight: 14.8 PPG

- B. Production (5-1/2" OD) - Circulate cement with 600 sax Halco Lite Cement with 15 pounds salt per sack and 1/4# Flocele per sack. Tail in with 225 sax Class H with 8# salt per sack and 0.4% CFR-2.

Properties of the two types of cement:

	<u>Halliburton Lite</u>	<u>Class H</u>
Yield:	1.92 cubic feet	1.22 cubic feet
Water:	9.9 gallons per sack	5.2 gallons per sack
Weight:	13.2 PPG	15.9 PPG

Note: Cement volumes may need to be adjusted to hole caliper.

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11. Pressure Control Equipment

0 - 850'	None
850 - 4250'	12" 3000# ram type preventors with 1 set blind rams and 1 set pipe rams with floor and remote operating stations. Shown on attached Exhibit "B".

Blowout preventer equipment will be installed, tested and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.

A kill line will be properly installed and will not be used as a fill-up line.

Drill string safety valves (5) to fit all pipe size in the drill string will be maintained on the rig floor while drilling operations are in progress.

The pipe rams will be activated once each 24 hours, as will blind rams each time the pipe is out of the hole. Such checks of BOP's will be noted on the daily drilling reports.

Auxiliary equipment will be an upper kelly cock and a drill pipe float.

12. Mud Program

0 - 850'	Fresh water spud mud.
850 - 3750'	Saturated brine water. Weight 10# per gallon, viscosity 29 seconds.
3750 - 4250'	Mud up with Salt-Gel system. Weight 10.0 - 10.2# per gallon, viscosity 38 - 40 seconds, water loss 10 - 15 cc.

13. Testing, Logging and Coring Program

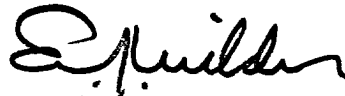
- A. No drill stem tests are anticipated.
- B. Logging program will consist of the following Schlumberger logs:
DNL-FDC-GR-Cal and DLL
- C. No coring is anticipated
- D. Mud logging program. None planned.

Application for Perm. to Drill Federal "R" No. 1
August 11, 1981

Page 4

14. No abnormal temperatures, pressures or H₂S gas is anticipated.
15. Anticipated starting date is one week to one month after approval of this application by the Geological Survey, depending upon rig availability.
16. The Multi-Point Surface Use and Operation Plan for submission to the Bureau of Land Management is attached.
17. If the District Engineer needs additional information to properly evaluate this request, please advise.

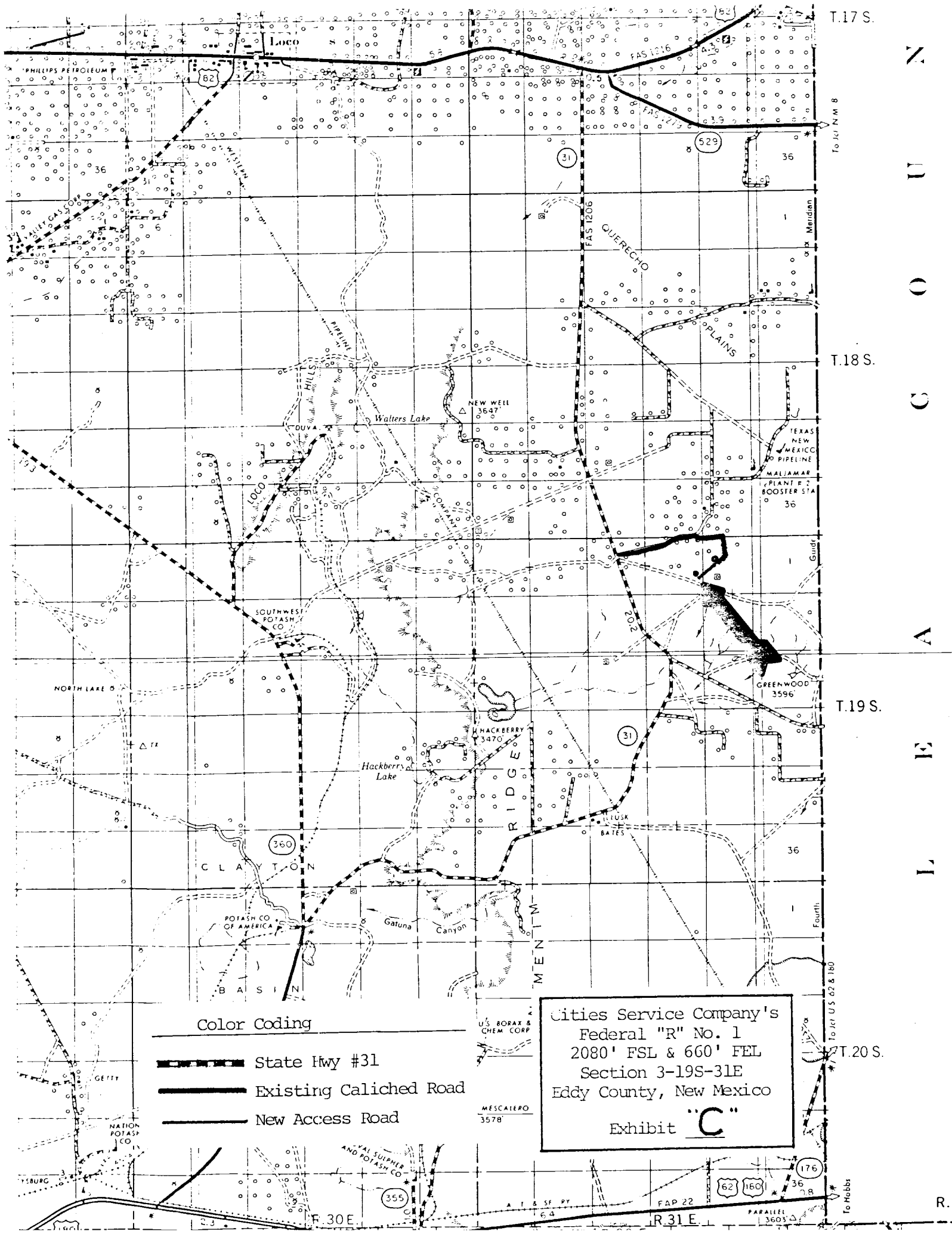
Yours very truly,



E. Y. Wilder
Region Operations Manager
Southwest Region
E & P Division

EYW/dty

Attachments



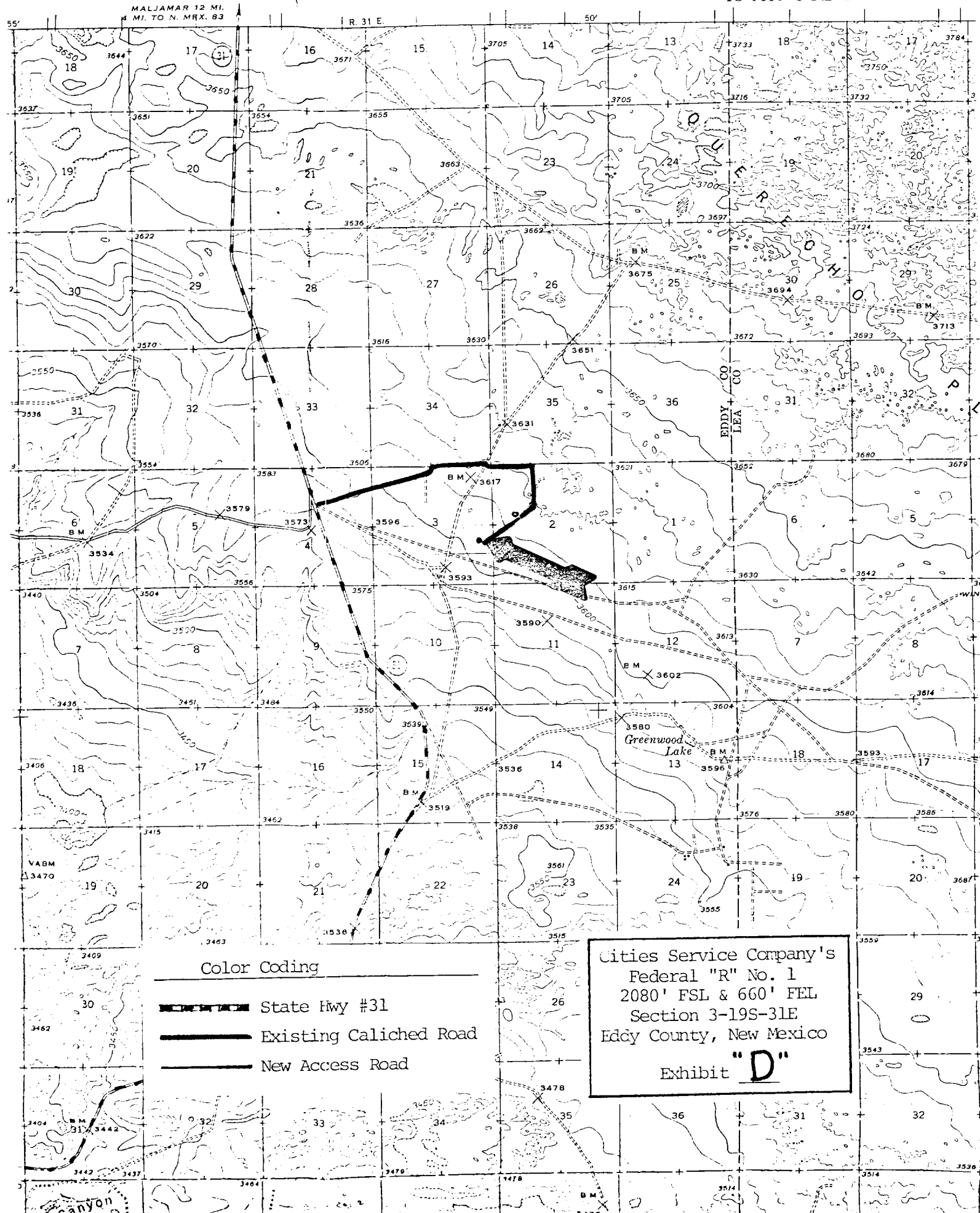
Color Coding

- State Hwy #31
- Existing Caliche Road
- New Access Road

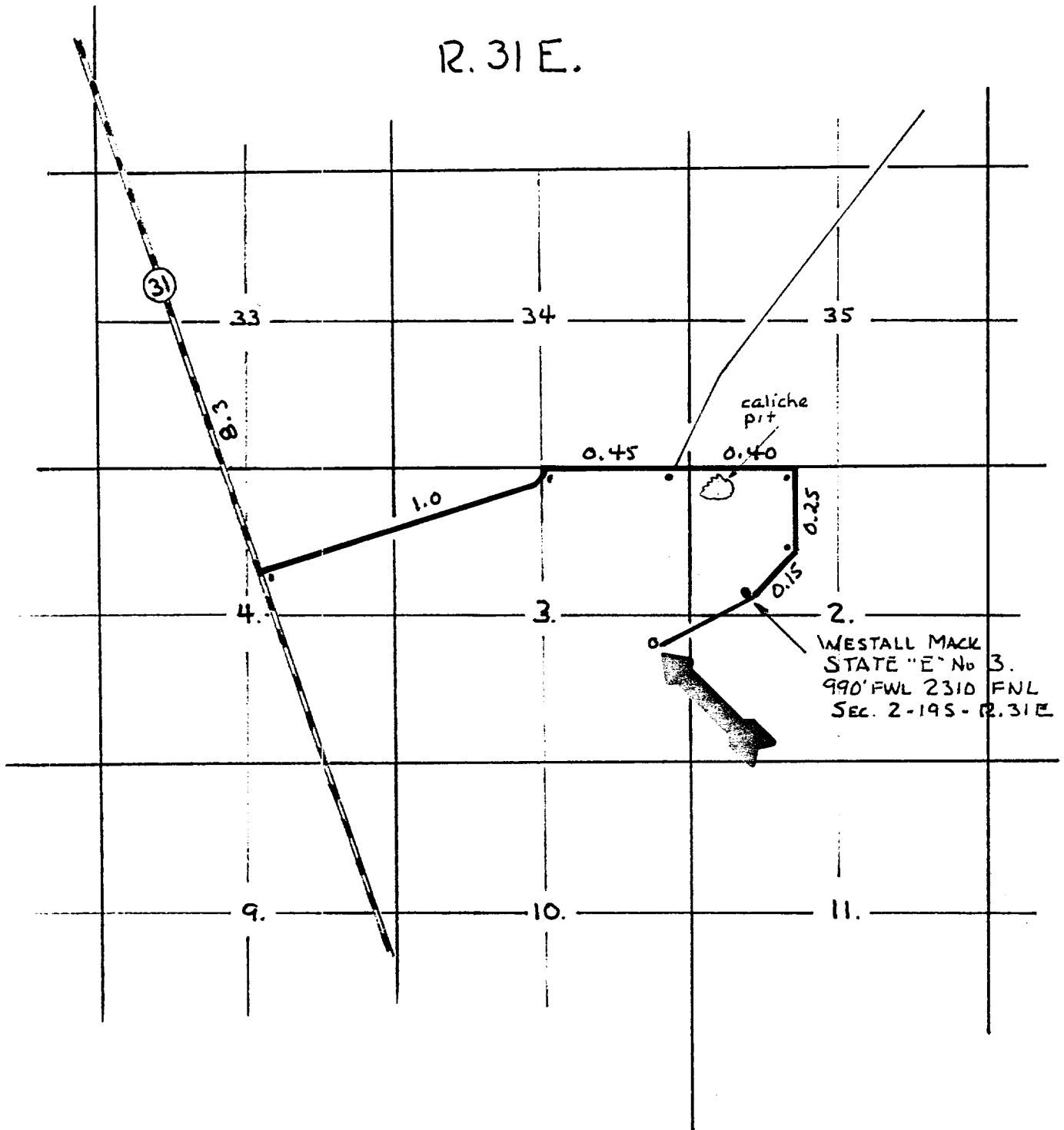
Cities Service Company's
Federal "R" No. 1
2080' FSL & 660' FEL
Section 3-19S-31E
Eddy County, New Mexico
Exhibit "C"

N
U
O
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L

NEW MEXICO
CLAYTON BASIN QUADRANGLE
15-MINUTE SERIES



R. 31 E.



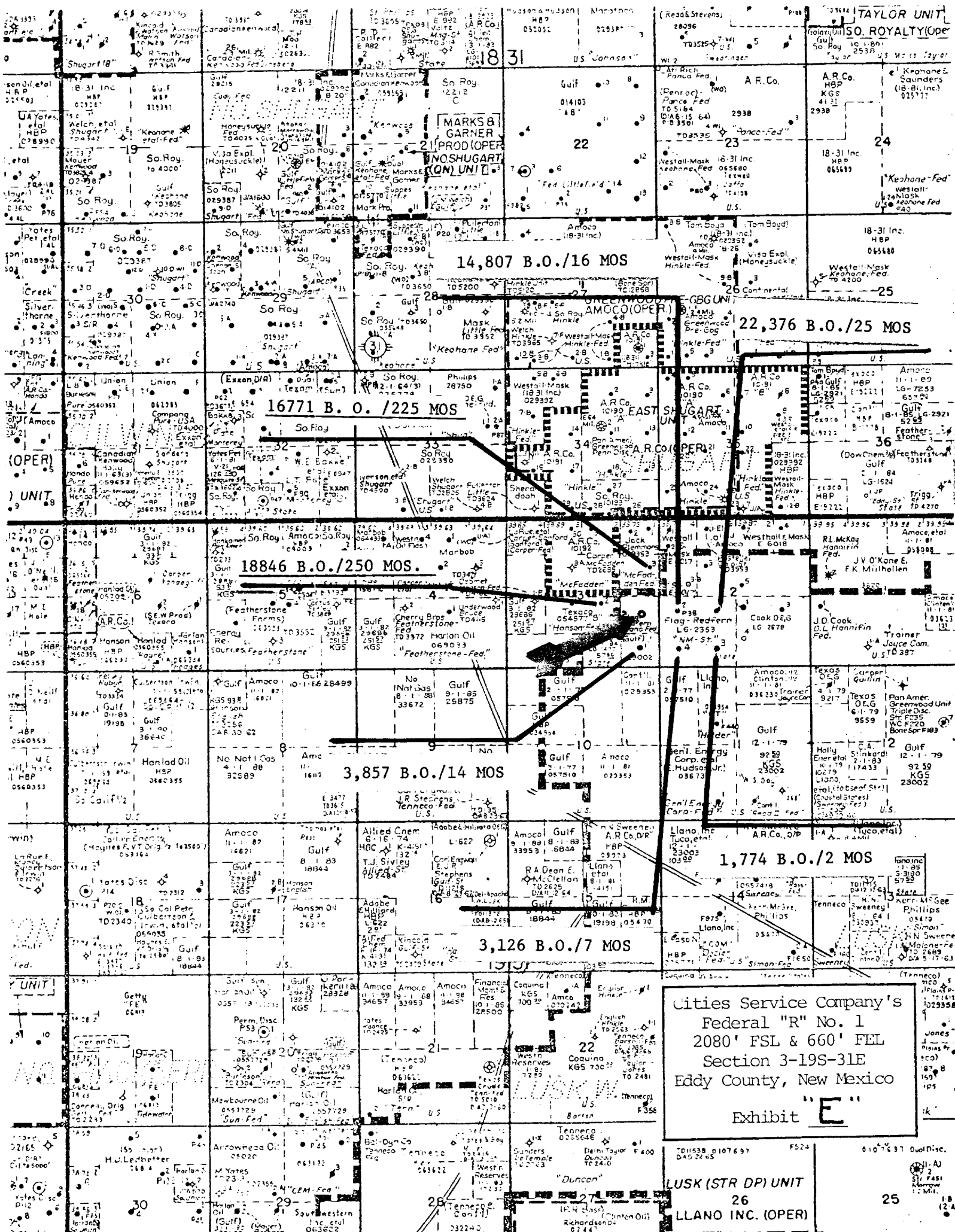
T.
19
S.

Color Coding

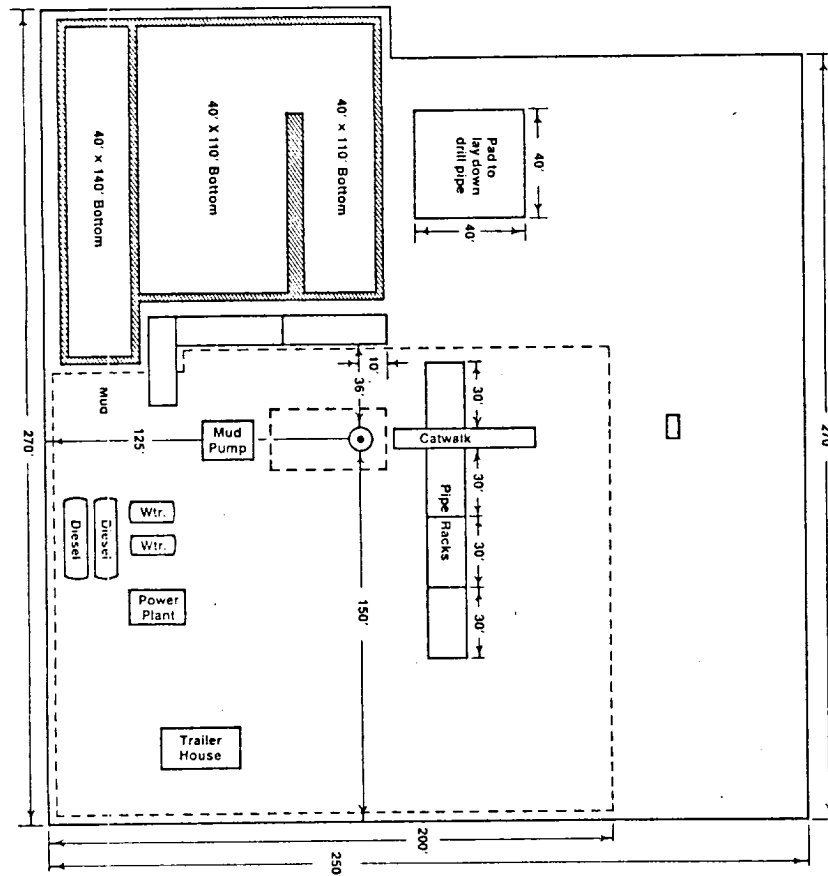
-  State Hwy #31
-  Existing Caliched Road
-  New Access Road

Cities Service Company's
Federal "R" No. 1
2080' FSL & 660' FEL
Section 3-19S-31E
Eddy County, New Mexico

Exhibit "D₁"



LOCATION PLAT



Cities Service Company's
Federal "R" No. 1
2080' FSL & 660' FEL
Section 3-19S-31E
Eddy County, New Mexico
Exhibit "F."