

M. O. C. C. COM  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
SUBMIT IN TRIPLICATE  
(Other instructions  
reverse side)Form approved.  
Budget Bureau No. 42-R1425.

5. LEASE DESIGNATION AND SERIAL NO.

NM-073394-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Corder Federal

9. WELL NO.

4

10. FIELD AND POOL, OR WILDCAT

Cato San Andres

11. SEC., T., R., M., OR BLM.

AND SURVEY OR AREA

Section 5, T-9-S,  
R-30-E

12. COUNTY OR PARISH

Chaves

13. STATE

New Mexico

## 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

Shell Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 1509, Midland, Texas 79702

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

At surface

1980' FNL &amp; 660' FEL

At proposed prod. zone

Same

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

20 miles northwest of Caprock

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.

1320'

16. NO. OF ACRES IN LEASE

799.97

19. PROPOSED DEPTH

3425'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START\*

May 21, 1977

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

4090.20 GR

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#             | 250'          | 100 sacks to surface  |
| 7 7/8"       | 5 1/2"         | 14#             | 3425'         | 1500 sacks to surface |

Attachments: 12-Point Development Plan for Surface Use  
New Mexico Oil Conservation Commission Form C-102  
County Road Map  
Access Road Plat  
Ownership Map  
Facilities Plats  
Rig Layout Plat  
Drilling Prognosis  
Casing and Cement Program  
BOP Assembly Drawing  
Choke Manifold Drawing

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ARTESIA, 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.

J. D. D'Agostino

SIGNED *K. M. Crockett FOR JDD*

TITLE Senior Drilling Engineer

DATE 4-11-77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED  
APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:

MAY 11 1977

R. L. ...  
ACTING DISTRICT ENGINEERTHIS APPROVAL IS RESCINDED IF OPERATIONS  
ARE NOT COMMENCED WITHIN 3 MONTHS.  
EXPIRES AUG 11 1977

\*See Instructions On Reverse Side

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OIL CONSERVATION COMM.  
HOBBS, N. M.

**NEW! CO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-11  
Supersedes C-10H  
Effective 1-1-68

All distances must be from the outer boundaries of the Section

|                                                                                            |                     |                            |                                |                         |                      |
|--------------------------------------------------------------------------------------------|---------------------|----------------------------|--------------------------------|-------------------------|----------------------|
| Grantor<br><b>SHELL OIL COMPANY</b>                                                        |                     |                            | Lease<br><b>CORDER FEDERAL</b> |                         | Well No.<br><b>4</b> |
| Section<br><b>H</b>                                                                        | Section<br><b>5</b> | Township<br><b>9 South</b> | Range<br><b>30 East</b>        | County<br><b>Chaves</b> |                      |
| Well Location: 1980 feet from the <b>North</b> line and 660 feet from the <b>East</b> line |                     |                            |                                |                         |                      |
| Ground Level Elev.<br><b>4090.20</b>                                                       | Producing Formation |                            | Estimated Acreage              |                         |                      |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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?

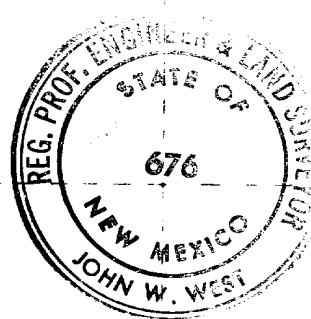
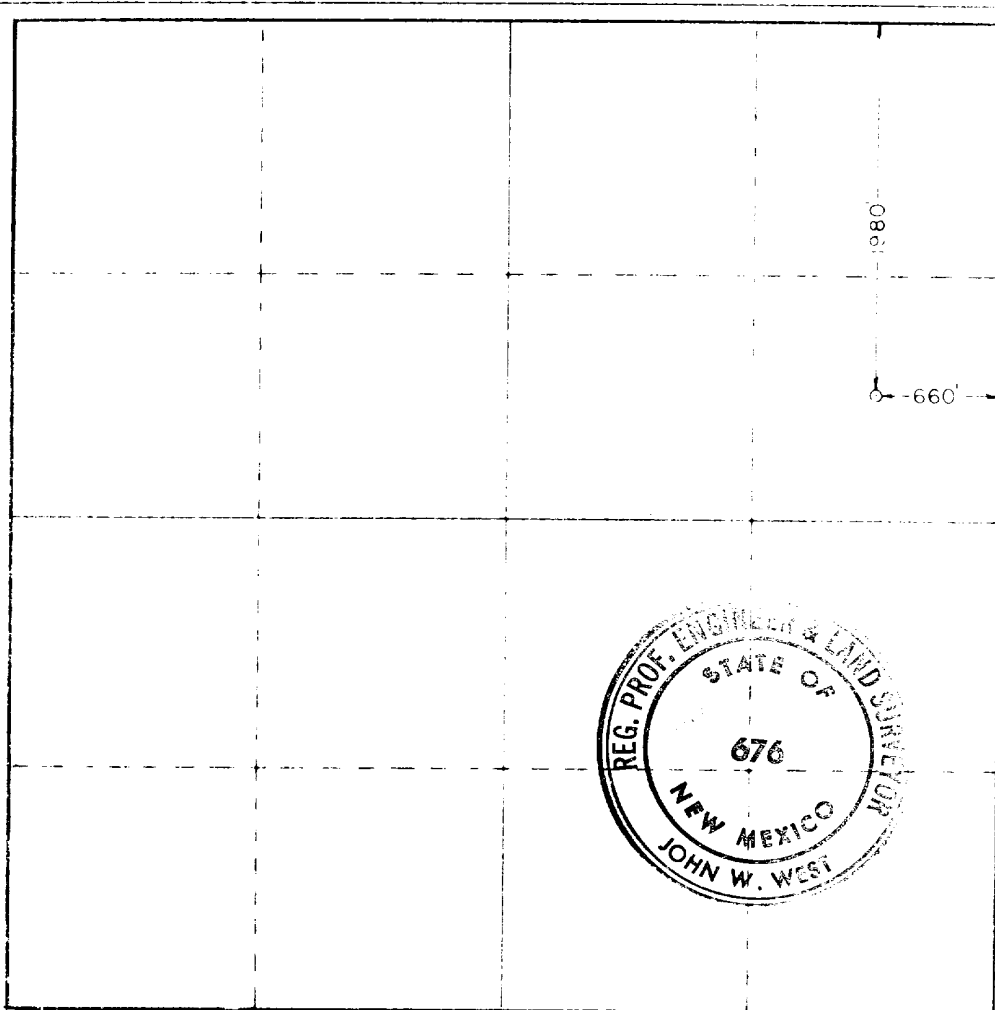
☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated (on 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.

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



**CERTIFICATION**

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

*K.M. Gaile cor*

**J. D. D'Agostino**

**Senior Drilling Engineer**

**Shell Oil Company**

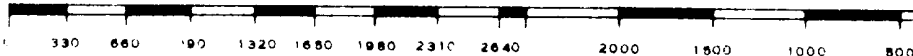
**April 13, 1977**

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.

**March 5, 1977**

Registered Professional Engineer,  
State of New Mexico

*John W. West*  
676



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OIL CONSERVATION COMM.  
HOBBBS, R. M.

12-POINT DEVELOPMENT PLAN FOR SURFACE USE

SHELL OIL COMPANY  
CORDER FEDERAL NO. 4  
CATO SAN ANDRES FIELD  
CHAVES COUNTY, NEW MEXICO

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1. Existing Roads to Well Location

To reach this well location, proceed west from Caprock (located on U.S. 380) ten miles. Turn right (north) on a primitive road for ten miles to the location. (See attached county road map.)

2. Planned Access Roads

Approximately 400' of 12' wide access road will be required from the well site to the existing lease road west of the location. (See attached plat showing existing and planned access roads.)

3. Location of Existing Wells

Location of existing wells is shown on the attached ownership plat.

4. Location of Tank Batteries, Production Facilities, etc.

A plat showing the existing tank batteries and flowlines and proposed flowlines is attached.

5. Location and Type of Water Supply

We plan to contract with a private supplier to haul the water to be used during this drilling operation.

6. Source of Construction Materials

The materials needed to construct the access roads or well location will be purchased from a private supplier.

7. Methods for Handling Waste Disposal

All waste that can be burned will be burned in a pit located in the north-west corner of the drill site. All other waste and drilling fluids will be buried in a pit and covered with a minimum of two feet of cover.

8. Ancillary Facilities

There will be no permanent structures or airstrips. Trailer locations are shown on the attached location layout sheet.

9. Well Site Layout

See attached location layout sheet.

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HOUSTON, TEX.

10. Plans for Restoration of the Surface

Any topsoil removed while digging pits will be stockpiled. The burn pit will be covered and leveled. The reserve pit will be allowed to dry, filled in and leveled. The location will be cleaned, topsoil spread over the disturbed areas and reseeded as directed by the Bureau of Land Management.

11. Other Environmental Information

The immediate area under concern has caliche and sandy soil which is sparsely covered with unidentified native grasses and scrub mesquite. There are no water wells, flowing streams or bodies of water in the immediate area.

12. Field Representative

R. E. Henson  
4415 Versailles  
Midland, Texas 79703  
915-697-3374

or

J. E. Miller  
3331 Providence  
Midland, Texas 79701  
915-697-1069

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 Shell Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-11-77

Date

*OAS*

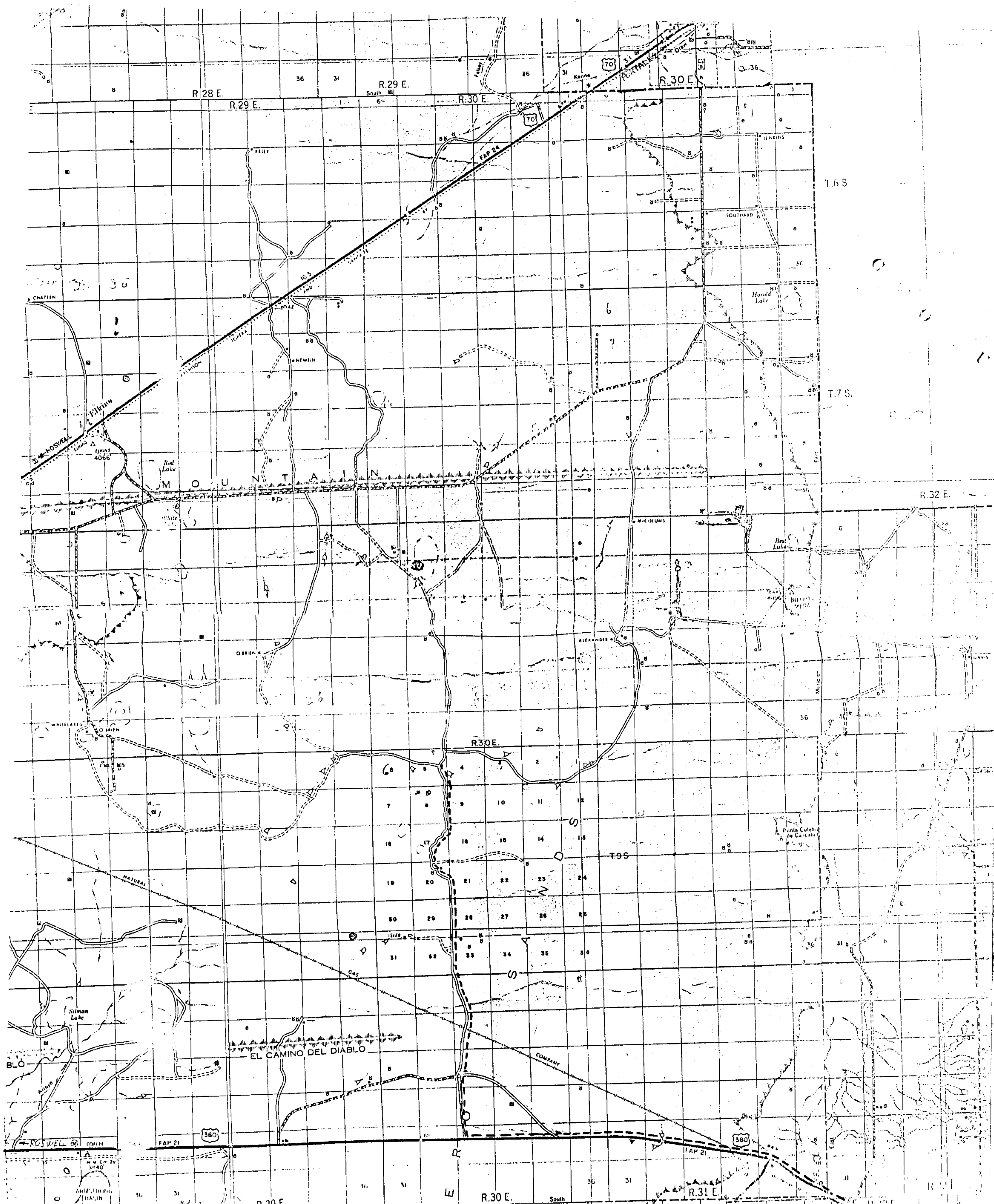
C. A. Simar

Division Drilling Superintendent

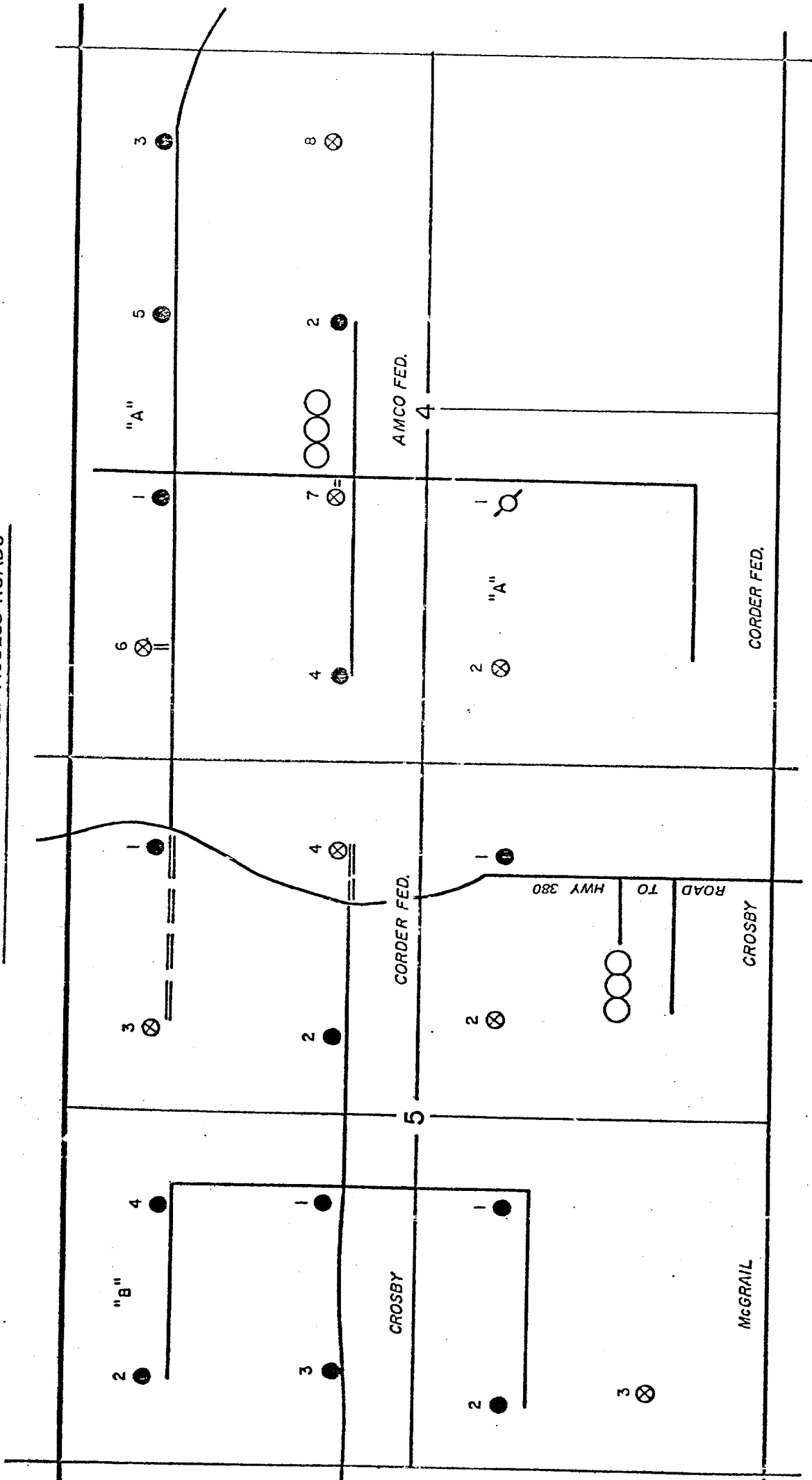
(Name and title)

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# EXISTING AND PLANNED ACCESS ROADS

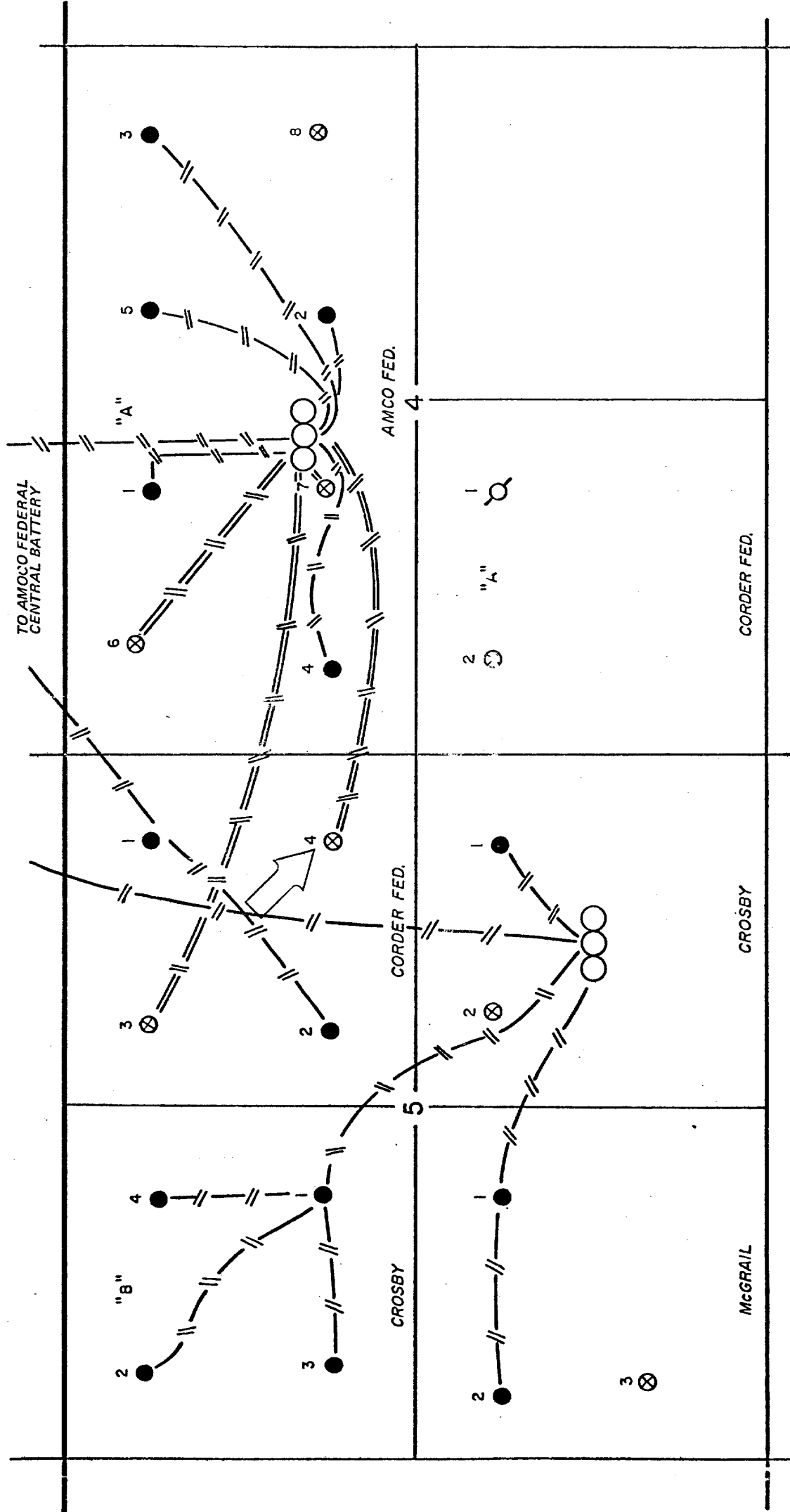


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[illegible]

# TANK BATTERIES AND FLOW LINES



SUBJECT WELL

PROPOSED WELLS

EXISTING WELLS

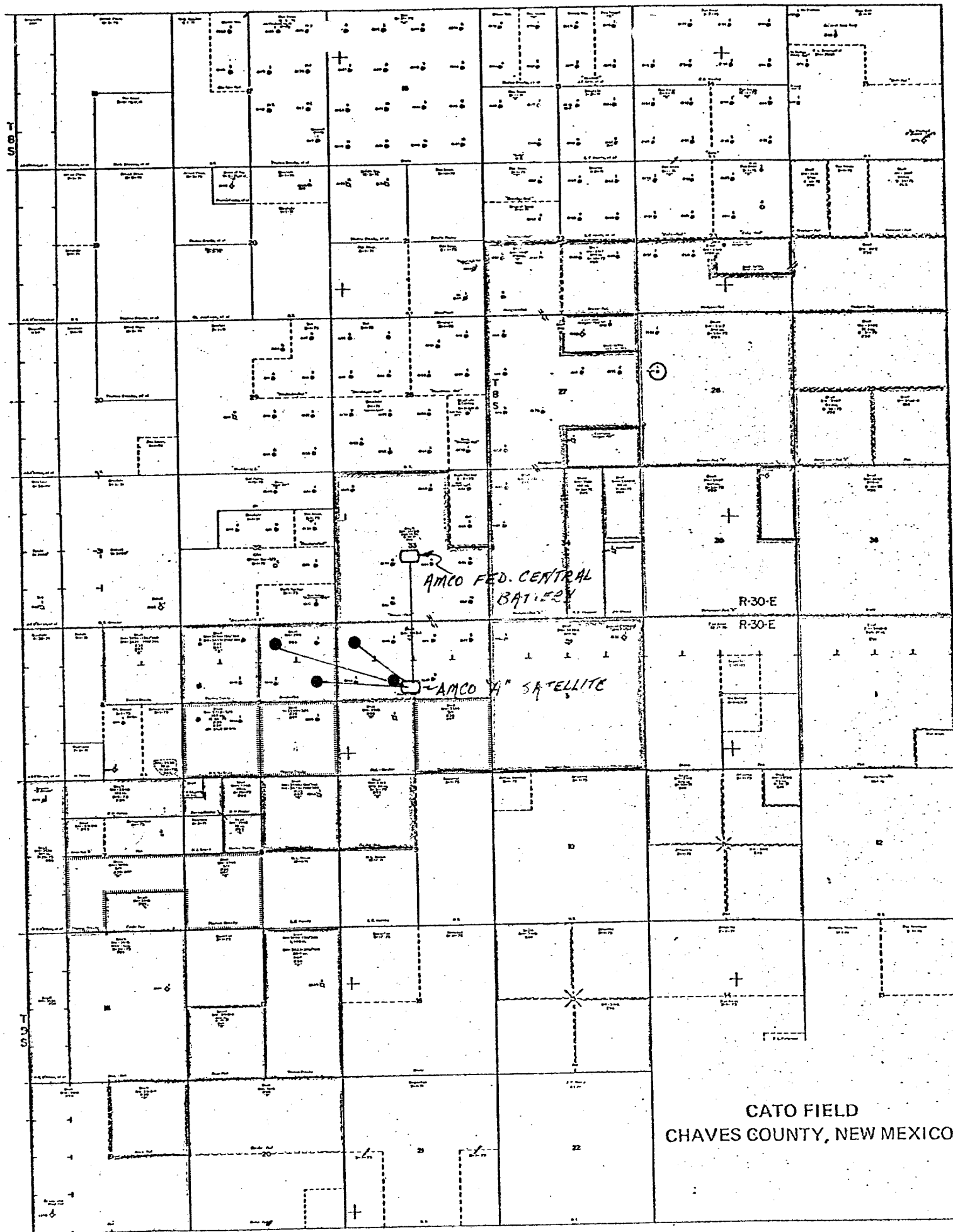
TANK BATTERY

EXISTING FLOW LINES

PROPOSED FLOW LINES

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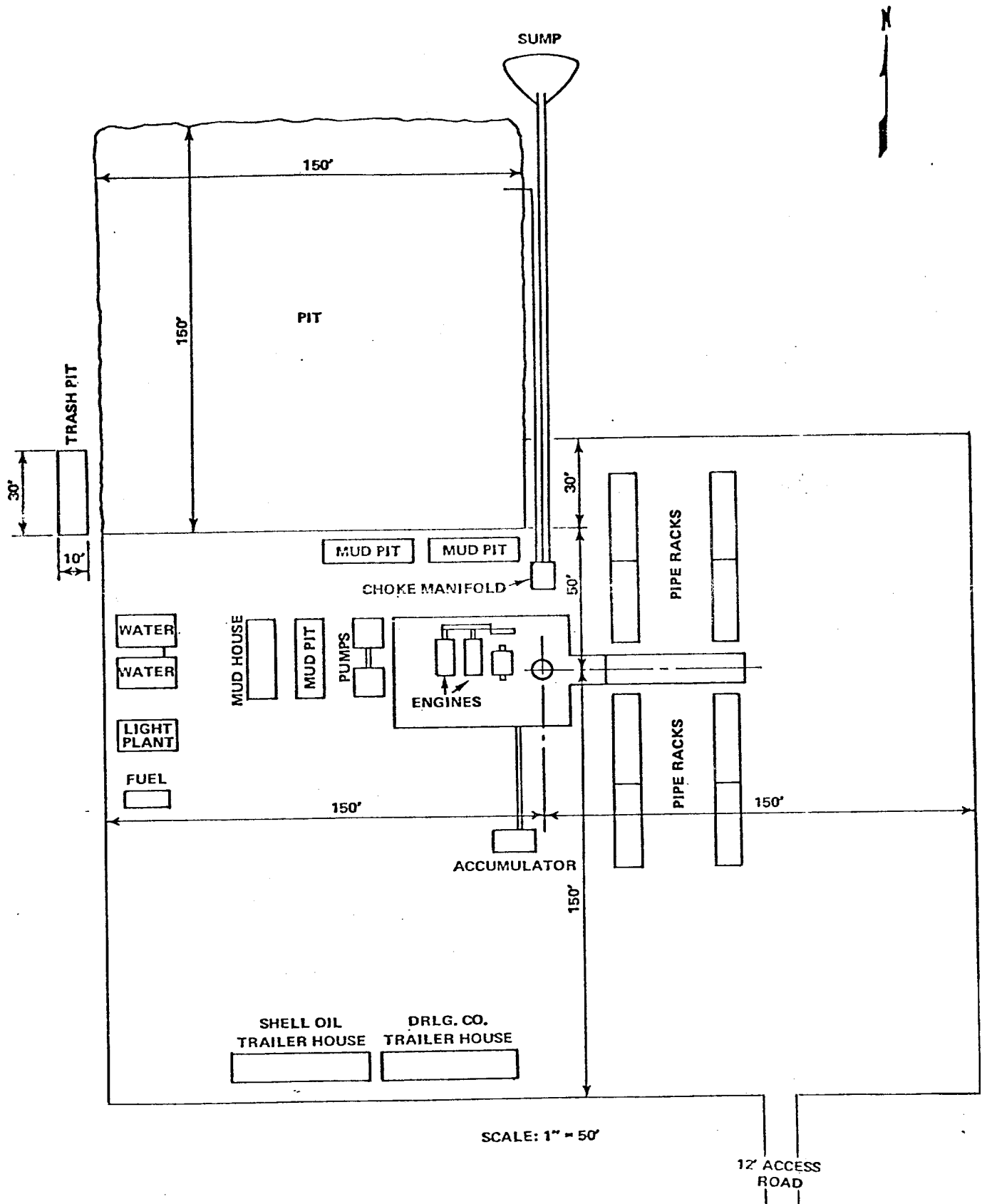
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# LOCATION PLAT FOR CATO FIELD



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WELL: Corder Federal No. 4

W.O. NO. 932411

LOCATION: 1980' FNL & 660' FEL Section 5, T-9-S, R-30-E,  
Chaves County, New Mexico

FIELD: Cato San Andres

EST. ELEVATION: 4075'

OBJECTIVE: San Andres

| EVALUATION                   |                           |                   | GEOLOGY                                                        |                   | DRILLING      |              |                      |                                                                     |
|------------------------------|---------------------------|-------------------|----------------------------------------------------------------|-------------------|---------------|--------------|----------------------|---------------------------------------------------------------------|
| RLG. TIME<br>SAMPLES         | ELEC.<br>SURVEYS          | MUD<br>LOGGER     | SIGNIFICANT<br>FORMATIONS                                      |                   | WELL<br>DEPTH | HOLE<br>SIZE | CASING<br>& CEMENT   | MUD<br>PROGRAM                                                      |
| 10' Samples<br>2' Drlg. Time | SDLL, SNP, GR TD to 1425' | BHC/GR TD to Sfc. | 8 5/8" @ 250' or 25' into<br>Red Beds (whichever is<br>deeper) |                   |               | 11"          | 8 5/8" 24# K-55 ST&C | Fresh water<br>native mud                                           |
|                              |                           |                   | Rustler                                                        | 910'<br>(+3165')  |               |              |                      |                                                                     |
|                              |                           |                   | Yates                                                          | 1457'<br>(+2618') |               |              |                      |                                                                     |
|                              |                           |                   | San Andres                                                     | 2629'<br>(+1446') |               | 7 7/8"       | 2MR-10-SRd           | Fresh water native mud w/dissolved salt                             |
|                              |                           |                   | S. A. Marker                                                   | 3175'<br>(+900')  |               |              |                      |                                                                     |
|                              |                           |                   | S. A. Slaughter                                                | 3325'<br>(+750')  |               |              |                      |                                                                     |
| 3000'                        |                           |                   | TD 3425'                                                       |                   |               |              | 5 1/2" 14# K-55 ST&C | 3150'<br>Salt gel & starch<br>mud, Wt. 9.8-10.3<br>ppg; vis. 32-36; |

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HOUSTON, TEX.

DRILLING DATA  
CORDER FEDERAL NO. 4  
CHAVES COUNTY, NEW MEXICO

CASING AND CEMENT:

8 5/8" 24# K-55 ST&C surface casing set at 250' or 25' into Red Beds (whichever is deeper). Circulate cement with 100± sacks.

5 1/2" 14# K-55 ST&C production casing at 3425'±. Circulate cement with 1500±sacks.

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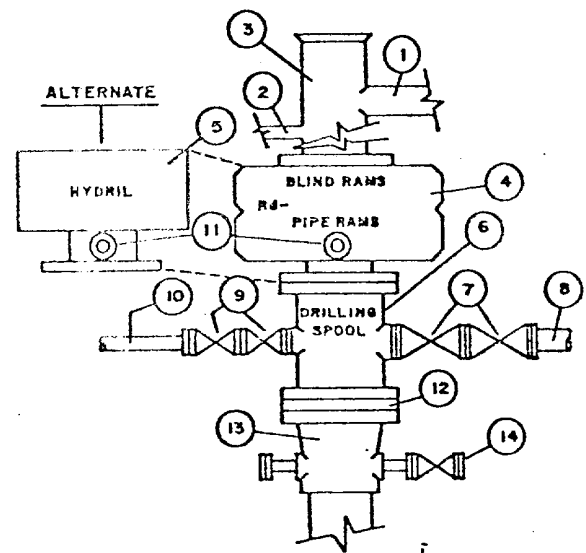
OIL CONSERVATION COMM.  
HEBBO, IL. IL.

DRAWING AND CHECK LIST NO. EP-1004-2  
 (ATTACHMENT TO BID SHEET AND DRILLING ORDER)  
 MINIMUM BLOWOUT PREVENTER EQUIPMENT REQUIREMENTS  
 FOR SHALLOW AND INTERMEDIATE NORMAL PRESSURE WELLS

2000 psi WP-API Class 2M  
 SPECIFICATIONS FOR WELL NO. Cato Field CASING SIZE 8 5/8

Contractor and Operator to furnish items checked (x)

| No. |                                                                                                         | Min.<br>Size | Type             | Press.<br>Rating | Furnished by |       |
|-----|---------------------------------------------------------------------------------------------------------|--------------|------------------|------------------|--------------|-------|
|     |                                                                                                         |              |                  |                  | Contr.       | Oper. |
| 1   | Flowline                                                                                                | 8 5/8        |                  |                  | X            |       |
| 2   | Fill up line                                                                                            | 2"           |                  |                  | X            |       |
| 3   | Drilling Nipple                                                                                         | 11"          |                  |                  | X            |       |
| 4   | Two single or one dual hydraulically operated CIW or Shaffer rams                                       | 10"          | Shaffer          | 2000             | X            |       |
| 5   | Hydril* (Alternate to #4)                                                                               |              |                  |                  |              |       |
| 6   | Drilling spool with " and " outlets                                                                     |              |                  | 2000             | X            |       |
| 7   | Gate valves                                                                                             | 2"           | CIW "F" or equal | 2000             | X            |       |
| 8   | Line to choke manifold                                                                                  | 2"           |                  | 2000             | X            |       |
| 9   | Gate valves                                                                                             | 2"           | CIW "F" or equal | 2000             | X            |       |
| 10  | Line to rig mud pump manifold                                                                           | 2"           |                  | 2000             | X            |       |
| 11  | " and " outlets in ram or Hydril. Run kill line & choke line from these outlets (Alternate to #6 above) | NA           |                  |                  |              |       |
| 12  | Wear flange or bushing                                                                                  | ---          | ---              | ---              |              |       |
| 13  | Casing Spool                                                                                            | 10"          |                  | 2000             |              | X     |
| 14  | Gate Valve                                                                                              | 2"           |                  | 2000             |              | X     |



\*or equivalent

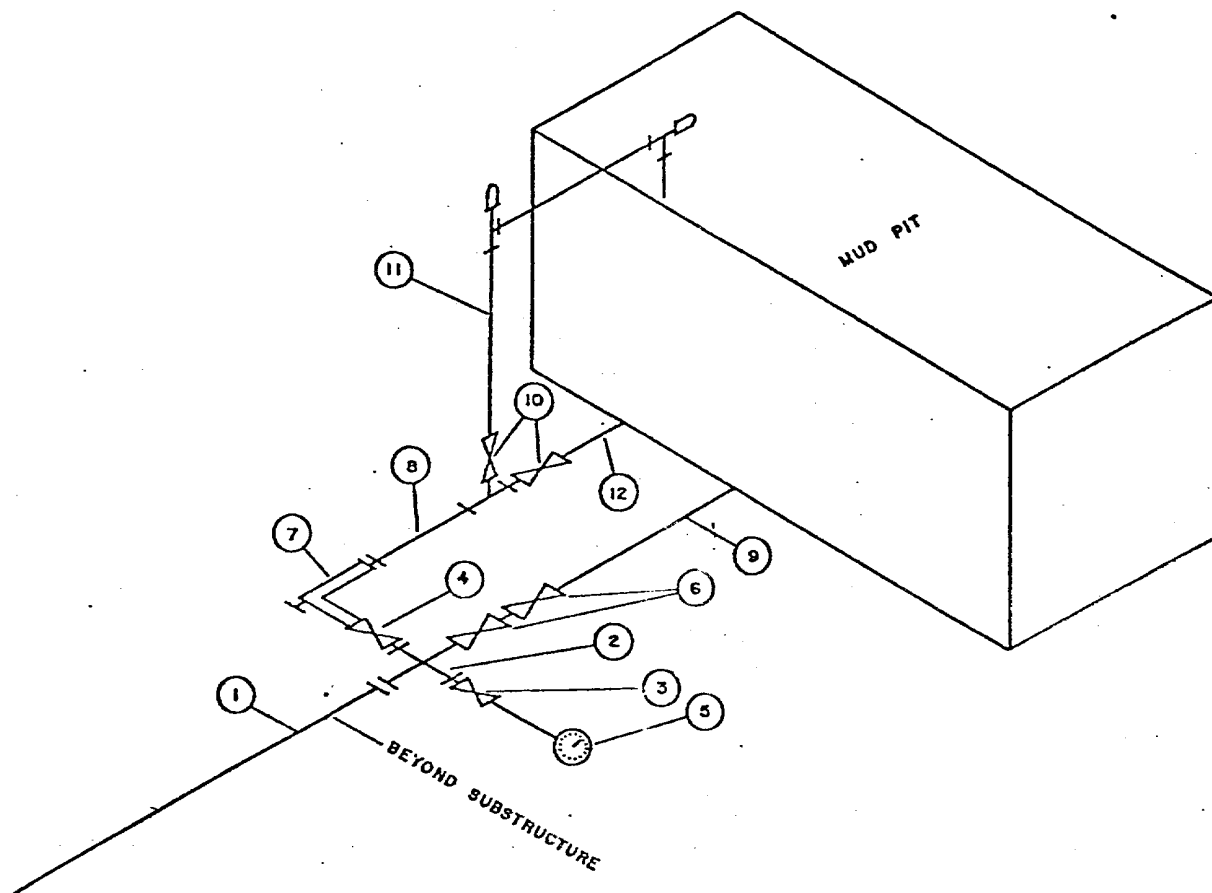
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DRAWING AND CHECK LIST NO. EP-1005-3  
(ATTACHMENT 3 TO BID SHEET AND DRILLING ORDER)  
MINIMUM BLOWOUT PREVENTER CHOKES MANIFOLD FOR LARGE SURFACE AND CONDUCTOR STRINGS  
SPECIFICATIONS FOR WELL NO. 2000 psi API Class 2M  
Cato Field CASING SIZE 8 5/8

GENERAL LAYOUT  
CHOKES MANIFOLD, CHOKES DISCHARGE LINES



Contractor and Operator to furnish items checked (x)

| No. |                                    | Min.<br>Size | Type      | Press.<br>Rating | Furnished by |       |
|-----|------------------------------------|--------------|-----------|------------------|--------------|-------|
|     |                                    |              |           |                  | Contr.       | Oper. |
| 1   | Line from drilling spool           | 2"           |           | 2000             | X            |       |
| 2   | Cross <u>2 x 2</u><br><u>2 x 2</u> |              |           | 2000             | X            |       |
| 3   | Gate Valve                         | 2            | *CIW<br>F | 2000             | X            |       |
| 4   | Gate Valve                         | 2            | *CIW<br>F |                  | X            |       |
| 5   | Pressure Gauge                     |              |           | 3000             | X            |       |
| 6   | Gate Valves                        | 2            | *CIW<br>F | 2000             | X            |       |

\*or equivalent

| No. |                     | Min.<br>Size | Type      | Press.<br>Rating | Furnished by |       |
|-----|---------------------|--------------|-----------|------------------|--------------|-------|
|     |                     |              |           |                  | Contr.       | Oper. |
| 7   | Adjustable Choke    | 2            | *H-2      | 2000             | X            |       |
| 8   | Line to Reserve Pit | 2            |           | 2000             | X            |       |
| 9   | Line to Reserve Pit | 2            |           | 1000             | X            |       |
| 10  | Gate Valves         | 2            | *CIW<br>F | 2000             | X            |       |
| 11  | Line to Mud Pit     | 2            |           | 1000             | X            |       |
| 12  | Line to Reserve Pit | 2            |           | 1000             | X            |       |

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- All connections in choke manifold shall be flanged or Cameron clamp of comparable rating. Low pressure lines downstream from a choke can contain screwed connections.
- All flanges to be API 6B and ring gaskets shall be API RX.
- All lines shall be securely anchored.
- Choke to be equipped with tungsten carbide seat and needle and replacement parts shall be available.
- Line from drilling spool to choke manifold to be as straight as possible. Line downstream from chokes shall make turns by large radius bend or 90° bends using bull plugged tees.
- Discharge lines from chokes and choke bypass shall vent at a minimum of 100 ' from the well.

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ARTESIA, OFFICE

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