

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

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

660' FNL and 660' FWL

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

1280.32

17. NO. OF ACRES ASSIGNED

TO THIS WELL 40

19. PROPOSED DEPTH

3470'

20. ROTARY OR OTHER TOOLS

Rotary

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

4124.7 GR

22. APPROX. DATE WORK WILL START*

May 1, 1977+

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#	3470'	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.

SIGNED K. M. Clark FOR J. D. D.J. D. D'Agostino
TITLE Senior Drilling EngineerDATE 4-11-77

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

APPROVED
MAY 11 1977

APPROVED BY _____

TITLE _____

DATE _____

A. L. BROWN
ACTING DISTRICT ENGINEER

THIS APPROVAL IS RESCINDED IF OPERATIONS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.
HOUSTON, TEXAS

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-112
Supersedes O-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator SHELL OIL COMPANY			Lease SHELL-AMCO FEDERAL "A"		Well No. 6
Grid Letter D	Section 4	Township 9 South	Range 30 East	County Chaves	
Actual Postage Location of Well:					
660	feet from the	North	line and	660	feet from the
Ground Level Elev 4124.7		Producing Formation		Pool	

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 actually been consolidated by communitization, unitization, force-pooling, etc?

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

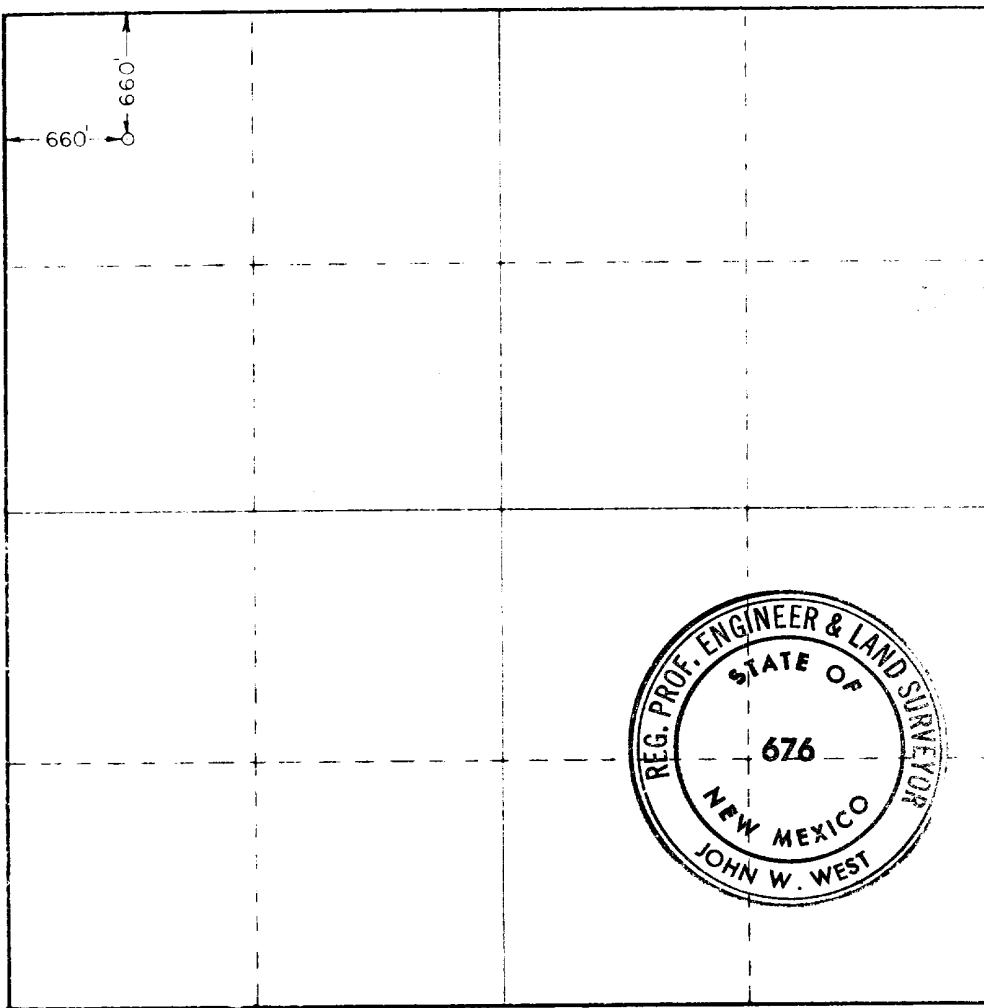
If answer is "no," list the owners and tract descriptions which have actually been consolidated (attach reverse side of this form if necessary.) _____

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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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. Craik FOR

J. D. D'Agostino

Senior Drilling Engineer

Shell Oil Company

April 13, 1977

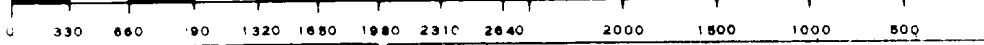
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief

March 5, 1977

Registered Professional Engineer

John W. West

Certificate No. **676**



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HOBBBS, N. M.

12-POINT DEVELOPMENT PLAN FOR SURFACE USE

SHELL OIL COMPANY
AMCO FEDERAL A NO. 6
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

This well site is located near an existing road, and construction of an access road will not be required.

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 northwest 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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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



C. A. Simar

Division Drilling Superintendent

(Name and title)

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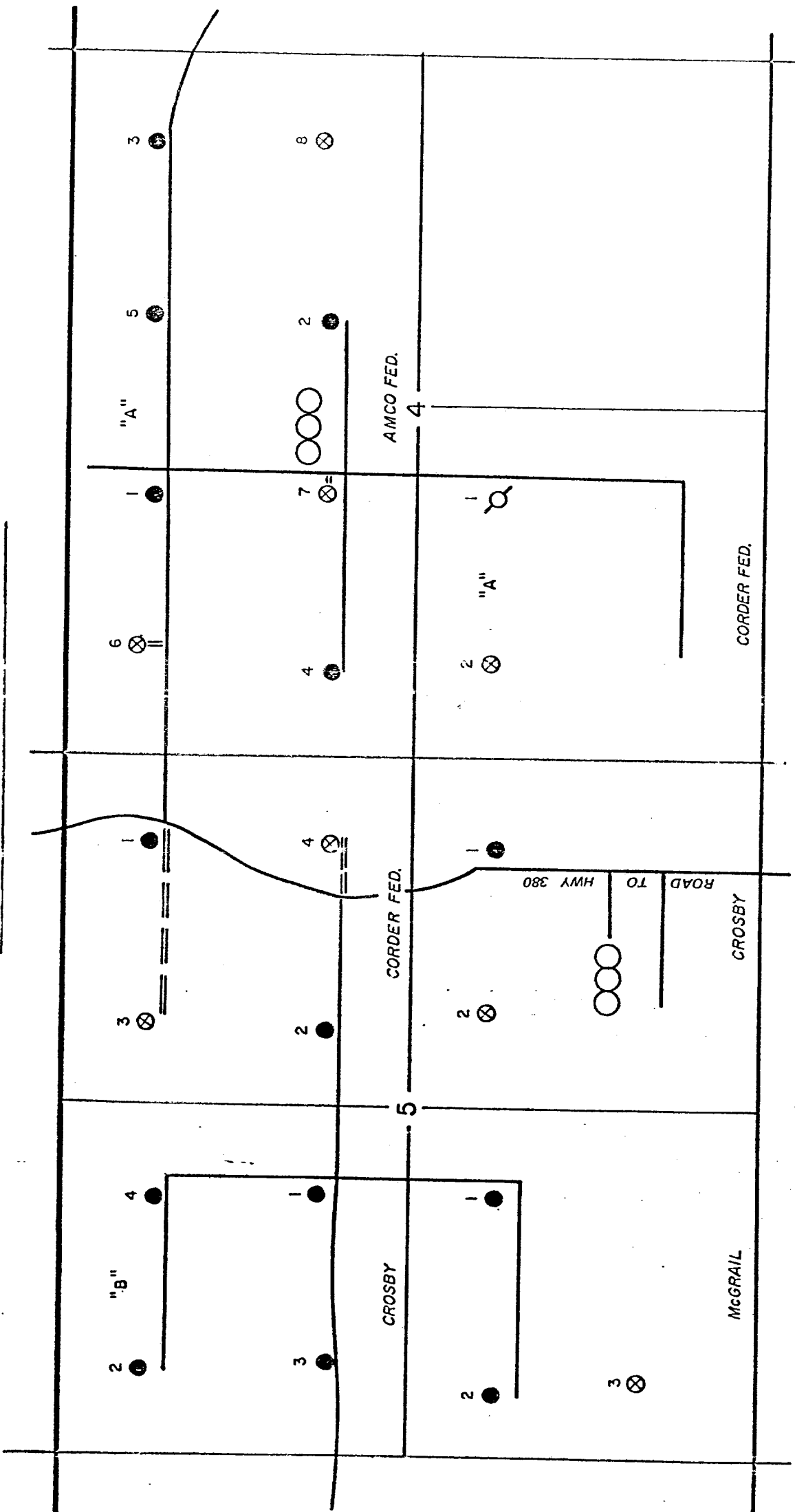
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INSERT

LARGE FORMAT

HERE

EXISTING AND PLANNED ACCESS ROADS



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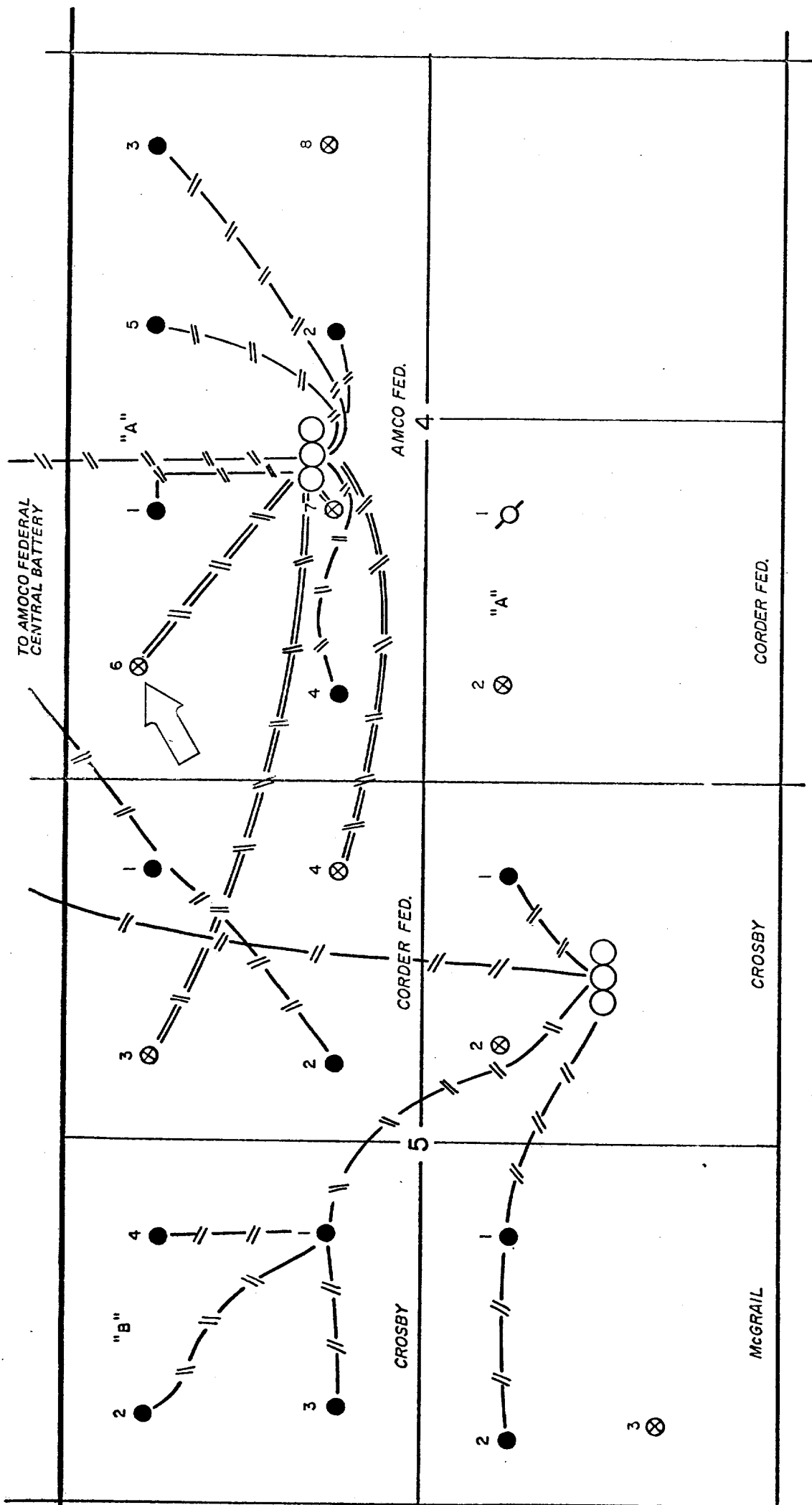
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12	11	10	9	8	7	6
13	18	17	16	15	14	13
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OIL COMB.
HARRIS, D. G.

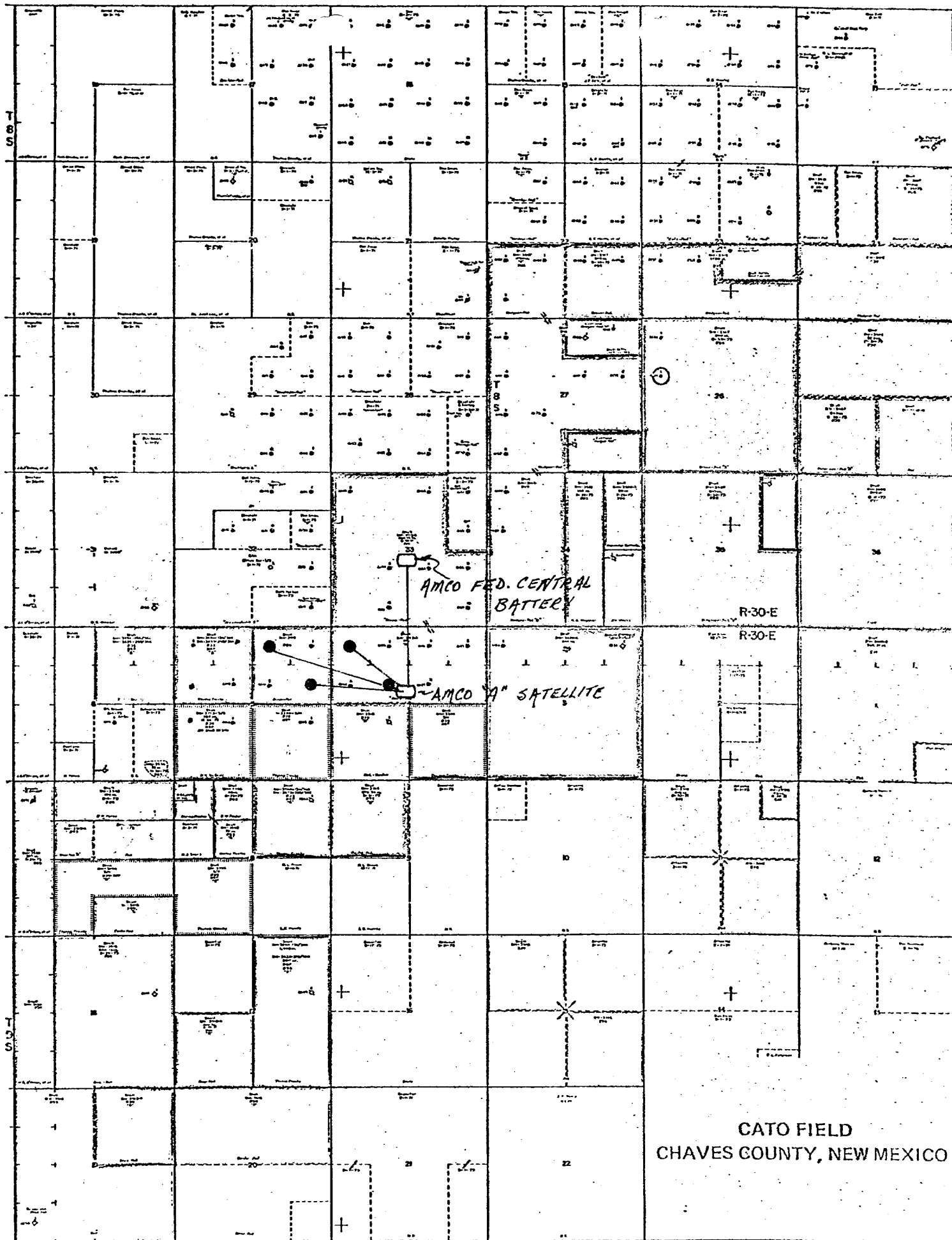
TANK BATTERIES AND FLOW LINES



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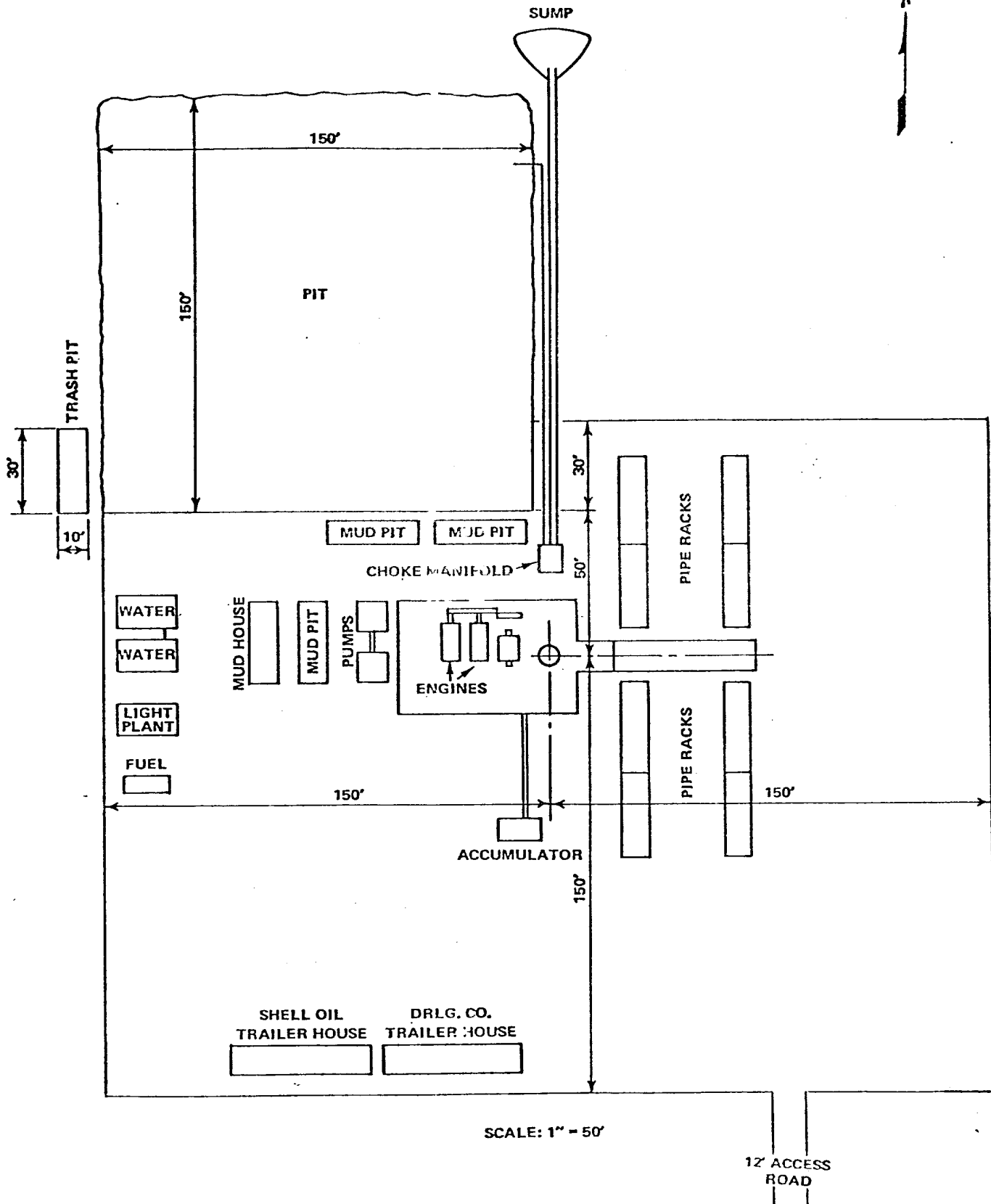
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DRILLING PROGNOSIS

WELL: Amco Federal A-6

W.O. NO. 932421

LOCATION: 660' FNL & 660' FWL Section 4, T-9-S, R-30-E,
Chaves County, New Mexico

FIELD: Cato San Andres

EST. ELEVATION: 4100'

OBJECTIVE: San Andres

EVALUATION			GEOLOGY	DRILLING			
RLG. TIME SAMPLES	ELEC. SURVEYS	MUD LOGGER	SIGNIFICANT FORMATIONS	WELL DEPTH	HOLE SIZE	CASING & CEMENT	MUD PROGRAM
10' Samples	2' Drlg. Time	SDLL, SNP, GR TD to 1470' BHC/GR TD to Sfc.	8 5/8" @ 250' or 25' into Red Beds (whichever is deeper)		11"	8 5/8" 24# K-55 ST&C	Fresh water native mud
		1470'	Rustler 932' (+3168')			2MR-10-SRd	
			Yates 1470' (+2630')				
			San Andres 2668' (+1432')		7 7/8"		Fresh water native mud w/dissolved salt
			S. A. Marker 3214' (+886')				
			S. A. Slaughter 3370' (+730')				
000'			TD 3470'			5 1/2" 14# K-55 ST&C	Salt gel & starch mud, Wt. 9.8-10.3 ppg; vis. 32-36; FL 15 cc or less.

3200'

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DRILLING DATA
AMCO FEDERAL A-6
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 3470'±. Circulate cement with 1500±sacks.

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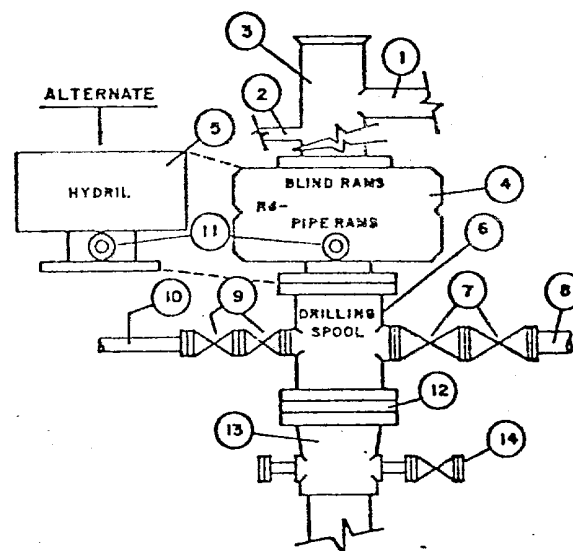
DRAWING AND CHECK LIST NO. EP-1004-2
(ATTACHMENT TO BID SHEET AND DRILLING ORDER)
MINIMUM BLOWOUT PREVENTER EQUIPMENT REQUIREMENTS
FOR SHALLOW AND INTERMEDIATE NORMAL PRESSURE WELLS

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. Size	Type	Press. 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

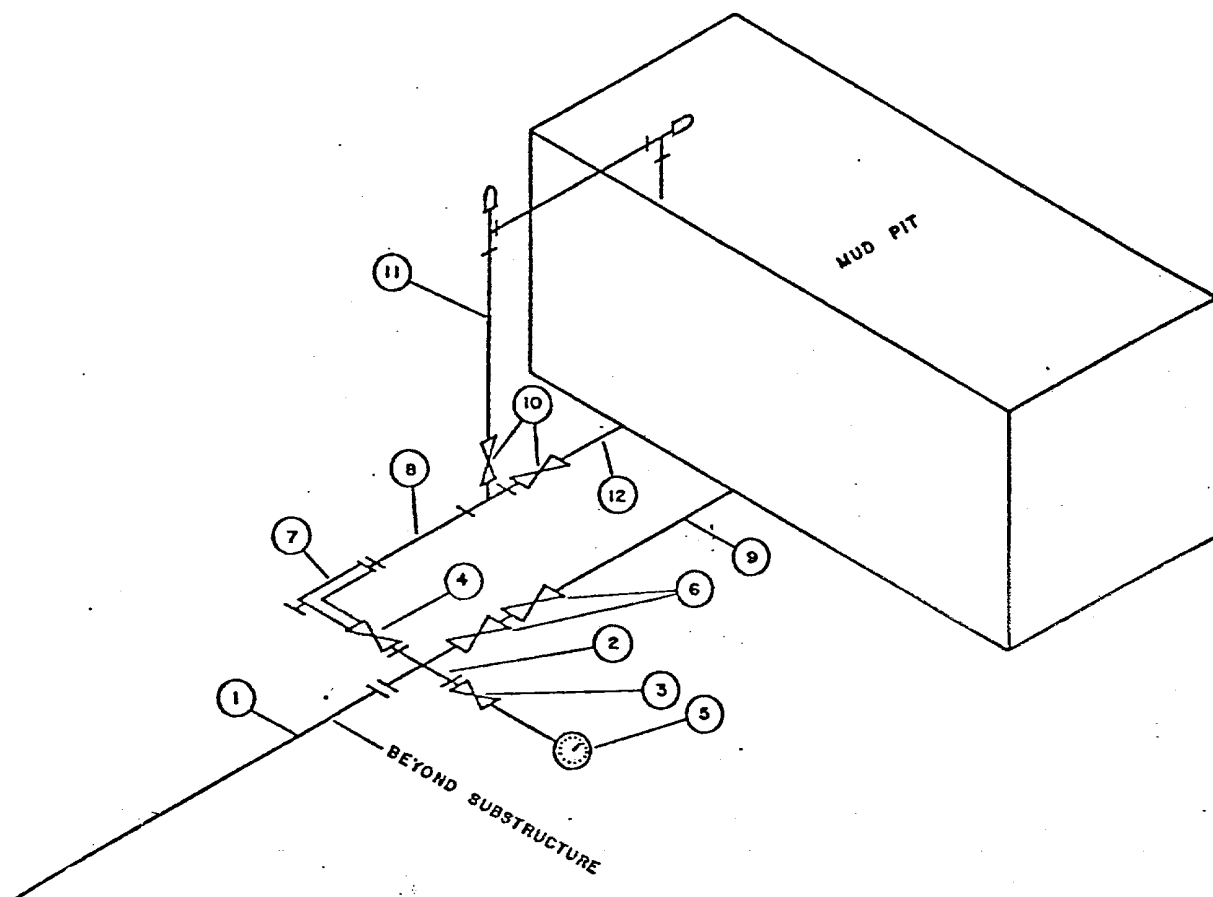
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DRAWING AND CHECK LIST NO. EP-1005-3
(ATTACHMENT 3 TO BID SHEET AND DRILLING ORDER)
MINIMUM BLOWOUT PREVENTER CHOKE MANIFOLD FOR LARGE SURFACE AND CONDUCTOR STRINGS
SPECIFICATIONS FOR WELL NO. 2000 psi API Class 2M
Cato Field CASING SIZE 8 5/8

GENERAL LAYOUT
CHOKE MANIFOLD, CHOKE DISCHARGE LINES



Contractor and Operator to furnish items checked (x)

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

*or equivalent

No.		Min. Size	Type	Press. 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 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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**O. C. C.
ARTESIA, OFFICE**

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