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UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

30-015-23561

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL OIL WELL [ ] GAS WELL [X] OTHER [ ] SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR MORRIS R. ANTWEIL

3. ADDRESS OF OPERATOR P. O. BOX 2010, HOBBS, NEW MEXICO 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*) At surface 660' FNL AND 1980' FEL OF SECTION 30 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\* 13 MILES SOUTH OF LOCO HILLS, NEW MEXICO

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. --

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3362.25 GR

23. PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Rows include 17-1/2" hole with 13-3/8" casing, 12-1/4" hole with 8-5/8" casing, and 7-7/8" hole with 5-1/2" casing.

PRODUCING ZONE WILL BE PERFORATED AND STIMULATED AS NECESSARY.

SEE ATTACHED FOR: SUPPLEMENTAL DRILLING DATA BOP SKETCHES SURFACE USE AND OPERATIONS PLAN

THIS UNORTHODOX LOCATION APPROVED BY NMCD ORDER R-6412.

GAS IS DEDICATED.

RECEIVED

DEC - 1 1980

O. C. D. ARTESIA, OFFICE

NOV 10 1980

APPL - 11-10-80

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 [Signature] TITLE Agent for MORRIS R. ANTWEIL DATE NOVEMBER 6, 1980

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE 11-20-80

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-100  
Superseded by 2-128  
Effective 1-1-85

All distances must be from the outer boundaries of the Section

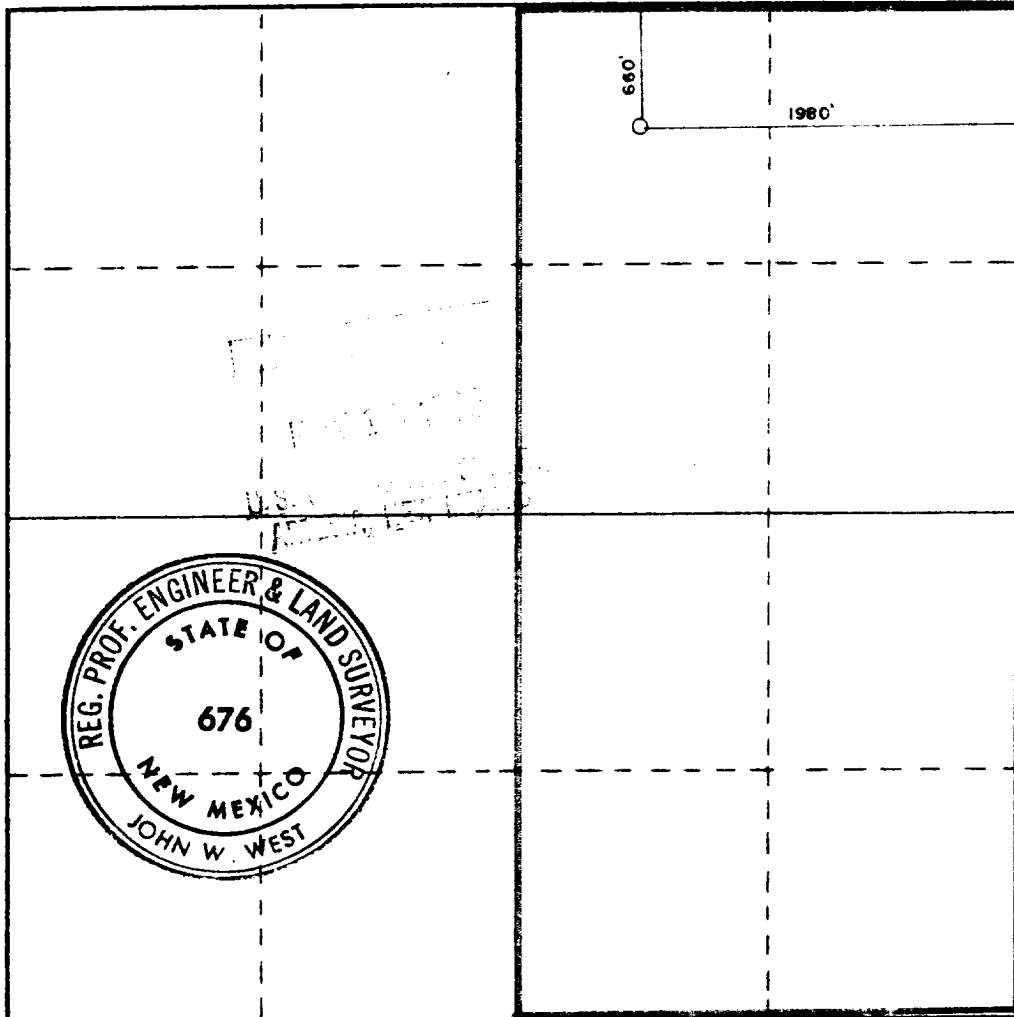
Operator <b>Morris R. Antweil</b>		Lease <b>Fed. H-G</b>		Well No. <b>1</b>
Tract Letter <b>B</b>	Section <b>30</b>	Township <b>19 South</b>	Range <b>30 East</b>	County <b>Eddy</b>
Actual Footage Location of Well: <b>660</b> feet from the <b>North</b> line and <b>1980</b> feet from the <b>East</b> line				
Ground Level Elev. <b>3362.25</b>	Producing Formation <b>MORROW</b>	Pool <b>HG-MORROW GAS</b>	Dedicated Acreage: <b>320</b> 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 \_\_\_\_\_

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, or 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.

Name *Arthur R. Brown*  
**Arthur R. Brown**

Position  
**Agent for**

Company  
**MORRIS R. ANTWEIL**

Date  
**NOVEMBER 6, 1980**

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.

**Nov. 3, 1980**

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No. **JOHN W. WEST** 676

South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

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DEC - 1 1980

O. C. D.  
ARTESIA, OFFICE

Morris R. Antweil  
P. O. Box 2010  
Hobbs, New Mexico 88240

NOV 28 1980

Gentlemen:

Your Application for Permit to Drill well No. 1-Federal H-G in the NW¼ NE¼ sec. 30, T. 19S., R. 30E., Eddy County, New Mexico, lease LC-062376, to a depth of 12,000 feet to test the Morrow formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the District Supervisor, Geological Survey, Roswell, New Mexico, in sufficient time for a representative to witness all cementing operations.

Sincerely yours,

(ORIG. SGD.) JACK WILLOCK

FOR : Acting Deputy Conservation Manager  
Oil and Gas

Enclosure

cc:  
NMOCD, Artesia (2) ← This Copy for  
Conservation Manager, SCR  
DCM-Mining (2)  
Roswell District Office (2)  
Artesia Subdistrict  
File  
ARC  
Roswell chrono

GHStewart:jmb:11-21-80

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

RECEIVED

AUG 11 1980

O. C. D.  
ARTESIA, OFFICE

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6963  
Order No. R-6412

APPLICATION OF MORRIS R. ANTWEIL  
FOR AN UNORTHODOX GAS WELL LOCATION,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 9, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

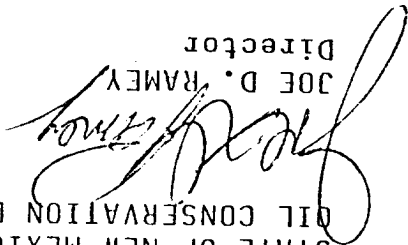
NOW, on this 5th day of August, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Morris R. Antweil, seeks approval of an unorthodox gas well location 660 feet from the North line and 1980 feet from the East line of Section 30, Township 19 South, Range 30 East, NMPM, to test the Morrow formation, HG-Morrow Gas Pool, Eddy County, New Mexico.
- (3) That the E/2 of said Section 30 is to be dedicated to the well.
- (4) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.
- (5) That no offset operator objected to the proposed unorthodox location.

S E A L

STATE OF NEW MEXICO  
 OIL CONSERVATION DIVISION  
 Director  
 JOE D. RAMEY



- DONE at Santa Fe, New Mexico, on the day and year herein-  
 above designated.
- (3) That jurisdiction of this cause is retained for the  
 entry of such further orders as the Division may deem necessary.
- (2) That the E/2 of said Section 30 shall be dedicated to  
 the above-described well.
- (1) That an unorthodox gas well location for the Morrow  
 formation is hereby approved for a well to be located at a point  
 660 feet from the North line and 1980 feet from the East line of  
 Section 30, Township 19 South, Range 30 East, NMPM, HG-Morrow  
 Gas Pool, Eddy County, New Mexico.

IT IS THEREFORE ORDERED:

- (6) That approval of the subject application will afford  
 the applicant the opportunity to produce its just and equitable  
 share of the gas in the subject pool, will prevent the economic  
 loss caused by the drilling of unnecessary wells, avoid the  
 augmentation of risk arising from the drilling of an excessive  
 number of wells, and will otherwise prevent waste and protect  
 correlative rights.

SUPPLEMENTAL DRILLING DATA

MORRIS R. ANTWEIL  
WELL NO.1 FEDERAL H-G

1. SURFACE FORMATION: Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler Anhydrite	360
Tansill	1370
Capitan Reef	1920
Delaware	3670
Bone Springs	6160
Wolfcamp	9680
Strawn	10,700
Atoka	10,950
Morrow	11,300

3. ANTICIPATED POSSIBLE WATER AND HYDROCARBON BEARING ZONES:

Fresh Water	Above 300'
Oil	Strawn
Gas	Morrow

4. PROPOSED CASING AND CEMENTING PROGRAM:

<u>CASING SIZE</u>	<u>SETTING DEPTH</u>		<u>WEIGHT</u>	<u>GRADE</u>	<u>JOINT</u>
	<u>FROM</u>	<u>TO</u>			
13-3/8"	0	400	48#	H-40	STC
8-5/8"	0	2400	24#	J-55	STC
	2400	2600	28#	H-40	STC
	2600	3700	32#	H-40	STC
5-1/2"	0	300	17#	N-80	BUTT
	300	9900	17#	N-80	LTC
	9900	12,000	20#	N-80	LTC

Equivalent or better grades and weights of casing may be substituted, depending on availability.

13-3/8" surface casing will be cemented with Class "C" cement with 2% CaCl. Cement to circulate.

8-5/8" casing will be cemented with sufficient "Light" cement, tailed in with 200 sacks of Class "C", to circulate to surface.

5-1/2" casing will be cemented with approximately 300 sacks of Class "H".

Cement quantities and additives may be varied to best suit hole conditions at the time casing is run.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 12-1/4" hole, will consist of two ram type, Series 600 preventers.

Two ram type and one annular type, Series 900 preventers will be in use while drilling the 7-7/8" hole.

BOP sketches are attached.

6. CIRCULATING MEDIUM:

Surface to 400 feet: Fresh water with gel or lime as needed for viscosity control.

400 feet to 3700 feet: Cut brine. Additives as necessary for control of pH, viscosity, weight and lost circulation.

3700 feet to 12,000 feet: Water base drilling fluid, conditioned as necessary for control of pH, viscosity and water-loss. Weighted as necessary for well control.

7. AUXILIARY EQUIPMENT:

Drill string safety valves will be maintained on the rig floor in the open position while drilling operations are in progress.

A mud separator, PVT and flow sensor equipment will be in use while drilling the lower part of the hole.

8. TESTING, CORING AND LOGGING PROGRAMS:

Drill stem tests will be made when samples, drilling time or other data are sufficient to indicate a test is warranted.

It is planned that electric logs will include a CNL-FDC with Gamma Ray and Dual Laterolog.

No coring is planned.

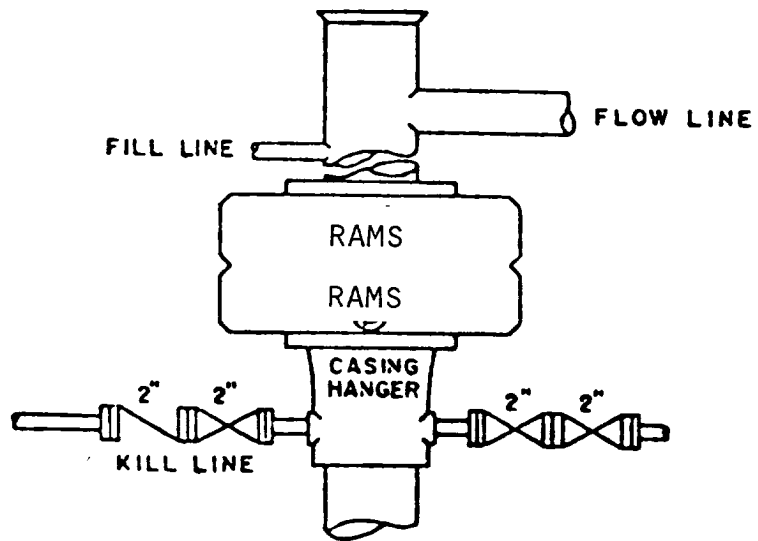
9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE GAS:

None anticipated.

10. ANTICIPATED STARTING DATE:

It is planned that drilling operations will commence on or about December 1, 1980, with drilling and completion operations lasting about 60 days.





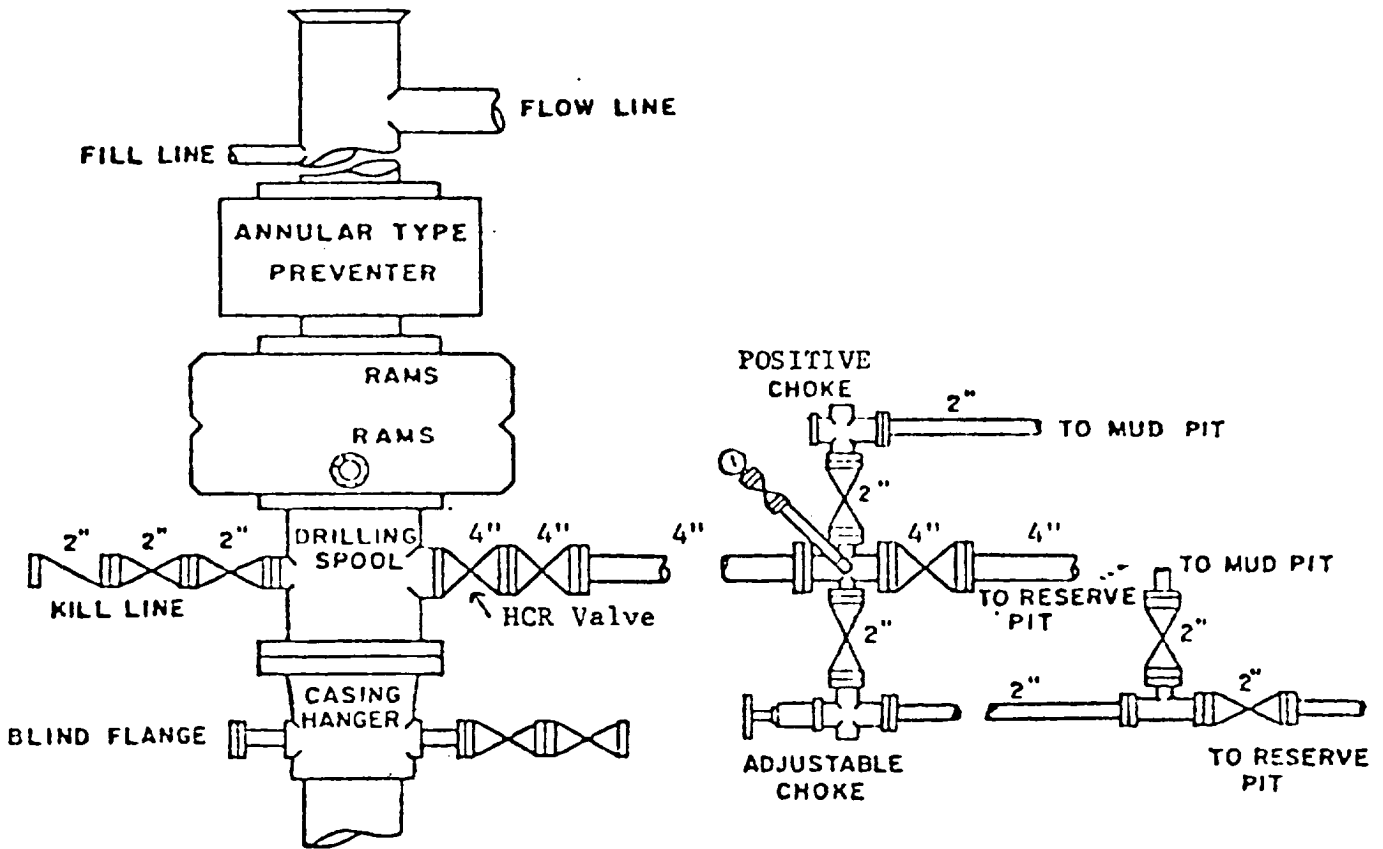
BOP STACK

2000 PSI WORKING PRESSURE

DEPTH INTERVAL

WHILE DRILLING 12-1/4" HOLE

BOP ARRANGEMENT



BOP STACK

3000 PSI WORKING PRESSURE

DEPTH INTERVAL

FROM 8-5/8" CASING SEAT TO TOTAL DEPTH

BOP ARRANGEMENT

SURFACE USE AND OPERATIONS PLAN

FOR

MORRIS R. ANTWEIL  
WELL NO.1 FEDERAL H-G  
660'FNL & 1980'FEL SEC.30, T.19 S., R.30E  
EDDY COUNTY, NEW MEXICO

NOV 13 1946  
U.S. FEDERAL SURVEY  
EDDY COUNTY, NEW MEXICO

LOCATED: 13 air miles south of Loco Hills, New Mexico.

FEDERAL LEASE NUMBER: LC-062376.

RECORD LESSEE: Yates Drilling Company, Harvey E Yates Company,  
Martin Yates III, Yates Petroleum Corporation,  
and Coronado Exploration Corporation.

LEASE ISSUED: October 1, 1946. Lease is in producing status.

ACRES IN LEASE: 1920.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: Snyder Ranches  
c/o Mr. Larry Squires  
P. O. Box 726  
Lovington, New Mexico 88260

POOL: GH Morrow Gas.

POOL RULES: Statewide. 320 acre spacing for gas.

EXHIBITS: A. General Road Map  
B. Plat Showing Existing Wells and Existing Roads  
C. Drilling Rig Layout  
D. Topo Plat

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. Point "A" on the plat is on US 62-180 at Milepost 50.7 and at the junction of State highway 31, going north, with US 62-180. This point is 54 miles west of Hobbs and 15 miles east of Carlsbad. To go to the proposed well site from this point, exit US 62-180 onto highway 31 and go north 5.8 miles to the junction of highways 31 and 360 at Milepost 0 near the PCA mine. Turn west at this point onto a good caliche road and go north and west 3.8 miles. At this point turn northeast onto an oilfield caliche road and go northeast and east about 0.25 mile to an abandoned well marker which is marked H. L. Brown, Jr. well No. 1 Yates Fed. The proposed well site is 0.5 mile north of this abandoned well.
- B. Exhibit "B" is a plat showing existing roads in the vicinity of the proposed well site. Existing roads are color coded.
- C. Any repairs to existing roads do not appear necessary at the present time.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be 12 feet wide and approximately 0.5 mile long. The new road is labled and color coded red on Exhibit "B". The center line of the proposed new road, from the beginning to the well site, has been staked and flagged with the stakes being visible from any one to the next.
- B. Surfacing Material: Six inches of caliche, watered, compacted and graded.
- C. Maximum Grade: Two percent.
- D. Turnouts: Probably two.
- E. Drainage Design: New road will be crowned with drainage to both sides.
- F. Culverts: None required.
- G. Cuts and Fills: None necessary.
- H. Gates and Cattle Guards: None required. No fences involved.

3. LOCATION OF EXISTING WELLS:

A. Existing wells in the immediate area are shown on Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. There are no existing production facilities<sup>1</sup> on the leasehold at the present time.

B. If the proposed well is productive, necessary production facilities will be located at the well on the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is not contemplated that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site over existing and proposed roads, or will be moved to the well site by temporary pipeline layed on the ground alongside existing and proposed roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche needed for construction work will be taken from an existing pit on State owned land in the NE $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 32, T. 19 S., R. 30 E., Eddy County, New Mexico, and will be moved by truck over existing and proposed roads. Location of the caliche pit is shown on Exhibits "B" and "D".

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "C".

F. All trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

A. None necessary

9. WELL SITE LAYOUT:

A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, reserve pit and trash pit, and the location of major rig components.

B. No cut and fill will be necessary. Clearing and levelling of the well site will be required.

C. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special revegetation and/or rehabilitation requirements of the surface management agency will be complied with and accomplished as expeditiously as possible.

11. OTHER INFORMATION:

A. Topography: Generally the land surface is undulating but is relatively level in the immediate area of the well site.

B. Soil: Top soil at the well site is a loamy sand.

C. Flora and Fauna: The vegetative cover is sparse and consists of mesquite, desert shrub, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.

D. Ponds and Streams: There are no rivers, lakes, streams or

ponds in the area.

E. Residences and Other Structures: There are no occupied dwellings within two miles of the proposed well site. The nearest windmill is more than one mile southwest.

F. Archaeological, Historical or Other Cultural Sites: None observed in the area.

G. Land Use: Grazing and hunting in season.

H. Surface Ownership: Federal.

12. OPERATOR'S REPRESENTATIVE:

The representative responsible for assuring compliance with the approved Surface Use and Operations Plan is:

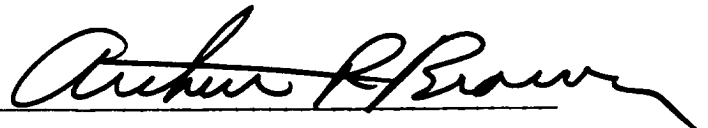
Bob Williams  
P. O. Box 2010  
Hobbs, New Mexico 88240  
Office Phone: 505-393-4111  
Home Phone: 505-393-6038

13. 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 Morris R. Antweil and his contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

November 6, 1980

Date:



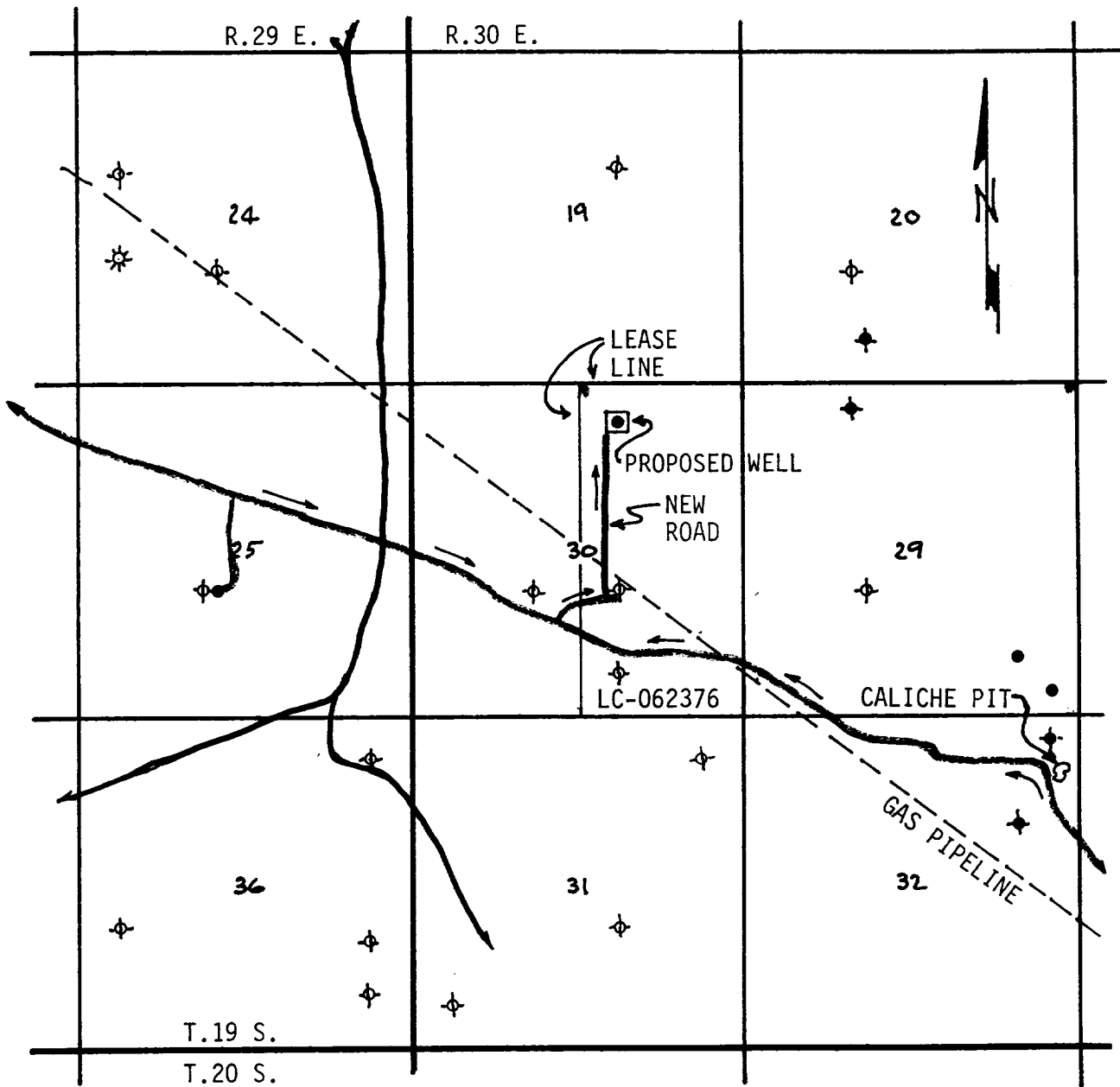
Arthur R. Brown: Agent for  
MORRIS R. ANTWEIL



EXHIBIT "A"

MORRIS R. ANTWEIL  
 WELL NO.1 FEDERAL H-G  
 660'FNL & 1980'FEL SEC.30, T.19 S., R.30 E.  
 EDDY COUNTY, N.M. SCALE: 1/3" = 1 MI.



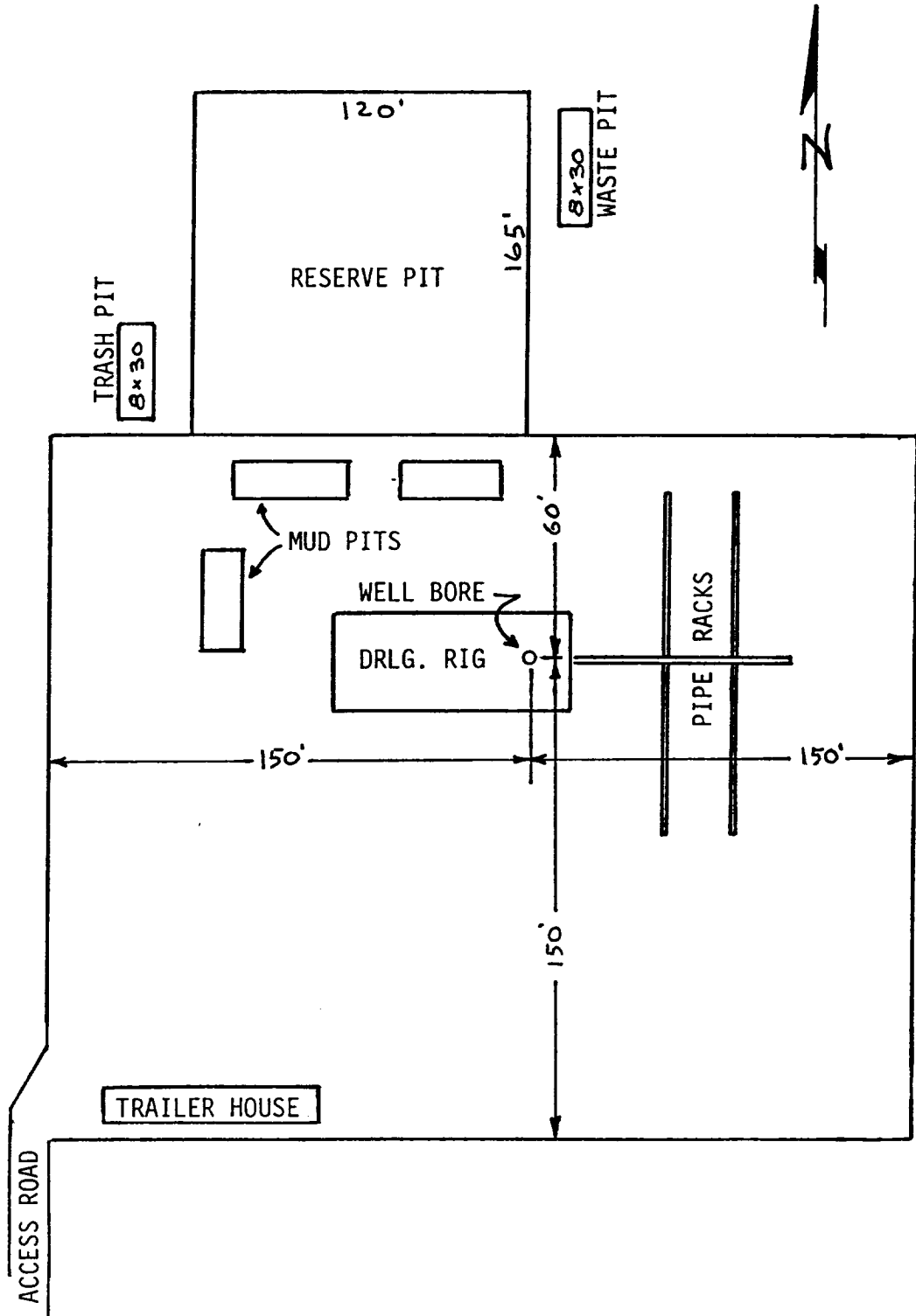


**LEGEND:**

- Oil Well
- ★ Gas Well
- ⊕ Plugged Well
- ◻ Proposed Well
- Existing Caliche Road
- Existing Ranch Road
- Proposed New Road
- - - Gas Pipeline (Approx. Location)

**EXHIBIT "B"**

MORRIS R. ANTWEIL  
 WELL NO.1 FEDERAL H-G  
 660' FNL & 1980' FEL SEC. 30, T.19 S., R.30 E.  
 EDDY COUNTY, N.M. SCALE: 2" = 1 MI.



AREA STAKED FOR  
 ARCHAEOLOGICAL CLEARANCE: 400' x 450'

EXHIBIT "C"  
 MORRIS R. ANTWEIL  
 WELL NO.1 FEDERAL H-G  
 DRILLING RIG LAYOUT  
 SCALE: None

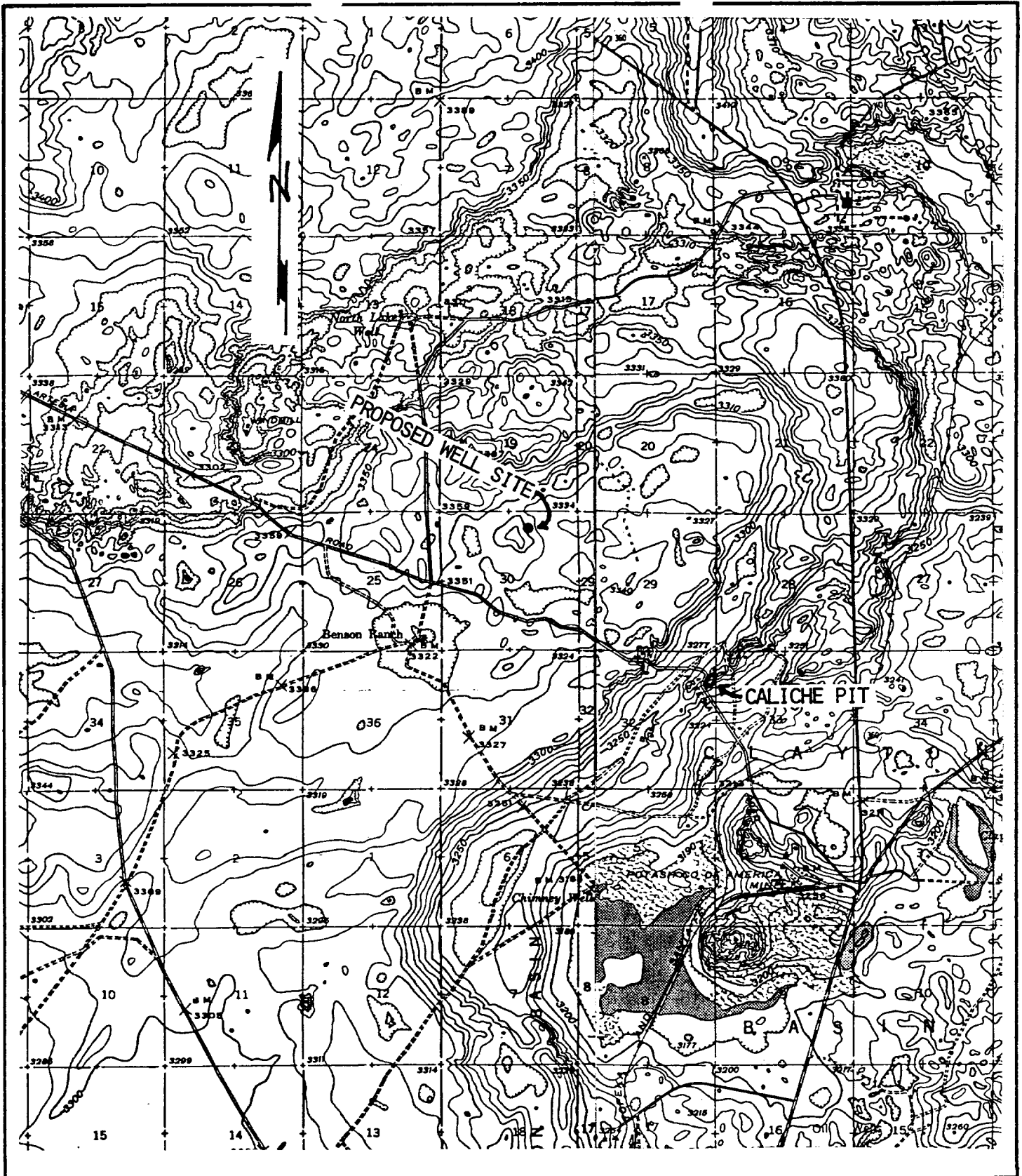


EXHIBIT "D"  
MORRIS R. ANTWEIL  
WELL NO.1 FEDERAL H-G  
TOPO PLAT  
CONTOUR INTERVAL: 10'