Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-025 2546

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC029410 (b)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: South Maljamar Deep

9. WELL NO.: 2

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA (NM): Sec. 30, T-17S, R-32E

12. COUNTY OR PARISH: Lea

13. STATE: N. M.

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

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

2. NAME OF OPERATOR: HARVEY E. YATES COMPANY, INC.

3. ADDRESS OF OPERATOR: Suite 1000, Security National Bank Bldg., Roswell, N.M. 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1920' FWL & 1130' FSL
At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 5 Miles South of Maljamar

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1920'

16. NO. OF ACRES IN LEASE: 1449.65

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.: Approx. 500'

19. PROPOSED DEPTH: 12,500'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3890' GR

22. APPROX. DATE WORK WILL START*: Feb. 15, 1977

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	13 3/8"	48#	300'	Circulate
12¼"	9 5/8"	36#, 40#	5000'	1750 Sx
8¼"	5½"	17#, 20#	12500'	1000 Sx

Mud Program: Fresh water to top of Wolfcamp 0' to 9000'
Cut brine system 9000' to 11,300' 2% KCL
Mud System 11,3000' to 12,500', 36-40 viscosity, 6-10 cc. water loss control, mud weight 9 to 9.2 lbs. per gallon, 5% KCL.

BOP Program: One Schaffer LWS hydraulic double 10" x 1500 series. One Shaffer Spherical 10" x 1500 series. Choke manifold 4" x 1500 series flanged connections. Payne 4 valve accumulator closing unit.

May 3, 1977

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 Fred Yates TITLE Vice President DATE 1/20/77

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED AS AMENDED
FEB 8 1977
BERNARD MOROZ
ACTING DISTRICT ENGINEER

*See Instructions On Reverse Side

RECEIVED DEC 3 1 1976

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	Lease	Well No.
Harvey E. Yates Company, Inc.	South Maljamar Deep	2

Unit Letter	Section	Township	Range	County
N	30	17 S.	32 E.	Lea

Actual Footage Location of Well:
1920.0 feet from the West line and 1130.0 feet from the South line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3890.0	Morrow	Wildcat	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

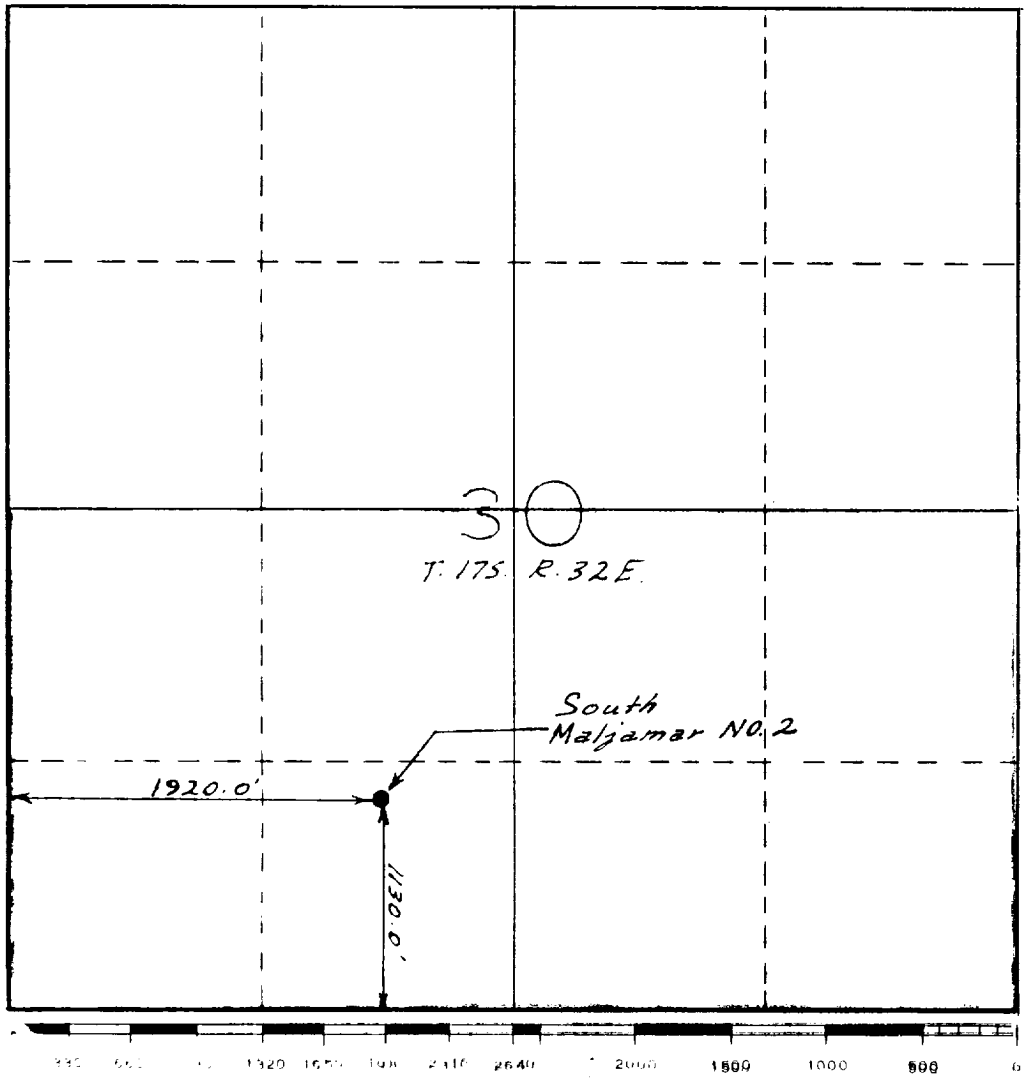
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 _____

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.

Name: Neal Wate

Position: Vice President

Company: Harvey E. Yates Co., Inc.

Date: January 10, 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.

Date Surveyed: December 16, 1976

THOMAS T. MANN

Registered Professional Engineer and/or Land Surveyor

NEW MEXICO 277

Certificate No.

APPLICATION FOR DRILLING

Harvey E. Yates Company, Inc.
South Maljamar Deep No. 2
Lea County, New Mexico

In conjunction with Form 9-331-C, Application for Permit to Drill, subject well in Section 30, Township 17 South, Range 32 East, Lea County, New Mexico, Harvey E. Yates Company, Inc., submits the following ten items of pertinent information in accordance with U.S.G.S. requirements:

1. The geologic surface formation is quaternary alluvium and bolson deposits and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

780'	Rustler	Anhydrite
1781'	Cowden	Anhydrite
1960'	Base salt	
2160'	Yates	
2520'	Seven Rivers	
2905'	Bowers	
3119'	Queen	
3491'	Grayburg	
3877'	San Andres	
7601'	Abo	
7978'	Middle Abo	
8260'	Base Middle Abo	
8949'	Lower Abo	
9190'	Wolfcamp Ls.	
10514'	Pennsylvanian	
10730'	Strawn Ls.	
11034'	Atoka	
11434'	Morrow	
11994'	Chester	
12494'	Lower Miss. Ls.	

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water:	At approximately 100' or less		
Oil or Gas	Wolfcamp at approximately	9190'	to 10514'
	Strawn at approximately	10730'	to 11034'
	Atoka at approximately	11034'	to 11434'
	Morrow at approximately	11434'	to 11994'
	Lower Mississippian at approximately	12494'	to 12500'

4. Proposed Casing Program: See Form 9-331 C

5. Pressure Control Equipment: See Form 9-331 C and Exhibit E.

6. Mud Program: See Form 9-331 C

7. Auxiliary Equipment: Blowout Preventer

8. Testing, logging and coring programs: Neutron density log. Gamma ray log. Drill stem testing in Abo, Wolfcamp, Strawn, Atoka and Morrow.

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval (no later than February 15, 1977).

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Harvey E. Yates Company, Inc.
South Maljamar Deep Well No. 2
1920' FWL and 1130' FSL Sec. 30-T17S-R32E
Lea County, New Mexico
(Exploratory Well)

This plan is submitted with Form 9-331C, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

A. Exhibit A is a map showing the proposed location and the surrounding area on a scale of ½ inch to a mile. Exhibit B is a sketch showing the roads in the immediate vicinity of the proposed wellsite. The proposed location is a driving distance of approximately 40 miles east of Artesia, New Mexico.

(1.) Proceed east from Artesia on Highway 82 for approximately 31 miles to Highway 529, which runs south from Highway 82 (see Exhibit A).

(2.) Turn south on Highway 529, which in a short distance changes direction to the east. Continue on Highway 529 for a total distance of approximately 6 miles to an all-weather dirt access road on the north side of the highway (see Exhibit B). Landmarks to watch for, to identify this access road, are:

(a.) Approximately 1.5 miles before you come to the access road, you will pass, on your right and very close to Highway 529, a large pump jack on the south side of the highway, identified as Harvey E. Yates South Maljamar No.1.

(b.) Approximately 2/10 of a mile before you come to the access road, you will pass a tank battery on your left.

(3.) After entering the northbound dirt access road, proceed about 3/10 of a mile to a fork in the road. Take the left fork.

(4.) Approximately 1 mile after taking this left fork, turn left (west) at a crossroad identified by a large pump jack on the right. This pump jack is located on MCA Unit #112.

(5.) Proceed on this westbound dirt road, passing an injection plant on your right after approximately 9/10 of a mile. Continue for approximately 4/10 of a mile beyond this point, then turn left (south) for approximately 6/10 of a mile to a cross road running east and west. You will then be adjacent to the proposed location, which lies on the south side of this east-west road. As an additional aid in locating this position, Well No. 305, Unit Letter "J", is situated on this east-west road, less than 2/10 of a mile east of the proposed well location.

B. The existing roads described above are satisfactory for the passage of the necessary heavy equipment and truck traffic, and no improvements of these roads will be necessary.

2. PLANNED ACCESS ROADS.

A. A newly constructed access road of only 100 feet in length will be required. This road will be 12 feet in width, with the necessary widening at the entrance point from the existing road. The new road will join the drilling pad at the northeast corner of the pad, as shown in Exhibit D.

B. The ground surface over the path of the proposed new road includes minor undulations, which will be blade-scraped as necessary to level the road surface. The surface will be covered with six inches of compacted caliche.

C. The route of the proposed new road has been staked and flagged.

3. LOCATION OF EXISTING WELLS.

A. Existing wells in the area of the wellsite are shown on Exhibit B. The nearest wells are located within section 30, approximately 500 feet from the proposed well, one of them an injection well 1980' FWL and 660' FSL, and the other a producing well at 1320' FSL and 1320' FWL. Other wells within section 30 are also shown on Exhibit B.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.

A. A fence runs along the southern edge of the proposed location, in a generally southeast-to-northwest direction, as shown on Exhibit B. There is also a surface flow line running in an east-west direction, approximately sixty feet south of the proposed drilling pad. In addition, a north-south overhead power line is located near the east edge of the proposed drilling pad.

B. The tank battery for the producing wells in section 30 is located in the northeast corner of the section, as indicated in Exhibit B.

C. In the event that the proposed well is productive, the necessary production facilities will be installed on the drilling pad, as shown in Exhibit C.

5. LOCATION AND TYPE OF WATER SUPPLY.

A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibits A and B.

6. SOURCE OF CONSTRUCTION MATERIALS.

A. Caliche for the construction of the new access road and the location will be obtained from an existing caliche pit located approximately 6/10 of a mile north and 4/10 of a mile east of the location. An alternate source is a small caliche pit located north of the location, on the north side of the existing east-west road bordering the location.

7. METHODS OF HANDLING WASTE DISPOSAL.

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

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

C. Water produced during operations will be disposed of in the reserve pits. Oil produced during operations will be stored in 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.

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

8. ANCILLARY FACILITIES.

A. None required.

9. WELLSITE LAYOUT.

A. Exhibit D shows the relative location and dimensions of the well pad, reserve pits, and major rig components.

B. The ground elevation at the wellsite location is irregular, with sand dunes ranging up to 20 or 25 feet in height. A

substantial amount of leveling will be necessary to construct a level location, and six inches of compacted caliche will be used to cover the surface.

C. The reserve pits will be plastic lined.

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

10. PLANS FOR RESTORATION OF THE SURFACE.

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

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

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. OTHER INFORMATION.

A. Topography: The land surface is irregular, with sand dunes of various heights ranging up to 20 or 25 feet.

B. The soil at the wellsite is relatively loose sand.

C. Flora and Fauna: The vegetation cover in the area is moderately heavy, consisting primarily of prairie grass, burr grass, and miscellaneous weeds. No wildlife was observed, but the area is typical of semi-arid desert land and the wildlife is probably typical, consisting of jackrabbits, reptiles, coyotes, etc. The area is used for cattle grazing.

D. There are no ponds, lakes, streams, or rivers in the area.

E. There are no occupied dwellings or windmills in the area of the wellsite.

F. Surface Ownership: The wellsite is on federal surface.

G. There is no evidence of any archeological, historical, or cultural sites in the area.

12. OPERATOR'S REPRESENTATIVES.

The field representatives respon ible for assuring compliance with the approved surface use and operations plan are:

Drilling:

Jim O'Briant
O'Briant Engineering Company
316 Building of the Southwest
Midland, Texas 79701

Telephone: 915-683-3172 Office
915-683-4044 Mobile
915-694-8907 Home

Fred G. Yates
Harvey E. Yates Company, Inc.
Suite 1000 Security National Bank Building
Roswell, New Mexico 88201

Telephone: 505-623-6601 Office
505-622-5387 Home

Production:

Johnny Gray
Gray Pumping Service
1806 Sears
Artesia, New Mexico 88210

Telephone: 505-746-3895 Office
505-746-4302 Unit 231 Radio Dispatch
505-746-3895 Home

Fred G. Yates
Harvey E. Yates Company, Inc.
Suite 1000 Security National Bank Building
Roswell, New Mexico 88201

Telephone: 505-623-6601 Office
505-622-5387 Home

13. CERTIFICATION.

See attachment.

HARVEY E. YATES COMPANY
SOUTH MALJAMAR DEEP #2

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Harvey E. Yates Company, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

January 20, 1977
Date

Fred C. Yates V.P.
Name and Title

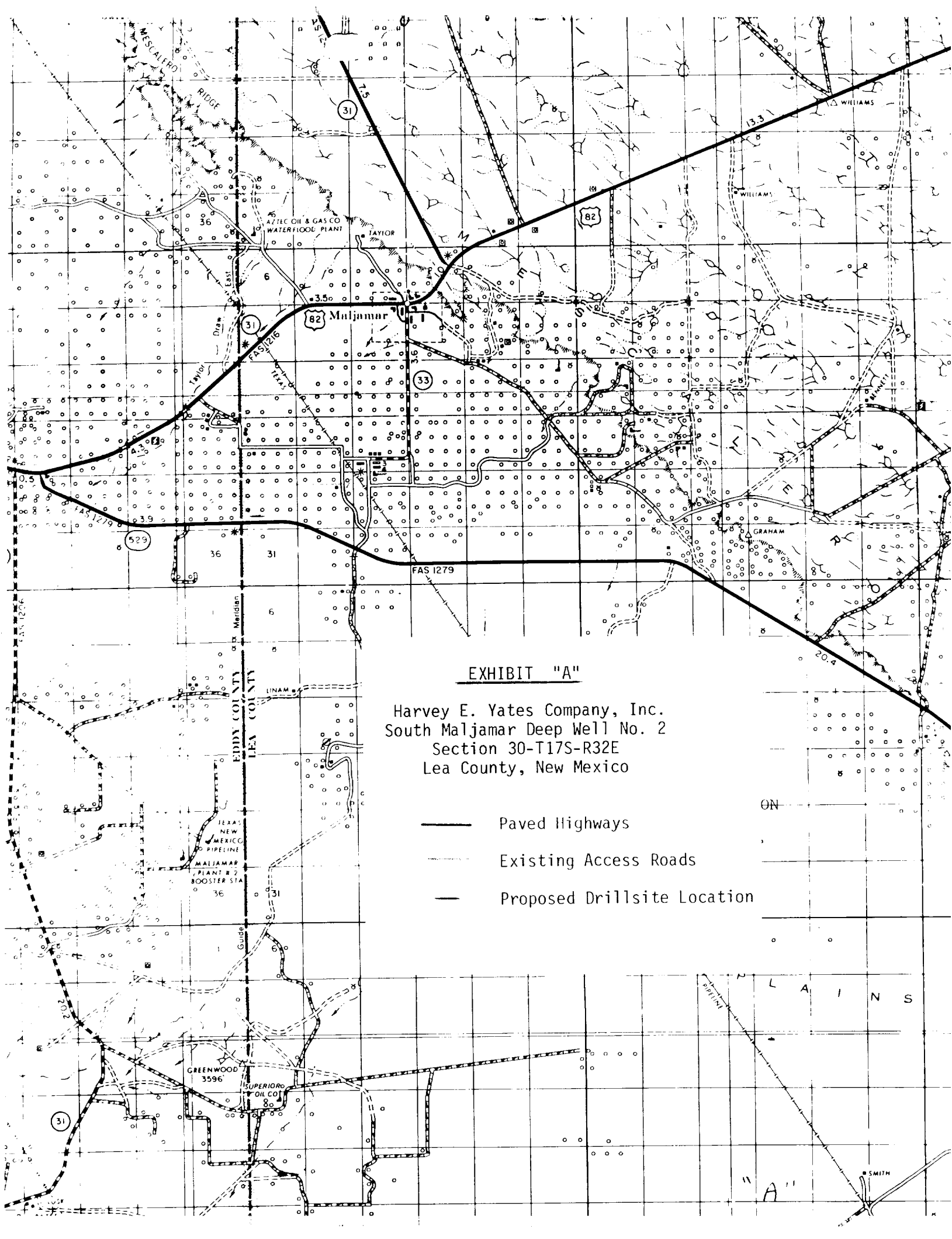


EXHIBIT "A"

Harvey E. Yates Company, Inc.
South Maljamar Deep Well No. 2
Section 30-T17S-R32E
Lea County, New Mexico

——— Paved Highways

——— Existing Access Roads

— Proposed Drillsite Location

EXHIBIT "B"

Harvey E. Yates Company, Inc.
South Maljamar Deep Well No. 2
Section 30-T17S-R32E
Lea County, New Mexico

Highway 529
Proposed Access Roads
Proposed New Road
Proposed Location
Fence
Flow Line
Power Line
Producing Well
Injection Well

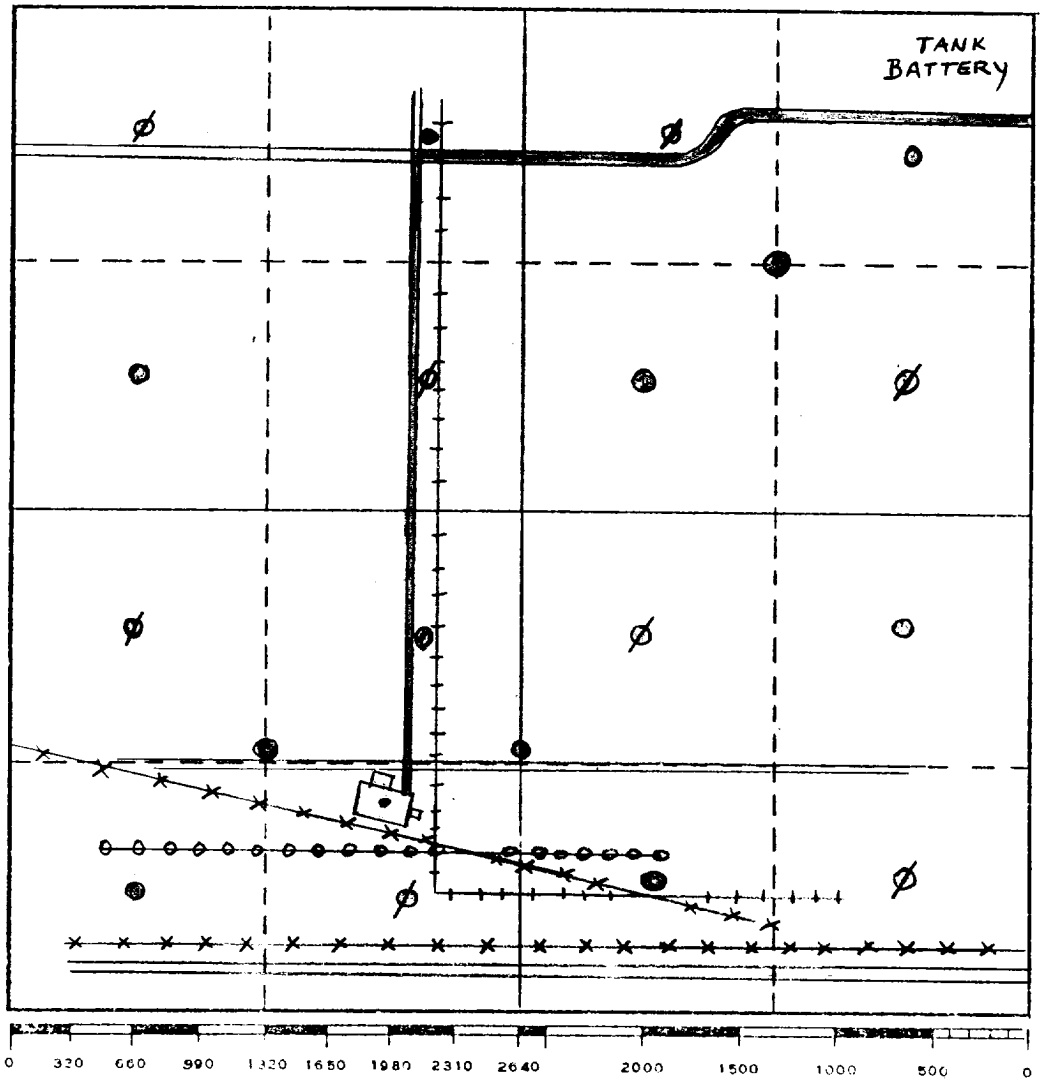
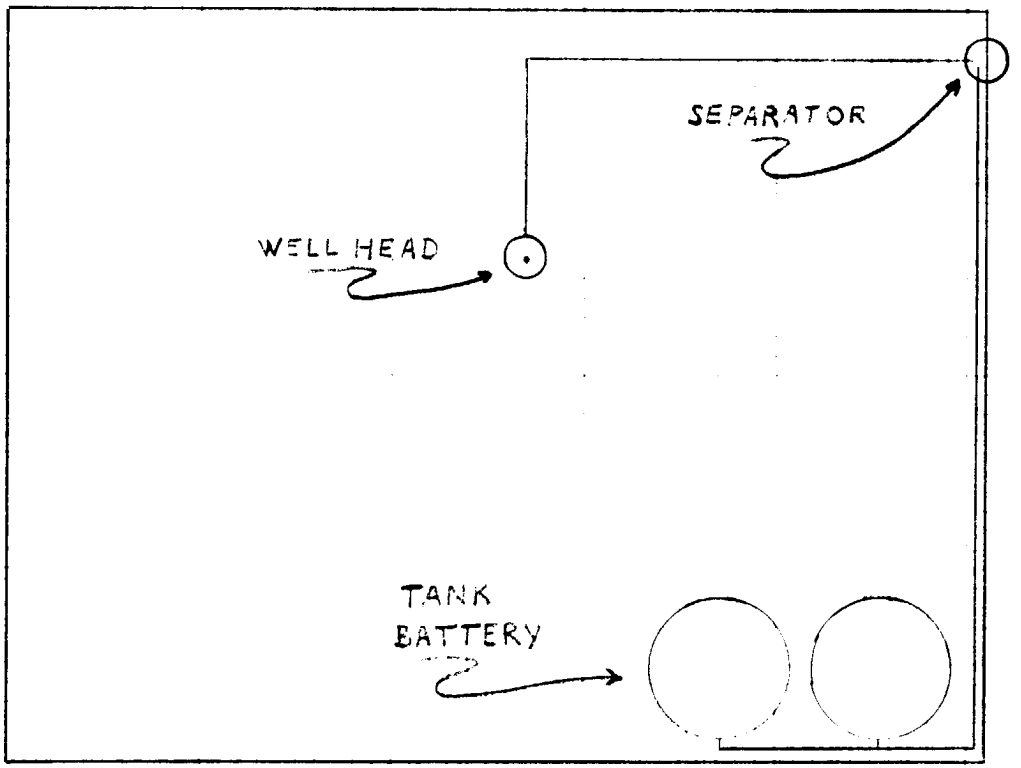


EXHIBIT "C"

Harvey E. Yates Company, Inc.
South Maljamar Deep Well No. 2
Section 30-T17S-R32E
Lea County, New Mexico



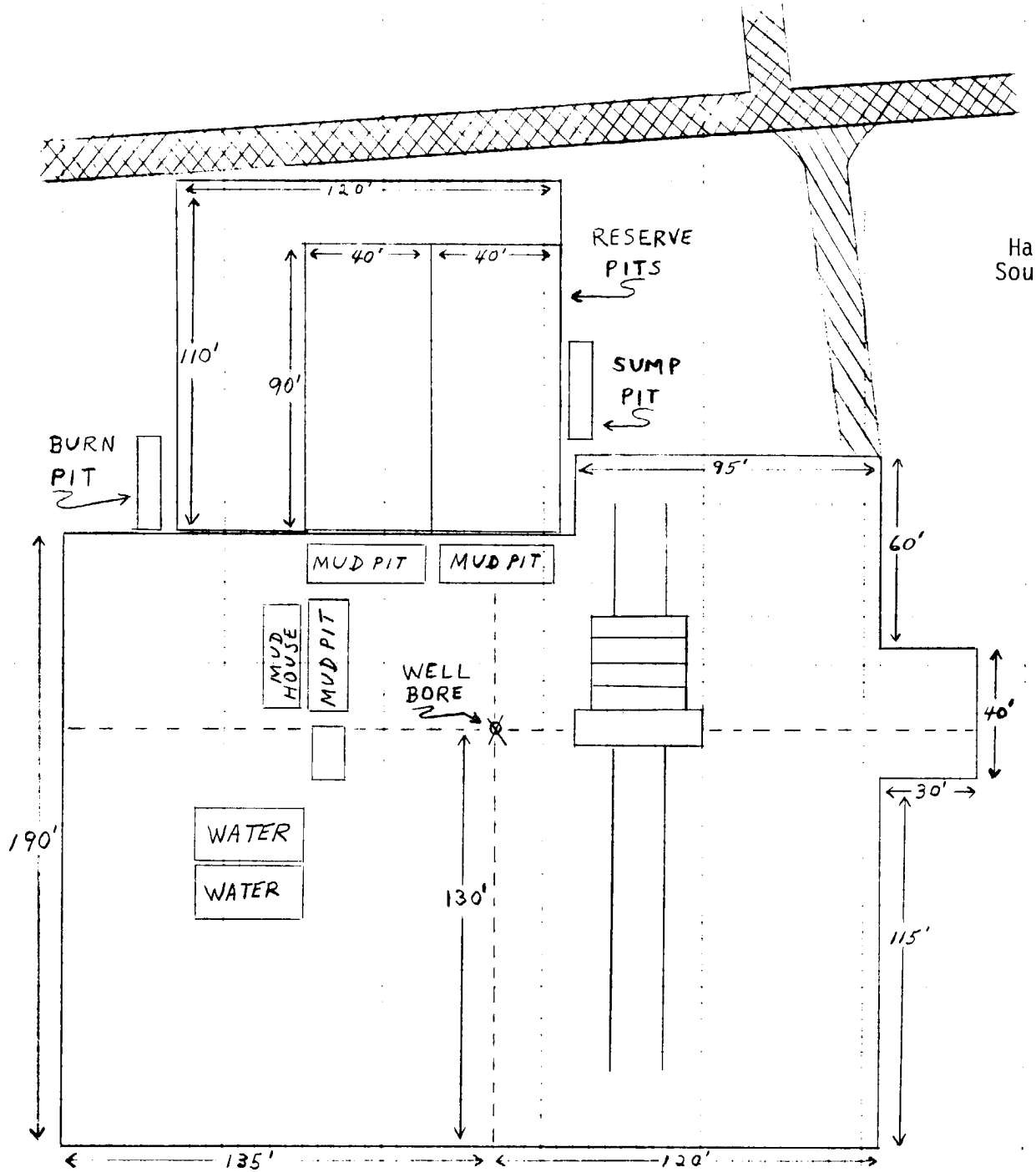


EXHIBIT "D"

Harvey E. Yates Company, Inc.
South Maljamar Deep Well No. 2
Section 30-T17S-R32E
Lea County, New Mexico

Existing Access Road

Proposed New Access Road

N

CHOKE MANIFOLD

MORANCO #8

1500 SERIES

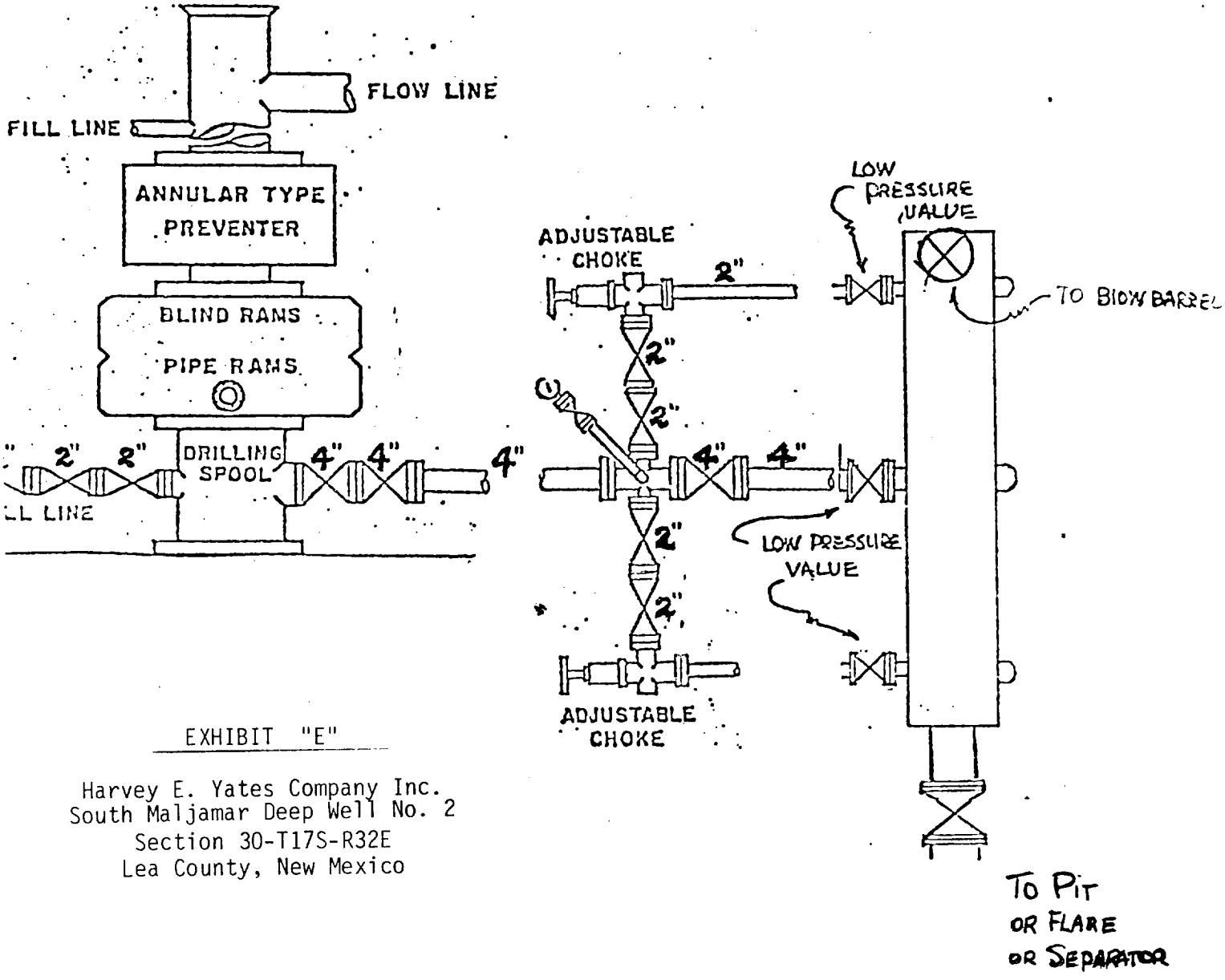


EXHIBIT "E"

Harvey E. Yates Company Inc.
South Maljamar Deep Well No. 2
Section 30-T17S-R32E
Lea County, New Mexico

U. S. GEOLOGICAL SURVEY
P. O. Box 1157
Hobbs, New Mexico 88240

HOBBS DISTRICT

Harvey E. Yates Co., Inc.
No. 2 South Maljamar Deep
SE¼SW¼ sec. 30-17S-32E
Lea County, N. M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to the attached sheet for general requirements for drilling and producing operations.

2. Notify this office (telephone (505) 393-3612) when the well is spudded and in sufficient time for a representative to witness cementing operations.

3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.

4. Secure prior approval before changing the approved drilling program or commencing plugging operations, plug-back work, casing repair work, or corrective cementing operations.

5. Blowout prevention equipment is to 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.

6. A kill-line is to be properly installed and is not to be used as a fill-up line.

7. Blowout preventers are to have proper casing rams when running casing.

8. Drill string safety valve(s) to fit all pipe in the drill string to be maintained on the rig floor while drilling operations are in progress.

9. Blowout prevention drills are to be conducted as necessary to assure that equipment is operational and that each crew is properly trained to carry out emergency duties. All BOP tests and drills are to be recorded on the driller's log.

10. Cement behind 9-5/8" casing must be circulated to surface.

11. Drilling must be in compliance with the attached "Drilling Well Control Requirements" dated 6-22-73.

12. If, during operations, the operator or any person working in his behalf, discover any historic or prehistoric ruin, monument or site, or any object of antiquity subject to the Antiquities Act of June 8, 1906, (34 Stat. 225, 16 U.S.C. Secs. 431-433), and 43 CFR Part 3, then work will be suspended and the discovery promptly reported to the District Manager. The Bureau will then take such action as required under the Act and regulations thereunder. When directed by the District Manager, the operator will obtain, at his expense, a qualified archaeologist to examine and, if necessary, excavate or gather such ruins or objects.

13. All access roads constructed in conjunction with the drilling permit should be limited to 12 feet in width, along with turnouts. If well is a producer, all roads will be adequately drained to control runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts and/or any other measure deemed necessary by the responsible BLM representative.

14. Materials removed during construction must be disposed of in such a manner that it does not detract from the aesthetics and does not accelerate erosion. When clearing the area of operations of vegetation other than grass, the vegetation removed will be placed in drainages, washes, gullies, etc., and "walked down" by crawler type tractor. If no drainages are in the immediate area, the vegetation will be "walked down" in place. After construction has been completed, the affected area will be left in as aesthetically pleasing condition as possible. All trash resultant from construction activities will be disposed of. Any large rocks left as a result of construction activities will not be piled or left in rolls but will be left so they do not detract from the scenic attributes of the area and will not hinder the movement of livestock or big game animals.

15. Any "available topsoil" encountered during the construction of the drill site area will be stockpiled and made available for re-surfacing of the reserve pit area (after pits are covered) after completion of the drilling operation.

16. "Caliche" for use in the construction of the drill pad and access road shall be obtained from existing authorized pits whenever possible, as determined by the responsible BLM representative. No new pits shall be opened without prior approval from the responsible BLM representative.

17. The "mud pits" shall be well constructed and under no circumstances will they be allowed to leak or be cut to drain. They shall not be located on natural drainages. Waste or discharge of any kind will not be allowed to enter any drainage. Any plastic material used to line pits and/or sumps shall be cut-off below ground level, as far down as possible, and disposed of before the pits are covered. All unattended pits, containing liquids, will be fenced and the liquid portion allowed to evaporate before the pits are broken.

18. All pits found to contain toxic liquids will be fenced and covered with a fine-mesh netting for the protection of wildlife as directed by the responsible BLM representative.

19. All waste associated with the drilling operation will be buried in place (in a separate trash pit) or removed and deposited in an approved sanitary landfill. All garbage (metal containers will be crushed) and debris left on site will be buried at least three feet deep. All trash and debris will be buried or removed from the site within one month after removal of the drill rig. The permittee will comply with all state laws and regulations pertaining to the disposal of human waste.

20. The well "site", if a producer, will be maintained and kept clean of all trash and litter or other foreign material which detracts from the surrounding environment. Maintenance shall also include measures necessary to stabilize soil conditions (other than reseeding) on the road and pad area, and maintenance of facilities associated with said well.

21. In the event the oil or gas test results in a dry hole, the drill pad and access road will be ripped in accordance with "BLM Roswell Districts' Ripping Recommendations for Caliche or Compacted Drill Pads and Access Roads" (3109). (Reseeding of the affected areas may be required at the discretion of the District Manager).

22. All structures and pipelines above ground shall be painted a non-glare, non-reflective, non-chalking color that simulates the natural colors of the site. The Bureau will furnish the Federal Standard Number to be used. Fed. Std. No. 595 Color 30318.