

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
HARVEY E. YATES COMPANY

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 1933, ROSWELL, NEW MEXICO 88202 505-623-6601

4. LOCATION OF WELL (REPORT LOCATION CLEARLY AND IN ACCORDANCE WITH ANY STATE REQUIREMENTS)
AT SURFACE 1,980' FSL & 560' FEL
AT PROPOSED PROD. ZONE SAME Unit I

5. LEASE DESIGNATION AND SERIAL NO.
NMNM-2005 106718

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
CHOLLA 1 FED

8. FARM OR LEASE NAME, WELL NO.
2

9. API WELL NO.
30-015-32105

10. FIELD AND POOL, OR WILDCAT
TAMANO BONE SPRINGS

11. SEC., T., R., M., OR BLK
AND SURVEY OR AREA
SEC 1, T18S, R31E

12. COUNTY OR PARISH
EDDY

13. STATE
NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
15 MILES SE OF LOCO HILLS, NM

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 560'

16. NO. OF ACRES IN LEASE
360.06

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. 1090

19. PROPOSED DEPTH
9450

20. ROTARY OR CABLE TOOLS
ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3,806'

APPROX. DATE WORK WILL START
03-Sep-01

PROPOSED CASING AND CEMENTING PROGRAM					Capitan Controlled Water Basin
SIZE OF HOLE	GRADE, SIZE OF CASING	WT PER FT	SETTING DEPTH	QUANTITY OF CEMENT	
17 1/2"	13 3/8" H-40	48#	875' 400' (See Exhibit G)	425 SX "C" W/2% CACL & 1/4# CELLOSEAL	
12 1/4"	8 5/8" J-55	32#	3,100'	350 SX "C" W/2% CACL & 1/4# CELLOSEAL, 1,000 SX FILLER *	
7 7/8"	5 1/2" J-55	17#	9,450'	1000 SX LEAD & 400 SX TAIL **	
(SEE EXHIBIT "E")					

ALL CASING WILL BE NEW, OR USED MEETING BLM SPECS.
CEMENT WILL BE CIRCULATED ON 13 3/8" AND 8 5/8" CASING.
CEMENT QUANTITIES AND ADDITIVES ARE SUBJECT TO CHANGE DUE TO HOLE CONDITIONS.
* FILLER CEMENT 35/65 "C" POZ w/ 6% GEL, 5# SALT, & 1/4# FLOSEAL
** LEAD: 1000 SX "H" POZ w/ 2% GEL & 5# SALT PER SACK
TAIL: 400 SX "H" w/ 3% KCL, .5% FLUID LOSS, .3% DISPERSANT, 1% BONDING AGENT, .3% RETARDER, & .2% SODIUM METASILICATE PER SACK

PROPOSED MUD PROGRAM		Alternative Mud Using Program Allowed
0-400'	FRESH WATER, PAPER, & EZ MUD. MW-9.0 VIS-31	
400'-3,100'	BRINE WATER, PAPER, & EZ MUD. MW-10.0, VIS-31	
3,100'-9,000'	FRESH WATER, PAPER, EZ MUD, & AMMONIA NITRATE. 30-60,000 CHLORIDES MW-9.0 VIS-31	
9,000'-9,450'	MUD UP W/BARAZAN, 30-60,000 CHLORIDES, MW 9.2-9.4, VIS. 34, WL 10-20	

MUD PROGRAM SUBJECT TO CHANGE DUE TO HOLE CONDITIONS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Bob Williams Bob Williams TITLE Drilling Superintendent DATE 07/26/2001

(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

PERMIT NO. _____ APPROVAL DATE _____

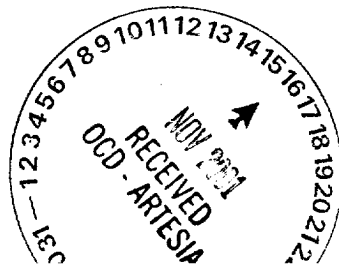
APPLICATION APPROVAL DOES NOT WARRANT OR CERTIFY THAT THE APPLICANT HOLDS LEGAL OR EQUITABLE TITLE TO THOSE RIGHTS IN THE SUBJECT LEASE WHICH WOULD ENTITLE THE APPLICANT TO CONDUCT OPERATIONS THEREON
CONDITIONS OF APPROVAL IF ANY:

APPROVED BY /S/ JOE G. LARA TITLE FIELD MANAGER DATE NOV 15 2001

TITLE 18 U.S.C. SECTION 1001, MAKES IT A CRIME FOR ANY PERSONS KNOWINGLY AND WILLFULLY TO MAKE TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES ANY FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR REPRESENTATIONS AS TO ANY MATTER WITHIN ITS JURISDICTION

APPROVAL FOR 1 YEAR

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED



RECEIVED
2001 JUL 26 AM 10:36
BUREAU OF LAND MGMT
ROSWELL OFFICE

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 58040	Pool Name Tamano Bone Springs
Property Code 26108	Property Name CHOLLA 1 FEDERAL	Well Number 2
OGRID No. 010179	Operator Name HARVEY E. YATES COMPANY	Elevation 3806'

Surface Location

UL or lot No. 1	Section 1	Township 18-S	Range 31-E	Lot Idn	Feet from the 1980	North/South line SOUTH	Feet from the 560	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

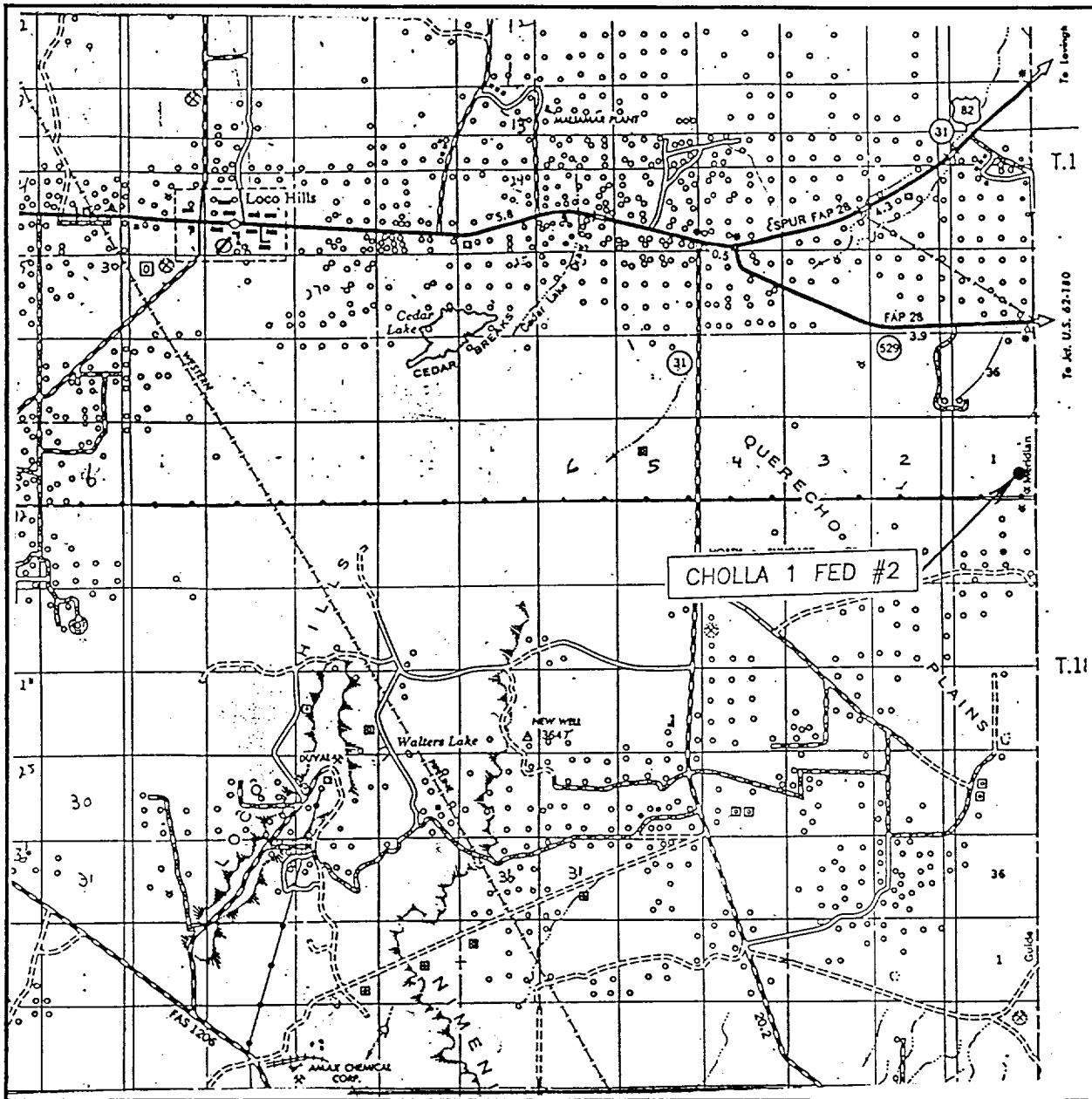
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 4	LOT 3	LOT 2	LOT 1
40.11 ACRES	40.07 ACRES	40.05 ACRES	40.01 ACRES
<div><p>NM-2537</p><p>3808.6' 3812.3'</p><p>3807.3' 3808.6'</p><p>560'</p><p>1980'</p></div>			
<div><p>OPERATOR CERTIFICATION</p><p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p><p><u>Bob Williams</u> Signature</p><p><u>Bob Williams</u> Printed Name</p><p><u>Drilling Superintendent</u> Title</p><p><u>July 26, 2001</u> Date</p></div>			
<div><p>SURVEYOR CERTIFICATION</p><p>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 belief.</p><p><u>JULY 24, 2001</u> Date Surveyed</p><p><u>Ronald J. Eidson</u> Signature & Seal of Professional Surveyor</p><p><u>01.14.0889</u> Date</p><p>Certificate No. <u>RONALD J. EIDSON 3239</u> <u>GARY EIDSON 12641</u></p></div>			

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 1 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FSL & 560' FEL

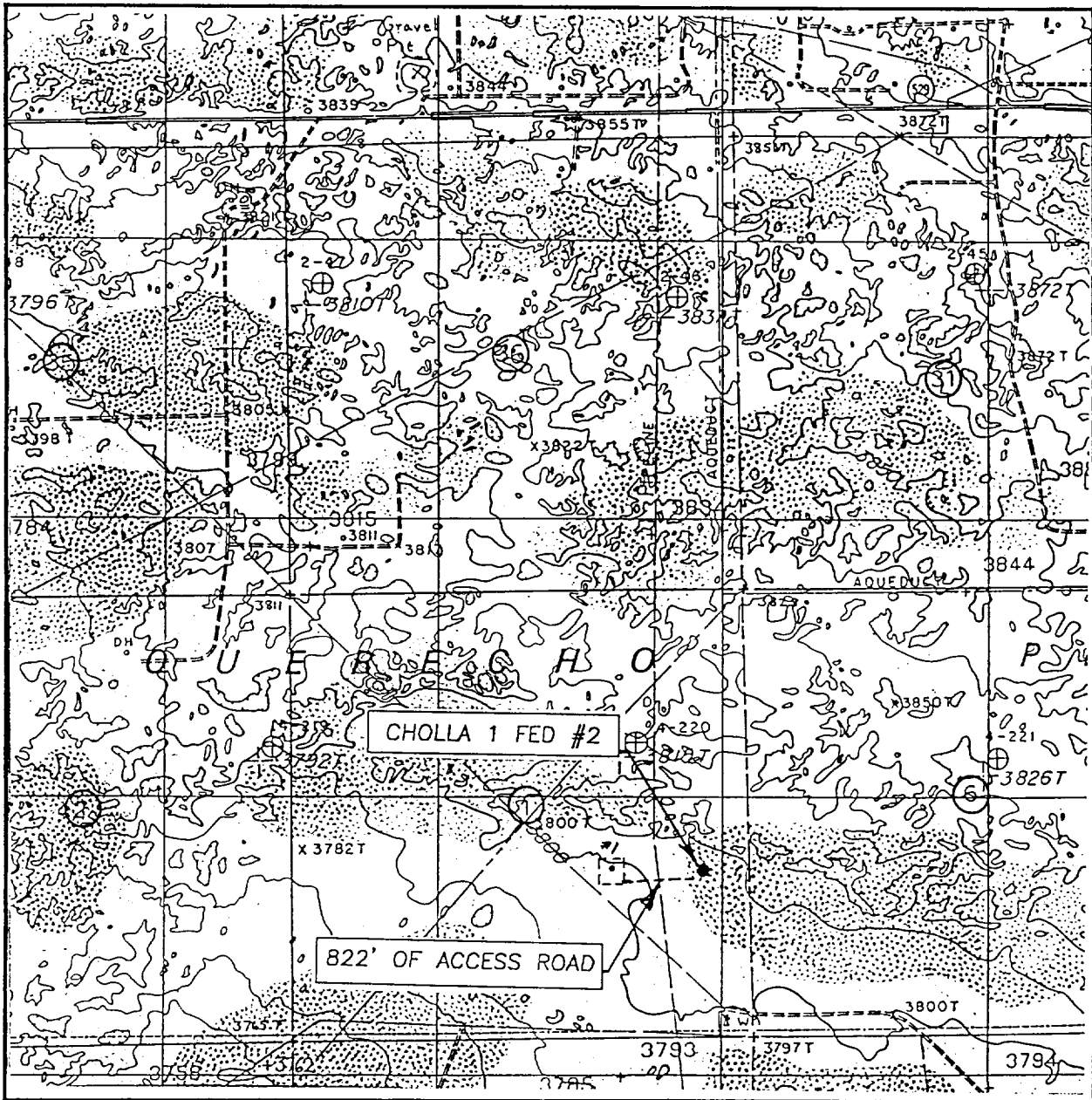
ELEVATION 3806'

OPERATOR HARVEY E. YATES COMPANY

LEASE CHOLLA 1 FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
MALJAMAR, N.M.

SEC. 1 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FSL & 560' FEL

ELEVATION 3806'

OPERATOR HARVEY E. YATES COMPANY

LEASE CHOLLA 1 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

Application
Harvey E. Yates Company
Cholla 1 Fed #2
Section 1, T18S, R31E
Eddy County, New Mexico

In conjunction with Form 3160-3, Application For Permit To Drill Or Deepen subject well, Harvey E. Yates Company submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 10.

1. **Geologic Name of Surface Formation:**
Quaternary alluvium and bolson deposits
2. **Estimated Tops of Significant Geologic Markers:**
Rustler 925', Yates 2,410', Seven Rivers 2,790', Bowers 3,250', Queen 3,510', Penrose 3,745', Grayburg 4,030', Loco Hills 4,130', San Andres 4,525', Delaware 4,900', Bone Springs 5,600', BSPG 1st Sand 7,450', BSPG "B" Zone 7,750', BSPG 2nd Sand 8,200', BSPG "B" Sand 8,310', BSPG "C" Sand 8,525', Base "C" sand 8,650', "C" Zone 8,660', 3rd Sand 8,935
Wolfcamp 9,200', PTD 9,450'.
3. **Estimated Depths at which Water, Oil, or Gas Formations are expected:**
Oil: Bone Spring 1st sand @ 7,450
Gas: Bone Spring 1st sand @ 7,450
4. **Proposed Casing Program:**
See Form 3160-3
5. **Pressure Control Equipment:**
BOP & Annular. See Exhibit C.
6. **Drilling Fluid Program:**
See Form 3160-3
7. **Auxiliary Equipment:**
H2S Compliance package
8. **Testing, Logging, & Coring Program:**
One DST is planned for the Wolfcamp, or "B-C" Zone Carbonates. The planned logs are Western Atlas CNL-ZDEN, DACS and DLL-MLL
9. **Abnormal Conditions, Pressures, Temperature, or Potential Hazards:**
No abnormal conditions are anticipated in this well bore.
BHST 170 deg F
BHP 2000 psi
10. **Anticipated Starting Date & Duration of Operation:**
Spud Date: Approximately September 1, 2001. Duration of this project will be approximately 50 days from start of Construction of drilling pad until finish of completion operations

Surface Use Plan
Harvey E. Yates Company
Cholla 1 Fed #2
Section 1, T18S, R31E
Eddy County, New Mexico

1. Existing Roads:

Exhibit A is a portion of a New Mexico map showing the location of the proposed location. The location is approximately 16 miles Southeast of Loco Hills, NM. Leave Artesia on U.S. 82 & travel 30 miles east to the junction of Eddy Co. 222. Turn South and go 3.3 miles. Turn left after crossing cattle guard. Go 1.6 miles on main traveled road to 4 way intersection. Turn right & go 1.6 miles. Turn right & go .1 miles. Turn left & go 1.4 miles to location.

2. Planned Access Roads:

822' of new road will be built to access this location.

3. Location of Existing Wells:

See EXHIBIT B

4. Location of Tank Batteries, Electric Lines, Etc:

In the event a producing well is drilled, a tank battery will be built on the location.

5. Location and Type of Water Supply:

Water will be obtained from commercial sources.

6. Source of Construction Material:

We will use materials from the primary and auxillary reserve pits to build the location.

7. Methods of Handling Waste Disposal:

Waste will be handled in an approved manner. The wellsite will be cleaned of all waste within 30 days of final completion of the well. TRASH must be hauled off to an Approved Landfill site.

8. Ancillary Facilities:

N/A

9. Wellsite Layout:

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

b. The land is relatively flat with sandy soil and sand dunes.

c. The pad and pit area have been staked.

10. Plan for Restoration of the Surface:

a. After drilling and completion operations are completed, all equipment and other materials not needed for further operations will be removed. Pits will be back filled and the location cleaned of all trash to leave the wellsite as pleasant in appearance as possible.

b. If the proposed operation is nonproductive, all restoration and/or vegetation requirements of the BLM will be complied with, and will be accomplished as quickly as possible. All pits will be filled and leveled within 90 days after abandonment.

11. Other Information:

- a. The surface and mineral owner is the Federal Government. The grazing Lessee is Williams & Son Cattle Company, and they have been contacted regarding operations.
- b. The topography consists of sandy soil with native grasses. No wildlife was observed, but the usual inhabitants of this region are Jackrabbits, Reptiles, Coyotes, etc.
- c. There are no ponds, lakes, or rivers in this area.
- d. An Archaeological Survey has been made and a copy has been sent to the Roswell BLM office. There is no evidence of any significant archaeological, historical, or cultural sites in the area. Further, there are no occupied dwellings or windmills in the area.
- e. Should any incidental oil be recovered during testing of this well, this oil will be considered waste oil and not sellable due to contamination by drilling and/or completion fluids.

12. Operator's Representative:

I 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 currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; that the work associated with operations proposed herein will be performed by Harvey E. Yates Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Bob Williams Drilling Superintendent
Harvey E. Yates Company
P.O. Box 1933
Roswell, NM
505-623-6601

July 26, 2001

Bob Williams

Bob Williams
Drilling Superintendent

United States Department of the Interior

**BUREAU OF LAND MANAGEMENT
Roswell Resource Area
P.O. Drawer 1857
Roswell, New Mexico 88202-1857**

Statement Accepting Responsibilities for Operations

**Operator Name: Harvey E. Yates Company
Street or Box: P.O. Box 1933
City, State: Roswell, New Mexico
Zip Code: 88202**

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.: NMNM-2537

Lease Name: Cholla 1 Fed #2

Legal description of land: Sec 1, T18S, R31E, Eddy County, New Mexico

Formation(s) (if applicable): Bone Springs

Bond Coverage: (State if individually bonded or another's bond): Blanket Bond

BLM Bond File No.:

Authorized Signature: Bob Williams

Title: Drilling Superintendent

Date: July 26, 2001

EXHIBIT "C" BOP STACK

Cholla, 1 Fed #2
1,980 FSL & 560' FEL
Sec 1, T18S, R31E
Lee County, NM

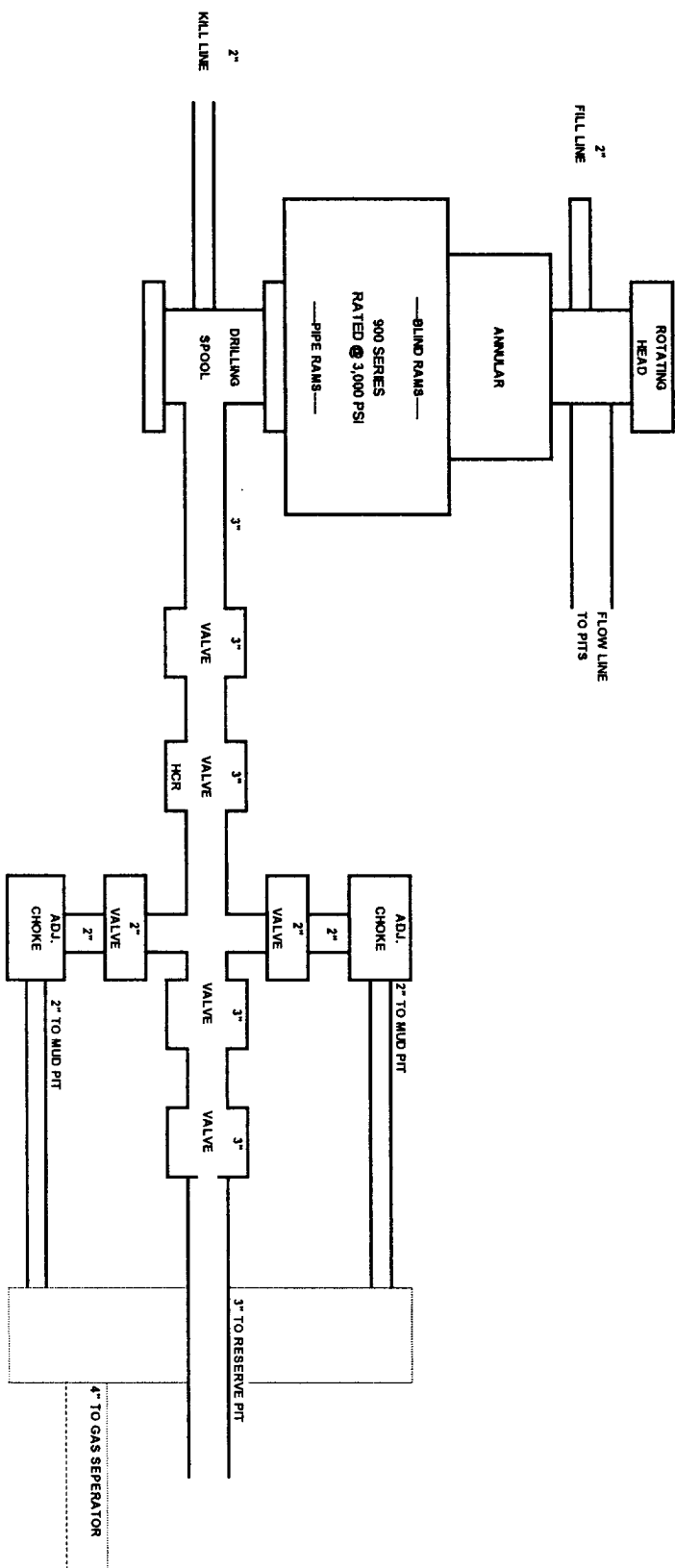


EXHIBIT "D" LOCATION DIAGRAM

Cholla 1 Fed #2
1,980' FSL & 560' FEL
Sec 1, T18S, R31E
Lea County, NM

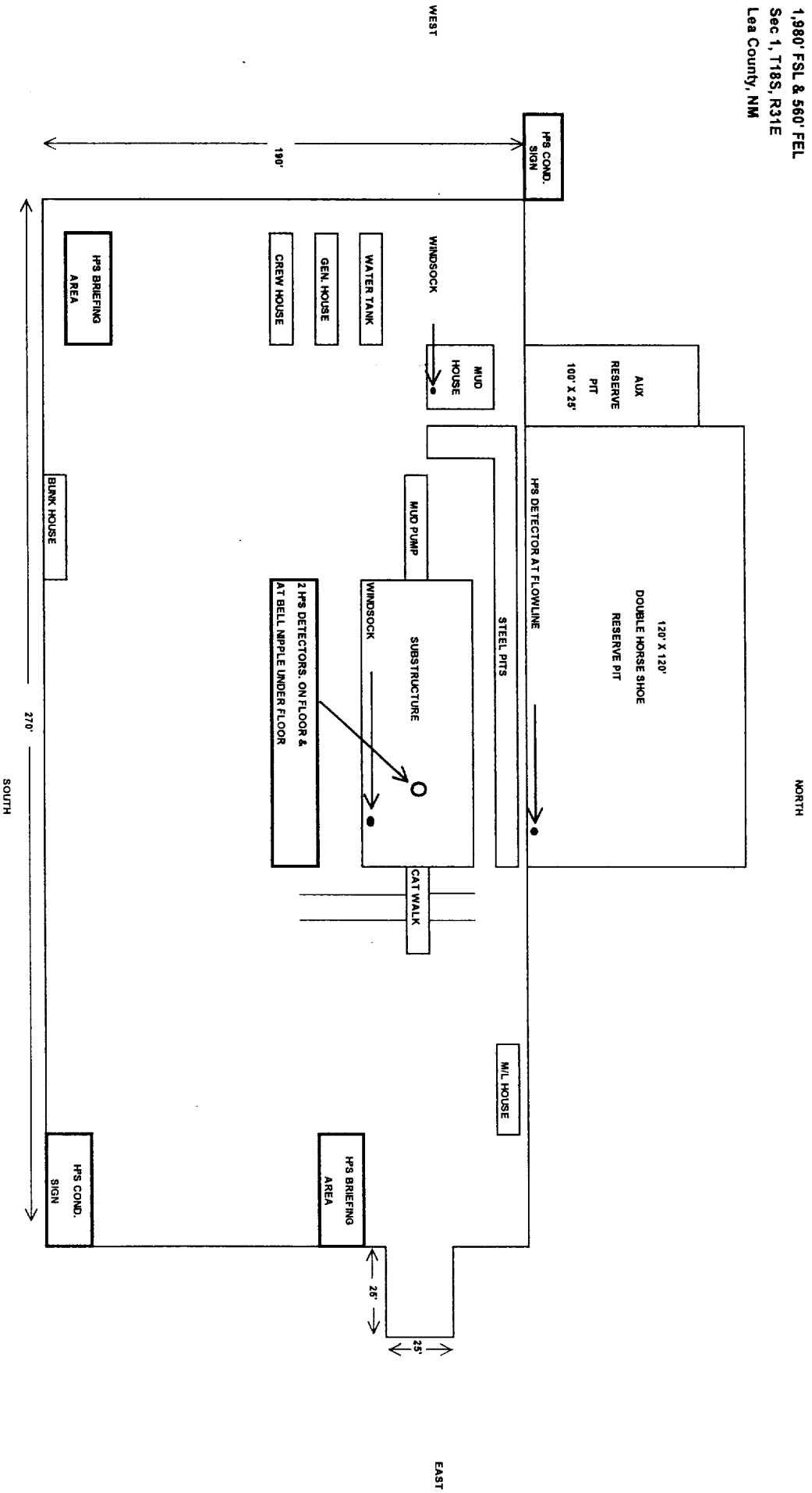


EXHIBIT "E" CASING DESIGN

Casing Design

Cholla 1 Fed #2
1,980' FSL & 560' FEL
Sec 1, T18S, R31E
Lea County, NM

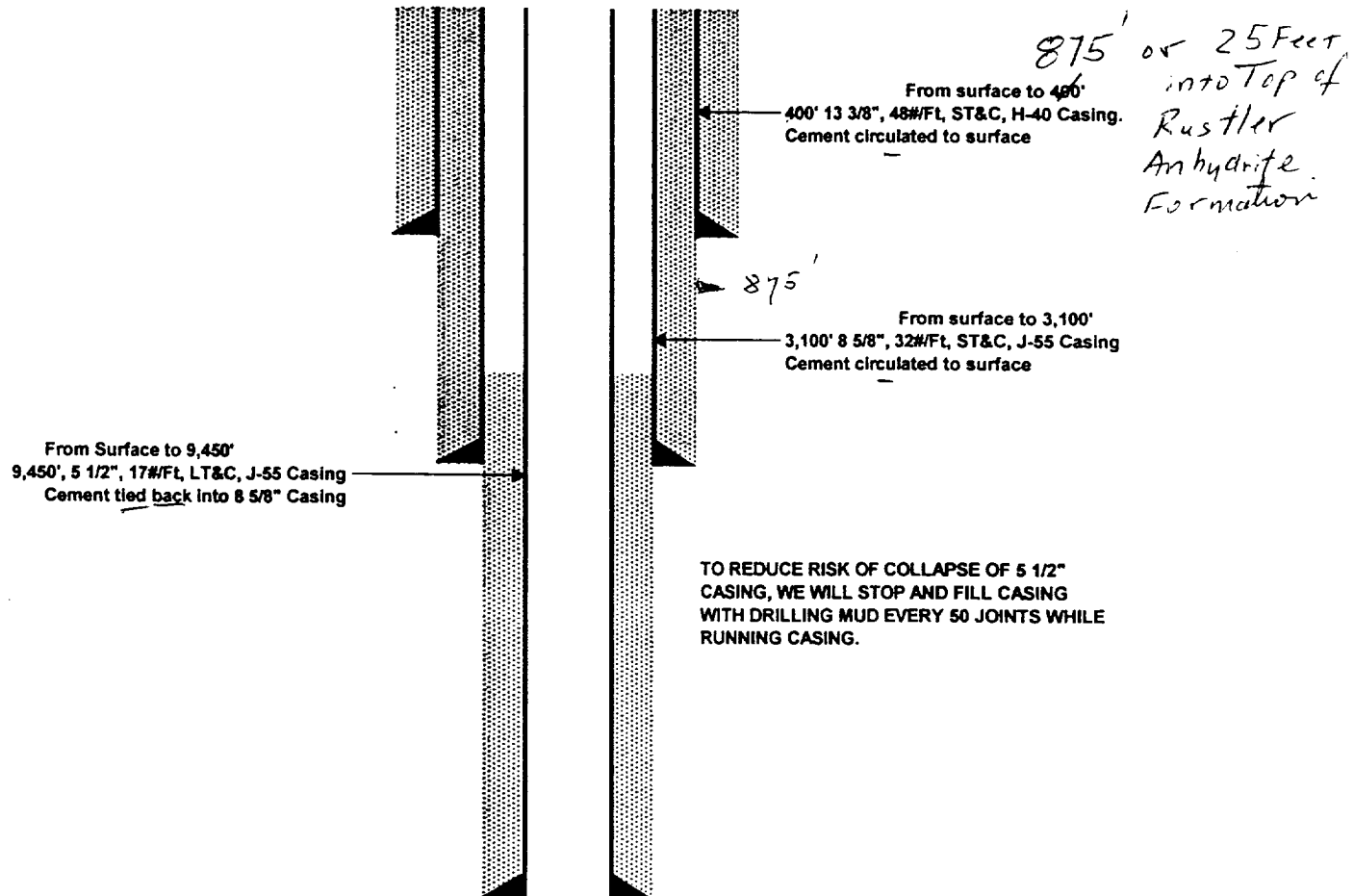


EXHIBIT "F"

Harvey E. Yates Company
Cholla 1 Fed #2
Section 1, T18S, R31E
Lea County, New Mexico

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis will show proof of training from a qualified instructor in the following areas before commencing any work on the above named well.

1. The hazards and characteristics of hydrogen sulfide (H²S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H²S detectors, alarms, warning signs, briefing areas, and evacuation procedures.
5. The proper technique for rescues.

II H²S Safety Equipment and Systems

All H²S safety equipment and systems will be installed 1,000 feet prior to penetrating the first zone containing or reasonably expected to contain H²S.

1. Well Control Equipment
 - A. Choke manifold with a minimum of two adjustable chokes.
 - B. Blind and pipe rams to accommodate all pipe in use.
 - C. Auxiliary equipment to include annular preventer and rotating head.
2. Protective equipment for essential personnel
 - A. Four 5 minute escape units in top dog house.
 - B. One 30 minute SCBA at each briefing area.
3. H²S detection and monitoring equipment
 - A. Three channel monitor located on floor, with detectors located on floor, on flow nipple, and on flow line on mud pit.
4. Visual Warning Systems
 - A. Windsock located on floor and mud pits.
 - B. Briefing area signs located on NE & SW corners of pad.
 - C. H²S Condition sign located at entrance to location.
5. Mud Program

The mud program has been designed to minimize the volume of possible H²S circulated to surface. Proper weight, safe drilling practices, and the use of H²S scavengers will minimize hazards when penetrating possible H²S bearing zones.

6. Metallurgy

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifolds, and associated lines and valves shall be suitable for an H₂S environment.

7. Communications

Drilling rig and company vehicles will be equipped with two way radios or cellular telephones.

8. Well testing

One Drill Stem Test is planned for this well.

EXHIBIT "G"

**Harvey E. Yates Company
Cholla 1 Fed #2
Section 7, T18S, R32E
Lea County, New Mexico**

Temporary Condition of Approval:

Drilling Fluids, Casing and Cementing Requirements for Most of Lea County:

Casing and Cementing

Surface casing is to be set at a sufficient depth to protect useable water zones and cement circulated to surface. In areas where the salt section (Salado) is present, surface casing should be set at least 25 feet into the top of the Rustler Anhydrite and cement circulated to the surface.

As an alternative, surface casing may be set through the Santa Rosa Formation or other potable water bearing zones and circulate cement to surface. For wells requiring an intermediate casing string, such string shall be cemented to the ground surface. In the case where intermediate casing is not required the operator shall case and cement the production hole to the ground surface.

While drilling from the surface casing to the Rustler fm it is recommended that operators periodically sweep the hole with viscous low water loss pills to help build a filter cake across useable water zones in the redbeds.

Drilling Fluid

Fresh water or fresh water spud mud shall be used to drill to surface casing depth. If surface casing is set at a lesser depth than the top of the Rustler fm., fresh water spud mud may be used to drill down to the first salt in the Rustler Fm. after which brine or fresh water may be used.

Non-toxic or biodegradable water based polymers, drilling paper, starch and gels may be used in the mud system in order to retard seepage into the redbeds.

Two to five percent diesel or crude oil may be used in the redbed section in order to control heaving shales and mudstones.

Caustics and Lime shall not be used in the red beds but may be added when the Rustler formation is reached. However, sodium carbonate maybe used for alkalinity or ph control while drilling the redbeds above the Rustler fm.

Additionally, questions of whether an additive may be used should be refereed to the Roswell Field office.